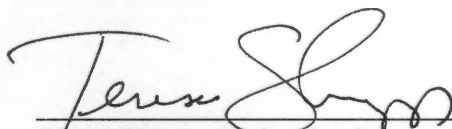
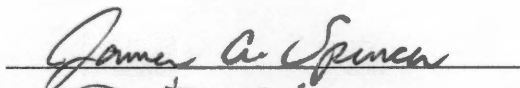
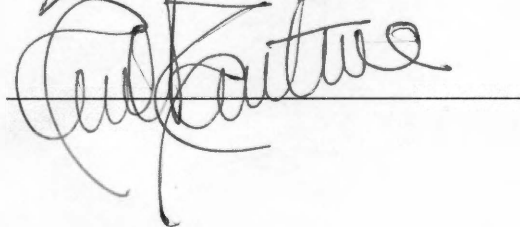


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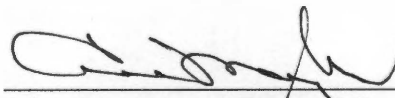
I am submitting herewith a thesis written by Adraine Bond entitled "Exploring the Relationship Between Downtown Parking and Residential Development in Knoxville, TN." I have examined the final paper copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Science in Planning, with a major in Planning.


Terry Shupp, Major Professor

We have read this thesis and
recommend its acceptance:

Acceptance for the Council:


Vice Provost and Dean of Graduate Studies

**Exploring the Relationship Between Downtown Parking and Residential
Development in Knoxville, TN**

A Thesis

**Presented for the Master of Science in Planning Degree
The University of Tennessee, Knoxville**

**Adraine Bond
May 2003**

Thesis
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Abstract

This thesis explores the relationship between two variables, downtown parking and residential development, based on a thorough literature review and interviews of selected cities. From the literature review, key factors were identified for evaluating the relationship between these two variables and then used to select comparable cities to Knoxville, TN. Trends and recommendations for the downtown parking situation are based on the information gathered from the selected cities. Therefore, the literature review serves as the basis for the study of residential development and parking downtown.

Essentially, larger cities are experiencing more residential growth and are creating programs and initiatives for their parking. Knoxville is above the curve of residential development for medium-sized cities. Therefore, the recommendations for Knoxville are based on the experiences of larger cities.

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Chapter One

Introduction

After World War II, there was an issue of suburban flight for many cities across the U.S. This flight left a vast majority of downtowns vacant and desolate. Businesses and customers moved to larger buildings and more free parking, while residents moved to cheaper housing available in the suburbs. Therefore, downtowns were no longer considered important centers for the city in regards to living, entertainment, and business activities.

Today, there is a resurgence of activity occurring in the downtowns of many cities. Revitalization efforts are being made through waterfront, commercial, entertainment, and residential development. Because of these efforts, people are more interested in downtown areas, especially in lofts, apartments, and other types of dwelling units. One study suggests that there is a high demand of residential development occurring in downtowns across the country (Moulton, 1999). Therefore, developers, city officials, and citizens are interested in creating a 24-hour city.

Because of this high demand of downtown living, there are other important issues that are being explored related to this type development such as parking. Respondents of recent surveys have "...ranked parking as the No. 2 most crucial issue that their downtowns would be facing over the next five years" (Barr, 1997, p.1).

This thesis explores the relationship between the increased demand of residential development and parking issues downtown.

Importance

Brian McMahon, of Saratoga Springs, New York says, “An adequate parking supply is paramount for a successful downtown in today’s economy. However, it is a challenge to grow the parking supply without risking the vitality and livability of our downtowns” (2001). New residents downtown are often excited about living downtown, but are left without parking. Medium-sized cities like Knoxville, Tennessee are often times lacking the amount of parking needed for their downtown residents. Without an adequate amount of parking, it is hard to market new residential units, commercial uses, office uses, and other uses downtown. In the article “Looking for Downtown Parking,” Joe Sullivan explains the parking situation in downtown Knoxville. He says, “A shortage of parking is what’s prompting the potential exodus from downtown. And along with causing erosion of its work force, the shortage could also stifle downtown residential growth and commercial revitalization efforts” (Sullivan, 2003). Essentially, without a reasonable amount of parking downtown, revitalization efforts cannot be fully achieved or appreciated. Therefore, it is important to consider the parking situation when expanding downtown living options.

Thesis Statement

There are key factors to be taken into consideration for a positive relationship to exist between residential development and parking in downtowns.

Primary Question

What key factors should be considered for a positive relationship between downtown parking and residential development to exist in Knoxville, TN?

Secondary Questions

1. What factors influence downtown parking and residential development?
2. What cities are comparable to Knoxville?
3. What have those comparable cities done in regards to downtown parking issues?
4. How does Knoxville's current downtown residential parking situation fit into what these other cities have done?

Methodology

The methodology for this study was based on a literature review to identify key factors that influence the relationship between residential development and parking downtown. Several characteristics were identified within the key factor, economic and demographic data, to select cities. These selected cities comparable and larger than Knoxville, TN were surveyed. The results of the survey and the literature review provide the basis for conclusions and recommendations for the City of Knoxville (see Appendix B).

Organization of Thesis

This thesis is organized into nine chapters. Chapter one gives an introduction to the questions important to the study and the methodology used to address these questions. Chapter two presents a literature review organized into two sections: Residential Development in Downtowns and Parking in Downtowns. The discussion focuses on the specific factors that are influencing downtowns as well as, current parking strategies in downtown development as a whole. Chapter three lists the factors important to residential redevelopment and parking demand downtown

outlined in Chapter two. This information was outlined after contact from the selected cities. Chapter four outlines how cities were chosen using economic and demographic data defined in chapter two. Chapter five provides the profiles based on the key factors of the selected medium-sized cities. Chapter six provides the profiles of the selected larger cities. Chapter seven outlines and profiles the City of Knoxville as it deals with the key factors defined in chapter three. The results from the survey will be explained in Chapter eight. Chapter nine answers the primary question and provides recommendations for the City of Knoxville. An appendix is provided to explain contact information and survey questions used.

Chapter Two

Literature Review

There is very little published research on specific parking needs for downtown residential development. However, there is research related to the high demand for residential development, as well as, parking strategies for downtown development as a whole. Therefore, this literature review is broken into two sections: Residential Development in Downtowns and Parking in Downtowns.

Residential Development in Downtowns

The article, “A Rise in Downtown Living” by The Brookings Institution Center on Urban and Metropolitan Policy and the Fannie Mae Foundation, explains that among 24 cities that were surveyed, there was high demand for downtown living. This survey “...shows that America’s downtowns are experiencing an unexpected kind of resurgence: There is a population boom happening in many downtowns across the country” (Brookings Institution, 1998). The authors of this study state that

A steady influx of new downtown residents can provide significant and lasting benefits for a city’s business center. Having residents in the business district eases rush-hour traffic jams by eliminating commutes or enabling reverse commutes. It creates a demand for a 24-hour city, with restaurants and stores open after 5 p.m., contributing to an active nightlife. Downtown residents demand better services and a diverse mix of retail, which benefit everyone who works, lives, and visits downtown (Brookings Institution, 1998).

However, downtown residents also put pressure on downtown stakeholders to improve on the services they provide such as parking. This article does not describe how to improve these services for residents, but there was literature that provided

information to evaluate how to handle this resurgence of residential development downtown further.

Economic and Demographic Data

Economic and demographic data is one factor that appears to be related to residential development downtown. In the “Ten Steps to Living Downtown” by Jennifer Moulton, she states, “Many American cities are enjoying a downtown housing boom. While a strong economy and market demand are necessary for a residential downtown to thrive, city governments can facilitate, rather than impede, the working of these forces” (1999). She further explained that after World War II, housing, offices, and business left to the suburbs for cheaper land and abundant free parking. There is now a resurgence of activity downtown due to “ironically, the most damning pieces of evidence of CBD dysfunction--empty buildings, vacant land, depressed real estate prices and ever sprawling suburbs” (Moulton, 1999). However, there is an overwhelming resurgence of downtown housing across the country.

The author explained that demographics and economics support this downtown development activity. One reason downtown housing is increasing, Moulton suggested, is due to demographics estimated by the 1990 U.S. Census. These estimates show “... the number of households without children is expected to swell to 72 percent by 2010 (up from 66.4 percent in 1990), and this is precisely the type of household that is driving the interest in downtown living” (Moulton, 1999). There are more people, young and old, interested in downtown living due to its unique and historic character. Another reason Moulton explains is “...that the economic charge of this decade is longer and more robust than previous cycles, with

unprecedented consumer confidence and spending” (1999). There is a greater demand for residential units downtown today than in past decades.

There was also an increase in the population in medium-sized cities. Between 1990 and 2000, there was a dramatic increase in population according to the Brookings Institution. Because of this population increase, there could be greater demand for downtown residential establishments in these size cities.

In *Nation's Cities Weekly*, authors Jennifer S. Vey and Benjamin Forman say “that, as a group, their [medium-sized cities] population increased by 13 percent during the 1990s, outpacing growth in the 100 largest cities by four percentage points. Only 12 of these cities lost population during the decade, down from 20 in the 1980s.” Medium-sized cities are growing at an alarming rate. Vey and Forman also say that “six cities did an about-face from one decade to the next: South Bend, Ind.; Columbia, S.C.; Pueblo, Colo.; Fort Lauderdale, Fla.; and Knoxville and Chattanooga, Tenn., lost population in the 1980s, but gained residents during the 1990s.” Therefore, these cities have grown in the past decade. This article provided information on the growth of medium-sized cities’ populations in the past ten years based on the Census 2000 information.

In the full report “Demographic Change in Medium-Sized Cities: Evidence from the 2000 Census,” Vey and Forman explained further the population change that occurred in medium-sized cities. There are two types of medium-sized cities that they explore: central and satellite. Central cities are cities that are largest in their metropolitan areas while satellite cities “...are not the largest cities in the metropolitan areas of which they are a part” (p. 2). For their study, medium-sized

cities were defined as "...those ranked 101 through 200, based on their population in 1990" (p.2). These populations ranked from 98,000 to 170,000 in 1990. The 1990 Census information was used to avoid bias in the analysis for faster growing cities. Cities were broken up by region for this study based on the Census distribution. Western and Southern cities have experienced significant growth over the last several decades, while the Northeast and Midwest cities have seen the largest decline in population growth. Therefore, not only was the size of the city important, but other issues such as a residential market, population change, central versus satellite cities, and region were important to consider when selecting medium-sized cities.

