



The Future of First-Floor Commercial Space in Downtown Bloomington

Indiana University
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Instructor

Mark M. Levin
Clinical Associate Professor

Our Team

Abdullah Al Jaberi
Saadah Al Mubti
Vivianna Brown
Ju Won Chung
Sarah Daligga
Jacob Davis
Luke Doler
Bethany Fischer
Arya Harison
Lawrence Horowitz
Kathryn Janoski
Lindsey Nelson
Nicholas Norman
Andrew Poulter
Allyson Ragan
Brett Roberts
Samuel Robertson
John Soener
Bryson Stevens
Connor Waddell

Client

Alex Crowley
Director, Department of Economic and Sustainable Development
City of Bloomington, Indiana

Table of Contents

Chapter 1 – Executive Summary 4
 Project Summary 5
Chapter 2 – Bloomington Stakeholders 7
Chapter 3 – Downtown Business Owners 16
Chapter 4 – Emerging Trends 28
Chapter 5 – Peer Cities 39
Chapter 6 – Geographic Information System (GIS) 61
Chapter 7 – Concluding Remarks & Recommendations 70
Appendix 75
References 82

Chapter 1—Executive Summary

The City of Bloomington, with a population of roughly 85,700, is the seventh-largest city in Indiana and the county seat for Monroe County. Bloomington is home to Indiana University, which has a student population of nearly 50,000 and is one of the main economic drivers for the City. Other significant contributors to Bloomington’s economy include Cook Medical, a large medical device manufacturer, Catalent, a global leader in drug delivery solutions, and IU Health Bloomington Hospital, in addition to Bloomington’s hospitality and tourism industry. Much of the hospitality and tourism industry is housed in the downtown region of Bloomington, which consists of many locally-owned restaurants, bars, retail stores, music and arts venues, offices, and apartment buildings. The downtown area also has several vacant spaces and buildings that need attention. The City encourages the development of more commercial space downtown while brick-and-mortar stores are giving way to online retailers.

The client for this Capstone project is the City of Bloomington’s Department of Economic and Sustainable Development (ESD). The department is headed by Alex Crowley, who has served as the point of contact for Capstone management. In the beginning stages of this project, the Capstone team sat down with city administrators, including Mr. Crowley and Eric Greulich, a Senior Zoning Planner for the City, to discuss expectations for the project. After additional input from the ESD, the project scope was accepted. The team further discussed the project with Talisha Coppock, the Executive Director of Downtown Bloomington Inc., and Erin Predmore, the President and CEO of The Greater Bloomington Chamber of Commerce. The organizations these individuals represent, and the City at large, can benefit from the material outlined in this report.

The Capstone team consists of twenty Master of Public Affairs and Master of Environmental Science students at the O’Neill School of Public and Environmental Affairs. Under the guidance of Mark Levin, a Clinical Associate Professor at O’Neill, the team applied knowledge and skills acquired in their graduate studies to fulfill client expectations. Specifically, the team defined creative, data-driven recommendations for strengthening downtown Bloomington.

Findings

Residents and local business owners identified Bloomington’s high walkability and large number of unique businesses and storefronts as a strong backbone of downtown Bloomington’s identity. Many local stakeholders encourage a more flexible set of uses for downtown commercial spaces, development methods that promote density while preserving unique businesses, and the provision of more widely available community-oriented information.

While vacancies in the study area rose significantly, many businesses reported very high, long-standing financial stability. Local business owners and employees identified parking and advertising (for the downtown area as a whole) as some of their key needs. The Capstone team

concludes that local businesses need to strengthen their e-commerce capabilities to remain competitive. After analyzing successful economic development efforts in comparable cities, the team also suggests that Bloomington should focus its development efforts on strengthening the commercial market, stimulating entrepreneurship, fostering integration between Indiana University and the community, attracting industries other than tourism, and encouraging arts and culture sector development.

Project Summary

This report provides recommendations on how to strengthen downtown Bloomington. The client expressed specific interest in understanding what emerging trends will impact retail and commercial activity over the next five years, what changes in policies and practices might be most effective, what tools can be made available for better documentation of vacancies and commercial activity downtown, and what alternative uses are appropriate for vacant first-floor commercial spaces.

Responsibilities were divided amongst five teams: (1) Bloomington Stakeholders, (2) Downtown Business Owners, (3) Emerging Trends, (4) Peer Cities, and (5) GIS.

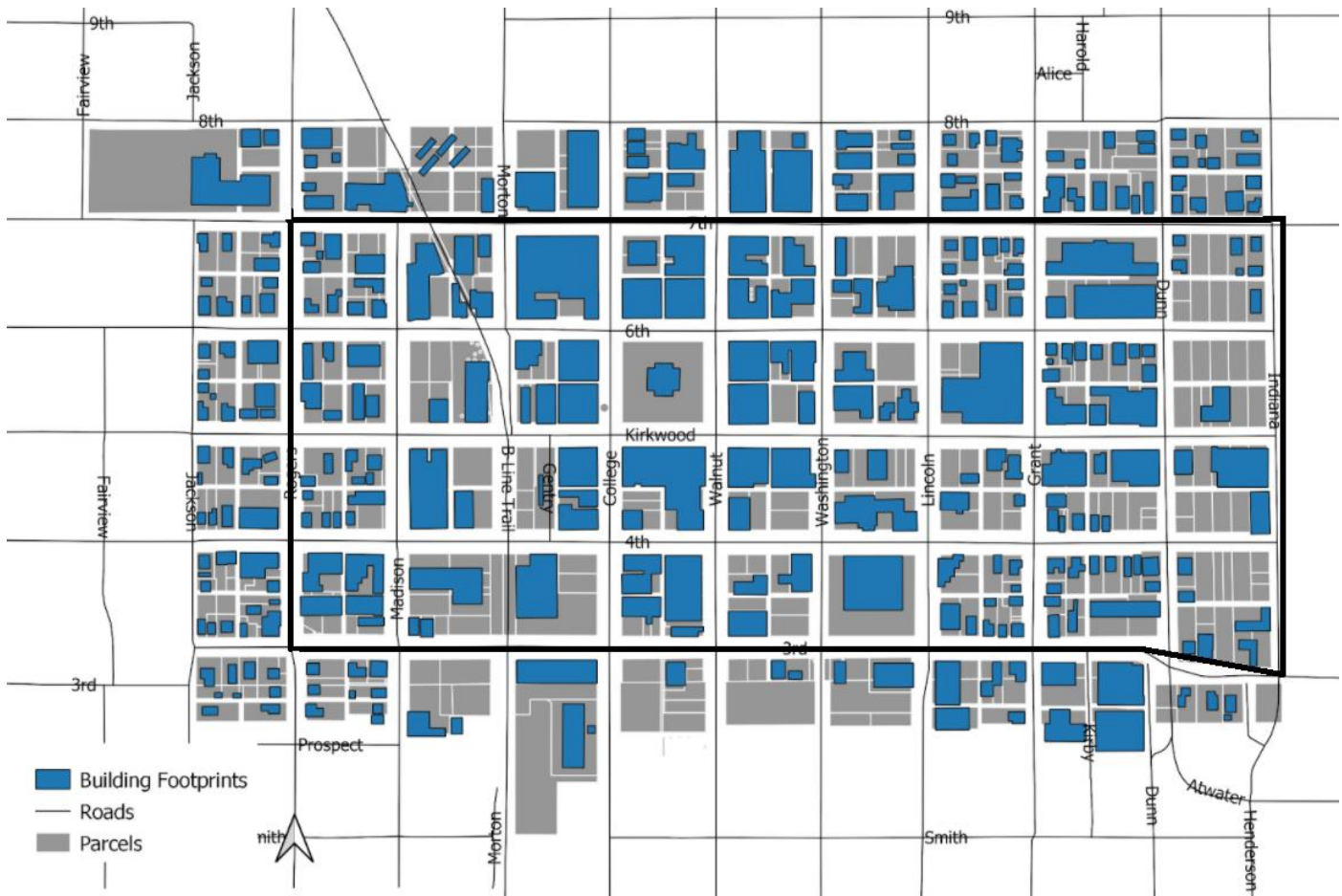
- (1) The Bloomington Stakeholders team engaged stakeholders within the community, ranging from institutional stakeholders, City representatives, local commercial groups, art organizations, local event organizers, and neighborhood associations, to better understand the characteristics that make the City of Bloomington unique and identify areas in which the City might improve.
- (2) The Downtown Business Owners team collected detailed information from downtown businesses to craft constructive recommendations on how to strengthen downtown Bloomington, including ways to temporarily use vacant commercial spaces.
- (3) The Emerging Trends team examined trends that will impact the retail market and first-floor retail space usage over the next three to five years. The team identified three emerging trends: (1) the increase of online retail, (2) the effect of the COVID-19 outbreak on consumption trends and consumer behavior, and (3) themes to improve economies and revitalize downtown areas.
- (4) The Peer Cities team selected eight peer cities and identified recommended practices and initiatives within these cities (centered around five content areas) that will likely impact first-floor commercial space, placemaking, and economic vitality in downtown Bloomington.

(5) The GIS team collected vacancy data, integrated survey responses into GIS, conducted geospatial analyses, and created an information system for future use by the City of Bloomington or future Capstone teams. The information system includes an online database for analysis and data management and an editable online map for future vacancy reporting.

Study Area

Each team worked under the same assumptions surrounding the scope of the downtown study area. The boundaries of the downtown Bloomington study area are Rogers Street to the West, Indiana Avenue to the East, 3rd Street to the South, and 7th Street to the North (see Figure 1.1). This zone shares a border with Indiana University, which begins on the East Side of Indiana Avenue.

Figure 1.1 – Downtown Bloomington Study Area



Chapter 2—Bloomington Stakeholders

This chapter represents a qualitative assessment of the Bloomington community's opinions on the general characteristics of, and specific policy issues relevant to, the downtown area. Through interviews with a diverse group of local stakeholders, we identify the defining characteristics of Bloomington and the downtown area as perceived by the community, the community's preferences for downtown, anticipated challenges arising from the ongoing COVID-19 pandemic and the near-term recovery from it, and opinions specifically concerning downtown walkability and vacancies in first-floor commercial spaces. From these interview results, we conclude that to the extent represented in our selected stakeholders, the Bloomington community:

- Is relatively unanimous in its characterization of the downtown area;
- Is satisfied with downtown walkability;
- Perceives post-COVID economic recovery as the primary challenge presently facing downtown, but is cautiously optimistic in this regard; and
- Desires to see a greater amount of downtown devoted to community spaces and alternate uses, particularly in support of the arts.

Methodology

The information presented in this section was collected from stakeholder interviews with the Bloomington government and community organizations. In total, our team conducted 11 interviews with a range of institutional stakeholders, representing the City of Bloomington, local commercial groups, arts organizations, prominent local events organizers, and neighborhood associations. (see Appendix A for the full list of interviewees.) This approach intends to complement the survey results reported in Chapter 3 in two ways: as a qualitative means to understand the Bloomington community's opinions and preferences for the downtown area, and to incorporate a broader range of community organizations in addition to downtown business owners. The following responses represent the opinions of both institutional stakeholders and individual community members. Thus, we believe our findings are fairly representative of the community's preferences.

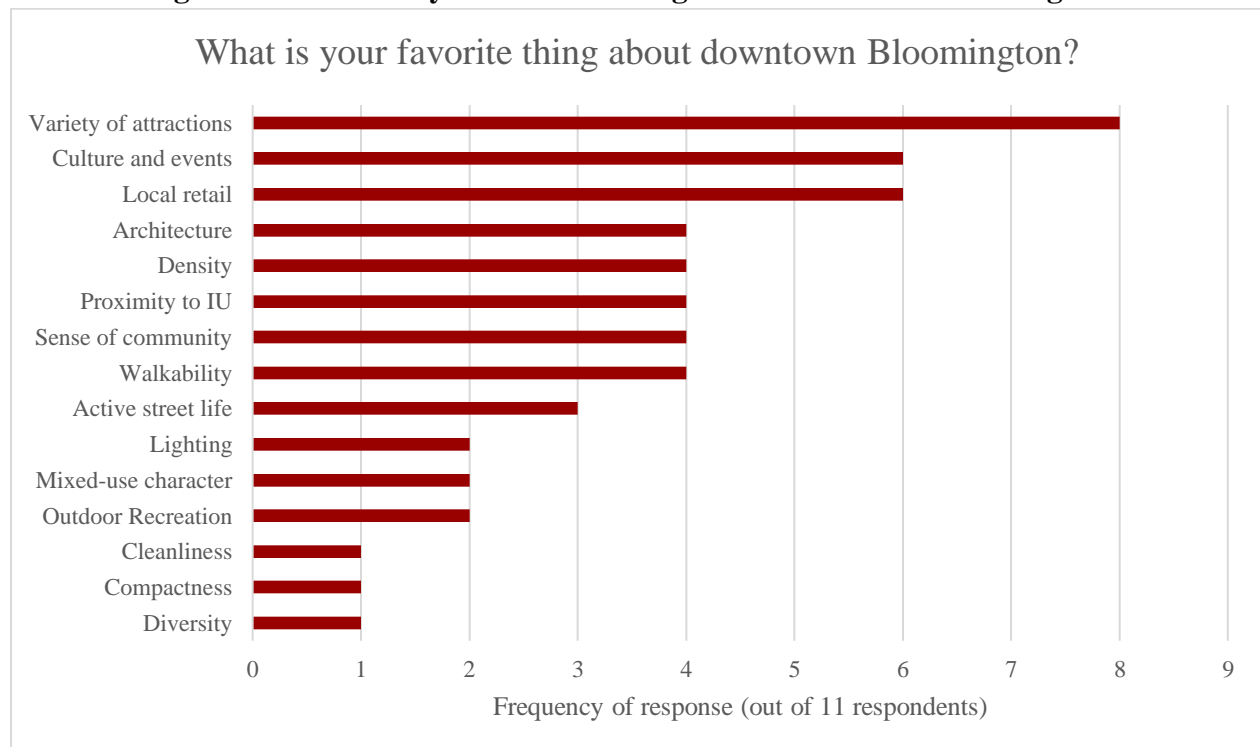
Our team asked respondents for their opinions on the general character of the downtown area as well as some specific policy issues identified in the Statement of Work. (See Appendix B for interview questions.) We kept our questions brief and general in nature to allow respondents to answer how they saw fit and highlight whatever aspects they deemed relevant regarding Bloomington's culture. The first part of the following section summarizes responses for each of our areas of inquiry, followed by an analysis of common themes among responses.

Findings and Analysis

What is your favorite thing about downtown? What makes Bloomington, Bloomington?

Respondents were substantively unanimous as to their favorite aspects of the Bloomington community. Regarding the downtown area, density, variety, vibrancy, and walkability were the most prevalent themes among responses. Several respondents representing the City and commercial groups reiterated the issue of density—for example, one respondent described downtown as “the only dense space in the community,” which another attributed to the mixed-use character of downtown zoning. Respondents expressed appreciation for the local character of downtown retail and specifically mentioned the B-Line Trail, the antique mall on West 7th Street, the Comedy Attic at 4th and Walnut, and the number of restaurants, coffee shops, and hotels downtown as community assets. Figure 2.1 lists responses by frequency.

Figure 2.1 – What is your favorite thing about downtown Bloomington?



Respondents identified a wide range of favorable aspects about downtown Bloomington, but the variety and local character of downtown retail, a dense, walkable cityscape, and an active community life were the most prevalent responses.

Regarding the Bloomington community, respondents primarily, but not unanimously, characterized Bloomington as a college town. While every respondent mentioned Indiana University, they emphasized both the positive and negative impacts of the college town dynamic

in Bloomington. On the positive side, respondents identified the University population as one of the key reasons Bloomington “punches above its weight” in terms of local culture and vibrancy. Respondents also identified the University’s close geographic proximity to downtown as an asset for downtown commerce and a unique feature among comparable college towns (See Chapter 5). However, several respondents described more problematic dynamics arising from the college town dynamic. Notably, several respondents identified community compartmentalization, particularly self-segregation among the student body, as a cause for concern. One respondent went so far as to describe Bloomington as “not one town, but a number of different communities.” We identify the existence of these different constituencies and their diverging preferences as one of the main takeaways of the survey. As City Councilmember Volan put it, “Bloomington is a college town, but it’s not *only* a college town.”

Do you consider downtown Bloomington “walkable?” What changes might improve this?

Respondents unanimously agreed that downtown Bloomington is “walkable,” and that walkability is a major appeal factor for the downtown area. (Refer to Figure 2.1) One respondent discussed two definitions of walkability, point-to-point walking (with a set start and endpoint) and “wanderability” (pedestrian exploration without a set itinerary), both of which downtown possesses due to its well-maintained sidewalks and number and variety of attractions. More than half of respondents mentioned the B-Line Trail as a major factor establishing downtown Bloomington as a walkable area. However, respondents also expressed concern that areas of Bloomington beyond the core downtown are markedly less walkable. Several respondents stated that the abrupt transition in walkability between the core downtown and adjacent neighborhoods reinforces a perception of the downtown as a discrete geographic entity; others discussed this issue as one of accessibility and equity for those living further from downtown - as one respondent put it, “once you’re downtown, it’s walkable.” While the community perceives downtown as highly walkable, smoothing this transition between downtown and the broader city will likely enhance this perception. The City should be mindful of the accessibility needs of those living beyond walking distance, i.e., public transit and downtown parking, which are discussed in the analysis section.

Respondents identified several factors which affect their perception of walkability: well-maintained walkways; the perception of physical safety; cleanliness; attractions accessible from thoroughfares; accessible facilities, particularly benches and restrooms; and shade along thoroughfares and rest areas. Notably, several respondents mentioned “observability” - the aesthetic appeal of the surrounding cityscape - as a major factor for walkability. One of these respondents mentioned the art installations along the B-Line Trail as an example of an effective and low-cost means to increase this appeal along major thoroughfares. Additionally, approximately half of respondents commented favorably on two COVID-era policies, increased outdoor dining and the Kirkwood Avenue traffic closure, as highly beneficial for street life and

walkability and expressed a desire to see these practices continue after the pandemic subsides. This reflects respondents' desire for a wider variety of downtown community space, discussed in the sections below.

What do you see as the greatest challenge facing downtown?

Respondents unanimously identified the economic recovery from the COVID-19 pandemic as the primary challenge facing Bloomington in the near term. One respondent described it as the “ultimate stress test” for businesses, given how profoundly the pandemic has upended business operations and will continue to do so for the foreseeable future. The Bloomington Economic Development Corporation (BEDC) identifies the economic disruption from the pandemic as a force that has exacerbated existing business challenges and disrupted the balance between business activity that brings revenue into the community and that which circulates money within the community. This disruption may ultimately provide opportunities for innovation and increase the community's economic resilience by diversifying employment opportunities and customer bases, but only when expectations converge between property owners and prospective entrepreneurs and tenants to allow innovative, community-oriented use of downtown commercial space.

Downtown Bloomington, Inc. articulated several critical concerns for businesses to resume normal operations safely: hiring/rehiring staff, lifting public health restrictions when the COVID-19 situation allows, re-acclimating customers to shopping and dining indoors, the impact of lost rental revenue on property maintenance, and an uncertain near-term environment for future business openings if the uncertainty surrounding vacancies, rent, and reluctance to sign long-term leases persists. Even in the face of such challenges, respondents representing the City and local commerce expressed optimism for the near-term economic recovery, particularly for the downtown area given its appeal. In fact, preliminary data provided by Downtown Bloomington, Inc. suggests Bloomington experienced lower-than-average rates of business openings and closures in 2020. As articulated by these respondents, the question isn't *whether* downtown will recover economically after the pandemic, but what shape this recovery will take, and to what extent a changed downtown reflects the community's preferences, detailed in the following section.

What is something you would like to see in downtown that the area currently lacks?

Respondents provided the most varied answers regarding what they would like to see downtown which it currently lacks. Specific suggestions ranged from dog parks to various new restaurants and shops, to even a downtown circulator, though this respondent acknowledged this as a stretch. We identify two prominent themes from among these diverse responses: a greater need for community space and more accessible, community-oriented information. As previously discussed, respondents consider public art and an active street life to be key factors for enhancing walkability

downtown, both aspects of which may be strengthened by incorporating more alternative community spaces into downtown.

More than half of respondents expressed a preference for incorporating both formal and informal community spaces downtown. Specific suggestions include the planned Monroe County Convention Center expansion, play spaces for children, more green space and outdoor seating, outdoor dining for restaurants, food halls or community markets, rooftop venues, arts venues, and a public art initiative. Several respondents suggested Courthouse Square in particular as an ideal site for such space. Respondents also frequently mentioned the Fountain Square Mall complex as a site, which sees relatively little foot traffic despite its prime location. One respondent suggested a food hall as a potential attraction for Fountain Square Mall, which might revitalize the building complex as a community space and as a place for doing business. Between these suggestions, we observe a consensus among respondents that there exists a significant untapped potential for fostering community engagement even in the most desirable area of downtown; integrating novel, community-oriented use into these areas may resultantly increase foot traffic downtown.

