

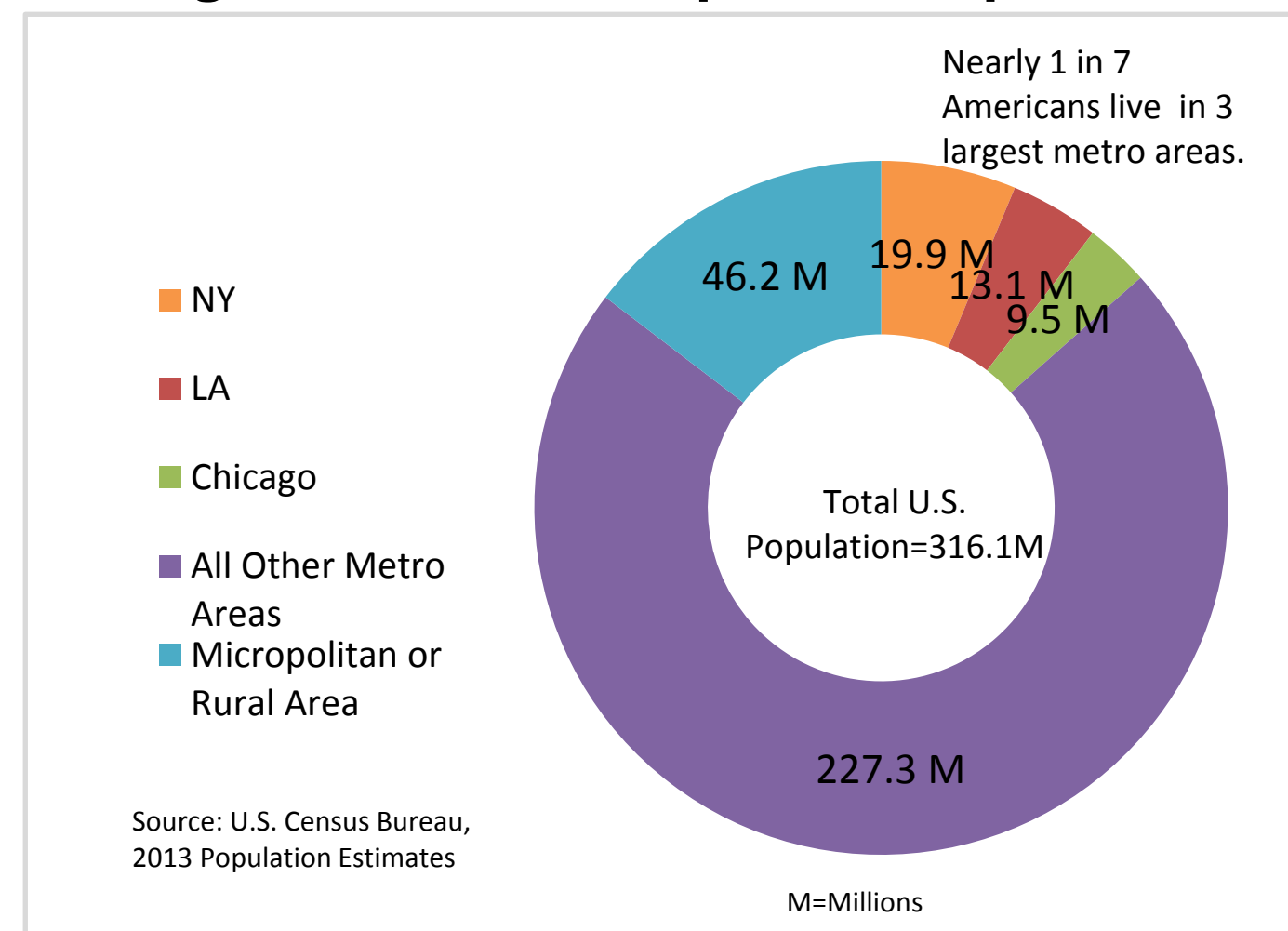
Exploring the role of metropolitan areas on intergenerational coresidence

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Motivation

- This study investigates what role the economic landscape of metropolitan areas plays in the intergenerational coresidence of young adults.
- The proportion of young adults living with their parents has grown over the past 30 years.
- Young adults in metropolitan areas are more likely to live with family (as non-householders) than young adults in nonmetropolitan areas.