Public/Private Partnerships and Incentives

Public/private partnerships that institute incentives contribute to residential development downtown. Moulton believes that these partnerships and the incentives and initiatives they can institute will influence downtown living through public policy recommendations and funding solutions. Moulton suggested that these initiatives

...can exploit, concentrate and guide economic and demographic trends that favor a move back into the city...cannot by itself create demand for housing anywhere, especially downtown. However, in conjunction with private business initiatives, local government can help accelerate potential into action by educating, providing incentives and removing regulatory obstacles (1999).

Therefore, partnerships between private and public entities provide initiatives and incentives that otherwise may not be feasible for downtown housing. These partnerships can be advantageous to downtown development and parking because this can mend relationships between downtown organizations and the city. Such

partnerships and initiatives also provide funding, help with regulatory functions, and influence public policy.

Parking in Downtowns

In this literature review, there were several issues surrounding parking in downtown. Because there is a high demand for residential development in downtowns across the U.S., there are certain parking issues related to this type of development. Parking management seemed to best address these issues.

In Downtown Parking Made Easy, Mary Barr examines strategies that aide in increasing and maximizing downtown parking. A survey was conducted to determine the crucial issues affecting downtowns today. Barr says, “respondents...ranked parking as the No. 2 most crucial issue that their downtowns would be facing over the next five years” (Barr, 1997, p.1). This survey also provided assurance that “...parking continues to be one of the most persistent issues facing downtowns...whether it is a lack of sufficient parking, the abuse of customer parking by downtown employees, or just plain negative perceptions about the availability of parking” (Barr, 1997, p.1).

Parking Management

In order to address the parking problem caused by demand from downtown development, parking management appeared to be the best solution. However, before the relationship between residential development and parking issues downtown is explored, whether or not there is a parking problem, i.e. the current parking demand and supply has to be assessed.

Assessing the Parking Problem

When evaluating downtown development, the initial step is to assess if there is a parking problem in the particular city. In “Parking Management Made Easy: A Guide to Taming the Downtown Parking Beast” written by the Transportation and Growth Management (TGM) Program of Oregon, the authors explained how to assess if there is a downtown parking problem. Although it was not specifically for residential redevelopment, it did look at how to determine if there is an overall problem. They suggested interviewing stakeholders downtown first to see if they think that there is a downtown problem. Stakeholders include employers, employees, residents, businesses, city staff and officials, commercial realtors and developers, downtown business associations, chamber of commerce, and other related organizations.

The second step is to “define the parking study area” (TGM, 2001). In other words, after getting a sense of what the downtown parking problem is then it is best to focus on a specific area. Step three and four, respectively, say to “count and map the number of parking spaces in the study area” and “gather information about parking as you conduct the inventory” (TGM, 2001). When counting and mapping the amount of parking, on-street and off-street parking must be taken into consideration. Restrictions on parking and the type of parking are important to consider when studying downtown parking also. The next step is to “determine the times and days when you will check parking use” (TGM, 2001). This could be a question for downtown stakeholders. Step six is to look at all occupied spaces and

use symbols for on-street, off-street parking, and public or private facilities. Step seven is putting it all together to see the whole picture.

Parking Demand and Supply

Parking demand and supply is important to consider when looking at parking issues downtown. Brian McMahon discussed parking demand and supply in a case study in the article “City Planners Will Use Study to Develop Viable Parking Strategies,” where the City of Saratoga Springs, New York was studying the parking supply and management of downtown, specifically dealing with pedestrians and their needs. Like many other cities, there was a greater demand than supply. This demand was broken down into on and off-street parking as well as short-term and long-term parking.

McMahon says “there are more than 4,600 spaces in downtown, of which 80 percent are off-street spaces. The majority of these off-street spaces are privately owned. Typically off-street parking only accounts for 60 to 75 percent in similar-sized business districts” (2001). There is demand from employees, businesses, customers, and “there is also a growing residential demand for parking due to recent construction of apartments and, condominiums in downtown. Fortunately much of the residential demand is during the evening and weekends, so it does not compete with the daytime employment demand” (McMahon, 2001). When combining entertainment and commercial uses downtown with residential development, a demand issue could occur.

Barr states, “downtowns are more complex in terms of land and space uses, nature of parkers (not just shoppers but office workers and residents, too), transit

availability, density, walk-in traffic, mixed uses and mixed hours of operation, among other factors” (1997, p.18). With so many uses, it is hard to determine exactly how much parking should be available for each use. Barr states “the most recent report by the Urban Land Institute and the International Council of Shopping Centers issued these retail-oriented parking standards: 4.0 spaces per 1,000 square feet of gross leasable area (GLA) for centers having a GLA of 25,000 to 400,000 square feet;” and on up (1997, p.17). This statistic has the GLA of most centers downtown. With these standards, there is often under-utilized lots and barren asphalt. This leads to using existing parking as parking supply for downtowns.

Parking supply is an important consideration when looking at downtown parking. Parking supply in downtowns “...depends fundamentally on the cost of creating, maintaining, and operating parking lots in the city” (Voith, 1998). The costs associated with land for parking lots is an important consideration when looking at the supply. Voith explained that “if land in a CBD is highly valued for residential or commercial uses, parking providers will have to pay high prices for land on which they build their parking facilities” (1998).

Another issue related to the existing parking supply is on-street parking. Essentially, the problem of what the street should be used for is one of the major arguments among developers and city officials. Andrews states that

street parking problems often boil down to disagreements about street use. The problems may be mainly physical-too many vehicles for a particular neighborhood-or they may be turf wars. Drivers want to park in one area, while people who live or do business there want the space for themselves, customers, or friends, or they want it unoccupied (2000).

Andrews also suggests that "...many parking management problems arise not because of a shortage of space but because of underused facilities" (2000). The challenge, he adds, is how to get a higher use of existing facilities.

Existing parking is very essential to downtowns due to the limited amount of space for parking lots and facilities development. Existing parking provides an option for parking supply. The Transportation and Management Program of Oregon provided tips on how to handle existing parking. Many times parking can be worked out according to surrounding parking lots and underutilized lots. They suggested that these underutilized and/or private lots be negotiated while developing satellite parking with shuttle service for downtown employees. Incentives can be provided to employees that carpool, walk, bike, or use transit services also. Unattended parking could be converted into attended or valet parking lots for people who want short-term parking. Diagonal or angle parking can also be added on one side of the street as an option for the existing parking supply. Although this possibility has both positive and negative sides, this seemed to be widely used. Diagonal parking provides an increase in parking compared with parallel parking, but it takes more space that could be used for purposes such as a bike lane or sidewalk expansion.

With these suggestions on how to handle existing parking, there were some strategies that are suggested by the authors that could maximize the usage of existing parking. First, there needs to be "convenient short-term parking" (TGM, 2001). Customers, clients, and visitors to downtown need short-term parking so that there will not be violation of long-term parking spaces for residents and employees downtown. Two- or three-hour parking zones provide an option for short-term

parking. Second, there should be “options for long-term parking” (TGM, 2001). An example of this is regulating short-term parking and long-term parking by restrictive usage among the two. In other words, “protect long-term parking from use by short-term parkers” using frequent patrols and tickets that are costly enough to prevent misuse must regulate enforcement of these restrictions (TGM, 2001). Third, there should be “special parking” or loading zones that allow for 15 to 30 minutes (TGM, 2001). Signage is also very important to the existing parking supply. Signage allows for downtown consumers to know where parking is available. Existing off-street parking spaces can get better usage when underutilized parking lots and spaces are examined. Finally, customer needs have to be anticipated. In other words, make sure that special needs are met. For example, appropriately sized parking for tour buses or RVs need to be available if a downtown expects these types of attractions.

This article explained how to establish downtown parking districts. There are several questions when considering this option such as:

How should the city define the parking district?, What are the board’s responsibilities?, Who should serve on the parking district board?, What is the role of the downtown association in regards to the parking district?, Should the city require downtown workers to register and prohibit them from parking downtown?, Should the city charge for downtown long-term parking permits?, and How should this program be financed? (TGM, 2001).

Parking districts provide a means for establishing parking for different uses. Permits are given to employees or residents in a designated area for parking privileges.

Saratoga Springs looked at short and long-term parking to expand the supply of parking. In order to increase the supply for short-term parking, on-street spaces

with a shorter duration on meters aid with turnover and increase the supply of short-term parking. It could also generate more sales annually. Studies show "...the average shopping trip or a business meeting is less than 90 minutes" (Mahon, 2001). Long-term parking solutions could be shared parking, garages, decks, angle parking, and pedestrian and parking loops. McMahon says, "An adequate parking supply is paramount for a successful downtown in today's economy. However, it is a challenge to grow the parking supply without risking the vitality and livability of our downtowns" (2001).

Such things as parking lots and on-street parking can impact downtowns dramatically. Parking lots in some downtowns such as Portland, Oregon have been prohibited or limited with certain guidelines. These guidelines are to ensure that lots are screened, well-kept, and convenient. On-street parking calms traffic within downtowns. Mary Barr says, "on-street parking, properly designed and combined with other calming methods, can be an important part of controlling the speed and volume of traffic on downtown streets" (1997, p.21). Therefore, downtown streets are safer for pedestrians, which will produce more pedestrian activity.

With attractive facades, parking garages can be another alternative for parking downtown. This study says "from the aesthetic perspective, parking garages are a necessary evil. While these structures are great for the convenience of parking, they can be a disaster in terms of design and street-level activity. Garages are usually imposing, impersonal and unattractive-in general, not conducive to a lively pedestrian street scene" (Barr, 1997, p.22). Essentially, parking garages are great solutions for the parking supply downtown.

Demand and supply of downtown parking is conflicting and complex. There are several issues associated and should be considered when solving this problem. These issues include public perception, parking space per dwelling unit, and parking costs.

