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## Public Interest Statement

Do vacation properties swell the budgets of their school districts? As with commercial and industrial properties, the existence of vacation homes in a community presents an opportunity for year-round residents to spread the cost of public education across taxpayers who do not vote and will not use education services. Using data from the state of Georgia in the United States, I find that the more vacation properties a school district has, the larger its budgets will be. Those larger budgets, however, do not necessarily mean that the districts will hire more teachers than other districts with fewer vacation properties.

## 1. Introduction

The presence of vacation homes in a community creates an opportunity for full-time residents to export a portion of their local taxes. As residents choose to increase the tax rates in their communities, a portion of the tax burden falls upon vacation property owners who typically neither vote in local elections nor consume many local

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local education revenue totaling more than \$10,700 per student in the 2010–2011 school year. Rabun has a small but growing population and a picturesque rural setting. In fact, the entire county is located within Black Rock Mountain State Park and less than two hours from the city of Atlanta, which may explain why it happens to have the state's largest percentage of vacation properties. Greene and Putnam have percentages of vacation properties that are smaller than Rabun's but still fall into the top decile of the state. They too are an easy drive from Atlanta and have numerous opportunities for outdoor recreation and scenic tourism.

These few cases suggest that counties may indeed take advantage of the tax-exporting opportunities that vacation properties provide. This paper investigates that issue further through a review of relevant literature and a quantitative analysis of data from all 159 counties in the state of Georgia. The next section includes a discussion of previous research. Following that is an explanation of methods for this study, a description of the analysis and results, and implications for policy.

# 2. Previous research



industrial and commercial properties that would not consume any education services yet could not vote against any increases. Ladd pointed out, however, that industry enjoys more mobility than commercial activities, so any drastic increase in education taxes will be limited by the possibility that such businesses will leave the community. Commercial properties, on the other hand, are less mobile as they must be located near their target customers.

A more recent study in Norway supports Ladd's conclusions. Hægeland, Raaum, and Salvanes (2012) examined the effects that hydroelectric stations, facilities that are exceptionally immobile, have on education budgets and student outcomes. The authors found that the presence of such resources in a school district caused increases in education expenditures which in turn were associated with increases in academic outcomes.

In response to such studies connecting the mix of property types to education resources, equity-minded education finance reformers pushed for states, rather than localities, to tax industrial properties and spread the revenue across districts. However, a second study by Ladd (1976) and a later study by Nelson (1983) argued that the redistribution of taxes on industry would do little to improve equity in education budgets because communities with industrial development had a combination of price effects and wealth effects influencing education revenues; moving the taxes on



may be overstated by many people. Her research shows that income differences play a declining role in determining differences in per-pupil spending compared to what they once did.

So far, research on the effects of vacation properties in a given district has examined local government finances generally and not education budgets specifically. On average, they find that vacation properties are associated with local government budgets that are larger than if the properties were owned by year-round residents. Fritz (1982), for example, found that high percentages of vacation homes in Vermont increase local property tax rates, even to the point of increasing the burden on year-round residents beyond that found in other communities. Hadsell and Colarusso (2009), in a study of communities in New York state, found a similar effect in rural areas but not in more densely populated towns, perhaps because of the greater presence of commercial and industrial properties in the towns.

Studies that focus on local government spending rather than tax rates also report an increase associated with vacation properties. Anderson's (2006) study in Minnesota found that an increase in vacation properties within a community leads to an increase in local government spending. Anderson's later (2008) work found that the impact of vacation properties on government spending depends in part on the wealth of the year-round residents. Poorer communities, he reported, increased their local government



# 3. Research question and hypothesis

Owners of vacation properties sometimes complain that they must pay a share of taxes that is disproportionate to their consumption of local services. This displacement of costs is especially true of education services. While vacation property owners want police and fire protection to preserve their property, they typically do not enroll their children (or their renter's children) in schools. Some states go a step further by imposing higher taxes on second homes than they do on primary residences (Saltzman, 2009). The popular homestead exemption is one way that some states and local governments have shifted costs away from year-round residents. Furthermore, the values of seasonal properties are tied more to tourist amenities of the area, such as mountain views and waterfront access, than to government services, giving their owners little incentive to support or care about local public schools (Anderson, 2008).

Do year-round residents of vacation areas take advantage of the opportunity to increase education services beyond what they might otherwise spend? Literature suggests that when communities have the chance to export taxes and increase services, they will do so, at least until income effects and the departure of vacation home buyers prevent such increases. This study proposes the following hypothesis:



Because states differ greatly in approaches to education finance, this study conducts a within-state comparison of school districts, as other studies have done (Anderson, <u>2006</u>; Fritz, <u>1982</u>; Hadsell & Colarusso, <u>2009</u>; Hoxby, <u>1998</u>; Ladd, <u>1975</u>, <u>1976</u>; Nelson, <u>1984</u>). I selected Georgia as the state for study because its school districts rely heavily on local taxes, it has a large number of school districts, and the boundaries of the vast majority of those districts match the boundaries of the county government, for the most part keeping local budget decisions and their relationships with property use well aligned. These criteria are helpful for this study and rarely found in the same state.

