Labor Market Competition among Older Workers: The Case of Returning to Work after Retirement

Ben Lennox Kail
Duke University

Ryan Finnigan
Duke University

EXTENDED ABSTRACT

According to recent estimates a large minority of retirees will return to work at some point during their retirement (Warner, Hayward, and Hardy 2010; Kail 2011). Additional retirees, however, would like to secure new employment but are unable to do so. One factor shaping retirees' ability to return to work may be the structure of the local labor market. Although research has looked at the local labor market's impact on labor force participation before retirement and on the decision to retire (Munnell et al. 2008), as of yet, it is unclear how local labor markets impact retirees' labor force behavior. To this end we use data from 2009 Annual Community Survey to ask two questions. First, does the structure of local labor markets impact retirees' decision to reenter the labor force? Second, after reentering the labor force, are former retirees' chances of securing new employment limited by the structure of the local labor market? Specifically, we focus on the age structure of the local labor market to consider whether the share of the labor market comprised of older workers impacts former retirees' decisions to reenter the labor market and their ability to secure new employment.

BACKGROUND

Returning to Work after Retirement

Over the past few decades the traditional model of retirement has become less common (Han and Moen 1999). Whereas retirement was once a permanent fixture of post-career life, people are increasingly returning to work after initial retirement. The emergence of a more flixeble

landscape of work and retirement in later life emerged, in part, through changes to Social Security and pension laws, increases in longevity, increased number of women in the workforce, and an increased service based economy (Even and Macpherson 2007; Quadagno and Street 2006; O'Rand and Shuey 2007; Manton, Gu, and Lamb 2006; Burkhauser and Rovba 2009). Currently, estimates indicate that roughly a quarter of retirees will return to work before age 90 (Warner, Hayward, and Hardy 2010). Little is known, however, about how labor market characteristics impact individuals' labor force behavior.

Local Labor Markets

Net of individual level characteristics, labor force decisions are informed by the demographic composition of localities (Duggan 1984; Munnell et al. 2008; Black and Xiaoli 2005). For instance, the percentage of a city's labor force in manufacturing impacts the labor force participation of non-Hispanic white men ages 56-64 (Black and Xiaoli 2005). Additionally, a proportional increase in the relative amount of young workers is associated with increased labor force participation of women ages 55 to 64, and 65 and older (Duggan 1984). Clearly, the structure of the local labor force has important implications for individuals' opportunities to work.

One factor that may be especially important for older workers is the age structure of the local labor market. In particular, the percent of the labor force over 65 may have large implications for former retirees' ability to transition back to work. Notably, the percent of the labor force over 65 varies considerably across metropolitan areas. In 2009, between 8 and 10 percent of the labor force was over 65 in Bloomington, IN, Flint, MI, and Yuma AZ compared to

between 20 and 24 percent in Charlotte, NC, Evansville, IN, Washington D.C., and Stamford, CT (authors' calculations from ACS Data). With such large differences across localities, we would expect to observe corresponding differences in individuals' decisions to return to work and subsequent ability to secure new employment. It is unclear, however, exactly how the age structure of the labor market relates to individuals' labor force behavior.

One possibility is that older workers effectively crowd each other out of labor force. Inasmuch as older workers cost more to employers, are often viewed to have outdated human capital (particularly in high tech jobs), and may be viewed as physically unable to perform certain work, employers may try to limit the number of older workers they hire. According to this perspective, in localities with a larger percentage of older workers, retirees would be less likely to reenter the labor force and, among those that do, returning to work would be more difficult.

A second possibility is that retirees interested in returning to work are drawn to areas with many labor force opportunities for older workers. Indeed, work on migration and employment suggests people will move to new localities when the benefits of a move offset the cost of the move *and* provide greater returns than not moving (Lee and Roseman 1999; Lee 1966). Additionally, retirees are more mobile than their working peers (Lee 1966) because they are not bound to one place by work. As such, retirees seeking new work may converge on locations where there are greater opportunities for older workers. According to this perspective, localities with a larger percentage of workers over 65 represent opportunities for retirees to return to work.