Public Perception

As far as maintaining and patrolling parking, parking options have to be kept clean in order to be safe. There is usually a perception about parking in certain places downtown that are unlit, dingy, and dirty facilities. Barr says, “remember, shoppers are more influenced by perceptions of crime than anything else. And parking lots and structures are a major concern” (1997, p.15). Not only shoppers, but also business owners and residents have this perception. Enforcement is an issue related to public perception that a downtown parking authority has to consider. The strategies that should be taken in consideration when addressing enforcement issues are:

1. Building constituent support through ongoing public awareness campaigns.
2. Conducting regular parking activity analyses to ensure that regulation and deployment and patrol strategies are responding realistically to actual parking conditions.
3. Keeping up with technological innovations.
4. Increasing the supervisory and management skills of parking managers as well as the first-line supervisors who direct and monitor entry-level enforcement officers. (Barr, 1997, p.16).

Because parking downtown changes constantly, parking authorities have to adapt to these changes on a continuum. Therefore, “...constantly sharpening the skills of management and enforcement staff as the parking scene becomes more and more sophisticated” (Barr, 1997, p.16).

Is there a public perception of how far is too far to walk within a downtown?

In the article “How Far Should Parkers Have to Walk?” by Mary S. Smith and Thomas A. Butcher, they explained what the expected walk should be for parkers or consumers downtown. Many people believed that there was a parking shortage when there was no parking near their point of interest. The authors state “...parking designers usually call for maximum walking distances between 300 and 600 feet for retail customers, but between 1,200 and 1,500 feet for employee parking. Distances increase even more when you look at special event standards” (Smith, 1994). Because there are no standards or guidelines for the parking industry, there can only be “rules of thumb.” However, this article does not address what parking designers consider maximum walking distances for residents.

Many of the suggestions in this article were based on the book Pedestrian Planning and Design by John J. Fruin. The authors quoted Fruin, ‘there are indications that the tolerable limit of human walking distance is more situation-related than energy-related’ (Smith, 1994). Fruin believes that the walking distance tolerable to parkers is related to such factors as the purpose of the trip, time available, and the walking environment. The authors explained other factors including “...the types of uses, frequency of the user with the facility, the perception of security, the expectations and concerns of the user, the degree of weather protection provided along the path of travel, the perception or absence of barriers or conflicts along the path of travel, and the cost of alternatives to walking, if any” (Smith, 1994). These factors make a difference in the decision of users to walk or drive to their destinations.

One approach to measure the variables explained above related to public perception is the level of service (LOS) approach of parking design. This approach came from the traffic engineering firm, Walker Parking Consultants/Engineers. This LOS approach was used specifically for parking in Fruin's study. While similar to schools grading system, this system "...is used to reflect the acceptability by the users of a community of certain parameters" (Smith, 1994). The best performance is LOS A. LOS B is good. LOS C is average and so forth. For example, "LOS [grade] D is tolerated by commuters in our major urban centers like New York, Los Angeles and Chicago; and efforts to mitigate the conditions would not be initiated unless the LOS drops to E or even F. In a small town, a street condition of LOS B may generate an outcry for traffic improvements" (Smith, 1994). Essentially, people in larger cities expect less out of the parking situation or street improvements than people in smaller communities. However, there are issues that need to be considered like "How long is the person going to stay—a few minutes or all day [?] Are there a variety of parking options at various prices and walking distances such as in a central business district?" (Smith, 1994). These issues do not allow for precise standards, but the authors believe that there can be some guidelines.

Just having a better level of service solves some situations. Another standard that could be used for measurement is designing

...different levels of service at different points within the system. For example, we consider that the parking used on average or typical days at shopping centers should be designed for LOS A; for busy Saturdays LOS B should be maintained; and the parking that only gets used for a few hours on the busiest days of the year might be designed for LOS C (Smith, 1994).

This would allow for levels of parking to be associated with the levels of usage and perception issues of the users.

As stated, walking distance is related to the path of travel. There are four variables related to this path of travel. They are "...degree of weather protection, climate, line of sight (Can the parker see the destination from the parking space?) and 'friction' (interruptions and constraints on the path of travel such as crossing streets with or without traffic signals, and natural and psychological barriers such as railroad tracks or a change in neighborhood)" (Smith, 1994). After evaluation, the authors determined that weather protection is a critical variable for consideration. They also found that "...acceptable walking distances entirely within a parking facility are shorter than those for urban sidewalks, pedestrian bridges or inside buildings such as airports. Because the user of a facility walks down a parking aisle or follows a path between cars to reach the elevator, a high degree of 'friction' exists for this system" (Smith, 1994). The differences between parking lots and facilities should also be distinguished while looking at the perception of safety.

The LOS was determined for the path of travel with the first three being various degrees of protection. They were:

1. totally unprotected,
2. covered to reduce the effects of rain or snow, and
3. climate controlled such as in a pedestrian bridge.
4. walking within a surface parking lot, and
5. walking within a parking structure or garage. (Smith, 1994).

Fruin studied the relationship between the people who chose to walk or used other modes of transportation and the walking distance. A survey of the Port

Authority Bus Terminal in midtown-Manhattan was used to study unprotected walking distance from acceptable to unacceptable. With 1,000 feet or less walking distance, everyone generally chose to walk rather than use other means of transportation. With an increased distance of 2,500 feet, eighty-five percent chose to walk. If it was a mile or more, half the amount of people chose to walk. This data was collected on a fair spring day.

The design of parking is another consideration when looking at downtown parking. Barr says that there are “two rules-of-thumb” that are important to consider. The first rule-of-thumb is “retail customers will walk from 300 to 600 feet from parking to their destinations” (1997, p.17). The second rule-of-thumb is “employee parkers are willing to hike from 1,200 to 1,500 feet from car to office” (Barr, 1997, p.17). This also plays a part with perception issues. People are many times unaware of how far they have walked if the path is clean, safe, and if they can see their destination from their car (Barr, 1997, p.17).

How the public feels about the parking situation can be addressed through measurements such as surveys, mail outs, etc. With this approach, the public provides feedback for solving parking issues. The authors of this article were concerned that the public is not taken into consideration when parking is discussed and made available for stakeholders.

Parking Space per Dwelling Unit

In Site Planning by Kevin Lynch and Gary Hack, the relationship between parking and housing was discussed. Lynch and Hack say “most people prefer to park within arm’s reach of their kitchen door. Parking is inevitably troublesome,

especially where densities are high. The parking space is the second most costly item of real estate, after the housing unit itself” (Lynch, 2000, p.263). The expense of the parking space is usually bundled in with the cost of the house or dwelling unit. The authors asked then, “How much parking should be provided?” (Lynch, 2000, p.263). The answer is based on the size of the units, type of occupancy, and amount of transit usage in a city (Lynch, 2000, p.263). One to one-and-one half parking or garage spaces is customary in North America for a dwelling unit. Lynch and Hack state

In central city housing, the parking ratio may drop as low as half a space per unit, although some rationing of parking privileges may then be necessary...Because many residential parking spaces are vacant during daytime hours, they can serve double duty if shared with a complementary use such as offices. In the inner city, approximately 65% of the overnight parking requirement may be available for sharing during the day (2000, p.264).

The numbers are dependent on the city itself. However, density is important to consider when looking at the parking situation. The denser the downtown area is, the more parking options there will be. There may be other uses that are close or on the bottom floor of primarily residential buildings. The parking space per dwelling unit is usually provided in public policies such as zoning ordinances, but because of higher densities in downtown areas it is compromised and relaxed.

Parking Costs

Parking costs are also associated with demand and supply of downtown parking. In “Downtown Parking Syndrome: Does Curing the Illness Kill the Patient?” Richard Voith says that many CBDs across the country are experiencing a lack of parking. Voith says, “...consumers and businesses alike cite the lack of free

parking as one of the major problems associated with working, playing, and shopping downtown” (1998). Although he did not specifically talk about residents, he did explain the demand and supply of parking downtown.

The financial side of parking is also important to note. Voith says “the limited availability of downtown parking spaces results not so much in parking shortages but rather in high parking prices” (1998). Many people violate parking standards in order to get away from these high prices. These violations further intensify the parking frustration for downtown consumers and residents. Voith provided an option for customers and employees. He says, “while parking problems for their customers and their employees likely have caused some businesses to choose locations other than the CBD, people traveling to the CBD often do have another option, public transit, potentially a very efficient means of transportation for CBDs” (Voith, 1998).

Therefore, public transit is a means of avoiding parking concerns in the central city. The discussion of public transit and parking brings up several questions that many large cities are trying to answer. Should there be improvement to the public transit system or should there be policies for increasing downtown parking?

The CBD has unique qualities that suburban markets do not have which are high density, as well as a mix of social, cultural, and economic activities. If there is inexpensive parking, it may jeopardize the integrity of “place” or identity. The demand for parking in the central city is dependent upon who wants to travel to the CBD for this “place” or unique character. Therefore, “high parking prices simply reflect the success of the CBD in providing an environment that is sufficiently attractive so that people are willing to pay high parking prices, even when there is

free parking available elsewhere” (Voith, 1998). Parking prices, essentially, are reflective of the success level of downtown revitalization efforts.

The success of the CBD is dependent on its attractiveness and “...the share of people choosing to drive hinges on the availability, price, and quality of alternative means of transportation downtown as well as the costs associated with driving downtown, including parking” (Voith, 1998). If there are other means of transporting consumers rather than an automobile and is reasonably priced, then there may not be an increase in parking prices.

Local governments “...use parking taxes both to generate revenue and to reduce auto congestion. By taxing parking, cities increase the cost of providing additional parking spaces, effectively reducing parking supply. In addition to taxing parking, city governments regulate the uses of CBD land, often limiting the supply of parking” (Voith, 1998). Portland, Oregon is one example of how land use restrictions affect supply. There is a cap on the amount of parking spaces in the CBD, which is to prevent or limit congestion and pollution issues. The author stated that “taken together, local policies—taxes and land-use regulations—often act to lower the supply of parking. Lowering the supply of parking, without changing the demand, will increase parking prices” (Voith, 1998). This relationship between supply and demand is very important to consider when looking at downtown revitalization and its marketability. The author explained that “office rents—and, therefore, the value of CBD land—the share of people using cars and transit, and the fraction of CBD land devoted to primary activities versus parking are all influenced by policies that affect the supply and demand for parking” (Voith, 1998).

