Better Jobs Better Care

Building a Strong Long-Term Care Workforce

A Better Jobs Better Care Practice & Policy Report

The Cost of Frontline Turnover in Long-Term Care

A national program supported by The Robert Wood Johnson Foundation and The Atlantic Philanthropies with direction and technical assistance provided by the Institute for the Future of Aging Services, American Association of Homes and Services for the Aging.

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THE COST OF FRONTLINE TURNOVER IN LONG-TERM CARE

by
Dorie Seavey

October 2004

This report was published by Better Jobs Better Care, a national research and demonstration program funded by The Atlantic Philanthropies and The Robert Wood Johnson Foundation.

Better Jobs Better Care (BJBC) supports changes in long-term care policy and provider practices to reduce high vacancy and turnover rates among frontline direct care workers and improve the quality of care provided to older adults.

BJBC is managed by the Institute for the Future of Aging Services, based at the American Association of Homes and Services for the Aging in Washington DC. See www.bjbc.org for more information.

BJBC appreciates the comments and suggestions of two anonymous reviewers. The views expressed herein are those of the author and are intended for information, debate and discussion. The views do not necessarily represent those of AAHSA, The Robert Wood Johnson Foundation or The Atlantic Philanthropies.

About the author:
Dorie Seavey is a labor economist who works for PHI in New York. Her areas of expertise include labor issues for low-wage workers and workforce development for front-line health and social service workers. She served as a senior member of an evaluation team at Public/Private Ventures investigating the four-year Sectoral Employment Initiative of the Charles Stuart Mott Foundation. Seavey is a former Senior Research Scientist at the Heller School of Social Policy at Brandeis University. She holds a Ph.D. in Economics from Yale University.

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EXECUTIVE SUMMARY

Across the country, the high rate of turnover among frontline workers in long-term care is a serious workforce problem. Concern about high turnover rates has led to numerous initiatives to improve recruitment and retention of this critical workforce. Much less well explored have been the costs of turnover—their magnitude, their bottom line impact on provider finances, and their effect on the quality of the services provided to long-term care clients and consumers.

This report details what is known about turnover costs among the direct care workforce, presents a framework for measuring them, and explains why they are important to track. Turnover among frontline workers is a critical cost driver for the long-term care industry, affecting the fiscal health of providers, the quality of care that long-term care consumers receive, and the efficiency of resource allocation within the public payer system. The potential magnitude of these costs, and the fact that key elements of the total cost of turnover are not visible or easily measured, lead to important implications for practice and policy, and for future research.

Evidence on Direct-Care Turnover Costs

To date, only a handful of detailed studies have been conducted that attempt to quantify the per worker costs of frontline turnover in different long-term care settings—nursing home care, home care, and community-based care facilities for individuals with intellectual or developmental disabilities (ID/DD). All of these studies pertain to one or more providers or facilities located in one state only, and most concern ID/DD settings. A review of the literature indicates that:

- turnover costs at the enterprise or organizational level are best estimated by using an expanded accounting model that includes both direct and indirect costs;
- the *indirect* costs of turnover may be substantial and tend to be overlooked because they are less visible and harder to measure; and
- the *direct cost* of turnover per frontline worker is at least $2,500, based on a conservative working estimate.

Accounting for Turnover Costs among Direct Care Workers

Empirical studies on the cost of turnover for direct-care workers and low-wage service workers generally use an accounting framework for costing turnover per worker at the **enterprise level.** This approach usually distinguishes between several categories of direct and indirect costs, and identifies turnover-related productivity losses as an important but often neglected cost category.

While the enterprise or organizational level tends to be the main focus of turnover cost analysis, significant costs are also incurred at two other levels. First, costs are incurred at the **service delivery level** by consumers who may receive lower quality of care from inexperienced workers, and by frontline workers who may be subject to greater stress and risk of injury. Second, costs are incurred at the **third-party payer level** by public funders and private insurers, who play major roles in designing, managing, and financing long-term care services.

Understanding these two additional layers of costs is critical to calculating the full cost burden of frontline turnover and leads to a wider set of practice and policy implications. For example, because turnover costs at the service delivery and payer levels are not integrated into providers' cost structures, providers may not find it cost-effective to make the investments needed to reduce turnover. But by not making those investments, substantial "downstream" turnover costs may be incurred by the other stakeholders — consumers and their families, workers, and third-party payers.

Implications for Practice, Policy and Research

Practice/Provider Implications

Overall turnover costs borne by long-term care providers appear to be substantial and can constitute a significant financial drain on a provider's bottom line. Far from being an inevitable cost of doing business, providers can measure and track turnover costs, make informed decisions about how much they can afford to invest in keeping or retaining employees, and assess whether or not such investments are improving their bottom line. The strict financial case for reducing turnover will be sensitive each provider's costs and organizational infrastructure. However, all providers can reduce turnover costs by: 1) knowing the true cost of turnover; 2) calculating turnover rates carefully; and, 3) investing in proven retention strategies.

Policy Implications

High turnover costs have serious financial impacts on federal, state and local governments, which together foot most of the bill for long-term care. The costs of turnover to the public sector are tantamount to an implicit tax on reimbursement rates paid to publicly-financed providers -- a hidden tax which ultimately is paid by taxpayers for high industry turnover costs. While the exact costs are difficult to measure, the evidence suggests that the price paid by government payers for turnover in long-term care is on the order of roughly $2.5 billion. This figure does not include the costs of increased health care costs due to lower care quality for consumers or higher injury-related medical costs for workers.

Public policy can play an important role in creating better feedback mechanisms so that significant costs borne in one part of the system (e.g., increased medical costs due to turnover-related lower quality care) become more visible and are taken into account by other stakeholders in the long-term care system. Policymakers themselves would benefit from research comparing which public policies and which provider practices have the greatest impact on stabilizing the direct-care workforce. This would help in the development of rate adjustments or incentives for provider investments that result in lower turnover rates.

Research Implications

Field work and research are needed in several areas. Further improvements and refinements are needed in both the statistical and fiscal measures used to measure turnover costs, along with applications of these measures in the field to document actual turnover costs. It would also be useful to develop methods at both the state and national level to monitor turnover costs across the spectrum of long-term care settings.

To better calculate the indirect costs paid by consumers and payers, research is also needed on the links between turnover and care quality and how care outcomes differ between high and low turnover environments. Lastly, further investigation is needed to understand the sensitivity of turnover rates to different variables, such as improved compensation and other retention strategies, as well as which factors differentiate low and high turnover organizations.

