Neighborhood Quality of Life and the Role of the 'Third Place'

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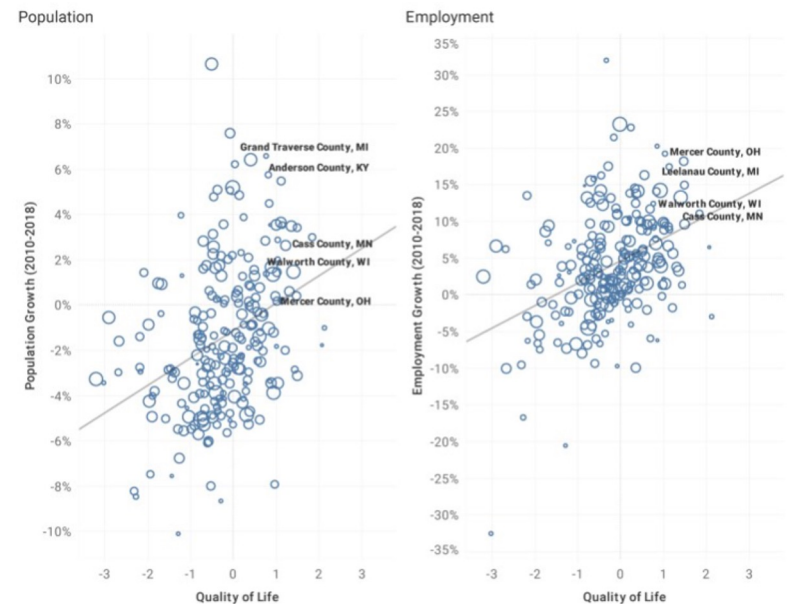
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Roadmap

- Quality of life in regional science
- The "third place"
- Empirical approach
  - Data
  - Model
  - Results
- Discussion

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Quality of Life

- **Quality of life**: the overall well-being and satisfaction of residents in a geographic area, which can be measured by factors such as housing, environment, public services, amenities, and economic conditions.

- **Roback model**: measuring quality of life by analyzing interaction of wages, rents, and location-specific amenities

- QoL is associated with higher population growth and job growth (Weinstein, Hicks, Wornell, 2022); especially true for small towns (micropolitan & rural areas) and for the Midwest

Source: Authors' calculations using Census Bureau data

B | Brookings Metro

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Business Mix as Amenity

- Consumers (residents, shoppers, visitors) increasingly prefer differentiated *experiences* when visiting a business district

- Placemaking focuses on leveraging downtown as an amenity. Revitalization literature mentions complementing retail with options for gathering and entertainment.

- "In order to increase the attractiveness of downtown and draw people there, a variety of shopping opportunities must be present" (Sneed et al., 2011).

- Link between quality of life and business mix is plausible but untested.

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The "Third Place"

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The "Third Place"

- <u>Simple definition</u>: "public places apart from home and work" (Oldenburg & Brissett, 1982)

- "Regardless of where people go to meet and greet each other, the mere fact they feel they believe they have access to third places enhances their perceptions of the quality of life in their community"(Jeffres et al., 2009).

- Third places can help anchor the community by generating social capital (see next slide).

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The "Third Place"

"its the local coffee shop and gossip place central. if you need info about who, what, when, where, or how. stop in between 6-8 am and set down in one of the booths. Anything you need to know can be discovered. its where the towns problems are all solved… LOL"

"[Business name] is the center of [town] & a hot spot for all ages to eat and hang out. If you want to catch someone, they'll be there."

"It has been in the community at least since the 1970's and continues to be owned and operated by the family…As a local says, 'it's like a school reunion on Friday and Saturday nights.'"

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Empirical Approach: What are we doing?

- **Guiding question**: Are *third places* a meaningful component of local quality of life?

- **Our analysis**: model the relationship between third-place business concentration and neighborhood (ZIP-level) home price index
  - Basic approach: cross-sectional OLS
  - Refined approach: TWFE panel regression (still not causally identified, but more robust)

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Data

- Use Data Axle (formerly InfoUSA) to measure third places in ZCTAs across the East North Central census division (WI, IL, IN, MI, OH)

- FHFA data on housing price index (HPI) by ZIP

- Full panel from 1997 to 2019

- Cross-sectional data focuses on other QoL vars in the mid-2010s:
  - Parks and greenspace
  - Schools
  - Downtowns & "Main Street" program
  - Crime (iffy)

```
naics6 == 722515 ~ 'coffeshop',
naics5 == 31181 ~ 'bakery',
naics4 == 7225 ~ 'restaurant',
naics4 == 7224 ~ 'drinking',
naics6 == 453110 ~ 'florist',
naics6 == 721191 ~ 'bnb',
naics6 %in% c(451140,443142) ~ 'music',
naics %in% c(45951050,45951030) ~
'music_vintage',
naics6 == 451211 ~ 'bookstore',
naics4 == 8134 ~ 'civic_social_orgs',
naics4 == 8131 ~ 'church',
naics3 == 711 ~ 'perform_arts',
naics3 == 712 ~ 'museum_historical',
naics3 == 713 ~ 'recreation',
naics == 61169914 ~ 'yoga'
```

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Cross-Sectional OLS Approach

$$Y_i = B_i + N_i + D_i + \phi_i + \varepsilon_i$$

- *Y* = percent change in HPI from 2014–19 for ZIP *i*

- *B* = ratio of 3P businesses to total businesses in 2014

- *N* = vector of neighborhood quality vars (schools, greenspace)

- *D* = vector of demographic vars (race, age)

