

LOCATION-BASED DEVELOPMENT IMPACT FEE PROGRAMS & NEW BUSINESS LOCATION DECISIONS*

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Presentation Outline

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- Motivate the topic
- Theoretical framework & previous empirical studies
- Data & methods
- Results
- Policy implications

Taxation & Business Location Decisions

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- Scholars of Taxation/Policy issues have long been interested in how local taxes influence the location of businesses (economic development).
 - Early work by John Due (1961) found no evidence of a deterrence effect of state & local taxes on business location decisions. “Much ado about nothing” mentality dominated the 1960s & 1970s.
 - However, Bartik (1985) and others challenged this conventional wisdom, showing higher local taxes did indeed deter local economic development.
 - In general, this is a contentious literature. The one unifying theme all can agree on is that, *ceteris paribus*, businesses like lower taxes but simultaneously prefer higher quality local public services – leading to a simple Tiebout-like framework where businesses locate in places that **provide the best value for their tax bill.**

Development Impact Fee Basics

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- What are impact fees?
- What are impact fee revenues used for?
- How big are they?
 - ▣ \$0 in many locations but sizeable in others – reaching levels of \$25,000 per 1,000 interior square feet. [“Big Box” retail like Walmart/Target could pay upwards of \$2-\$5 million in the highest cost locations.]
- Why are they so controversial?

The *Perils* of Impact Fees: It's simple! More Taxes/Regulation = Less Development?

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- Critics of impact fees focus on the possibility that they will stifle economic development, leading to:
 - Less new construction, employment and investment
 - Higher housing prices
 - Decreased economic vitality of the community

The *Promise* of Impact Fees: More to the (Benefits view of local Taxation) Story?

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- ▶ Along with the monetary costs of the impact fee, programs should produce meaningful benefits.
 - ▶ Valuable public infrastructure to service newly developed areas (Yinger, 1998; Moody and Nelson, 2003)
 - ▶ Reduced future property taxes (Yinger, 1998; Ihlanfeldt and Shaughnessy, 2004)
 - ▶ Increase in the amount of land zoned for development purposes (Burge and Ihlanfeldt, 2006)
 - ▶ Reduce the prevalence and/or stringency of other regulatory barriers to development. (Fischel, 1990; Gyourko, 1991; Altshuler and Gomez-Ibanez, 1993; and Ladd, 1998)

Impact Fees and Economic Activity?

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- Several papers focus on housing markets
- A handful have investigated connections to local employment
 - ▣ Nelson & Moody (2003) find a positive effect
 - ▣ Jeong & Feiock (2006) also find a positive effect
 - ▣ Burge & Ihlanfeldt (2009) add fixed effects to control for selection issues, find commercial impact fees have a negative effect but residential impact fees (schools, parks) have a positive effect.
- Jones (2015, EDQ) considers business establishments & finds Impact Fees lower # of restaurants but have no effect on other firms.
- What do we add?
 - ▣ First paper to Investigate new business location decisions
 - ▣ Border's Approach to control for selection issues.

Does the Type of Impact Fee Program matter for new businesses?

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- ▶ Most categories of Impact Fees (e.g., road, fire, police, public buildings, EMS) are paid by BOTH commercial and residential developers.
 - ▶ Here we expect both (monetary) costs and other (service related) benefits.
- ▶ However, some ARE NOT paid by Commercial, Specifically, school impact fees:
 - ▶ The effect on commercially activity should be positive, since they create no direct costs but still provide benefits.

Panel Data Set: Impact fees

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- ▶ 1997-2016 panel from Florida. Unit of observation is a county/year.
- ▶ 3 main types of impact fee variables, all respect within-county variation in impact fee rates for counties with zone-based programs
 - ▶ Commercial impact fees: average fee per 1,000 square feet of interior footage across general retail, office, and industrial categories. (County/year level)
 - ▶ School impact fees: fee for an average sized home (1,800 square feet). (County/year level)
 - ▶ **For the cross-border models we also create the border-specific impact fee differentials; using those rather than impact fee levels. (County-to-County pairwise differentials for each contiguous county pair/year)**

