

**Gender Differences in the Pecuniary Returns to Cumulative Job Mobility** *Benjamin Hartman, Sophia Amoo-Gottfried, Furman University* 

# I. Introduction

The early-career period is often characterized by frequent job changes (Topel and Ward (1992), Light (2005)), as workers take various employment paths and search for better employment matches (Topel and Ward (1992), Light and McGarry (1998)). The nature of the relationship between mobility and wage trajectory is therefore an important one, and has received much empirical attention (Loprest (1998), Keith and McWilliams (1995, 1998, 1999,) Neumark (2002), Light (2005)). This relationship only becomes more relevant as the US economy shifts increasingly away from long-term employer-employee relationships and workers become generally more mobile (Farber (2008), Hollister (2011)). This paper examines the relationship between cumulative job mobility and wage growth using data from the National Longitudinal Survey of Youth's 1997 cohort (NLSY97). While much research in this area has used data from the NLSY, as it provides observations of the entire early work histories of most respondents, most prior research uses the earlier cohort, from 1979 (NLSY79). Using data from the '97 cohort allows us to examine if and how job mobility patterns and their relationship with wage trajectory have changed for the younger generation. Unlike much previous research, we include both men and women in our sample, as understanding the patterns and processes related to wage growth and job changes across genders may help to explain some current labor-market inequality.

The rest of this paper is organized as follows: in section I, we review related literature on the topic; in section II we describe the data used and the patterns revealed in our sample; in section III we outline our regression model and review its implications; section IV contains concluding remarks; section V contains endnotes.<sup>1</sup>

# II. Related Literature

Job mobility can be either positively or negatively related to wage development, according to three prominent theoretical models. The mover-stayer model contends that good workers avoid turnover and bad workers undergo persistent mobility. Therefore, mobility is negatively related to pay only because it is correlated with the unobserved personal characteristics that determine productivity (Blumen (1955)). According to the "search good" model, mobility reflects voluntary moves to more productive employment relationships (Jovanovic (1979b)); thus, mobility lessens over time as match quality increases. Lastly, there's the "experience good" model, in which employer-employee match quality is learned over time as the match is "experienced" and productivity-related information is revealed; separations occur when an employment match is worse than was originally perceived (Jovanovic (1979a)).

Light and McGarry (1998) focus on these theoretical models of job mobility as they pertain to white men in the United States, using data from the NLSY79 to distinguish empirically between them. Early research on the mobility and wages typically examined the wage effects associated with individual job changes. In contrast, Light and McGarry examine patterns of overall mobility, defined as the number of job separations experienced during the first eight years of the career. After controlling for the correlation between mobility patterns and timeinvariant individual effects and job-specific unobservables, they find that individuals who undergo more persistent mobility have lower log-wage paths than less mobile workers. The findings of their analysis are consistent with experience good job-matching models; one limitation of Light and McGarry's analysis is that they only include men in their sample.

Neumark (2002) conducts similar research using data from the NLSY79. Neumark examines evidence on the causal effects of early job stability on labor market outcomes by eliminating the bias in an estimated relationship (between early job stability and labor market outcomes) that stems from unobserved factors which jointly influence both stability and adult wages, such as heterogeneity in productivity or returns to search, and job match quality. He concludes that there is substantial benefit to early job security for both men and women in his sample.

Light (2005) gives an overview of NLSY79-based research and its revealed empirical patterns. Light's analysis concludes that workers hold about five jobs in the first eight years of their career, on average, although she finds considerable variance in workers' early-career rates of mobility. More mobility correlates with less cumulative wage growth—partly because continuity of employment is negatively correlated with mobility. There is also evidence that workers whose job separations are voluntary receive significant separation-correspondent wage boosts, offsetting the wage losses associated with mobility.

Fuller (2008) takes a slightly different approach in determining the consequences of job mobility. She considers the reasons workers leave employers, the timing of movement, and gaps in employment corresponding with movement. Fuller finds that while overall, higher levels of cumulative mobility correlate negatively with wage trajectory, mobility from voluntary separations can be advantageous in the early career. However, the positive impact of these "other" separations (when an individual leaves a job for some reason other than a layoff, discharge, or family-related quit) subsides later in the career. Fuller also considers gender differences present in her sample, finding that while gender differences in mobility patterns are small, men in her sample were slightly more mobile overall. Men in her sample were also more frequently laid-off or discharged than women, while women typically spent a smaller amount of time employed than men, with more significant gaps in employment.

