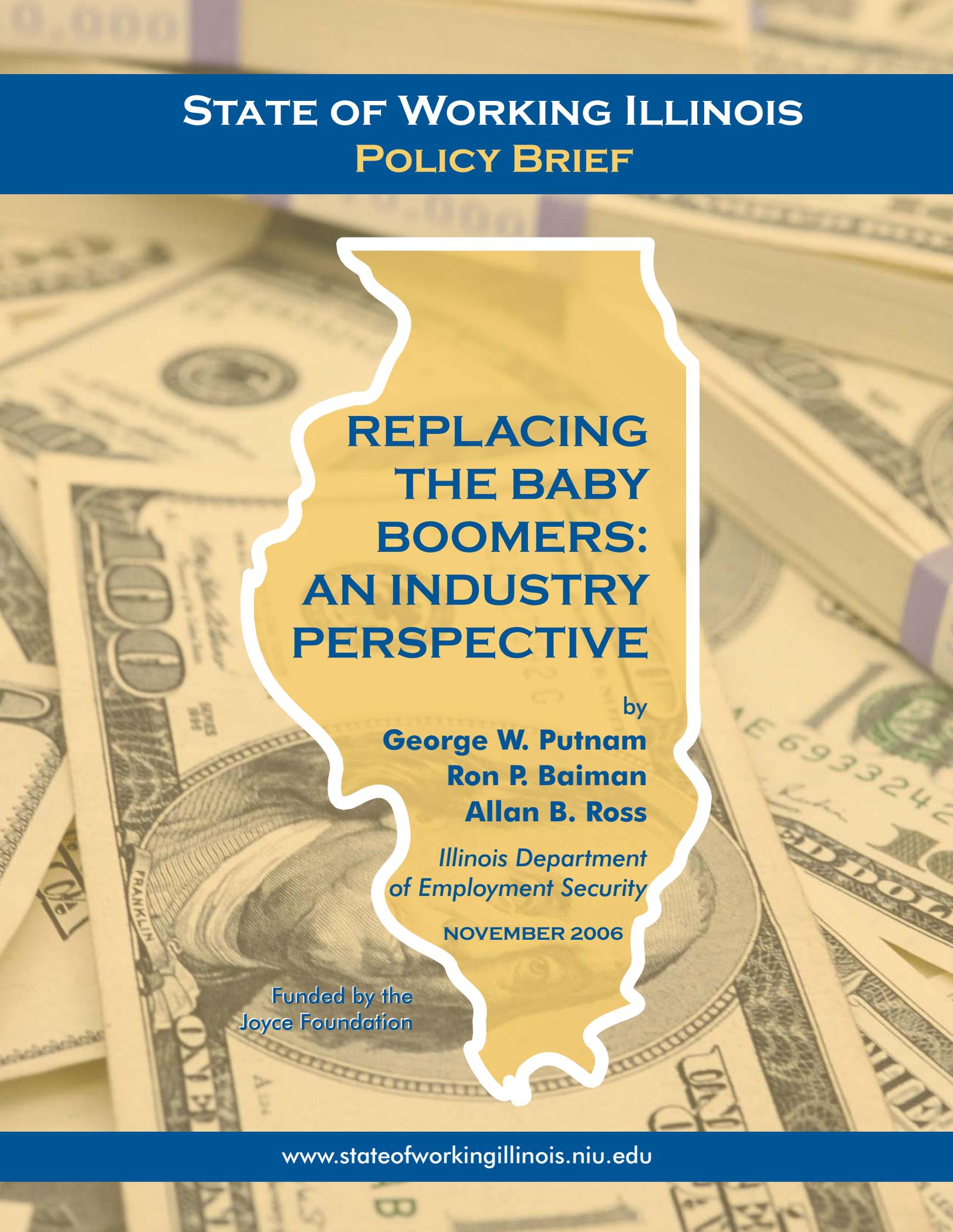


STATE OF WORKING ILLINOIS

POLICY BRIEF



REPLACING THE BABY BOOMERS: AN INDUSTRY PERSPECTIVE

by

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The large number of workers born during the Baby Boom of 1946 through 1964 will be eligible to leave the workforce during the next few decades. Studies have documented the implications of this trend for consumer spending, demand for services, product development, and government spending on all levels. Sometimes overlooked, but of great importance, are the ramifications of retirement among Baby Boomers for the industries that employ them. To give focus to this issue, we examine the concentration of these workers across private-sector industries in Illinois and delve into the labor-market characteristics of those industries.