THE COST OF FRONTLINE TURNOVER IN LONG-TERM CARE

I. Introduction

Across the country, turnover among frontline workers in long-term care[1] has been identified as a serious workforce problem, and concern about elevated turnover rates[2] has led to considerable focus on understanding the challenges associated with recruitment and retention of this critical workforce. Much less well explored have been the costs of turnover—their magnitude, their "bottom line" impact on provider finances, and their effect on the quality of the services provided to long-term care clients and consumers.

Not all turnover is "bad" and in every enterprise, some turnover is inevitable. However, in a highly labor-intensive, service industry such as long-term care where turnover rates are known to be elevated, these costs can be problematic. Each time a direct care worker leaves a long-term care provider organization, financial and human resources are lost to new recruitment and training, and either overtime is paid out to an often increasingly stressed workforce, expensive replacements are hired in from temporary staffing agencies, or care hours simply go undelivered.

In addition, with every quit or termination, the caregiving relationships and services provided to clients—the core commodity of long-term care—at a minimum are disrupted and sometimes are so compromised that the well-being of both clients and workers is negatively affected due, for example, to increased injury rates on both sides. Simply put, frontline turnover in long-term care can be expensive, and when it does become costly, it becomes a business problem, a quality-of-care problem, and a public resource problem.

This paper addresses what is known about the costs of turnover in long-term care, summarizing existing evidence on the overall size of these costs as well as related evidence on the costs of turnover in low-wage jobs generally in the U.S. economy. Based on the literature in this field, the paper proposes a framework for identifying the costs of frontline turnover, delineating the different elements that ideally should be tracked in order to arrive at reliable cost estimates. The paper concludes with implications for three areas: provider practice, national and state policy, and further research.

II. Evidence on Direct-Care Turnover Costs

To date, only a handful of detailed studies have been conducted that attempt to quantify the per worker costs of frontline turnover in long-term care. The basic findings of these studies are presented in Table 1. Several different direct-care settings are covered by the studies—nursing home care, home care, and community-based care organizations—but the majority of studies pertain to settings that serve individuals with intellectual or developmental disabilities (ID/DD). One turnover cost study that treated allied health personnel as an occupational grouping is also included because of its pertinence to health care settings generally and its methodological features (Waldman et al., 2004, who

defined allied health personnel to include several categories of direct-care workers but also different kinds of technicians). All of the studies pertain to one or more providers or facilities located in one state only; turnover rates in these sites ranged from 40% to 166%.

Table 1: Studies Examining Costs of Turnover for Direct Care Workers

Study	Key Findings
Zahrt 1992	Careful documentation of the costs of replacing home care worker in a single certified public home care agency in the Midwest determined a total cost associated with each instance of turnover $3,362. The calculations included: recruitment costs of $398 (advertising, outreach, printing brochures, interviewing time, and time to check references); orientation expenses of $675 (staff, materials, and travel); training expenses of $1,859 (certification training, practicum, and competency evaluation);[3] and terminatio costs of $431 (exit interview and evaluation time, paperwork processing, accrued vacation/holiday leave, and substitute aide salary and benefits). The author notes that her calculations do no account for lost services to clients and lost revenue from funding sources.
Johnston 1998	This study surveyed all developmental disability service providers in Alaska that contract with the state (28 in total of which 23 responded). Providers were asked how much they spent on advertising, overtime due to shift vacancies, and other recruitment costs (e.g., fingerprinting, administration time, Hepatitis B vaccinations), orientation training, and other necessary training (e.g., First Aid, CPR, & Mandt training). The average statewide cost of turnover per worker was $2,341.
Fullager et al. 1998	This study collected financial data on the costs of turnover from all 28 Kansas Community Developmental Disability Organizations. The average cost of turnover was $2,094 with training costs constituting nearly two-thirds of the total estimated cost. The costs of separation and replacement were also measured.
Straker &Atchley 1999	Interviews were conducted with a representative sample of 112 nursing homes and 100 certified home health agencies in Ohio focusing on employers' recruitment and retention practices. Only 17% of the sample had ever calculated the cost of turnover in their organization. Self-reported costs showed significant differences across the two types of organizations, and, in the authors' view, underestimated true turnover costs because the typical provider only included a few of the possible cost elements in their calculations. Of those organizations which had examined their turnover costs, their self-reported estimates of total turnover cost per employee ranged from $1,885 to $2,100 for nursing homes and $951 to $1,242 for home health agencies.

Seninger & Traci 2002	Cost data were collected from 7 Montana developmental disabilities service providers, including information on the costs of separation, new hires, training, and vacancy (overtime) pay. The indirect costs of lost productivity were not measured. Average turnover costs were estimated to be $2,627.
Larson 2004	Cost per turnover among direct support professionals in Minnesota was estimated at $2,592. Cost elements included the costs of leaving, hiring, and training. The study also noted known costs not included in its estimates such as exit interview processing, separation pay, lost client revenues, physical exams, and hiring bonuses.
Vinfen Corporation 2004	Cost per replacement hire for 2004 was estimated at $5,276 for a large, non-profit human services organization in Massachusetts that provides programs and services to help people with disabilities. The agency employs nearly 2,000 direct care workers. Cost elements included: overtime associated with replacement of terminated employees and shift coverage while new hire is in training ($1,498); non-productive training time ($999); human resources department staff time devoted to recruiting and training replacement staff ($1,948); and recruiting advertising ($831).
Waldman et al. 2004	This study estimated turnover costs for several occupational groupings at a major academic medical facility in the Southwest and is notable for the methodology it uses to estimate the cost of reduced productivity. Allied health personnel (which includes some direct care workers) [4] had average costs of hiring and training of $2,307. Lost productivity added an additional $4,061 to $10,709 to the cost of turnover, yielding an estimate of total average turnover costs of at least $6,368. Across all categories of jobs ranging from doctors to support personnel, the study found that the hidden costs of reduced productivity far outweighed the more easily measured direct costs associated with hiring and training.

Before analyzing what these studies tell us about the cost of frontline turnover in long-term care, the next part considers two other perspectives: rule-of-thumb estimates of turnover costs applied to direct care, and evidence on the costs of turnover in low-wage service work generally.

