

# What Determines the Level of Business Property Taxes?

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# Outline

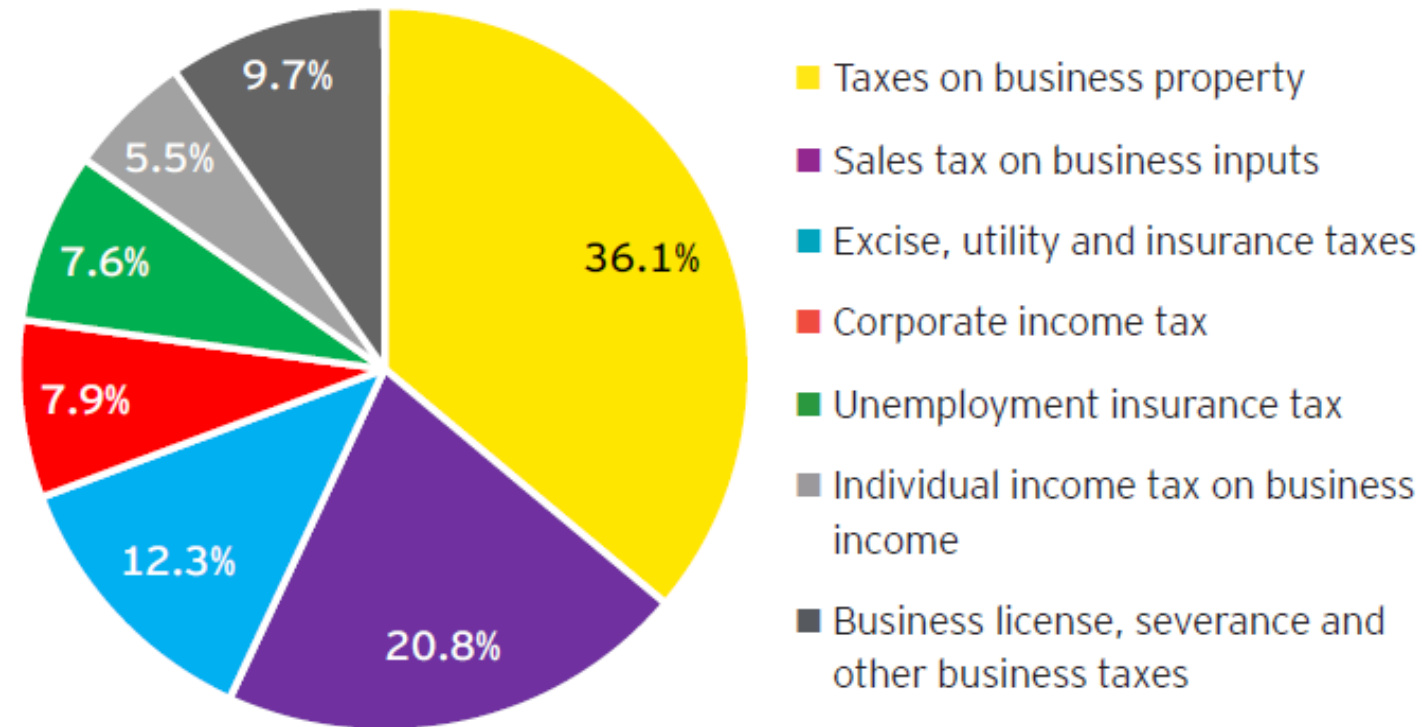
- I. What are business taxes and how big are they?
- II. Conventional wisdom about how gov'ts choose business taxes and an alternative
- III. Data about business property taxes
- IV. Testing conventional and alternative theories

# I. What are **business taxes** and how big are they?

- Inherent ambiguity in the term “business tax” since burden of all taxes eventually falls on some individual
- Despite this, consensus in applied policy literature that ‘business taxes’ include most taxes with an *impact incidence* on business.
- Stylized facts from many studies show that **business taxes account for nearly half of all S&L tax revenue.**
  - For example, Phillips et. al. (2014) find that the business share of total S&L taxes is 44.9%

# Among S&L business taxes property tax is the largest

Figure 1. Composition of total state and local business taxes – FY2013



Note: Figures do not sum due to rounding.

Source: Ernst & Young LLP estimates based on from the U.S. Census Bureau, state and local government finances.

