

Research Proposal

**Unified Development Ordinance Adoption and its Impact on Social and Economic Growth
on Municipalities in North Carolina**

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[Submitted for Graduate Research Symposium]

Abstract

The Unified Development Ordinance (UDO) has been in existence since the late 1980s, and since its inception, no research exists on how its implementation affects growth in municipalities. This proposal for research aims to discern how UDO implementation affects social and economic growth within municipalities in North Carolina.

The existing literature explains what the UDO is and how it allows for a smoother process during plan review and submittal. It also delves into how land-use planning guides the UDO in allowing for more freedom in zoning and creating mixed-use development areas. Mixed-use planning also allows for more sustainability in planning and creates a more desirable community. Land-use planning also provides for smart-growth planning and zoning, as the community supports it. The literature also mentions challenges that the UDO can bring by decreasing affordable homes and increasing regulation and costs for developers to build in the municipality.

I have developed two hypotheses to answer the research question and fill the existing gap in the literature. I will survey the development and zoning managers of municipalities in North Carolina and the development community. I will also collect secondary data regarding population, housing, income, and home construction. This information will measure the variables to determine if the hypotheses are correct in determining the UDO implementation and social and economic growth in North Carolina.

Once the research is complete, findings will be communicated via presentations practitioner-focused conferences such as the North Carolina chapter of the American Planning Association. A paper will also be written and submitted to various practitioner-focused journals

such as the Journal of the American Planning Association and the Journal of Planning and Land Management.

Introduction

Zoning and subdivision ordinances have been around since the early 1900s and were put in place to separate residential areas from industrial areas. The ordinances serve primarily to protect the residential areas from the pollution that would arise from industries. This form of zoning is referred to as Euclidean zoning (Boston University School of Law, 2018). While Euclidean zoning has its benefits, some challenges came with it, such as segregation, housing issues, and urban sprawl.

For the past several years, municipalities have been revising their zoning and subdivision codes, giving them a more unified approach. Therefore, the Unified Development Ordinance (UDO) was created. The UDO combines all of the various development codes, including zoning, subdivision, design, floodplain management, and condenses them into one ordinance document for the municipality to use for development regulations. A growing number of municipalities are adopting UDO's because the format offers a more streamlined process than earlier development codes (Band, 2014; Fisher 2016).

In this research, I seek to discern factors affecting the growth of municipalities since UDO adoption. This study will offer insight into UDO adoption and the effect the UDO implementation has had on the surrounding community. The stakeholders involved with UDO adoption will benefit from this study because they will see how policies impact development in their community. It will also be helpful for future ordinance reform and growth for the municipality.

Literature Review

Municipalities have used development and zoning ordinances to tell developers what type of building they can develop in a particular area and specific design criteria that the building

must meet. Generally, these ordinances are different codes that are considered convoluted and challenging to navigate for both the developer and municipal staff. Recently, cities and towns have begun to look at their development and zoning ordinances to create a more concise document called a Unified Development Ordinance. A Unified Development Ordinance (UDO) is a local policy instrument that combines traditional zoning and subdivision regulations and other desired city regulations, such as design guidelines, sign regulations, stormwater management, etc., into one single document (American Planning Association, 2020). This literature review will look at why municipalities adopt a Unified Development Ordinance and how municipalities have benefited from UDO development and some UDO development challenges.

Municipalities have begun to take a more unified approach to their development and zoning ordinances, incorporating mixed-use development, greenspace, higher density living spaces, and creating a Unified Development Ordinance. Municipalities with separate ordinances for development and zoning tend to have more red tape to have plans and permits approved. The UDO's primary purpose is to create a concise, consistent document so that the process is more straightforward for both staff and the developer to navigate through (Morris, 1993). The UDO eliminates a lot of the red tape that developers have to go through, and the process is much simpler. The UDO is a comprehensive plan that takes the developer through the entire development process and provides clear definitions for planning and zoning to use when considering how to apply code to projects. (Fisher, 2016). Having these clear, concise ordinances in one document will allow for better relationships between the developer and municipal staff.