Nearly half of Georgia's education funding comes from local revenues, making it more suitable for this research than states which rely more heavily on state funding. Georgia has 159 counties, each of which operates its own public school system with financial support from both the state and federal governments. All 159 districts are represented in the data. Georgia also has 18 smaller autonomous school districts operating separately from the county-run school systems, but these entities are excluded from the data because several of the necessary variables are only available at the county level.

The US Census website provides data on the use of housing, offering a measurement for the main independent variable as well as some control variables discussed later. The independent variable of interest is the percentage of properties in each district that



differences, the study includes a measure of the percent of residents in each county who are white. Third, the study employs a median income variable to account for fiscal capacity of local districts. Bergstrom and Goodman (<u>1973</u>) used data from 10 different states to show that residents' race, income, and age are significantly related to local government expenditures. Denzau and Grier (<u>1984</u>) similarly found evidence that income and race affect local school spending.

Drawing on the work of Ladd (<u>1975</u>), this study also includes control variables for the presence of non-residential properties by including four variables for the percent of school taxes coming from industrial, commercial, agricultural, and utility properties. As Ladd found, such properties affect the choices faced by the median voter by presenting opportunities to export taxes, much the same as vacation properties as posited in the hypothesis. Data for these variables come from the Department of Revenue of the State of Georgia. To control for the costs of educating students who tend to be more difficult to teach, the study includes variables of the percent of students who have individualized education programs (IEP), the agreed-to accommodations by the district for students found to have disabilities affecting their learning, as well as the percentage receiving free or reduced lunch at school (often referred to as FRL), a common measure of poverty among school children.

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Weighting by enrollment allows the model to account for economies of scale that may exist as a result of variation in district size.

# 5. Results

Results support the hypothesis that vacation properties have a positive effect on local education budgets when controlling for other factors. A 1% increase in vacation properties is associated with an average increase in local per-pupil spending of about \$78, controlling for other factors. Ladd's work in <u>1975</u> similarly showed that residents of a locality will choose more expensive services when some of the burden can be shifted onto commercial and industrial entities that do not vote; this study adds vacation properties to that list. In fact, the coefficient for vacation properties is substantially higher (and more statistically significant) than any of the other property-related independent variables (Table 2).

Table 2. WLS regression analysis for local pupil and student-teacher ratio Download CSV Display Table	l education revenue	per
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per teacher in the district, as seen in the second model. While it is often assumed that older voters will not support education spending, there is evidence that they in fact are quite dedicated to public schools, a notion that finds strong support in these results. As for the IEP variable, while it is no surprise that special education programs put greater demands on school budgets, what is noteworthy here is that the effect is so pronounced on the local portion of the budget. Communities with disproportionately high rates of students with learning disabilities are raising revenue among their own taxpayers to cover the costs, it would seem, over and above whatever grants they might be getting from state and federal sources for those purposes.

A few other interesting patterns appear in the results table. While commercial properties have a powerful impact on lowering the student-teacher ratio, they have no significant effect on the local revenue for education. Utility properties, on the other hand, are associated with more local education revenue, but have no significant impact on student-teacher ratios. Similarly, as state revenues in a district increase, the local share decreases, but the shift has no effect on student-teacher ratio shrinks. On those counts, one could presume that grants from the state and federal government are earmarked for different purposes, the former for administrative costs and the latter for instructional, for example. As for why commercial properties affect only ratios and utilities affect only budgets, the causal mechanism is more difficult to discern. Perhaps

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budgets, the additional funds are not being spent exclusively on decreasing class size. Instead, those additional funds may be going to additional services, facility improvements, or salaries for teachers or administrators. Further research might explore how this money is usually spent.

There are several limitations to this study. The first is the use of a single state as the sole source of data. While the state is well suited for this study, Georgia's experience may not be applicable to other settings with different political cultures and economic conditions, but, for those same reasons, it would not be an improvement to lump districts from different states together unless an adequate way of controlling for the many differences could be implemented. Nearly all studies of school funding examine only one state at a time for this reason. A second limitation is the fact that in addition to Georgia's 159 county-based school districts, there are 18 autonomous school districts that are separate from the county systems. Their absence from the study may introduce some bias to the findings. If better data could be found in the future, a more precise study could improve upon the work presented here.

This study has implications for the issue of homestead exemptions and efforts for district resource equalization. Anderson's (2011) study of Minnesota found that local government budgets are sufficiently elastic that when homestead exemptions offered reductions in tax burdens, communities responded with a proportional increase in taxes



officials and parents of students, should be aware that differences in vacation properties will translate into differences in school funds. Policies that encourage vacation properties can be a modest but effective opportunity for districts struggling to fund schools, provided those districts include settings and locations desirable to vacationers. At the same time, districts that do not possess such settings will fall behind in their school funding, or will need to tax their own residents all the more, something state government would do well to notice.

# Acknowledgements

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# Additional information

# Notes on contributors

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