Essentially, parking policies must address the affects of demand and supply of parking in order to be successful. Although this article did not specifically address residential redevelopment, he did provide an understanding of how the CBD is affected by the lack of addressing the demand and supply of parking. Voith says, "...policies should seek to provide high-quality alternatives to driving and parking while accommodating those potential visitors and commuters who must drive, but at prices reflective of both the high value of CBD land and the costs of increased congestion associated with cars in the CBD" (1998). This article reflected the fact that higher parking prices are indicative of an attractive downtown in large cities such as Philadelphia.

Parking prices may also reflect the affordability of housing downtown due to the fact that parking is usually coupled with housing prices. If parking prices are high, then residential parking permits may be higher than what an individual would pay in the suburban area of a city. Therefore, the parking costs associated with residential development can greatly affect the demand for downtown living.

Defining Parking Management

In Downtown Parking Made Easy, Mary Barr says "in order to ensure that parking is successfully integrated into downtown's revitalization efforts, some management body—whether a public parking authority or a downtown management organization—needs to oversee parking in a comprehensive, centralized manner" (Barr, 1997, p.9). There are various forms for a downtown parking organization. The author suggests that "downtown stakeholders can work closely with the public parking authority; a separate downtown parking authority can be broken out from the

public parking authority; or downtown can manage the downtown parking authority or overall public parking authority, depending on the size of the town” (Barr, 1997, p.9). This organization, essentially, provides recommendations for solving the issues related to the conflict between demand and supply and the downtown parking problem.

Barr suggests that there are two levels of parking management: tactics and programs. The first level, parking management tactic, “...is an action taken to alter the supply, operation, and/or parking demand of a jurisdiction’s parking system to further the attainment of local transportation, economic, environmental and other applicable objectives” (Barr, 1997, p.1). This involves parking costs and public transit. The second level is a parking management program which is “...an integrated\ set of parking management tactics designed to further the attainment of local objectives. For example, a parking management program could include a marketing program, strict enforcement of on-street parking regulations, fringe parking facility construction, and a residential parking permit program” (Barr, 1997, p.1). These programs work to alleviate traffic congestion, provide fairness among all consumers of downtown, and efficiently add and manage parking spaces.

As suggested, one of the initial steps for addressing downtown parking is to review the parking system of the municipality. A survey was conducted in 1996 on how downtowners rate their parking systems. They found that in cities with a population of 100,000-299,999: 8% rated parking as excellent, 54% good, 33% fair, and 4% poor (Barr, 1997, p.3). Medium and larger sized cities have a high percentage of downtown consumers to rate the parking system.

Forming a committee is another suggestion of this study. This committee provides goals and procedures to evaluate and develop strategies for the parking situation. When reviewing downtown parking, the committee needs to consider some important questions:

1. What are the community development, environmental and transportation goals for downtown and the surrounding areas?
2. What basic policies underline formulation of plans and options?
3. Which range of parking options are meaningful in relation to: existing parking facilities and street systems; downtown development patterns and intensities; origins, destinations and approach routes of parkers; transit service capabilities; and environmental and energy constraints.
4. How can parking serve as a catalyst for desired development?
5. Should parking be provided for all who want to drive downtown, or should it be rationed in some specific manner?
6. What balance should be achieved between parking located on the outskirts of downtown and parking located along the express transit stops in outlying areas? (Barr, 1997, p.6).

These questions help address the parking situation as a whole, rather than one piece at a time.

Various initiatives are used to address these questions. A parking survey is one suggestion. A municipality can do their own parking survey. This study suggests, “the easiest way to develop a targeted mailing list for your own downtown parking survey is to write down the auto tag numbers of vehicles patronizing downtown lots, garages and on-street parking spaces” (Barr, 1997, p.7). After the patrons are identified, they can be contacted for input on the downtown parking situation.

Another suggestion is considering technology as it relates to parking. Technology is changing rapidly and this affects parking meters and how they are

administered. Barr explains an example, "...one new method of actuating parking meters, and collecting fees, utilizes a special key instead of coins or credit cards" (1997, p.14). With technological advances, the monitoring of parking is more efficient and effective.

There are many programs that are used in parking management such as parking zones. These zones are important to consider when looking at downtown parking. These zones dedicate the use of a space. For example, there can be employee parking or resident parking. Signage is essential to these initiatives. It can make parking easier downtown for patrons and "...as an ongoing promotion for downtown parking" (Barr, 1997, p.19).

Chapter Five in this book explained the parking situation between shoppers and workers downtown. This situation is occurring in downtowns across the country. If shoppers cannot find convenient parking, they go elsewhere. The costs retailers downtown incur approximately between \$45,000 to \$90,000 "...when business owners and downtown employees park in prime downtown spaces" (Barr, 1997, p.23). Barr says "...a common rule-of-thumb for the value of a prime parking space is approximately \$150-\$300 in retail sales per day, according to HyettPalma, Inc. of Alexandria, VA" (1997, p.23). Distributing flyers to customers and workers explaining the negative side of parking illegally and irresponsibly is an option to relieve this dilemma. Another idea is free parking in garages for employees downtown on Saturdays. Americus, GA passed legislation that does not allow "...downtown business owners, employees and residents from parking on-street

during normal business hours” (Barr, 1997, p.25). These spaces are held strictly for customers and violators are fined if illegally parked.

Chapter Six explained how to promote innovative parking programs in downtowns. Validation is when downtown merchants stamp or validate parking stubs, thus customers receive a reduced price from lots and garages and downtown pays the difference. Many downtowns (approximately 67%) offer some kind of validation program (Barr, 1997,p.27). Barr states that “validation programs can extend free or reduced-price parking validation to all short-term shoppers, or they can offer special programs for segments of the population—whether they’re shopping, dining or visiting theaters, museums, galleries or movie houses downtown” (1997, p.27).

Courtesy programs are another alternative to downtown parking. An example of this alternative is “...cards are left on the windshields of cars that have overstayed their welcome in on-street spots with time limits” (Barr, 1997, p.29). Fourteen percent of downtowns use this type of promotion for customer service. These cards serve as a kind reminder that downtown thanks them for their visit and explains the downtown parking policy. Other services can be included in these courtesy programs such as package carrying, lock-out and battery jump start services, free ice-scrappers, and escort services. The next question is how can a downtown afford such services. The downtown authority for the city of Kalamazoo took under its management all city-owned parking in the 1980s (Barr, 1997, p.30). So, losses from these programs are done through the tax increment financing downtown.

Parking permits are another example of parking programs used in downtowns. The Salina, Kansas Downtown, Inc. has created a program "...for extending customers' parking time beyond the two-hour limit in special circumstances. Through this program, temporary parking permits will be available to businesses that offer services requiring more than two hours to complete" (Barr, 1997, p.30). Only qualifying businesses are able to purchase these permit cards. The administrator of the downtown authority decides on the permits issuance based on justifications of the business. Employees, business owners or operators cannot use these permits, if violated then these permit privileges will be revoked. Residential communities downtown suffer the most due to lack of parking near their residence.

Residential permit parking programs are the newest option for the downtown parking problem in existing and redeveloped residential neighborhoods. In the article "Don't Park Here", James H. Andrews explained how some residential communities are dealing with their parking situation. Richard Rich of Rich and Associates in Southfield, Michigan explained, "people perceive that the street in front of their house is their property," Andrews adds (2000). Andrews suggest that customers, students, and visitors parking downtown usually interrupt downtown residents' perception of parking right in front of their building. Rich studied Altoona, Pennsylvania and found "people expected a guaranteed parking spot," Rich says, 'and in front of the house,' but they didn't want to pay for the privilege of reserved space. Altoona residents understood the merits of a proposed resident permit parking program, but were averse to paying the associated costs, Rich associate John Revell reported to city officials" (Andrews, 2000).

A parking inventory and pamphlet can help to show events affecting parking and traffic downtown on a weekly basis. Downtown parking operators also update rates and other information on a weekly basis for this brochure. Mary Barr says in her book, Downtown Parking Made Easy, the downtown authority then

...collects changes, and—when it has enough to justify a new printing—a new insert is printed, placed inside the brochures and distributed to all interested parties: real estate brokers; business recruitment prospects; downtown employees; human resource departments (for distribution to new employees); the convention and visitors bureau and convention center; and hotel concierges. The inventory is updated every two to three months (1997, p.32).

Faxes can also be sent out to all concerned parties to get the word out on the parking situation.

Many cities are looking at free parking as another parking program. The idea behind free parking is to encourage weekday consumers to venture downtown on the weekends. Therefore, free parking is provided on Saturdays. Some cities like Louisville, KY, Pittsburgh, PA, and Beaumont, TX use this approach but there are negative sides to this approach. One is "...the city has to be careful not to undercut private parking lots" (Barr, 1997, p.34). Another negative is "...the parkers benefit but, say the operators, this could ultimately kill off their businesses and force downtown to lose all privately owned spaces" (Barr, 1997, p.34). Parking can also be free on Sundays and holidays, especially Christmas.

An organization must be established to address complex issues associated with demand and supply of downtown parking. Various issues were explained that deals with balancing the demand and supply of downtown parking. Such issues

include public perception, parking space per dwelling unit, and parking costs. A management organization, essentially, implements and oversees programs related to these issues.

Conclusion

After reviewing various periodicals, books, and articles, there were key factors that influence downtown residential development and parking issues. The economic and demographic data factor relates to the population size, population change, satellite vs. central, and region influence the demand for residential development. Public/private partnerships can institute incentives and initiatives to attract residential development in downtowns. Parking management techniques are critical to assess the parking problem and balance demand and supply of parking.

Chapter Three

Key Factors

In this chapter, the relationship between residential development and parking downtown are consolidated into three key factors. Two key factors were found to be related to increasing residential development: Economic and demographic data and Public/Private Partnerships. Economic and demographic data related to the population size, population change, satellite versus central city, and region of a city. Public/private partnerships can institute incentives and initiatives to attract residential development. In regards to the parking problems in downtowns, there was one influential factor: parking management.