Figure 1. U.S. Metropolitan Population



Background

- Metropolitan areas are engines of economic growth, increasing the wealth, productivity, and creativity of people and this country.
- About 85 percent of Americans live in a metropolitan area, and these areas also produce around 90 percent of the total economic output of the country and hold 85 percent of the nation's jobs
- As a result, metropolitan areas are increasingly important in shaping the livelihood of people in the U.S.
- Growing economic division in this country means that not every metropolitan area has boomed, and not every individual in a growing area has benefited.
- In this paper, I lay the groundwork to more systematically assess the role of metropolitan area characteristics on the likelihood of young adults living with family.

Research question

- What are the characteristics of metropolitan areas with lower proportions of young adults living with parents or other relatives versus those with higher levels?
- How does the relationship between education and economic development influence the likelihood of young adult coresidence?

Conceptual framework

- The economic development hypothesis posits that intergenerational coresidence arises from the needs of adult children and not elderly parents.
- While the economic development hypothesis has found broad support, its tenets have not been applied to the metropolitan level.
- Part of the narrative of the economic development hypothesis is that employment opportunities in urban areas provide a means for young people to form their own households.
- However, the growing division along educational lines may mean economic development only helps well-educated young adults achieve residential independence.
- I uphold the notion that intergenerational coresidence is related to the condition of young adults. I also argue that the presence of such households is linked to the opportunity structure of metropolitan areas, which is reflected in their housing costs and job opportunities and competition.

Hypotheses

Holding individual characteristics constant, the likelihood of young adults living with family should *increase* as the following economic characteristics of metropolitan areas increase:

- Housing costs

The likelihood of young adults living with family should *decrease* as the following characteristics decrease:

- Annual openings per unemployed worker
- Predicted industry job growth

Data

The 2010 American Community Survey made available by IPUMS (Ruggles et al. 2010).

- Dichotomous outcome measure of young adults age 25-34 living with parents or relatives
- Sex, race, ethnicity, nativity, education, employment status, personal income, and marital status
- Aggregated housing costs measures for 100 metropolitan areas

Additional metropolitan measures come from Moody's Analytics and the Conference Board Help Wanted Online Series, organized and compiled by Brookings (Rothwell 2012).