Building on the theme of increasing community engagement, three respondents representing the City and local commerce expressed a strong preference for greater public information infrastructure downtown. Two of these respondents discussed improved wayfinding in terms of visitor orientation, such as sample itineraries and accessible information on downtown attractions. One City official envisioned downtown information access more broadly, as a public resource to convey important community information -- in their words, “the important information for a human in the downtown space, whether they’re a visitor or a local.” By incorporating information on community events, municipal government affairs, and local attractions, this kind of information infrastructure, whether it be signage or a more high-tech solution, may serve as a powerful point of community activation and public-private partnership.

Do you think downtown Bloomington has too much, or too little, first-floor commercial space?

Respondents did not express a clear opinion concerning the overall quantity of commercial space downtown. Rather, responses identified two relevant concerns fairly unanimously: the lack of variety in available spaces and the need for greater flexibility as to how these spaces are used. Three respondents expressed concern with insufficient variety among the downtown building stock itself - that is, an insufficient range of commercial space by square footage, configuration, and building age. However, this subgroup expressed opposing preferences as to which end of this range requires greater attention - two requested smaller, “better, old buildings,” in line with preserving the historical feel of downtown, while the other desired more modern, larger spaces. While changing the nature of Bloomington’s building stock is beyond the near-term focus of this study, the constraints on how existing commercial space may be used is an important community concern that merits attention.

A majority of respondents expressed a desire to see more variety and flexibility in how downtown commercial spaces are used, reflecting the community's belief that variety brings vibrancy. Multiple respondents framed their responses in terms of maximizing these spaces' utility to the community - as one put it, "first-floor space serves to activate the community - have we maximized this space?" Respondents identified several challenges to implementing the desired amenities discussed in the previous section; chief among these is the cost of rent downtown, or more generally, mismatches expectations between downtown property owners and prospective tenants. Respondents expressed their belief that improving advertising and networking between property owners and the community is an important step for resolving downtown vacancies. Another prominent theme among responses was the need for municipal support for both property owners and occupants to fill vacant spaces, through business development support, funding, and support for artists. Overall, respondents believe that all parties involved -- property owners, occupants, and the City -- should improve communication and flexibility with regards to how space is used, and the City should support innovative uses for downtown space.

Analysis

The following section presents several common themes we observe across responses. These themes are presented as a series of tensions observed in diverging responses and preferences for the downtown area.

The college town dynamic presents opportunities and challenges for downtown. As discussed by our respondents, the college town identity, for better and worse, is one of the Bloomington community's defining dynamics. This affects not only the city's demographics and culture but also its urban landscape in specific and structural ways. On the positive side, respondents generally agree that the University's presence is a significant, but not the sole, factor explaining Bloomington's remarkable culture per capita. The University population is also undoubtedly an important economic constituency, supporting the eclectic range of restaurants and retail which the community loves. However, the significant student population also represents structural and cultural challenges towards a cohesive community.

For downtown, this is perhaps most evident in the characteristic of student housing preferences. Student rental housing tends to crowd out other desirable forms of housing, namely occupant-owner housing, in and around the downtown area. Property owners' desire to convert commercial real estate into rental housing is another potentially detrimental dynamic for downtown commerce that the City's zoning ordinance addresses through its first-floor commercial space requirement. Student transience is another significant concern -- students do not necessarily see themselves as part of the Bloomington community, as most plan to reside in the city only for the course of their university education. This presents a significant challenge in terms of community engagement. Finally, the function-based geography of the University campus presents a stark contrast to the

form-based, mixed-used approach taken by the rest of the City -- in the words of one City Councilmember, “universities don’t think in mixed-use.” This represents further challenges for fostering connections between the University and downtown.

Walkability, accessibility, and equity are all important concerns for downtown access. As previously discussed, respondents identified a distinct dichotomy regarding walkability in urban Bloomington: the core downtown is highly walkable, while the rest of Bloomington is less so, and connections between the core downtown and the broader city leave much to be desired. Downtown Bloomington has to be accessible to everyone in the community, including those who don’t live within walking distance of downtown; while public transit is a critical tool to address this accessibility gap, some large-scale parking capacity will remain an inevitable need for the foreseeable future. Even recognizing this reality, we acknowledge to some extent an inevitable tradeoff between walkability and active street life on the one hand, and auto accessibility on the other. As one respondent mentioned, high-traffic periods, or particularly obnoxious drivers, on Walnut Street and College Avenue can detract from downtown appeal; expanded outdoor dining and the Kirkwood Avenue closure, which have received very positive feedback from the community, removes a substantial number of on-street parking spots. The City should keep this dichotomy in mind to develop solutions that adequately balance the preference of the community to keep downtown walkable and lively with the need to maintain access for those not fortunate enough to live within walking distance of downtown.

Recommendations

1. Improving wayfinding and access to public information downtown.

The downtown information infrastructure is currently very limited in terms of geographic coverage and information provided. Visit Bloomington maintains a series of 10 signs on Kirkwood Avenue and around Courthouse Square for this purpose. These signs are uniform in their design and content: one side features a map with a legend of businesses downtown, which appears to be regularly updated (last updated February 2020); the other side features contact information for the downtown, Bloomington, and IU Visitor Centers, and some trivia-style information about the greater Bloomington area. At present this signage is entirely visitor-oriented, and beyond their limited navigational value, they provide little in the way of useful information for community events and goings-on in the downtown space. While something akin to a town notice board may seem quaint in the age of everything online, physical information infrastructure is an important resource for individuals with limited internet access and may serve as a low-cost means of fostering community engagement.

The City may consider a range of options to enhance this information infrastructure for visitor orientation and community information. At the low-cost end, Visit Bloomington’s existing signage

may be made more useful by eschewing the less-practical trivia-style information in favor of more practical information and access to online resources. This may be done by incorporating QR codes linking to a greater variety of downtown attractions. QR codes are easy to generate, accessible by smartphone, and provide a durable connection between the physical and online information space. In the interest of not overwhelming visitors and detracting from this signage's aesthetic value, each sign may have unique information concerning attractions in the immediate vicinity; increasing variety in this way will allow for advertising a greater number of downtown attractions and may serve as an asset for events such as sample itineraries for visitors and downtown scavenger hunts.

Digital kiosks have so far largely been implemented in major metropolitan areas, e.g. New York, Detroit, and Saint Louis, but may also be a workable and worthwhile solution for Bloomington, given its compact urban core and proximity to the University. This digital infrastructure can serve as a "one-stop-shop" for information and accessing government services: users may pay for parking, pay utility bills, find information about downtown attractions, register for events, access information on municipal government business, even make reservations at local restaurants and hotels, all from one location. The logistics of implementing and maintaining these systems may be mitigated through partnerships with the University - for example, partnering with the Luddy School of Informatics.

2. Engage the student community downtown.

Our respondents are aware that the IU student population is an important part of the Bloomington community. This brings many challenges, many of which stem from the fact that the student population perceives itself as separate from the broader community. Fostering a greater sense of student investment in, and ownership of, the downtown space may be a cost-effective way to address this challenge. To this end, we envision a greater degree of partnership between the City, downtown businesses and organizations, and the University to bring students downtown for community-oriented purposes other than supporting local businesses. Many IU students require volunteering hours for scholarships or extracurricular organizations; providing students an opportunity to serve these hours downtown can bring social dividends for downtown and promote a positive image of the student body. For example, an annual downtown cleanup event, where students participate in downtown beautification in exchange for say, a catered lunch from local restaurants.

3. Revitalize Courtyard Square by incorporating more community space.

The Courtyard Square is the heart of downtown Bloomington, home to a bustling street life with diners and shoppers at the surrounding businesses. The Courthouse provides significant value to the area in terms of architectural significance, but its grounds provide little in the way of community space despite its location. At present, there is a limited seating capacity of

approximately twelve benches, three at each corner of the Square. Simply expanding this seating capacity, for which there is plentiful room on the Courthouse grounds, may increase the Square's community value as a congregational space. Incorporating picnic tables into the Square would even further increase this congregational capacity and do more to make this valuable downtown green space a destination in its own right, rather than just a scenic thoroughfare or rest area. The City may even consider constructing a paved event space in some quadrant of the Square. This may be a space for civic engagement and activism, as well as for performing arts.

4. Consider institutionalizing alternative uses for on-street parking as increasing parking capacity elsewhere allows.

Respondents expressed a unanimously positive opinion on expanded outdoor dining as conducive to lively downtown street life, while also acknowledging the tradeoff of less on-street parking. Responses were similar with regards to the Kirkwood Avenue street closure. As previously discussed, downtown accessibility by car is an important equity concern to consider, but the City should work to balance this need against the community's clear preference for these beneficial alternative uses for on-street parking. The City should solicit feedback from affected business owners as to how to best make outdoor dining a permanent option for downtown Bloomington restaurants.

5. Make the post-COVID recovery a community affair.

Bloomington's post-COVID-19 recovery will be about more than the economic process of business activities returning to normal and property owners finding new commercial tenants. Even our small sample of the Bloomington community expressed a broad range of perspectives as to what shape this recovery should take. The City should remain cognizant of this diversity of opinions amongst the community going forward. These responses reflect anxiety as to how vacant space downtown will be used in the future if it will be used at all, and how this space may be used equitably and following the community's preferences. The City should address these concerns by proactively engaging community voices in this process to establish flexible, innovative, and community-oriented uses for the downtown space.

Chapter 3—Downtown Business Owners

This chapter examines the current state of downtown Bloomington businesses and how they are operating. To create recommendations to fit the downtown’s needs, our team set out to understand the current situation and gain insight into businesses’ vision for the future of downtown Bloomington.

This chapter explains the creation of a survey using Google Forms and email distribution to collect data from downtown shops, restaurants, and other commercial spaces. After a brief period, our team set out to interview businesses that had not responded to the survey. We took a few days and went door to door asking if businesses would like to fill out our survey to provide more tailored recommendations to the City. The survey asked about their current operations, issues they want to overcome, and visions for the future of downtown Bloomington. Any use of the term "City" throughout the report refers to the City of Bloomington, the Chamber of Commerce, Downtown Bloomington, Inc., or any other public or community organization involved in the downtown business environment.

We found that the key demographics for downtown Bloomington businesses are residents who visit during the afternoon. Likewise, weekends are busier than weekdays for the majority of respondents. Businesses cater to all age groups and income levels, however, there are not many businesses that attract customers younger than 18. We also discovered that most businesses are financially stable and will be sustainable for the months to come. Most respondents reported vacancies not having a significant effect on their businesses, but some respondents said it did have an impact, either positively or negatively. When asked about business needs, the top two answers were advertising and networking. Even though this was not an option on the form, many respondents wrote in the “Other” section that more parking is needed.

Based on the responses, our team recommends four solutions to enhance and support downtown Bloomington businesses:

- Networking and Advertising
- Encouraging Occupancy
- Walkable Parking
- Pop-Up Events

Methodology

The 2020 Capstone identified 74 brick-and-mortar commercial spaces in downtown Bloomington. The client indicated that information similar to that gathered last year would be the most useful. Therefore, our team met with a member of the 2020 Capstone to share files and discuss best practices for data collection. We then developed a ten-minute survey that would provide insight into the characteristics, challenges, and health of downtown businesses. We administered the

survey online via Google Forms and in person. Out of 119 businesses contacted, 50 completed the survey, resulting in a 42 percent response rate. Notably, businesses were more likely to respond after an in-person visit.

The survey included 25 questions (full survey included in Appendix C). We created questions using information from the 2020 survey and with help from other capstone teams. For example, the GIS team created an attribute wish list, which included information that could be used in the GIS map. Other teams helped modify the survey word choice to increase readability and reduce response bias. Teams also deliberated on the format of each response (short-answer, multiple-choice, etc.). The survey comprises three sections.

1. The first section required general information about the respondent and the business. Respondents could not continue without answering each question in the section; survey data would be difficult to evaluate without this information.
2. The second section asked about the current state of businesses. These questions help us understand how businesses operate and whom they primarily serve. Information about customers' age and income demographics is useful for making recommendations because it reveals if any demographic is underserved. Data on the busiest time of day and week help us recognize activity patterns within the city.
3. The third and final section helped us comprehend the current challenges facing downtown businesses. Different commercial spaces have varying needs, and each requires resources from the community and the City. Understanding the challenges facing downtown businesses allows us to make precise recommendations to stimulate the local business community.

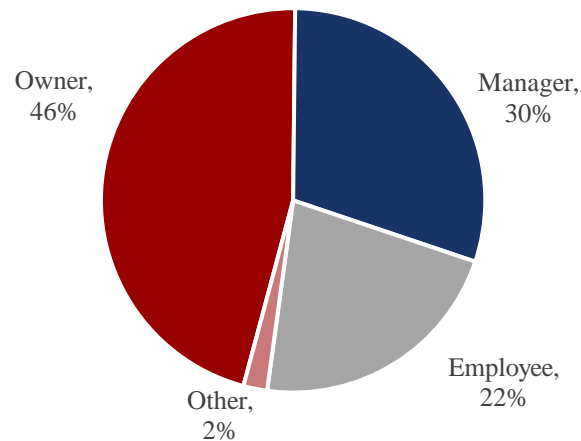
We kept our scope of work narrow so we could obtain detailed information about commercial spaces – the primary contributors to Bloomington's downtown space. There are, of course, many additional stakeholders with important community roles who are not included in this section's analysis. Other teams were responsible for engaging public officials, council members, and other community members to expand the breadth of the project. Our team's focus on downtown businesses yielded important information that provides a firm foundation for data-driven recommendations.

Findings

Who Completed the Survey?

We first asked respondents to select their role in the business. Of the 50 respondents, 46 percent were owners of the business, 30 percent were managers, 22 percent were employees, and 2 percent were something other than these three roles. Owners were more likely to respond to the emailed survey link, while employees were more likely to respond to in-person visits.

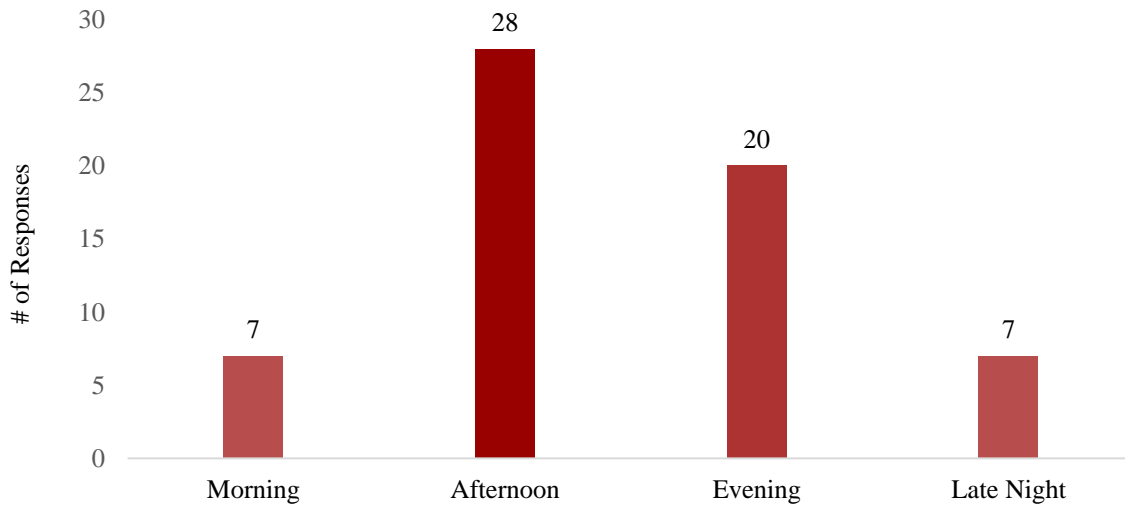
Figure 3.1 – Who Completed the Survey (n=50)



Busiest Time of Day and Week

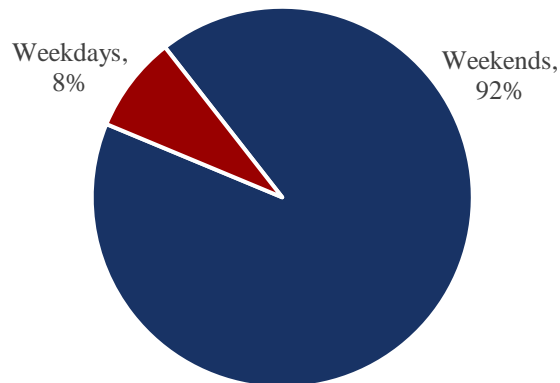
In the second section of the survey, businesses were asked about their busiest time of day. Respondents were able to select multiple timeframes. Out of the 62 responses, 28 selected 12:00 to 3:00 p.m. (afternoon) as their busiest time of day, while 20 selected 4:00 to 9:00 p.m. (evening) as their busiest time of day. Only 7 respondents each noted that morning and late-night were their busiest times. It should be noted that we surveyed businesses in person between 3:00 and 5:00 p.m.

Figure 3.2 – Busiest Time of Day (n=62)



Businesses were also asked about their busiest time of the week. Of the 49 respondents, 45 noted that weekends are their busiest time of the week, while 4 noted that weekdays are their busiest time. Approximately 92 percent of businesses are busiest on the weekend.

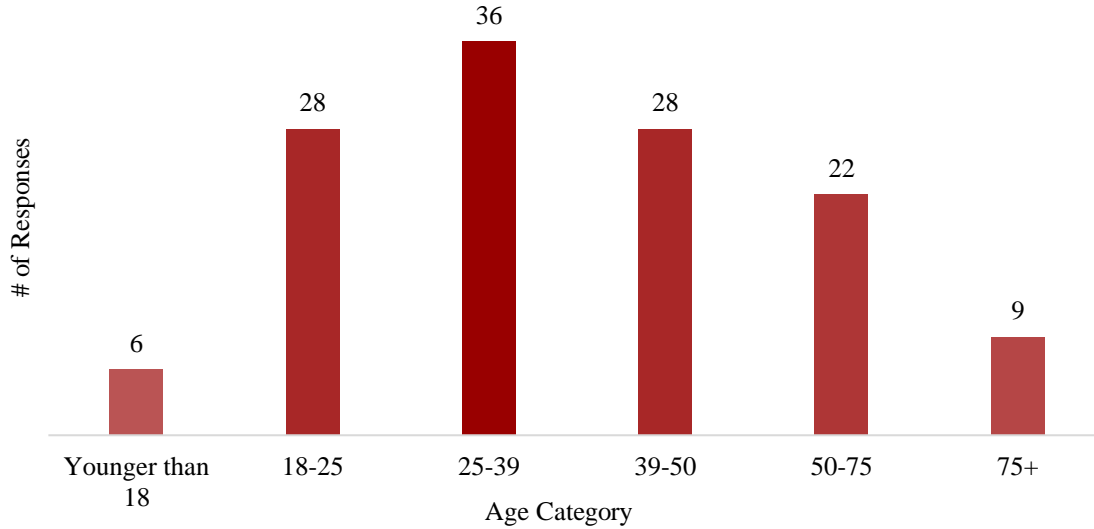
Figure 3.3 – Busiest Time of Week (n=49)



Age and Income Demographics

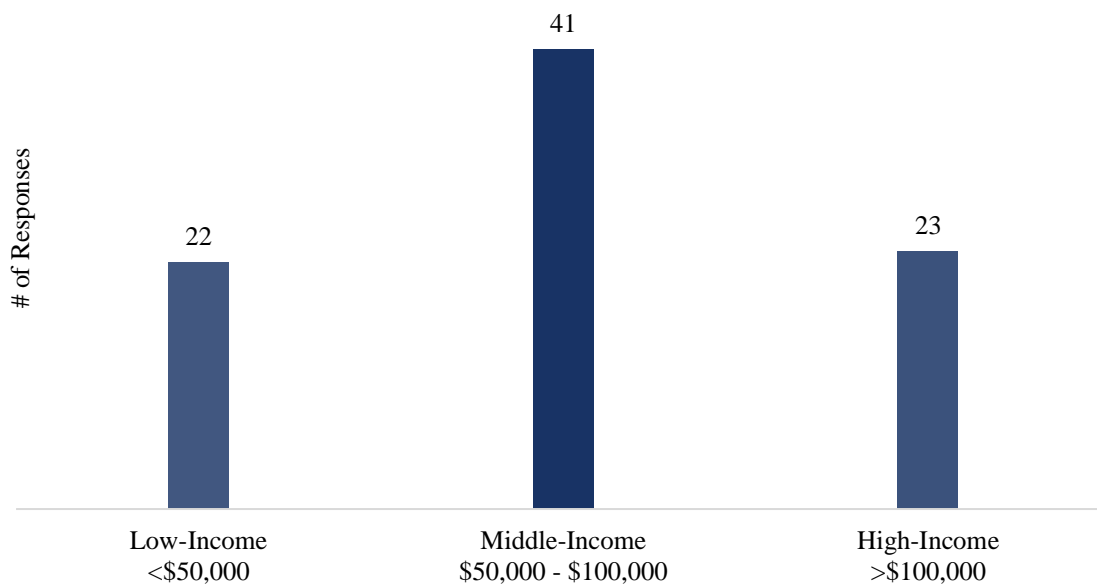
We then asked businesses about the demographics of their customers. We first asked about the ages primarily served. Respondents were able to select six different age ranges. Of the 129 responses, 36 said they serve 25- to 39-year-olds while 34 respondents reported primarily serving people younger than 25. This was surprising, as we hypothesized that college-aged students make up a large portion of the downtown customer base.