DATA AND METHODS

The data for this study come from the 2009 Annual Community Survey (ACS), retrieved through the Integrated Public-Use Microdata Series (IPUMS) at the University of Minnesota (Ruggles et al. 2010). The ACS provides a nationally representative sample of 1% of the population, and has clear advantages for the research question at hand. First, using a recent, large, and representative data source allows us to accurately characterize contemporary labor market dynamics among older adults. Second, the large samples and metropolitan-area identifiers facilitate estimation of local labor market characteristics by aggregating individual-level worker information to the MSA level. For confidentiality purposes, respondents' metropolitan areas of residence are identifiable if they have populations over 50,000, resulting in 283 identifiable MSAs. We restrict our analytic sample to those age 66 or older who report not working at least part-time in the previous year to most closely capture the population of retired adults.[1] The analytic sample retains approximately 86.5% of the ACS sample of adults over 65.

Outcomes

The first dependent variable is returning to the labor force, *Unretire*, which we code as respondents reporting being currently employed or unemployed (relative to not in the labor force), or having looked for work in the previous four weeks. The second dependent variable is being currently employed given that the respondent has re-entered the labor force, *Employed*. We predict these variables as functions of individual- and household-level controls, and sets of local labor market characteristics using logistic regression with random intercepts for each MSA.

[1] We code part-time work as working at least 10-hours per week on average, or more than 26 weeks last year.

Individual and Household Covariates

Relevant individual- and household-level covariates were selected from a larger set of theoretically relevant characteristics using a Bayesian model selection approach. Sets of variables for age, sex, race/ethnicity, nativity, marital status, household composition, education, veteran status, total household income in the previous year, and homeownership were separately used to predict the dependent variables. The predictors were then included in the analyses presented here if they improved the model fit relative to the null model for either dependent variable, assessed with the Bayesian Information Criterion (BIC) (Raftery 1995; McCoach and Black 2008). This procedure results in a consistent set of individual- and household-level variables in all models.

Age is measured in years, and *Female* is a dichotomous indicator of being female relative to male. Race/ethnicity are measured with dummy variables for each category, *Black, Latino, Asian,* and *Other Race*, relative to *White*. Marital status is measured with five dichotomously coded indicators: *Never Married*, *Separated*, *Divorced*, and *Widowed*, with *Married* as the reference group. *Veteran* is a binary indicator for veteran status. Education is measured with four categories for highest attainment, *Less than H.S., Some College* (which includes technical degrees), and *Bachelor's +*, relative to *H.S.*/G.E.D. The labor force characteristics of the household include *# Full Time* and *# Part Time*, which are count variables for the number of household members who were employed full time or part time in the previous year.[2] Finally, *log(HH Income)* is the logged value of households' total income from all sources in the previous year, and *Own* is a dummy variable for homeownership.

[2] Respondents are coded as full time if they worked at least 35 hours a week, on average, and at least 40 weeks in the previous year.

Local Labor Market Covariates

The models also include theoretically relevant local labor market characteristics and controls. All metropolitan-level variables are calculated using the sample weights provided by the Census Bureau to make the estimates as representative as possible. The variable *% Over 65* measures the percent of adults employed part- or full-time in the previous year over age 65. This variable captures the normativity and demand for working past retirement age. However, it may also indicate the level of relative competition for those returning to work. The *Unemployment Rate* is the percent of those in the labor force currently unemployed, which measures the effects of business cycles. The percent of workers with college degrees or higher, *% Bachelor's +*, indicates the degree of high skill requirements in the local labor market. The *% Part Time* measures the fraction workers in the previous year employed part time. This variable partly measures casualization in the labor force, and the availability of flexible employment. We also control for population size with log of the total local population, *log(Population)*, and immigration with the fraction of the population that is foreign born, *% Foreign Born*. Finally, though not shown in the results, we control for regional variation with dummy variables for the *Northeast*, *South*, *Midwest*, and *West*.