Labor market analyses are often cast in one of three contexts: the inflow of workers into the labor market, the transition of workers between jobs, or the outflow of workers from the labor market. This analysis centers on the latter, the expected outflow of older workers. The unprecedented productivity gains of the last decade reflect not only the emergence of relevant technologies, but also the realization of technology-induced efficiencies in the workplace. The successful mediation between these new technologies and workplace processes required specialized knowledge. Older workers are a key resource for this specialized knowledge, so their departure may hinder near-term technology impacts on productivity.

Moreover, there is a question concerning the alignment of strategies for human resource management with the reality of impending retirement among the Baby Boom generation. Are those industries most vulnerable to this cohort actively pursuing mitigation strategies such as flexible work arrangements, or recruitment strategies for replacement workers with competitive skills? The misalignment between resource management and labor market reality could impact the ability of training providers to develop a sufficient pool of labor with skills in areas of demand.

The key data source that we use for this analysis is the Local Employment Dynamics (LED) program, which is conducted as a partnership between states and the U.S. Bureau of the Census.¹ Each quarter of the calendar year, the Illinois Department of Employment Security (IDES) transmits two data files to the Census Bureau, one file of business establishments (Quarterly Census of Employment and Wages) and a second file of workers (Unemployment Insurance Wage Records). The Census Bureau applies matching and statistical techniques to link workers to establishments and to track the employment status of workers by establishment. In addition, the Census Bureau augments the state files with information on the demographic characteristics of workers, particularly gender and age. For purposes of this analysis, we will concern ourselves only with statewide private-sector data, with industries defined by a combination of 3-digit and 4-digit NAICS codes, and with workers in the 55-to-64 age cohort.

¹ A full description of the Local Employment Dynamics partnership between states and the U.S. Bureau of Census and its products can be found at: <http://lehd.dsd.census.gov/led/>. In this analysis of older workers, the data represent the year ending in the second quarter of 2005. That is, the data are a four-quarter rolling average ending in 2005:Q2. This approach averts the possible confounding effects of seasonal fluctuations on labor market activity.

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The findings and conclusions presented in this report are those of the authors, and do not necessarily reflect the views, opinions, or policies of the officers and/or trustees of Northern Illinois University. For more information, please contact the Regional Development Institute, Northern Illinois University, DeKalb, IL 60115; Phone 815-753-1907.

RISK AND NON-RISK INDUSTRIES

We begin by identifying those industries with high concentrations of older workers, i.e., those 55 to 64 years of age. This is the cohort most likely either to exit the labor force entirely, or to reduce their working commitment, e.g., part-time. Industries with large concentrations of workers from this age cohort will be faced either with the loss or reduction in service of a large portion of their workforce and the consequent need to replace their skill competencies.

The categorization of detailed industries into Risk and non-Risk groupings is based entirely on the percentage of older workers in the industry.² On average, older workers constitute 11.5% of industry employment. However, the percentage of older workers varies considerably across industries, from a low of 5.3% to a high of 21.5%. Since our immediate concern is with the above-average occurrence of older workers in an industry, we define Risk industries as those in the top quartile of this distribution. More specifically, a Risk industry is one in which more than 14.3% of its workforce is between the ages of 55 and 64. Industries whose employment falls below that older-worker threshold we designate as non-Risk industries.

Of the 27 industries in the top quartile of the proportionate distribution of older workers, 10 (or 37.0%) are in the Manufacturing sector and reflect a mixture of durable and non-durable goods production.³ The Health Care and Education sectors each contribute four industries to the top quartile, and together these comprise another 29.6% of that quartile. Two-thirds of all the Risk industries can be found in these three sectors. Among the top 10 industries with the highest percentage of older workers, five are in the Manufacturing sector and two are in Education. Overall, the Risk industries employ only 18.0% of all workers but 25.2% of older workers (see Tables 1 and 2).

Table 1. Worker Composition of Risk Industries

Sector	Detailed Industries	Employment		Percent
		All Workers	55-64 Workers	55-64 Workers
Education	4	91,583	16,263	17.8%
Manufacturing	10	369,937	60,641	16.4%
Mining	1	7,178	1,163	16.2%
Other Services	2	82,345	13,342	16.2%
Transportation/Warehousing	2	89,772	14,562	16.2%
Health Care/Social Assistance	4	144,920	22,508	15.5%
Finance	1	3,483	520	14.9%
Administrative and Support	2	34,352	5,112	14.9%
Real Estate	1	55,202	8,043	14.6%
Total	27	878,771	142,118	16.2%

Source: Illinois Department of Employment Security, Local Employment Dynamics Program

² In developing this categorization, we aimed at avoiding the potential bias caused by small industries. Thus, we included only those industries that met two criteria: more than 2,000 total workers and at least 200 older workers. These criteria eliminate eleven industries, representing 0.2% of the state's 5 million private-sector workers. The complete listing of the eliminated industries is at: www.stateofworkingillinois.niu.edu.