Figure 3.4 – Age Demographic Served (n=129)



We also asked businesses about the income demographics that they serve. Respondents could choose low-income (less than \$50,000), middle-income (\$50,000 to \$100,000), and high-income (over \$100,000). It should be noted that the numerical ranges are more important than the actual classifications, as everyone defines these income groups differently. Respondents were able to select multiple answers. Of the 86 responses, nearly half (41) noted that they primarily attract and serve middle-income individuals. The remaining responses were divided evenly amongst low-income (22) and high-income (23). This helps confirm that no income group is being significantly under-served.

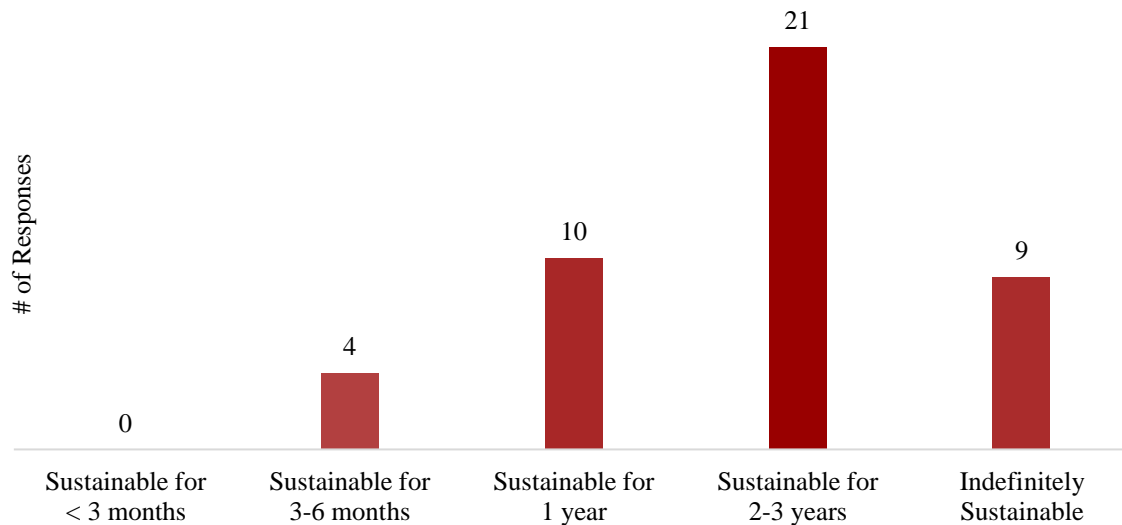
Figure 3.5 – Income Demographic Served (n=86)



Financial Health

In the final section of the survey, we asked businesses to rate their financial health. We presented this question on a scale of one to five: one indicated “sustainable for less than three months” and five indicated “indefinitely sustainable.” This question only received 39 responses because respondents either did not know or did not want to disclose this information. While a large percentage of respondents indicated that financial issues were not a problem, some did indicate that their business is struggling financially due to COVID-19 or external circumstances.

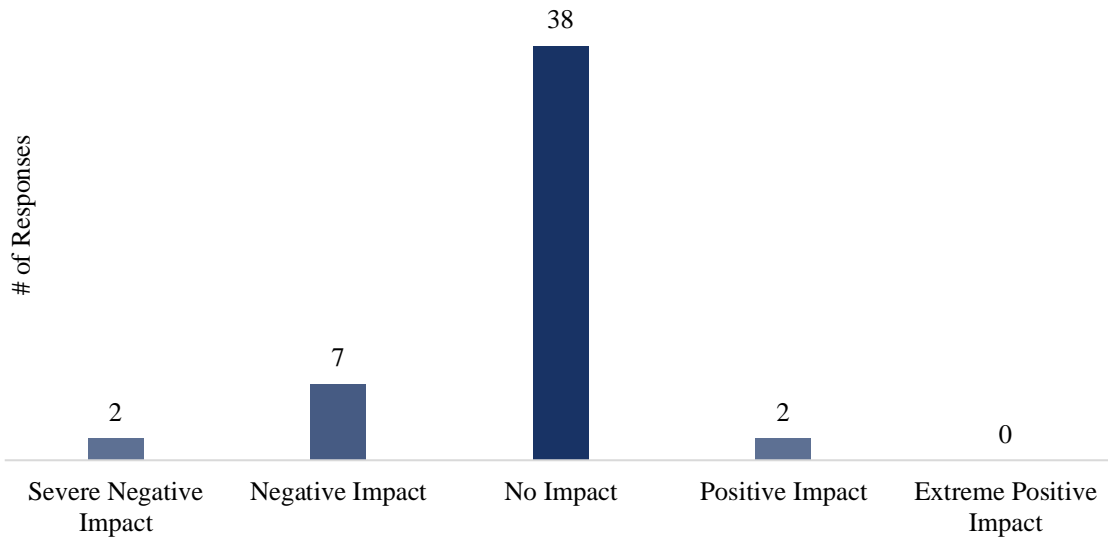
Figure 3.6 – Financial Health (n=44)



Vacancies

We asked participants about nearby vacancies and how their business has been affected by them. This question had two parts. The first asked participants to rate their experience with vacancies on a scale of one to five, with three indicating no effect. Interestingly, two respondents suggested that vacancies had a positive effect on their business. Vacancies might have removed competing businesses and created more foot traffic to the respondents’ stores. The majority of respondents, however, said that vacancies did not have any effect on their businesses. While there could be many reasons why vacancies do not affect existing businesses, finding that most businesses feel unaffected by those vacancies was unexpected.

Figure 3.7 – Impact of Vacancies (n=49)

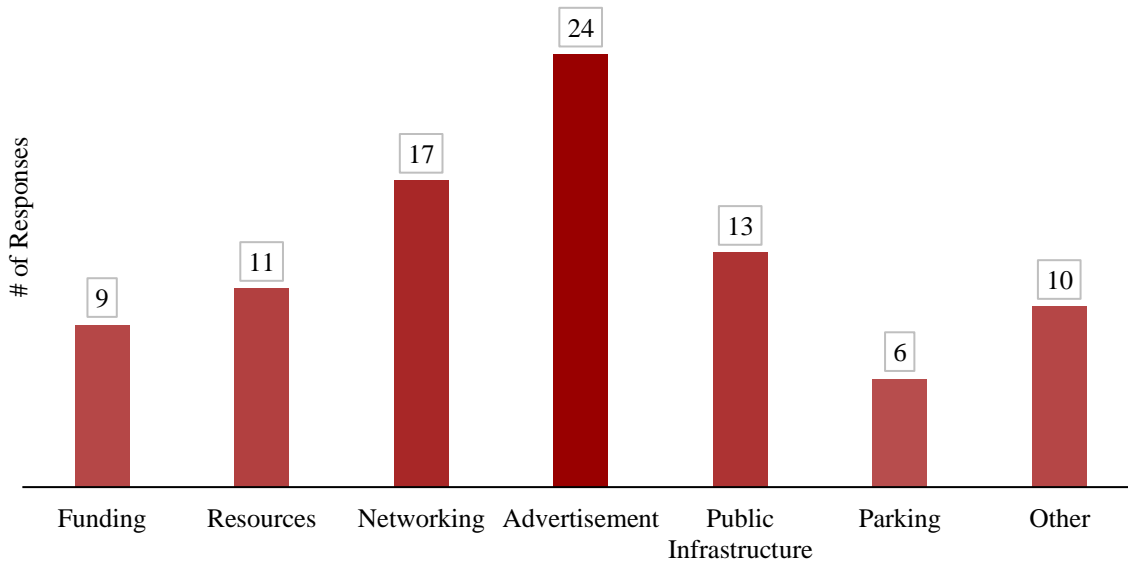


The second part asked respondents to elaborate on their answer to the previous question. Responses ranged from a few words to several paragraphs detailing issues that they have encountered. Some responses focused on the negative aesthetics of vacancies while others discussed vacancies’ negative impact on foot traffic. One respondent mentioned that some customers might not want to visit a business if they have to walk past several vacant properties. Instead, they might visit a more visually appealing location. An overwhelming majority of respondents simply stated that vacancies did not impact them.

Business Needs

In the final section of the survey, we allowed businesses to explain how the City of Bloomington could better support them. Respondents could choose funding, resources (employee training, access to data management software, etc.), networking, advertising, public infrastructure, and other. Those who answered “other” could manually enter their responses into a text box. Many respondents (24) selected advertising, making it the most widely-requested form of support. This suggests that businesses could benefit from increased public attention. Networking and public infrastructure were selected by 17 and 13 respondents, respectively. Additionally, some respondents selected resources (11), funding (9), and parking (6). For those who chose to enter a response manually, common themes included a desire for additional or free parking and the lifting of COVID-19 restrictions, which have limited foot traffic in the downtown area. In fact, so many respondents wrote in free or increased access to parking in the manual response section that we decided to create a new category in our graph below; the high number of requests for improved parking without any prompting on the survey's part indicates its importance.

Figure 3.8 – Business Needs (n=90)



Business Comments

Finally, all respondents were able to leave a comment at the end of the survey. This allowed businesses to provide additional information to our team, and consequently the City of Bloomington, that might not have been covered in the survey.

Many respondents called for more parking in the comments section. While the opening of the 4th Street garage should help increase parking availability in the near future, many have suggested that parking should be free. If the City cannot make parking free throughout the entire week, many believe it would be helpful to allow for free parking after 5:00 p.m. or on the weekends, as paid parking can discourage customers. In a similar vein, some businesses stated that the City should make a stronger effort to keep downtown walkways clean to encourage foot traffic.

Others commented on the City's plan for development and requirements for first-floor commercial spaces downtown. Some believe that the first-floor commercial requirement is problematic and has contributed to increased vacancies. One respondent suggested an occupancy requirement that would push owners to offer more affordable rental prices to fill the space.

Recommendations

Based on the survey findings, our team has crafted four recommendations for strengthening the downtown business environment. The recommendations that follow focus on networking and advertising resources for businesses, occupancy requirements, parking, and pop-up events in vacant spaces. These recommendations can be carried forward by the City of Bloomington, the

Bloomington Chamber of Commerce, and Downtown Bloomington, Inc., amongst other public officials and community organizations.

1. Networking and Advertising

Many businesses expressed a strong desire to become involved in networking activities. A healthy business environment is dependent on strong relationships between local stakeholders. Within the context of our report, we define networking as the formation of local relationships which help further the community's goals. By creating a platform for local business owners, managers, and employees to exchange ideas and resources, the City would help the downtown become a more cohesive community. Networking events provide the City and businesses the opportunity to both share advice and insights and target new markets and customers. In-person networking events, local business engagement committees, or even social media groups could help encourage collaboration. This is consistent with the 2020 Capstone recommendation that the City form business partnerships to help strengthen community. The City could play a role in promoting events that start networking conversations. The downtown business environment would benefit as a result.

In addition, many businesses have expressed a need for increased advertising. Within the context of this report, we define advertising as the promotion of the downtown area to a large public audience, locally or otherwise. By advertising downtown Bloomington as a destination for shopping, dining, and entertainment, the City can attract business from outside the community to support the local economy. Some businesses might face challenges in targeting their small niche market with individual advertising efforts, as many local shops provide specific services or goods that might not interest the general public. However, by maintaining a diverse business environment, and advertising it as such, the City can attract an equally diverse customer base that can support the variety of businesses that occupy the downtown area. For example, the City might advertise one small business per week through social media or a local newspaper. Perhaps one of the City's employees could be responsible for managing the marketing of downtown businesses, and for actively promoting the location. Bloomington attracts visitors from all around the world through Indiana University, so the City might also capitalize on the tourist market through public advertisements which promote the unique shops and restaurants downtown.

2. Encouraging Occupancy

While our data suggest that vacancies have not strongly affected the business environment as a whole, more serious effects may occur if a larger percentage of the downtown commercial space becomes vacant. If that tipping point is reached, the downtown area could lose much of its appeal to visiting customers and local businesses would suffer as a result. Thus, the City should continue

to address the growing vacancy issue proactively and explore ways in which entrepreneurs and owners can be incentivized to fill empty spaces with attractive business fronts.

There are many options to be explored. One respondent suggested an occupancy requirement, which would state that business owners cannot let their commercial space remain vacant for a specified time without paying a fine. Many respondents expressed frustration with an increase in leasing rates; while commercial owners might have the financial stability to hold onto a rental space until a business with a large budget enters the market, the surrounding local businesses cannot absorb the negative effects of nearby vacancies for long. Moreover, Bloomington takes pride in its local, unique business market. It is often the case that small businesses do not have the financial capital to afford high rental rates. An occupancy requirement might pressure owners to lease their space at a more affordable rate, which would decrease vacancies and encourage the inclusion of local, small businesses.

3. *Walkable Parking*

Many respondents believe that increased parking can help strengthen the downtown area. While the 4th Street garage should increase the amount of available parking, many have suggested that parking should be free. However, increased parking tends to be at odds with the City's vision of a more walkable downtown. While we take no position on this issue, one solution to this conflict is walkable parking. According to *Walkable Parking: Why Most Parking Should be Public*, planning for walkable parking involves creating more districts where people can park once and walk. Walkable parking focuses on creating parking pools, rather than worrying about whether businesses have enough on-site parking.

Having defined districts and at least some public parking in each district is essential for walkable parking. To increase the supply of public parking, the City of Bloomington might lease or purchase existing parking lots from willing sellers. This helps turn private parking lots (which may not be open to the public) into public lots that are open to everyone. The City might also work to reduce obstacles and costs that deter private actors from opening their private parking to the public.

A barrier to walkable parking is parking minimums. Conventional parking minimums are harmful because they promote excessive on-site parking. Thus, anyone arriving or departing by car does so from their destination's parking lot. This discourages walkability, as most never engage on foot with the public realm or with other businesses in the area. To promote walkable parking, the City should reduce or eliminate parking minimums. The City might also exempt small buildings from these requirements or allow payments in lieu of parking to enable developers to build less than the required parking if they wish.

Walkable parking can also be fostered with financial incentives or disincentives for private actors. An example might be a property tax rebate for every off-street parking space opened to the public. This would require occasional monitoring to ensure that parking remains open to the public. The opposite approach would be to penalize private parking with some type of levy. Such a levy would need to be high enough to incentivize parking owners to open their parking to the public but not so high that it becomes impossible for businesses to opt out. It should further be noted that efforts to improve the environment for walking (repaving sidewalks, adding plants and benches, etc.) are also an important part of walkable parking. Some survey respondents stated that the City should make a stronger effort to keep downtown walkways clean.

Altogether, the City can work to create public parking hubs around the downtown area as well as reduce on-site parking requirements for private businesses. This will not only increase public parking but will foster a walkable downtown where people can park once and walk. We further anticipate that increasing the availability of public parking will help reduce the overall cost of parking. The City might also consider maintaining a greater mix of parking options, some of which require hourly fees and others that are open to the public at all hours of the day.

4. Pop-Up Events

It is unrealistic to expect that all first-floor commercial spaces will be filled in the short term. There will be time between finding business owners, signing leases, etc. That leaves some time for spaces to be left empty. Instead of letting those vacant spaces remain unused, the City of Bloomington, the Chamber of Commerce, or Downtown Bloomington, Inc. could collaborate with building owners to incorporate pop-up events, such as art shows. All three of these actors could work together to oversee the events, provide advertising or promotional guidance, or collaborate with business owners and people renting the space. For example, the City and Downtown Bloomington, Inc. could help find potential clients for pop-up events, while the Chamber of Commerce could work with building owners on finding long-term tenants.

Bloomington already has an established art community, and many people look to display their art in public spaces. Building owners could rent out space to artists for an allotted time, i.e. one month, allowing for more connections to be built. By renting out this space temporarily, building owners can benefit from increased public exposure while artists benefit from having a popular space to showcase their work. The temporary nature of pop-up events creates a more cohesive downtown environment while property owners search for more permanent tenants.

Public interaction with these spaces creates a sense of community, as well. One survey respondent said they would like to see more entertainment catered to all ages. Additionally, the survey indicated that most businesses are busy on weekends. Because of their versatile nature, pop-up events could be open on both weekdays and weekends to all demographics. Additionally, pop-up

events can be more than just art shows. If owners have an idea for which they would like to use the space, they can do so easily. There are plenty of other options for temporary installments in these first-floor spaces. Opening up these spaces to the public would increase engagement, give building owners time to find permanent tenants, and strengthen the connections between all parties involved.

We would like to thank the downtown business community for taking the time to participate in our survey and helping us better understand downtown Bloomington.

Chapter 4—Emerging Trends

This chapter examines the emerging trends that will impact the retail market and first-floor uses over the next three to five years. Considering the recent downturn in the economy – nationwide – a broad study on the current trends in first-floor retail could present a macro-level understanding of how the brick-and-mortar environment is changing during the COVID-19 pandemic. This understanding can be used to inform projections about expected changes and future directions of first-floor retail in downtown Bloomington.

Our team examined academic articles, government and business reports, news articles, and company and government-issued data to track down the general emerging trends of brick-and-mortar retail in downtown areas around the nation. Additionally, we examined emerging state and regional trends, finding a few legislative priorities and programs that Bloomington can take advantage of.

We found three major emerging trends. First, online retail has continued its growth and is showing an increasingly negative impact on brick-and-mortar retail. E-commerce is growing because of the expansion of the internet and distribution channels, better accessibility, and the increased option of “Last-Mile Delivery.” However, an irreversible trend of expanding e-commerce does not mean that offline stores will be subverted entirely. Brick-and-mortar retail needs to find ways to incorporate e-commerce into their shopping experiences. Doing so will keep them competitive with online retailers. Second, the COVID-19 pandemic impacted consumption trends and customer behaviors, highlighting the impact that e-commerce has on brick-and-mortar and other offline shopping experiences. Third, there are increased efforts in many localities to improve the economy, quality of life, and attractiveness of downtown first-floor spaces using tactics and keywords such as “sustainability,” “placemaking,” “diversification,” and “community engagement.”

Based on the findings, possible solutions are:

1. Implement a collaborative and mutually beneficial system between offline stores and online retail services.
2. Explore ordinance modifications to reduce restrictions on first-floor spaces.
3. Implement placemaking events as well as projects to enhance aesthetic aspects that can attract both tourists and residents to the downtown area.
4. Incorporate continuing habits of virus prevention and high standards of personal and mass hygiene.

Introduction

This chapter presents macro-level findings of emerging trends in the economy and the nation regarding brick-and-mortar retail. These findings could offer insights on the opportunities and applicable recommendations that could impact downtown Bloomington's brick-and-mortar industry. This chapter uses macro-level insights to present opportunities and applicable recommendations that could impact downtown Bloomington brick-and-mortar retail in the context of emerging trends in the economic market and the nation as a whole. During the last decade, there have been massive shifts in the economic dynamics of downtown brick-and-mortar retail and first-floor commercial areas. Changes in government priorities and planning directions, expansion of online retail markets, and demands for diverse and interesting experiences are just a few examples. Furthermore, we are passing through drastic worldwide changes due to the outbreak of the COVID-19 virus. Therefore, it is critical to review and examine the most recent emerging trends and develop recommendations that are applicable to Bloomington so that it is prepared for the coming three to five years.

The following sections illustrate the methodology used for this chapter along with findings from the literature, articles, and reports with emphasis on state-level changes in brick-and-mortar retail, the downtown economy, e-commerce, placemaking and zoning, and the influence of the COVID-19 pandemic. After discussing the findings, we will explain potential recommendations applicable to the city of Bloomington.

Methodology

We reviewed and analyzed academic articles, government reports, business reports, news articles, and company and government-issued data including, but not limited to:

- Academic and business articles on downtown mixed-use development, Mainstreet placemaking and event ideas, development of e-commerce, COVID-19 related issues, emerging trends on brick-and-mortar retail;
- Zoning ordinances and approaches to mixed-use development;
- Governor's Agendas and press conferences;
- Program-specific action plans and Comprehensive or Master plan documents published by State, Local, County, and Federal governments and commissions;
- Social media pages and websites of municipalities, councils, and/or related agencies;
- Council meeting records and reports.