Economic and Demographic Data

As explained in Chapter two, there is a resurgence of residential development in downtowns across the country (Moulton, 1999). Cities were selected based on this factor. Economic and demographic data relates to the population size, population change, satellite versus central city, and the region of a city. Once cities were selected, economic data related to the amount of residential development and demand was surveyed.

Public/Private Partnerships and Incentives

Initiatives for downtown parking and residential development downtown can be influenced from partnerships between the public and private sectors (Moulton, 1999). Public/private partnerships and incentives were surveyed in selected cities to explain initiatives used to attract residential development and parking issues concerning downtown development.

Parking Management

Chapter two defines parking management as tactics and programs used to balance demand and supply of downtown parking. A parking management organization is commonly used to address the issues associated with the downtown parking problem. Without an efficient management organization, the programs and tactics used will not be as effective. Therefore, cities were asked if there was a parking management organization in place and what programs are being used for downtown parking.

While surveying these cities, many issues had not been addressed yet related to parking demand and supply. For example, many medium-sized cities had not addressed public perception issues because there was not a parking problem downtown. Public perception was deleted from the list due to the various levels of demand from the public and users downtown. Because this paper explored residential development and parking, public perception was hard to address because more than residents are affected by perception issues such as customers and business owners during the day. Most of the responses from the selected cities about public perception and the measurement of satisfaction were through hearsay and not from techniques used for evaluation.

The amount of existing parking space(s) per dwelling unit was not included because of the complex requirements surrounding the issue. Many cities were in the proposal and development stage and their parking requirements for central business districts were relaxed due to downtown revitalization efforts. Although there were parking requirements specified in their city's zoning ordinance, these requirements

were not essential or relevant to the exploration of residential development and parking downtown.

Parking costs were also not discussed because many cities were in the planning phase or did not have a parking problem.

Chapter Four

Demographic Data

Based on the literature review, economic and demographic data appeared to be a means for exploring residential development and parking downtown. With the known population and the amount of residential development occurring, cities could be selected and surveyed for parking initiatives. Eight cities with a population range of 150,000 to 250,000 were selected based on demographic data. This chapter explains how cities were selected based on this data.

Selecting Comparable Medium-Sized Cities

Because Knoxville is generally categorized as a medium-sized city, comparable cities were selected based on similar characteristics. In Chapter two, a description of how medium-sized cities grew in the decade of 1990 to 2000 was included in the economic and demographic section. The table in Appendix A categorizes the population growth of medium-sized cities. For example, Knoxville, TN is a “moderate-growth” city. Because the moderate growth category is larger, different factors were used to determine cities for further study. This information is based upon the Brookings Institution study on medium-sized cities (refer to Chapter two).

Five criteria appeared to be important when selecting medium-sized cities for this study:

1. Population between 150,000 to 200,000 based on 2000 U.S. Census,
2. Population change higher than 0% from 1990 to 2000,
3. Geography or Southern region,
4. Central cities, and
5. Stand-alone cities.

After looking at the 2000 population for the Moderate Growth category in Appendix A, Knoxville had the highest population. Cities were further broken down into population change from 1990 to 2000 based on satellite and central cities in various regions such as the Northeast or the South, as illustrated in Table 4.1.

Table 4.1 shows the list of cities before all of the five factors were considered for selecting the cities. Table 4.2 shows the selected medium-sized cities based on the five important factors listed earlier on page 39.

After looking at the populations in Table 4.1, there were still quite a few cities to consider. Next, population change was used to compile a list of comparable cities to Knoxville. Because the City of Knoxville had a population change of 5.3% from 1990 to 2000, population changes over 5.3% were used.

Table 4.1. Medium-sized Central Cities in the Southern Region

Southern Medium-Sized Cities				% Change		
Central Cities	1980	1990	2000	80-'90	90-'00	80-'00
Laredo, TX	91,000	122,899	176,576	35.1	43.7	94
Tallahassee, FL	82,000	124,773	150,624	52.2	20.7	83.7
Chesapeake, VA	114,000	151,976	199,184	33.3	31.1	74.7
Brownsville, TX	85,000	98,962	139,722	16.4	41.2	64.4
Orlando, FL	128,000	164,693	185,951	28.7	12.9	45.3
Abilene, TX	98,000	106,654	115,930	8.8	8.7	18.3
Amarillo, TX	149,000	157,615	173,627	5.8	10.2	16.5
Columbia, SC	101,202	98,052	116,278	-3.1	18.6	14.9
Waco, TX	101,000	103,590	113,726	2.6	9.8	12.6
Huntsville, AL	143,000	159,789	158,216	11.7	-1	10.6
Fort Lauderdale, FL	153,000	149,377	152,397	-2.4	2	-0.4
Knoxville, TN	175,000	165,121	173,890	-5.6	5.3	-0.6
Beaumont, TX	118,000	114,323	113,866	-3.1	-0.4	-3.5
Savannah, GA	142,000	137,560	131,510	-3.1	-4.4	-7.4
Chattanooga, TN	170,000	152,466	155,554	-10.3	2	-8.5

Vey and Forman, 2001.

Table 4.2. Comparable Medium-Sized Cities to Knoxville

Southern Medium-Sized Cities			% Change
Central Cities	1990	2000	1990-2000
Orlando, FL	164,693	185,951	12.9
Laredo, TX	122,899	176,576	43.7
Knoxville, TN	165,121	173,890	5.3
Amarillo, TX	157,615	173,627	10.2
Chattanooga, TN	152,466	155,554	2

Vey and Forman, 2001.

Using the parameters identified earlier for selecting these comparable cities, some cities could not satisfy all of the requirements. Based on population alone, there were cities that had higher populations but were deleted from the list due to other categorical issues. For example, Chesapeake, VA had a population higher than 199,000, but was close to several large cities. Therefore, it was not a stand-alone city as Knoxville is considered. The next city with the highest population was Huntsville, AL, but it had a negative population change from 1990 to 2000. Therefore, the population change from 1990 to 2000 was adjusted to zero percent as criteria for selecting cities. Chattanooga, TN was the next city to be added to the list because it had a positive population change of 2% and next to the highest population.

The four cities highlighted in light gray in Table 4.2 were researched through the internet and phone for contact information. These cities were then contacted and surveyed for residential development patterns and occurrences.

Selecting Larger Cities

Because medium-sized cities had not experienced as much residential development as Knoxville, larger cities with populations of 200,000 to 249,999 were identified. The research of these cities was based upon the characteristics defined

earlier for economic and demographic data: 2000 Census population, geography, and stand-alone cities. Population change and central versus satellite cities were taken out due to the fact that this information was not essential to the narrowing down process. Population change and satellite/central cities were essential to defining the growth of medium-sized cities in the Brookings Institution article (Vey and Forman, 2001).

Table 4.3 highlights, in gray, the four cities that were identified as comparable larger-sized cities. Four cities were chosen because there were four cities chosen for medium-sized cities comparisons. After looking at the U.S. Census data for 2000, there were several cities to choose from, but only a few were in the Southern region, stand-alone cities, and had some downtown development activity. There was a trend of these larger cities having websites that described their entire residential development downtown, public/private partnerships, and how parking management is handled. Therefore, websites were used also as a key component for narrowing down the cities to four. These four cities include: Shreveport, LA, Greensboro, NC, Baton Rouge, LA, and Norfolk, VA.

Table 4.3. Southern Larger Cities

Cities	Population
Shreveport, LA	200,145
Montgomery, AL	201,568
Garland, TX	215,768
Plano, TX	222,030
Greensboro, NC	223,891
Hialeah, FL	226,419
Baton Rouge, LA	227,818
Norfolk, VA	234,403
Birmingham, AL	242,820
St. Petersburg, FL	248,232

County and City Data Book, U.S. Census 2000.

Conclusion

Economic and demographic data was pointed out in Chapter three as a condition for evaluating downtown residential development. The emphasis on economic and demographic data was placed on the population size, population change, satellite versus central cities, and region of a city. Other issues were identified to select cities comparable to Knoxville such as stand-alone cities and website information on residential development and parking downtown. Using this information, cities were contacted for residential development downtown, public/private partnerships and incentives, and parking management.

Chapter Five

Profiles of Comparable Medium-Sized Cities

As discussed in Chapter four, selected cities were chosen for analysis based on the factors associated with economic and demographic data. These factors included population size, population change from 1990 to 2000, satellite versus central cities, region, stand-alone cities, and website information. Profiles for comparable medium-sized cities were based on the key factors outlined in chapter three: economic and demographic data or amount of residential development, public/private partnerships and incentives, and parking management. The first profile will begin with Orlando, Florida and will continue with Laredo, Texas, Amarillo, Texas, and Chattanooga, Tennessee.

Orlando, FL

Although Orlando, Florida is a tourist-oriented city, it is comparable to Knoxville. Joyce Sellem from the Community Redevelopment Agency provided information for the profile of their downtown area. Although this city does have some downtown activity, there is not any new residential development in the central core.

Economic and Demographic Data

The population for Orlando in the year 2000 was 185,951, based on U.S. Census Data. The population growth was 12.9% from 1990 to 2000 according to the Brookings Institute study on medium-sized cities. Currently, approximately 10,000 residents live in the surrounding neighborhoods of downtown. There is very little

residential development in the downtown core of Orlando. There is residential development occurring throughout the city, however it is related to tourism.

Public/Private Partnerships and Incentives

There is a public/private partnership in the City of Orlando. The Downtown Development Board and Community Redevelopment Agency are partnerships within the city through tax increment funding. These agencies pay 7% of their budget to the city to be a department of the city. There are no economic incentives for residential development downtown or parking, however the two agencies provide assistance to the city as needed.

Parking Management

The parking management organization, City of Orlando's Parking Bureau, works with the Community Redevelopment Agency and the Downtown Development Board. Most of the parking initiatives were geared toward visitors and employees. The Parking Bureau offers many programs for employees such as monthly access cards and meter debit cards available in increments of \$10, \$20, and \$30. There were also programs offered for visitors to downtown Orlando such as validation stickers from businesses for short-term parking and all day stamps for long-term. There are only two garages that provide overnight and weekend hours for parking. If there were residents downtown, this would be one option for long-term parking.

Laredo, TX

Laredo, Texas was the next city researched that was comparable to Knoxville. This city was ranked as the eighth city with commercial development downtown, as

Nora Benadides said. Ms. Benadides with the city's planning department was the contact for this city.