Loprest (1992) concludes that men and women's different experience of wage growth over the early years of labor-force participation can be attributed largely to the differences in wage growth when changing jobs. Keith and McWilliams (1995, 1998, 1999) also find differences in patterns of and returns to job mobility among men and women. Like Fuller (2008), they find the men in their samples to have been more mobile, and to have suffered from higher layoff and discharge rates, while women were more likely to separate from an employer for an employee-initiated reason, and were seven times more likely than men to have quit for a family-related reason. Keith and McWilliams find consistent evidence that employeeinitiated separations increased wage growth while employer-initiated separations (layoffs and discharges) decreased wage growth, relative to staying with the same employer. Since employee-initiated separations are often associated with pre-separation job search, individuals engaging in this type of mobility have higher reservation wages, and more opportunity for growth. Keith and McWilliams (1998) find the men in their sample to have engaged in more pre-separation job search, and that wage growth associated with quitting was 35% higher for men in their sample than for women.

Recent research suggests that the economy of the United States continues to move away from once common long-term employment situations. Farber (2008) uses data from the Current

Population Survey (1973-2006) to examine the extent to which long-term employment relationships are disappearing in the United States. He concludes that the structure of jobs in the private sector has in fact moved away from long-term relationships for men, and that there has been an increase in "churning"—the proportion of workers in jobs with less than one year of tenure. He also concludes that males have become less likely to settle into longer-term jobs as they approach their thirties. Hollister (2011) finds similar results, citing employers' adoption of downsizing, restructuring, outsourcing, increased use of contractors and other temporary employees, and other new employment practices as driving forces of the decrease in employment stability. Both Hollister and Farber find that employment stability for women has been level, possibly due to their increased labor-force attachment. The continuing shift away from stable, long-term employment relationships has likely affected early-career mobility patterns.

The analysis in this paper is different from those cited in that the individuals in its sample come from the 1997 cohort of the NLSY and began their careers between 1997 and 2005. Therefore, our analysis should provide insight into how the relationship between early-career mobility and wage growth is changing for the millennial generation, while identifying any differential effects between genders.

# III. Data and Sample

The NLSY97 provides a nationally representative sample of about 9,000 individuals who were between ages 12 and 17 in 1997; these individuals have been interviewed yearly since 1997. At each interview, participants have reported information on every job held since their last interview, providing researchers with a comprehensive employment history since the beginning of participants' careers. Respondents report the start and end dates for each job held and the start and end dates of within-job gaps, as well as information on job-search since the last interview. The NLSY97 also contains data on education, household, geography and contextual variables, family background, marital history, health, attitudes, and crime and substance use, providing ample resources for controls in a model of job mobility and wage growth.

The data from the NLSY97 includes 8,984 individuals, 4,599 of whom are males and 4,385 of whom are females. We include only those white individuals for whom we can determine the year of labor-market entry<sup>2</sup>. We exclude those whose first year of labor market participation occurred before 1998 or after 2006, as detailed information on employment activity comes from annual interviews from 1997-2011, and we focus our study on the first six years of the career<sup>3</sup>. As many individuals cycle between school and work or combine the two, it can be difficult to draw a clear line between schooling and the career. We therefore define labor-market entry as the beginning of an individual's first school exit that lasts at least 12 months, and during which he or she holds at least one job.<sup>4</sup> We include experience followed by a return to schooling after the first full-year of labor-market participation so as not to ignore the influence of important "pre-career" work experience. To be included in our sample, individuals must also have reported holding a job during the sixth full year of their career. Our sample therefore includes 3,452 individuals who entered the labor market between 1998 and 2006, with a male-female distribution like that of the entire NLSY97 sample: 1,815 white males and 1,637 white females.

We first document the changes in the employment and wage outcomes of our participants after six years of labor-market participation. Table 1 (found on page 10) illustrates the cumulative number of years individuals reported having held a job during the first six years of labor-market participation. Our sample was fairly strongly-attached to the labor market, as 74.3% of the sample reported a job observation in each of their six years, and more than 96% of the sample reported a job observation in at least four of the six years. Notably, this distribution was nearly unchanged when we split-up the males and females in our sample, indicating that neither group is significantly more attached to the labor market during their first six years after labor-market entry.