## II. Conventional wisdom about S&L business taxes and an alternative

### Conventional Wisdom

- Oakland and Testa (1996)...general business taxation should ...**recover the costs of public services rendered to the business community**
  - Without recovery of the costs of business services, voters may not support worthy public services provided to business.
  - [if business taxes are too high] the voting public...may believe business taxes can...subsidize...households

### Alternative model

- City has market/monopoly power because businesses are heterogeneous
- Business taxes and services set to maximize decision-maker utility which depends on
  - Business tax revenue
  - Possibly
    - Resident labor earnings
    - Firm profits

### III. Data about business property taxes

- Data come from **Minnesota Center for Fiscal Excellence *50 State Property Tax Study (payable 1998 to 2013)***
- Study covers the largest city in each state and the 50 largest US cities as well as some others
- Simulations of effective property tax rate (ETR) on real estate parcel of designated type and market value taking into account
  - *De jure* classification rate
  - Assessment/sales ratio
  - Credits etc.
- I study ETRs of median-valued homestead property and commercial parcel worth \$1 million with \$200K of tangible personal property.

# Descriptive information about business property taxes

Table 1:  
Effective Tax Rates (ETR) on Property by Year in Large US Cities

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
year	Number of cities	Home ETR (mean)	Commercial ETR (mean)	Ratio commercial to home (mean)	Ratio commercial to home (minimum)	City at the minimum	Ratio commercial to home (maximum)	City at the maximum
1998	51	0.015	0.022	1.76	0.83	Wilmington, DE	6.43	New Orleans
2000	51	0.014	0.022	1.70	0.83	Newark, NJ	4.10	New York City
2002	51	0.014	0.021	1.63	0.83	Manchester, NH	4.14	New York City
2004	55	0.014	0.021	1.62	0.71	Portland, OR	5.04	New York City
2005	73	0.015	0.020	1.57	0.83	Manchester, NH	6.05	New York City
2006	73	0.014	0.020	1.59	0.82	Cheyenne, WY	5.83	New York City
2007	73	0.013	0.019	1.63	0.83	Manchester, NH	7.14	New York City
2008	74	0.013	0.018	1.64	0.83	Manchester, NH	7.36	New York City
2009	74	0.014	0.019	1.61	0.83	Manchester, NH	5.41	New York City
2010	74	0.014	0.019	1.57	0.71	Wilmington, DE	5.01	New York City
2011	74	0.014	0.019	1.55	0.79	Wilmington, DE	5.03	New York City
2012	74	0.015	0.020	1.62	0.83	Newark, NJ	4.97	New York City
2013	74	0.015	0.021	1.56	0.83	Manchester, NH	4.50	Columbia, SC

Source: Minnesota Center for Fiscal Excellence (various years) and author's calculations.

Home ETRs are for the Median-Valued Owner-Occupied House in each city in each year. Commercial ETRs are for a parcel with a nominal market value of \$1 million and \$200,000 worth of fixtures