Economic and Demographic Data

The population was 176,576 in 2000 based on the U.S. Census data. The population growth was 43.7% from 1990 to 2000 according to the Brookings Institute study on medium-sized cities. Twenty percent of land use is residential in the downtown core. Most of this residential development, though, is beach houses and apartments. These residential units were existing and there was no new residential development occurring.

Public/Private Partnerships and Incentives

There are no private/public partnerships or incentives provided for residential development or parking downtown.

Parking Management

There is not a parking management organization. There is an effort between three city departments to deal with parking: Metro Police, Community Development, and Transportation Planning. There were no programs or tactics used for parking initiatives because there was not a residential parking problem.

Amarillo, TX

Penelope Davies with Center City, Inc. provided information for the city of Amarillo. This city is also comparable to Knoxville, TN. Information was also gathered from the Center City organization website (<http://www.centercity.org/>).

Economic and Demographic Data

The population was 173,627 in the year 2000 according to the U.S. Census data. The population growth was 10.2% from 1990 to 2000 based on the Brookings Institute study on medium-sized cities. There are three residential buildings in the core downtown area, which yield about 2,500 residents. Much of this development is existing and thus has its own parking. There is an interest in downtown lofts, Davies explained, but there has not been any development as of yet.

Public/Private Partnerships and Incentives

There is a public/private partnership. The Center City, Inc. is closely involved with the City of Amarillo, but the Center City, Inc. is a separate 501 (3c) organization. In their priorities listing on their website, the first priority is to improve relations with the city through more involvement and communication. There are economic incentives for developers who are interested in residential development, however assistance is not provided for parking.

Parking Management

Although there are residents downtown, there is not a downtown parking problem. There are currently over 12,000 spaces provided for stakeholders downtown. Many of the residential units downtown have their own parking facilities and do not need extra parking spaces for residents.

There is not a parking management organization. There are no parking programs for residential development because there is not a parking problem as of yet. There is a transportation committee that meets to discuss parking plans and

management system. One initiative provided by this committee was a lunchtime trolley that runs for employees downtown. There is also a consideration of turning some one-way streets into two-way streets. The Amarillo Police Department is effective with enforcement.

Chattanooga, TN

Although the City of Chattanooga is close, geographically, to Knoxville, it is a stand-alone city for the southeastern portion of Tennessee. Downtown Chattanooga has recently undergone downtown revitalization with its transit system and commercial development. Christian Rushing from the Chattanooga-Hamilton County Regional Planning Commission provided the information for this section. There was an effort to contact the RiverValley private/public partnership.

Economic and Demographic Data

There was a population of 155,554 according to U.S. Census. The population growth was 2.0% from 1990 to 2000 according to Brookings Institution study on medium-sized cities. There have been revitalization efforts in downtown focusing on tourist attractions and commercial development downtown. There are approximately 100 new residential units and more proposed residential development.

Public/Private Partnerships and Incentives

There are several public/private partnerships that are used for different development and parking issues such as River City Company, RiverValley Partners, and the regional planning commission work together. There are not any incentives for downtown parking initiatives. These residential units have their own parking

facilities for residents. Therefore, parking is not a pressing issue as of now, but may be in the future.

Parking Management

There is not a parking management organization. Enforcement is strict for parking now related mostly to employees and businesses. There is no need for residential parking programs due to the fact that residential development is not at its peak yet in this city.

Conclusion

There was some movement towards residential development such as lofts and apartments, but these cities were still in the planning phase. Existing residential development is prevalent in the cities, but there is not much new development. There were three cities that had some residential development, but two of the three developments were existing and were not experiencing parking woes as of yet. With much of this residential development, developers have provided parking for their residents rather than from public assistance. Chattanooga is experiencing residential development, but was not aware of parking problems associated with it as of yet. However, Chattanooga does expect more development in years to come. With expected development, these parking characteristics would need to be used in their efforts of controlling their resident's parking issues.

Three of the four cities had some form of public/private partnerships, but only one of the cities provided incentives for residential development. None of the cities provided incentives for parking initiatives basically due to the fact that there was not a parking problem in these particular cities. These cities do not have any incentives

for residential development as of yet so this may be a hindrance for this type of development.

Orlando, Florida was the only city that had a parking management organization dealing directly with downtown issues. This organization was responsible for many of the programs available for employees and visitors of downtown. Amarillo had a transportation committee that concentrated on downtown parking issues. This committee is working on a management system for the downtown area of Amarillo.

Chapter Six

Profiles of Larger Cities

Chapter four identified the selected larger cities for this study. These cities had a population of 200,000 to 249,000. The following cities were used for further research: Shreveport, LA, Greensboro, NC, Baton Rouge, LA, and Norfolk, VA. These cities will be profiled like the comparable medium-sized cities in the last chapter. It will be broken down into the four cities with each section as follows: economic and demographic data, public/private partnerships and incentives, and parking management.

Shreveport, LA

Shreveport has had significant downtown development in the past decade. Information for this city was obtained from the Downtown Development Authority's website (www.downtownshreveport.com, 2003).

Economic and Demographic Data

Table 4.4 shows the population in 2000 for Shreveport being 200,145. Downtown Shreveport has seen unprecedented residential development. With this development, a downtown residential market has begun. There are five historic buildings in the construction phase that will yield approximately 214 residential units. Although there are residents already living downtown, there are still residential units being constructed and proposed. Much of this development is mixed-use or combines office, commercial, and residential in the upper floors of these buildings. There are approximately 14,000 parking spaces available downtown for all stakeholders.

Public/Private Partnerships and Incentives

There is a public/private partnership with the Downtown Development Authority (DDA) and the City of Shreveport.

A residential study was conducted by the Downtown Development Authority to look at the conditions of five prototypical buildings and possible economic incentives for development. Center City Living is the campaign for these incentives. These incentives have provided several developers with incentives to develop residential units downtown. The economic incentives are through the Restoration Tax Abatement (RTA) program. RTA is “an economic development tool for use by local governing authorities to encourage expansion, restoration, improvements, and development of existing commercial structures in downtown development districts, economic development districts, or historic districts” (Downtown Development Authority, 2003). This program can be combined with the federal historic preservation tax credit incentive. Many developers are taking advantage of this opportunity. However, there are no incentives for downtown parking initiatives while developing.

Parking Management

The Downtown Development Authority manages the off-street and on-street parking operation downtown through a contract with the City of Shreveport. They are responsible for the meters, enforcement, and coinage and fine collection. The DDA also provides recommendations to the Mayor dealing with parking policy and improvements.

A Downtown Parking Enterprise Fund was created with this parking partnership between the DDA and the City of Shreveport. This fund is made up of the proceeds from the parking operation and is dedicated to parking related services.

Greensboro, NC

Information for Greensboro was obtained from the Downtown Greensboro Incorporated (DGI) website (www.downtowngreensboro.net, 2003). This website was quite informative. There have been several downtown revitalization efforts. DGI was formed in 1997 to recruit new investment into the central city, help with marketing and business planning services, encourage cultural vitality, and help initiatives flourish.

Economic and Demographic Data

Greensboro's population for 2000 was 223,891 based on the U.S. Census data. There has been significant downtown development in the past two years. There have been at least 111 new downtown residential units announced.

Public/Private Partnerships and Incentives

There is a public/private partnership between the Downtown Greensboro Inc. (DGI) and the City of Greensboro. There are two programs that DGI provide for economic incentives for downtown development: Façade Grant Program and Façade Design Assistance Program. These programs provide economic assistance only for façade improvements.

The DGI also provides parking assistance to developers interested in residential redevelopment downtown. This organization helps developers pinpoint

possible sites for parking facilities. This parking assistance has been more helpful with businesses rather than residential development.

Parking Management

There is a parking management organization that handles all city-owned parking spaces within the City of Greensboro Department of Transportation (GDOT). There are citizen committees that meet monthly to discuss parking and transportation issues related to downtown through the DGI. There are several programs geared toward employees and businesses such as monthly parking, prestige parking or attendant services, “park-n-shop,” and a validation stamp program. There were not any existing residential parking programs provided. However, their comprehensive parking study mentioned downtown residential parking initiatives such as a residential parking card program. This allows residents to park in a city-owned deck for half of the regular costs. This comprehensive study was very informative.

Baton Rouge, LA

Baton Rouge experienced some residential development. Information was provided by the Downtown Development District’s website ([www. ci.baton-rouge.la.us/dept/ddd/](http://www.ci.baton-rouge.la.us/dept/ddd/), 2003).

Economic and Demographic Data

The population for Baton Rouge in 2000 was 227, 818. The downtown area houses about 2,000 residents with hundreds of multi-family and single-family units renovated. There are homes and condominiums for sale as well as apartments and duplexes for rent.

Public/Private Partnerships and Incentives

There is a public/private partnership between the Downtown Development District and the City of Baton Rouge. Economic incentives are also provided for development downtown, especially for residential and commercial uses. These incentives include a five-year property tax abatement program, historic rehabilitation tax credit, and building construction permit fee waiver. There were no incentives, however, for residential parking.

Parking Management

Their website did not include information on any parking programs or parking management available. There was an effort to contact someone, but no one responded to phone or e-mail requests.

Norfolk, VA

Norfolk was the final city selected for this review. There has been substantial development downtown which was documented on their website (www.downtownnorfolk.org, 2003). The Downtown Norfolk Council was created in 1979 as a business improvement district (BID). This BID, comprised of businesses in the district, helped with the marketing, cleaning, and supplemental services that the city cannot provide downtown.

Economic and Demographic Data

The population for Norfolk in 2000 was 234,403. There are more than 2800 residents living in downtown Norfolk. This figure was up from 600 residents five years ago. There is a market potential for more than 1500 additional residential units,

according to the Downtown Norfolk Council. Comprised of apartments, condominiums, lofts, and townhomes, there is a downtown residential market in Norfolk today.

Public/Private Partnerships and Incentives

There is a public/private partnership between Downtown Norfolk Council and the City of Norfolk. There were no incentives found for residential development downtown or parking initiatives.