Table 2 (page 11) shows the distribution of the number of jobs held by participants during the first two, four and six years of their careers. The mean number of jobs held in the first six years is 4.79 with a standard deviation of 2.76. Given our stipulations for sample-inclusion, it is possible for an individual in our sample to have qualified for labor-market entry but not have held a job during his or her first full year after market entry. That being said, only 2.1% of the sample held no jobs in the first two years of labor market entry. Per Table 2, only 7.7% of individuals in our sample remain with the same employer over their first six years of employment, while only 5.8% of respondents hold ten or more jobs. Overall, this table demonstrates that the typical worker is fairly mobile in their early years of labor market entry<sup>1</sup>. Table 3 (page 12) shows the employment trends of white men and white women for clear comparison. The distributions in panels A and B are very similar, and very similar to that of Table 2, implying that the frequency of job changes is nearly identical for white men and women in the early career.<sup>5</sup>

Panels A and B of Table 4 (page 13) illustrate the mean initial (year 1) and final (year 6) wages for the men and women in our sample; wage data from the NLSY97 were converted to real wages using CPI data from the National Bureau of Labor Statistics, with a base year of 2000<sup>6</sup>. Each respondent's wage observation came from his or her *primary* job at the time of each year's interview. If an individual in our sample held only one job at any given interview, that was considered his or her primary job; if an individual reported multiple ongoing jobs at interview, we deemed the primary job that which he or she worked the most hours each week, and had held for the longest period of time. Participants were separated for this illustration depending upon number of jobs held in years 1-6. As some individuals either failed to report their wage in year 1 or year 6, or were unemployed during one or both years, the number of participants included in Table 4 is smaller than that of the whole sample.<sup>7</sup>

Per Panel A of the same table, men who held 4-5 jobs experienced the highest average wage growth (80%) of those in our sample. Men who held only one job experienced the lowest average wage growth (58%), although they reported the highest-mean final wages. Average wage growth decreased for those men who changed jobs five or more times. Wage growth appears to increase as workers become more mobile, although too much mobility appears to correspond with a slowing in average wage growth.

The pattern among women is similar (per Panel B of Table 4), although those who experienced the lowest average wage growth held 6-7 jobs (58%), and those who held 8+ jobs experienced surprisingly-high average wage growth (78%). In examining the data from women in our sample who held eight or more jobs more closely, we discovered that many, if not most, of these women re-entered school after labor-market entry and held multiple part-

time, low-wage jobs while in school. Upon subsequent school exit, many of these women obtained higher-wage, full-time jobs; it seems likely that the observed wage-boost from holding eight or more jobs comes from educational and market-participation effects. For both men and women in our sample, it's worth noting that those who held 1-3 jobs earned, on average, the highest wages in the first year of their careers.

### IV. Model Specification and Estimations

In exploring the relationship between cumulative early-career job mobility and wages, our approach follows closely that of Light and McGarry (1998). The wage equation we estimate can be described as:

$$ln W_{ijt} = \alpha + \beta_1 X_{ijt} + \beta_2 Z_{ijt} + u_{ijt}$$

Where  $ln W_{ijt}$  represents real hourly wages for individual *i* on job *j* at time *t*. *X* represents a set of regressors intended to control for different types of human capital. These regressors include education level, marital status, whether an individual has a child at home, whether an individual lives in an urban setting or in the south, whether an individual works in a public-sector or union job, whether an individual works part-time or holds multiple jobs simultaneously, and dummy variables for occupation, industry, and year<sup>8</sup>. For regression analysis, we omitted variables for schooling level between twelve and sixteen years, service occupations, service industries, and the year 2000. Therefore, the default individual in our analysis is a person with a service job in a service industry and some college education in the year 2000.

Additionally, X includes work experience since the beginning of an individual's career, defined as the number of weeks an individual has worked on any given job divided by 50, which we define as a full year of experience.<sup>9</sup> X includes a measure of job tenure for each given year, defined as the number of weeks worked at an individual's primary job (which we defined earlier) since he or she started that job, divided by 50.<sup>10</sup> Squared measures of experience and tenure are also included in X.

Included in Z are the variables of interest for job separations. We included a regressor for separations in two years and separations in six years, to control for both very-early mobility and overall mobility for each individual. We also included squared terms for each regressor, and interactions between separations in two years and separations in six years, and the linear and quadratic tenure terms.

Table 5 (found on page 14) displays summary statistics for many of the variables in X and Z. While means and standard deviations across men and women are similar for most variables, there are a few notable differences: Women's means for less than 12 years of education and high school diploma are lower than those for men (.12 and .195 versus .137 and .256), while means for Bachelor's and Graduate degree completion are higher than those for men (.212 and .084 versus .163 and .052), indicating that the women in our sample are slightly more educated than the men. There's also a slightly higher proportion of married women than men in our sample, with a reported mean of .188 versus that of .128 for men.