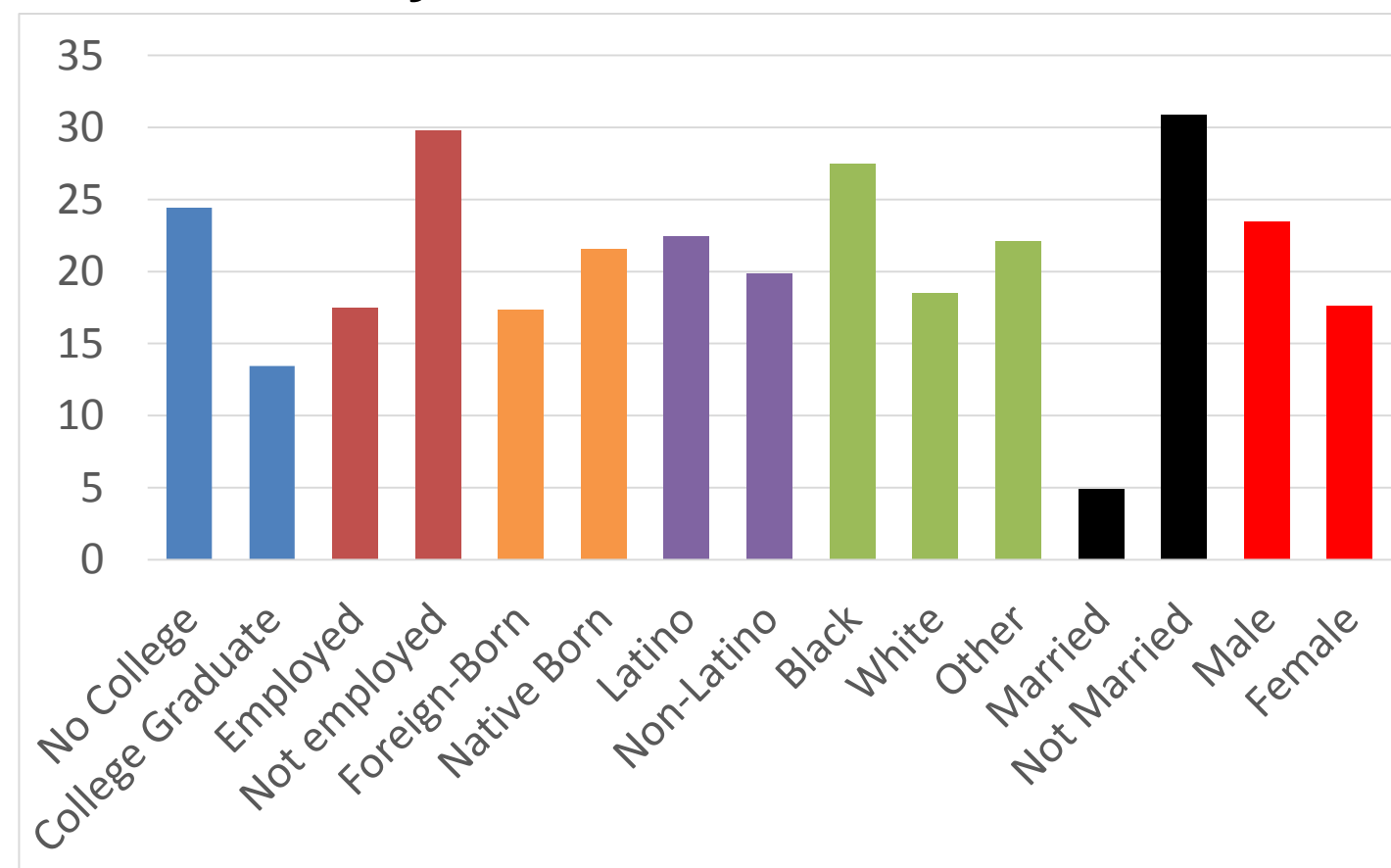
- Annual openings per unemployed worker, 2010
- Predicted industry job growth, 2010-2012

Table 1. Descriptive Statistics for Adults Aged 25-34

VARIABLES	Mean or %	SD
Individual-Level Variables (N=215,820)		
Percent Living with Family	20.50	
Female	50.85	
Black	14.06	
Other	19.89	
White	66.06	
Latino	24.50	
Foreign Born	25.38	
College	35.77	
Personal Income	31,887.32	1,542.99
Unemployed	9.03	
Married	39.95	
Metropolitan-Level Variables (N=100)		
Percent Homeowners Paying More than 30 Percent on Mortgage	33.02	7.53
Percent Renters Paying More than 30 Percent on Rent	3.51	0.92
Unemployment Rate	10.89	3.13
Annual Job Openings per Unemployed Worker	2.07	0.85
Predicted Industry Job Growth	2.55	0.36

Source: IPUMS, Brookings, individual-level variables are weighted

Figure 2. Percent Adults Age 25-34 Living With Family



Source: Values are calculations of frequencies of weighted data from IPUMS (2010 ACS)

Methods:

Multilevel logistic regression takes the following form:

$$\text{Logit}(\pi_{ij}) = \gamma_{00} + \gamma_{p0}(X_{pij} - \bar{X}_p) + \gamma_{0q}(Z_{qj} - \bar{Z}_q) + \gamma_{pq}(X_{pij} - \bar{X}_p) + \gamma_{pq}(Z_{qj} - \bar{Z}_q) + u_{0j}$$

where π_{ij} is the probability of living with family (living with family=1) in metropolitan area j consisting of $i=1, \dots, n_j$ observations.

- X represents level 1 variables denoted by subscript p ; each X represents the i th observation in the j th metropolitan area.
- Z represents level 2 variables denoted by subscript q in metropolitan area j .
- γ_{00} is the overall mean intercept adjusted for level 1 variables.
- γ_{p0} is the overall mean intercept adjusted for each grand mean centered level 1 variable.
- γ_{0q} represents the regression coefficient associated with each level 1 variable relative to the level 2 intercept.
- γ_{pq} is the regression coefficient associated with each level 1 variable relative to the level-2 slope.
- u_{0j} is the random effects of the j th level-2 unit adjusted for level 1 variable p on the intercept.