Emerging Trends and Opportunities at the State Level

In December 2020, Governor Holcomb laid out his 2021 legislative priorities (Gov. Holcomb Unveils 2021 Next Level Agenda, 2020). His priorities focused on five pillars: the economy, education and workforce development, public health, delivering great government service, and infrastructure. In his announcement, the governor stated that Indiana needs to leverage being the heart of the heartland through continued investments in manufacturing and staying on track to triple federal defense investment in Indiana by 2025. He also promised to restore funding to higher education institutions, maintain Indiana's status for the best infrastructure in the country and to finish Interstate 69, connecting Indianapolis to Evansville (Gov. Holcomb Unveils 2021 Next Level Agenda, 2020). The following paragraphs highlight a few of the concepts in Indiana's legislative priorities that will impact Bloomington, providing potential opportunities for growth and development.

Federal Contract Resources and Opportunities

Indiana's goal and efforts to triple federal defense investments by 2025 is an opportunity for Bloomington to diversify, generate employment and improve its general economic condition. This opportunity has the potential for minimal direct costs to the City, as the State offers a variety of resources towards capacity development in this area.

To help reach its defense investments goal, the State created The Indiana Office of Defense Development (IODD) last year as a new business unit of the Indiana Economic Development Corporation (IEDC). The office is designed to promote the State's defense assets, assist in business development, and attract and support defense-related industry partnerships and activities. The IODD coordinates all defense-focused resources and programs, including Indiana Procurement Technical Assistance Centers (PTAC). These centers, located throughout the State, assist businesses in acquiring contracts by providing procurement technical assistance, confidential counseling, and workshops at no cost. These resources are available for large firms as well as small businesses. The South Central PTAC Counselor is actually located here in Bloomington at The Dimension Mill.

Recently, major defense contractors like AM General, BAE Systems, Honeywell International, Raytheon, Rolls-Royce, and Saab increased their operations in Indiana. The IODD's efforts are targeted to build on that trend. It appears the State's efforts have been effective as last year Indiana companies were awarded \$365.6M in federal contracts, a 117 percent increase from 2019 (Indiana PTAC, 2021). State officials want to capitalize on Indiana's leading role in manufacturing and continue to advance cutting-edge technology in hopes to become a top competitor (Horton, 2020). Using this strategy in Bloomington would build on Indiana's strengths and secure quality livelihoods for employees of these firms. The State's dedicated resources towards obtaining federal

contracts along with Bloomington's already existing institutions opens possibilities that may not have been previously considered.

The Bloomington community has already contributed to Indiana's efforts in federal defense investments. Last year, Bloomington's own Indiana Innovation Institute (IN3) spearheaded the inaugural Midwest Defense Innovation Summit in October. IN3 works with academia, industry and government to create a hub of national security innovation that helps solve critical defense priorities (IN3, 2020). This past fall, IN3 "entered into separate master collaborative research development agreements (MCRADA) with Indiana University, Purdue University and the University of Notre Dame to pursue federal and non-federal funding for a variety of defense opportunities" (IN3, 2020). In response to the partnership, Jeff Zaleski, interim vice provost for research at IU Bloomington, said "Our campus's strengths in high-performance computing as well as modeling and simulation for hypersonics are a perfect addition to the collaboration and a critical match to the needs of the DoD" (Purdue University, 2020).

These are just two leading institutions in Bloomington that are successfully acquiring federal contracts and creating an ecosystem for defense innovation and entrepreneurship. Bloomington is one of the best situated cities for firms capable of fulfilling federal contracts as it has academic, industrial, and governmental support. Additionally, Bloomington is located near two of the State's major defense installations, Naval Support Activity (NSA) Crane and Camp Atterbury, where design work and testing frequently occur. Attracting and investing in federal contractors could help Bloomington improve its overall economy and fill downtown spaces with new companies and/or customers who fulfill federal contracts.

Higher Education Funding and Indiana University Return to Campus

As part of the governor's education and workforce development priority, he intends to restore higher education funding (Gov. Holcomb Unveils 2021 Next Level Agenda, 2020) which will help alleviate the financial strain on IU and positively impact the local economy as a result. In addition, IU has announced they intend to return to in-person classes this coming fall with an expectation for "a return to mostly normal" (Indiana University, 2021). This news, combined with COVID vaccines becoming available to anyone 16 and older, is reason to be optimistic regarding a return to normal. However, the impact of the last year of remote learning, especially on higher education institutions remains to be determined.

Gallagher and Palmer (2020) state that before the pandemic there were already challenges and calls for change to the traditional higher education business model. The COVID-19 pandemic has accelerated the paradigm shift, calling into question modes of delivery and the necessity of a traditional classroom. Garcia-Morales et al. (2021) state, "The disruptive impact of COVID-19

and the availability of digital technologies that can support online learning present an unprecedented opportunity for the transformation of higher education at a global level.”

This transformation and its impact on IU and Bloomington is still unknown, but the authors suggest a “sophisticated combination of face-to-face and online learning to harness the potential of the technological tools available” (Garcia-Morales et al.,2021). Many scholars believe that the four-year college model is not going anywhere any time soon as “students are still invested in the traditional college experience” (Cohen, 2020). So far, it appears these anticipated changes will have minimal implications for the City of Bloomington and its traditional economic foundations.

I-69 Finish Line Project

The governor’s infrastructure priority is to update highways and railways as well as expand broadband. The I-69 Finish Line project, that will connect Interstate 69 between Evansville and Indianapolis, will have a tremendous impact on the region. The full funding of the project in February by the governor’s Next Level Connections program has accelerated construction by three years, with the road expected to be open to traffic in late 2024. The project is expected to reduce travel times and generate \$4.1 billion in positive regional economic impact over 20 years (Indiana DOT, n.d.). The completion of this major corridor presents Bloomington with increased opportunity for economic competitiveness, continued growth, and job creation by connecting people and commerce.

Existing Programs

In addition to the governor’s 2021 Next Level Agenda and his legislative priorities, the Indiana Economic Development Corporation has several programs and initiatives stemming from previous years’ legislation. Bloomington has already capitalized on most of these programs, including the Certified Technology Park program and the Governor’s Century and Half Century Business Awards. Bloomington’s Technology Park, known as the Trades District, is located near downtown and presents an excellent opportunity and resources for entrepreneurs and startups. It could also serve as a hub for national security innovation.

E-Commerce and Brick-and-Mortar Retail

A wide variety of products are currently sold and purchased online, a business trend that has been facilitated by the emergence and advancement of telecommunication technology, including the internet, computer systems, and smartphones. Since the growth in online retail is prevalent, this section will review relevant literature about online retail’s impact on brick-and-mortar retail.

Rise of Online Retail

Global online retail revenues were \$4.3 trillion in 2020 and continue to grow. Specifically, in the U.S., they are predicted to reach \$6.4 trillion in 2023 (Statista Research Department, 2021). In addition, nearly 90 percent of the national population, or more than 270 million Americans, are expected to shop online by 2024 (Sabanoglu, 2020). Such trends of increased online retail are observable all around the world.

Effects of E-Commerce on Brick-and-Mortar Retail

Online retail reduces brick-and-mortar retail substantially, especially in developed economies like the U.S. (Zhang et al., 2016). For instance, Barnes & Noble and Best Buy closed 240 and 250 physical stores respectively in 2013 (Kircher, 2013). UBS, a global financial research firm in Switzerland, forecasts that around 80,000 retail stores in the United States would close their doors by 2026, with the emphasis on apparels and household discretionary items, such as consumer electronics and home furnishings (Wahba, 2021). Furthermore, due to the alarming number of retailers closing their stores, real estate players are running into losses and retrenching employees (Wulff, 2018). Consequently, the emergence of e-commerce both directly and indirectly depresses the real estate sector (Tran, 2021).

The growth of online retail will change the principles and practices of retailing significantly (Doherty and Ellis-Chadwick, 2010). Specifically, online retailing optimists predicted that e-commerce would reduce high street retail shops by about 20 percent, particularly due to the demise of middlemen (Doherty and Ellis-Chadwick, 2010). On the other hand, Doherty and Ellis-Chadwick (2010) expressed that online retailing would not impose as significant a threat to brick-and-mortar retail as was initially estimated or predicted.

For example, Jönsson et al. (2018) reveal that online trading giants like Amazon are increasingly investing in offline stores. Amazon acquired Whole Foods in 2017 to expand its offline presence or stores. Besides Amazon, other online retailers that are increasingly investing in offline stores include Blue Nile, Athleta, and ModCloth (Jönsson et al., 2018). Furthermore, several businesses are now blending online and offline retailing, with the primary objective of providing alternative options for distribution channels (Elis, 2018; Hayes, 2020). To be specific, online to offline commerce is an important strategy, with retailers using the internet to draw potential customers into physical stores. They hope this increases the competitiveness of their offline stores. Subsequently, online retailing and brick-and-mortar retail are strongly encouraged to create symbiotic relationships for sustainable development.

COVID-19 and E-Commerce

While COVID-19 is not the sole reason behind the massive development of e-commerce, the pandemic has significantly expedited the process (Tran, 2021). In 2020, the e-commerce market, such as Amazon, eBay, Walmart, Alibaba, showed a notable increase in sales: more than 40 percent (Elrhim & Elsayed, 2020; Kim, 2020; Bezuidenhout, 2020). Specifically, Amazon showed around 40 percent sales growth, and Walmart's e-commerce increased by 97 percent over the summer of 2020 (Bezuidenhout, 2020).

Recent studies illustrate other changes in e-commerce behavior due to the pandemic. There was a significant increase in shopping online during the pandemic and people plan to continue online shopping in the future (Top Agency, 2020). Customers purchased items that they would typically purchase from offline stores, such as clothing, household supplies, groceries, and more (Top Agency, 2020). Related to this development, grocery shopping is the most noticeable change. Even with the increase of the e-commerce market during the last decade, grocery shopping held essential parts of the offline shopping experience. During the pandemic, however, there was a significant rise in online grocery shopping, both in sales and number of customers. The number of online grocery customers more than doubled, nearly three-quarters of customers used online grocery ordering, and per-shopping spending increased (Conca, 2020; Mercatus, 2020). Overall, many studies show that customers, who got more used to online shopping during the past year, will continue using e-commerce, likely spending even more on online shopping regardless of the end of the pandemic (Conca, 2020; Mercatus, 2020; Charm et al., 2021).

Zoning, Economic Development, and Placemaking of Brick-and-Mortar Retail

In Bloomington, the demand for brick-and-mortar retail is expected to increase, according to a report that was released by Office Net (2021). Additionally, demand for new retail space is expected. As a result, the cost of renting commercial space in the city is expected to increase to at least \$23 per square foot. In addition, the demand for warehouse and distributive space in Bloomington is expected to increase since nearly 33 percent of industrial space in Bloomington is occupied by retailers that are directly or indirectly involved in online retailing (Office Net, 2021). Thus, regarding the case of Bloomington, even though e-commerce is increasing, brick-and-mortar retail is still relevant, needed, and resilient.

Trends in Downtown Zoning

This section will highlight trends in zoning and placemaking across the United States, cautionary tales and recommendations about mixed-use zoning, explore the impacts of first-floor residential zoning allowances in downtown areas, address the vital role placemaking plays in communities, and present creative approaches to placemaking.

Downtown Bloomington currently uses a mixed-use commercial retail and housing zoning format. This format is innovative and follows recommended best practices for zoning standards in downtown areas. However, over the past decade, there are several cases of downtowns failing due to mixed-use zoning mishaps. For example, mixed-use zoning is associated with rental premiums, causing cities to fall short on affordability and equity (Brasuell, 2018). In addition, the more spaces that are available, the more work is created for building owners and managers (Quednau, 2018).

One common stipulation of mixed-use development and zoning is the restriction of first-floor residential spaces to ensure commercial space availability. However, many cities across the country have updated their zoning regulations to specifically allow for first-floor residential space in mixed-use developments, citing a need for housing, lack of demand for commercial spaces, and affordability concerns as driving factors. This move away from strict first-floor retail, allowing flexible first-floor residential in downtown spaces, signals a shift in city planning towards form-based zoning (Leinberger, 2005). Form-based zoning involves extreme flexibility in the planning and utilization of buildings, supporting retail, residential, or commercial space on all floors of a downtown building.

Cities making adaptations to their first-floor retail requirements include Grand Rapids, MI, Janesville, WI, Abilene, TX, and Strasburg, PA. Some cities, such as Grand Rapids, voted to allow ground-floor residential properties in mixed-use business districts across the entire city, including downtown corridors (Kransz, 2021). Others, such as Janesville, WI, had narrower requirements, approving an ordinance that dictates first-floor apartments in the zoning district be allowed with approval from the planning commission if at least 25 percent of the first-floor space is reserved for commercial use (Johnson, 2019).

Trends in Placemaking

Placemaking is vital in downtown areas and utilizing downtown spaces for that purpose has a host of benefits, including recirculating residents' incomes locally and at higher rates; reusing vacant and underutilized land, buildings, and infrastructure; expanding entrepreneurial ranks of artists and designers; training the next generation of cultural workers; and attracting and retaining non-arts-related businesses and skills (Markusen & Gadwa, 2010).

Although the recent COVID-19 pandemic has placed strains on cities and their ability to plan placemaking opportunities, now more than ever placemaking should be prioritized in main streets and downtowns because it initiates a positive pattern of activity (Canadian Urban Institute, n.d.).

- Physical distances remain important, and downtown areas provide ideal outdoor spaces for people to move and shop during placemaking opportunities that strengthen local ties to the city.

- Providing welcoming and inclusive spaces for citizens leads to an economic benefit since it connects communities and attracts citizens to the downtown area.
- Placemaking can contribute to the longevity and sustainability of a downtown area, as both placemaking and sustainability planning focus on creating qualitative, socially viable, and environmentally friendly spaces.

There is evidence for this cycle. Connected communities are more likely to feel a sense of attachment and contribute to the growth of the local economy, helping fight the economic struggle felt by local businesses. Placemaking is likely to strengthen social connections and social trust, both of which are the strongest predictors of the happiness of individuals and communities.

COVID-19 and Change of Customer Behaviors and Consumption Trends

After the outbreak of COVID-19, there are noticeable changes in customer behaviors and consumption trends. Tied to that, COVID-19 impacted the job market both directly and indirectly; a significant number of people lost jobs, and the job market recessed during the past year (Conca, 2020). Subsequently, employees, who are also customers, showed a strong tendency to save money. Meanwhile, one of the distinguishable features of online shopping is that it is easier to try new brands or stores to purchase consumable items. Therefore, this easier access to new platforms and goods, along with the tendency to cut expenses resulted in customers trying new brands or stores (Charm et al., 2021).

Over the past year, there was a decrease in spending in almost every category, except for grocery and household supplies. Shopping for discretionary items, such as toys, pet supplies, books, and more, has significantly shifted to online shopping and is projected to continue even after the pandemic ends. While online grocery shopping showed a noticeable increase, a relatively lower ratio of people is expected to continue online grocery shopping after the pandemic ends compared to those who use online shopping for discretionary purchases (Charm et al., 2021). However, as stated earlier, COVID-19 has significantly expedited the emerging market of online grocery shopping. Thus, it is difficult to expect that the entirety of previous in-person grocery shoppers would come back from online shopping experiences even after the pandemic ends.

After the pandemic, most people are looking forward to socializing, spending time with friends and family in person, eating out at restaurants, and using “non-necessity” facilities, such as hair and nail salons, hotels, or gyms (Charm et al., 2021). Of note is that what people hope to do after the pandemic ends differs by income level. Those with higher income are most looking forward to relatively expensive leisure activities, such as traveling or going to fitness centers. Meanwhile, lower-income groups hope to eat out at restaurants and go shopping in person for non-necessities (Charm et al., 2021).

COVID-19 brought alarming concern to how communities handle public health issues, including hygiene, personal spaces, and personal safety. This will likely impact retail in the future. Even after the pandemic ends, customers may still worry about sanitation, hygiene, and safety issues. Subsequently, as people get more comfortable with online shopping and concerns about personal safety continue, customers may be less willing to visit offline stores in person. The need to buy items that used to only be found in stores will no longer be a strong enough draw for brick-and-mortar retail owners. To recapture the attention of potential customers, downtown retail should provide memorable and exciting shopping experiences.

Recommendations

1. Administrative and legislative support to reduce restrictions on first-floor spaces.

As Bloomington has recently changed its zoning ordinances on mixed-use zoning, it is not realistic to make immediate zoning changes, but adopting new regulations or approving exceptions on a case-by-case basis could allow more buffers for mixed-use zoning restrictions in downtown Bloomington and encourage further development of downtown. Such modifications or creations can help prevent empty first-floor spaces, provide affordable downtown housing or commercial spaces, reduce administrative burden, and allow smooth business operations. Changing or creating new regulations or rules that will foster administrative and legislative support for programs such as curbside pick-up, vehicle-free walking days, or expanded sidewalks and outdoor dining will also help contribute to smoother business operations that cater to new dining preferences due to COVID-19.

2. Investing in and encouraging brick-and-mortar retail to expand or incorporate online retail services.

As discussed earlier, the emergence of online retail is an irreversible trend. Therefore, downtown first-floor retail can consider adding online channels or collaborate with existing online retailing to provide a broader range of distribution channels. Expansion of channels can help attract a more comprehensive range of customers and work as a supportive means of sales when the offline store needs to close for any pandemic-like reasons. Furthermore, a significant number of consumers are now seeking convenience, especially after the experience with COVID-19. Increased accessibility due to collaboration with online retail could boost brand- or store-specific customer loyalty.

3. Implement projects and events for placemaking and enhancing the aesthetic aspects that can attract both tourists and residents to the downtown area.

Prioritizing efforts for placemaking could strengthen the community fabric and promote investment into the downtown area. Furthermore, downtown Bloomington is a great space to

encourage community engagement, increase community advertisement, and add value to the surrounding economies. Thus, it is critical to implement projects and policies to attract more people to visit the downtown area. Some examples of projects and events could be:

- Infusing an artistic atmosphere and presenting unique in-person experiences to attract customers to visit downtown more often. Pop-up stores on small alleys and empty retail spaces or collaborating with local artists and Indiana University students are some of the examples. (See Appendix D, 1. Community chalk festival)
- Enhancing downtown maps and signs to help both residents and tourists better comprehend the downtown areas. Within the process of enhancement, Bloomington can include local business owners and residents to present their insights and increase awareness of downtown's benefits and challenges. (See Appendix D, 2. Community mapping)
- Increasing sustainability and walkability within downtown Bloomington to encourage customers to stay longer. Developing pocket parks with outdoor seating and planting more trees can give customers and visitors the unique experience of experiencing nature while being downtown. In addition, holding exciting events in nature can also invite children and family visitors for a broader range of downtown in-person experiences. (See Appendix D, 3. Main Street Scavenger Hunt).

4. Encourage the continuance of virus prevention habits and high standards of personal and mass hygiene.

While the pandemic is approaching its end and most citizens are hoping to have in-person experiences again, there is a high probability that people's personal sanitation habits and concern for public hygiene, specifically virus-prevention, will continue. Furthermore, several medical experts project variants of the COVID-19 virus and the potential reemergence of a pandemic in the near future. Thus, offline stores should not entirely abandon the habits and routines they have done during the pandemic. Continuing disinfection processes and keeping public safety supplies in-store, such as hand sanitizers or disinfection sprays, could increase customer satisfaction and reduce the risk of virus infection, while enhancing public health around the community.

Chapter 5—Peer Cities

The Peer Cities team selected eight case study cities to explore, research, and discover best practices applicable to Bloomington. Our team chose cities with comparable characteristics to Bloomington, specifically looking for cities with major colleges and universities located in the Midwest and a similar student-to-resident ratio. This chapter briefly describes our research objectives and methodology, then discusses each city, focusing on the information we found most suitable and relevant to Bloomington.

The finalized list of cities:

- Ann Arbor, Michigan
- Boulder, Colorado
- Chattanooga, Tennessee
- Fort Collins, Colorado
- Iowa City, Iowa
- Lynchburg, Virginia
- State College, Pennsylvania
- West Lafayette, Indiana

The information sought for these cities included the following content areas:

- *Strengthening the commercial market:* local zoning practices, ways in which a city promotes commercial activity, how much/what kind of technical support the city government or local organizations provide businesses, how the community markets itself, if at all
- *Stimulating entrepreneurship:* how many startups exist within the city, what resources are available to entrepreneurs, and what efforts are made to attract and grow startups
- *Fostering higher education and community integration with the local university:* ways the local university and community work together to share space, projects, and responsibility for community economic and social well-being
- *Attracting industries other than tourism:* how the city builds upon existing or new industries not related to visitor entertainment or hospitality
- *Encouraging arts and culture sector development:* various local arts organizations, opportunities, and experiences available including cultural and art-related tourist activities

These content areas were selected as they are of interest to Bloomington and will have a significant impact on first floor commercial space and economic growth of cities. They also contribute to quality of life, which is important for attracting and retaining a young, educated, and talented workforce.