Municipalities benefit from UDO development because it allows them to align their code to their strategic goals and create master planning for their community. Municipalities will set

their strategic goals every so often. Having a municipal code that aligns with those goals allows the municipality to grow with those goals (Band, 2014). Municipalities are looking to create masterplans for their community to use these masterplans to guide development. By doing this, they can zone and rezone buildings appropriately so that there is mixed-use development throughout (Horner, Ivacko, & Mills, 2018). Increasing mixed-use development throughout a community allows it to meet the needs of its residents. The UDO or form-based code idea allows the municipality to look at the community's characteristics and spread them throughout development, inviting a mix of retail, residential, and residential uses. This development, in turn, invites social interaction, walkability, and economic opportunities for the area (Moos, Vinidrai, Revington, & Seasons, 2018; Talen, 2009). Adoption of the UDO allows for flexibility in future planning and can increase the livability of a neighborhood.

Municipalities have also begun to plan for sustainability, looking to overhaul their development ordinances to include sustainability regulations in their ordinances and create land-use policies to control urban sprawl. When considering what sustainable practices to use in development ordinances, the encouragement of mixed-use development and open space preservation ranks high when examining ordinances for the inclusion of sustainable practices (Jepson, & Hines, 2014). Adopting regulations that allow for more mixed-use development can allow for development ordinances to create a more sustainable community. Using smart growth practices to adopt land-use policies can help control urban sprawl, leading to more sustainable practices. However, there has to be local buy-in from local political leaders and developers (Park, Park, & Lee, 2012). Understanding the local political environment and how they are likely to adopt policies and implement ordinances will help understand how policies and ordinances are

adopted. Understanding the local political environment and how they are likely to adopt policies and implement ordinances will help understand how policies and ordinances are adopted.

New Urbanism, along with smart growth, is another trend that municipalities are taking to combat urban sprawl. New Urbanism is defined as a development approach based on how communities have been designed over the past several years; to include walkable streets, housing and shopping nearby, and ease of access to public spaces (Congress for the New Urbanism, 2020). New Urbanism incorporates sustainability ideas and gives developers a menu of choices for developing a neighborhood rather than a set of rigid design criteria. These design standards coincide with environmental friendliness, sustainability and create a more socially sustainable lifestyle (Al-Hindi, 2001). Municipalities have been incorporating New Urbanism design practices into their codes for the past 40 years or so; however, the political landscape can determine if adoption occurs. Planners have tried to write codes and ordinances that promote mixed-use, connected street patterns, and walkable communities. However, often, either market conditions or the political environment does not support the full adoption of the effort (Grant, 2009). This environment can create instances where ordinances are adopted, but plans approved are more reminiscent of older zoning and development code. are more reminiscent of older zoning and development code.

Adopting a UDO does not come without its challenges, from increasing property values outside of affordability to alienating individual builders. Some of the larger municipalities have seen increases in property values and rising rental costs, which can lead to economic issues for lower-income families in the attempt to redevelop areas (Farabee, 2019). Revitalization of neighborhoods to bring in mixed-use development and higher-end homes can be detrimental to those who depend on affordable housing. There have been times when a developer bought lower-

income housing for mixed-use retail/housing, and people are displaced. A study found that areas with mixed-use development increased housing costs so that they were the highest cost per room when compared to other locations across the metropolitan area (Moos et al., 2018). When Raleigh, North Carolina, wrote its UDO, the Single-Family Residential builders from the Homebuilder's association commented as feeling pushed out by the City of Raleigh by the UDO due to the more stringent infill requirements to build in established neighborhoods and bond requirements (Band, 2014). Builders are concerned that this would raise the cost of building to the point where smaller, local builders may not be able to compete with national builders. Requirements may also make it difficult for builders of single-family residential to compete with planned, mixed-use development.