# V. Descriptive information about business property taxes (continued)

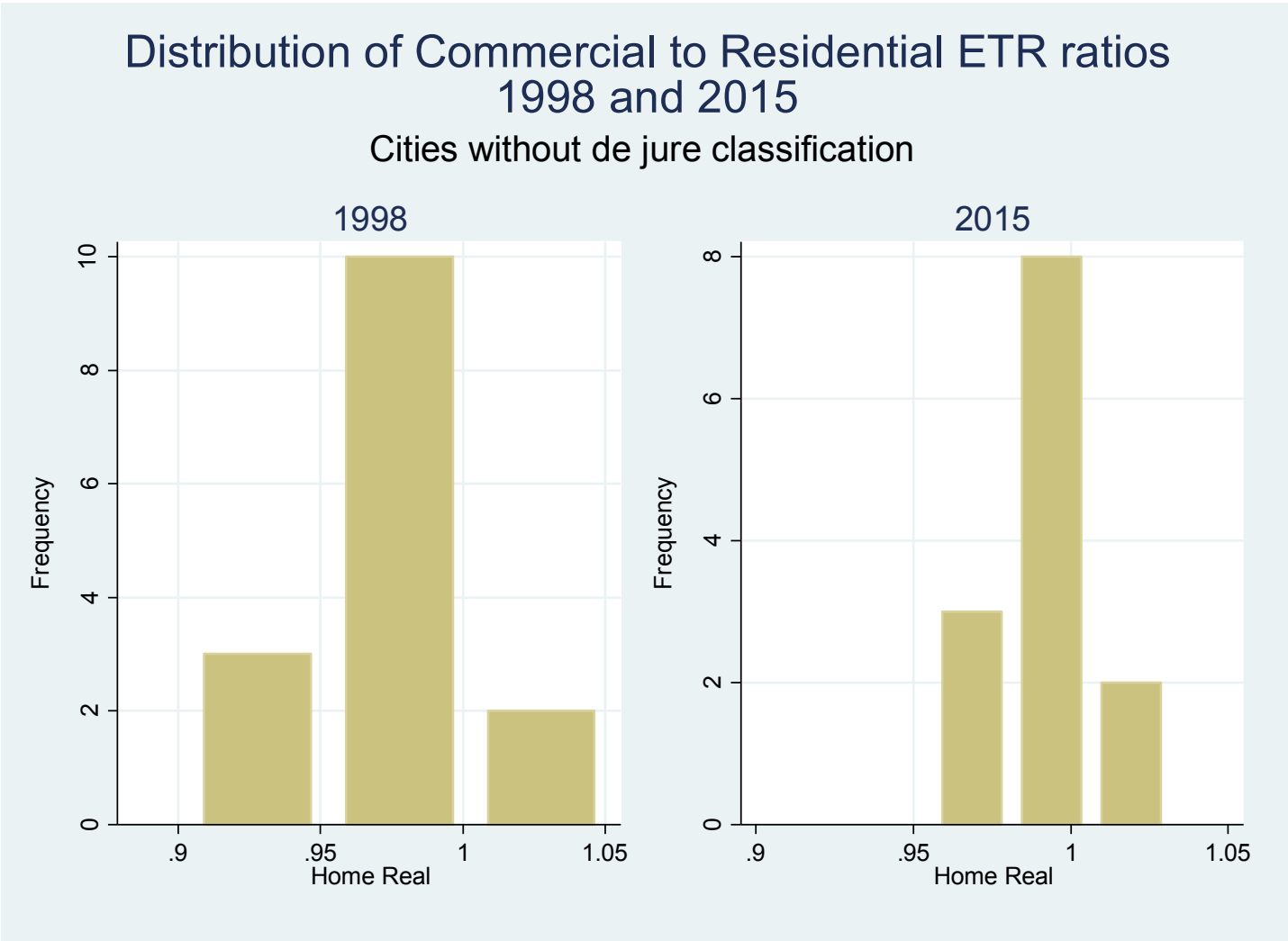
Table 2:  
Selected City by city results

State, City	Ratio commercial to home ETR		Number of years with data	State, City	Ratio commercial to home ETR		Number of years with data
	Mean	Std. Dev.			Mean	Std. Dev.	
Alabama,Birmingham	2.14	0.07	13	Mississippi,Jackson	1.86	0.12	13
Arizona,Phoenix	2.89	0.37	13	Nebraska,Omaha	1.01	0.01	13
Arizona,Tucson	2.52	0.35	9	Nevada,Las Vegas	1.00	0.01	13
California,Fresno	1.04	0.01	9	New Jersey,Newark	0.85	0.04	13
California,Long Beach	1.02	0.01	9	New Mexico,Albuquerque	1.23	0.05	13
California,Los Angeles	1.02	0.01	13	New York,Buffalo	1.44	0.07	9
California,Sacramento	1.03	0.01	9	North Carolina,Charlotte	1.01	0.01	13
California,San Diego	1.02	0.00	9	North Carolina,Raleigh	1.00	0.02	6
California,San Francisco	1.01	0.00	9	North Dakota,Fargo	0.92	0.03	13
Illinois,Chicago	2.08	0.63	13	Texas,Austin	1.08	0.03	9
Illinois,Naperville	0.87	0.00	1	Texas,Dallas	1.20	0.03	9
Indiana,Fort Wayne	2.87	0.00	1	Texas,El Paso	1.01	0.05	9
Indiana,Indianapolis	2.10	0.59	12	Texas,Fort Worth	1.04	0.03	9
Iowa,Des Moines	1.84	0.17	13	Texas,Houston	1.22	0.08	13
Kansas,Wichita	2.25	0.08	13	Texas,San Antonio	1.01	0.05	9
Total					1.61	0.91	871

Source: Minnesota Center for Fiscal Excellence (various years) and author's calculations. Home ETRs are for the Median-Valued Owner-Occupied House in each city in each year. Commercial ETRs are for a parcel with a nominal market value of \$1 million and \$200,000 worth of fixtures

