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A direct test of the homevoter hypothesis

Carolyn A. Dehring [a,*], Craig A. Depken II [b], Michael R. Ward [c]

[a] *University of Georgia, GA, USA*
[b] *University of North Carolina-Charlotte, NC, USA*
[c] *University of Texas at Arlington, TX, USA*

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Abstract

We propose a methodology that facilitates a direct test of the homevoter hypothesis, which posits that homeowners vote in favor of public projects they perceive increase residential property values and against those that do not. First, we estimate how pre-referendum events that signal a higher probability that the public project will be undertaken impact local residential property values before the referendum is held. These pre-referendum impacts are considered noisy signals to homeowners about the market's assessment of the net marginal benefits of the project. Second, we aggregate these market signals to the precinct level and relate them to precinct-level voting results concerning the proposed project. We apply this two-step approach to the 2004 referendum in Arlington, Texas, for a publicly subsidized stadium for the NFL Dallas Cowboys. The analysis supports the homevoter hypothesis and establishes a possible methodology for future evaluations in this small but growing empirical literature.
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1. Introduction and motivation

Standard voting models assume voters show more support for public spending projects when the expected marginal consumption benefits exceed the marginal costs. When the net benefit of the project influences the value of voters' assets, this wealth effect is expected to influence voting behavior. The capitalization of local public goods into residential property prices has been well established in the economics literature[1]; both the models of Wildasin (1979) and Sonstelie and Portney (1980) show that voters prefer public goods offered at levels that maximize the value of their house, *ceteris paribus*. If the amount of a public good is not offered optimally from a purely consumption perspective, the voter can sell the house and relocate to another jurisdiction in which public goods more closely match the preferences of the voter.[2]

* Corresponding author at: University of Georgia, Department of Insurance, Legal Studies and Real Estate, 2006 Brooks Hall, Athens, GA, USA.
E-mail address: cdehring@terry.uga.edu (C.A. Dehring).

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[1] Oates (1969) is the first empirical work on the capitalization of the level of public spending.

[2] Brueckner and Joo (1991) show that with imperfect mobility, consumption effects will enter into the voter's calculus, although this is less so the earlier the voter expects to leave the community.

Voter support for local public goods or services that preserve or enhance residential property values has been coined the "homevoter hypothesis" by Fischel (2001). Fischel considers homeowners as shareholders in municipal corporations. Unlike their stockholder counterparts, homeowners cannot easily diversify their assets; their home likely constitutes the majority of their wealth. Moreover, homeowners find it harder to move, relative to non-home owners, because of higher transaction costs. These characteristics make it more likely that voting and political activism is more important to homeowners. Specifically, according to the homevoter hypothesis, homeowners are more likely to vote for (against) proposed public goods perceived to increase (decrease) residential property values.

To date, there have been only three empirical tests of the homevoter hypothesis. Brunner et al. (2001) examine voter behavior in California's 1993 school voucher initiative. The initiative would have subsidized private elementary and secondary schools, and hence would have decreased the willingness to pay for housing in quality public school districts. They estimate the premium or discount associated with each of the 74 school districts in Los Angeles County. They establish a negative correlation between the premium paid for housing and support for the school choice initiative, which suggests that homeowners who thought their property values would be harmed by the school choice initiative voted against the proposal. In a follow-up paper, Brunner and Sonstelie (2003) use survey data from potential voters regarding California's 2000 voucher initiative. Their finding that homeowners without school children but in good public school districts were less likely to vote for the initiative than if they lived in inferior school districts lends further support to the homevoter hypothesis.

In a different approach, Hilber and Mayer (2006) test the homevoter hypothesis by examining the relationship between school district spending and the elasticity of supply of vacant residential land. Using data from 46 states, they find that districts having lower percentages of vacant to developed residential land tend to spend more on public education. They argue that quality of education is capitalized in house prices and that in areas where there is less potential for future development, education quality is capitalized in house prices to a greater extent than in areas where there is more potential for new residential development. Their evidence suggests that homeowners consider this tradeoff and are more prone to vote for increases in education spending when they stand to gain more through an increase in the value of their property, *ceteris paribus*.

This paper adds to this small empirical literature by providing the first direct empirical test of the homevoter hypothesis in the context of a large discrete project. We examine voting in a referendum for a new publicly subsidized stadium in Arlington, Texas, for the Dallas Cowboys National Football League (NFL) team. The public subsidization of sports stadiums is a controversial issue, and the debate over whether a subsidy is justified is often finalized at the ballot box. Stadium proponents highlight the quality of life improvements and economic activity generated by new sports venues, thereby justifying subsidies on the basis of public benefits. Carlino and Coulson (2004, 2006) contend that a stadium, or more specifically a franchise that plays in the stadium, provides non-excludable public benefits such as civic pride and enjoyment from being a fan, for which some residents may be willing to pay a premium. Tu (2005) discusses job creation, increased local spending, and economic revitalization of depressed areas.

Those critical of stadium subsidies counter that public benefits of new stadiums tend to be overstated *ex ante*, and that stadium subsidies primarily provide wealth transfers from the taxpaying public to team owners, players, and those fans who will attend events in the new venue. The debate concerning a publicly funded stadium is often contentious and referenda tend to be relatively narrowly decided. As pointed out by Coates et al. (2006), referenda on stadium and arena subsidies have met with mixed results, suggesting that at least in some cases the majority of voters perceive the costs of publicly subsidized facilities to exceed the benefits.[3] Referenda that are narrowly approved or rejected might reflect greater uncertainty about the actual benefits and costs of the stadium.

On November 3, 2004, the citizens of Arlington, Texas, voted on a proposal to increase local sales and user taxes to contribute $325 million to the construction of a new, retractable roof stadium for the NFL's Dallas Cowboys.[4] The proposal was announced in early August of 2004 and, following the model of other successful referendum campaigns, the subsequent three month campaign for the Cowboys stadium focused on the benefits of hosting the Cowboys and the expected positive impact of a new stadium on the future development of

[3] For example, Major League Baseball's San Francisco Giants were denied a publicly built stadium by several Bay Area cities during the 1990s; the Giants eventually built a majority privately financed stadium on the waterfront in downtown San Francisco.

[4] In December 2006, approximately one year into construction, it was announced that the stadium will cost at last $1 billion. The city's contribution is capped at $325 million.