

DISCUSSION PAPER SERIES

IZA DP No. 11067

Voluntary Employer-Provided Severance Pay

Donald O. Parsons

OCTOBER 2017

DISCUSSION PAPER SERIES

IZA DP No. 11067

Voluntary Employer-Provided Severance Pay

Donald O. Parsons

George Washington University and IZA

OCTOBER 2017

Any opinions expressed in this paper are those of the author(s) and not those of IZA. Research published in this series may include views on policy, but IZA takes no institutional policy positions. The IZA research network is committed to the IZA Guiding Principles of Research Integrity.

The IZA Institute of Labor Economics is an independent economic research institute that conducts research in labor economics and offers evidence-based policy advice on labor market issues. Supported by the Deutsche Post Foundation, IZA runs the world's largest network of economists, whose research aims to provide answers to the global labor market challenges of our time. Our key objective is to build bridges between academic research, policymakers and society.

IZA Discussion Papers often represent preliminary work and are circulated to encourage discussion. Citation of such a paper should account for its provisional character. A revised version may be available directly from the author.

ABSTRACT

Voluntary Employer-Provided Severance Pay*

Employer-provided severance pay in the U.S. emerged among salaried workers during the Great Depression as an alternative to modest advance notice and expanded in the late 1950s and 1960s, especially among union (hourly) workers. A variety of sources are employed to estimate variations in severance coverage and design over the remainder of the 20th Century. The Bureau of Labor Statistics provided coverage estimates from 1980 to 2000, but these offered little information on severance plan structures, forcing reliance on surveys by private, for-profit management consulting firms. Although the studies differ in sample and survey instrument design, they broadly reveal a standard benefit form – essentially scheduled wage insurance, similar to severance plans mandated internationally. Coverage is another matter, with voluntary coverage narrowly focused on firms/workers vulnerable to large job displacement wage losses, while mandated coverage is quite broad. Labor market events of the new century highlight the limits of standard benefit schedules as wage insurance, whether voluntary or mandated.

JEL Classification: J65, J32, J33

Keywords: severance pay, wage insurance, unemployment insurance, layoff, job displacement

Corresponding author:

Donald O. Parsons
George Washington University
Economics Department
2115 G St. NW, Monroe 340
Washington, DC 20052
USA

E-mail: dopars@gwu.edu

* The assistance of Anthony Barkume and John Bishow of the Bureau of Labor Statistics in exploring the limitations of BLS severance data; the suggestion of Anthony Barkume that I undertake the current study of private data sources; and the cooperation of Right Management Consultants (Michelle O’Looney) and Lee Hecht Harrison (Nathan Tolley) are gratefully acknowledged. An early version of this paper entitled “Severance Pay Generosity: The U.S. Experience” was presented at the SOLE meetings of 2007. The author has benefited from the detailed comments of Ioana Marinescu and others at those meetings.

I. introduction

Many studies have documented the magnitude of earnings losses resulting from job displacement in the U.S.¹ That displaced workers face substantial earnings losses from unemployment spells is obvious, but the magnitude of reemployment wage losses is often larger, especially among long-tenured workers. Farber (2011), using data drawn from two decades of Displaced Worker Surveys, reported average reemployment wage losses of 25% among workers displaced after twenty years of service, Figure 1A. A number of researchers have confirmed the early results of Ruhm (1991) and Jacobson, LaLonde, and Sullivan [1993] that these wage losses are persistent.²

<figure 1>

These displacement earnings losses are poorly insured in the U.S. Cochrane (1991), using a procedure developed by Mace (1991), identified two major sources of consumption risk in the United States—(i) the job displacement of long tenured workers and (ii) the onset of a serious impairment (“disability”). An ideal job displacement insurance package, Parsons (2015, forthcoming) would include both unemployment insurance and wage insurance. Wage insurance is apparently infeasible, but “scheduled” wage insurance or severance pay is mandated world-wide, with benefits linked to worker earnings and job tenure, OECD (1999, 2004) and Holzmann, Pouget, Weber, and Vodopivec (2012). Severance in the U.S. is left to voluntary exchange and collective bargaining agreements, Parsons (2013). The extent and design of voluntary severance plans in the U.S. are explored here, providing comparison with mandated plans elsewhere.

Employer-provided severance pay in the United States was largely unknown prior to the Great Depression, with a few days of advance notice the only employer accommodation to job displacement, and that typically for salaried workers only, Hawkins (1940). Severance

¹ Surveys of the U.S. displacement loss literature include Jacobson, LaLonde, and Sullivan (1993), Fallick (1996), Kletzer (1998), Farber (2004, 2011), Couch and Placzek (2010), and von Wachter (2010). See the contributions in Kuhn (2002) for an international perspective.

² See for example Stevens (1997), and Couch and Placzek (2010).

became common for salaried workers in the depths of the Great Depression and expanded again sharply in the 1950s and 1960s, with unions extending coverage among blue collar and/or hourly workers, Parsons (2017a, 2017b). A variety of sources are employed here to estimate variations in severance coverage and design over the remainder of the 20th Century.

Coverage estimates from 1980 to 2000 were provided by Bureau of Labor Statistics (BLS) surveys, but these offered little information on severance plan structures, forcing reliance on surveys by private, for-profit management consulting firms. For information on plan designs, this study relies on two large-scale survey series conducted by for-profit management consultant firms. One by Right Management Consultants, earlier Right Associates, provides data on plans in 1990 and 2002,³ the second by Lee Hecht Harrison collected information on severance plan at three year intervals since 1995, with the analysis below focusing on 2001. Although these firms had special interest in the severance pay offered high level management and officers, they also collected information on the plans offered to lower-level supervisory and nonsupervisory personnel.

The data, in general, are available only in tabular form because of confidentiality restrictions and/or because the data were not archived—the surveys were presumably designed to inform clients interested in current personnel practices. The limitations of the data and of the sampling frames used in the private surveys are discussed in detail below, but raise obvious concerns about selection. The ubiquity of a single design model across companies of widely differing size and circumstances would suggest, however, that selection may not be a serious problem in practice.⁴ Indeed independent sources broadly confirm the Right and Lee Hecht Harrison descriptions of severance benefit algorithms.

These disparate sources suggest a mature system with little change in plan designs or coverage over the last decades of the 20th Century. They broadly reveal a standard

³ Although not used here, Right Associates also published a series of industry studies in 1996.

⁴ Both occupation and establishment size have large impacts on *coverage*, but little on benefit algorithms in operating plans. See below.

benefit form--essentially scheduled wage insurance, similar to severance plans mandated internationally. Coverage is another matter, with coverage narrowly focused on firms/workers vulnerable to large job displacement wage losses in the U.S., while mandated coverage is quite broad.

The paper begins with a brief discussion of key features of severance plans, including (1) plan coverage, (2) benefit eligibility criteria, and (3) benefit schedules. In Section III, mandated severance plans worldwide are characterized, providing a benchmark against which to assess employer-provided plans in the U.S. Data sources for U.S. employer plans are summarized in Section IV, and the analysis begins in Section V with a look back in time to the pre-1980 period. Severance coverage estimates are then reported for the period 1980-2000, during which the BLS collected and published detailed severance pay coverage rates, Section VI. The evolution of severance design over the period is outlined in Section VII, largely based on two survey by Right Associates--one of 1,784 human resource professionals (1990), and another (now Right Management Consultants) of 695 U.S. organizations in 2002.⁵ Similar estimates were generated from large-scale surveys of severance pay conducted by Lee Hecht Harrison (LHH) in 2001 (925 organizations), Section VIII. Scattered estimates from other sources broadly confirm the basic validity of the Right/LHH studies, Section IX. Section X briefly reviews the challenges that have arisen in the 21st Century to standard severance pay schedules, mandated or voluntary, and Section XI concludes.

II. Severance Pay Concepts

There are a number of reasons why a firm might offer severance payments to its workers, the most obvious that the firm finds it profitable to serve as insurer. If the firm is risk-neutral, the worker risk-averse, and administrative costs modest, the firm can profitably provide the service. Worker morale may also be a motivating factor. The firm may find it profitable to treat displaced workers as *if* they had purchased job displacement insurance in

⁵ The 2002 Right study sampled 1495 organizations worldwide, although the empirics below focus on the U.S. subsample only, approximately one half of the respondents.

order to maintain production among retained workers even if workers do not directly demand this type of insurance, Parsons (2017c). Alternatively the firm may be offering a separation bond to workers in order to encourage firm specific human capital investments.⁶

These theories differ in important dimensions, but yield similar implications for severance benefit program design--the firm will make an effort to offset job displacement losses. The primary requirement for “severance pay as job displacement insurance” is that benefit eligibility be conditioned on job displacement (permanent, involuntary separation from the firm without prejudice to the worker). With job displacement losses strongly and positively linked to job tenure at the time of displacement, flat rate benefits would be crudely inefficient, Rogerson and Schindler (2002). If severance is to serve efficiently as scheduled wage insurance, it must be the case that benefits will increase with expected wage losses, with tenure in this case, Cozzi and Fella (2016).

Presumably the employer wants benefits (B) to correspond in some fashion to the worker’s total job displacement losses (L), the capitalized sum of uncompensated earnings losses from unemployment and reemployment wage losses.⁷ Of course, the private employer has little ability to monitor either unemployment or the reemployment wage rates of permanently separated workers, making *actual* loss insurance infeasible. The firm must instead design a benefit function based on expected losses, “scheduled benefits,” fixed at the time of separation:

$$B = f(E(L)) \quad \text{with } f' > 0. \quad (1)$$

Ignoring income effects, scheduled benefits have the obvious advantage that displaced workers are not induced to vary their job search and acceptance strategies—that is, search moral hazard is eliminated. In the simplest case, firms would pay benefits proportional to expected losses, perhaps subject to lower and upper bounds.