In estimating our wage equation, we used simple OLS regression. The error term  $u_{ijt}$  is assumed to be a pure random term with mean zero, and to be uncorrelated with our set of regressors. Standard errors are corrected for heteroskedasticity and—as we use multiple

observations per person—within-person correlated errors. The results of our estimation are displayed in tables 6 and 7 (on pages 15 and 16), separated for the men and women in our sample. We conducted three regressions, the first of which represents a more standard wage model and therefore includes none of the regressors in *Z*. This is shown in column (1) of tables 6 and 7. The second regression is presented in column (2) of each table, and includes the linear and quadratic terms for job separations in two and six years. The last is displayed in column (3) of each table, and includes the linear terms for separations in two and six years, as well as the interaction terms for separations and the linear and quadratic terms for job tenure.<sup>11</sup>

In examining our base regression in column (1) of Table 6 (page 15), it is evident that tenure plays an important role in explaining log wages for the men in our sample. Estimates based on column (1) imply that a white male who holds the same job for five consecutive years will see a 17.5% increase in wages. Columns (2) and (3) include measures of overall mobility and interacted terms with tenure, respectively; coefficients on mobility regressors in column (2) are not significantly different from zero. As such, the relationship between wage and tenure goes largely unchanged; estimates using column (2) imply a wage increase of 16.5%. In column (3), the only regressor of interest whose coefficient is statistically different from zero is that for the interaction between separations in two years and tenure squared; the coefficient on tenure using column (3) now implies a wage increase of 22.5%. Given these results, we are not able to draw any conclusions regarding mobility and log wages for the men in our sample.

Using column (1) in Table 7 (page 16), our estimates imply that a white woman who holds the same job for five consecutive years will experience only a 15.5% increase in wages. Unlike the results for men, column (2) provides coefficients for measures of mobility in both two and six years that are statistically significant at the 5% level. While the two coefficients (0.037 and -0.035) are small and similar in absolute value, their opposing signs imply that a woman's wage trajectory is affected very differently depending upon when her job separations occur. For instance, using estimates from column (2), a woman who changes jobs five times in the first two years of her career and holds the same job for the next four ends up with log wages of 6.753 after six continuous years of labor-market participation. Using the same estimates, a woman who changes jobs once during her first two years and four times during her next four years of labor-market participation (changing jobs roughly once per year) finishes with log wages of only 6.518. The addition of overall mobility measures has little effect on coefficients for tenure, as the implied return to five years of tenure is only slightly lower than that using column (1) at 14.5%.

While coefficients for overall mobility are no longer statistically significant in column (3), coefficients for linear and quadratic interaction terms between mobility and tenure are statistically different from zero at the 5% significance level, and at the 1% significance level in the case of separations over six years and tenure-squared. These results suggest that much of the relationship between mobility and wages comes from the relationship between mobility and tenure. Estimates from column (3) imply that women who undergo persistent mobility or whose mobility occurs later in their careers experience less wage growth than more stable workers and than workers whose mobility occurs early-on—before they move to more stable employer-employee relationships—because they accrue less tenure.

To give a visual representation of tenure and mobility effects in our estimation, we predicted log-wage paths for four types of female workers, estimating wages at one, two, four, and six

years of work experience. The first type of worker is one who holds the same job for the entirety of her career. The second worker experiences five job separations (holds six jobs), all in the first two years of her career. The third worker also experience five job separations, but all of her separations occur in the last four years of her career. The last worker continuously changes jobs, holding ten equally-spaced jobs over the first six years of her career. Each worker is assumed to have worked continuously throughout the first six years of her career, and is the "default" worker in our estimation: she works full-time in a non-union, private-sector job, has some college education (13-15 years of schooling), has never married or divorced, and lives neither in a city nor in the south. These predictions are illustrated in Table 8 and Figure 1 (each found on page 17).

While each of these workers begins at the same place, a wage gap quickly develops, and widens throughout the six years. Non-mobile workers are the most successful initially, but are eventually overtaken by Type 2 workers, who experience the positive effects of mobility in their first two years, little of the negative effects of overall mobility, and accrue a significant amount of tenure over the six-year period. Type 3 workers end up faring the worst, despite the tenure-boost from holding the same job for the first two years of their career. Type 4 workers are essentially cycling-through the same wage level as they move from job to job.