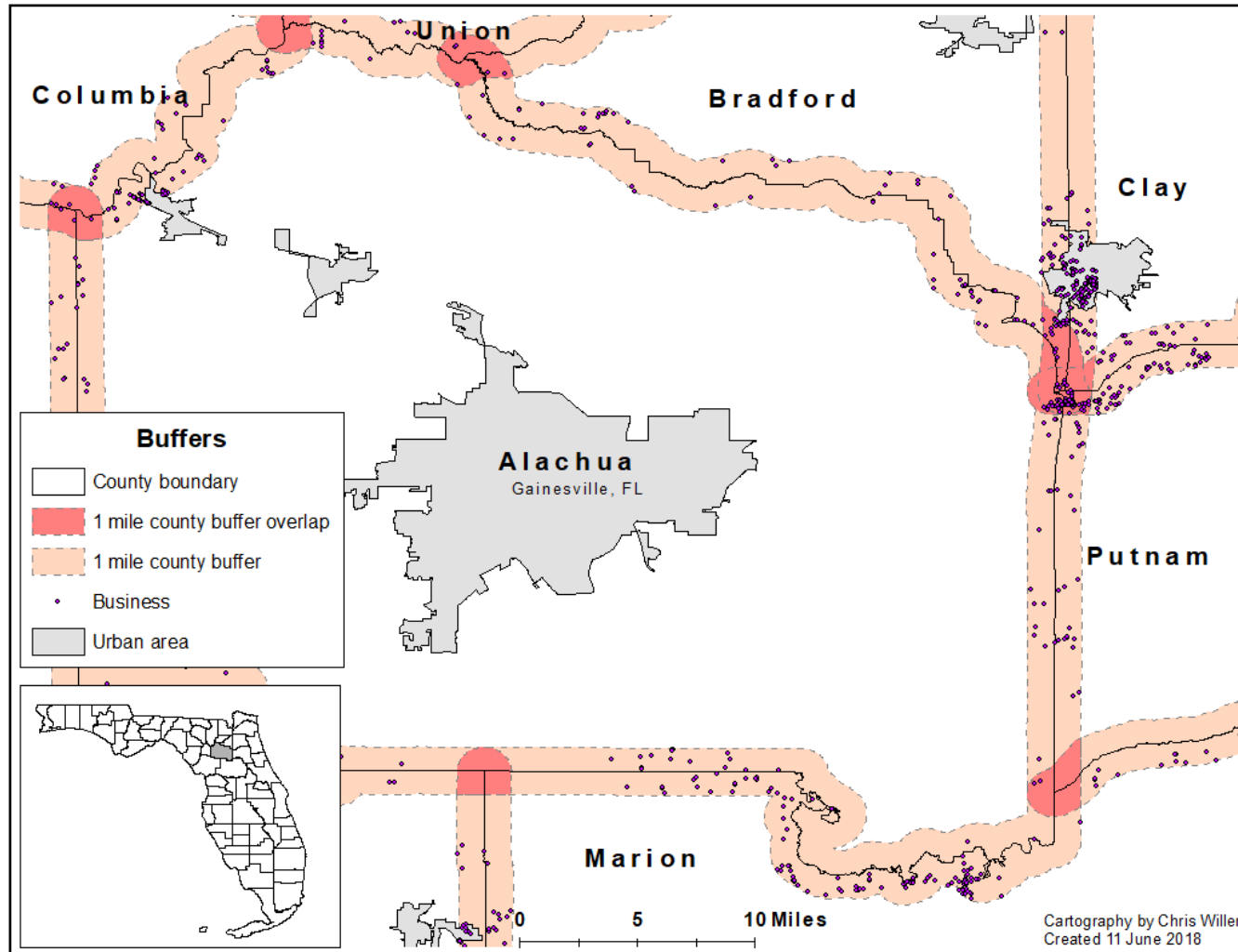
New Business Establishments Data

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- ▶ From the Infogroup Historical Business Dataset we have the entire population of *establishment level* firms, using this to form variables measuring the number of **new (1 year or less) and existing (4+ years old) business establishments** for each year in the panel.
- ▶ **Over this population of firms we observe**
 - ▶ exact address
 - ▶ business age
 - ▶ industry code
 - ▶ volume of total sales
 - ▶ total number of employees