⁶ For surveys of the economic issues raised by firm specific human capital, see Parsons (1986) and Malcomson (1999).

⁷ A formal derivation of the optimal insurance contract can be found in Parsons (forthcoming).

A fundamental issue is the ability of *expected* losses to approximate *actual* losses. There is a potential loss of efficiency with imperfectly targeted scheduled benefits, which leads to inadequate support for those who suffer high levels of unemployment and/or accept jobs with exceptionally low reemployment wages, and to “excessive” support among those fortunate enough to find good jobs quickly. If job tenure explains a large proportion of actual displacement earnings losses, scheduled benefits based on job tenure could be a perfectly adequate insurance vehicle. If tenure predicted all job losses, the first-best insurance system could be implemented as a scheduled plan, though that is unrealistic. Special problems arise if economic changes alter the relationship between say tenure and expected losses.

Evidence suggests that job displacement losses are indeed correlated with tenure or years of service, although with a large unexplained variance. The reemployment wage losses by tenure in the early Displaced Worker Surveys reveal the highly stable nature of the differentials by tenure, Farber (2004), as well as their countercyclical aspect, Figure 1B.⁸ The same basic regularity holds for permanent job displacement losses, the capitalized value of unemployment and reemployment wage losses. It appears that job displacement losses for the i^{th} worker can be reasonably approximated by a linear benefit algorithm, possibly subject to a service minimum (S^{MIN}) or maximum (S^{MAX}):

$$B_i = 0, \quad \text{if } S_i < S^{\text{MIN}} ; \quad (2a)$$

$$B_i = \kappa w_i S_i, \quad \text{if } S^{\text{MIN}} \leq S_i \leq S^{\text{MAX}}, \text{ and} \quad (2b)$$

$$B_i = \kappa w_i S^{\text{MAX}}, \quad \text{if } S_i \geq S^{\text{MAX}}, \quad (2c)$$

where w_i is the i^{th} displaced worker’s weekly wage, S_i her years of service or organizational tenure, and κ representing the link between years of service and benefits. In this model the generosity of the severance plan is completely parameterized by the vector $(\kappa, \{S^{\text{MIN}}, S^{\text{MAX}}\})$. A common plan, for example, would offer the displaced worker with one or more years of service a week of pay for each year of service up to 20 or $(1, \{1,20\})$.

⁸ See Hellwig (2001) and Davis and von Wachter (2011) on the importance of business cycles on reemployment wage losses.

III. A Benchmark: Mandated Severance Plans in the OECD

Mandated severance plans are pervasive world-wide, although mandated plans vary considerably, Holzmann et al (2012). Mandated coverage is often universal. Of the 23 OECD mandating countries in the Holzmann et al (2012, Annex B) sample, nine (39%) reported no exemptions and another seven (30%) reported only modest size exemptions for especially small firms—less than 10 employees in Germany and Slovenia, 15 in Australia, the Czech Republic, and Denmark, 20 in Hungary, and 30 in Turkey. A scattering of exemptions for agriculture, domestic help, managers, police, seafarers, and military service complete the picture.

The mandated plans are almost entirely job displacement insurance plans, which is to say workers are eligible for benefits only if involuntarily displaced from their jobs, Figure 2. Almost 90% of mandated severance plans in OECD countries specify (economic) redundancy as an eligibility criterion, Holzmann et al, (2012, Annex B). Almost 60% mandate benefits for individual, noneconomic involuntary separation (dismissal). including failure to perform through no fault of the worker. Other motivations arise, especially in less developed countries. Severance pay in about 30% of mandating OECD countries also serves as disability insurance (“incapacity”).

<figure 2>

Benefit schedules crudely reflect a displaced worker’s expected capital losses; benefits primarily, though hardly exclusively, increase in years of service. The majority of mandating OECD countries specify a service-gradient rate within a relatively narrow margin, 0.5 to 1.5 weeks of pay per year of service ($\kappa = 0.5$ to 1.5), Figure 3. That said, a handful of countries—Chile, Israel, Portugal, Korea, and Turkey--mandate benefits of four or more weeks of benefits per year of service. However, some of these, for example Korea and Turkey, appear to be severance savings plans and may serve primarily as retirement vehicles.

<figure 3>

IV. Data Sources: The U.S. Voluntary System

No single source comprehensively documents severance pay coverage and plan design in the U.S. in the 1980-2000 period. This study relies on (i) estimates of design and coverage in 1979 and earlier from the National Industrial Conference Board (NICB); (ii) BLS's estimates of severance coverage for 1980-2000, and (iii) severance design information from two for-profit management consulting firms--Right Associates/Right Management Consultants for 1990 and 2002 and Lee Hecht Harrison for 2001.⁹ These major sources are reviewed briefly in this section.

As noted earlier, severance pay plans emerged as a formal policy only with the Great Depression, Hawkins (1940). The nonprofit NICB conducted an ambitious series of surveys that provide a reasonable description of severance plans in medium and large companies over the next fifty years, Parsons (2017a, 2017b). It should not be surprising that the samples broadly reflected membership in the National Industrial Conference Board. The 1979 sample focused on large manufacturing firms, including most of the largest 1000 manufacturing firms, as well as a broad range of large nonmanufacturing firms.

The primary public source of information on employer fringe benefits in the United States in the 1980-2000 periods was the Bureau of Labor Statistics series on "Employee Benefits in Medium and Large Firms (Establishments)." The benefit survey was first implemented on a broad scale in 1980 as part of a Federal effort to assure compensation for government workers comparable to that of private sector workers.¹⁰ Because employees in medium and large establishments were considered the most appropriate comparison group for Federal workers, the early surveys were limited to benefit practices among full-time workers in "medium and large" private establishments. Surveys were conducted annually

⁹ I also report on an eclectic set of other private surveys.

¹⁰ A pilot survey was undertaken in 1979, but did not include questions on severance pay or supplemental unemployment benefits, BLS (1980).

between 1980 and 1985, and again in 1988, 1989, 1991, 1993, 1995, 1997, 1999, and 2000, the last two under somewhat different circumstances discussed below.¹¹

In 1990 the survey was extended to establishments with less than one hundred employees, approximately one half of all full-time workers in the United States. Surveys of small establishments were conducted in 1990, 1992, 1994, 1996, 1999, and 2000. When combined with the alternative year data on medium and large establishments, the small establishment estimates permitted reliable estimation of severance coverage for the entire U.S. workforce for the first time. In 1999 and beyond, both surveys were integrated into a common frame, the National Compensation Survey (NCI), so that data on severance coverage was collected for workers from all firms in the same year.

Historically the EBS sample was drawn by first taking a probability sample of establishments in each industry, then a probability sample of narrowly defined occupations or “jobs” within the selected establishment, and finally a sample of workers in that occupation. Data were then collected from a worker sample in the narrowly defined job, an “occupational quote.” After 1990, the EBS sample was drawn as a subset of the ECI survey. Sample sizes are reasonably large. The 1997 survey of full-time workers in medium and large establishments, for example, included 8,793 occupational quotes in 1,945 establishments, BLS (1999a, p.158). Because of the complexity of the process, including imputations, the BLS did not provide standard errors for estimates, BLS (1999a, p.160).

As noted above, the BLS never published information on severance pay design, forcing reliance on unofficial sources. In 1990, the for-profit management consulting firm, Right Associates, surveyed 1,784 human resource professionals on the severance pay policies of their company or organization. The survey collected information on informal as well as formal plans and includes detailed information on firm size effects on coverage and plan structure. The sample size was large but not random:

Those surveyed came from three sources: attendees of the 1990 annual conventions of the Society for Human Resource Management and the American Society for

¹¹ A 1986 EBS survey did not collect information on severance pay.

Healthcare Human Resources; and organizations obtaining the survey from one of Right Associates' 70 offices, located in major cities throughout the United States. Right (1990, p.3)

The sample design suggests that the companies surveyed were larger than companies chosen at random and were disproportionately interested in worker compensation issues. The survey also focused on management jobs, with a single occupation among the five tabulated, namely "other" or "nonexempt" workers, covering a major portion of the workforce.

Right Associates, now Right Management Consultants, conducted a similarly ambitious survey of severance pay practices in 2002, although the survey focus was world-wide:

A total of 1,495 participants, primarily senior human resource executives, from organization in Asia-Pacific, Europe, Latin America, and North America, took the Right Management Consultants Global Employee Termination/Severance Practices Survey via a special website during the summer of 2002. Thirty-two percent were public corporations, 57 percent were private corporations, 6 percent were not-for-profit charitable, cultural, or educational institutions, 2 percent were public sector or government agencies, and 3 percent were "other." Right Management Consultants (2003, p.3)

Of these, 695 of the surveyed organizations were located in the United States and form the basis for the analysis below. The size distributions of responding organizations were comparable across the surveys, with the 2002 survey of U.S. companies including a slightly higher fraction of large firms (those in excess of 5,000 workers), Figure 4A.

<Figure 4>

Beginning in 1995 another consulting firm, Lee Hecht Harrison, began an active severance survey program that it then repeated in 1998 and 2001 (and later).¹² The basic reporting design is similar to that of the 1990 Right study. Lee Hecht Harrison describes its surveying techniques in the 2001 survey:

"We received nearly [925] 1,000 responses to our detailed, 36-question survey from U.S. organizations of various sizes and in a wide range of industries. We sought overall policy specifications and data on benefits provided to employees at five levels: Officer (President, CFO, CIO or equivalent): Senior Executive (EVP, SVP or

¹² Kodrzycki, in describing a 1995 survey of 3,000 firms by Lee Hecht Harrison, reports, "The surveyed organizations were clients of Lee Hecht Harrison, an outplacement and career development firm, as well as other subscribers to a journal specializing in personnel issues. The survey design almost surely results in an oversampling of companies with an interest in human resources issues." Kodrzycki (1998, p.42, Footnote 2).

equivalent); Executive (VP, department head, director); Exempt (managers and other salaried staff) and Non-exempt (hourly employees). Lee Hecht Harrison (2001, p.1).

