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

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Presentation Outline

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

- 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?

- 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?

- 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?

- 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?

- 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

- 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)
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
The Border’s are NOT all Rural!
Baseline Estimation Models

- 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

- 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

- 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

- 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

- 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

- 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

- 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

- Thanks so much!