Although these results are promising, our estimates do not control for either time-invariant person-specific effects, or job-specific unobservables, both of which Light and McGarry (1998) suggest may be important for men. If either is correlated with job mobility and tenure, OLS estimates are biased. The inclusion of these and other alternative econometric methods goes beyond the scope and outside of time-constraints of this project, but would account for more complicated error structures. Such research could further shed light on gender differences and the returns to cumulative job mobility, and suggest with which theoretical model of job mobility we should interpret them.

# V. Conclusions

The results of our regression analysis provide significant insight into the benefits of earlycareer mobility for the women in our sample. The finding that overall mobility is negatively associated with wage growth is similar to the findings of past research on cumulative job mobility and the early careers of young men (Light and McGarry (1998), Light (2005)). The finding that a Type 2 worker (mobile early-on before finding a long-term employment match) fared best in our estimation is different from Light and McGarry's (1998) conclusion for men from the NLSY79: in every specification of their model, immobile workers had the highest log-wage paths. This could suggest a gender differential effect of mobility on wage growth, namely that while men have been most successful through the accumulation of tenure, women who have fared best have changed jobs multiple times before making a similar longterm commitment. Future research including gender differentials and using alternative econometric methods could provide more insight into the experiences of male workers in the NLSY97 and how they contrast with our findings for female workers.

Given that our sample came from the newer NLSY97 data, this inconsistency with established literature could also suggest generational change in the relationship between mobility and wage growth. Long-term employee-employer relationships continue to become less common in the US economy (Farber (2008)) and the generational increase in mobility

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during the early career is corroborated when comparing the mobility of workers in our NLSY97 sample to those in Light & McGarry's 1998 sample from the NLSY79. Regression results for our sample of white women suggest that while constant turnover does not benefit workers, frequent job changes in the early career may have a positive effect on wage growth. Further research involving comparison with earlier cohorts could lend credence to this conclusion, and to the implication that for young women, changing jobs early while searching for a more stable employment match is becoming an increasingly effective path to higher wages.

#### VI. References

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#### VII. Appendix

The table below shows the breakdown of the total number of years worked by all participants in our sample.

Note: "Years Worked" in this context denotes the cumulative number of years individuals

Table 1- Number of Tears Worked							
				o/ C	Total Number	0/ 6	
Years	Total Number of	% of	Total Number	% Of	of White	% of	
workeu	Participants	sample	or white Males	sample	remaies	sample	
1	35	1.0	15	0.8	19	1.2	
2	41	1.2	22	1.2	19	1.2	
3	82	2.4	47	2.6	35	2.1	
4	223	6.5	115	6.3	108	6.6	
5	506	14.7	265	14.6	241	14.7	
6	2566	74.3	1351	74.4	1215	74.2	
Total	3452	100.0	1815	100.0	1637	100.0	

 Table 1- Number of Years Worked

reported having held any job during their first six years of labor-market participation.

The following table shows the distribution of the total number of jobs held by all our participants within the first 6 years.

Total	2 years	<u> </u>	4 vear	<u>s</u>	6 vears		
Number of Jobs Held	Total Number of Participants	% of sample	Total Number of Participants	% of sample	Total Number of Participants	% of sample	
0	73	2.1	25	25 0.7		0	
1	914	26.5	460	13.3	265	7.7	
2	999	28.9	706	20.5	486	14.1	
3	739	21.4	662	19.2	516	14.9	
4	388	11.2	552	16.0	554	16.0	
5	200	5.8	421	12.2	459	13.3	
6	76	2.2	269	7.8	361	10.5	
7	30	0.9	164	4.8	295	8.5	
8	18	0.5	82	2.4	188	5.4	
9	10	0.3	44	1.3	127	3.7	
10+	5	0.2	67	1.9	201	5.8	
Total	3452	100	3452	100	3452	100	
Mean	2.5		3.69		4.79		
S. D	(1.51)		(2.21)		(2.76)		
Maximum	mum 13		18		19		