Figure 3. Odds Ratios from Multilevel Logistic Regression Predicting Young Adult Coresidence

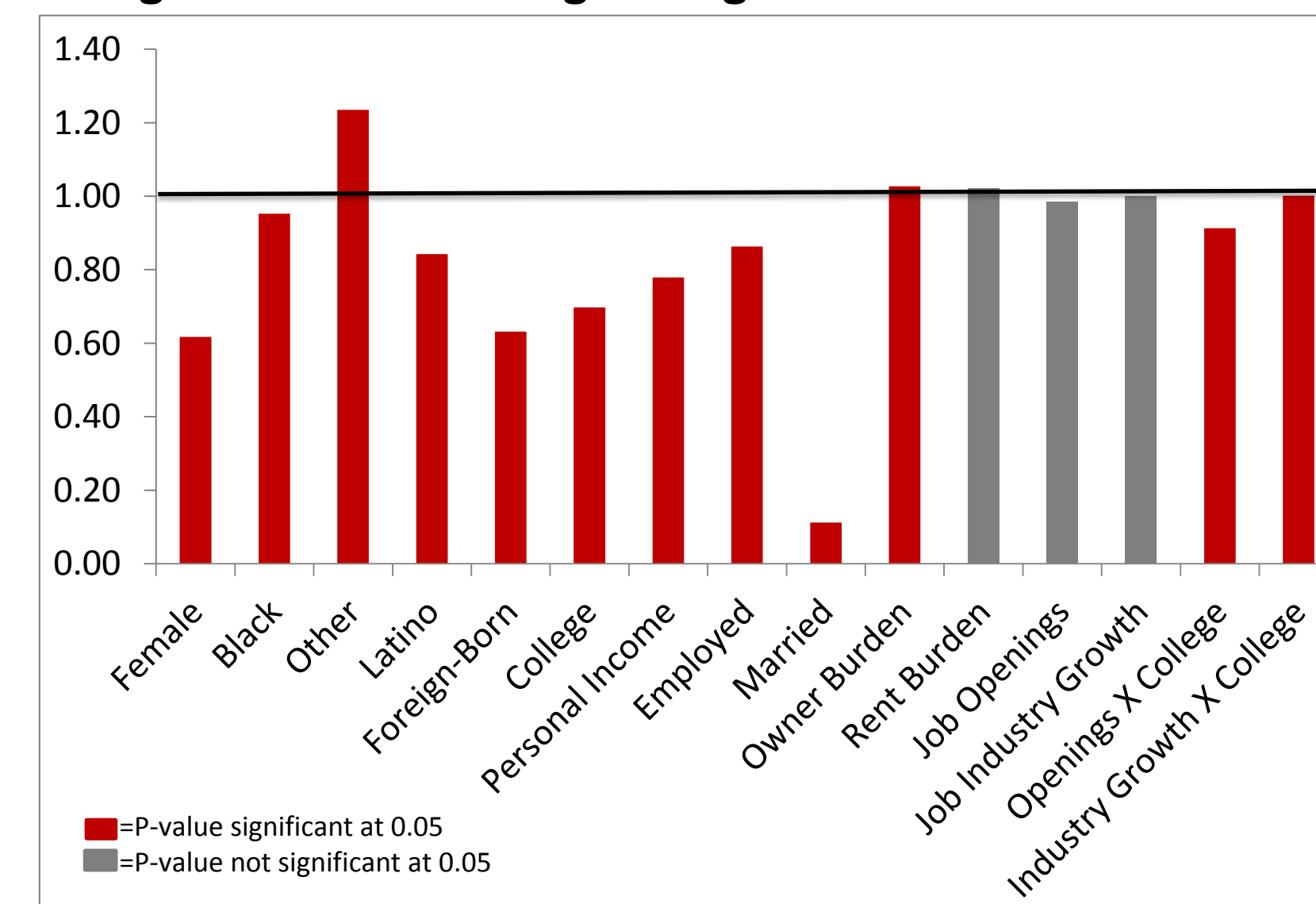


Table 2. Descriptive Statistics for Metropolitan Areas Above and Below the Median Level of Coresidence