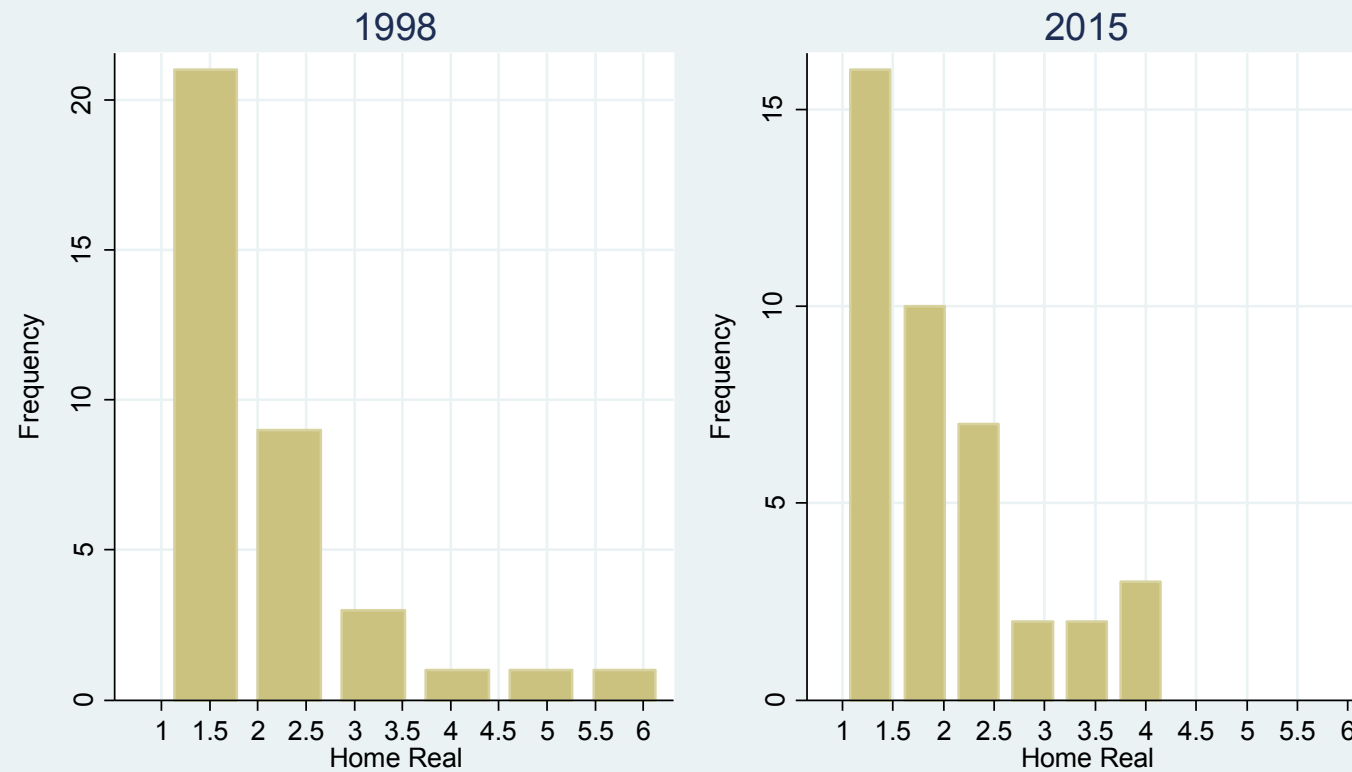


# Cities w/o state sanctioned (i.e. de jure) classification have ETR ratios tightly clustered around 1



# Cities w state sanctioned (i.e. de jure) classification have ETR ratios ranging from 1 to 6

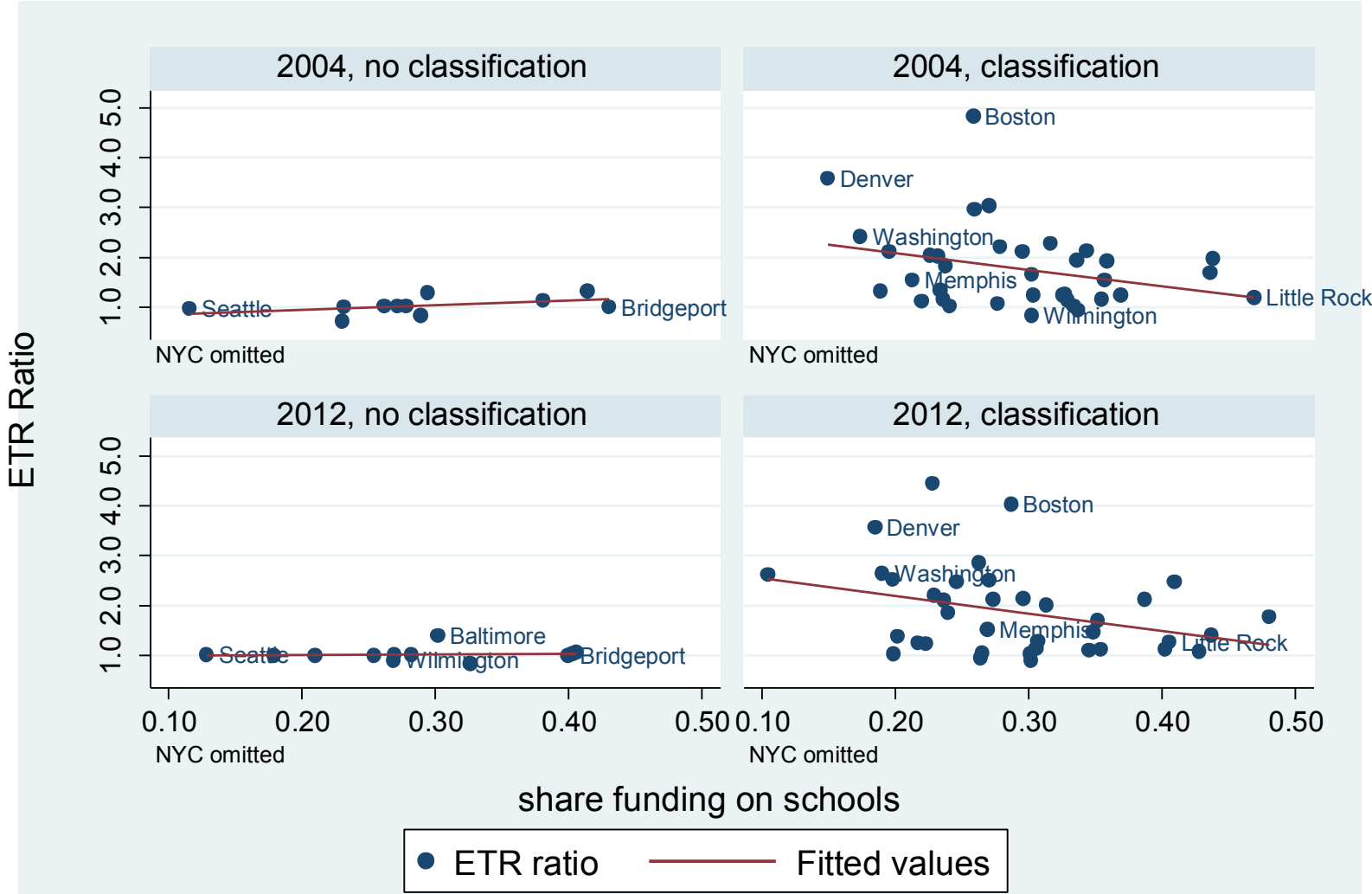
Distribution of Commercial to Residential ETR ratios  
1998 and 2015  
Cities with de jure classification



## IV. Testing conventional and alternative theories

- The within—city, over—time variation in ETR ratios is small in many cities
- Additionally within-*state* effects may be important in some cases.
- Effective sample size may be much smaller than nominal sample size
- Hence, we have modest hopes for definitive hypothesis tests.

Classified Cities with a higher share of spending on schools have lower ratios of business to residential effective property tax rates