**Table 2- Number of Jobs Held** 

				i unor ri	mares				
Total		2 yea	Irs		4 year	rs		6 yea	rs
Number	Number	•		Number	r		Number	r	
of Jobs	of	% of		of	% of		of	% of	cumulative
Held	males	sample	cumulative%	males	sample	cumulative	males	sample	. %
0	42	2.3	2.3	15	0.8	0.8	0	0.0	0.0
1	473	26.1	28.4	235	12.9	13.8	134	7.4	7.4
2	528	29.1	57.5	380	20.9	34.7	268	14.8	22.2
3	413	22.8	80.2	363	20.0	54.7	278	15.3	37.5
4	189	10.4	90.6	277	15.3	70.0	286	15.8	53.2
5	94	5.2	95.8	223	12.3	82.3	236	13.0	66.2
6	41	2.3	98.1	141	7.8	90.0	205	11.3	77.5
7	13	0.7	98.8	79	4.4	94.4	144	7.9	85.5
8	12	0.7	99.5	45	2.5	96.9	91	5.0	90.5
9	7	0.4	99.8	20	1.1	98.0	69	3.8	94.3
10+	3	0.2	100	37	2.0	100	104	5.7	100
Total	1815	100	-	1815	100	-	1815	100	-
Mean		2.49	)		3.67			4.76	5
S. D		(1.52	2)		(2.20	)		(2.76	5)
Maximum		10			16			19	

**Table 3-** The distribution of the total number of total jobs held by both genders.

**Panel A** – Males

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Panel B – Females									
		2 yea	rs		4 yea	rs		6 yea	rs
Total Number of jobs held	Numbe r of female s	% of sampl e	cumulativ e %	Numbe r of female s	% of sampl e	cumulativ e %	Numbe r of female s	% of sampl e	cumulativ e %
0	31	1.9	1.9	10	0.6	0.6	0	0.0	0.0
1	441	26.9	28.8	225	13.7	14.4	131	8.0	8.0
2	471	28.8	57.6	326	19.9	34.3	218	13.3	21.3
3	326	19.9	77.5	299	18.3	52.5	238	14.5	35.9
4	199	12.2	89.7	275	16.8	69.3	268	16.4	52.2
5	106	6.5	96.2	198	12.1	81.4	223	13.6	65.9
6	35	2.1	98.3	128	7.8	89.3	156	9.5	75.4
7	17	1.0	99.3	85	5.2	94.4	151	9.2	84.6
8	6	0.4	99.7	37	2.3	96.7	97	5.9	90.5
9	3	0.2	99.9	24	1.5	98.2	58	3.5	94.1
10+	2	0.1	100	30	1.8	100	97	5.9	100
Total	1637	100	-	1637	100	-	1637	100	-
Mean		2.51		3.'	71		4.	82	
S. D		(1.51	)	(2.2	21)		(2.)	77)	
Maximu									
m		13		1	8		1	9	

Panel	B	– F	em	nale	es

	Panel A – Males							
	Number of Jobs Held During First 6 Years of Career							
Variable	ble <u>1 2-3 4-5 6-7 8-</u>							
Initial wage	9.67	10.36	9.24	9.02	9.69			
	(4.19)	(10.16)	(5.50)	(6.49)	(10.03)			
Final wage	12.83	13.40	14.07	12.80	13.54			
	(11.09)	(9.84)	(10.12)	(6.98)	(8.50)			
(Percent change in wage)/100	0.58	0.60	0.80	0.67	0.63			
	(1.71)	(1.40)	(1.47)	(1.29)	(0.89)			
Number of Respondents	76	304	265	190	133			

**Table 4** - The initial and final real wage observations of both genders, based on the number of jobs held during the first 6 years of labour market entry, using the year 2000 as our base year.

Panel B – Females						
Number of Jobs Held During First 6 Years of Ca						
Variable	1	2-3	4-5	6-7	8+	
Initial wage	9.09	8.72	8.50	8.01	7.23	
	(5.07)	(4.60)	(5.13)	(4.91)	(2.59)	
Final wage	13.07	12.95	12.73	11.03	11.84	
	(7.54)	(8.38)	(9.15)	(7.14)	(9.52)	
(Percent change in wage)/100	0.71	0.76	0.75	0.58	0.78	
	(1.40)	(1.74)	(1.45)	(1.21)	(1.66)	
Number of Respondents	69	248	284	179	142	