The size distributions of responding organizations in this survey and the Right 2002 survey were similar, Figure 4B, although the Lee Hecht Harrison survey disproportionately sampled organizations of modest size, those with 101 to 500 employees, the Right survey organizations in the largest categories.

V. Background: The NICB Surveys

A great deal is known of trends in severance pay coverage among full-time workers in larger establishments prior to 1980 because of an ambitious data project supported by the National Industrial Conference Board (NICB), now the Conference Board. Major changes in coverage came fitfully between 1930 and 1979, with a large number of industrial firms adopting formal severance plans in the early years of the Great Depression, especially for office workers, and a second wave of firms adopting severance plans in the decade and a half after 1954. This expansion, affecting both production and office workers, and was especially strong in large manufacturing firms, perhaps reflecting direct and indirect labor union effects.

Overall the NICB surveys revealed large occupational and establishment-size effects on severance coverage. Coverage was much higher in office occupations than in “factory” ones and in large establishments than in small. Coverage of office workers was more or less uniform, with clerical and sales workers as likely to have coverage as professionals and administrative personnel, at least in the medium and large establishments that formed the core of the NICB surveys. Coverage of blue collar and service workers was less homogeneous, with union workers much more likely to be covered than nonunion workers, even in the same work place.

There was an important connection between coverage rates and benefit configurations across firms in the early severance period. The early NICB surveys distinguished two types of severance pay algorithms reflecting the generosity of benefits: (i) uniform or notice plans that typically involved a small, fixed payments, a week or two weeks of pay at separation, and (ii) gradient or long-service plans that provided more substantial

payments to long tenured workers.¹³ The inexpensive notice payment plans were more common in white collar industries in which displacement of high tenured workers was rare.

Both types of severance were common in a 1936 survey of “dismissal plans,” F. Beatrice Brower found substantially more formal service-linked plans (38 percent) than formal uniform plans (16 percent)—remaining categories included informal plans and discontinued plans, NICB [Brower] (1937, p.4)—but that may have been because the more modest uniform plans often went unnoticed and unsurveyed. Minimum service requirements for benefit eligibility (S^{MIN}) were not long; among the 66 gradient plans, 42.4 percent reported that workers with more than one year of service were eligible for benefits, 71.2 percent by five years, NICB [Brower] (1937, p.7).

In long-service plans that paid benefits as “some portion of earnings multiplied by years of service”...nine of the twenty-eight companies give one week’s pay for each year of service, with no limitations upon amount.” NICB [Brower] (1937, p.7), ($\kappa = 1$). Other plans were non-linear, with payouts often specified by service groupings, with some offering larger benefits *per year* with longer service, others smaller. Notice plans, of course, offered zero *incremental* benefits after short service with the employer, while service groupings in long service plans often include an upper category that naturally bounded benefits.¹⁴ Age adjustments were common, with *older* long-service workers typically receiving additional benefits in plans with age adjustments.

In the last surveys focusing exclusively on severance plans, the NICB included companies in 1959 (manufacturing) and 1960 (nonmanufacturing), NICB [Harland Fox and N. Beatrice Worthy] (1959) and NICB [Fox] (1960) respectively, and obtained a wealth of data on the benefit structure in these medium and large companies. The nonmanufacturing survey was limited to gas and utilities, finance, and retail and wholesale trades. Service minimums (S^{MIN}) were shorter than in 1936. In manufacturing, 87.4 percent of all companies

¹³ A uniform plans can be viewed as a gradient plan with an exceptionally low cap.

¹⁴ No additional benefits accrue after the worker has attained the minimal service requirement for the highest service category.

offered severance benefits to displaced salaried workers with a year or less of service, 47.4 percent to “negotiated” or hourly workers, NICB (1959, p.11). “As might be expected, the service requirements for severance pay in the three nonmanufacturing industries more closely resemble the requirements of the salaried plans in manufacturing than they do the negotiated plans in this sector.” NICB (1960, p.6). Forty-eight (48) percent of salaried plans in manufacturing had service minimums strictly less than one year; in public utilities this was 35 percent, in [large] wholesale and retail trade companies almost 55 percent, and in finance 75 percent, NICB (1960. p.6).

At this time, about 53 percent of medium and large companies provided severance coverage (of any sort) to salaried workers, 35 percent to hourly workers, Table 1. About 65 percent of large manufacturers offered coverage to office workers; only 40 percent of smaller, but still relatively large, manufacturing firms. These estimates are similar to those reported in the Bureau of Labor Statistics reports of the early 1980s, Parsons (2017b).

<table 1>

The last of the NICB’s general surveys of personnel practices was conducted in 1979, and unfortunately provided a less detailed description of severance plans among the NICB surveyed firms. Service minimums for benefit eligibility differed somewhat across broad occupations, namely office and non-office workers. “Only 8 percent of the plans affecting clerical employees specify more than a year of service....managerial workers qualify...under the same service requirements...” but in nonoffice employees’ plans,...requirements of more than a year are more than twice as common—20 percent...” NICB (1981, p.46).

As earlier, many plans in 1979 offered only short-service coverage, with the benefit formula capped at modest levels of benefits or service, Table 2. For office workers the survey permits us to distinguish between those provided with short-service benefits only (5 weeks of pay or less) and those with more comprehensive plans. In aggregate about one half the plans were short-service only, somewhat less among large manufacturers, somewhat more in service-providing industries, Figure 5A. The distribution of the

prevalence of long-service plans, those with service caps in excess of 5 weeks, is illustrated in Figure 5B.

<table 2>

<figure 5>

Despite the large differences in severance *coverage* across occupations in manufacturing, differentials in *benefit generosity* in existing plans were modest in 1979. Plans typically offered a week of benefits per year of service up to a cap, with the cap in white collar occupations substantially above that outside the office. The median plan for nonoffice workers offered 13 weeks service for 20 or more years of service, for clerks 16 weeks for 20 or more years of service, and for managers 20 weeks of pay for 20 or more years of service, Table 3, with the variation largely driven by the cap, not the underlying week per year of service benefit algorithm. The dominance throughout the period of a simple benefit algorithm of a week's pay for each year of service up to a benefit or service maximum is clear.

<table 3>

VI. Severance Coverage Trends, BLS 1980-2000

The BLS provides this definition of severance pay:

Monetary allowance paid by employers to displaced employees, generally upon permanent termination of employment with no chance of recall, but often upon indefinite layoff with recall rights intact. Plans usually graduate payments by length of service. BLS (1998, p.61).

Although these payments may be distributed as a lump sum or as a series of periodic payments or "continuation of pay," they are distinguished by the fixed sum nature of the employer's financial commitment. Separation payments conditioned on unemployment experience are reported separately as supplemental unemployment benefits (SUB).

Some caution is required in interpreting early trends in severance coverage from the EBS. From 1980 to 1985, "medium and large" was defined as establishments with 100 or more employees in some industries and 250 or more employees in others, with the goods-producing sector overrepresented. The survey underwent a major revision in 1988,

expanding coverage of (i) small “medium size establishments” by implementing a uniform lower bound of 100 employees across all industries, and (ii) establishments in the service sector. Fortunately the 1988 data are reported on both the pre-revision and post-revision basis, providing a natural method of comparing estimates as needed.

The raw EBS series is reported for severance coverage in medium and large establishments the years available over the period 1980-2000, Table 4, Column 1, and Figure 6. The approximately 8 percentage point drop in coverage between the 1988 Old Series (OS) and New Series (NS) is of course the result of the restructuring of the sampling frame. Considering the two time intervals separately--it would appear that there was a slight increase (4 percentage points) in aggregate coverage between 1980 and 1988 (OS), an increase shared by all except clerical/sales workers. Between 1988 (NS) and 2000, there was a somewhat larger decline in aggregate coverage (8 percentage points), led by a 15 percentage point decrease among clerical/sales workers. The full period was characterized by a modest decline in coverage of about 4 percentage points, with much of this coming in the mid-1990s.¹⁵ Following a period of growth through 1988, coverage apparently stabilized for five years, with 42 percent of all workers covered by severance plans in both 1988 and 1993, before dropping sharply (by seven percentage points) between 1993 and 1995.

<table 4>

<figure 6>

Clerical/sales workers played a large and presumably unwelcome role in the aggregate decline of coverage among workers in medium and large establishments. The historical uniformity of coverage of “office workers” had faded, Table 4, Columns 2-4. Clerical and sales workers were only 4 percentage points less likely to be covered than administrators and professionals in 1980, but 14 percentage points less likely by 2000.¹⁶

¹⁵ The ECI confirms a substantial decline in this period, although dating it two years later than the 1993-1995 interval indicated here, Bishow and Parsons (2004).

¹⁶ This divergence could reflect sectoral shifts, for example a disproportionate decline in coverage in the nonmanufacturing sector with its high proportion of clerical and sales workers. Sectoral trends are developed in detail below.

Adjusting for the sampling adjustment among administrators and professionals (A&P), A&P coverage has been quite stable (a two percent decline); among blue collar and service workers, a three percent decline.

Aggregate severance coverage in small establishments and in total were much more stable over the 1990s, with coverage drifting downward slowly over the decade. Coverage was sharply lower in small establishments than in medium and large ones, Table 5 and Figures 7. In 2000 23 percent of all workers have severance coverage, 34 percent in medium and large establishments, only 13 percent in small establishments. The large size differentials hold across the three occupational groupings, with 50 percent of professionals and management workers covered in medium and large establishments, only 19 percent in small; 36 percent of clerical workers in medium and large establishments, 16 percent in small; and finally only 22 percent of blue collar/service workers in larger establishments, 7 percent in small. Size differentials within occupation were likely the result of economies of scale in provision of severance pay, not in variations in displacement risk.