- *Φ* = commuting zone (CZ) fixed effect

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Two-Way Fixed Effect Approach

$$Y_{it} = x'_{it-1}\boldsymbol{\beta} + \alpha_i + \delta_t + \epsilon_{it}$$

- *Y* is the house price index (HPI) for ZIP *i* in year *t* (1997-2019)
- $x'_{it-1}\boldsymbol{\beta}$ is a set of time-varying characteristics for ZIP *i* in year *t-1*
  - <u>Key explanatory variable</u>: ratio of third-place businesses to total businesses
  - Churn measure = sum of birth rate & death rate (Low, 2009)
  - ZIP size (only possible annually with start of ACS, 2009 onward)
- α_i is the ZIP fixed effect
- δ_t is the year fixed effect
- β is a vector of parameters to be estimated

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Results – Cross Sectional OLS

	All ZIPs
Third-Place Business Ratio	**7.99*****
	(2.923)
Logged # of Households	-0.29
	(0.213)
Share of ZIP as Greenspace	-0.04**
	(0.017)
Student-Teacher Ratio	0.11**
	(0.049)
Percent Nonwhite	0.11***
	(0.013)
Percent 65 and Older	-0.30***
	(0.044)
ZIP has Pre-Automobile Downtown	-0.42
	(0.423)
ZIP's Downtown in Main Street Program	0.20
	(0.789)
Observations	2,589
R^2	0.534

Higher share of total businesses that are "third places"

statistically associated with

higher neighborhood home prices

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OLS Results, Alternate Explanatory Variables

	Coeff/SE	R^2
All Third-Place Business Ratio	**7.99*****	0.534
	(2.922)	
Eating & Drinking Place Third-Place Business Ratio	**31.82*****	0.539
	(5.318)	
Drinking Place Third-Place Business Ratio	**24.97*****	0.534
	(9.077)	
Recreational Third-Place Business Ratio	-7.97	0.532
	(13.507)	
Cultural Third-Place Business Ratio	-5.85	0.532
	(7.119)	
Civic/Church Third-Place Business Ratio	-1.62	0.532
	(4.263)	

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OLS Results, by County Type

	All	Metro	Nonmetro
All Third-Place Business Ratio	7.99***	9.24**	7.70*
	(2.923)	(3.705)	(4.636)
Eating & Drinking Place Third-Place Business Ratio	31.82***	38.05***	22.49***
	(5.318)	(7.239)	(7.405)
Drinking Place Third-Place Business Ratio	24.97***	53.16***	0.68
	(9.077)	(13.896)	(11.169)
Observations	2,589	1,756	833
R^2	0.534	0.540	0.602

Note: "Metro" = county RUCC of 1, 2, or 3

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TWFE Results

	(1)	(2)	(3)
Lagged Third-Place Business Ratio	10.18*	6.48	32.84***
	(6.156)	(5.961)	(7.430)
Lagged Churn Rate		20.53***	19.03***
		(1.979)	(2.539)
Logged ZIP Population			14.02***
			(0.910)
Observations	76,949	74,255	39,789
Adjusted R²	0.413	0.381	0.509

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TWFE Results, Alternate Explanatory Variable

	All Third-Place Biz		Eat & Drink 3P Biz	
Lagged 3P Business Ratio	6.48	32.84***	48.50***	82.77***
	(5.961)	(7.430)	(12.659)	(19.536)
Lagged Churn Rate	20.53***	19.03***	20.88***	18.99***
	(1.979)	(2.539)	(1.971)	(2.394)
Logged ZIP Population		14.02***		13.83***
		(0.910)		(0.911)
Observations	74,255	39,789	74,255	39,789
Adjusted R^2	0.381	0.509	0.382	0.509

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TWFE Results, by County Type

	All Third-Place Biz			Eat & Drink 3P Biz		
	All ZIPs	Metro ZIPs	Nonmetro	All ZIPs	Metro ZIPs	Nonmetro
Lagged Third-Place Business Ratio	34.13***	48.91***	-5.86	100.69***	102.84***	39.08***
	(8.126)	(15.338)	(5.970)	(22.663)	(38.342)	(10.315)
Lagged Churn Rate	21.26***	27.99***	6.47***	21.33***	28.06***	7.00***
	(2.701)	(4.884)	(2.001)	(2.521)	(4.375)	(1.975)
Logged ZIP Population	22.44***	27.64***	8.57***	22.28***	27.60***	8.46***
	(3.652)	(5.495)	(1.985)	(3.643)	(5.492)	(1.977)
Observations	39,789	24,653	15,136	39,789	24,653	15,136
Adjusted R^2	0.493	0.531	0.565	0.494	0.532	0.565

Note: "Metro" = county RUCC of 1, 2, or 3

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Discussion

- The cross-sectional & panel models both agree: the presence of third-place businesses is statistically associated with higher home prices

- Relationship is much stronger for **eating and drinking** third places

- For general third places, home price relationship is weaker or nonexistent in rural areas.

  - For eating/drinking third places, relationship is still weaker but statistically significant

  - For *drinking only* third places, relationship is nonexistent

- Churn is positively associated with higher home prices

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Implications (So what?)

- *Something* is going on.
- Reverse causality (i.e., wealthy homeowners attract third places) is definitely possible
  - Lags help alleviate bias
  - Deeper lags show robustness of model
- Type of third place is important! Axe-throwing and vintage vinyl might not be as important as onion rings & beer.
- Place is also relevant:
  - Rural homebuyers may not necessarily see conspicuous alcohol consumption as an amenity
  - Still more work to do; need to examine spatial interactions, rural-urban gradient

What are we missing from the story?

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Thank you!

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