"Rule-of-Thumb" Estimates of Direct-Care Turnover Costs

The most commonly used, conservative rule-of-thumb for estimating the per worker cost of turnover in the overall U.S. economy puts the comprehensive cost of replacing a lost employee at 25% of his or her annual compensation amount. Applying this rule, the Employment Policy Foundation (December 2002) calculates that "[f]or the typical full-time employee who earns $38,481 and receives $50,025 in total compensation, the total cost of turnover would amount to $12,506 per employee." The 25% rule-of-thumb applied to US Bureau of Labor Statistics estimates of the annual wages of direct-care workers suggests a total cost of turnover per employee in the range of $4,200 to $5,200.[5]

Evidence on the Cost of Turnover in Low-Wage Service Work Generally
While their numbers are not large, studies of turnover costs in low-wage service jobs provide an interesting reference point to the extant empirical work on estimating the costs of turnover of direct-care workers. Not surprisingly, studies using a narrower definition of turnover costs tend to find lower costs than those which extend the definition to include the cost of performance differentials between the "leaving" employee and replacement employee. A recent study of hotel, retail, and restaurant employees in Santa Monica, CA found direct turnover costs (i.e., the costs of separation, recruitment and training) of $2,090 for non-managerial workers earning an average hourly wage of $7.58 (Pollin and Brenner, 2000). A study of hotel employees in Miami and New York City, which in addition to direct costs also accounted for the cost of lost productivity and peer and supervisor disruption, found turnover costs in Miami ranging from $1,332 for room-service wait staff, to $2,077 for line cooks, to $3,383 for gift-shop clerks, and to $5,688 for front-office associates (Hinkin and Tracey, 2000). The researchers' estimates for comparable positions in New York hotels were approximately twice those found in Miami.[6]

Constituting over half of the total cost of turnover for each occupation in this study,[7] Hinkin and Tracey comment that the costs of lost productivity are "hidden 'soft' costs which are almost never formally accounted for and consist primarily of inefficiency while the employee is learning the job and disruption of others caused by the new employee's inexperience".(p. 19)

Another study which also included the costs of lost productivity is an investigation of low-wage workers at San Francisco Airport (Reich, Hall, and Jacobs, 2003). The cost of turnover was estimated to be in the range of $2,430 to $4,840 per worker, where the cost categories included training, non-training costs, and the costs of lost productivity. Finally, a study of supermarket employees for the Coca-Cola Retailing Research Council (2000) found turnover costs for supermarket cashiers earning $6.50 an hour of $3,637. Costs were defined to include "direct costs" (advertising, training, interviewing, testing, new employee orientation) as well as "opportunity costs" (change-making errors, paperwork mistakes, damaging products, inventory shrinkage, and improper use of equipment).[8]

Implications of Research Findings
Drawing on both its limitations and strengths, the existing literature on turnover costs in long-term care and low-wage service work suggests some important considerations and emerging findings:

1. Turnover costs at the enterprise or organizational level are best estimated by using an expanded accounting model that includes both direct and indirect cost categories. Direct costs to providers include the costs of recruiting and training replacements as well as the costs of separation and vacancy. It can be argued that the costs of injuries to workers in frontline work also should be treated as a direct cost. Other costs accruing to providers are more difficult to measure and may be experienced more indirectly precisely because they are less visible. The latter include, for example, the costs associated with productivity losses and lowered service quality.

2. Providers' indirect costs of turnover may be substantial. The existing literature advances the notion that the indirect costs relating to reduced productivity may be substantial, and, therefore, that estimates of turnover costs that do not include indirect costs are likely to underestimate the true cost of turnover, perhaps significantly.

3. A minimum *direct cost* of turnover per worker of at least $2,500 is supported by the existing empirical literature on frontline turnover costs in long-term care as well as low-wage service employment generally. While meaningful and detailed comparisons between turnover studies are possible only when the specific cost elements are specified and similar, all of the studies summarized in Table 1 attempt to account for the most obvious and easily quantifiable cost categories—namely leaving, hiring, and training (basic direct costs). However, for most of the studies, the specific composition of the costs for each of those categories is not known. This being said, all of studies (with the exception of Straker and Atchley [1999] which is based on provider self-reporting), find basic direct turnover costs per employee of at least $2,500. Similar cost magnitudes for the same categories have been found for low-wage workers in hotel, retail, restaurants, and airport work (see Table 2).

The conservative rule-of-thumb turnover rule applied to direct-care workers yields a cost reference point that is essentially double the basic turnover costs found by researchers to date. This comparison, along with the suggestion of several studies that there are important indirect costs to turnover that are more difficult to measure, suggest that greater attention should be given to measuring indirect costs, and that direct costs on the order of $2,500 per incidence of turnover are a conservative minimum.

III. A Framework for Costing Turnover in Direct Care

The existing empirical work examining the cost of turnover for direct-care workers and low-wage service workers generally, suggests an overall accounting framework for costing turnover per worker at the **enterprise level**. This framework is presented in Table 3 and follows the literature in distinguishing between direct and indirect costs, and in identifying turnover-related productivity losses as an important category.[9] Table 4 applies the framework to the empirical studies surveyed in the prior section of this report.

While the provider-level tends to be the main focus in turnover analysis, significant costs are also borne at two other levels which are also detailed in Table 3: the **service delivery level** where consumers actually receive the care delivered by frontline workers, and the **third-party payer level** where public funders and private insurers play major roles in designing, managing, and financing long-term care systems. Understanding these additional costs is critical to understanding the full cost burden of frontline turnover and leads to a fuller set of practice and policy implications.

Provider Enterprise Turnover Costs

Direct Provider Costs

Direct, out-of-pocket costs relevant to turnover of frontline workers in long-term care can be grouped into five main categories: 1) separation costs, 2) vacancy costs, 3) replacement costs, 4) training costs, and 5) the costs of worker injuries. Each of these sets of costs in turn is made up of a variety of cost elements that ideally should be tracked. The first four cost groups have to do with ongoing process of "leaving, hiring, and training"; the fifth accounts for the costs that providers must absorb when their direct care workforce sustains high on-the-job injury rates related to destabilized staffing levels and functions due to turnover.

Two categories of "leaving" costs can be distinguished: the costs of separating the employee who has quit or is being terminated from the organization and the costs of covering the vacant position until a new hire is in place. ***Separation costs*** include exit interviews and other processing, changes in unemployment tax, and separation pay if applicable. Overtime and temporary staffing are examples of ***vacancy*** costs. If an organization relies heavily on temporary staffing, and the pay differential between employees and temporary workers is significant, vacancy expenses may outpace training as the largest direct cost related to turnover.