Coverage also varied greatly across industrial sectors. Severance coverage is systematically higher in the relatively volatile goods sector, lower in the more stable service sector. In Table 6 and Figure 8, severance coverage, in total and by occupational group, is reported for medium and large establishments in 1993, 1995, and 1997. The same basic patterns emerge in all years. Focusing on 1997, two thirds of all professionals in the goods sector are covered by severance plans, only 40 percent in the service sector. Among blue collar and service workers in medium and large establishments, 31 percent were covered in the goods sector, only 21 percent in the service sector. The differential is more modest within clerical/sales occupations, with those in the goods sector five percent more likely to have coverage.

<table 6>

<figure 8>

VII. Severance Plan Design: The Right Surveys

Information on plan design is harder to obtain. The Right Associates Survey of 1990 was to my knowledge the first large scale survey of severance practices conducted by a private management consulting firm. This type of surveyor has come to dominate severance pay data collection of plan design.

Unsurprisingly, the same objective emerged as in earlier NCIB surveys and in mandated plans internationally--job displacement insurance, Table 7 and Figure 9. Virtually all plans called for benefit payouts for "reduction in force" and "elimination of position." A third offered benefits if the worker was discharged for performance, but not "for cause," which is to say some active, negative behavior, though a few (8 percent), perhaps union workplaces, offered benefits even in that case. Only a few firms used severance as a form of retirement benefit, in total or as a supplement.

<table 7>

<Figure 9>

Recognizing sampling issues, coverage rates must be viewed tentatively. Right Associates estimates of the prevalence of formal and informal severance coverage are reported in the first row of Table 8A. Sixty-one percent of the human resource managers reported that their companies had formal severance plans for one or more classes of workers, another 24 percent an informal plan. The likelihood of having a *formal* severance plan was strongly and positively linked to company size, with something less than a half of companies with less than 500 workers (47 percent) offering formal plans but almost eighty percent of very large companies (more than 5,000 workers) doing so (79 percent). Conversely *informal* plans were twice as common in the smallest companies as in the largest, 29 percent versus 14 percent. The net effect of scale on *total* severance coverage remained positive, increasing from 76 percent in the smallest companies to 94 percent in the largest (85 percent on average). Table 8B reports the distribution of severance coverage across occupational categories. Formal and informal severance coverage for key executives and managers, while not universal, approached 90 percent in this sample, with coverage of

“other” or “nonexempt” workers twenty percentage points lower. The occupational gradient was relatively stable across firm size, with a manager-other coverage differential of 16-23 percentage points.

<table 8>

The benefit schedule is familiar. The bases for benefit calculations in the Right sample are reported in Table 9 and illustrated in Figure 10A. Clearly the dominant criteria was years of service, with 95 percent of human resource managers reporting that this was at least one element of the benefit calculation. Presumably salary was a factor in most benefit calculations, with the 33 percent who report “salary” as a criterion, meaning that salary affected the *percent of earnings* (κ) that enter the benefit calculation. Similarly the reason for termination could affect benefit payment as well as benefit eligibility.

<table 9>

<figure 10>

The Right survey did not report service minimums (S^{MIN}), perhaps because of a belief, consistent with earlier NICB findings, that service minimums are typically modest. A great deal of attention, however, was paid to the benefit/service parameter (κ). The distribution of benefit formulas for formal and informal severance plans, in total and by occupation, are reported in Table 10 and Figure 10B. Not surprisingly the treatment of key executives was quite different from that of other workers, with the severance of one quarter of key executives set by an explicit employment agreement and another third set by no *ex ante* formula at all. The benefit generosity of the remaining categories were quite similar, with only managers having a hint of receiving the exceptional treatment accorded to key executives. Among supervisors and administrative personnel, close to one half received one week of pay per year of service while one sixth received two weeks of pay. Presumably the “no set formula” response was especially common in informal plans, which potentially factor in need.

<table 10>

Company size appears to have been less important in determining the severance benefit schedule than its existence and formality. Benefit generosity by company size was

only reported by occupation in the Right study, and was not reported at all for the “other” category. The similarity of benefit algorithms across firm size however is evident in the lack of firm size effects in one large category of workers, administrative and technical personnel, Figure 11. Across company size groups, 44 to 51 percent of all workers with severance pay could expect benefits based on one week’s pay per year of service, with 15 to 19 percent expecting benefits based on a two weeks’ pay per year of service. The major scale differential was in the residual categories, with “no set formula” more common in small organizations, and “other,” presumably more sophisticated formulas, less common.

<figure 11>

The important early studies by the NICB suggested the importance of service caps on benefit generosity. The Right Study reported information on severance limitations, but the study’s focus on high skilled workers limited the information provided and its usefulness in a study of large scale severance pay coverage. No data were reported on limitations for the “other” or “nonexempt” categories that comprise the numerical bulk of the workforce, and the study questionnaire had a lower bound on severance limitations of 12 weeks pay or less, a value that would have cover half the work force, including managers, not twenty years before. From that perspective, the distribution of severance limits for a combined sample of managers, supervisors and administrative/technical personnel is surprising, Table 11. The Right respondents reported that only 11 percent of all companies had severance benefit limits in the 12 weeks or less category, another 13 percent had a limit of 13 to 24 week’s pay, and 32 percent no limit at all. Even excluding the 24 percent who reported limitations that do not fit into the weeks’ pay scheme, these numbers would increase by only one-third (32 percent), and seem in marked contrast to the pervasiveness of small severance limits in 1979. Across company sizes, small companies with less than 500 workers would appear to have had more small benefit cap plans, but also more “no limit” plans than larger companies. They were twice as likely as the largest class of companies to have plans capped at 12 weeks, and 61 percent more likely to have unlimited plans. Put otherwise, large companies were disproportionately likely to have a maximum benefit cap, but a high one.

<table 11>

The Right survey of 2002 indicates only modest changes in employer provided severance between 1990 and 2002, with 61 percent reporting coverage of a formal plan in 1990, 58 percent in 2002, Table 12. There does appear to have been a modest shift in “attitude,” with informal plans become more common—10-11 percentage points, no plan at all somewhat less common.

<table 12>

The objective—job displacement insurance--did not change in any substantial way between 1990 and 2002. In a departure from the 1990 survey protocol, information on benefit algorithms in 2002 was reported separately for involuntary and voluntary plans. Because a large share of plans limit benefits to involuntary separations, Table 7, the involuntary separation results are likely to be those most comparable to the total results reported for 1990. The involuntary category includes reduction in workforce (97 percent), elimination of position (96 percent), and two categories not reported separately in 1990, restructuring of the organization (88 percent) and relocation of the business (70 percent). Payouts for discharge for poor performance remained at 34 percent between 1990 and 2002, while payouts for discharge for cause and voluntary resignation grew slightly, by 5 percentage points and 2 percentage points respectively, but from a small base.

The bases for benefit calculations following an involuntary separation in the 2002 Right sample are reported by occupation in Table 13. Clearly the dominant criterion remained years-of-service, with approximately 95 percent of human resource managers reporting that this was at least one element of the benefit calculation for managers, professional and technical workers, and all others. Age was a factor in only six to seven percent of all organization. As earlier, the treatment of key and senior executives was quite different from that of other workers, with the severance of one half of top executives and one third of senior executives set by an *ex ante* employment agreement and another two fifths and one third respectively negotiated at the time of departure.

<table 13>

The benefit schedule was also largely unchanged. The Right survey of 2002 included summary information on minimum service requirements for severance benefits. About 59 percent reported the absence of a minimum service requirement; another 12 percent reported having a service requirement, but one of six months or less, while another 9 percent reported a minimum requirement of 6 to 12 months, Right (2002, North America, Basic Policy Characteristics). Conversely 57.5 percent reported having a cap on severance benefits, although the cap descriptions were diverse.¹⁷

The basic benefit algorithm between the minimum and the cap (maximum) was relatively stable over the period. The generosity of the benefit formula is reported in Table 14 by occupation for involuntary separations in the Right 2002 study and is illustrated in Figure 12. The preponderance of plans offering one or two weeks of benefits per year of service is again clear, with sixty percent of respondents reporting one week per year of service in the “other” category and another thirty percent offering two weeks. Age differentials in benefit calculations remained uncommon.

<table 14>

<figure 12>

VIII. Severance Design II: The Lee Hecht Harrison Survey, 2001

Like the Right study, the Lee Hecht Harrison (LHH) study reported levels of severance coverage much higher than those reported in the BLS, close to 80 percent, although this aggregate measure again refers to any group in the organization, Table 15. Consistent with all studies, coverage increases sharply with organization size, from slightly more than 60 percent in organizations with less than one hundred workers to 100 percent in organizations in excess of 25,000 workers.

<table 15>

¹⁷ The cap question was asked of the organization’s policy in general, while other evidence suggests that caps vary by occupation within organization, which may explain the reporting difficulties.

The bulk of both nonexempt and exempt employees below the executive level could expect to have a service-linked plan, perhaps modified by age or title, Table 16. As in the Right Study, benefit caps were not binding on most workers, Table 17. The median maximum for nonexempt workers was 26 weeks of benefits. Lee Hecht Harrison did not collect information on minimum service for benefit eligibility, but the modest size of minimum benefits, a median of 2 weeks for non-exempt workers, 3 for exempt workers, and 4 for executives and officers indicates that the implied service minimums cannot be large.

<table 16>

<table 17>

In organizations which paid severance strictly based on service in 2001, almost three-quarters of nonexempt workers and two-thirds of exempt workers below the “executive” level were paid on a scale that offers one week of pay or less per year of service; another 23 percent of nonexempt workers and 30 percent of exempt workers received two weeks pay per year of service, Table 18A and Figure 13A.¹⁸ Only at the level of officer or senior executive did the median employee receive more than one weeks of pay per year of service. This finding is strikingly uniform across firm size; see Table 18B and Figure 13B for the distribution of weeks of pay per year of service by company size.