In conclusion, the Unified Development Ordinance goal is to bring about consistency in development by having one concise document that holds all development codes. The UDO can be beneficial for municipalities by allowing for future growth and master planning. The UDO can create sustainable, smart growth opportunities as long as the local municipality can adopt and implement the regulations. New Urbanism is a shift in planning that tries to bring in smart growth planning, sustainability, and urban sprawl regulation. However, it is not without its challenges, such as rising property taxes and raising the cost of living in previously affordable areas. The UDO adoption also caused some smaller developers to feel unable to keep up with the cost of the stricter requirements. The next step is to look at how the UDO has affected municipalities' social and economic growth. Looking at the social and economic growth within a municipality can determine UDO's impact on municipalities in North Carolina.

The existing literature currently addresses what the UDO is and how the UDO affects sustainability and can affect affordable living areas. The research that I am proposing will

address how the UDO affects social and economic growth within the municipality by looking at how the UDO affects mixed-use development and housing costs. This research proposal should address this literature gap by exploring how the UDO has affected development within the municipality.

Research Question

The previous section's literature review identified potential benefits and challenges that a Unified Development Ordinance brings to a municipality. It provided the framework for why municipalities would choose to adopt a UDO, from providing simplified code to future growth and mixed-use development. However, there was little research regarding the implementation of UDO adoption. With this in mind, this study seeks to answer, "*How has the adoption of the Unified Development Ordinance affected social and economic growth within municipalities in North Carolina?*"

Hypothesis

Two hypotheses have been developed as answers to how UDO adoption affects social and economic growth within municipalities, including 1) increased mixed-use development and 2) increasing housing costs.

The first hypothesis is *if the municipality adopts the UDO, the mixed-use development will increase in the municipality*. Municipalities who adopt UDO's can be flexible with zoning and create plans based on future growth (Horner et al., 2018). The UDO allows communities to look at land use plans and zone land for mixed-use development versus having land zoned just for residential and commercial purposes. Mixed-use development across cities will increase as UDO's are adopted and implemented, and the result will be communities that more planned out able to handle future growth. The UDO gives planners flexibility in the permits that they issue,

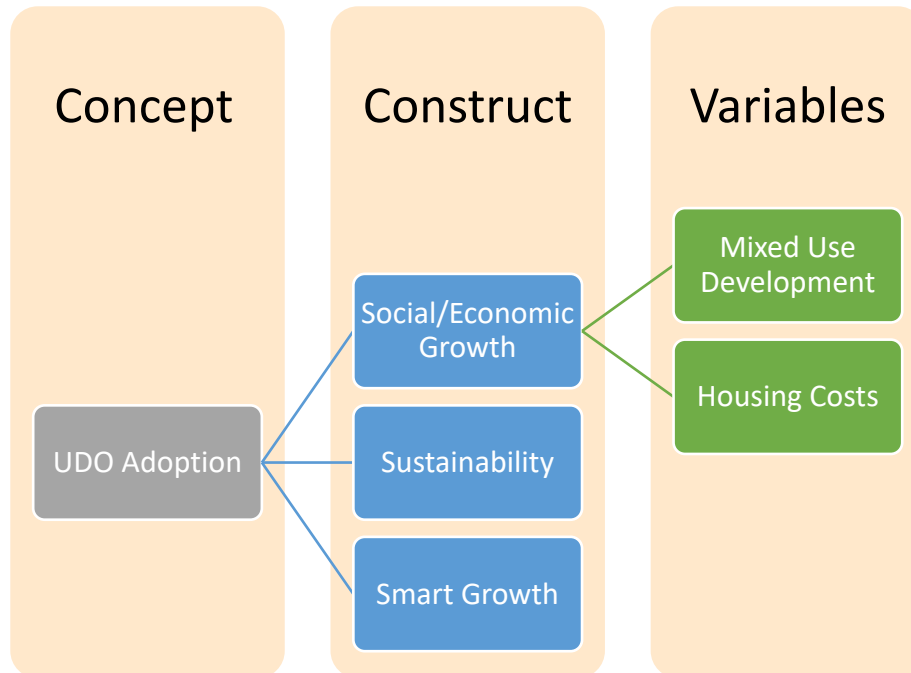
allowing them to give thought to the overall effect that the development will have on the environment around it (Morris, 1993). The UDO gives planners flexibility in the permits that they issue, allowing them to give thought to the overall effect that the development will have on the environment around it (Morris, 1993).