Advertising is just one of the many possible cost inputs making up the composite expense of replacing a worker who has quit or been terminated. Other ***replacement*** costs include: screening applicants, interviewing, selecting candidates, physical exams, TB tests, Hepatitis B vaccinations, background verification, employment testing, and pay out of hiring bonuses.

A recent study of 15 relatively high-turnover organizations in Kansas providing community-based services to people with developmental disabilities found average advertising costs per leaver of $112 in 2002 and $104 in 2003 (Kansans Mobilizing for Workforce Change, 2004).[10] Overtime per direct-care position added at least another $1,000 annually. A 1998 survey of 23 of Alaska's 28 developmental disability service providers found advertising and overtime costs of $60 and $1,272, respectively (Johnston, 1998). A major non-profit provider of services to persons with disabilities in Massachusetts reports overtime costs for 2004 of $1,498 per replacement hire, $831 for advertising, and $1,948 in human resource staff time for recruitment and training (Vinfen Corporation, 2004).[11]

Table 2: Frontline Turnover Cost Accounting

PROVIDER ENTERPRISE COSTS

Direct Costs

- **Separation** (*exit interviews and administrative processing,, experience-rate increases in unemployment insurance, legal fees*)
- **Vacancy** (*additional overtime, use of temporary hires*)
- **Replacement** (*advertising, screening applicants, interviewing, selecting candidates, physical exams, TB tests, Hepatitis B vaccinations, background verification, employment testing and certification, hiring bonuses*)
- **Training & orientation** (*formal classroom training and on-the-job training*)
- **Increased worker injuries** *(lost days, experience-rate increases in Workers' Compensation)*

Indirect Costs

- **Lost productivity until replacement trained** (*inefficiencies attributable to departing employee, temporary staff (or vacancy), and new employee*)
- **Reduced service quality** *(penalties, fines, and lower quality measure ratings from regulatory & monitoring agencies, malpractice claims)*
- **Lost client revenues and/or reimbursement**
- **Lost clients (existing & potential) to other agencies due to deterioration in agency image, etc.**
- **Deterioration in organizational culture and employee morale adversely impacting reputation, service quality, and further increasing turnover**

COSTS AT SERVICE DELIVERY LEVEL

Consumer/Clients

- **Reduction in quality of care and quality of life**
- **Care hours not provided**

Workers

- **Increased worker injuries**
- **Increased physical and emotional stress**
- **Deterioration in working conditions leading to increased likelihood to quit**

THIRD-PARTY PAYER COSTS

- **Underfunding of care services due to financial drain of turnover**
- **Increased downstream medical costs for Medicaid and Medicare due to illnesses and injuries attributable to reduced service quality**
- **Higher levels of institutionalization of clients due to insufficient community-based staffing & quality of care**

Training of replacement hires is often one of the largest, if not the largest, and most visible direct cost of turnover. The extent of training varies considerably across different types of providers, and is directly connected to the number of hours of training required for different positions. A recent study of long-term care providers in Pennsylvania (Leon et al., 2001) found that the median cost of training ranged from under $200 for small personal care agencies to approximately $750 for government-operated nursing homes.[12] The median cost of training in certified home health agencies was about $480. A recent state-wide study of nonprofessional direct-care staff in Wyoming (Clabby II and Heinlein, 2001) found average training costs that were considerably higher than those reported in the Pennsylvania study: $2,686 for developmental disabilities waiver providers, $1,713 for nursing homes, and $989 for hospitals.

Increased worker injuries result from disrupted organizational operations and poor working conditions. High turnover rates disturb the smoothness and continuity of care delivery, and result in increased physical and emotional stress to overworked direct-care workers. According to the Institute of Medicine (1996):

> With sicker and more dependent patients than in the past, nursing homes have become more stressful and hazardous in terms of injuries. This situation is reflected in the high turnover among NAs [nursing aides] who do most of the heavy lifting. Understaffing (both quantitative and qualitative) leads to injuries, which leads to further understaffing and the needs of the patients go unmet. Often NAs are forced to lift residents alone when assistance is not immediately available.

Indeed, direct-care workers in nursing homes and personal care facilities experience some of the highest injury rates of any group of workers in the U.S. economy.[13] According to the U.S. Department of Labor, in 2002 injury rates for direct care workers resulted in the second-highest number of occupational injuries and illnesses resulting in missed workdays, compared to all other occupational groups.[14] Furthermore, musculoskeletal disorders (largely back injuries) are the most common type of injury suffered by direct care workers in both home-based and institutional settings, and these injuries are among the most serious and costly of workplace injuries (Service Employees International Union, 1997). The costs of unsafe working conditions obviously are borne directly by the workers themselves, but they also impact employers through lost work time on the part of injured workers and higher experience ratings for Workers' Compensation.

Indirect Provider Costs

While the distinction between direct and indirect costs borne by providers is not rigid, in general indirect costs are more difficult to measure than direct costs because they often are not experienced as out-of-pocket costs. For a generic company in the service sector of the economy, indirect costs stem from several sources: the lower efficiency and productivity of the departing employee, unproductive time for both colleagues and managers due to "team disruption," and loss of productivity while the new employee achieves full mastery of the job. All three of these effects constitute a "drag" on productivity. Potentially even more damaging to a business are lost sales and even lost customers. While the direct and

indirect costs of turnover link employee retention to cost-efficiency, it is the indirect costs that primarily impact revenue growth through customer acquisition and satisfaction.