<table 18>

<figure 13>

IX. Other Survey Evidence on Severance Pay Design

A number of other surveys broadly confirm the Right and Lee Hecht Harrison results. For example, Kodrzycki (1998, Table 3) reported on the benefit structure of fifteen Massachusetts companies with substantial layoffs (50 or more workers) between 1991 and 1994. “All but one of the employers...limited severance pay to employees who had been with the company for at least one full year.” Kodrzycki (1998, p.52). The median payout was

¹⁸ Kodrzycki (1998, p.44) reports, based on data from an earlier (1995) Lee Hecht Harrison survey, that the modal plan offered one week of pay per year of service, but that one third of plans for exempt workers (management, professionals) and one quarter of nonexempt workers offered two or more weeks per year of service.

approximately one week per year of service, Figure 14. The Kodryzcki results reveal two additional attributes of severance at this time, at least among large employers in Massachusetts, (i) there was no evidence of benefit caps—the benefit function is approximately linear throughout the range of service;¹⁹ and (ii) the generosity distribution was rather tightly distributed around median benefits. For workers with 15 to 19 years of service, the median benefit was 18 weeks of pay, the 25th percentile 15 weeks, the 75th only 19 weeks.

<figure 14>

In March 2002, Mercer: Human Resource Consulting surveyed separation benefit plans at a variety of organizations, and received 566 responses. Perhaps for reasons of its own client base, the Mercer sample included a disproportionate number of (i) public firms, 40 percent, Mercer (2002, p.12); (ii) small firms, almost one half (253 of 557 valid responses) employed less than 500 full-time equivalent workers, and (iii) firms employing high-end service workers—13.1 percent describe themselves as in computer software and services (p.13). Mercer did not report tabulations of the specific benefit algorithm (κ) used in sample organizations, but did indicate that years-of-service *alone* was the most frequent benefit algorithm in all occupational categories: executive (177/513 or 35%), manager (302/516 or 59%), professional and technical (332/504 or 66%), clerical and technician (343/482 or 71%), and nonunion hourly (279/402 or 69%), with a combination of factors, including presumably years-of-service as well as grade and rank the second most frequent. For all but executives, about 10 percent reported that benefits were calculated as a “flat amount,” notice-payments.

Mercer reported minimum service requirement for benefits as well as benefit caps. Eighty-five percent of surveyed organizations reported a minimum service requirement of a year or less; two-thirds of these or 57 percent of the total respondents report 9-12 months as the service requirement, Figure 15A. Mercer provided detailed information on the benefit cap

¹⁹ It is of course possible that any maximum cap effect is offset by service-progressive benefits in other plans.

in weeks of pay among those who reported benefit caps of 2, 3, 4, 12, 26, or 52 weeks pay.²⁰ The occupations appear to cluster, with nonunion hourly workers and clerical workers and technicians subject to the most stringent caps; 35 percent report caps of 4 weeks or less, 55-60 percent caps of 12 weeks or less, Figure 15B. Conversely a majority of executives facing benefit caps reported a maximum of 52 weeks. The cumulative cap distribution for managers and professional/technical personnel fell in between.

<figure 15>

X. *The Weakness of Severance Pay as Scheduled Wage Insurance*

Severance pay emerges as a key element of job displacement insurance, essential providing scheduled wage insurance. Severance is clearly focused on job displacement wage losses, with (i) benefit eligibility in both mandated and voluntary plans focused on that event, and (ii) the benefits schedule capturing a key regularity of reemployment wage losses, the strong link with service or tenure.

The ideal of course is to provide compensation for actual losses (untainted by moral hazard distortions) and current schedules benefit algorithms can do that only imperfectly. For example, the same displacement loss findings that call for benefits that vary with length of service would also call for benefits that vary across the business cycle. The impact of job displacement is much eased if times are prosperous, Hellwig (2001) and Davis and von Wachter (2011). Conversely losses are greater when times are hard, calling for a benefit schedule that offers higher benefits both with tenure (T) and with say the unemployment rate (U):

$$B = h(T, U) \quad \text{with } h_1, h_2 > 0.$$

The Farber estimates, illustrated in Figure 1 above, would suggest that there is limited interdependence between the two factors; business cycle effects seem to shift the whole tenure-linked wage loss structure up or down.

²⁰ Presumably organizations that do not have benefit caps or have unusual caps are not included.

Financing the insurance may be a greater problem with business cycle benefits included in the package. With firms unable to reinsure severance benefits, they are wary of promising additional payouts in what is likely to be hard times for them as well as their workers. Firm bankruptcy is always a problem with firm-provided insurance plans, and never more so than when business conditions generally are bad, Parsons (2017c).

Recent labor market experiences highlight another problem with scheduled benefits-large (negative) idiosyncratic shocks that may overwhelm the system, making old relationships between job displacement and earnings losses obsolete (at least for a time). Job displacement losses in the last two decades have been dominated by what Autor, Dorn, and Hanson (2016) have labeled, “the China shock.” The sudden “entry” of hundreds of millions of low skilled workers into the international labor market with the opening of the Chinese economy in the early 1990s was an event few had predicted. As Autor, Dorn, Hanson, and Song (2014, 1799) describe the impact on the U.S. labor force, “Earnings losses are larger for individuals with low initial wages, low initial tenure, and low attachment to the labor force.” Scheduled severance benefits, in U.S. firms and in mandated plans world-wide, were poorly designed to compensate displaced workers for losses from this source. Unfortunately one could not use this experience to design the severance plan of the future. Not only was the event hard to predict, it was unlikely to reoccur in quite the same way in the future, the key to successful scheduled benefits.

XI. Conclusion

Job displacement is a serious risk to American workers, with lost earnings from both unemployment spells and, especially among long-tenured workers, reemployment wage losses. The same problem apparently exists worldwide and is handled in developed countries through a combination of public unemployment insurance and mandated employer-provided severance pay plans. In the U.S., severance pay is essentially a fringe benefit, provided voluntarily by the employer (or as part of a collective bargaining agreement). By 1980 employer-provided severance plans had matured, providing an

opportunity to compare voluntary employer-provided severance plans in the U.S. with government mandated ones worldwide.

Severance plans largely operate as job displacement insurance--benefit schedules reflect the capital losses the displaced worker is likely to face on average--benefits are scheduled (determined a priori), not based on actual losses. Severance plans, whether mandated or voluntary, turn out to be are similarly structured, with the benefit algorithm broadly consistent with what is known of job displacement losses. Benefits are offered at the time of displacement in proportion to the worker's weekly wage and years of service with the firm. Within the bounds of service/benefit minimums and maximums, median severance pay for both wage and salaried workers was about a week of benefits for each year of service. This modest level of weekly benefits per year of service roughly correspond to the median OECD mandate, although far less than those offered in the most "generous" OECD countries which are four times larger (though several of these operate severance savings plans that are primarily pension instruments).

In U.S. plans, the minimum service requirement for benefit eligibility is usually six months to a year; it is not a catastrophic loss program. As late as 1979, service (and therefore benefit) maximums in many industries were highly restrictive, limiting payouts to only a few weeks of pay in total, especially in the high-end service industry in which permanent displacement of long service workers was rare. These "notice plans" were viewed by contemporaries as a way of easing hiring mistakes out the door rather than as serious job displacement insurance. Over time, service or benefit maximums have eased, and plans, even in the high-end service sector offer additional benefits for service of 26 weeks or longer.

Plan *coverage* is however markedly different in the voluntary world. Mandated coverage is often universal, while BLS surveys indicate that only one-quarter of the U.S. work force were covered by private, employer-provided severance pay plans in 2000. Voluntary coverage also differs substantially by occupation, industrial sector and firm size. Among administrators and professionals in medium and large firms in the volatile goods

sector, coverage approached two-thirds, Bishow and Parsons (2004). Coverage of blue collar and hourly workers was much lower, except in union workplaces.

Both high turnover firms and low turnover firms appear to forego severance plans. Plans are focused instead on mid-range firms (i) stable enough to generate substantial high tenured workers, but (ii) vulnerable to large employment shocks that may threaten these workers. By targeting sectors in which high-tenured job displacement is prevalent, effective severance coverage in the U.S. may be much closer to OECD mandates than simple coverage numbers would suggest.²¹

The potential weakness of any scheduled benefit program, mandated or voluntary, is the schedule itself, which may do a poor job of linking payouts with actual losses, in this case job displacement losses. Current mandated and market-driven severance schedules, with benefits linked to years of service, successfully capture an important element of demand shocks that disturb market economies, namely earnings losses that increase with tenure. Other aspects of earnings losses are not included in the modal algorithm. For example, such losses are highly and negatively correlated with general business conditions, a reality that has not found its way into severance benefit schedules, voluntary or mandated.

What benefit algorithms cannot do is capture large, idiosyncratic shocks. A case in point is the massive entry of a suddenly energized China, which “injected” hundreds of millions of low-skilled workers into international markets in a remarkably short time. The job displacement impact of this extraordinary event transformed the labor market in large and unexpected ways, making standard severance benefit schedules poorly matched with wage losses. Of some comfort to severance pay designers, future shocks are unlikely to be so large and so focused.

²¹ Although it is important to recall the Cochrane (1991) finding that job displacement is poorly insured in the U.S.