Parking Management

The City of Norfolk's Parking Division manages and operates the parking downtown. There are more than 23,000 public parking spaces, 14 garages, 16 lots, and approximately 500 on-street spaces.

The downtown parking rate structure is based on a tiered structure or based on demand. There is also a free downtown shuttle, Norfolk Electric Transit (NET). This shuttle is based on lunchtime demand from employers and employees downtown. On-street parking is managed with meters limited to two hours for short-term parking concerns. There is a city decal for residents downtown, which means that there is a parking zone designated for residents. Developers provide most of the parking for residents downtown and the cost is included in the rent or price of the unit.

Conclusion

All four larger cities researched have had residential development recently. Therefore, cities of larger size are experiencing a wave of residential development downtown and are creating parking initiatives to deal with the issue. There was a wide range of residential development. Many of the programs and incentives

provided are guided toward employees and businesses, but the City of Greensboro proposed some action for downtown residential parking. Greensboro was the only larger city provided assistance to developers with parking efforts. In their comprehensive parking study, the city had proposed a residential parking card program, which would allow residents to park in city-owned decks. The Downtown Development Authority of Shreveport provides recommendations to the city on parking recommendations rather than providing assistance and incentives to developers.

Overall, larger cities have seen significant residential development in the past several years. Much of this growth was due to demand and incentives provided through adaptive reuse funding. These cities have experienced parking problems, but mostly from businesses and employee daytime parking. Residential development may spur more initiatives toward downtown residential parking in years to come. With this information, the recommendations for the City of Knoxville are more relevant to the larger cities' profiles and trends.

Chapter Seven

Profile of Knoxville, TN

As discussed in Chapter four, the City of Knoxville is generally categorized as a medium-sized city. Medium-sized cities have had significant growth in the past decade. Knoxville has seen substantial residential growth in the central business district in the past year. Because of this growth, downtown parking is at a minimum for residents. Chapter two provided several variables for parking for downtown residential development. This chapter will outline the relevance of Knoxville to the three key variables identified.

Economic and Demographic Data

Knoxville's population in 2000 was 173,890 based on the U.S. Census data. This was an increase from 1990 and a loss from 1980. Overall, the City of Knoxville had a percent change of 5.3 from 1990 to 2000. Knoxville has had significant residential growth downtown.

There is more than 350,054 square feet of residential space in the downtown area. Downtown Knoxville has seen approximately 269 residential units completed and proposed in the past year in one area of downtown. There are approximately 600 units proposed and completed for downtown Knoxville overall.

Public/Private Partnerships and Incentives

The City of Knoxville Department of Development and the Central Business Improvement District work together, specifically with the residential and parking incentives and initiatives identified.

The CityLife Incentives program provides incentives for residential development using historic buildings downtown. The CityLife program provides financial incentives for adaptive reuse of buildings for residential development such as: tax abatement, low-interest loans through a revolving fund, parking assistance, and minimum charges for plans review and permitting. Therefore, developers can get assistance from this department when formulating plans for residential units.

Parking Management

There is a parking management organization in place for the City of Knoxville in the city ordinance, but has been inactive for the past decade.

The Department of Development has been active in providing new parking initiatives for the downtown parking problem. For example, reverse angle parking is a new parking initiative in the area that provides an increased amount of on-street parking. Another initiative has been a residential parking permit program for the Gay/Depot Loft District. Residents pay eighty dollars per year to have designated parking spaces in this district. The city is currently working with the Knoxville Police Department to help with enforcement issues such as an active walking beat, meter maids, and other means of technology.

Conclusion

Knoxville does have a residential market and demand downtown due to initiatives, incentives and interests from local developers and other stakeholders. Because of incentives for development downtown, there is more adaptive reuse for residential development and parking assistance. Knoxville has a market for residential development and is faced with a parking problem as a result. Therefore,

many initiatives are being considered to help with the parking problem. Knoxville, in comparison, is more closely related to cities with populations of 200,000 to 249,000.

Chapter Eight

Summary

This chapter summarizes residential development and downtown parking for the eight cities researched. Cities with populations of 150,000 to 249,999 in 2000 were surveyed on their relevancy to the key factors identified. These cities were used to review residential development occurrences and parking management techniques to assist in this type of downtown development.

Medium-sized Cities

The four medium-sized comparable cities to Knoxville for this study were Orlando, FL, Laredo, TX, Amarillo, TX, and Chattanooga, TN. Cities in the medium-sized city category or with populations of 150,000 to 199,999 had not seen as much new residential development as Knoxville. However, some medium-sized cities researched were in the planning phases of residential development or had existing residential development in which developers provided parking for residents. Therefore, residents are not competing with other land uses downtown for parking.

Economic and Demographic Data

Demographic data was used to select the cities. Once cities were selected, economic data was collected based on residential demand and development. Percent change from 1990 to 2000 ranged from 2.0 to 43.7. Information for these cities' was based on the Brookings Institution study on medium-sized cities and the U.S. Census population rankings for 2000. In these cities, most residential units surround the center cities and parking was included in the price of the unit.

Public/Private Partnerships and Incentives

The above mentioned cities, with the exception of Laredo, TX, had public/private partnerships. Knoxville has a public/private partnership that provides incentives for residential development and parking. The majority of these cities had a public/private partnership, but did not provide assistance to developers for development or parking issues.

Parking Management

As far as parking programs and tactics, two of the four cities have some kind of parking management organization. These two cities are Orlando, Florida and Laredo, TX. Orlando had an established parking bureau that dealt directly with downtown parking. The Downtown Development Board and the Community Redevelopment Agency also aid in this effort. Although there is not an established parking management organization in Laredo, TX, an effort towards parking management is being made between three city departments: Metro Police, Community Development, and Transportation Planning.

The other medium-sized cities have not had as much residential development as Knoxville and may not need a management organization as of yet.

Larger Cities

Larger cities have seen some residential development. There was a mixture of responses regarding the amount of residential units downtown proposed and completed. The largest residential development was in Norfolk, VA. The four cities selected for the next population range (200,000 to 249,999) were Shreveport, LA,

Greensboro, NC, Baton Rouge, LA, and Norfolk, VA. These cities were selected based on their population in 2000 from the U.S. Census.

Economic and Demographic Data

All four cities have had significant residential development, between 200 to more than 2000 residents. Larger cities are experiencing a new residential market for downtown. Most of this development is through adaptive reuse and incentives.

Public/Private Partnerships and Incentives

All of the cities have public/private partnerships either with a business improvement district and/or a development authority. Shreveport and Baton Rouge both have an incentive program similar to Knoxville's CityLife incentives program. Greensboro, NC also has an incentive program that deals solely with façade improvements. Greensboro was also the only city that provides parking assistance to developers.

Parking Management

Parking management organizations were found in all of the larger cities. There were several parking programs and tactics related to downtown development used in these size cities. Norfolk's downtown parking is based on a tiered system according to demand. The Downtown Development Authority of Shreveport has a parking initiative called the Downtown Parking Enterprise Fund, which allows coinage and parking monies to funnel directly into the fund for parking improvement and repair. There were also programs designed for certain uses such as city decals for

residents in downtown Norfolk. Many of the programs reviewed dealt with employees and businesses in these larger cities' downtowns.

Conclusion

Table 8.1 compares Knoxville with the medium and larger sized cities identified for this study. This table summarizes the factors involved for the evaluation of residential development and parking downtown. There were four cities each researched for medium and larger sized cities. The numbers in the columns for medium and larger sized cities correspond to the amount of cities experiencing the key factors identified for a positive relationship between residential development and downtown parking.

Table 8.1. Summary of Residential Development and Parking Variables

<u>Key Factors</u>	<u>Knoxville, TN</u>	<u>Medium-sized (4)</u>	<u>Larger-sized (4)</u>
<i>Econ/Demo. Data</i>			
Residential Devel.	Y	1	4
<i>Partnerships&Incentives</i>			
Partnerships	Y	3	4
Incentives	Y	0	3
<i>Parking Management</i>			
Parking Mgmt. Org.	N	1	4
Programs	Y	0	3

Chapter Nine

Conclusions

This chapter addresses the primary question asked in chapter one: What key factors should be considered for a positive relationship between downtown parking and residential development to exist in Knoxville, TN? Three key factors were identified: Economic and demographic data, public/private partnerships and incentives, and parking management. Economic and demographic data related to population size, population change, satellite versus central, region, and stand-alone status of a city and public/private partnerships and incentives were critical influences for expanding residential development. Parking management that balances the demand and supply of the whole downtown parking. After reviewing literature and surveying eight selected cities, several recommendations for the City of Knoxville follow.

Economic and Demographic Data

Although the population follows the characteristics used for defining a medium-sized city, Knoxville's residential development is in keeping with the residential demand seen in larger cities. Therefore, Knoxville has more residential development than comparable medium-sized cities and recommendations will be based mostly on the literature review and survey information from larger cities.

Public/Private Partnerships and Incentives

There is a public/private partnership between the City of Knoxville and the Central Business Improvement District (CBID). The City of Knoxville has been proactive in its approach to attract residential development downtown through

financial and parking assistance to developers and others who are interested. The CityLife Incentives Program provides the residential development needed for a 24-hour city. This partnership has provided an extraordinary residential redevelopment incentives program that has provided many residential units. However, this partnership may not have the capacity to evaluate such issues associated with the downtown parking problem especially related to residential development.

Although there are incentives for residential development and a public/private partnership between the City of Knoxville and the CBID, the city should work more closely with this organization to ensure that downtown stakeholders have the same interests as the city. This public/private partnership could help with marketing and website upkeep for future developers and visitors who are interested in downtown Knoxville. The larger cities researched had very informative, one-stop websites. The website gave suggestions on how to find event, residential, commercial, and office parking. Leasing information was also included which provided information for apartments, condominiums, and homes for rent and sale on the websites. This gave investors, stakeholders, and visitors an idea as to what parking options were available for certain uses.