Methodology

The methodology and criteria for selecting comparable cities considered three factors:

- *Factor 1:* Identify college towns primarily in the Midwest as they will have inherent similarities and characteristics as Bloomington.
- *Factor 2:* A similar student-to-resident ratio.
 - Bloomington’s ratio was determined by dividing the number of students enrolled at Indiana University Bloomington for the 2019 academic year, 42,760 (Reschke, 2019), by the City of Bloomington’s total population in 2019, 85,755 (STATS Indiana, 2021), which is approximately 50 percent. The same method was followed for determining peer cities’ student-to-resident ratio.
- *Factor 3:* Selected cities were featured in the City of Bloomington’s *2019 Community Survey* (National Research Center Inc., 2019). This resource was suggested by the client to see what cities had been documented as comparable in the past.

The following paragraphs provide an overview of each selected peer city and also discuss our team’s findings, analysis of those findings and recommendations for Bloomington by city. The table below provides a quick side-by-side comparison of the cities for a few common metrics.

Figure 5.1 – Peer City Comparison

	Population (2019 est.)	Student Population (% of total pop.)	Business License Needed?
Bloomington, IN	86,630	50%	No
Ann Arbor, MI	119,980	40%	No
Boulder, CO	106,392	32%	Yes
Chattanooga, TN	179,690	7%	Yes
Fort Collins, CO	165,609	25%	Yes
Iowa City, IA	75,149	42%	No
Lynchburg, VA	80,569	28%	Yes
State College, PA	42,275	108%*	No
West Lafayette, IN	50,996	87%	No

Sources: see Appendix E

**This percentage was taken from the 2020 Penn State Main Campus enrollment data divided by the 2019 State College population data. This was the same method used for each city.*

***information only available for FY 2019*

Ann Arbor, Michigan

Major University: University of Michigan

The City of Ann Arbor, Michigan is an eclectic town in Southeast Michigan claiming a top spot for quality of life in the U.S. (University of Michigan Medical School, 2021). Ann Arbor and the University of Michigan (UMich) grew up together and this history is still evident in how the two operate today (University of Michigan, 2021a). UMich is most well-known for its top-ranking academic and medical programs, but it is also vital to its surrounding city and state. UMich serves as a steady source of employment with tens of thousands of Ann Arbor residents working for the university and more Michigan residents employed at satellite campuses around the state. The school has contributed more than \$10.4 billion to Michigan's economy in recent years and UMich's membership in the BigTen brings in both revenue and pride (University of Michigan, 2020).

According to Ann Arbor's Downtown Development Authority (2021), the downtown consists of 67 blocks. In the *Unified Zoning Code* (City of Ann Arbor, 2021), the main arteries of downtown are Liberty, Division, State Street, East Huron Street, and Main Street. Downtown Ann Arbor is laid out in four Downtown Districts: Kerrytown, Main Street, South University, and State Street. Each has its own distinct characteristics and vibe (Destination Ann Arbor, 2021a). State Street is the border between downtown and campus (Google, 2021a). However, as one UMich alum (2021) shared in a conversation, State Street does not feel like a dividing line; downtown and campus feel a lot alike as the two areas transition well.

Recommendations:

1. Incorporate more community-wide art spaces and activities to attract people to downtown Bloomington.
2. Further develop a relationship with Indiana University for greater collaboration on community space, events, and initiatives.

1. Community-wide Art Spaces and Activities

Ann Arbor has many art and cultural experiences. The Ann Arbor Art Center, the Ann Arbor Art Fair, and the University of Michigan are pillars of the arts community. The Ann Arbor Art Center began in the first decade of the twentieth century and remains a community staple located downtown (Ann Arbor Art Center, 2021a). Community engagement takes place through art classes, public art projects, and event spaces (Ann Arbor Art Center, 2021b; Ann Arbor Art Center, 2021c, Ann Arbor Art Center, 2021d; Ann Arbor Art Center, 2021e). Classes range in age, skill level, and activity (Ann Arbor Art Center, 2021c). Public art murals (13 so far) appear throughout the city due to a collaborative effort from the Ann Arbor Art Center, the Michigan Economic

Development Corporation, the artists hired to create them, and the businesses interested in having one (Ann Arbor Art Center, 2021d).

The Ann Arbor Art Center has three event spaces for a variety of purposes, which provides numerous opportunities for the community (Ann Arbor Art Center, 2021e). Even when the COVID-19 pandemic hit, the Center continued to provide services for and engage with the community. They started ArtBox, which allows people to purchase art projects, with all the necessary materials and instructions included, to do at home (Ann Arbor Art Center, 2021f). Overall, the Ann Arbor Art Center dedicates itself to being a leader in the local art scene.

The Ann Arbor Art Fair is a massive summer event that easily takes over large parts of downtown (Ann Arbor Art Fair, 2021a). It goes beyond a typical transaction-based market with musical performances, demonstrations done by artists, opportunities for visitors to attempt to create some art themselves, and other activities that engage all five senses. With the University of Michigan involved, visitors can expect to learn not only how much a piece of art costs, but also explore environmental impacts such as plastic in the oceans (Ann Arbor Art Fair, 2021b). The nationally recognized Ann Arbor Art Fair attracts more than one thousand artists annually and even more visitors (Destination Ann Arbor, 2021b).

UMich's Hill Auditorium, which hosts a variety of events year-round (University of Michigan School of Music, Theatre, and Dance, 2021), and the University of Michigan Museum of Art, located on State Street (Destination Ann Arbor, 2021c), are part of several UMich museums, galleries, and events welcoming the public mostly free of charge (University of Michigan, 2021b).

It may be in downtown Bloomington's best interest to expand the already active Bloomington arts scene to include more art-related opportunities in which community members can either view or actively participate to attract them to downtown. The Waldron Arts Center located on South Walnut Street could serve as a hub for this purpose.

2. Increased collaboration between Bloomington and Indiana University

The University of Michigan says the following about Ann Arbor:

“Given the size of the University of Michigan Ann Arbor campus...we would not be able to function efficiently, much less succeed as a world-class public institution without the support, collaboration, and planning of our partners in the greater Ann Arbor area” (University of Michigan, 2021c).

The University of Michigan provides Ann Arbor with creative and academic experiences (University of Michigan, 2021b), but that does not capture the scope of collaboration. UMich and Ann Arbor's cooperation consists of programs in the following categories: *Museums & Cultural*,

Lectures & Education, Community Health Programs, and Business, Career, and Workplace Assistance (University of Michigan, 2021d). The first category is largely what was identified before: community access to cultural spaces. The second category consists of public lectures like a weekly physics series as well as residents being welcomed at UMich libraries (University of Michigan, 2021d).

With the high-ranking University of Michigan hospital (University of Michigan, 2020) and the third category, *Community Health Programs*, the Ann Arbor region benefits from access to quality medical care. This includes programs like *MHealthy*, a community-wide health and fitness initiative, the UMich Cancer Center speaker series, and a free clinic (University of Michigan, 2021d).

The last category involves the University of Michigan providing both research and technical assistance to businesses. These include, but are not limited to tech transfer services, a Business Engagement Center focused on innovating businesses around the state, and team building (University of Michigan, 2021d).

Ann Arbor and the University of Michigan share responsibilities in providing community transit, addiction recovery services, policing, marketing for tourism, and festivals. *Beyond the Diag* is a series of events intentionally designed for students to spend time with their non-student neighbors (University of Michigan, 2021c) with the name in reference to the campus' oversized green space known for large gatherings and diagonal sidewalks (University of Michigan, 2021e). Ann Arbor returns the favor to UMich by providing award-winning quality of life with restaurant favorites and inclusivity (Destination Ann Arbor, 2021d). Although physically the city and campus are not significantly interwoven, there is spillover. The Student Union along with a few other university buildings are located on the edge of campus along State Street, the street that borders campus and downtown (Google Maps 2021b).

Though Bloomington and Indiana University work together, it could be mutually beneficial to have a more encompassing relationship. Bloomington's downtown and IU's campus, while adjacent to each other, do not feel like the same place. IU and the city should consider making a space for IU to occupy downtown and making IU libraries more inviting to the public. At the same time, IU could have more involvement with local community events not directly related to campus, allowing for students and non-students to interact.

Boulder, Colorado

Major University: University of Colorado at Boulder

Boulder, CO is ranked 28th in the Milken Institute's *Best-Performing Cities 2020* report (CY Lin, 2020). Boulder is known for its high concentration of startups, venture capital firms, and dedication

to zoning for green spaces. The City instituted a special sales tax in 1967 to purchase “green space” around the city to head off highways, stymie development, and preserve nature on the edges of town (Helm, 2013). This zoning decision has led to high real estate prices and the concentration of commercial activity within this zone, especially downtown.

The city fosters a small business/startup environment in the downtown area by statutorily discouraging large businesses from establishing themselves within the green zone. When companies grow too large, constraints often force them outside of the downtown area, past the green zone (Helm 2013). Boulder leadership has defined a modular zone system that defines use, form, and intensity. This is part of a zoning and development plan that is strict, making it difficult for businesses that require heavy equipment and a low-wage workforce to locate there (Helm, 2013).

Recommendations:

3. Build a municipally-owned fiber network in downtown Bloomington, financing its construction with Certificates of Participation (COP).
4. Create a rebate program to incentivize regional businesses to locate downtown.

3. Downtown Municipal Fiber Network

The City of Boulder provides an interesting case study for the implementation of city-wide fiber that provides a useful pattern for Bloomington to emulate in its efforts to install a community fiber network. According to Boulder’s Broadband Program Manager, construction on Boulder’s 65-mile fiber backbone began in the latter half of 2020 and is currently at 30 percent completion. Initially, the network will be a dark fiber backbone without enabled services. ‘Lit’ services will only be offered via the city’s IT department at select city sites. Basic maintenance of the network will be done by contracting a private entity. The City will also use the fiber for traffic signal connectivity.

Perhaps most significant is that the backbone will be wholly owned and funded by Boulder City via Certificates of Participation (COP). The issuance of the *Boulder Municipal Property Authority Taxable Certificates of Participation, Series 2019* generated \$20 million for the construction of the dark fiber backbone. The issue authorizes the conveyance of the leased property to the Boulder Municipal Property Authority (BMPA) and the subsequent leaseback to the City (City Council Minutes 2019, p. 3).

The Boulder network will be defined by its infrastructure having no link with any local power companies. A city-wide network similar to Boulder’s is likely not feasible for Bloomington but could be possible for the downtown area using the pre-existing Bloomington digital underground.

The City of Bloomington and its leadership are not new to the idea of developing a city-wide broadband network. In 2016, the City hosted a symposium on community broadband, and later that same year, signed a letter of intent with Axia for the construction of a Gigabit-speed network. This agreement fell through, but the City is still in discussions with potential providers.

According to Bloomington ITS, a portion of any future network would include leased aerial infrastructure from Duke Energy while the rest would be composed of underground connections constructed by a contracted party. The City has leased Duke power poles before, in the effort to get fiber into the Buskirk Chumley Theater. This precedent indicates that such a lease agreement could be made for a city-wide broadband network.

The Bloomington digital underground could be used as a backbone upon which a fiber network is developed to service downtown, while also serving as a proof-of-concept for expansion to the rest of the City. Fiber infrastructure is complicated by the concentration of underground infrastructure in the downtown area, but this complication may be worth the difficulty and cost if gigabit-speed internet becomes available to downtown businesses and residents. Cheap, gigabit-speed internet is a way to distinguish downtown Bloomington and could be a significant contributor to the City's efforts to stimulate entrepreneurship, commercial activity, and the general vitality of the space.

4. Flexible Rebate Program

The Flexible Rebate program is “designed to encourage the growth and retention of Boulder businesses by investing in businesses that are investing in Boulder” (bouldercolorado.gov, 2021). This program suggests Boulder could be trying to undo the effects of their strict development policies (e.g., green zoning, company size restrictions) that caused growing businesses to move their operations outside city limits.

The program is available to businesses of any size that receive 50 percent or more of their revenue outside Boulder County and meet sustainability requirements (bouldercolorado.gov, 2021). Companies must “demonstrate commitment to...sustainability” to apply for the rebate (bouldercolorado.gov, 2021). Leveraging this program allows eligible companies that wish to expand within Boulder to receive rebates of certain taxes and fees (bouldercolorado.gov, 2021). These rebates include sales and use taxes applied to building permits and purchases of fixed assets during their first three years in Boulder (bouldercolorado.gov, 2021).

The Boulder rebate program is designed to attract businesses in the region to relocate to the City of Boulder. Bloomington could leverage a similar program to attract and retain companies that represent Bloomington's values in the downtown area.

Chattanooga, Tennessee

Major University: University of Tennessee at Chattanooga

Chattanooga, TN is ranked 85th in the Milken Institute’s *Best-Performing Cities 2020* report (CY Lin, 2020). Chattanooga is best known as “Gig City” because of its city-wide 10-gigabit fiber network and a downtown area dedicated to entrepreneurship and placemaking for the entire community. Chattanooga was not always known for its technology sector. Chattanooga is historically known for manufacturing and being the site of the first Coca-Cola bottling plant established in 1899 (History-Coca-Cola United, 2021).

Because of its successful manufacturing past and its Coca-Cola legacy, Chattanooga is home to many family foundations, two of which are the Lyndhurst Foundation and the Benwood Foundation (Morisson 2019, p. 478). These foundations' financial support helped transform Chattanooga’s economic base from one reliant on manufacturing to one rooted in technology.

Most of the development in downtown Chattanooga is influenced by their form-based zoning code implemented in 2016. This development is made possible in large part through public-private partnerships, a method that has come to be known as the “Chattanooga Way” in regional development circles (Morisson, 2019, p. 484).

Recommendations:

5. Expand Bloomington’s innovation district and make it a more digitally inclusive space.
6. Renovate downtown alleyways, converting them into art installations for community placemaking.
7. Build a fiber network that mutually reinforces the innovation district in Bloomington.

5. Digitally Inclusive Innovation District

Bloomington has leveraged its resources in pursuit of digital equity through its initiatives at the Mill. While these efforts have been successful, there is always more work to be done. The following information about Chattanooga’s digital inclusivity efforts may be helpful in brainstorming future efforts in Bloomington.

Chattanooga’s 140-acre Innovation District was created in 2015 to leverage economic opportunities in downtown Chattanooga stemming from the installation of the Chattanooga fiber-optic network. This fiber-optic network was a significant technological advancement as it offers speed, reliability, and bandwidth that copper wires do not. At the time of its completion in 2010, it was the fastest such network in the United States (Morisson 2019, p. 472). The Innovation District and fiber-optic network installation were part of Mayor Burke’s Chattanooga Forward program. The program was launched in 2013 to leverage the city’s “long history [of] forging public and private partnerships and engaging citizens to help [them] reach [their] common goals”

(Morrison 2019, p. 482). Chattanooga's innovation district is unique from similar districts in two respects; it has a robust focus on digital equity, and it is supported by an extensive municipally owned fiber-optic network.

Knowledge economies based on digital infrastructure and initiatives can have negative externalities. To mitigate these negative externalities, Chattanooga city leaders utilized grant opportunities and worked with the Electric Power Board (EPB), local foundations, and corporate sponsors. Additionally, they emphasize three strategies to mitigate negative externalities: (1) Promoting digital equity and fostering entrepreneurial opportunities for underrepresented groups, (2) Programming the downtown area as a place for everyone, and (3) building affordable housing (Morrison, 2019, 483). The City and its community partners offer numerous programs related to these efforts.

Along with other programs to promote digital equity, the Enterprise Center runs the Tech Goes Home program as part of its goal to “establish[] Chattanooga as a hub of innovation and improv[e] people's lives by leveraging the city's digital technology” (The Enterprise Sector, 2021). Tech Goes Home partners with community organizations to prepare residents with the skills and habits required for smart technology use (Tech Goes Home Chattanooga, 2021). Participants also have the option to purchase a Chromebook for \$50 and receive assistance in getting access to low-cost internet in their homes.

Chattanooga's Urban League focuses on the empowerment of the African American community, running the STEM academy, an afterschool program serving minorities and the low-income population (Morisson 2019, p. 483). Launch Chattanooga, the Urban League, the Jump Fund, and the Company Lab (CO.LAB) are programmed to provide entrepreneurial help and seed capital to underrepresented groups (Morisson 2019, p. 483).

The Edney Innovation Center, Miller Plaza, and downtown alleyways are a distinctive part of the effort to make the innovation district a place for everyone. The Edney Center hosts public events, many of which are associated with digital and entrepreneurial equity such as graduation ceremonies for Launch Chattanooga and Tech Goes Home (Morisson 2019, p. 484). And Miller Plaza hosts concerts and Startup Week Chattanooga that are open to the public.

The affordable housing effort in downtown Chattanooga sets a socioeconomic threshold to include renters earning less than 80 percent of the area's median income (Morisson 2019, p. 485). A 2016 payment-in-lieu-of-taxes (PILOT) program encourages the renting of 50 percent of units at below-market rates to renters below the established socioeconomic threshold. The 2016 program offers 14 years of tax freezes for rehabilitating existing properties (Morisson 2019, p. 486). PILOT programs are typically used to attract large companies to an area, but Chattanooga has used them to successfully build low-income housing.

6. *Downtown Community Placemaking*

The River City Company, a private non-profit, promotes the Passageways Program, which is designed to transform alleyways into art installations (Morisson 2019, p. 484). Cooper’s Alley is a 6,200 square-foot walk-through that is home to a permanent art installation — *City Thread* by SPORTS Collaborative. This alleyway renovation was designed to create a vibrant pedestrian corridor that has been adapted to host events for the public (Franklin, 2019). The Lyndhurst Foundation awards Alley Animation grants, which are used to fund community-building events and programs in Cooper’s Alley (Alley Animation Art 2021). If used as art installations and community-gathering places, downtown Bloomington alleyways could connect different sections of downtown, improving walkability, and increasing interaction with downtown spaces.

7. *Fiber Network Reinforcing Innovation District*

The City of Chattanooga owns the Electric Power Board of Chattanooga (EPB), constituting a competitive advantage in constructing a fiber internet network that is unavailable to the City of Bloomington. EPB began to modernize the city’s electrical grid to limit outages, and fiber optics were determined to be the best option. With fiber installed, the city realized that the marginal cost of running an internet service would be trivial (Koebler, 2016). In 2010, the fiber network went online, offering 1 gigabit-per-second speed (Gbps). It now offers a maximum of 10 Gbps (Koebler, 2016). An independent study found that Chattanooga’s network created between 2,800 and 5,200 jobs and that the economy saw benefits of about \$1 billion from 2011 to 2015 (Koebler, 2016).

Chattanooga was legally restrained from using taxpayer dollars to fund construction. EPB took out a \$169 million loan and the city earned a \$111 million federal grant (Koebler, 2016). While Bloomington does not have the advantage of a pre-existing municipal power company, according to *muninetworks.org*, Indiana may currently have a friendlier legal landscape without prohibitive legal barriers to the adoption of municipal broadband services.

Fort Collins, Colorado

Major University: Colorado State University (CSU)

Fort Collins is a mid-sized city in northern Colorado situated along the Poudre River. The city is working hard to create a more sustainable community with diverse objectives such as mixed-use housing districts, emission reduction targets, and a diverse economy. It is home to two higher education institutions, the largest one being CSU. The city has a strong relationship with CSU, partnering with them to offer entrepreneurial classes and identify potential business opportunities, which is part of why the city has such a strong technology sector (Downtown Fort Collins, 2021).

The City is striving to make its downtown district more enticing by offering grants to incentivize renovations (Downtown Development Authority, 2021). Additionally, it attracts citizens downtown through a vibrant, interactive arts and culture environment that directly involves community members and artists (City of Fort Collins, 2020). Regarding first-floor zoning downtown, Fort Collins has three types of street frontage: storefront, mixed-use, and green edge (Fort Collins City Clerk, 2021). Areas of downtown with the storefront street frontage designation (about 30 percent of the downtown area) can only use 25 percent of the ground floor street-facing frontage for residential living space. The other 70 percent of the downtown district has green edge and mixed-used street frontage, which have no restriction on ground floor use.

Recommendations:

8. Improve parking options for shoppers and downtown employees.
9. Sponsor pop-up art exhibits and a Pianos About Town program.
10. Work with Indiana University to identify research topics that could be leveraged into new business ventures.
11. Initiate a Main Street Loan Program.

8. Expand Parking Options

Between surface parking lots, street parking, and parking garages, Bloomington has a significant amount of parking, however, local business owners have expressed concern that the parking is not always convenient for downtown shoppers and that there are virtually no good options for employees who need to park downtown (SPEA V600 Capstone, 2020). Often, many of them end up paying a good portion of their wages toward parking (2020). Different incentive programs against driving downtown have been implemented in Fort Collins and could be done in Bloomington as well (City of Fort Collins, 2019a).

These programs free up convenient parking for shoppers and provide employees with alternatives to paying for downtown parking for every shift (City of Fort Collins, 2019a). For employees that have business-subsidized parking, they could be given the option to cash out that parking for cash or for a comparable public transit benefit, freeing up spaces that Bloomington could then use for customers. Additionally, a variable pricing program for parking could be implemented that rises and falls during the day or during seasons when demand for parking is higher or lower (City of Fort Collins, 2019a). This could incentivize shoppers to conduct their business throughout the day, rather than concentrating all shopping during the busy evening hours.