REFERENCES

- Autor, David H.; David Dorn, Gordon H. Hanson. 2016, "The China Shock: Learning from Labor Market Adjustment to Large Changes in Trade," *Annual Review of Economics*, v8: 205-240.
- Autor, David H.; David Dorn, Gordon H. Hanson. Jae Song. 2014. "Trade Adjustment: Worker-Level Evidence" *Quarterly Journal of Economics*, v129.4 (November): 1799-1860.
- Bishow, John, and Donald O. 2004. "Trends in Severance Pay Coverage in the United States, 1980-2001" (May). Available at SSRN: <http://ssrn.com/abstract=878144>.
- Cochrane, John H., 1991. "A Simple Test of Consumption Insurance," *Journal of Political Economy* v99.5 (October): 957-976.
- Couch, K.A., and D.W. Placzek, 2010, Earnings Losses of Displaced Workers Revisited, *American Economic Review*, 100(1): 572-89.
- Cozzi, Marco & Gulio Fella, 2016. "Job displacement risk and severance pay," *Journal of Monetary Economics*, vol. 84(C): 166-181.
- Davis, Steven, and Till von Wachter. 2011. "Recessions and the Costs of Job Loss," *Brookings Papers on Economic Activity*, (Fall): 1-55.
- Fallick, Bruce C. 1996. "A Review of the Recent Empirical Literature on Displaced Workers," *Industrial and Labor Relations Review*, 50:1. 5-16.
- Farber, H.S., 2004, "Job Loss in the United States, 1981-2001," *Accounting for Worker Well-being, Research in Labor Economics*, 23: 69-117.
- Farber, H.S., 2011, Job Loss in the Great Recession: Historical Perspective from the Displaced Workers Survey, 1984-2010, IZA DP No. 5696. May 2011.
- Hawkins, Everett D. 1940. *Dismissal Compensation*, Princeton, NJ: Princeton University Press.
- Helwig, Ryan T. 2001. "Worker Displacement in a Strong Labor Market." *Monthly Labor Review*, v.124.6 (June): 13-28.
- Holzmann, Robert, Yann Pouget, Michael Weber, and Milan Vodopivec. 2012. "Severance Pay Programs around the World: History, Rationale, Status, and Reforms" In Robert Holzmann and Milan Vodopivec, eds., *Reforming Severance Pay: An International Perspective*, Washington, DC: World Bank: 17-120.
- Jacobson, Louis S., Robert J. LaLonde, Daniel G. Sullivan. 1993. *The Costs of Worker Dislocation*, Kalamazoo, MI: W.E. Upjohn Institute for Employment Research.
- Kletzer, Lori G. 1998. "Job Displacement," *Journal of Economic Perspectives* v12, n1 (Winter): 115-36
- Kodrzycki, Yolanda K. 1998. "The Effects of Employer-Provided Severance Benefits on Reemployment Outcomes," Federal Reserve Bank of Boston *New England Economic Review*. (Nov.-Dec.): 41-68.
- Kuhn, P., ed., 2002, *Losing Work, Moving On: International Perspectives on Worker Displacement*, W.E. Upjohn Institute for Employment Research, Kalamazoo, Michigan.
- Lee Hecht Harrison, 2001. *Severance and Separation Benefits: Bridges for Employees in Transition*. Woodcliff Lake, NJ: Lee Hecht Harrison.
- Mace, Barbara J., 1991. "Full insurance in the Presence of Aggregate Uncertainty," *Journal of Political Economy* v99.5 (October): 928-956.

- Malcomson, J. 1999. "Individual Employment Contracts." in Orley Ashenfelter and David Card, eds. *Handbook of Labor Economics*, Vol. III, Chapter 35, North Holland Press, pp. 2291-2372.
- Mercer Human Resource Consulting, *2002 US Severance and Strategy Survey*.
- National Industrial Conference Board [F. Beatrice Brower]. 1937. *Dismissal Compensation, Studies in Personnel Policy*, No. 1, New York.
- National Industrial Conference Board [Harland Fox and N. Beatrice Worthy]. 1959. *Severance Pay Patterns in Manufacturing*, Studies in Personnel Policy, No. 174, New York.
- National Industrial Conference Board [Harland Fox]. 1960. *Severance Pay Patterns in Nonmanufacturing*, Studies in Personnel Policy, No. 178, New York.
- National Industrial Conference Board [Mitchell Meyer], 1981. *Profile of Employee Benefits: 1981 Edition*, Conference Board Report No. 813. New York: The Conference Board.
- OECD. 1999 "Employment Protection and Labour Market Performance." in OECD Employment Outlook Chapter 2 Paris: OECD.
- OECD. 2004. "Employment Protection Regulation and Labour Market Performance." in OECD Employment Outlook Chapter 2 Paris: OECD.
- Parsons, Donald O. 1986. "The Employment Relationship: Job Attachment, Work Effect, and the Nature of Contracts" in Orley Ashenfelter and Richard Layard, eds., *Handbook of Labor Economics*, North Holland Press, 789-848.
- Parsons, Donald O. 2013. "Understanding Severance Pay," Cuadernos de Economía (Spanish Journal of Economics and Finance) Elsevier. v.36, no, 106 (Sept-Dec): 155-165.
- Parsons, Donald O., 2017a. "Employer-Provided Severance Pay: The Emergence of Scheduled Wage Insurance in the U.S., 1930-1954," mimeo, George Washington University.
- Parsons, Donald O., 2017b. "Employer-Provided Severance Pay in the United States: Unions and the Great Expansion, 1954-1979." mimeo, George Washington University.
- Parsons, Donald O., 2017c. "The Performance Limits of Market-Provided Severance Pay," mimeo, George Washington University.
- Parsons, Donald O., forthcoming. "The Simple Analytics of Job Displacement Insurance." *Journal of Risk and Insurance*.
- Pita, Cristina, 1996. "Advance Notice and Severance Pay Provisions in Contracts, *Monthly Labor Review* 119 (July): 43-50.
- Pita, Cristina, 1997. "Breach Penalties in Labour Contracts: Advance Notice and Severance Pay, *Labour*, 11.3, (Autumn): 469-95.
- Right Associates. 1990. *Severance: The Corporate Response*. Philadelphia, PA: Right Associates, November.
- Right Management Consultants, 2003. *Global Severance Practices Survey*, Philadelphia, PA: Right Management Consultants, (with CD ROM).
- Rogerson, Richard; and Martin Schindler. 2002. "The Welfare Costs of Worker Displacement," *Journal of Monetary Economics* v49.6 (September): 1213-34.
- Ruhm, Christopher J. 1991. "Are Workers Permanently Scarred by Job Displacements?" American Economic Review, March 1991, v. 81.1, pp. 319-24.

- Stevens, Ann Huff. 1997. "Persistent Effects of Job Displacement: The Importance of Multiple Job Losses," Journal of Labor Economics, v.15.1, Part 1 (January): 165-88.
- von Wachter, T., 2010, Summary of the Literature on Job Displacement in the US and EU, Chapter 3 of David Marsden and François Rycx, eds., *Wage Structures, Employment Adjustments and Globalization: Evidence from Linked and Firm-level Panel Data*, Applied Econometrics Association Series, Palgrave Macmillan, 64-121.
- U.S. Department of Labor, Bureau of Labor Statistics, 1965. *Severance Pay and Layoff Benefit Plans*, Bulletin No.1425-2, Washington, DC: Government Printing Office. (1965a).
- U.S. Department of Labor, Bureau of Labor Statistics, 1980. "Employee Benefits in Industry: A Pilot Survey," Report 615 Washington: U.S. Government Printing Office, July.
- U.S. Department of Labor, Bureau of Labor Statistics, 1981a. *Characteristics of Major Collective Bargaining Agreements*, July 1, 1980. Bulletin 2095, Washington, DC: Government Printing Office, May
- U.S. Department of Labor, Bureau of Labor Statistics, 1981b. "Employee Benefits in Industry, 1980," Bulletin 2107, Washington: U.S. Government Printing Office, September.
- U.S. Department of Labor, Bureau of Labor Statistics, 1982. "Employee Benefits in Medium and Large Firms, 1981," Bulletin 2140, Washington: U.S. Government Printing Office,
- U.S. Department of Labor, Bureau of Labor Statistics, 1983 "Employee Benefits in Medium and Large Firms, 1982," Bulletin 2176, Washington: U.S. Government Printing Office.
- U.S. Department of Labor, Bureau of Labor Statistics, 1984 "Employee Benefits in Medium and Large Firms, 1983," Bulletin 2213, Washington: U.S. Government Printing Office.
- U.S. Department of Labor, Bureau of Labor Statistics, 1985 "Employee Benefits in Medium and Large Firms, 1984," Bulletin 2237, Washington: U.S. Government Printing Office.
- U.S. Department of Labor, Bureau of Labor Statistics, 1986 "Employee Benefits in Medium and Large Firms, 1985," Bulletin 2262, Washington: U.S. Government Printing Office.
- U.S. Department of Labor, Bureau of Labor Statistics, 1989. "Employee Benefits in Medium and Large Firms, 1988," Bulletin 2336, Washington: U.S. Government Printing Office, August.
- U.S. Department of Labor, Bureau of Labor Statistics, 1990. Employee Benefits in Medium and Large Firms, 1989," Bulletin 2363, Washington: U.S. Government Printing Office, June.
- U.S. Department of Labor, Bureau of Labor Statistics, 1991. "Employee Benefits in Small Private Establishments, 1990," Bulletin 2388, Washington: U.S. Government Printing Office, September 1991.
- U.S. Department of Labor, Bureau of Labor Statistics, 1993 "Employee Benefits in Medium and Large Private Establishments, 1991," Bulletin 2422, Washington: U.S. Government Printing Office.
- U.S. Department of Labor, Bureau of Labor Statistics, 1994a. "Employee Benefits in Medium and Large Private Establishments, 1993," Bulletin 2456, Washington: U.S. Government Printing Office, November.
- U.S. Department of Labor, Bureau of Labor Statistics, 1994b. "Employee Benefits in Small Private Establishments, 1992," Bulletin 2441, Washington: U.S. Government Printing Office, May.