The second hypothesis is that *if the municipality adopts the UDO, the housing cost will increase in the municipality*. A challenge presented by UDO adoption and implementation is increasing housing costs. One of the factors of increased housing costs is created by mixed-use development (Farabee, 2019; Moos et al., 2018). The stricter requirements that builders of single-family homes face to adhere to infill and bond requirements (Band, 2014). Increased housing costs can strain residents who need affordable housing and possibly force residents to move outside of the municipality if they cannot afford the living cost.

Concept Development

UDO adoption is the central concept evaluated by both hypotheses in this research proposal. The literature review reveals that several constructs can be studied to include UDO adoption on social and economic growth. The effect on social and economic growth can be seen through the indicators of mixed-use development and housing costs. UDO adoption allows for a more unified development plan, which increases mixed-use development. The integrating of mixed-use development can create a more desirable, walkable, and sociable place to live. Increased mixed-use development is an indicator of economic growth within a municipality. Increased housing costs can also result as municipalities strive to create more desirable places to live, allows easier access to work, shopping, and other amenities. A concept map showing the relationships between the concept, constructs, and variables is located in Figure 1.

Figure 1.



Data Collection, Sampling, and Measurement

Data Collection

I will collect data in two phases to understand how the UDO has affected growth in North Carolina. Phase I will consist of surveying development managers within municipalities and developers in North Carolina and collect data on the adoption of the UDO, factors involved in the UDO adoption, gauge ease of using UDO, and doing business with municipalities who have a UDO. The unit of analysis in the survey is municipalities and the developers. By surveying the development managers and developers, I can collect data on the UDO implementation and how it affects the development community.

The survey will be primarily conducted online, using a tool such as Survey123 or SurveyMonkey. However, paper copies of the survey will also be made available for those who prefer to fill out and mail back in a paper copy. Respondents who choose a mail-in copy of the

survey will be provided a pre-stamped envelope for the survey's return to aid in cost. I anticipate the survey process to last at least three weeks, with reminders to those who have not completed the survey to be sent out at specific intervals to aid in data collection.

Phase II will consist of collecting secondary data to measure the growth of those municipalities who responded to the survey. Secondary data will analyze the growth of the municipality before and after UDO adoption. I will also compare municipalities' growth with and without a UDO to determine if there is a change in development growth. Secondary data will consist of population data, average income, average home price, percentage of homeownership, percentage of income spent on housing, and data on new homes build in North Carolina. I will collect data from the United States Census Bureau and the United States Bureau of Labor Statistics.

Sampling Strategy

The sampling strategy is purposive sampling. The audiences I have chosen for this study will be the most responsive and most representative to understand UDO adoption and implementation. Development or zoning managers for a municipality are most knowledgeable about how their municipality enforces their zoning and development ordinances. They will also be the most likely to know any historical data in the survey. Surveying the development community through the NC Homebuilders Association and the North Carolina Chapters of Commercial Real Estate Association allows for measurement on how UDO adoption affects the development community and the choices they make in developing in municipalities with a UDO.

The survey will be sent to all of the development or zoning managers in North Carolina. There are 551 incorporated municipalities and 100 counties in the State of North Carolina (Office of State and Budget Management, 2020). I will reach out to each via email and letter

with an invitation to complete the survey. Reaching out to all municipalities and counties in North Carolina will allow all municipalities of all sizes to respond and give counties with unincorporated areas a chance to respond. The unit of analysis in the survey is municipalities and the developers. This sample allows for municipalities of all sizes to respond and builders of all size companies. I will also send the survey to the NC Homebuilders Association members and the NC Commercial Real Estate Association Members. Most developers are a member of one of these two organizations, so going through the organizations to reach out to developers could obtain a representative sample of the development industry.