9. More Interactive Art Exhibits

Bloomington already has a very strong arts and culture presence with the yearly Lotus Festival, Bloomington Entertainment and Arts District, and the Bloomington Arts Commission (City of

Bloomington, 2021a). However, sponsoring programs that encourage more community engagement would bring the arts and culture to another level. Programs that Bloomington could replicate from Fort Collins include pop-up art exhibits and the Pianos About Town program. The pop-up exhibits could happen periodically (every couple months) in a vacant downtown first-floor space; this would attract community members to the downtown area, increasing their exposure to other shops besides the pop-up exhibit (City of Fort Collins, 2021). Pop-up events could include local bands playing in a park or sidewalk chalk competitions that occur along convenient walkways like the B-line (City of Fort Collins, 2021a).

The Pianos About Town program enlists local artists to paint 5-6 pianos that are put on display around Fort Collins for individuals to both see and play (City of Fort Collins, 2020). It provides citizens with a fun interactive activity as they can play the pianos they come across. Bloomington could also open the piano painting sessions to the public allowing them to observe and interact with local artists.

10. Identify Business Venture That Could Come from IU Research Efforts

One tactic to improve the downtown area that has been effective in Fort Collins is deliberate programs and efforts to retain graduates. CSU and Fort Collins work together to identify research activities that are being conducted at CSU that could be leveraged into local businesses (City of Fort Collins, 2019a). Bloomington could do the same with the Luddy School of Informatics and the Kelley School of Business, providing student research assistants with opportunities to live out their research activities by starting their own business.

11. Main Street Loan Program

The Main Street Loan Program in Fort Collins is available to businesses that are less than two years old and are not eligible for loans through traditional means. It provides loans ranging from \$5,000 to \$50,00 (City of Fort Collins, 2019b). These loans provide an excellent resource for entrepreneurs who have limited resources and multiple entry barriers to overcome. If Bloomington wants to use this to attract other sectors or entrepreneurs, it could be restricted to technology companies or entrepreneurs who are not the typical arts and craft or boutique shop.

Iowa City, Iowa

Major University: University of Iowa

Iowa City, Iowa is best known as the home of the University of Iowa and its designation as a UNESCO City of Literature (City of Iowa City, 2021). Nearly equivalent in size to Bloomington, Iowa City sits amid the rural eastern heartland of the state of Iowa and attracts thousands of people to its downtown due to BigTen sporting events, alumni outings, and general college town activities.

Instead of shying away from this identity as the home of its state’s flagship university, Iowa City proudly embraces its part as a college town and subsequently as a center for innovation, arts, and entrepreneurship.

Iowa City has partnered strategically with the University of Iowa to provide young professionals a chance to “Think Iowa City” and start a business in a place where failing is cheap and success is plenty. In addition, the university and Iowa City connect through the university Office of Outreach and Engagement to bring the needs of the city to the resources of the university. This expresses itself in entrepreneurship centers, business incubation spaces, active tourism outreach, and climate change resilience. Iowa City provides a model to strive for when thinking about how to retain college graduates, create an environment attractive to entrepreneurs, and integrate the activities of the university into the city.

Recommendations based on Iowa City:

12. Work with Indiana University to create an Office of Community Engagement.
13. Develop a Bike Friendly Business designation for downtown businesses.
14. Create an Entrepreneurship Hub in partnership with Indiana University.
15. Develop a strategy for retaining graduates of Indiana University through intentional marketing.
16. Dedicate funds towards a Public Art Program for targeted downtown redevelopment projects.

12. Office of Community Engagement

Iowa City and the University of Iowa capitalize on the strengths of the other to amplify the impact they can have together, on their region, and on the entire state of Iowa. The work of the Office of Community Engagement (OCE) is the best evidence for this beneficial relationship (University of Iowa, 2021). OCE follows the Carnegie definition of community engagement: “the collaboration between institutions of higher education and their larger communities (local, regional/state, national, global) for the mutually beneficial exchange of knowledge and resources in a context of partnership and reciprocity” (University of Iowa, 2021).

Through this collaboration, the university and Iowa City work in a diverse range of areas to improve the quality of life for all residents. Bloomington should work to create an intentional partnership with Indiana University modeled after the University of Iowa’s Office of Community Engagement. This mutually beneficial and formalized partnership with designated representatives provides both the City and IU with opportunities and resources that benefit the entire community. Examples of these opportunities are discussed further below.

13. Bike Friendly Businesses

Like many college towns, Iowa City strategically encourages biking for students and residents by enhancing bike lanes, mapping information, and other best practices used by cities across the world. Iowa City partners with the American League of Bicyclists to help designate Bike Friendly Business within the city using the standards set at a national level. This program rests on the pillars of encouragement, education, engagement, and evaluation. Iowa City encourages workers and customers alike to ride bikes to downtown locations from wherever they are in the city when promoting this designation. The Bike Friendly Business designation provides a network of resources for people to access and makes going downtown easier and more accessible for all people.

14. IU Collaboration on Entrepreneurship Hub

Iowa City and Bloomington are similar in the audience of young professionals within their boundaries. Iowa City capitalizes on this audience through a strong set of programs, which Bloomington can use as a model. Iowa City Area Development (ICAD) operates three coworking spaces which include access to a city-wide business incubation program (Iowa City Area Development, 2021). ICAD also hosts an in-depth business training program called “Start Your Passion” for those curious about starting or expanding their business in Iowa City (Iowa City Area Development, 2021). This includes a person of contact for entrepreneurs to meet with regarding conducting business in Iowa City (Iowa City Area Development, 2021).

Further, ICAD coordinates a “Wingman” program that connects new residents of Iowa City to established residents for professional or personal networking (Iowa City Area Development, 2021). This Wingman program provides each new resident with a “first friend” to guide them through Iowa City, connect them with other residents and organizations, and ultimately retain them in the community (Iowa City Area Development, 2021). Bloomington could further capitalize on its existing resources and relationships to create a more formal program similar to Iowa City’s and provide additional technical support and bandwidth to emulate many of these tasks.

15. Intentional Marketing for IU Graduate Retention

Iowa City encourages recent University of Iowa graduates to take a closer look at their college town and how they could make it a permanent home through the city’s “Think Iowa City!” initiative (Think Iowa City, 2021). These efforts include small business incubators, coworking spaces, entrepreneur mentorships, and a high quality of life. The ICR Talent Hub works to recruit graduates looking to stay in the area and encourages young entrepreneurs to have their start in Iowa City. Graduates use the ICR Talent Hub website to connect with job opportunities in the

Iowa City area and enhance the life of the city's downtown dining and entertainment sector (ICR, 2021).

16. Public Art Program for Targeted Downtown Redevelopment

Iowa City strategically captures the benefits of its arts and cultural community in the downtown core. Through the Public Art Advisory Committee, Iowa City accepts applications on an annual basis for projects to be installed throughout the downtown area. The application targets a different part of the downtown area to bring art to all corners of the city. Each public art project must present a budget of \$10,000 or less (City of Iowa City, 2021b). The City of Bloomington could work to increase interest in underutilized areas in downtown through a funded public art program and application process. These art installations brighten blighted areas for potential tenants, encourage consumers to visit, and can promote downtown through official and unofficial posts on social media. This program, along with accessible information about the public art facilities, amplifies downtown areas as destination and commerce districts.

Lynchburg, Virginia

Major University: Liberty University

Located in central Virginia, Lynchburg is home to a handful of higher education institutions, including Liberty University and the University of Lynchburg. Since its founding, the city has focused on education and industry, including a thriving manufacturing sector (Opportunity Lynchburg, 2017). Recently, it has worked on stimulating more local entrepreneurship by providing grants and programs to community members (City of Lynchburg, 2021a). The city has also adopted programs to encourage the revitalization of the downtown area. They want to keep the historical feel of many of the buildings while bringing them up to current code (Department of Community Development, 2018). While doing so, they have also rebranded the city in order to recruit national companies (2018).

While the education sector is strong, the city hopes to make downtown more accessible to local university students, so that they are integrated into the community (2018). The arts and culture community is also strong in Lynchburg, providing local artists with many opportunities to showcase their work to community members (Downtown Lynchburg Association, 2018). The city has specified that they want first-floor downtown space to be used by shops and restaurants, but the only specific zoning ordinance they have regarding first-floor space is that there cannot be any drive-through restaurants or beverage establishments (Department of Community Development, 2018).

Recommendations:

17. Rebrand Bloomington with different marketable zones, including an Opportunity Bloomington brand to target the recruitment of national companies.
18. Sponsor entrepreneurship classes and grants.
19. Implement a swipe-card system for Crimsons Cards to be used downtown.
20. Create a historic passport to guide citizens when they are exploring Bloomington on their own.
21. Designate a vacant building in downtown Bloomington as a Multi-College Conference Center.

17. Rebranding with Marketable Zones

Lynchburg has rebranded itself into three different marketable brands: The City of Lynchburg, Opportunity Lynchburg, and Downtown Lynchburg. Each of these brands allows the city to advertise different services and opportunities through social media campaigns. The City of Lynchburg focuses on typical city services, Opportunity Lynchburg highlights Lynchburg as a destination city for national businesses, and Downtown Lynchburg markets the various stores and attractions that the downtown area has to offer (2018).

The brand that could most benefit Bloomington in its efforts to attract sectors besides tourism and stimulate entrepreneurship would be one similar to the Opportunity Lynchburg Brand. Under this brand, the Economic Development Office hosts a website, complete with a database of vacant downtown properties, incentives for why businesses should locate to Lynchburg, an economic profile showing why Lynchburg is a good investment, and stories of local citizens who found business success (City of Lynchburg, 2021b). This website helps potential business owners bring their business to life and it enables the city to identify vacant properties, identify national companies that could occupy those properties, and recruit those companies to Lynchburg.

18. Entrepreneurship Classes and Grants

Both Ivy Tech and Indiana University offer entrepreneurship programs for students, but Bloomington does not appear to offer a similar class. Lynchburg hosts the CO. Starters program, a nine-week course that helps budding entrepreneurs think out their business plans and learn how to create a sustainable business. More than 75 businesses have attended the program (Opportunity Lynchburg, 2021a). In addition to the course, Lynchburg has several grants available for entrepreneurs. Small Office Grants are awarded to businesses with less than 10 people (Department of Community Development, 2018). The Inov8 Grant requires companies to attend classes and one-on-one meetings with business experts. Upon completion of the program, the companies competed for three \$10,000 grants to support the expansion or startup of their business (Opportunity Lynchburg, 2014). Finally, the Economic Development Authority Revolving Loan

Fund is a \$1,000,000 fund created in 2011 that provides the capital needed to finance business start-ups in the region.

19. Downtown Student Swipe-Card System

Lynchburg hopes to attract more college students to the downtown area by implementing a swipe card system that allows local students to use their student cards to pay for downtown goods and services, facilitating more student traffic in downtown Lynchburg (Department of Community Development, 2018). As downtown Bloomington is close to IU's campus, many students go onto Kirkwood for dining. Implementing this convenient payment option may encourage students to go further into downtown Bloomington where they could become more than just diners.

20. Digital Historic Passport

Another program that Lynchburg is developing is a digital passport that shows citizens and visitors historic sites that can be seen in downtown Lynchburg. The City of Bloomington provides a few guided historic walking tours (City of Bloomington, 2021b), but creating a virtual passport option that residents use to explore historic sites by themselves could enhance their experience, be low cost, and bring more people downtown. This could be appealing to people who are unable to attend guided tours or prefer self-guided tours over guided tours. A virtual passport also exposes these participants to the unique shops and restaurants in downtown Bloomington that they might not have previously seen or considered (Department of Community Development, 2018).

21. Multi-College Conference Center

Lynchburg has proposed dedicating a vacant downtown building as a Multi-College Conference Center (2018). The space is intended to be a place where students can meet, perform, and display their work. If Bloomington does something similar, it may create an opportunity to integrate the IU and Ivy Tech communities in ways that do not currently happen. Additionally, this kind of space will attract more students to the downtown area and increase time spent there, exposing them to the offerings of downtown Bloomington's first-floor commercial space.

State College, Pennsylvania

Major University: The Pennsylvania State University

State College, Pennsylvania sits in the pleasant mountains of Central Pennsylvania relatively isolated from the hustle and bustle of the larger cities of the state. This borough of 42,000 mirrors Bloomington in its natural amenities and isolation from larger metropolitan areas. State College relies heavily upon The Pennsylvania State University (Penn State) for its student population and BigTen sporting events. Without the outsized influence of the university, State College would be

another sleepy town. Unlike Bloomington, State College has struggled to innovate in many of the key areas in which other peer cities have excelled.

State College serves as a model of what Bloomington could become if it relies too heavily on the university for its economic base without capitalizing on its benefits. While State College remains too reliant on its university, it excels in making information readily available to visitors and residents alike. This success includes multiple cultural trails that guide Nittany Lions through the amenities of downtown State College and policies that allow for successful businesses in all sections of the downtown area. Bloomington can benefit by learning from State College's successes and shortcomings.

Recommendations based on State College:

22. Create an Entrepreneurship Hub in partnership with Indiana University.
23. Produce and promote cultural trails for visitors and residents alike.

22. Entrepreneurship Hub

State College has an integrated entrepreneurship center that works closely with both the borough and the business resources at Penn State, which produces similar outcomes as efforts in Iowa City. The borough's government promotes the entrepreneurship hub as an attractive option for young entrepreneurs to begin their business ventures. These promotional and organizational efforts complement Penn State's Innovation Park, which is a 118-acre office, manufacturing, and research space for businesses of all sizes (The Pennsylvania State University, 2021). The borough, although not directly connected to either effort, benefits from these efforts by the university.

Neither Bloomington nor Indiana University currently operate equivalent efforts that allow for this level of innovation and business expansion in the city or the downtown area. The use of one or more of the vacant downtown buildings as a genesis point for this effort helps downtown in two ways. First, it fills an empty building in the downtown area and gives life to different corners of downtown. In addition, this effort mitigates risks and costs for new businesses by providing working space, resources, and time to grow into established businesses that ultimately boost the city's diverse portfolio of businesses.

23. Cultural Trails

Due to its small size, State College relies heavily on the influx of visitors who visit for BigTen sporting events, university commencement ceremonies, and other events connected with the university. Bloomington finds itself in a much better position due to the larger industries in the city and surrounding county. However, State College maintains three cultural trails based on themes of historic markers, neighborhoods, food establishments, and other cultural amenities

(Borough of State College, 2021). While Bloomington’s B-Line Trail is well known for its great accessibility, it falls short in connecting downtown businesses or social nodes in a meaningful and marketed way. Crafting and promoting trails related to Bloomington’s already bustling dining scene, bars and public houses, and historic markers helps create an opportunity for visitors and residents to more fully explore what Bloomington has to offer.

West Lafayette, Indiana

Major University: Purdue University

The first two things one learns about West Lafayette from its tourism website is that it is “The Home of Purdue” (Visit Lafayette-West Lafayette, 2021a) and that West Lafayette and Lafayette, Indiana have a strong, mutually beneficial relationship, divided only by the Wabash River. Both cities are in Northwest Indiana, closer to Indianapolis than Chicago (Visit Lafayette-West Lafayette, 2021b). Lafayette-West Lafayette are places with historical architecture (Visit Lafayette-West Lafayette, 2021c), spots to see wildlife, including a wolf habitat and educational center (Visit Lafayette-West Lafayette, 2021d), and the prized university (Visit Lafayette-West Lafayette, 2021e). Purdue University ranks highly in engineering (Purdue University, 2020), but was initially established as a land grant institution. Purdue participates in BigTen athletics (Purdue University 2021a) with a familiar rival school in Bloomington. It also has its own airport, providing students interested in aviation the opportunity to complete a degree with on-campus simulations and research (Purdue University, 2021b). In 2016, Purdue University generated about two million dollars for the Indiana economy (Purdue University Office of Institutional Research, Assessment, and Effectiveness 2018).

Downtown West Lafayette co-exists with Lafayette’s downtown. Between the two cities, there are three downtown districts. What would be considered Downtown West Lafayette is called Chauncey Village and is almost an extension of Purdue’s campus in terms of emphasis on the college town feel. From Chauncey Village, crossing the Wabash River, and reaching Lafayette on the other side is the Riverfront District known for its large community events. The third region of downtown is the Arts & Market District known for its shopping and cultural amenities (Visit Lafayette-West Lafayette, 2021f). It takes approximately 15 to 20 minutes to walk across the entire downtown area (Google Maps, 2021c).

Recommendations:

24. Continue building Bloomington’s entrepreneurial ecosystem to take up more space downtown and cement the relationship between Bloomington entrepreneurship and Indiana University students
25. Use Bloomington’s entrepreneurial ecosystem to leverage Indiana University’s top majors and specialties into industry development and graduate retainment

24. Expansion of Bloomington's Entrepreneurial Ecosystem

Purdue and West Lafayette have designed an extensive entrepreneurship ecosystem. The most direct connection between Purdue's student body and the ecosystem is The Anvil, an organization exclusively for students located on campus. This space is available for coworking and entrepreneurship events such as pitch competitions (The Anvil, 2021). In tandem with coworking, Purdue also has an accelerator, The Foundry, for anyone associated with the university. The accelerator serves to launch businesses through the provision of technical assistance including mentorship, legal and financial guidance, and creating a business plan (The Foundry, 2021).

For the community's non-student entrepreneurs, there is MatchBOX, a coworking space available 24 hours with an emphasis on business development done through intentional and chance encounters with staff and other members (MatchBOX, 2021a). Technically, it is in Lafayette rather than West Lafayette (MatchBOX, 2021b) but the distinction seems unimportant to those that use it (Greater Lafayette Commerce, 2021).

West Lafayette and Purdue elevate their entrepreneurial ecosystem further with the Purdue Research Park (2021a) and Discovery Park District (2021a), providing 725 and 400 acres, respectively, of space. Both projects fall under the umbrella of Purdue's Research Foundation. In the case of the Research Park, support also came from the City of West Lafayette. In addition, both are walkable from Purdue's campus (Purdue Research Park, 2021a; Discovery Park District, 2021a). The Purdue Research Park is a great community asset as it supports business development and provides space for tech companies to remain, such as the Railyard, a 20,000+ square foot coworking space (Purdue Research Park, 2021).

The Discovery Park District is primarily for tech and advanced manufacturing work but also serves as a neighborhood anchor (Discovery Park District, 2021a). Given these resources, it is unsurprising that West Lafayette and Purdue have a strong entrepreneurial record. In FY 2020 alone, 55 startups launched, adding to the 300 startups created since Purdue and West Lafayette established themselves as an entrepreneurial powerhouse (Building Indiana Business, 2020).

Bloomington is well on its way to becoming a strong entrepreneurial hub with The Mill, B-Start, IU Ventures, and the IU Shoebox, but underrepresented populations or industry-specific coworking spaces could be introduced in spaces downtown. The Trades District could be used as a place where these relationships could flourish.

25. *Bloomington Entrepreneurial Ecosystem and Indiana University Coordination*

As mentioned above, the West Lafayette entrepreneurship and business development scene is well-meshed with Purdue University. Purdue is strong in engineering (Purdue University, 2020) and aerospace technology, as seen with its airport (Purdue University, 2021b). The Discovery Park District gives special attention to these industries (Discovery Park District, 2021b). The District's campus building, directly associated with Purdue's Burton D. Morgan Center for Entrepreneurship (Purdue University, 2021c), has specialties calling back to Purdue's land grant roots (Purdue University, 2021a) with emphasis on the health of the planet and people (Purdue University, 2021d).

Bloomington has well-established clusters and dreams of new ones. It was recently announced that Bloomington is the 2021 winner of the 'Rising Tech City' prize from Techpoint Mira Awards. Part of the dedication was for the potential of a Bloomington Tech Center (Hall, 2021). Moving forward, Bloomington should create programming and spaces based on the strengths of Indiana University programs, as Purdue has. These spaces, along with the labor pool of college graduates, creates an opportunity for Bloomington to be a leader in such related industries.