- U.S. Department of Labor, Bureau of Labor Statistics, 1994c. "Employee Benefits in Small Private Establishments, 1994," Bulletin 2475, Washington: U.S. Government Printing Office, April.
- U.S. Department of Labor, Bureau of Labor Statistics, 1998 "Employee Benefits in Medium and Large Private Establishments, 1995," Bulletin 2496, Washington: U.S. Government Printing Office, April.
- U.S. Department of Labor, Bureau of Labor Statistics, 1999a. "Employee Benefits in Medium and Large Private Establishments, 1997," Bulletin 2517, Washington: U.S. Government Printing Office, September.
- U.S. Department of Labor, Bureau of Labor Statistics, 1999b. "Employee Benefits in Small Private Establishments, 1996," Bulletin 2507, Washington: U.S. Government Printing Office.
- U.S. Department of Labor, Bureau of Labor Statistics, 2003. "National Compensation Survey: Employee Benefits in Private Industry in the United States, 2000," Bulletin 2556, Washington: U.S. Government Printing Office, January
Large and Small in Supplementary Tables, p.4 (ML) and p.6 (SM)

Table 1

Companies with Severance Pay,
 Non-Exempt (Nonsupervisory) Employees
 By Occupational Group and Industry, 1979 (in percent) NICB

	HOURLY	SALARIED
	(1)	(2)
TOTAL	35	53
Manufacturing		
Large Mfg.	40	65
Small Mfg.	21	40
Insurance		50
Banking		53
Gas and Utilities	37	36
Retail and Wholesale	40	52
Construction	9	50
Trucking	0	20

Source: Parsons (2005b, Table 3A, 3B)

Table 2
The Prevalence of Long-Service Severance Contracts
Among Nonexempt Office Workers, By Industry (in percent) 1979

	Service req. exceeding five years (No specified max. excluded)	Service req. exceeding five years (No specified max. included) ^A	Total Severance Coverage	Long Service Severance Coverage
TOTAL	40 %	48.2 %	53 %	25.5 %
Large Mfg.	58	65.0	65	42.2
Small Mfg.	43	52.5	40	21.0
Insurance	21	26.1	50	13.0
Banking	35	42.4	53	22.5
Gas and Utilities	12	36.3	36	13.1
Retail and Wholesale	33	37.5	52	19.5
Construction	<i>NR</i>	<i>NR</i>	50	<i>NR</i>
Trucking	<i>NR</i>	<i>NR</i>	20	<i>NR</i>

Source: Meyer (1981, p.45). Numbers are many cases reported only on a chart and are approximate. The universe is all companies with formal severance plans that specify a service requirement maximum.

^A Uses "no specified maximum" by industry for 1964/65. A single adjustment is made for manufacturing.

Table 3

The Distribution of Maximum Benefits and Related Service Requirements,
By Occupations, 1979 (NICB)

	Nonoffice	Clerks	Managers
Maximum Benefits (Wks.):			
25 Percentile	8	10	12
50 Percentile	13	16	20
75 Percentile	40	26	26
Service Req. for Max. Ben. (Yrs.)			
25 Percentile	10	12-13	12-13
50 Percentile	20	20	20
75 Percentile	30	26	26
Wks. Ben. Per Year of Service			
25 Percentile	0.80	0.77-0.83	0.92-1.00
50 Percentile	0.65	0.80	1.00
75 Percentile	1.33	1.00	1.00

Data Source: Parsons (2005b, Table 8B).

Table 4

Formal Severance Pay Coverage of Full-time Workers
 In Medium and Large Private Establishments,
 Total and by Occupation, 1980-2000 (in Percent) BLS-EBS (1980-1985 Adjusted)

	TOTAL	PROF/ADMIN	CLER/SALES	BC/SERV
	(1)	(2)	(3)	(4)
1980	46	62	58	32
1981	45	60	58	33
1982	47	62	59	32
1983	50	65	62	34
1984	51	67	62	35
1985	45	61	57	31
1986				
1987				
1988 (OS)	50	64	59	37
1988 (NS)	42	54	51	30
1989	39	54	46	27
1990				
1991	41	55	48	30
1992				
1993	42	56	48	31
1994				
1995	35	47	43	24
1996				
1997	36	48	43	26
1998				
1999	35	47	41	26
2000	34	50	36	22

Sources: 1980, Bureau of Labor Statistics (1981b: pp. 31-32 adjusted); 1981, Bureau of Labor Statistics (1982: pp. 39-40 adjusted); 1982, Bureau of Labor Statistics (1983: pp. 48-49 adjusted); 1983 (1984, pp.60-61, 63;); 1984 (1985, pp.61-62, 64); 1985, Bureau of Labor Statistics (1986: p. 82); 1988, BLS (1989, p. 118); 1989, BLS (1990, p.5); 1991, BLS (1993, p.6); 1993, BLS (1994a, p.10); 1995, BLS (1998, p.11); 1997, BLS (1999a, Table 2); 1999, Republished data from BLS; 2000: BLS (2003, Supplementary Tables P.4

Table 5

Formal Severance Pay Coverage of Full-time Workers
In Total and by Establishment Size
Total and by Occupation, 1990-2000 (in Percent) BLS-EBS

	1990/9 1	1992/93	1994/5	1996/7	1999	2000
TOTAL						
All Occup	29.8	27.3	24.6	25.3	26	23
Prof&Admin	44.9	42.7	37.5	37.3	40	38
Clerical&Sales	35.5	31.8	30.6	29.3	30	26
BlueCollar&Serve	20.6	18.2	15.6	17.3	17	14
SMALL EST.						
All Occup	19	15	15	15	17	13
Prof&Admin	30	26	24	23	31	19
Clerical&Sales	26	21	22	19	21	18
Blue Collar&Serve	12	8	8	9	9	7
MEDIUM/LARGE						
All Occup	41	42	35	36	35	34
Prof&Admin	55	56	47	48	47	50
Clerical&Sales	48	48	43	43	41	36
Blue Collar&Serve	30	31	24	26	26	22

Source: Data from Tables 4 and various BLS small establishment employee benefit surveys: 2000: BLS (2003, Supplementary Tables P.4 and 6
1990, BLS (1991); 1992, BLS (1994b); 1994, BLS (199@); 1996, BLS (1999b); 1999, prepublished data from BLS; 2000: BLS (2003, Supplementary Tables). Details on computations of totals are available on request.

Table 6
Severance Coverage of Full-Time Workers in Medium and Large Establishments
By Sector 1993-1995-1997, BLS

	1993	1995	1997
Total	42	35	36
By Occup			
Prof	56	47	48
Cler	48	43	43
BC	31	24	26
Total/Goods	43	40	40
By Occup			
Prof Goods	72	68	66
Cler Goods	49	59	48
BC Goods	34	28	31
Total/Service	41	32	34
By Occup			
Prof Serv	50	38	40
Cler Serv	48	40	43
BC Serv	27	20	21

Source: 1993, BLS (1994a); 1995, BLS (1998); 1997, BLS (1999a);

Table 7

Severance Provision: Separation Criterion for Severance Benefit Eligibility
1990, Multiple Responses Possible, In Percent (Right).

Reduction in Force	84 %
Elimination of Position	82
Discharge for Performance	34
Discharge for Cause	8
Discharge for Disability	14
Voluntary Resignation	6
Retirement with Pension	7
Retirement without Pension	6

Source: Right Associates (1990, p.68). There were a total of 1,784 respondents to the Right survey.

Table 8
Severance Plan Characteristics, 1990 Right Associates

Panel A
Plan Type by Company Size

	Formal Plan	Informal Plan	No Plan	Sample Size (Col. Percent)
TOTAL	61%	24%	15%	100%
Less Than 500	47	29	24	27
500-999	60	28	12	14
1,000-5,000	62	25	13	30
More than 5000	79	14	7	23
No Response				6

Panel B
Eligibility for Plan by Occupation and Company Size,
All Plans (Formal and Informal)

	Key Exec's	Managers	Supervisors	Admin/Tech	Other
TOTAL	87 %	86 %	81 %	76 %	68 %
Less Than 500	83	82	77	73	65
500-999	89	88	81	74	65
1,000-5,000	88	89	80	75	68
More than 5000	92	91	88	85	75

Source: Right Associates (1990, various pages). There were a total of 1,784 respondents to the Right survey.

Table 9
 The Bases for Benefit Calculations
 In Total and By Company Size, Formal and Informal Plans
 1990 *Multiple Responses are permitted.* (in percent)

	TOTAL		Less than 500	500-999	1000-5000	More Than 5000
Years of Service	95.3		98.7	92.0	94.3	96.8
Position	44.7		52.6	40.9	46.0	39.8
Age	7.1		2.6	2.3	8.0	10.8
Age plus Years of Service	7.1		3.9	5.7	8.0	8.6
Salary	32.9		31.6	28.4	32.2	39.8
Union or Nonunion Membership	5.9		3.9	5.7	6.9	7.5
Collective Barg. Agreement	7.1		3.9	8.0	6.9	10.8
Employment Agreement	14.1		15.8	8.0	13.8	16.1
Reason for Termination	34.1		38.2	33.0	35.6	28.0

Source: Right Associates (1990, columns 1-5, pp.68, 360, 373, 386, 399 respectively). The table figures were adjusted for the number of companies that offered formal or informal pension plans. There were a total of 1,784 respondents to the Right survey.

Table 10
 Severance Benefit Generosity by Occupation,
 Formal and Informal Plans, 1990 (in percent)
Multiple Responses are permitted.