Next, we assess the impact of the industry composition of local labor markets on labor force re-entry and employment. Using the census one-digit occupation codes, we collapsed substantively similar occupations into three categories: manager/professional, service/administrative/sales, factory/technical. We then estimate the fraction of workers in each category with *% Upper White Collar*, *% Lower White Collar*, and *% Blue Collar*, respectively.

PRELIMINARY RESULTS

Summary Statistics

Table 1 gives descriptive statistics for the individual- and metropolitan-level characteristics of the analytic sample. Note the percent of the population retired in the previous year re-entering the work force is quite low, approximately 3.3 percent. Meanwhile, only 2.4 percent of those retired in the previous year are currently employed at the time of the survey. Even still, 8,396 members of the sample re-entered the labor force in 2009, and 5,896 were employed.

[Table 1 about here]

There is considerable spatial variation in rates of labor force re-entry. Figure 1 displays the distribution of the fraction of the sample re-entering the labor force within each metropolitan area. Though most metropolitan areas are near the mean for rates of labor force re-entry, many are lower and 19 areas have rates above 5 percent.

[Figure 1 about here]

The portion of older adults re-entering the labor force who actually find employment exhibits even more spatial variation. Figure 2 displays the distribution of the percent of those who report being currently employed out of those who report being in the labor force within each

MSA. Though smaller sample sizes undoubtedly contribute to estimates near zero and one, the wide spread of the distribution is still apparent. These distributions emphasize the need to consider the effects of structural characteristics on retired adults' decisions to re-enter the labor force, and their employment chances if they do.

[Figure 2 about here]

Regression Results

Table 2 shows the results of multi-level logistic regression models predicting labor force re-entry among older retirees, with random intercepts for each metropolitan area. Model 1 shows the coefficients for a model that only includes individual- and household-level characteristics. Those returning to the labor force are more likely to be younger, male married, and are less likely to be Asian or Latino. Higher educational attainment is also positively associated with returning to work. More income in the previous year and homeownership is negatively associated with labor force re-entry, whereas the presence of more part-time workers in the home is positively associated with returning to the labor force.

[Table 2 about here]

Next, model 2 includes a set of MSA-level characteristics, and model 3 adds the industrial composition of the local labor market. Model 2 shows retired adults are significantly more likely to return to work in labor markets with higher shares of workers over 65 and with

college education. However, they are less likely to return to the labor force in markets with higher shares of part-time workers. The coefficients for the industrial composition variables are not significant and the coefficient for the share of college-educated workers is not significant with their inclusion.

Table 3 shows the results for multi-level logistic regression models predicting being currently employed among those who have re-entered the labor market. Again, model 1 includes only individual- and household-level variables. The currently employed are slightly older, and more likely to be female. They are less likely to be separated, divorced, or never married, and less likely to be Asian or Latino. The number of full-time workers in the household is negatively associated with employment, while the number of part-time workers is positive associate with returning to work. Finally, having a college education, homeownership, and having higher household income in the previous year all significantly positively predict current employment.

[Table 3 about here]

In model 2, the only metro-level variables significantly associated with employment are the share of the local labor force over 65 and the percent of the local population that is foreign born. Those returning to the labor force are less likely to be employed in areas with a greater share of older workers and more immigrants. These relationships do not vary when controlling for industrial composition of the local labor force, and the industrial composition variables have no significant relationship.

Table 1: Descriptive Statistics for the Analytic Sample, from ACS 2009.