While accounting for depleted productive capacity and reduced service quality in caregiving work or health care generally is challenging (Waldman et al., 2004), it is nonetheless possible, appropriate, and important. Indeed, it can be argued that turnover-induced problems are especially detrimental in human service organizations where productive capacity is concentrated in the knowledge, skills, and abilities of employees, and is in turn directly linked to service quality (Fullagar et al., 1998). In fact, there is reason to believe that these costs, which are more hidden from a strict out-of-pocket accounting perspective, actually account for the greater part of total turnover costs.[15]

Highlighted below are the key indirect costs of frontline turnover that are incurred by providers and mentioned in the literature:

Lost productivity refers to the cost of reduced productive capacity attributable to the lesser effectiveness of temporary employees, existing employees who are overextended, and the difference in the productivity of new employees compared to experienced employees who have achieved job mastery. A shorthand term for these losses is the cost of "ramping up" to the new staffing equilibrium. A recent study of turnover costs at a large medical center found that the cost associated with the lower productivity of new hires constituted from 42% to 66% of total turnover costs (Waldman et al., 2004). For "allied health personnel," the costs of reduced productivity (from $4,061 in a best-case scenario to $10,709 in a worst-case scenario) dwarfed the costs of hiring and training per employee ($720 and $1,587, respectively).[16]

Reduced service quality ("quality of care") can result from errors made by overburdened and fatigued workers, miscommunication, lack of adequate training and inadequate staffing, disrupted continuity of care, and de-personalized care. Considerable research has established the relationship between staffing levels and care outcomes for nursing homes residents (IOM, 2004). That quality of care suffers as turnover increases in health-related organizations is a related proposition that has considerable support in the health care and disabilities field generally, but which lacks extensive empirical research evidence.[17] Strong arguments can be made that turnover adversely affects continuity of care and care recipient relationships, causing disruptions that prevent or interfere with the development of relationships critical to both client and caregiver.[18] Frontline workers play an important role in monitoring the day-to-day physical and mental health of clients, allowing for more individualized and efficiently delivered care. High turnover causes the loss of this important source of information about patient well-being (Leon, 2001). Furthermore, turnover can produce staff shortages which result in rushed, de-personalized, or unsafe care.

Providers are affected by such lowered service quality when it results in health and quality measure deficiencies that are detected by inspectors and regulatory

agencies. Penalties and fines are possible consequences of such deficiencies, as are malpractice claims.

Lost client revenues or reimbursement. To the extent that turnover creates staffing shortages, caregiving hours may simply not be provided to clients.[19] During these reduced service times, revenue from funding sources is forfeited, increasing financial pressure on provider agencies.

When a provider suffers lost revenue or reimbursement, a consumer experiences lost service or unprovided care hours. Consumers pay a high price when agencies create waiting lists or turn away potential clients, advising them to call other agencies. Even when the loss of services is temporary, clients and their families are likely to become upset. In addition, because providers at the community level are often tightly interconnected, other agencies coordinating with the short-staffed agency are disadvantaged in the scheduling of services for their clients.

Lost clients to other agencies. While in the short- to medium-term, long-term care agencies may experience lost revenues due to turnover, over the longer term, turnover may have a deeper, negative impact on provider financial stability by eroding the agency's capacity to acquire new clients or "business". Developing a reputation for high staff turnover and disrupted or understaffed care leads eventually to a deterioration in a provider's community image.

Deterioration in organizational culture and employee morale. High rates of turnover disrupt social and communication structures within provider agencies and lead to decreased satisfaction among the workers who remain. Wilner and Wyatt (1999) comment that "[t]urnover breeds more turnover as remaining staff lose morale, feel overworked and undervalued, or even become injured from lifting residents without a helper." This kind of deterioration in organizational culture and employee morale fosters further turnover, reduced productive capacity, and lower quality care.

Service Delivery Level Turnover Costs

Both consumer/recipients and direct care workers can be adversely affected by high turnover rates, incurring tangible costs that may not necessarily impact provider management decisions because they do not affect a provider's bottom line. On the consumer side, lower satisfaction, decreased care quality, and higher risk of injury and illness can result from staff vacancies, rushed or non-delivered care, and continual adjustment to new caregivers who don't know care-recipient routines and with whom care recipients lack relationships.

Consumers and their families directly bear the consequences of lower quality care, even when providers produce enough new workers to meet the requisite number of "days" or "hours" of care reimbursable by payers and counted by regulators. To the extent that community-based care hours authorized go undelivered, and/or care recipients' participation, mobility, and independence is limited by the effects of compromised quality care, consumers are put at greater

risk of institutionalization--a last-resort outcome that consumers and their families typically strive to avoid at all costs.

Worsening work environments due to turnover also can have adverse consequences for **frontline workers**. Increased physical and emotional stress is one type of cost that direct care workers absorb. When the stress reaches high levels and is ongoing, workers may respond by quitting their jobs. Another significant cost borne directly by workers in high-turnover environments is elevated on-the-job injury rates. As reported above, direct care workers experience some of the highest work-related injury rates of any occupation in the United States.

Third-Party Payer Turnover Costs

Compromised care quality can result in a higher prevalence of injury- and illness-related secondary conditions which in turn lead to increased institutionalization in more expensive, higher acuity settings, more emergency room visits and hospitalization days, and even higher mortality.[20] These adverse outcomes become part of the ripple effect of high turnover and inevitably raise costs to the long-term care and medical care systems.[21] The vast majority of these "downstream" costs ultimately are borne by citizens whose tax dollars support the public programs that finance long-term care.

Possible downstream costs aside, high turnover costs constitute a financial drain on the payer streams that finance long-term care. From the perspective of the public sector, turnover costs borne by the system as a whole are tantamount to a "tax" that implicitly accompanies every day or hour of care services funded by taxpayer dollars.

Table 3: Direct Care Turnover Cost Studies (by cost element measured)

	1992 Zahrt	1998 Johnston	1998 Fullager	2002 Seninger & Tracy	1999 Straker & Atchley	1999 Straker & Atchley	2004 Larson	2004 Vinfen	2004 Waldman
	One homecare agency in Midwest	All community DD providers in AK	All community DD providers in KS (28)	7 DD providers in MT	100 home care agencies in OH	112 nursing homes in OH	Direct support providers in MN	Large, non-profit ID/DD provider in MA	Allied health personnel at medical facility in Southwest
Avg hourly wage Avg annual turnover	$5.80 50%	$10.38 166%	$7.18 61%	$7.56-$8.90 77%	40%-76%*	88%-137%*	$9.05 43%	$11.23 22%	49%
Direct Costs									
Separation	X		X	X			X		
Vacancy	X	X	X	X				X	
Recruitment	X		X	X	X	X	X	X	X
Training & Orientation	X	X	X	X	X	X	X	X	X
Increased worker injuries									
Indirect Costs									
Lost productivity									X
Reduced quality of care									
Care hours not provided									
Lost client revenue									
Lost clients to other agencies									
Cost per worker	$3,362	$2,137	$2,094	$2,627	$951 - $1,242	$1,885-$2,100	$2,592	$5,276	$6,368

*Computed, not reported rate.

IV. Conclusions & Implications for Practice, Policy and Research

Available studies conducted to date, in combination with estimates of turnover costs in other low-wage occupations, suggest that turnover among frontline workers is a critical cost driver for the long-term care industry. High staff turnover affects the fiscal health of providers, the quality of care that long-term care consumers receive, and the efficiency of resource allocation within the public payer system.