Parking Management

Not only is the City of Knoxville facing a downtown parking problem, but it lacks the organization needed to manage the issues associated with new residential development and parking. Therefore, a parking management organization is necessary for the short-term and long-term effects of downtown revitalization efforts specifically related to residential development. Joe Sullivan explains the important

issues related to the parking management in downtown Knoxville in the article “Looking for Downtown Parking: Lack of Spaces Drives Business Away” (2003). Sullivan says, “A shortage of parking is what’s prompting the potential exodus [of large employers] from downtown. And along with causing erosion of its work force, the shortage could also stifle downtown residential growth and commercial revitalization efforts” (2003). The case for a parking management organization to be implemented in downtown Knoxville is further explained by Mike Edwards, the president of the Knoxville Area Chamber of Commerce. Edwards says, ‘The city has got to be prepared to move ahead with meeting parking needs or the downtown redevelopment momentum that’s been generated over the past year will be lost’ (Sullivan, 2003). Therefore, downtown development is jeopardized when parking issues are not addressed efficiently.

If a parking management organization (refer to Chapter two) is created for downtown Knoxville, several parking initiatives could be implemented related to the demand and supply of parking. The City of Greensboro, NC had a comprehensive study done on its downtown parking to assess the problem and to provide parking initiatives related to the problem. This could be handled by the organization to provide a comprehensive look at how to solve the short- and long-termed parking problems in downtown Knoxville.

There were programs in larger cities that could be implemented in the City of Knoxville to control the parking problem downtown. One parking program found in larger cities was a parking enterprise fund which allowed coinage and money

collected from meters to be funneled into a fund towards improving downtown parking for the next year.

Although Knoxville has initiated several short-term solutions for the downtown parking problem, there are still long-term needs that should be addressed. Many stakeholders are interested in the long-term solutions rather than short-term solutions. Due to the lack of parking in downtown, existing parking facilities may be a key consideration related to the supply side of parking. In the article “Parking Pinch Downtown,” Amy Nolan says, “local officials said Thursday they’re scrambling to erect a temporary parking lot at the Knox County-owned State Street site but warned that long-term downtown parking solutions will require government subsidies” (2003). Therefore, funding for parking is at stake and the existing parking structures may provide the needed parking supply.

Parking garages could provide satellite, tiered, or valet parking for residents (refer to Chapter two). With efficient public transit, residents would be able to take this alternative means of transportation to their destinations rather than the use of their car. Parking lots and on-street parking during daytime hours could be shared and provide nighttime parking for residents. Valet and attended parking could be implemented in unattended parking lots that are close to residential buildings. Initiatives described above could be integrated into downtown parking solutions if effectively implemented.

Demand and supply issues should coincide with creating long-term solutions for residential development. As discussed in Chapter two, public perception, parking space per dwelling unit (public policy requirements), parking costs, and public transit

should be considered. With residential development occurring in downtown Knoxville, these issues must be addressed while creating these long-term solutions. For example, as discussed in chapter two, if public transit was available at a cost competitive to parking downtown, then satellite parking could be a reasonable solution. This parking management organization would consider how to evaluate public perception and the measurement of satisfaction for residents downtown when addressing parking issues. The management body could help with initiatives for public policy, specifically dealing with evaluating the parking space per dwelling unit requirements. Also, the costs associated with parking demand could be assessed and rated on a system consistent with development patterns for other cities.

In summary, larger cities had more in common with the City of Knoxville's amount of residential development. These larger cities also had public/private partnerships to influence residential development. However, larger cities rely on a public management organization to address parking issues and policies. As far as parking initiatives, Knoxville has been proactive in the short-term parking solutions with reverse angle parking to increase parking spaces. Some long-term solutions for residential development have also been implemented such as a residential parking permit program and tiered parking. However, Knoxville must comprehensively assess the parking problem and the balance between demand and supply issues before making more decisions on long-term solutions. Essentially, the effects of high demand for downtown living, working, and playing have put the City of Knoxville at a crossroads, and the time has arrived for the parking situation to be studied in a more comprehensive manner through a parking management organization.

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State	Year	Population	Area
Alabama	1960	2,049,000	52,400
Alaska	1960	191,000	588,000
Arizona	1960	1,293,000	113,900
Arkansas	1960	1,192,000	53,100
California	1960	7,827,000	158,300
Colorado	1960	2,429,000	104,300
Connecticut	1960	2,586,000	5,540
Delaware	1960	248,000	2,480
District of Columbia	1960	205,000	68
Florida	1960	4,287,000	55,600
Georgia	1960	3,049,000	59,700
Hawaii	1960	213,000	10,900
Idaho	1960	1,049,000	83,700
Illinois	1960	8,298,000	149,900
Indiana	1960	5,620,000	36,400
Iowa	1960	3,045,000	72,600
Kansas	1960	2,605,000	82,200
Kentucky	1960	3,549,000	40,300
Louisiana	1960	3,287,000	52,400
Maine	1960	789,000	9,300
Maryland	1960	3,049,000	12,100
Massachusetts	1960	3,549,000	8,000
Michigan	1960	7,827,000	96,700
Minnesota	1960	4,287,000	86,900
Mississippi	1960	2,049,000	47,800
Missouri	1960	5,620,000	69,400
Montana	1960	909,000	147,000
Nebraska	1960	1,912,000	77,300
Nevada	1960	429,000	110,300
New Hampshire	1960	789,000	9,300
New Jersey	1960	7,827,000	19,200
New Mexico	1960	1,293,000	121,700
New York	1960	19,120,000	54,500
North Carolina	1960	6,912,000	51,900
North Dakota	1960	609,000	70,600
Ohio	1960	11,920,000	44,800
Oklahoma	1960	2,049,000	69,600
Oregon	1960	1,293,000	46,300
Pennsylvania	1960	19,120,000	46,000
Rhode Island	1960	809,000	1,500
South Carolina	1960	2,049,000	32,200
South Dakota	1960	709,000	77,100
Tennessee	1960	4,287,000	42,300
Texas	1960	11,920,000	695,000
Utah	1960	1,293,000	84,800
Vermont	1960	248,000	9,600
Virginia	1960	3,549,000	42,800
Washington	1960	2,049,000	71,300
West Virginia	1960	1,293,000	62,000
Wisconsin	1960	5,620,000	65,400
Wyoming	1960	429,000	97,800

APPENDIX

Appendix A **Medium-sized Cities Table**

Appendix A Medium-Sized Cities: Population Growth, 1990-2000

#	Declining (<-2%)	No-Growth (-2% to 2%)	Moderate-Growth (2 to 10%)	Strong-Growth (10 to 20%)	Rapid-Growth (>20%)
1	Hartford, CT	Kansas City, KS	Fort Lauderdale, FL	Clearwater, FL	Tallahassee, FL
2	Gary, IN	Waterbury, CT	Chattanooga, TN	Amarillo, TX	Eugene, OR
3	Flint, MI	Bridgeport, CT	Topeka, KS	Fullerton, CA	Mesquite, TX
4	Syracuse, NY	Huntsville, AL	South Bend, IN	Cedar Rapids, IA	Escondido, CA
5	Lansing, MI	Peoria, IL	Inglewood, CA	Simi Valley, CA	Sioux Falls, SD
6	New Haven, CT	Beaumont, TX	Pueblo, CO	Tempe, AZ	Irving, TX
7	Erie, PA	Livonia, MI	Torrance, CA	Thousand Oaks, CA	Oceanside, CA
8	Warren, MI	Berkeley, CA	Ann Arbor, MI	Sunnyvale, CA	Hayward, CA
9	Savannah, GA	Independence, MO	Knoxville, TN	Orlando, FL	Rancho Cucamonga, CA
10	Evansville, IN	Allentown, PA	Sterling Heights, MI	San Bernardino, CA	Salem, OR
11	Portsmouth, VA	Lowell, MA	Paterson, NJ	Pomona, CA	Grand Prairie, TX
12	Springfield, MA	Worcester, MA	Springfield, IL	Salt Lake City, UT	Chula Vista, CA
13		Pasadena, CA	Vallejo, CA	Lakewood, CO	Winston-Salem, NC
14			Manchester, NH	Hollywood, FL	Irvine, CA
15			Rockford, IL	Meriden, CT	Santa Rosa, CA
16			Springfield, MO	Alexandria, VA	Chesapeake, VA
17			Providence, RI	Garden Grove, CA	Overland Park, KS
18			Stamford, CT	Orange, CA	Reno, NV
19			Abilene, TX	Columbia, SC	Santa Clarita, CA
20			El Monte, CA	Ontario, CA	Durham, NC
21			Concord, CA	Pasadena, TX	Salinas, CA
22			Hampton, VA	Oxnard, CA	Brownsville, TX
23			Elizabeth, NJ	Mereno Valley, CA	Aurora, IL
24			Waco, TX		Larch, TX
25					Glendale, AZ
26					Boise City, ID
27					Scottsdale, AZ
28					Flam, TX

Vey and Forman, 2001.

Appendix B

Contact Information and Survey

Chapters five, six, and seven provide profiles for the selected cities and Knoxville.

The contacts from the selected cities were from internet searches of downtown organizations and planning organizations. Some cities did not have a downtown organization so planning organizations were then contacted. If a city had a public/private partnership, one person from the public entity and private entity was asked the questions below. Medium-sized cities' contacts were reached by phone. Larger-sized cities information was gathered from the city's downtown organization website or city's website.

Survey Questions

1. Has there been recent residential development in your downtown?
2. If so, how much would you say has occurred in the past two years approximately?
3. What kind of residential development is occurring?
4. Are you aware of any public/private partnerships concerning downtown efforts?
5. Do these partnerships provide incentives for developers interested in residential development? If so, what are they?
6. Is there a downtown parking problem in your city related to residential development?
7. What parking initiatives do you provide for this problem or any other parking problems downtown?
8. Is there anyone else I should/could speak with regarding downtown residential development and parking?

VITA

Adraine Chaurice Bond was born in Stanton, TN. She attended the public school system of Haywood County, where she graduated in May of 1997. She entered Middle Tennessee State University the fall of that same year and received the Bachelor of Science in Political Science with a concentration in Public Administration in May of 2001. She minored in Economics and Psychology. She entered the Master's program in Urban & Regional Planning at The University of Tennessee, Knoxville in August of 2001. She is presently pursuing a career in urban planning.

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1. The first of the two main parts of the report is a description of the

results of the survey of the distribution of the

various species of the genus in the

various parts of the world.

2. The second part of the report is a description of the

various species of the genus in the

various parts of the world.

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