# Gender Differences in the Pecuniary Returns to Cumulative Job Mobility

# Table 5 – Summary Statistics

	N	len	Women		
Variable	Mean	Standard Deviation	Mean	Standard Deviation	
logwage	6.87	0.53	6.744	0.554	
Separations in 2 years	1.48	1.515	1.52	1.512	
Separations in 6 years	3.76	2.764	3.834	2.769	
Years of Tenure	1.96	2.003	1.91	1.867	
Years of Experience	2.62	1.744	2.645	1.71	
Part-time	0.165	0.371	0.245	0.43	
Dual-job Holder	0.385	0.487	0.369	0.483	
Public Sector Employment	0.02	0.142	0.027	0.161	
<12 years of Education	0.137	0.344	0.12	0.326	
High School Diploma	0.256	0.437	0.195	0.396	
Bachelor's Degree	0.163	0.369	0.212	0.409	
Graduate Degree	0.052	0.223	0.084	0.278	
South	0.234	0.424	0.247	0.431	
Urban	0.608	0.488	0.614	0.487	
Married	0.128	0.334	0.188	0.391	
Divorced	0.02	0.13	0.022	0.146	
Children	0.113	0.317	0.108	0.31	
Union Job	0.053	0.224	0.043	0.203	

	(1)		(2)		(3)	
-	Coeff.	S.E.	Coeff.	<b>S</b> . E	Coeff.	S.E
separations in 2 years			0.006	0.017	-0.007	0.012
(separations in 2 years) ^2			-0.001	0.003		
(separations in 2 years) *tenure					0.010	0.007
(separations in 2 years) *(tenure)^2					-0.001*	0.001
separations in 6 years			-0.016	0.011	0.007	0.007
(separations in 6 years) ^2			0.001	0.001		
(separations in 6 years) *tenure					-0.006	0.004
(separations in 6 years) *(tenure)^2					0.0004	0.001
years of job tenure	0.059***	0.010	0.058***	0.010	0.070***	0.015
(years of job tenure) ^2	-0.005***	0.001	-0.005***	0.001	-0.005***	0.001
years of work experience	0.026*	0.015	0.026*	0.015	0.025	0.015
(years of work experience) ^2	0.001	0.002	0.001	0.002	0.001	0.002
1 if years in school is						
<12	-0.051**	0.026	-0.051**	0.026	-0.052**	0.024
12	0.002	0.023	-0.002	0.024	0.002	0.024
16	0.106***	0.030	0.106***	0.030	0.104***	0.030
>17	0.181***	0.054	0.180***	0.054	0.181***	0.054
1 if married	0.148***	0.026	0.150***	0.026	0.148***	0.026
1 if divorced	-0.002	0.055	-0.002	0.054	0.002	0.055
1 if children at home	016	.024	016	.024	-0.015	.024
1 if works<35 h/wk.	-0.163***	0.022	-0.163***	0.022	-0.163***	0.022
1 if gov't job	-0.044	0.037	-0.045	0.037	-0.044	0.037
1 if union job	0.160***	0.030	0.161***	0.030	0.159***	0.030
1 if lives in city	0.023	0.018	0.023	0.018	0.024	0.018
1 if lives in South	-0.070***	0.021	-0.070***	0.021	-0.070***	0.021
Intercept	6.556***	0.036	6.579***	0.041	6.537***	0.042
root mean square error	0.4789	93	0.478	8	0.4788	33
number of observations	7017	,	7017	,	7017	
<i>R</i> <sup>2</sup>	0.188	3	0.189	)	0.189	)

 Table 6 - Estimates of Alternative Wage Models: Men

Note: \*p<0.1; \*\*p<0.05; \*\*\*p<0.01. These regressions use the simple OLS model with robust standard- errors and id- clustering to correct for heteroscedasticity. From this chart, we omitted variables for industry and occupation participation, and dummy-variables for year, which are included in our regression.

	1		2	2		3	
	Coeff.	S.E.	Coeff.	S.E	Coeff.	S.E	
separations in 2 years			0.037**	0.016	0.007	0.012	
(separations in 2 years) ^2			-0.003	0.002			
(separations in 2 years) *tenure					0.017**	0.010	
(separations in 2 years) *(tenure)^2					-0.002**	0.001	
separations in 6 years			-0.035***	0.011	-0.004	0.007	
(separations in 6 years) ^2			0.002**	0.001			
(separations in 6 years) *tenure					-0.013**	0.005	
(separations in 6 years) *(tenure)^2					0.002***	0.001	
years of job tenure	0.061***	0.011	0.059***	0.011	0.084***	0.016	
(years of job tenure) ^2	-0.006***	0.001	-0.006***	0.001	-0.009***	0.002	
years of work experience	0.022	0.017	0.025	0.017	0.023	0.017	
(years of work experience) ^2	0.001	0.003	0.001	0.003	0.001	0.003	
1 if years in school is							
<12	-0.211***	0.037	-0.205***	0.037	-0.204***	0.037	
12	-0.080***	0.027	-0.087***	0.027	-0.085***	0.027	
16	0.135***	0.026	0.132***	0.026	0.135***	0.026	
>17	0.298***	0.042	0.297***	0.042	0.298***	0.042	
1 if married	0.077***	0.024	0.076***	0.024	0.077***	0.024	
1 if divorced	0.037	0.054	0.044	0.054	0.042	0.054	
1 if children at home	-0.071	0.030	-0.068**	0.030	-0.071**	0.030	
1 if works<35 h/wk.	-0.162***	0.019	-0.162***	0.019	-0.162***	0.019	
1 if gov't job	.041	0.032	0.039	0.032	0.039	0.032	
1 if union job	0.228***	0.038	0.231***	0.023	0.230***	0.038	
1 if lives in city	-0.004	0.021	-0.002	0.020	-0.002	0.022	
1 if lives in South	-0.039*	0.022	-0.040*	0.022	-0.039*	0.022	
Intercept	6.492***	0.037	6.553***	0.043	6.500***	0.042	
root mean square error	0.487	1	0.4859	94	0.486	1	
number of observations	6692	2	6692		6692		
$R^2$	0.231	4	0.235	5	0.235	4	