While many turnover costs are borne by providers, others are borne directly or indirectly by direct care workers themselves, by consumers and their families, and by the public sector. The potential magnitude of these costs, and the fact that key elements of the total cost of turnover are not visible or easily measured, lead to important implications for practice and policy, and for future research.

Implications for Practice

Evidence on the cost of per employee turnover within long-term care, in the context of high frontline staff turnover rates, leads to the conclusion that overall turnover costs borne by long-term care providers are substantial and constitute a significant financial drain on the bottom line. Several important implications for provider practice follow.

- ***Know the true cost of turnover***.[22] If long-term care providers see employee turnover as a necessary and inevitable cost of doing business, then they are likely to treat the costs of turnover as unrecognized expenses. However, the costs of recruiting and filling vacancies, lost productivity from vacant jobs, and the costs of training new employees should be tracked because they can affect operating costs, reduce or compromise "output" (in this case caregiving services), and cut into profits or the bottom line. High turnover drains provider finances, siphoning off money that might go into essential or innovative services. Uncovering these costs can be a wake-up call to individual providers. The studies reviewed in this report suggest that providers and researchers tend to underestimate turnover costs, usually failing to account for indirect costs.[23]
- ***Calculate turnover rates carefully.*** Accurate computations of turnover rates as well as per-worker turnover costs are essential for making informed managerial decisions since the annual cost of turnover is a function of both numbers. In recent years, constructive steps have been taken towards establishing a uniform methodology for tracking turnover rates over time within and across care settings.[24]
- ***Reduce turnover costs by investing in effective retention strategies.*** Far from being an inevitable cost of doing business, providers can measure and track turnover costs, make informed managerial decisions regarding how much they can afford to invest in keeping or retaining employees, and assess whether or not such investments are improving their bottom line. In short, the financial drain created by turnover can be diverted into programs and policies that encourage retention.

It is important to remember that turnover rates and costs at some level are indicators of provider efficiency in developing and retaining human assets, which are at core of the productive capacity of service industries. Knowing the cost of losing and then replacing an employee is helpful in determining how much investment can be afforded in keeping an employee. Understanding this cost will also help determine whether investment in keeping employees is helping an agency's bottom line.

While turnover and retention in long-term care are heavily influenced by state and federal policy, particularly, reimbursement rate cost structures that keep wages low, the costs associated with turnover of direct-care staff imply that providers can realize financial and other returns on their investments in retention strategies. In other words, this is an area where changes in provider practices have the potential to make a positive difference, independent of external state and federal policy.

The strict financial case for reducing turnover necessarily will be very sensitive to the particularities of each provider's cost structure and organizational infrastructure. For example, a relatively small agency with no dedicated human resource staff that outsources its training is likely to realize a greater proportional cost savings from reducing turnover than a larger agency with a dedicated human resource staff and regular, ongoing internal training for new employees. Expenses that the small agency experiences as *variable* may be experienced as *fixed* by the larger agency. In the former case, a linear relationship between the turnover rate and overall turnover costs may hold, which means that a 50% reduction in the turnover rate yields a 50% reduction in overall turnover costs. In the latter case, the relationship is probably nonlinear with a 50% reduction in turnover yielding less than a 50% reduction in overall turnover costs.

Implications for Policy

High turnover costs have serious financial implications for providers, but they also have fiscal impacts on the federal government, and on local and state governments, which together foot most of the bill for long-term care. Nursing homes, home health agencies, and community-based agencies providing services to individuals with developmental disabilities and mental retardation rely heavily on both Medicare and Medicaid to finance their operations. Through Medicaid, the state acts as the major third party payer for nursing home care and home care and consequently bears about 45 percent of the cost of high rates of turnover among direct-care staff. In some states, local governments are also responsible for contributing a mandated cost share. Medicare pays another 16 percent of long-term care costs. This financing structure for long-term care services makes turnover a budgetary concern at all levels of government, and an issue which conceivably is amplified during times of fiscal pressure or crisis, such as the current one.

The costs of turnover to the public sector are tantamount to an implicit tax on the reimbursement rates paid to publicly-financed providers -- a hidden tax which ultimately is paid by tax payers for high industry turnover costs. That the federal and state "price tags" for turnover in long-term care may be substantial is indicated by the following calculation:

- Assuming a long-term care workforce in the United States of roughly 2.6 million, an average annual turnover rate across all direct care occupations of 45%, and an average turnover cost of $3,500 per direct care employee (including both direct and indirect costs borne by providers), then the national price tag for turnover is roughly on the order of $4.1 billion.
- With Medicare and Medicaid paying 61% of total long-term care costs, the price paid by taxpayers for turnover in long-term care is approximately $2.5 billion.

Note that these figures do not include the costs of increased health care costs due to lower care quality for consumers or higher injury-related medical costs for workers.

Indeed, a key characteristic of frontline turnover calculus is that costs do not accrue to providers alone but rather are incurred and borne at two other levels: by consumers and workers at the service delivery level and by third-party payers. Furthermore, costs at the service delivery and payer levels are not necessarily integral to the provider's cost/benefit calculus regarding turnover. In other words, providers may determine that it is not cost effective to make the investments needed to reduce turnover, but by not making those investments, substantial "downstream" turnover costs may be incurred by other stakeholders in the system -- consumers and their families, workers, and third-party payers.

However, through incentives, regulation, and support for best practices, public policy potentially can play an important role in creating better feedback mechanisms so that costs which are borne in one part of the system (e.g., increased medical costs due to lower quality care) are visible and taken into account by other stakeholders throughout the system. This can be accomplished through mechanisms such as rewarding organizations with low turnover, or creating information for consumers about staff turnover rates and aspects of care quality that are affected by turnover.