³ The detailed industries that comprise the sector composition of Risk and Non-Industries can be viewed at www.stateofworkingillinois.niu.edu. The subsequent analysis utilizes weighted averages for Risk and Non-Risk industries based on the relevant employment count for each labor market measure.

Table 2. Worker Composition of Non-Risk Industries

Sector	Detailed Industries	Employment		Percent
		All Workers	55-64 Workers	55-64 Workers
Manufacturing	10	327,892	42,741	13.0%
Wholesale Trade	3	302,195	39,014	12.9%
Health Care and Social Assistance	9	475,185	61,191	12.9%
Management of Companies	1	87,147	10,642	12.2%
Mining	2	27,216	3,223	11.8%
Agriculture	3	15,273	1,808	11.8%
Finance	3	309,594	35,019	11.3%
Education	3	18,036	1,892	10.5%
Professional Services	9	337,151	35,345	10.5%
Transportation/Warehousing	4	122,415	12,549	10.3%
Retail Trade	12	628,463	64,321	10.2%
Other Services	2	111,532	11,141	10.0%
Information	6	118,155	11,601	9.8%
Construction	3	251,073	24,128	9.6%
Administrative and Support	7	357,255	33,163	9.3%
Leisure	3	79,541	7,080	8.9%
Real Estate	1	26,518	2,314	8.8%
Hospitality	2	417,989	24,273	5.8%
Total	83	4,012,628	421,471	10.5%

Source: Illinois Department of Employment Security, Local Employment Dynamics Program

LABOR MARKET CHARACTERISTICS OF RISK AND NON-RISK INDUSTRIES

Declining (job loss) and Expanding (job gain) Firms

The LED data allow us to examine the labor market experience of workers in the larger context of the firm's overall employment change. This involves distinguishing between Declining and Expanding firms and then determining whether Risk or Non-Risk industries are disproportionately associated with either contraction or expansion in the firm's overall employment level.

The distinction between Declining and Expanding firms draws on an extensive literature that has evolved from seminal work on gross job flows.⁴ This stream of research draws attention to the importance of employment change at the establishment level. Segmenting those firms with declining employment (job losses) from those with expanding employment (job gains) helps analysts to better understand the life-cycle of firms, and its relation to employment size, business cycles, labor market inflows/outflows, the impact of exogenous economic shocks and public policy.

We distinguish between these two types of firm based on the employment change among stable jobs and, thus, begin by defining that concept. Stable jobs are those in which the incumbent worker has been employed for at least three consecutive quarters. Declining firms either closed or had a lower count of stable jobs at the end of the quarter than at the beginning of the quarter – that is, firms that experienced contraction in payroll employment. In contrast, Expanding firms either opened or had an increase in payroll employment from the beginning to the end of the quarter.

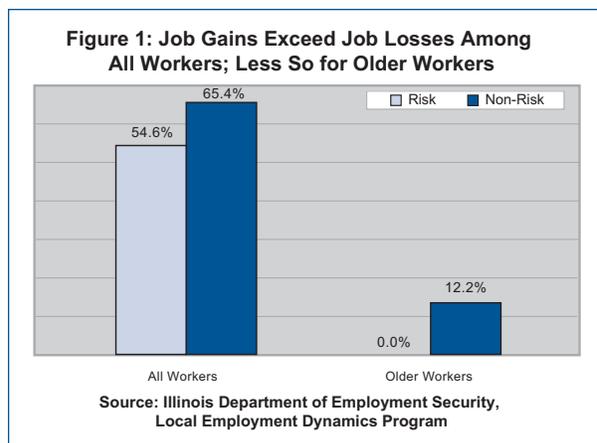
⁴ For example, see Davis, Steven J., John C. Haltiwanger, and Scott Schuh. 1997. *Job Creation and Job Destruction*. Cambridge, MA: The MIT Press.

Our purpose is to compare the extent of job gains among Expanding firms to job losses among Declining firms for Risk and Non-Risk industries. More specifically, are firms in Risk or Non-Risk industries more inclined toward employment contraction or expansion? We examine this question for all workers, and then isolate the older-worker cohort in Risk and Non-Risk industries. This perspective lets us differentiate the labor market experience of older workers from all workers in those industries with higher and lower concentrations of older workers.