METROPOLITAN CHARACTERISTICS	Metro Areas Where % Adults Age 25-34 Living with Family is Above Median of 16.80 (n=50)		Metro Areas Where % Adults Age 25-34 Living with Family is Below Median of 16.80 (n=50)	
	Mean	SD	Mean	SD
Living with Family	21.56	3.62	13.87	2.68
Percent Homeowners Paying More than 30 Percent on Mortgage	36.63	7.61	29.42	5.50
Percent Renters Paying More than 30 Percent on Rent	3.43	0.98	3.59	0.87
Unemployment Rate	11.55	3.47	10.23	2.62
Annual Job Openings per Unemployed Worker	1.84	0.91	2.29	0.71
Predicted Industry Job Growth	2.55	0.39	2.56	0.32

Source: IPUMS unweighted, Brookings

Multilevel Logistic Regression of Young Adults Living with Family

VARIABLES	Model 1	Model 2	Model 3	Model 4	Model 5
Individual Characteristics					
Female	0.617*** (0.0077)	0.617*** (0.0077)	0.617*** (0.0077)	0.617*** (0.0077)	0.617*** (0.0077)
Black	0.954** (0.0175)	0.954* (0.0175)	0.954* (0.0175)	0.954* (0.0175)	0.952** (0.0175)
Other	1.238*** (0.0214)	1.236*** (0.0213)	1.236*** (0.0213)	1.236*** (0.0213)	1.235*** (0.0213)
Latino	0.841*** (0.0145)	0.840*** (0.0144)	0.840*** (0.0144)	0.840*** (0.0144)	0.842*** (0.0145)
Nativity	0.632*** (0.0109)	0.631*** (0.0108)	0.631*** (0.0108)	0.631*** (0.0108)	0.631*** (0.0108)
College	0.739*** (0.0109)	0.739*** (0.0109)	0.739*** (0.0109)	0.739*** (0.0109)	0.697*** (0.0208)
Personal Income (One unit=\$10,000)	0.779*** (0.0029)	0.778*** (0.0029)	0.778*** (0.0029)	0.778*** (0.0029)	0.779*** (0.0029)
Employment Status	0.862*** (0.0134)	0.864*** (0.0134)	0.864*** (0.0134)	0.864*** (0.0134)	0.863*** (0.0134)
Married	0.112*** (0.0020)	0.112*** (0.0020)	0.112*** (0.0020)	0.112*** (0.0020)	0.112*** (0.0020)
Metropolitan Characteristics					
Percent Homeowners Paying More than 30 Percent on Mortgage		1.027*** (0.0047)	1.027*** (0.0047)	1.027*** (0.0047)	1.027*** (0.0047)
Percent Renters Paying More than 30 Percent on Rent		1.026 (0.0385)	1.024 (0.0386)	1.023 (0.0386)	1.022 (0.0387)
Job Openings Per Unemployed Worker			0.982 (0.0386)	0.984 (0.0388)	0.985 (0.0390)
Predicted Job Industry Growth			0.999 (0.0012)	1.000 (0.0012)	1.001** (0.0012)
Job Openings Per Unemployed Worker X College				0.913*** (0.0141)	0.913*** (0.0141)
Predicted Job Industry Growth X College					1.001** (0.0005)
Constant	0.119*** (0.0047)	0.130*** (0.0049)	0.130*** (0.0049)	0.130*** (0.0049)	0.131*** (0.0049)
Observations	215,960	215,960	215,960	215,960	215,960
BIC	167,338.5	167,333.2	167,345.3	167,357.3	167,345.6
AIC	167,225.4	167,199.5	167,201.3	167,203.1	167,170.8

Conclusions

- Cities do influence the living arrangements of young adults and affect the likelihood of them living in intergenerational households.
- Examining structural factors provides a more complete model of what factors are associated with young adults living with family and supplies further support for the economic development hypothesis.
- The proportion of young adults living with family appears to correspond with a metropolitan area's housing costs and job opportunities, but economic development appears to mainly help college graduates.
- Based on these findings, future research should continue to empirically test the ways in which the economic dynamics of metropolitan areas heighten or lower the likelihood of young adults living on their own.