Two key areas for further policy analysis are suggested by this analysis:

- *Develop methods at both the state and national level for monitoring turnover costs in the full gamut of long-term care settings.* Just how big a role turnover cost plays in impeding a state's ability to adequately fund long-term care and other badly needed services for its citizens is something to be carefully investigated at both the state and national level.
- *Determine which public policies are likely to have the greatest impact on stabilizing the direct-care workforce, thereby reducing turnover, increasing retention, and reducing overall societal turnover costs.* Ideally, such an analysis would provide models for quantifying the offsetting savings due to turnover reductions so that the costs of new public investments in workforce development. including measures to fund higher wages and benefits, can be compared to the savings to various governmental bodies stemming from reduced turnover. Policy experiments relevant to this calculus are currently underway in many states, included legislated wage pass-throughs, mandated minimum starting wages and salaries, career advancement opportunities for

direct-care workers, and the implementation of incentive-based approaches that tie reimbursement for publicly-paid long-term care services to provider performance outcomes related to reduced turnover and increased retention.[25]

While efforts to get a handle on the cost of turnover within the long-term care industry are at an early stage, the available evidence nonetheless indicates that turnover among the direct-care workers serving this industry exerts a significant financial burden on providers, with negative consequences for both the quality and quantity of services delivered by providers.

The inescapable conclusion is that direct-care turnover is a business problem, a quality of care problem, and a significant public resource problem. Because of its complex nature and the magnitude of the resources at stake, the cost of worker turnover in the long-term industry is a pressing issue that all stakeholders must work together to solve.

Implications for Research and Investigation

Field work and research are clearly needed in several areas. First, further improvements and refinements in both the statistical and fiscal measures used to measure turnover costs are in order, along with applications of these measures in the field in order to document actual turnover costs. The development of turnover cost calculators for different types of long-term care providers should be explored, with particular attention to practical, user-friendly ways of estimating the costs of lost productivity and reduced care quality.

A second area of research is the exploration of the links between turnover, on the one hand, and care quality, on the other. While the rationale for believing that high turnover negatively impacts quality is compelling, this association could benefit from more extensive empirical research. A recent report from the Centers for Medicare and Medicaid Services (CMS, 2002) recommends examining "whether there are critical turnover ratios above which patient quality is seriously compromised", and "the relative importance of staffing levels and turnover or staff retention to quality problems."

A related research area concerns the assessment of how care outcomes differ between high and low turnover environments. In addition to qualitative and observational studies, comprehensive, validated measures of health, functioning, and satisfaction, both objective and subjective, are needed to conduct this research, with attention given to assessments of care outcomes from multiple perspectives, including the consumer's, the consumer's family, and the care provider's.[26]

A final research area relates to improving our understanding of the sensitivity of turnover rates to different variables, since those rates along with turnover costs per employee determine overall turnover costs.[27] Reducing the rate of turnover may be the most effective way of reducing the overall cost, as there is arguably far less margin for reducing per-worker turnover costs. With regard to reducing turnover rates, three areas in particular deserve further investigation:

- The relationship between improved compensation and other retention strategies, on the one hand, and reduced turnover (and, therefore, lowered turnover costs), on the other. A technical term for this concept is the *elasticity of turnover with respect to compensation*—that is, the percentage change in compensation that results in a 1% drop in turnover.[28] Empirical evidence on this score is accumulating, with recent evidence from several states, including Wyoming, Michigan, Pennsylvania, and California.[29]
- The *efficiency wage effects stemming from improved worker compensation and enhanced job desirability.* Efficiency wage effects refers to the gains from reduced turnover and absenteeism, lowered costs of supervising and replacing employees, and enhanced worker effort and productivity that can result from better jobs.[30] Research and empirical work is needed to develop economic models of efficiency wage effects for direct care.
- *Identifying and analyzing the factors differentiating low and high turnover organizations in long-term care, and determining the relative sensitivity of turnover to different variables.* Using data from a stratified sample of nursing facilities in eight states, Brannon et al. (2002) found that high and low turnover among nursing assistants were not associated with the same factors. These findings suggest that future studies of facility turnover should avoid modeling turnover as a linear function of a single set of predictors.[31] In order to provide useful recommendations for practice (i.e., to managers of long-term care facilities and organizations), research is needed to determine which are the factors that have the greatest impact on turnover so that data collection and interventions can be directed to those dynamics.

ENDNOTES

[1] In this brief, the terms "frontline workers" and "direct-care workers" are used interchangeably and refer to CNAs, home health aides, personal assistants, and direct support professionals who provide support and assistance largely to elderly persons and people living with intellectual and developmental disabilities (ID/DD) in a variety of institutional, home, and community-based settings. The term "long-term care" is used to refer to care delivered across these various settings.

[2] Recent national surveys of nursing homes, home health agencies, assisted living, and community disability service providers (large state facilities only) show direct-care turnover estimates of 71%, 25%, 40%, and 28%, respectively, in these 4 settings. Use of different turnover measurement definitions, variation in sampling and weighting methods, and quality differences in respondent survey instructions across these surveys make comparisons problematic and also raise questions about the reliability of some of the estimates. In particular, the national turnover rate for aides in home health care strikes many practitioners as low. For turnover rates in nursing homes, see American Health Care Association (2003); for home care, see National Association for Home Care (2004); for assisted living facilities, see National Center for Assisted Living (2001); for developmental disability service providers, see Prouty, Smith, and Lakin, Eds. (2003), Table 1.32.

[3] Training costs were relatively high because only 3 of the 50 aides came to the agency with a home care aide certificate. The agency sent its aides to a community college for the equivalent of 60-hours of classroom instruction. Zahrt (1992), pp. 62-63.

[4] Allied health personnel are exclusive of physicians and nurses, and typically include: support services, behavioral scientists (social workers), therapeutic science practitioners, and laboratory technologists and technicians.

[5] Mean annual wages for 2003 estimated by the US Bureau of Labor Statistics for the 3 main direct-care occupations are as follows: personal and home care aide $17,020; home health aide $19,180; and nursing aide $21,050. One-quarter of the low and high end of the range yields, after rounding, approximately $4,200 to $5,200. See http://www.bls.gov/oes/2003/may/oes_nat.htm. For examples of applications of rule-of-thumb estimates of the cost of turnover in direct care, see Zabin (2003), and Pillemer (1996).

[6] Hinkin and Tracey report that nearly the entire difference between the 2 estimates is attributable to different salary levels in the 2 labor markets, which implies that turnover costs in Miami are equivalent to those in New York after adjusting for wage differentials. The researchers also found that initial training cost accounted for no more than about one-third of total turnover costs. The cost of turnover as a percentage of total salary ranged from 27% to 30%.