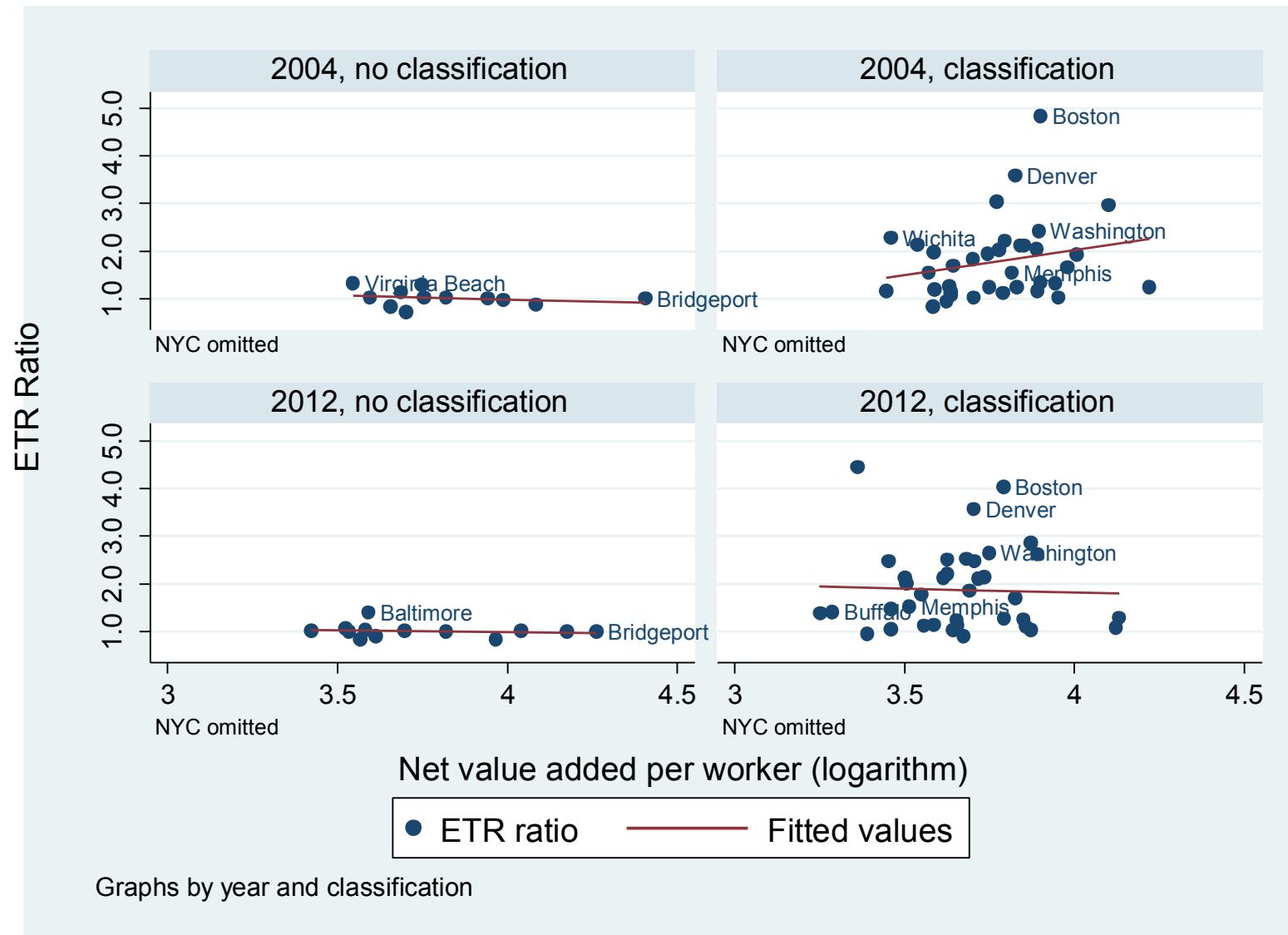


Consistent with conventional wisdom:

Relative business taxes are inversely related to the share of spending on schools