Consolidated Recommendations

1. Incorporate more community-wide art spaces and activities (Ann Arbor, MI)
2. Grow relationship with Indiana University to create more collaboration on community space, events, and initiatives (Ann Arbor, MI)
3. Build a municipally-owned fiber network in Downtown Bloomington, financing its construction with Certificates of Participation (Boulder, CO)
4. Create a rebate program to incentivize regional businesses to locate downtown (Boulder, CO)
5. Foster digital inclusivity in the innovation district (technology park) (Chattanooga, TN)
6. Renovate downtown alleyways, converting them into art installations for community placemaking (Chattanooga, TN)
7. Build a fiber network that would mutually reinforce the innovation district in Bloomington (Chattanooga, TN)
8. Improve parking options for shoppers and downtown employees (Fort Collins, CO)
9. Sponsor pop-up art exhibits and a Pianos About Town program (Fort Collins, CO)
10. Work with Indiana University to identify research topics that could be leveraged into new business ventures (Fort Collins, CO)
11. Initiate a Main Street Loan Program (Fort Collins, CO)
12. Work with Indiana University to create an Office of Community Engagement (Iowa City, IA)
13. Develop a Bike Friendly Business designation for downtown businesses (Iowa City, IA)
14. Create an Entrepreneurship Hub in partnership with Indiana University (Iowa City, IA)

15. Develop a strategy for retaining graduates of Indiana University through intentional marketing (Iowa City, IA)
16. Dedicate funds towards a Public Art Program for targeted downtown redevelopment projects (Iowa City, IA)
17. Rebrand Bloomington with different marketable zones, including an Opportunity Bloomington brand to target the recruitment of national companies (Lynchburg, VA)
18. Sponsor Entrepreneurship Classes and Grants (Lynchburg, VA)
19. Implement a Swipe-Card System for Crimsons Cards to be used downtown (Lynchburg, VA)
20. Create a historic passport to guide citizens when they are exploring Bloomington on their own (Lynchburg, VA)
21. Designate a vacant building in downtown Bloomington as a Multi-College Conference Center (Lynchburg, VA)
22. Create an Entrepreneurship Hub in partnership with Indiana University (State College, PA)
23. Produce and promote cultural trails for visitors and residents alike (State College, PA)
24. Continue building Bloomington's entrepreneurial ecosystem to take up more space downtown and cement the relationship between Bloomington entrepreneurship and Indiana University students (West Lafayette, IN)
25. Use Bloomington's entrepreneurial ecosystem to leverage Indiana University's top majors and specialties into graduate retainment (West Lafayette, IN)

Conclusion

In sum, Bloomington has made a start in developing a stronger commercial district that features hubs for entrepreneurship and the tech sector, as seen from programs like The Mill and IU Ventures. However, the City would strengthen its downtown commercial district by adopting some of the best practices described above. Implementing a fiber-optic network would provide a strong backbone that Bloomington could rely on to boost its current businesses and which it could use to market the City to national companies.

Additionally, the City could increase its efforts to retain IU graduates by collaborating more with the University about potential startup ideas that students have, providing coworking spaces that are inclusive to students, and making grants available that diminish startup costs and incentivize small-business growth. The City could attract more residents and students into the downtown commercial area by providing more engaging cultural and arts activities, such as pop-up art exhibits, self-guided cultural trails, and do-it-yourself projects like ArtBox.

Chapter 6—Geographic Information System (GIS)

This chapter details how the GIS team collected vacancy data for first-floor commercial spaces in the study area and merged these data with survey responses from the Downtown Business Owners Team. The team also performed geospatial analyses comparing its data 2020 Capstone’s data and will deliver an easily maintainable information system to the City of Bloomington for future use. This system includes an online database linked to the geospatial data and can process more complex queries, which could provide the City with an even broader set of tools for analysis and data management. Along with the database, we provide an editable online map for future updates and a list of instructions for uploading and updating the list of vacancies in the downtown area.

The team’s geospatial analysis of commercial space occupancy levels in downtown Bloomington will inform first-floor development recommendations for the City. Our analyses are observational; they are not meant to be statistically rigorous. Bloomington’s downtown commercial environment stands out from its neighbors across the State of Indiana and as such, it has a nonrandom set of economic characteristics that limits our study’s statistical relevance. As such, we will use our data to observe *patterns* in downtown Bloomington’s commercial spaces.

The data reveal 29 vacant first-floor commercial spaces, while the 2020 Capstone reported 17 total vacancies. Because of the City’s current limitations in business licensing and commercial tenancy tracking, we suggest simple business recording/registering methods to accompany the information system our team developed.

Methodology

Data Collection

First, the GIS Team cooperated with the Stakeholder Team to construct an online survey for business owners to answer. Responses were recorded in a spreadsheet, which was then edited and applied to a geospatial map of Bloomington’s downtown area. Second, we directly recorded current vacancies through a physical survey of the area. The team canvassed the entire study area over roughly 8 hours of work. Using a “Collector App,” vacancies were identified and then marked on a separate geospatial map.

This year’s survey questions focused on filling gaps that we found in last year’s survey questionnaire. We asked businesses to provide details on specific challenges they face, factors that may help them succeed, customer demographics, and nearby vacancies they were unaware of. We also encouraged survey respondents to share their thoughts on any issues we didn’t cover in the survey. The survey received 45 responses from local businesses. We created online maps of our results to display patterns in the data and to provide a method for updating current vacancies in the downtown area.

GIS Software Specifications

The team chose the ESRI Collector application for primary data collection due to its ease of use and positional accuracy. Additionally, ESRI is a widely used suite of GIS software with which the City of Bloomington has a pre-existing account. Because GIS mapping programs are interchangeable as data manipulation tools, we used two different programs for the creation of our physical maps presented in this report. The team utilized ArcGIS PRO for managing the vacancy data and QGIS for survey responses and other representative data. QGIS is an open-source technology that provides all of the functionality of ArcGIS PRO without requiring a paid subscription. Future work on this project can utilize either mapping software.

Database Specifications & Methods

We elected to store our vacancy and survey data in a spatial database using PostgreSQL. Spatial databases are optimal for storing, manipulating, and querying geographic data with defined geometries. PostgreSQL is a powerful, open source, object-relational database system with over 30 years of active development and a strong reputation for reliability and performance. The City can use applications like ArcGIS or QGIS to connect to our database with no subscription costs. Our information system also uses PostGIS, a spatial database extender for PostgreSQL object-relational databases. It adds support for geographic objects allowing location queries to be run in SQL.

We consider the study area's *vacancy rate* as the percentage of all first-floor commercial spaces that were unoccupied in the month of March, 2021. Using the *count()* function to find the total number of vacant parcels, we used the following spatial SQL functions to find the total number of units in a building and derive a standardized count of vacancies in the study area:

1. *ST_Area()*: Returns the area of a polygonal geometry
2. *ST_3DDWithin()*: Returns true if two 3D geometries are within a given 3D distance
3. *ST_3DDistance()*: Returns the 3D cartesian minimum distance
4. *ST_Equals()*: Returns true if two geometries include the same set of points in space

We used the following query to calculate the total number of vacancies and the total number of businesses in a building space. We then calculated the vacancy rate for 2021 and 2020 by averaging the vacancy rate for each individual building.

```
SELECT b.gid, count(a.fulladdres)
FROM addresspoints_downtown_bloomington as a
JOIN buildingfootprints_downtown_btown as b
on st_within(a.geog::geometry, b.geog::geometry)
```

```

WHERE b.gid in (select distinct b.gid
FROM addresspoints_downtown_bloomington as a
JOIN buildingfootprints_downtown_btown as b
on st_within(a.geog::geometry, b.geog::geometry)
WHERE a.fulladdress in
(SELECT addresspoints_downtown_bloomington.fulladdress
FROM addresspoints_downtown_bloomington, vacancies_2020
WHERE addresspoints_downtown_bloomington.fulladdress =
vacancies_2020.business_a))
GROUP BY b.gid

```

Results

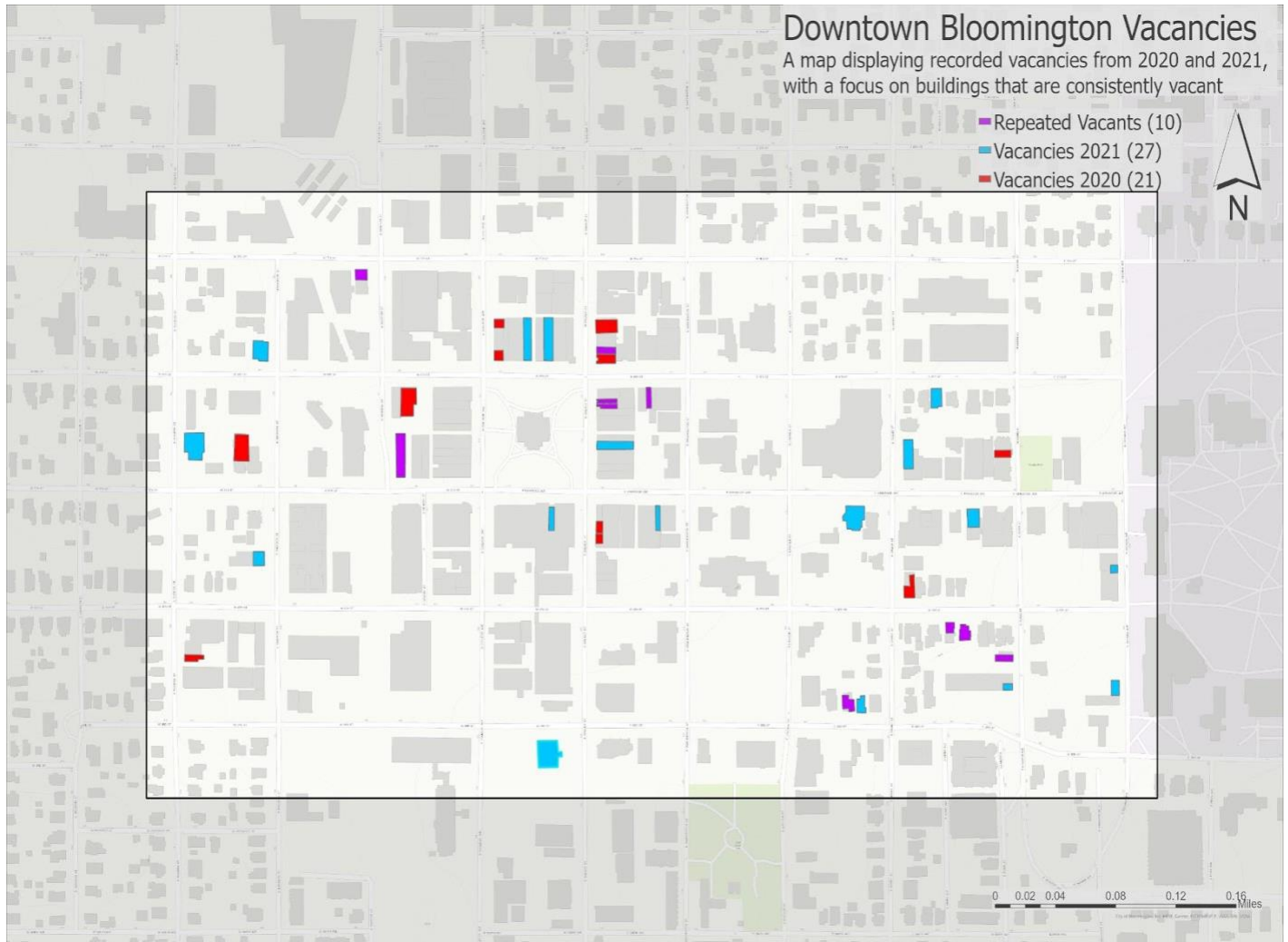
Vacancies

Figure 6.1 succinctly details our vacancy findings. We located and marked 27 vacancies within the study area, and then constructed polygons approximating the building size to aid in symbolic representation. The recorded vacancies were extracted from last year's data, and then visualized in a similar fashion and added to the composite map. Finally, we analyzed the combined data to determine which locations were vacant during both surveys. The 2020 Capstone recorded 21 total vacant locations but only reported 17 of those vacancies because four of those 21 spaces were actively under construction/renovation. The 2021 GIS team decided to record any vacant storefronts that do not currently generate economic activity within the city (whether under construction or not). Additionally, the team could not easily determine whether buildings owners or tenants were orchestrating construction and renovation in a given space. Therefore, we included the total number of unoccupied spaces from last year's survey (21) and recorded any structures undergoing construction as vacant.

Our results found a 22.2 percent increase in vacancies between last year's survey and this year's survey. A total of 10 locations were vacant both last year and this year, with 60 percent of those locations existing within 2 blocks of the Courthouse Square. The remaining 40 percent were grouped in a 2 block section between 3rd and 4th Streets, and between Lincoln and Dunn Streets. This was the only geographical pattern to emerge from the analysis of our results, as the rest of our data found no significant correlation between geographic location and number of vacancies. When possible, the previous occupier of a vacant space was recorded and added to our results, to establish if the vacancy was set up for restaurant or retail operations. We were unable to obtain this information regarding approximately 25 percent of known vacant units, so further statistical analysis was not possible.

We also include a map data layer representing the vacancies as points, which is to be used as an online map to keep track of vacancy changes in the future. The instructions for utilizing this map are contained in Appendix F. We are unable to determine what percentage of total businesses are vacant since we have no way to determine the number of total businesses in operation.

Figure 6.1 – Vacancies in Downtown Bloomington



This map displays the study area in lighter colors, with polygons representing vacant building spaces within that area. Red denotes vacant spaces from only 2020, blue denotes vacant spaces from only 2021, and purple denotes vacant spaces for both years. We recorded 21 vacancies for 2020 and 27 vacancies for 2021; 10 spaces were vacant in both years.

Opening/Closing Businesses

During the pandemic, many local businesses closed their doors. Even as economic activity resumes across the U.S., the future of Bloomington's small businesses remains uncertain. Some businesses are choosing to close permanently. Meanwhile, several new businesses have opened during this challenging time. Bloom Magazine keeps an archive of opening and closing businesses (Margison, 2021). We mapped these openings and closings (Figure 6.2) and put them in the database. We located 9 opening businesses and 12 closing businesses within the study area, and then constructed polygons approximating the building size to aid in symbolic representation. Also included in our results is a map data layer representing these businesses as points, which is to be used as an online map to keep track of opening and closing changes in the future. That space is distributed evenly throughout the study area, and our results found no significant correlation between geographic location and number of closings. Importantly, more businesses are opening than closing, and the majority of the businesses both opening *and* closing are restaurants.

Figure 6.2 – Opening & Closing Businesses in Downtown Bloomington



Limitations

The GIS team encountered a lack of survey respondents as its primary difficulty. While the survey received 45 in-depth responses providing data regarding the current status of existing businesses, over 200 retail and restaurant locations exist within our prescribed study area. Obtaining survey information from these locations would provide a more complete set of data for analysis. The small ratio of respondents to existing businesses makes geospatial analysis almost impossible to conduct. Examination of the information collected by last year's GIS Group revealed they had a similar number of respondents, but then went on to manually collect basic data about the remaining businesses that had not replied. As the focus this year was more on business turnover and methods of assisting the survival of existing businesses, we placed our focus on providing that information and analyzing it instead of presenting a complete list of all open businesses in the downtown area.

Another difficulty we encountered was setting up the connection between the database and the GIS software. The PostgreSQL server accepts localhost connections by default, which allows for simple connections and data transfers when the same computer is used for both the data server and GIS software. However, if the database server is on one machine and the GIS software is being used on another, a 'remote connection' between the server and the GIS software is needed.

Recommendations

Cities are deploying a wide range of digital and data-driven strategies to address vacant and abandoned properties. From using data to enable efficient code enforcement to crowdsourcing the mapping of properties, the City could focus on data-smart city solutions and data-driven tools.

1. Data Management Options

We recommend that the City utilize the online vacancy map we have provided or a similar data management system of its choosing. We provide instructions for updating our map in Appendix F. Although updating the map requires physical surveying, the task is not time-intensive. This will allow the City to have an ongoing and up-to-date list of recently closed businesses, while also allowing them to delete vacancy information that may no longer be relevant. Further, we recommend the City to maintain a back-end database which will have the ability to store and maintain spatial data. The database can be used to further analyse vacancies and keep a track of changes. We recommend consistent yearly (or more frequent) updates for this database. While we provide an accurate and relatively user-friendly method of recording vacancy information, a more comprehensive and regularly updated list of the businesses operating within the downtown area would best serve the City.

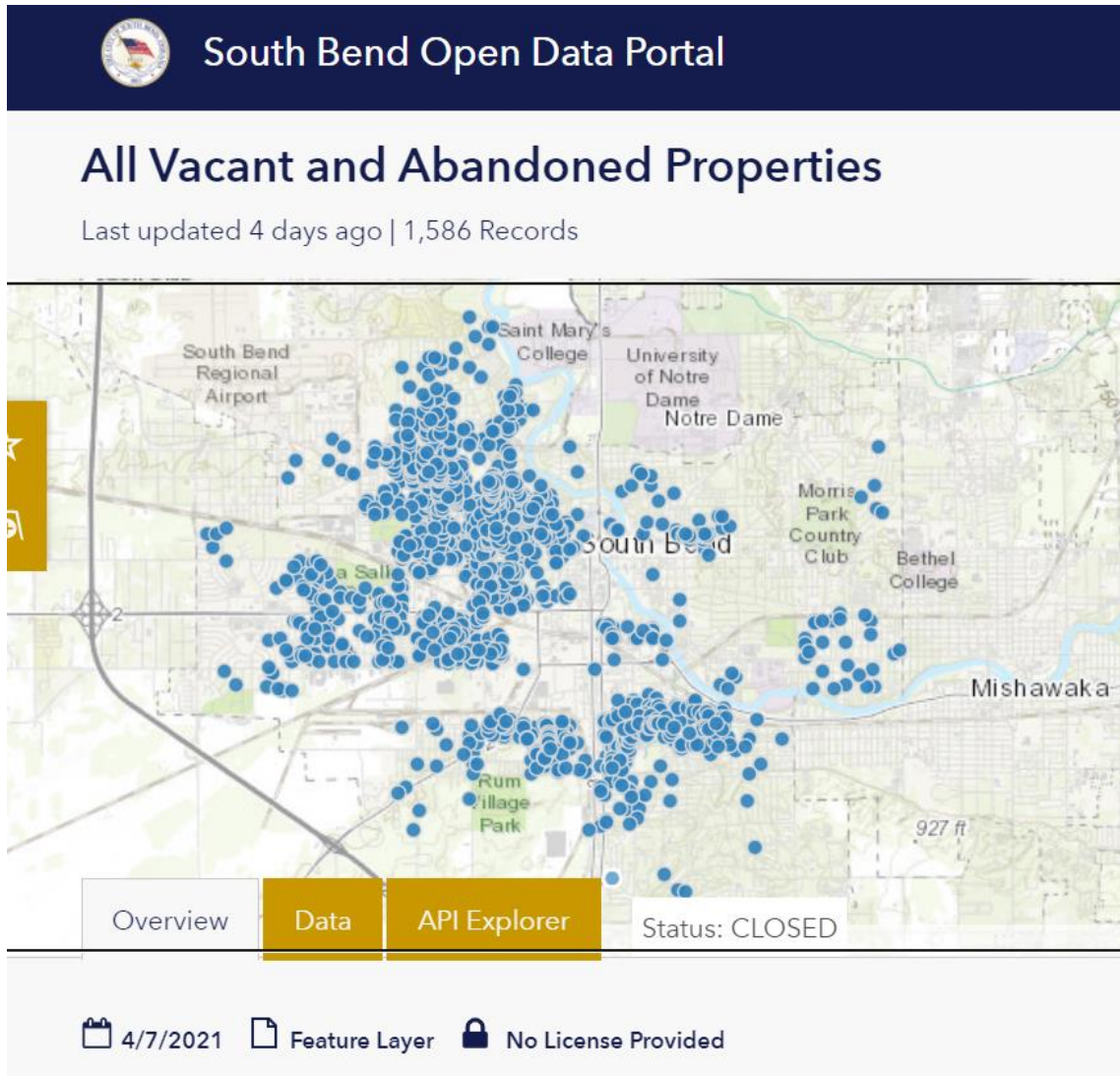
As such, we recommend that the City require each new business to register with the local government in some fashion. A low or no-cost business license that presented no barrier of entry to new establishments would allow the City to keep a detailed list of new and existing businesses operating in the area. Providing a refund of that fee to businesses that report their own closures may also increase self-reporting of those incidents.

The City would experience a variety of benefits if it were to begin collecting data on the businesses operating downtown. Over time, such data would enable the City to predict which types of businesses are most likely to succeed in the downtown area and which economic development strategies are most likely to assist the widest range of small businesses. Unfortunately, we are currently unable to provide an exact number of closed businesses and their respective service types due to a lack of current reporting. However, by comparing this year's data with the data collected by the 2020 Capstone we see that 12 of the vacant spaces were previously occupied by restaurants, and seven were previously occupied by retail spaces. This may indicate that *retail* businesses were slightly more successful at surviving the specific financial difficulties of the past year.

2. *Vacancy task force*

A vacancy reduction strategy centers around results and improved performance management through municipality-constituent relations. It can also create decision support scorecards that prioritize the workflow for the Code Enforcement Department. With a digital vacancy strategy, municipalities can track occupancy using information systems through maps, dashboards, and applications, and provide the community with transparency, and improve existing code enforcement. South Bend, IN released a Vacant and Abandoned Properties Task Force that laid out the publicly stated goal of addressing 1,000 vacant or abandoned properties in 1,000 days. (City of South Bend, Indiana, 2021). Through this, they also created a vacant and abandoned property registration database. Constituent participation improved the city's code enforcement process regarding unoccupied properties and created an online map portal to track vacancy. (Figure 6.3). By taking a data-driven approach and using a digital platform to increase transparency to the public, South Bend, IN sets a strong example for the City of Bloomington looking for digital solutions for tracking and reducing vacant properties.