[7] Hinkin and Tracey computed actual learning costs by multiplying the daily wage by the number of workdays required to achieve competency while increasing the level of productivity in a linear manner over the time period. Peer disruption was calculated as "the percentage of decrease in productivity of an experienced worker caused by a new employee during the time when a new employee would have a question, need to be shown something, or have work assisted or corrected." (p. 20)

[8] This study—New Ideas for Retaining Store-Level Employees (Coca-Cola Retailing Research Council, January 2000)—found that employee turnover costs the typical supermarket $198,977 a year, which translates into $5.8 billion for the supermarket industry as a whole, a figure which exceeds the entire industry's annual profit by more than 40%. See study summary at www.nationalgrocers.org/EmploTurnover.html. Other turnover cost studies by trade associations and human resource practitioner groups for employees earning $8 per hour and under are summarized at the web site of a human resources company, Sasha Corporation, http://www.sashacorp.com/turncost.html, and range from $3,500 to $8,000. However, it is unclear what costs were included or excluded.

[9] The chief indirect cost acknowledged in the business and human resource literature on this subject is that related to performance differential, i.e., the lost productivity attributable to the differential performance of the employee who leaves and the replacement employee. For an authoritative treatment, see Cascio (2000).
[10] The percentage of direct care workers who quit their jobs within 6 months of being hired was 51% in both years; turnover rates were 55% in 2002 and 58% in 2003.
[11] The cost of human resource staff time per replacement hire was calculated by Vinfen at 50% of the organization's entire human resource (HR) and training budget ($1.66 million) divided by the number of annual replacements which typically exceeds 400 a year. About half of the organization's HR staff of 18 people work nearly exclusively on recruiting, screening, and training new direct-care replacements a well as processing workers who leave.
[12] Mean training costs ranged from about $250 to just over $1,500.
[13] In 2002, the occupational injury rate for employees of nursing and personal care facilities was 13 injuries per 100 employees, compared to 7 injuries per 100 employees for construction workers. See the latest release of the U.S. Bureau of Labor Statistics on workplace injuries and illnesses (December 2003), available at www.bls.gov/iif/oshwc/osh/os/osnr0018.txt.
[14] Teresa Scherzer, Susan Chapman, and Robert Newcomer (not dated) "Lost-worktime injuries and illnesses of Nursing Aides, Orderlies, and Attendants." San Francisco, CA: Center for Personal Assistance Services, University of California. www.pascenter.org/lost_workdays .
[15] In RN turnover, for example, the American Organization of Nurse Executives estimates that visible costs represent 24% of total costs for medical/surgical nurses and only 18% for specialty nurses. "In dollar amounts, the typical accounting of turnover estimates $10,800 in turnover costs for each medical/surgical nurse and $11,520 for each specialty nurse." Hidden costs bring the total costs of turnover to $42,000 for the first category of nurse, and $64,000 for specialty nurses, where hidden costs include: the lost productivity of the incumbent and of other employees in the period leading up to the departure, lost productivity of the vacant position and of other employees who are hampered during the time a position is unfilled, and finally, lost productivity of the new hires during their learning period, along with the costs of the other nurses teaching or mentoring the new employee until they are up to speed or other nurses simply being slowed down by having someone new as part of the staff. See Lafer (May 2003) Chapter on the "Cost of Failure."
[16] Cost of reduced productivity (CoRPs) was estimated by using employee learning curve algorithms and inputing 4 factors (percent starting efficiency, time to job mastery, annual salary, and retention rates). The factor values were derived from interviews with managers at all levels of the medical center. CoRPs were calculated for 2 different learning curves: a straight line (linear) and a Pareto relationship where 80% of the learning occurred in the first 20% of the time to achieve job mastery. See Waldman et al. (2004).
[17] For a review of the status of research regarding the link between turnover and quality, see CMS (2002) and IOM (2004).
[18] For perspectives from direct support staff, administrators, and consumers regarding the impact of turnover on the quality of care and service, see Test et al. (2003). Reif argues that "[i]n long-term care, the length of match between employee and employer actually can be used as a direct measure of quality, because it consistently appears as directly related to consumer satisfaction in consumer surveys (Reif, 2002). Why the stability of these matches matters is well-summarized by Leon et al. (2001, p. 15).
[19] See Hatton and Dresser (October 2003), Dawson and Surpin (2001), Wunderlich et al. (1996), Harrington (1996), and Burger et al. (2000).
[20] See Traci, Szalda-Petree, and Seninger (1999), Taylor (2002), SEIU California (2004), and Kosel and Olivo (2002) and sources cited therein.

[21] For example, pressure sores can result when clients are not properly fed, or are poorly hydrated, cleaned or kept mobile; urinary incontinence can be caused by lack of help with toileting. See Traci, Szalda-Petree, Seninger (1999) and Kosel and Olivo (2002) for evidence on higher average cost per discharge, including hospital stays.
[22] This advice is also given in Richard Hoffman (April 2001) "The Revolution in Creating a Successful CNA Retention Program" Nursing Homes Magazine. http://www.nursinghomesmagazine.com/Past_Issues.htm?ID=240.
[23] Straker and Atchley (1999, p. 26) report that in their study, "most nursing homes and home health agencies dramatically underestimated the extent of their turnover problem and did not collect adequate data on the extent and cost of turnover. Consequently, long-term care employers were in a poor position to evaluate the financial trade-off that might be made."
[24] See the turnover instrument proposed by the Institute for the Future of Aging Services (2003).
[25] See PHI & IFAS (2003) and PHI & NC Department of Health & Human Services' Office of Long Term Care (2004).
[26] For a review of existing quality measures and indicators used in Medicare- and Medicaid-certified nursing homes and home health agencies, see AHRQ (2003).
[27] Specifically, total annual turnover costs for a provider agency are equal to the product of the agency's average annual turnover rate and average annual per employee turnover costs.
[28] See Zabin (2003, p. 9) for development of this concept. As an example of this kind of relationship, using data from a recent study from Wyoming which reported on the reduction in turnover over a three-month period due to an increase in hourly wages, Zabin calculates that every 10% increase in compensation is associated with a 5.7% reduction in turnover. A full year of data from Wyoming is not yet available.
[29] For California, see Wheeler, Kurtz, & Smith (2002), Howe (2002). For Wyoming, see Clabby II and Heinlein (December 2001)
[30] See Pollin and Brenner (2000, p. 93) for references to the literature on efficiency wage effects. See O'Brien (2003) for an interesting exposition of the "business case" for employment-based health coverage.
[31] Swan (2002) cautions that, since there is no consensus on what constitutes optimal turnover rates, care must be taken in setting a low turnover rate cutoff based solely on statistical patterns.

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