<b>Table 7</b> – Estimates of	Alternative '	Wage Models:	Women

Note: \*p<0.1; \*\*p<0.05; \*\*\*p<0.01. These regressions use the simple OLS model with robust standard- errors and id- clustering to correct for heteroscedasticity. From this chart, we omitted variables for industry and occupation participation, and dummy-variables for year, which are included in our regression.

	Years of Experience				
	0	1	2	4	6
Specification					
1 job (6 years)	6.553	6.606	6.647	6.693	6.691
6 jobs (0.4 + 0.4 + 0.4 + 0.4 + 0.4 + 0.4 + 4)	6.553	6.566	6.613	6.707	6.753
6 jobs (2 + 0.8 + 0.8 + 0.8 + 0.8 + 0.8 + 0.8)	6.553	6.606	6.557	6.504	6.466
10 jobs (0.6 years each)	6.553	6.558	6.578	6.527	6.515

Table 8 - Predicted Log Wage by Experience Level and Mobility Pattern

Note: Numbers in parentheses represent job tenure in years worked on each job.

Figure 1 – Predicted Log Wages by Experience Level and Mobility Pattern.



### VIII. Endnotes

<sup>1</sup> We thank our research advisor Dr. Jeffrey Yankow, seminar participants at Furman University, and Dr. Lisa Schulkind from UNC Charlotte for their helpful input.

<sup>2</sup> While we were initially interested in exploring racial differences among our sample from the NLSY97, the number of black respondents who met our criteria for inclusion was very small; estimates from our regression model were statistically insignificant.

<sup>3</sup> Neumark (2002) states that a five-year window is sufficiently long to observe many individuals' transitions from their earliest entrance into the labor market into somewhat steadier employment. Neumark further cites Osterman (1980) in defending this assumption. <sup>4</sup> This criterion is the same as that from Light (2005), which cites Light (1998) and is used in other research exploring NLSY data, such as Fuller (2008).

<sup>5</sup> Workers in our sample from the NLSY97 were more mobile than those in Light & McGarry's (1998) sample from the NLSY79; 12.2% of white males in their sample remained with the same employer throughout 8 years of career experience. While it is difficult to compare data at the opposite end of the spectrum, it's worth noting that for the first four years of career experience, Light & McGarry reported 1.4% of their sample having had ten or more separations, whereas 3.1% of white males in our sample held ten or more jobs (from which they may or may not have separated).

<sup>6</sup> Eliminated were those wages we considered outliers, which we defined as any wage greater than \$100 or less than \$1.

<sup>7</sup> Table 4 displays the number of years that individuals provided a wage observation over years t - t+5, which differs from Table 2 due to the timing of employment shifts, participant nonresponse, and other survey inconsistencies.

<sup>8</sup> Respondents were sorted into nine occupation categories and eight industry categories, based upon 2000/2002 census industry and occupation codes, as provided by the NLSY. See Appendix 1 for more information on occupation and industry classification.

<sup>9</sup> Some individuals reported having worked more than 50 weeks in a given year; those individuals' responses were converted to fifty so that no individual recorded having more than six years of experience over his or her observed six years.

<sup>10</sup> Since weeks worked on a given job was already capped at fifty per year, no one reported having worked more than six years over the period of interest.

<sup>11</sup> Columns (1) & (3) of our regression output echo the approach taken by Light & McGarry in their OLS estimation.