Individual-Level Characteristics			Metro-Level Characteristics		
Variable	Mean	Std. Dev.	Variable	Mean	Std. Dev.
Unretire	0.033	-	Unretire	0.031	0.013
Employed	0.024	-	Employed	0.023	0.011
Age	76.208	7.237	% Over 65	3.900	1.095
Female	0.591	-	Unemployment Rate	9.469	2.684
Married	0.551	-	% Bachelor's +	27.815	7.288
Separated	0.010	-	% Part Time	31.648	4.446
Divorced	0.096	-	log(Population)	12.876	1.055
Widowed	0.303	-	% Foreign Born	9.609	7.479
Never Married	0.041	-	% Upper White Collar	28.484	4.857
White	0.790	-	% Lower White Collar	42.698	3.359
Black	0.087	-	% Blue Collar	25.568	4.725
Latino	0.073	-			
Asian	0.041	-			
Other Race	0.010	-			
Less than HS	0.223	-			
HS/GED	0.341	-			
Some College	0.161	-			
Bachelor's +	0.210	-			
# Full Time	0.213	0.528			
# Part Time	0.171	0.442			
log(HH Income)	10.245	1.229			
Own	0.824	-			
	N=250,731			n=283	

Table 2: Results from Multi-Level Logistic Regression Models Predicting Re-Entry into the Labor Force among Retired Older Adults (coefficients presented as odds ratios).

Variables	Model 1	Model 2	Model 3
Individual/Household-Level Variables			
Age	0.905***	0.905***	0.905***
	(-45.053)	(-45.156)	(-45.167)
Female	0.707***	0.706***	0.706***
	(-14.271)	(-14.329)	(-14.333)
Never Married	1.280***	1.271***	1.270***
	(4.337)	(4.207)	(4.205)
Separated	1.374**	1.367**	1.367**
	(3.077)	(3.029)	(3.030)
Divorced	1.653***	1.656***	1.655***
	(14.369)	(14.408)	(14.404)
Widowed	1.149***	1.150***	1.150***
	(4.076)	(4.107)	(4.098)
Black	0.987	0.990	0.989
	(-0.308)	(-0.236)	(-0.258)
Latino	0.875**	0.881*	0.880*
	(-2.656)	(-2.452)	(-2.456)
Asian	0.586***	0.583***	0.583***
	(-7.746)	(-7.788)	(-7.790)
Other Race	0.939	0.951	0.950
	(-0.576)	(-0.465)	(-0.473)
Less than HS	0.685***	0.687***	0.687***
	(-9.691)	(-9.589)	(-9.585)
Some College	1.387***	1.396***	1.395***
	(9.967)	(10.131)	(10.108)
Bachelor's +	1.836***	1.834***	1.832***
	(20.651)	(20.493)	(20.458)
# Full Time	0.980	0.979	0.979
	(-0.840)	(-0.894)	(-0.886)
# Part Time	3.443***	3.438***	3.439***
	(75.460)	(75.382)	(75.385)
log(HH Income)	0.954***	0.952***	0.952***
	(-4.342)	(-4.497)	(-4.532)
Own	0.908**	0.913**	0.913**
	(-2.808)	(-2.650)	(-2.658)
Metropolitan-Level Variables			
% Over 65		1.055***	1.053**
		(3.411)	(3.135)
Unemployment Rate		1.011	1.013
		(1.274)	(1.406)
% Bachelor's +		1.007*	1.001
		(2.450)	(0.129)
% Part Time		0.985*	0.985**
		(-2.523)	(-2.627)
log(Population)		0.967	0.967
		(-1.811)	(-1.721)
% Foreign Born		1.004	1.004

		(1.736)	(1.631)
% Upper White Collar			1.002
			(0.141)
% Lower White Collar			0.994
			(-0.739)
% Blue Collar			0.990
			(-1.295)
Individuals:	250,731	250,731	250,731
MSAs:	283	283	283

z-statistics in parentheses
*** p<0.001, ** p<0.01, * p<0.05

Table 3: Results from Multi-Level Logistic Regression Models Predicting Current Employment among Older Adults Returning to the Labor Force (coefficients presented as odds ratios).