An important consideration to keep in mind is that the data series for Declining (job losses) and Expanding (job gains) firms are estimated independently for all workers and older workers. Thus, an establishment might report job gains among all workers, but job losses among older workers. Such an establishment would be included in the category of Expanding firms for all workers, but in Declining firms for older workers.

The results reported in Figure 1 represent the ratio of job gains in Expanding firms to job losses in Declining firms. The larger the percentage, the higher is the employment expansion relative to contraction. Among all workers, job gains were 54.6% higher than job losses in Risk industries and 65.4% higher in Non-Risk industries. Expanding firms dominated both Risk and Non-Risk industries. That is, the year ending in the second quarter of 2005 was a period of predominate employment expansion in both industry groups.

These findings contrast sharply with the labor market experience of older workers. Job gains and losses were virtually equal in Risk industries and the former edged the latter by only 12.2% in Non-Risk industries (see Figure 1). In short, job losses were more severe, relative to job gains, among older workers than all workers. Older workers were more heavily concentrated in Declining firms than was the case for all workers. The proportion of job gains to losses is somewhat similar across Risk and Non-Risk industries, but noticeably dissimilar between all workers and older workers.



Worker Turnover

We shift focus here from firm employment change to worker employment change. And we begin by examining the labor market experience from the perspective of the movement of workers into, and out of, jobs. In the LED data, a job reflects the link between a particular worker and an establishment (or firm) at a specific physical location. The measurement of worker turnover captures the coupling or decoupling of a worker from a specific workplace.

The average percentage turnover among workers in Risk industries was 7.2%, compared to 10.0% among workers in Non-Risk industries (see Figure 2). Typically, ten percent of workers in Non-Risk industries are either hired or separated within a year. Indeed, turnover within this industry group ranges to a high of 25.4%. Retail trade activities (seven industries) are most numerous in the top quarter of turnover among Non-Risk industries, followed by business services and recreation (each with three industries).

Turnover has two distinct components: new hires and separations. For purposes of the LED program, a new hire into a stable job must meet two conditions: a worker must have started a job in a firm for which the individual had not worked in the preceding year and that worker must remain employed in the firm for at least three consecutive quarters. Separations from stable jobs is a count of workers who were employed by a firm for at least three consecutive quarters and then not employed by that firm in the next quarter.

The data show that the higher turnover rate among workers in Non-Risk industries reflects elevated levels of both new hires and separations. The average percentage of new hires was 10.6% and separations was 9.4% (see Figure 2). These rates noticeably exceeded the averages for workers in Risk industries: 7.5% for new hires and 6.8% for separations. The range of separation rates is relatively similar for workers in these two industry groups. Thus, the higher separation rate in the Non-Risk industries reflects a greater concentration of workers in the upper portion of the distribution.

The data on new hires tell a slightly different story. The percentage of new hires in Non-Risk industries ranged to a high of 32.0%, as nearly a third of the workers in temporary employment agencies were new hires. Indeed, six Non-Risk industries surpassed the maximum new hire rate found in the Risk industries. Three of those six Non-Risk industries were retail trade (gas stations, general merchandise stores, and clothing stores) and another was food service, such as restaurants.

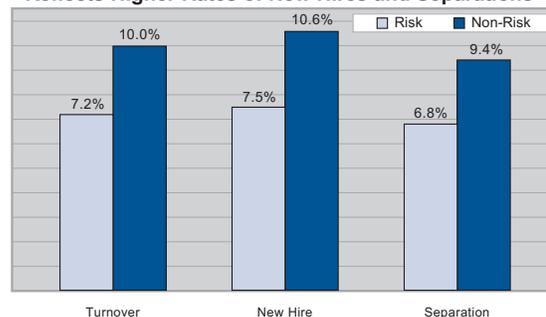
The lower turnover rate among workers in Risk industries than in Non-Risk industries is due to a more moderate rate of both new hires and separations in the Risk industries. Taken together, these data suggest that one human resource challenge facing Risk industries is the overall level of hiring activity. Paradoxically, those industries that will face the greatest need to replace retirees have experienced comparatively low levels of hiring activity, and thus have limited hiring experience. As these industries encounter the increased strain of a sizable cohort moving toward retirement, resource managers will need to locate available pools of labor with in-demand skills and design and implement competitive hiring strategies.