Measurement

The survey will measure the independent variable, UDO adoption, and its effect on the dependent variables, mixed-use development, and housing costs. Secondary data will further investigate the dependent variables and be used in conjunction with the survey to measure the data. The unit of analysis in the survey is municipalities and the developers.

Survey

1. Does your zoning office use land-use planning to assist with zoning efforts?

1. Yes
2. No
3. We are developing/revising our land-use plan

2. How many building permits does the zoning office receive for commercial development per month?

1. 0-5
2. 5-10
3. 10-15
4. More than 15

3. How many building permits does the zoning office receive for single-family residential development per month?

1. 10-20

2. 20-30
3. 30-40
4. More than 40

4. What type of home do you live in?

1. House
2. Condominium
3. Apartment
4. Mobile Home
5. Other: _____

5. How likely are you to own or rent a home within a mixed-use development?

1. Strongly agree
2. Agree
3. Neutral
4. Disagree
5. Strongly Disagree

6. How many planned communities have your zoning office received permits for?

1. 0
2. 1-5
3. 5-10
4. More than 10

7. How likely are you to build in a municipality with a UDO?

1. Strongly agree
2. Agree
3. Neutral
4. Disagree
5. Strongly Disagree

8. Are you more likely to build in the County versus a Municipality?

1. Strongly agree
2. Agree
3. Neutral
4. Disagree
5. Strongly Disagree

9. Do your costs for building differ between municipalities with a UDO and without?

1. Strongly agree
2. Agree
3. Neutral
4. Disagree
5. Strongly Disagree

10. On average, how many homes do you build in a year?
 1. 10-20
 2. 20-30
 3. 30-40
 4. More than 40

11. On average, how many commercial or mixed-use developments do you build in a year?
 1. 1-5
 2. 5-10
 3. 10-15
 4. More than 15

12. Can you describe your experiences working with a municipality that has a UDO?

13. Have you had any challenges working with a municipality that adopted a UDO?

14. What is your occupation?
 1. Council Member
 2. Planning and Zoning Manager
 3. Town Manager/Other Municipal Employee
 4. Builder
 5. Other: _____

15. Has your municipality adopted a Unified Development Ordinance?
 1. Yes
 2. No
 3. We are in the process of developing a Unified Development Ordinance

16. What is the population of the area you serve?
 1. Less than 50,000
 2. 50,000-100,000
 3. 100,000-150,000
 4. 150,000-200,000
 5. More than 250,000

17. What municipality(es) do you serve?

Questions 1, 2, 3, 6, and 11 measure "mixed-use development" and questions 4, 5, and 10 measure "housing development", and questions 7, 8, 9, 12, and 13 measure "development within the municipality."

Questions 14, 15, 16, and 17 control the effects of occupation, unified development ordinance adoption, population, and location.

Control variables are occupation, unified development ordinance adoption, and population. I am controlling for occupation so that I can understand what role the respondent serves in the organization. UDO adoption is controlled for, as it is important to know whether the respondent has a UDO. Population and location are also controlled to understand the municipality's size that the respondent represents and ensure that representation of all sizes of municipalities in the study.

Secondary Data will be taken from the US Census Bureau and the US Bureau of Labor Statistics. The secondary data will measure housing costs and determine if there is a correlation between UDO adoption and housing costs.

Validity, Reliability, Generalizability

The potential threat to validity, in this case, would be that builders/developers may not be willing to answer questions honestly. They may feel if they did, then repercussions may ensue since I am a government employee. I would take every precaution to ensure that the development community members felt secure, knowing that their answers are anonymous and only for research purposes. A letter of informed consent would accompany the survey, which would outline the risks and benefits of the research. I would state what information would be collected

and how the information would be stored. There would, of course, be a means to opt-out of the study.

The potential threat to reliability for this study would be the bias of the researcher. Since I do work in a government regulatory field, I could unknowingly put a bias on the survey results. To prevent this bias, I will enlist a research assistant's help to code the survey results since there are open-ended questions. I will give the research assistant a codebook and train them to understand the study's purpose and the code to ensure no ambiguity during the coding process.