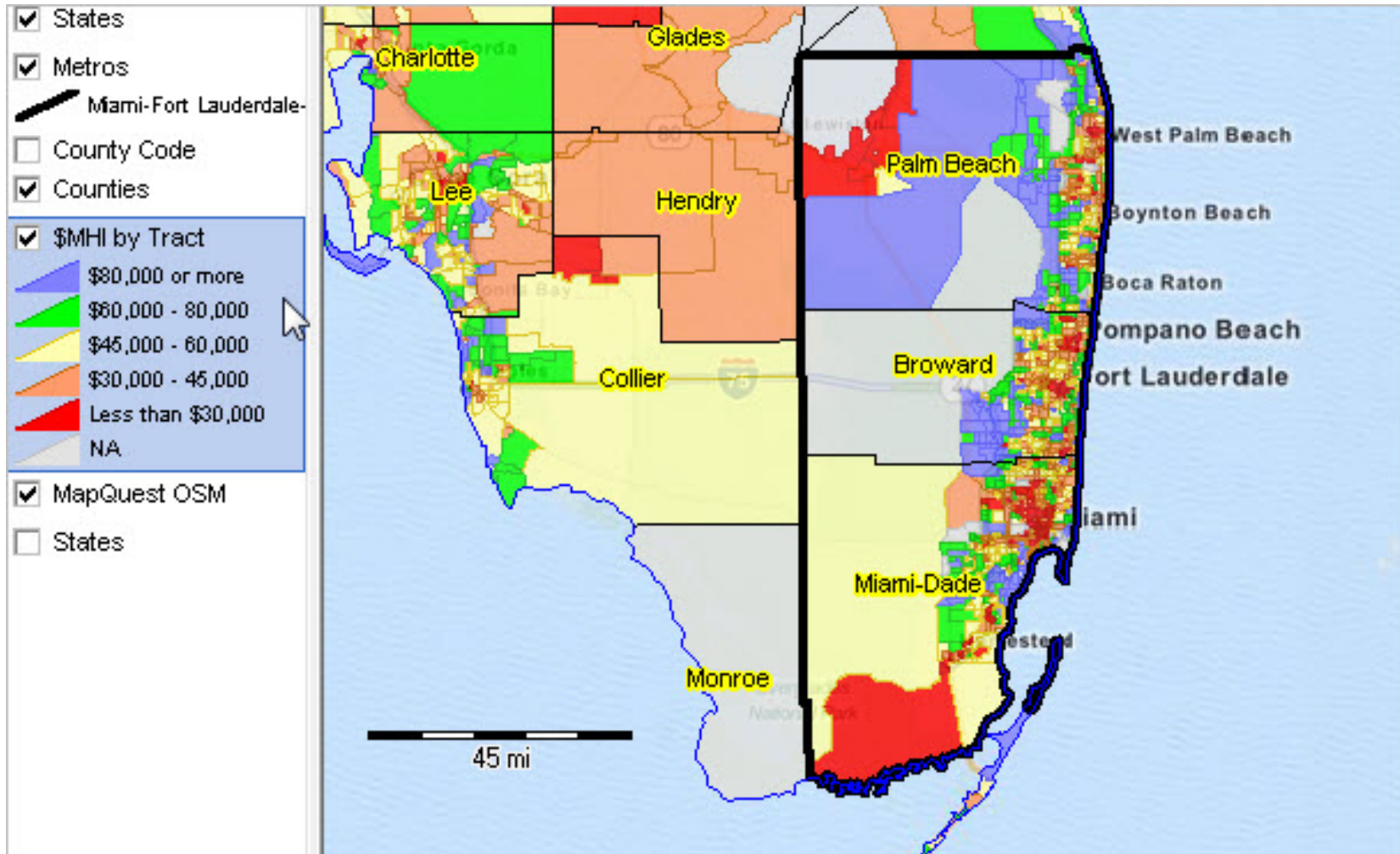
Mechanics of the Borders Approach

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The Border's are NOT all Rural!

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Baseline Estimation Models

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- ▶ We run 2-way fixed effects (county, year) models

$$Y_{jt} = \beta DIF_{jt} + \gamma_j + \mu_t + u_{jt}$$

- ▶ Y is a vector of outcomes of interest including:
 - ▶ # of new establishments
 - ▶ # of existing establishments
 - ▶ Total Sales volume
 - ▶ Total Employment
- ▶ DIF is the vector containing the various development impact fee levels of interest.
- ▶ We run these for both **county-wide outcomes** and for the **county-border-pairs** approach focusing in the 1-mile buffer zones.

Results: County-wide, # of establishments

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- **Commercial Impact Fees: Uniformly insignificant**
 - ▣ Same for new, existing, and Total establishments
 - ▣ Consistent with the classic “much ado about nothing” Due/1961 finding.

- **Education Impact Fees: Positive and Significant**
 - ▣ Finding holds across new, existing, and total establishments
 - ▣ A \$1,000 increase in school impact fees (roughly the mean value) increases the number of establishments by about 1.3% immediately, staying positive for each lag length considered, and dissipating to an effect of about 0.7% by the third year out.

Results: Employment & Sales Volume

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- Commercial & Residential Impact Fees both lead to higher levels of employment, operating through effects on levels of existing firms.
- Evidence for causing higher levels of sales is weaker, just a few positive results for the school impact fee variable.

Results: The Borders Approach

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- Recall that we are worried about selection issues & potential reverse causality.
- The Border's approach, using impact fee differentials, forms a nice control/treatment pairing, isolating the causal effects of the impact fee monetary costs more precisely.
- Here we use border-pair level fixed effects instead of county level fixed effects. (Year Fixed effects are still included)

Results: The Borders Approach

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- Strong negative effects seen on the Commercial impact fee variable, a \$1,000 increase leads to a roughly 2.1% decline in the overall number of new establishments.
- Interesting though, the school impact fees, which carried no direct costs – still surface as strongly significant and positive. To the commercial developer – this seems like a bit of a person ‘free lunch’. [That is not to imply that is a fair outcome, this just highlights that the burden has been shifted away to residential developers, and likely in turn, to residential property owners/renters.
- Similar patterns are seen when we look instead at Employment levels and the volume of total sales.

Conclusions & Policy Implications

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- At the border, higher (lower) impact fees levied upon commercial developers are found to decrease (increase) levels of new business establishments, employment, and sales.
- No such relationship is seen at the county-wide level, suggesting that some combination of selection issues and a lack of direct access to the higher quality public services affects these dynamics.
- School impact fees, by shifting the cost burden away from commercial to residential, are everywhere found to increase all of our 3 measures of economic activity.

Future Extensions

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- We would love some feedback! What makes sense? What can we do better?
- We would love to break this down separately into retail/commercial/office space segmented establishment tallies and use the impact fee variables that are more precisely tied to that particular category – right now we are essentially estimating a sort of weighted average across the 3.
- Distinguish between the effects at the rural boundaries versus the urban boundaries.

The End

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- Thanks so much!