Worker Earnings

The source of LED data on earnings is employer records. Each quarter of the year, Illinois employers report actual earnings for workers covered by the Unemployment Insurance Act. Moreover, the coverage of the U.I. mandate is nearly a census of workers. Primary exclusions are limited to the self-employed, student workers, and federal civilian workers. LED-based earnings information, therefore, benefits from the advantages of administrative reporting, in contrast to self-reported earnings. It also avoids the coverage limitations often associated with sample-based surveys of employee earnings.

The average monthly earnings of workers in stable jobs was slightly higher in Risk industries than in Non-Risk industries, \$3,865 compared to \$3,678 (see Figure 3). Thus, the typical worker in a Risk industry has an earnings premium of only \$187 per month. Monthly earnings in Risk industries ranged to a high of \$6,745, only slightly more than half the maximum in Non-Risk industries of \$11,842.

Figure 2: Higher Turnover Among Non-Risk Industries Reflects Higher Rates of New Hires and Separations



Source: Illinois Department of Employment Security, Local Employment Dynamics Program

Worker earnings are often described as one human resource management tool for the retention of labor. However, the LED data show an earnings differential of only 5.1% (\$187 per month) between workers in Risk and Non-Risk industries, and that may not be sufficient to slow the exodus of labor from Risk industries. But that reported differential is for the earnings of all workers, and it is more relevant to ask how the earnings of workers in the 55-to-64 age cohort compare between Risk and Non-Risk industries.

The older worker, or pre-retirement, cohort poses the greatest challenge for human resource management in Risk industries. Can the current earnings policies in these industries work to encourage retention and, consequently, slow the retirement of older workers in industries with high concentrations of them? The data suggest that current policies will not support a strategy for labor retention.

As it was for all workers, average monthly earnings among the 55-to-64 age cohort was comparable in Risk and Non-Risk industries. Older workers in Risk industries experienced an earnings advantage of only \$33 per month, \$4,429 compared to \$4,396

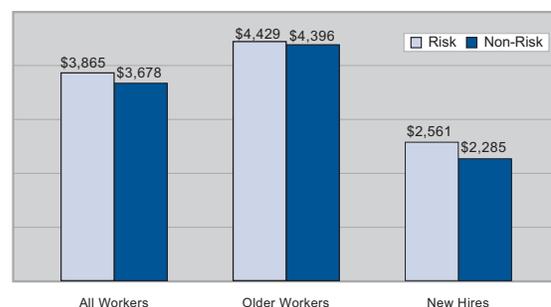
(see Figure 3). Thus, average monthly earnings for a typical older worker does not differ substantially between these industry categories. Human resource managers facing the potential of large scale retirement in this cohort will need to create a more advantageous wage structure or develop alternative incentive packages to moderate the exodus.

Labor retention is only one part of workforce policy, and earnings is only one aspect of retention strategy. A broader consideration of employee compensation, including such items as health insurance, pension, and vacation benefits, would offer a more comprehensive understanding of retention challenges facing human resource management. But the available data do allow us to examine a second important component of workforce analysis – a comparison of earnings related to labor recruitment. As employers seek to hire into vacant positions in industries with heavy concentrations of older workers, does the structure of new hire wages offer an inducement to attract the most qualified workers?

LED data make it possible to identify new hires in a firm and to track these new hires across three consecutive quarters to establish their designation as new hires into stable jobs. The uniqueness of this measurement provides a more specific understanding of employment dynamics than is possible with earnings information from any other sources. The average monthly earnings for a new hire into a stable job in Risk industries was \$2,561, compared to \$2,285 in Non-Risk industries, a 12.1% premium (see Figure 3). On an annualized basis, this premium is \$3,312, a substantial difference.

In sum, the average monthly earnings of workers in Risk and Non-Risk industries is similar, a finding that applies to all workers, as well as to older workers. But new hires into Risk industries enjoy a substantial premium over new hires into Non-Risk industries. In the context of human resource strategies for worker retention and recruitment, earnings alone will not likely be a prime incentive for the retention of workers in Risk industries, although the differential in new hire earnings should provide a recruitment advantage in those industries. Put another way, earnings may not stem the outflow of workers from those industries most at risk because of the heavy concentration of older workers who are likely to retire from the labor force; but the new hire wages paid in these industries could be sufficient to attract qualified replacement workers.

Figure 3: Worker Earnings are Similar Between Industry Groups for all Workers and Older Workers; Substantial Earnings Advantage Among New Hires in Risk Industries



Source: Illinois Department of Employment Security, Local Employment Dynamics Program

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