Graphs by year and classification

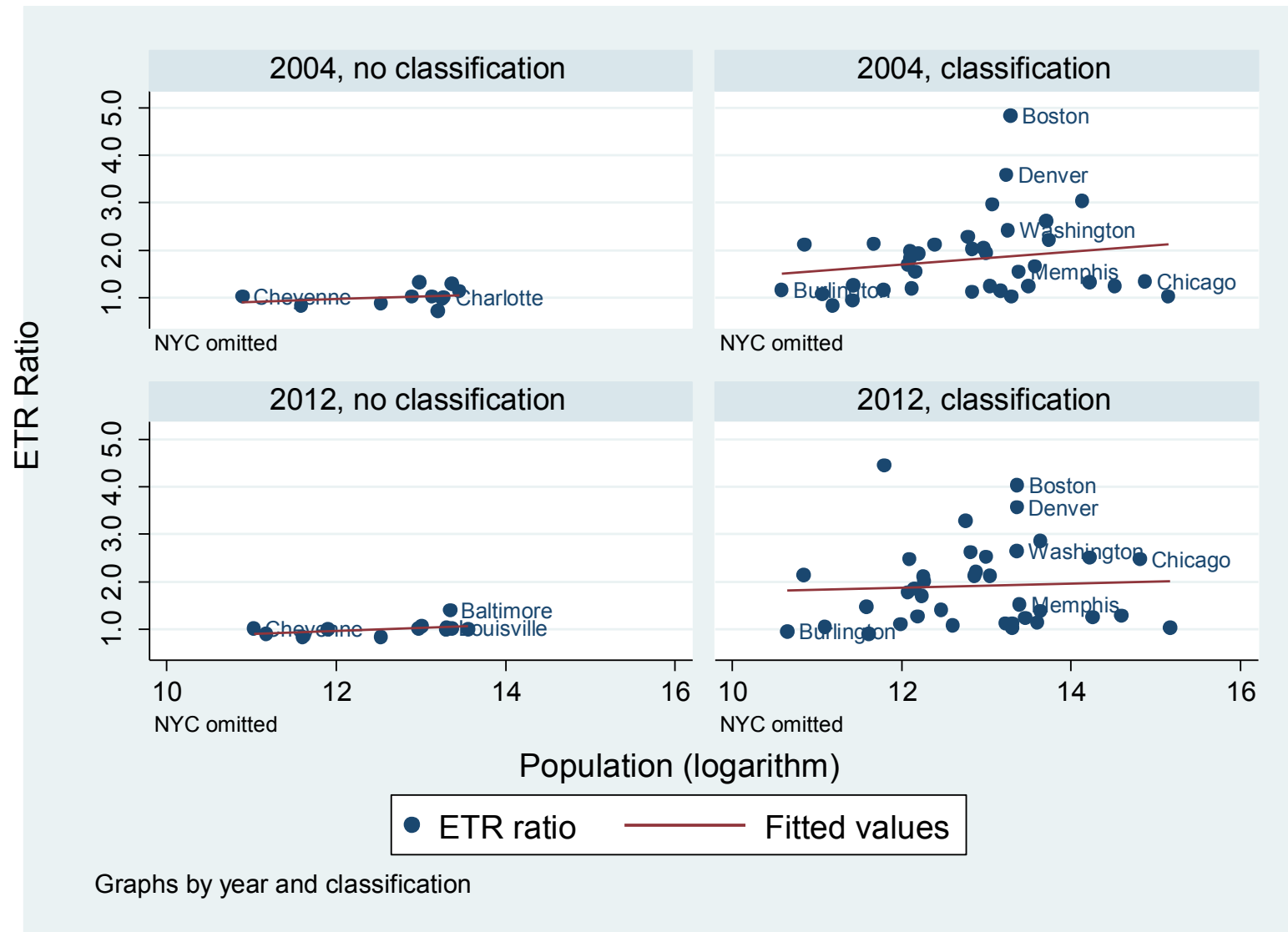
Classified Cities with higher productivity may have higher ratios of business to residential effective property tax rates



Consistent with alternative theory:

Business taxes depend (at least in part) on a city's degree of leverage

Classified Cities with higher populations may have higher ratios of business to residential effective property tax rates



Consistent with alternative theory:

Business taxes depend (at least in part) on a city's degree of leverage

Graphs by year and classification

# Conclusions

1. Contrary to much public discussion business property taxes are unequivocally the largest S&L business tax—and for a variety of reasons probably much more important factor in economic competitiveness than S&L business income taxes
2. Effective commercial property tax rates average 1.6 times homestead tax rates with considerable cross-city variation.
3. Cities' high reliance on business taxes is
  - A. somewhat puzzling because cities compete for business and
  - B. inconsistent with conventional economic theories of business taxation which suggest that business taxes should be the minimum necessary to cover the cost of gov't services provided to business

# Conclusions

4. If
  - A. certain cities are particularly attractive to certain businesses and
  - B. if decision-makers value labor income and tax revenue,
  - C. we can rationalize business taxes exceeding the cost of business services.
5. Empirical study of variation in commercial ETRs is hampered by the lack of within-city over-time variation
6. Available evidence suggests
  - A. Consistent with conventional theories:
    - i. there is some tendency for relative business tax rates to vary inversely with share of spending on schools (a primarily residential service)
  - B. Consistent with alternative theories:
    - i. High value-added cities have somewhat higher business property taxes
    - ii. High population cities (with presumably more market power) have somewhat higher business property taxes