Variables	Model 1	Model 2	Model 3
Individual/Household-Level Variables			
Age	1.054***	1.054***	1.054***
	(9.750)	(9.708)	(9.743)
Female	1.856***	1.838***	1.833***
	(11.007)	(10.884)	(10.834)
Never Married	0.723**	0.732**	0.735*
	(-2.676)	(-2.591)	(-2.550)
Separated	0.598*	0.612*	0.606*
	(-2.456)	(-2.360)	(-2.409)
Divorced	0.659***	0.663***	0.665***
	(-5.495)	(-5.437)	(-5.405)
Widowed	0.918	0.914	0.914
	(-1.097)	(-1.157)	(-1.150)
Black	1.050	1.051	1.051
	(0.546)	(0.560)	(0.561)
Latino	0.677***	0.722**	0.736**
	(-3.818)	(-3.178)	(-2.987)
Asian	0.642**	0.680**	0.681**
	(-3.112)	(-2.732)	(-2.716)
Other Race	0.670	0.686	0.685
	(-1.803)	(-1.701)	(-1.708)
Less than HS	1.073	1.059	1.051
	(0.837)	(0.691)	(0.592)
Some College	0.999	1.017	1.018
	(-0.017)	(0.242)	(0.258)
Bachelor's +	1.347***	1.372***	1.369***
	(4.499)	(4.780)	(4.749)
# Full Time	0.675***	0.673***	0.672***
	(-7.536)	(-7.625)	(-7.652)
# Part Time	1.183***	1.175***	1.173***
	(4.469)	(4.312)	(4.248)
log(HH Income)	1.479***	1.486***	1.485***
	(10.783)	(10.934)	(10.896)
Own	1.363***	1.339***	1.342***
	(4.363)	(4.136)	(4.160)
Metropolitan-Level Variables			
% Over 65		0.910**	0.931*
		(-3.021)	(-2.196)
Unemployment Rate		0.892***	0.897***
		(-6.284)	(-6.031)
% Bachelor's +		0.996	0.982
		(-0.791)	(-1.189)
% Part Time		1.006	1.007
		(0.518)	(0.534)
log(Population)		0.978	0.987
		(-0.649)	(-0.350)
% Foreign Born		0.988**	0.990*

		(-2.963)	(-2.397)
% Upper White Collar			1.019
			(0.726)
% Lower White Collar			0.977
			(-1.468)
% Blue Collar			1.007
			(0.465)
Individuals:	8,396	8,396	8,396
MSAs:	282	282	282

