

THE FLORIDA STATE UNIVERSITY

COLLEGE OF SOCIAL SCIENCES

**THE PRICE EFFECTS OF THE URBAN SERVICE AREA BOUNDARY IN
TALLAHASSEE, FLORIDA**

By

Charles G. Warnken

A Dissertation submitted to the
Department of Urban and Regional Planning
in partial fulfillment of the
requirements for the degree of
Doctor of Philosophy

Degree Awarded:
Spring Semester, 2003

The members of the Committee approve the dissertation of Charles
G. Warnken defended on 21 February 2003.

Charles Connerly
Professor Directing the
Dissertation

David Rasmussen
Outside Committee Member

Ivonne Audirac
Committee Member

ACKNOWLEDGEMENTS

The author would like to thank the entire faculty and staff in the Department of Urban and Regional Planning at The Florida State University. Both Charles E. Connerly and James E. Frank deserve special recognition.

In addition, the research would not have been possible without time, patience and assistance from the following individuals:

Tim Allen, Transportation Specialist, City of Tallahassee Growth Management Department

Dawn Davis, Planning and Policy Development Center, Leon County School District

Enid Ehrbar, Comprehensive Planner, Tallahassee-Leon County Planning Department

Rick Fausone, Research Supervisor, Research and Graphics Division, Tallahassee-Leon County Planning Department

Joe Goeke, Engineering Technician, Water Utility Division, City of Tallahassee Public Works Department

Valerie Johnson, GIS Mapping Specialist, Leon County Management Information Services

Chris Lewis, Systems Administrator, Leon County Property Appraiser

TABLE OF CONTENTS

List of Tables..... v
List of Figures..... vii
Abstract..... viii

DISSERTATION OVERVIEW..... 1

1. GROWTH MANAGEMENT AND URBAN CONTAINMENT IN
FLORIDA..... 2

2. GROWTH MANAGEMENT, SPRAWL AND USING LAND MARKETS
TO EVALUATE URBAN CONTAINMENT POLICY..... 5

3. DETERMINANTS OF LAND VALUES, HEDONIC PRICING AND
DESCRIPTION OF VARIABLES..... 29

4. RESULTS: THE PRICE EFFECTS OF THE USA BOUNDARY..... 51

5. CONCLUSIONS AND POLICY IMPLICATIONS..... 91

APPENDICES..... 114

REFERENCES..... 123

BIOGRAPHICAL SKETCH..... 134

LIST OF TABLES

1. Causes, characteristics and consequences of urban sprawl...	14
2. Population growth and projected growth by region in Leon County, Florida 1970-2020.....	32
3. Determinants of land value: variable explanation and expected relationship.....	46
4. Descriptive statistics of parcels	51
5. Descriptive statistics for land values and parcel size by sub-market.....	53
6. Descriptive statistics for parcels by region.....	55
7. Logarithmic regression results for the total data set and by parcel location relative to the USA boundary; urban/rural breakpoint at 4 du/a.....	59
8. Logarithmic regression results for the total number of observations and by parcel location relative to the USA boundary; urban/rural breakpoint at 1 du/a.....	62
9. Logarithmic regression results for parcels by region with an urban/rural breakpoint at 4 du/a.....	66
10. Logarithmic regression results for parcels by region with and urban/rural breakpoint of 1 du/a	69

11. Logarithmic regression results for parcels in Northern and Southern regions in Leon County with an urban/rural breakpoint of 4 and 1 du/a.....	71
12. Logarithmic regression results for parcels in Eastern and Western and in Leon County with an urban/rural breakpoint of 4 and 1 du/a.....	73
13. Zoning specific logarithmic hedonic results.....	77
14. Descriptive statistics for all parcels within one mile of the USA boundary.....	79
15. Logarithmic regression results for parcels located within one mile of the USA boundary.....	81
16. Logarithmic regression results for parcels located within one mile, inside of the boundary.....	85
17. Relationship between zoning designation and land values..	95
18. Residential densities included in the Tallahassee-Leon County Comprehensive Plan included in this study..	117
19. Correlation coefficients between independent variables.....	122

LIST OF FIGURES

1. Hypothesized effect of the USA boundary as a supply constraint on urban and rural land rent gradients.....	19
2. Hypothesized effect of the USA boundary as a timing constraint on urban and rural land rent gradients.....	20
3. Hypothesized effect of the USA boundary with a positive land rent gradient.....	22
4. Hypothesized effect of the USA boundary with the existence of Nelson's gradient.....	24
5. The price effects of the USA boundary on urban and rural land values.....	25

ABSTRACT

Urban containment strategies have long been a central part of Florida's growth management system but literature advocating municipal adoption of an urban containment strategy has far outweighed rigorous analysis of Florida's primary tool seeking to promote contiguous urban development and fiscally efficient service provision, the urban service area (USA).

This study examines the price effects of the USA boundary in Tallahassee, Florida by examining the impact of the USA boundary on area land markets. The findings suggest the establishment of the USA strategy is statistically associated with a price suppression effect on low-density land values, though the magnitude of the effect can be characterized as mild. However, the findings also suggest that the USA strategy is not influencing land values and development trends in the manner anticipated. The primary implications of the findings suggest that Tallahassee's system of incentives and disincentives to manage the location and timing of urban development through infrastructure phasing is not a strong enough carrot to influence the location of urban development. These findings have significant land planning implications for Tallahassee and Leon

County, notably that sewer provisions may not be the growth shaper envisioned by program architects.

The author demonstrates that great care needs to be taken when designing research seeking to identify the price effects of growth controls on area land markets, as the results are very sensitive to how variables are measured.

The primary conclusion drawn from this research is that land planning agencies need to pay particular attention to how distinct land development regulations may work at cross-purposes and thus defeat some of the aims of comprehensively managed growth. Most importantly, communities must carefully consider the trade-offs involved when implementing urban containment programs, namely the perceived short vs. long-term impacts of land management programs, as well as the trade-offs between the fiscal efficiency gains and social equity implications of a USA strategy.