

Policy Impacts on Farmland Values at the Urban Fringe: The Case of Ontario's Greenbelt (19)

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In 2004 the provincial government of Ontario initiated a growth management plan called the "Greenbelt." The intent of this policy is to support agriculture, enhance environmental amenities in near-urban areas, and control urban growth. One component of the Greenbelt legislation prohibits the non-agricultural development of prime agricultural land within an established Greenbelt boundary. The Greenbelt boundary encompasses about 1.8 million acres of farmland and environmentally sensitive areas in close proximity to Toronto, which is located within Canada's most populous region – the Golden Horseshoe. The Greenbelt is controversial because the gains and losses are not yet well understood and are perceived by some to be asymmetrically distributed among urban and rural residents within the Golden Horseshoe. A prominent source of conflict concerns the potential effects of the Greenbelt on the value of farmland within its boundaries. In this paper we use empirical methods and economic theory to examine the property value effect.

The theoretical literature (e.g., Brueckner, 1990; Henneberry and Barrows, 1990) that examines the relationship between growth controls and agricultural property values suggests the property value effect is ambiguous unless fairly strict assumptions are imposed (see Brueckner, 1990). Given the theoretical ambiguity it is not surprising that the empirical literature examining the effects of agricultural zoning is mixed. Studies by Vaillancourt and Monty (1985) and Nelson (1986) found that zoning had a significant negative impact on affected farmland values, while other studies have not found evidence of such negative impacts (Nickerson and Lynch, 2001) and even suggested that positive effects may also occur due to zoning (Henneberry and Barrows, 1990).

In our paper we review the literature that examines the effects of growth controls on agricultural property values. A theoretical model similar to Brueckner (1990) provides the basis for developing a hypothesis regarding the property value effect of Ontario's Greenbelt on farmland that is zoned strictly for agricultural use. A hedonic model is used to test the hypothesis.

The hedonic model uses the sale prices of agricultural properties and detailed parcel attribute information from over 20,000 sales in Southern Ontario between 2002 and 2006. Land quality, structural, amenity and location attributes are incorporated into the hedonic model. Examples of

these attributes include land class, crop heat units, farm type, house attributes such as age, square footage, and number of bathrooms, and the value of farm buildings. In addition, spatial variables that proxy the effects of urban influences on farmland values, such as distance to cities and to major highways, are incorporated through the use of geographic information systems (GIS). GIS is also used to determine whether each parcel lies within the Greenbelt boundary.

The results of this research provide clarification for the controversy between government organizations and farm groups regarding the effects of the Greenbelt on farmland values. In addition, the results can provide further value to the government as it is considering expanding the Greenbelt boundary at some point in the future (http://www.mah.gov.on.ca/userfiles/HTML/nts_1_23409_1.html).

References

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