z-statistics in parentheses
*** p<0.001, ** p<0.01, * p<0.05

Figure 1

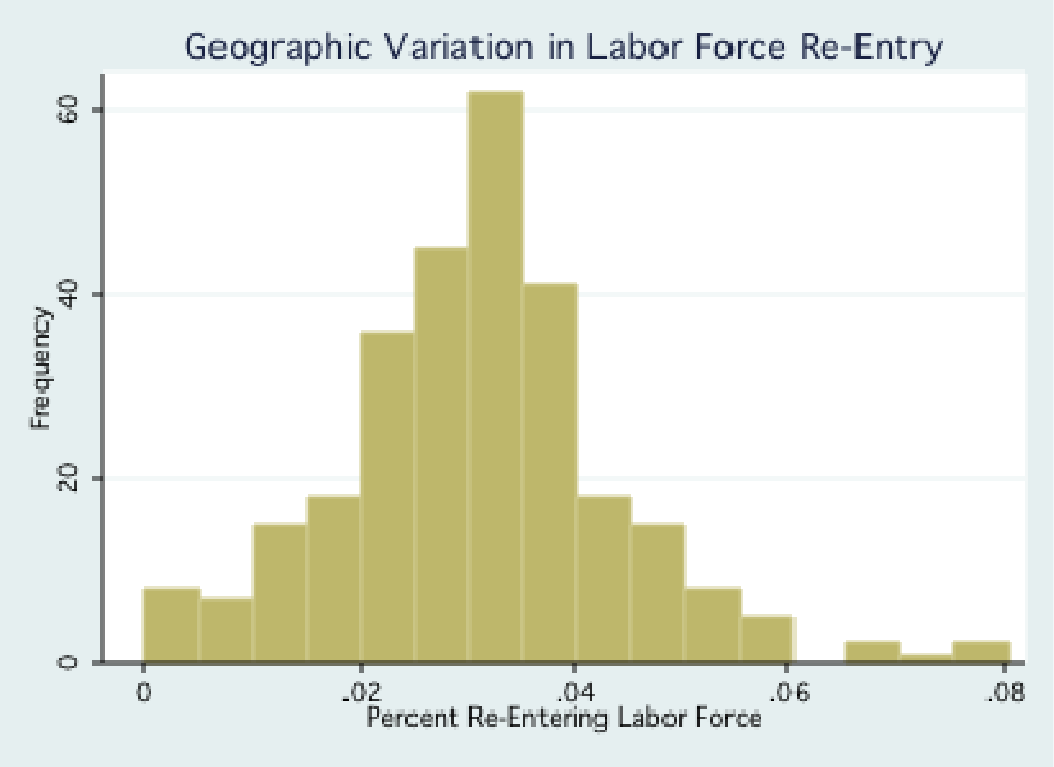
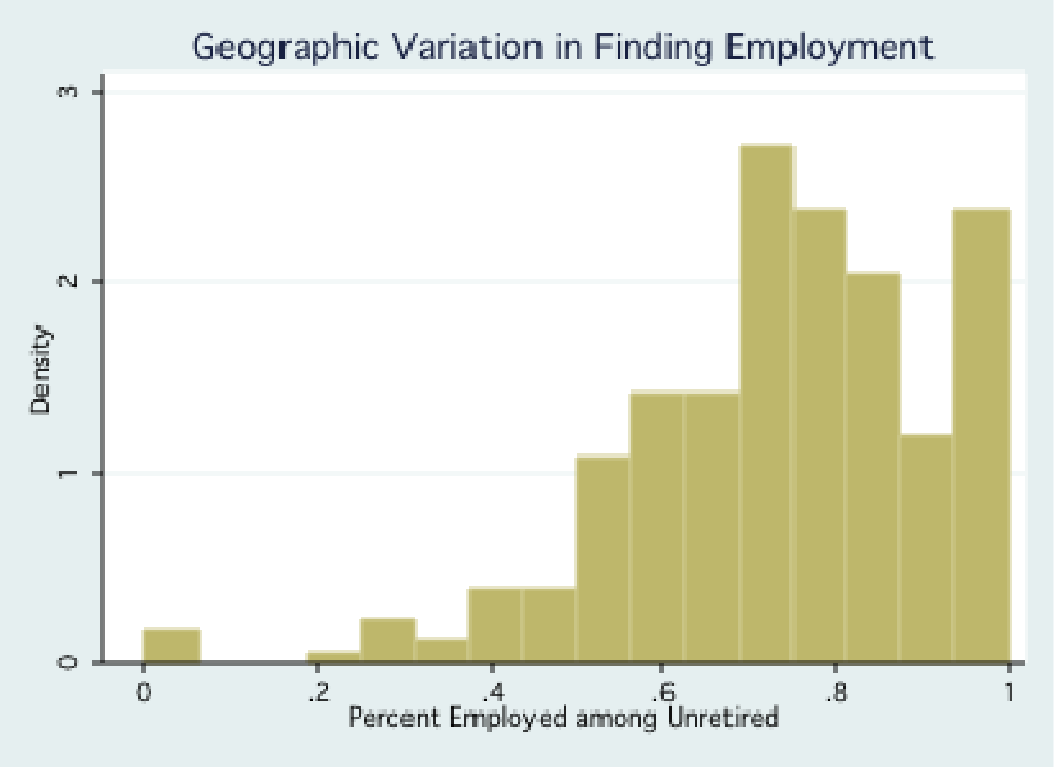

Geographic Variation in Labor Force Re-Entry
Frequency
0
20
40
60
0
.02
.04
.06
.08
Percent Re-Entering Labor Force

Figure 2


Geographic Variation in Finding Employment
Density
0
1
2
3
0
.2
.4
.6
.8
1
Percent Employed among Unretired

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