This study researches UDO adoption and its impact on social and economic growth in North Carolina. To determine if this study would apply to states beyond North Carolina, one could potentially open up the survey to respondents to other states whose demographics in population size, population growth, and UDO adoption rate are comparative to North Carolina. This approach could give a more general view to determine if UDO adoption impacts to social and economic growth on municipalities.

Communication of Findings

This research will be of great help to stakeholders in both the local government and the development community. I plan to submit my findings at practitioner-focused conferences, such as the North Carolina chapter of the American Planning Association. Presentation of my conclusions at such conferences will allow me to speak with key decision-makers in communities who have adopted UDO's and organizations that are considering UDO adoption.

UDO adoption and its impacts on municipalities' growth is not something that only affects communities here in North Carolina. Therefore, I will also develop a paper that would highlight the findings of the study. I plan to submit my findings to practitioner-focused journals

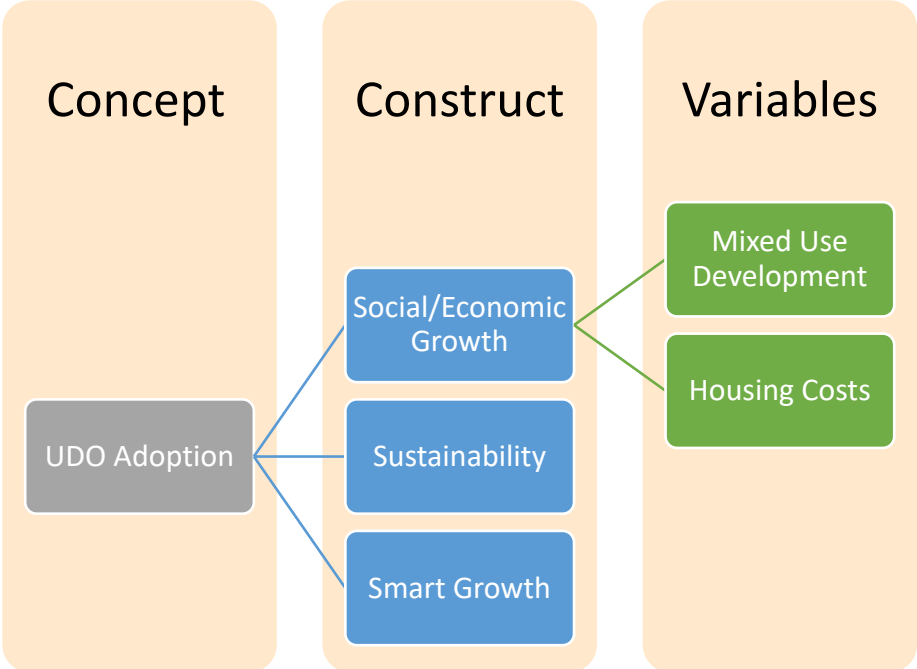
such as the Journal of the American Planning Association, Journal of Planning and Land Management, and Landscape and Urban Planning to communicate my findings with planning professionals across the United States.

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Appendix A- Concept Map



Appendix B- Table of Measurements

Variable	Measurement	Source
Mixed Use Development (Independent Variable-Hypothesis 1)	Building Permit Data	US Bureau of Labor
	Survey Data	Questions 1, 2, 3, 6, 7,8, 9, 11, 12, 13
	Population Data	US Census Bureau
Increase Housing Costs (Independent Variable-Hypothesis 2)	Average Income	US Census Bureau
	Average Home Price	
	Percentage of Homeownership	
	Percentage of Income spent on Housing	
	# of New Homes Built in NC	US Bureau of Labor
	Survey	Questions 4, 5, 10
UDO Adoption (Control Variable)	Survey	Question 15
Population (Control Variable)	Survey	Question 16
	US Census	
Location (Control Variable)	Survey	Question 17
Occupation (Control Variable)	Survey	Question 14