Figure 6.3 – South Bend, Indiana Vacant Properties Data Portal

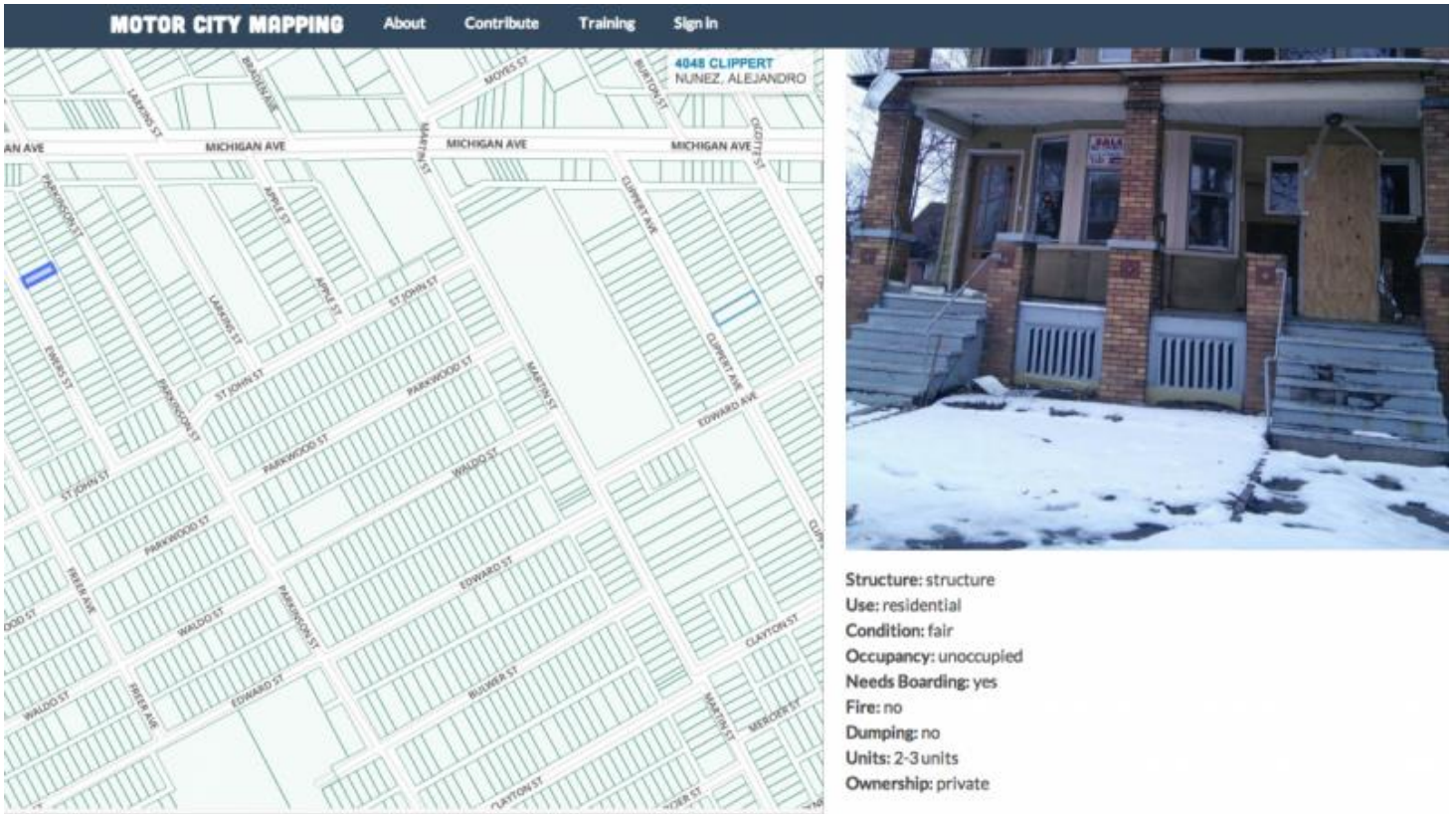


3. Create Vacancy Reporting System/Database

Digital-driven strategies set a great example for cities concerned with vacancies during COVID-19. Deploying data systems can significantly improve the code enforcement process to prevent vacancies before they happen, give residents a window into a city's progress in the process of addressing vacancies, and bring them directly into the process of mapping properties to increase citywide knowledge and transparency with applications. A vacancy reporting database can allow real time tracking, constituent participation, maintain data with accuracy, and provide simple to complex analysis with queries and processing. The City of Bloomington should also consider creating a vacancy reporting system/database.

Detroit, MI Motor City Mapping is a tool that uses a vacancy database to track occupancy. The city set out to create a thorough database of conditions of every property in Detroit to give the city a sense of where problem properties needed to be addressed and an all-in-one place to keep track of properties over time. (Figure 6.4). Through a mobile application, a team surveyed the entire city to compile the database and citywide property map. Surveyors used the mobile app to photograph the front of every property and assessed individual properties based on occupancy. Now the city is further inspecting these properties with a variety of interventions including rehabilitation, removal, and securing. (City of Detroit, Michigan, 2021).

Figure 6.4 – Motor City Mapping: Vacancy Database



Chapter 7—Concluding Remarks & Recommendations

Findings

Key community stakeholders view Bloomington in a mostly positive light, while also recognizing the challenges and difficulties that face the City. Survey respondents appreciate the downtown area’s local businesses and walkability. The city should continue to work to attract people into downtown through improving information infrastructure, engaging the student community, and improving outdoor gathering spaces.

The Bloomington business community enjoys a cohesiveness and walkable downtown environment. Businesses would like to see an increase in walkable parking to encourage more foot traffic. A large portion of businesses cater to weekend activity. Wherever practicable, the City should promote businesses that cater to all demographics to create a more inclusive community.

Online retail has continued its growth and shown an increasingly negative impact on brick-and-mortar commercial spaces. However, the irreversible trend of expanding e-commerce will not eliminate Bloomington’s offline stores entirely. E-commerce attracts customers through the expansion of internet and distribution channels, better accessibility, and the increasing prevalence of “Last-Mile Delivery.” Consequently, brick-and-mortar spaces should find ways to incorporate e-commerce within their shopping experiences. The COVID-19 pandemic correlated with a change in consumption trends and customer behavior and worsened the impact of e-commerce on brick-and-mortar and other offline shopping experiences. Many states have undertaken efforts focusing on “sustainability,” “placemaking,” “diversification,” and “community engagement” to improve their residents’ quality of life, their local economies, and the attractiveness of downtown first-floor retail spaces.

Analysis of Bloomington’s peer cities suggests several key priorities for the City. Development efforts should focus on strengthening the commercial market; attracting visitors and residents downtown by providing transportation and parking alternatives, historical information, and cultural trails; stimulating entrepreneurship by collaborating with Indiana University; and creating more public art projects within community spaces and unused spaces.

Between 2020 and 2021, the City encountered a significant increase in vacant downtown first-floor commercial spaces. We suggest maintaining current vacancy data for such a small, yet economically and culturally important zone of Bloomington. The City could practicably log business occupancy by either adopting or emulating our information system. An intern or future Capstone team should be able to easily adopt our information system. It has no licensing requirements (besides an ESRI subscription, which the city and Indiana University already have), mobile data collection capabilities, and a database that can handle queries.

Recommendations

Bloomington Stakeholders

1. **Improve wayfinding and access to public information downtown.** The city should increase information infrastructure for visitor orientation and community information.
2. **Engage the student community downtown.** We envision a greater degree of partnership between the City, downtown businesses and organizations, and the University to bring students downtown for community-oriented purposes other than supporting local businesses.
3. **Revitalize Courtyard Square by incorporating more community space.** Expanding seating capacity may increase the Square’s community value as a congregational space.
4. **Institute alternative uses for on-street parking** as fluctuating parking space capacity allows. Expanded outdoor dining would be conducive to a lively downtown street life, though it reduces on-street parking.
5. **Make the post-COVID recovery a community affair.** Continue to solicit public feedback regarding future changes to downtown, particularly regarding land and real estate use, and work to make the downtown a more resilient community space by incorporating preferences from all parts of the Bloomington community.

Downtown Business Owners

1. **Networking and advertising** were the highest-ranked answers to the “What businesses need” question. Networking could include networking events promoted and organized by the City. Additionally, advertising could help promote Bloomington to potential business owners for the vacant spaces. Advertising could also attract potential customers to businesses that have a niche audience. Advertising would help bring in new businesses and new customers, overall benefitting Bloomington’s economy.
2. **Encourage building owners to fill their unoccupied spaces** as frequently as possible to create a more cohesive downtown. One participant suggested an occupancy requirement, meaning that spaces cannot be unoccupied for a certain amount of time without being penalized. For example, the City could say that spaces can’t be empty for more than a month without being fined \$100 or a similar amount. Additionally, pop-up events (see recommendation #4) could aid property owners to meet such an occupancy requirement.
3. **Walkable Parking:** Though we did not mention parking in the survey, several participants wrote it in as a key need. Increased parking could be achieved by creating more *walkable* parking—residents could park once and be able to go to other areas. Parking minimums might be a barrier to this kind of parking. To tackle this barrier, the City could reduce or eliminate parking minimums.

4. **Pop-up Events:** To fill vacancies, first-floor retail spaces should hold temporary pop-up events, like art shows. The public would get a chance to display their art and building owners would gain temporary revenue while searching for permanent tenants. The City, Downtown Bloomington Inc., and the Chamber could work together to promote and oversee these events and gain connections with the public.

Emerging Trends

1. **Administrative and legislative support to reduce restrictions on first-floor spaces:** The City could adopt new regulations or provide case-by-case exceptions for more flexible mixed-use zoning restrictions in downtown commercial areas. Such modifications would help reduce the number of empty first-floor spaces, increase affordability for downtown housing or commercial spaces, reduce administrative burden, and allow more innovative business operations, such as curbside-pick-up parking or outdoor dining spaces.
2. **Invest in e-commerce and encourage brick-and-mortar businesses to incorporate online retail services.** Downtown first-floor retail can consider adding online channels or collaborate with existing online retailers to provide a broader range of distribution channels. Expansion of these channels can attract a more comprehensive range of customers. Furthermore, following the growth of the online market after the outbreak of the COVID-19 pandemic, increased accessibility to online retail may boost brand- or store-specific customer loyalty.
3. **Implement projects and events for placemaking and to enhance the aesthetic aspects of the downtown area.** Prioritizing efforts for placemaking could strengthen Bloomington's unique identity and promote investment into the downtown area. Furthermore, downtown Bloomington is a prime space to encourage community engagement, increase community advertisement, and add value to surrounding zones. Therefore, the City should implement projects and policies that attract more people to the downtown area. We detail some of these projects in Appendix D.
4. **Encourage continued virus-prevention habits and other high standards of personal and public hygiene.** Offline stores should not entirely abandon their newly adopted public health routines. The City should look for ways to encourage and support offline stores to continue stocking public health-related supplies, such as hand sanitizer or disinfectant sprays. Such practices could increase customer satisfaction while enhancing public health around the community.

Peer Cities

Chapter 5 includes a full list of recommended development actions. Our analysis of Bloomington's peer cities produced recommendations that center around the following priorities:

1. **Strengthen the commercial market** through initiatives such as rebranding the City with different marketable zones, financing a fiber network with certificates of participation, and creating a main street loan program.
2. **Provide transportation and parking alternatives, historical information, and cultural trails** to attract visitors and residents downtown.
3. **Stimulate entrepreneurship** by collaborating with Indiana University, leveraging academic research to start new businesses, allowing students to innovate, and increasing the City's ability to retain recent graduates.
4. **Create more public art projects within community spaces**, such as building art installations in alleyways, pop-up art exhibits, and having musical instruments around town for people to play.

Geographic Information System (GIS)

1. **Implement a simple, low-barrier business registration system** that tracks occupancy, using the information system developed by this Capstone team or a similar tool.
2. **Assign an intern or future Capstone team** to maintain and update the data in the information system developed by this Capstone team.
3. **Generate vacancy a task force** that centers around results and improved performance management through municipality-constituent relations. Municipalities can utilize maps, dashboards, and mobile applications to track vacancies, increasing transparency and ease of use.
4. **Create a Vacancy Reporting System/Database** to significantly improve the code enforcement process to prevent vacancies before they happen. Digitally driven strategies set a great example for cities concerned with vacancies during COVID-19. A vacancy reporting database can allow real-time tracking, constituent participation, accurate data maintenance, and simple or complex analysis with queries and data processing.

Looking Forward

Economic revitalization after such a burdensome year may require more direct intervention by the City in the short term, but efforts to improve the e-commerce capabilities of brick-and-mortar spaces will have long-term benefits for Bloomington's economic competitiveness and unique character. The City's fiber network—and how it finances the installation of that network—will be particularly impactful for Bloomington's local economy over the next several years. The City lacks information about commercial property owners and commercial tenancy; the City or future Capstones could use the information system developed by this Capstone team to create a more comprehensive quantitative analysis of these characteristics. Additionally, we encourage efforts to advertise Bloomington's vibrant downtown to would-be visitors and customers. Above all, our

findings show that Bloomington's residents, business owners, and economic identity have a vested interest in the continued development of entrepreneurship, the arts, and downtown walkability.

Appendix

Appendix A: Interviews Conducted with Bloomington Stakeholders

The 2021 Capstone team conducted interviews with the following:

- Katie Bethel, Development Coordinator, Lotus Education and Arts Foundation
- Marni Blair, Associate Director, Indiana University Office of Admissions
- Mary Catherine Carmichael, Director of Public Engagement, Bloomington Mayor's Office
- Talisha Coppock, Executive Director, Downtown Bloomington, Inc.
- Brian Payne, Executive Director, CDFI Friendly Bloomington
- Jennifer Pearl, President, Bloomington Economic Development Corporation
- Prospect Hill Neighborhood Association
- Susan Sandberg, Bloomington City Council At-large Representative
- Stephen Volan, Bloomington City Council District VI Representative
- Kirk White, Assistant Vice President for Strategic Partnerships, Indiana University
- Marilyn Wood, Director, Monroe County Public Library

Appendix B: Interview Topics for Bloomington Stakeholders

1. What is your favorite thing about downtown Bloomington? What do you think makes Bloomington unique?
2. What do you see as the primary challenges facing the downtown area? Do you think the Bloomington city government or the community has done enough to address these challenges? If not, what would you like to see done about them?
3. The municipal government has identified walkability as a key goal for downtown. Do you consider downtown Bloomington "walkable"? What changes might improve this?
4. What is something you would like to see in downtown Bloomington that the downtown area currently lacks?
5. The city government is concerned with first-floor vacancies downtown and how they might impact the area's appeal. Do you think downtown Bloomington has too much, or too little, first-floor commercial space? What sort of alternate uses for these spaces do you think would strengthen downtown?

Appendix C: 2021 Downtown Bloomington Business Survey Questions

Section 1

1. Business Name
2. Respondent Name
3. Role in Business
4. Email Address
5. Business Address

Section 2

6. What is your busiest time of day?
7. What is your busiest time of the week?
8. Do you own or rent your space?
9. If you rent, what is your approximate monthly lease payment?
10. How long has your business been in its current location?
11. What is the total approximate square footage of the commercial space?
12. Approximately how many customers visit your physical location per day?
13. To which age demographic does your business primarily cater?
14. What income demographic does your business attract?
15. Which of the following categories best describe your business?
 - Art/Bookstore/Specialty Items
 - Clothing/Accessories
 - Games/Entertainment/Music
 - Household Goods
 - Restaurant/Cafe
 - Bar/Club
 - Other
16. How many employees do you currently have (full and part-time)?
17. How often are you in contact with the property owner?

Section 3

18. How would you describe your current business space?
19. How would you describe your current labor supply?
20. How would you rate the physical condition of your building? (structure, safety, etc.)
21. How has your business been affected by nearby vacancies?
22. Please elaborate on your response to the previous question.
23. How would you rate your business's financial health?
24. What do you need to help your business become more stable/successful?
25. Additional comments/information we should know?

Appendix D: Practical Examples of Placemaking

Big Ideas with Social Distancing in Mind

Ideas in this section, inspired by the Canadian Urban Institute's (2021) Rapid Placemaking to Bring Back Main Street, have an emphasis on quick turnaround, limited resource investment, and social distancing. They are ideal in the immediate months following COVID-19 restrictions.

1. *Community Chalk Festival*



(Picture: Minneapolis Northwest. *Chalkfest at Arbor Lakes*, minneapolisnorthwest.com)

A community chalk festival can be organized at a very low cost, lasting one weekend or up to several weeks, and only requires chalk and hairspray as materials. The event would involve reserving street space for artists and the public to create temporary chalk installations on a sidewalk or street. Some pavement spaces can be reserved for local artist installations, some can be used for games and activities involving chalk, and others can be open for creative expression. Chalk is a simple tool to creatively transform street space. Hosting a festival is a way to bring people together to have fun, cooperate, and create a sense of agency over shared space.

2. *Community Mapping*

Community mapping is a low cost and short-term idea that only requires a map of the downtown area and different colored markers or pins with associated meanings. It is a way to work with residents to identify assets in the community. The map would be placed in a busy area downtown with instructions for residents to interact, painting a picture of what it is like for residents of diverse experiences to live there, along with what opportunities and challenges exist in the neighborhood. Assets might be strong neighborhood relationships, physical spaces like parks, neighborhood public art, or social and community

services. These identified assets can then be focused on for future projects and events, or the map could be used to identify areas that citizens find unsatisfactory.

3. Main Street Scavenger Hunt

A Main Street Scavenger Hunt is a low cost interactive event that can last indefinitely depending on what is chosen to be “found” by residents. Scavenger hunts encourage people to get to know their main streets. It offers light physical activity, aligns with physical distancing requirements, can include educational components, and can involve community groups and businesses. There are many ways to approach this activity, including family-oriented hunts, photo scavenger hunts, or local business passport stamping.

Appendix E: Peer City Comparison Table Sources

Population Metrics Sources:

Ann Arbor, Chattanooga, Boulder, Fort Collins, Iowa City, Lynchburg, State College, West Lafayette-- *U.S. Census quickfacts*. <https://www.census.gov/>

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Business Licensing Sources:

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City of Chattanooga (2021). *Treasury Division*. <http://www.chattanooga.gov/finance/treasury-division/business-licenses>

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Appendix F: GIS Manual for Future Use

Section 1—Creating your group

1. Go to “www.arcgis.com” and use the City’s credentials to log-in.
2. Once logged in, select the “Groups” tab at the top of the page.
3. In the upper-left corner, select the “Create Group” button
4. Name your Group and provide a brief description, while ignoring the “Tags” section.
5. Once created, invite any members of your staff that will be working with this map to the group you just created through the “Invite users” button. These people will also need ESRI account logins, unless they will be sharing the City’s common information.

Section 2—Sharing Your Map

1. Open the map of current vacancies in ArcGIS Pro
2. Click the “Share” tab at the very top, and then select the “Web Map” option
3. Rename and alter the map description, if desired. Ignore the “Tags” section.
4. Under “Select a Configuration”, select “Editable.” This will ensure the map can be changed once uploaded.
5. Under “Location”, there should only be one option for a folder to choose.
6. Under “Share With”, select the name of your organization. Selecting “Everyone” will give anyone who can find the map the ability to edit it.
7. Click “Analyze” to make sure there are no errors, and then click “Share.” The map will then be published to the online group created earlier in this process.
8. Have your members’ login and view the group material in the web browser to work out any issues before moving to the collecting phase

Section 3—Updating Vacancy Information

1. Download the ESRI Collector application from the Google Play Store or the Apple Store.
2. Login to the application using the City’s ESRI account information.
3. Once logged in, both the group you joined and the map you shared in the previous sections should be available for you to select. Select your vacancy map.
4. You should now be looking at a map with single points representing vacant units within the City’s downtown area. Zoom out until these points are visible, then select one to view the available information.
5. At the bottom of the screen will be 3 icons. Select the pencil icon to edit the point’s information, or select the garbage can icon to delete the point altogether.
6. To add a point to the map, return to the map view and select the blue circle with a plus sign in the bottom right corner.
7. Adjust the screen until the new point is centered above the vacant address you are marking, and then select the “Vacancies” layer, which is where the point will be added.
8. Fill in the necessary information in the available fields, and then select “Update Point.” Finish the process by then selecting the “Check mark” in the upper right corner of the screen.
9. Select your newly added point to make sure the fields have been entered correctly. Edit as necessary.
10. Repeat these steps to add additional points in other locations. Select the “Check mark” after each new point is added in order to ensure data integrity.

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