	Key Exec	Manager	Supervisor	Admin/Tech
One Week's Pay Per Year of Service	14.9	36.0	44.4	47.4
Two Week's Pay Per Year of Service	6.9	15.1	16.0	17.1
Three Week's Pay Per Year of Service	2.3	2.3	2.5	1.3
One Month's Pay Per Year of Service	6.9	8.1	6.2	5.3
Multiple of Annual Salary	8.0	3.5	2.5	1.3
Percentage of Annual Salary	9.2	7.0	4.9	3.9
Employment Agreement	27.6	5.8	2.5	2.6
No Set formula	35.6	19.8	17.3	17.1
Other	16.1	20.9	21.0	21.1

Source: Right Associates (1990, pp.70-71). Table figures have been adjusted for the number of companies that offered formal or informal pension plans. There were a total of 1,784 respondents to the Right survey. Data was not reported for the residual occupational group.

Table 11

The Maximum Limit of Severance for Managers, Supervisors
 And Administrative/Technical Personnel,
 In Total and by Company Size, 1990 (in percent)

	12 Weeks	24 Weeks	1 Year	2 Years	No Limit	Other
TOTAL	11.4	12.7	17.7	2.5	31.6	24.1
Less than 500	14.7	13.3	12.0	1.3	38.7	20.0
500-999	13.4	12.2	15.9	2.4	31.7	24.4
1,000-5,000	10.1	11.4	15.2	2.5	32.9	29.1
5,000 or more	7.2	10.8	27.7	6.0	24.1	24.1

Source: Right Associates (1990, various pages). The table figures were adjusted for the number of companies that offered formal or informal pension plans. There were a total of 1,784 respondents to the Right survey.

Table 12
Organizations with Severance Plans, by Type, 1990 and 2002
(in percent) Right Studies

Survey Date	Formal Plan	Informal Plan	No Plan, Governed by Law	No Plan	Sample Size (Col. Percent)
1990	61	24	15		100.0 (1,784)
2002	57.7	34.6	0.7	7.0	100.0 (699)

Sources: 1990: Table 3; 2002: Right Associates (2003, CD ROM Regional: North America Basic Policy Characteristics (p.2). Formal Plan: "A formal, written severance-termination benefits policy;" Informal Plan: "An informal or unwritten policy or general practice;" No Plan, Governed By Law: "No severance-termination policy because governed by law." No Plan; "No severance-termination policy, for other reasons."

Table 13

The Bases for Benefit Calculations, Involuntary Separation
By Occupation, 2002 (in percent) Right Management Consultants

	Top Exec's	Senior Exec's	Managers	Prof/Tech	All Other
Years of Service	72.9 (435)	80.2 (485)	93.1 (571)	94.7 (568)	95.3 (564)
Position	56.1 (335)	54.0 (327)	37.8 (232)	30.5 (183)	29.2 (173)
Age	6.5 (39)	6.9 (42)	5.7 (35)	5.7 (34)	5.9 (35)
Employment Agreement	53.1 (317)	32.7 (198)	9.1 (56)	6.7 (40)	5.7 (34)
Reason for Separation	45.1 (269)	46.1 (279)	45.0 (276)	44.0 (264)	41.9 (248)
Negotiated Separation	38.9 (232)	33.4 (202)	13.2 (81)	9.7 (58)	7.6 (45)
Legal Minimums	5.0 (30)	5.0 (30)	5.4 (33)	5.5 (33)	5.7 (34)
Local Legislation	6.0 (36)	5.8 (35)	6.0 (37)	6.2 (37)	6.8 (40)

Source: Right Management Consultants (2003, CD ROM Regional: North America Involuntary Separation (p.1-4). Sample size in parentheses.

Table 14

Weeks of Severance Pay per Year of Service, Involuntary Separations,
By Occupation, 2002 (in percent) Right Management Consultants

	Top Exec's	Senior Exec's	Managers	Prof/Tech	All Others
Pay Per Year of Service					
Less Than One Week	3.9 (12)	3.7 (13)	4.7 (20)	4.8 (21)	6.9 (30)
One Week's Pay	36.8 (113)	40.3 (142)	49.2 (209)	55.6 (242)	61.8 (268)
Two Week's Pay	32.2 (99)	34.1 (120)	36.7 (156)	34.3 (149)	28.6 (124)
Three Week's Pay	4.9 (15)	5.1 (18)	4.9 (21)	3.0 (13)	1.8 (8)
One Month's Pay	14.0 (43)	12.5 (44)	7.3 (31)	5.1 (22)	3.9 (17)
Over One Month's Pay	11.7 (36)	8.5 (30)	1.4 (6)	1.1 (5)	0.7 (3)
Plus Age Differential over 50	3.9 (12)	3.4 (12)	2.8 (12)	2.8 (12)	2.3 (10)
Number Answering	100 (307)	100.0 (352)	100.0 (425)	100.0 (435)	100 (434)

Source: Right Management Consultants (2003, CD ROM Regional: North America
Involuntary Separation (p.4-7). Absolute numbers in parentheses.

Table 15
 Organizations with a Severance Plan
 By Organization Size and Full-Time/Part-Time Work Status, 2001 (in percent)

	Full-Time	Part-Time
Total	79	39
< 100	64	37
101-500	73	33
501-1,000	80	37
1,001-5,000	85	41
5,001-10,000	83	49
10,001-25,000	91	55
> 25,000	100	55

Source: Lee Hecht Harrison (2001, pp. 13-14)

Table 16

Basis of Severance Calculations by Occupation, Organizations with Plans NOT Based On Service Only, 2001 (in percent) Lee Hecht Harrison

	Officers	Senior Executives	Executives	Exempts	Non-Exempts
Formula Includes Years Of Service	43	45	48	57	60
Formula Includes Salary/Grade Level	34	36	39	45	40
Formula Includes Title/Level	34	34	36	28	20
Formula Includes Age	8	8	10	11	12
Case By Case	35	43	42	38	34
Employment Agreement	35	30	17	3	0
It Is Negotiated	23	20	15	5	4
Flat Amount	5	5	5	8	8

Source: Lee Hecht Harrison (2001, p.4). Column sums exceed one hundred percent because some respondents reported multiple formulas.

Table 17
 Minimum and Maximum Severance Amounts
 In Weeks by Occupation, 2001 (in percent) Lee Hecht Harrison

	Officers	Senior Executives	Executives	Exempts	Non-Exempts
Minimum Amount					
Average	13	12	9	4	4
Median	4	4	4	3	2
Maximum Amount					
Average	39	37	33	28]	25
Median	36	26	26	26	26

Source: Lee Hecht Harrison (2001, p.5) "66% of organizations have set minimum severance amounts and 60% set maximum severance amounts." (2001, p.5) Column sums exceed one hundred percent because some respondents reported multiple formulas.

Table 18

Severance Benefit Generosity, Organizations with Plan Based on Service Only,
2001 (in percent) Lee Hecht Harrison

Panel A: By Occupation

	Officers	Senior Executives	Executives	Exempts	Non-Exempts
Weeks Pay/ Year of Service					
< 1 WEEK	5	4	4	6	9
1 WEEK	43	44	47	60	65
2 WEEKS	28	28	32	30	23
3 WEEKS	5	5	5	3	2
1 MONTH	12	13	11	5	3
> 1 MONTH	14	11	7	2	1

Source: Lee Hecht Harrison (2001, p.4). Column sums exceed one hundred percent because some respondents reported multiple formulas.

Panel B: By Organizational Size, Nonexempt Workers Only

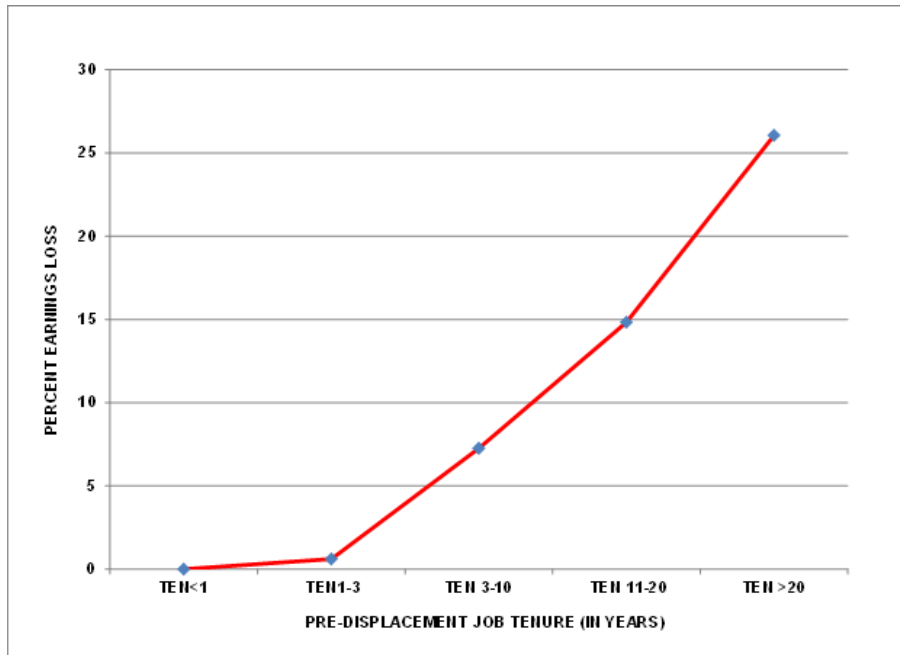
	TOTAL	<101	101-500	501-1,000	1,001-5,000	5,001-10,000	10,001-25,000	>25,000
< 1 WEEK	9	3	12	8	5	14	10	0
1 WEEK	65	74	66	66	68	69	63	69
2 WEEKS	23	18	19	23	27	14	23	21
3 WEEKS	2	0	2	1	2	0	0	5
1 MONTH	3	5	3	1	2	3	3	5
> 1 MONTH	1	0	0	0	1	0	3	0

Source: Lee Hecht Harrison (2001, p.13). Column sums exceed one hundred percent because some respondents reported multiple formulas.

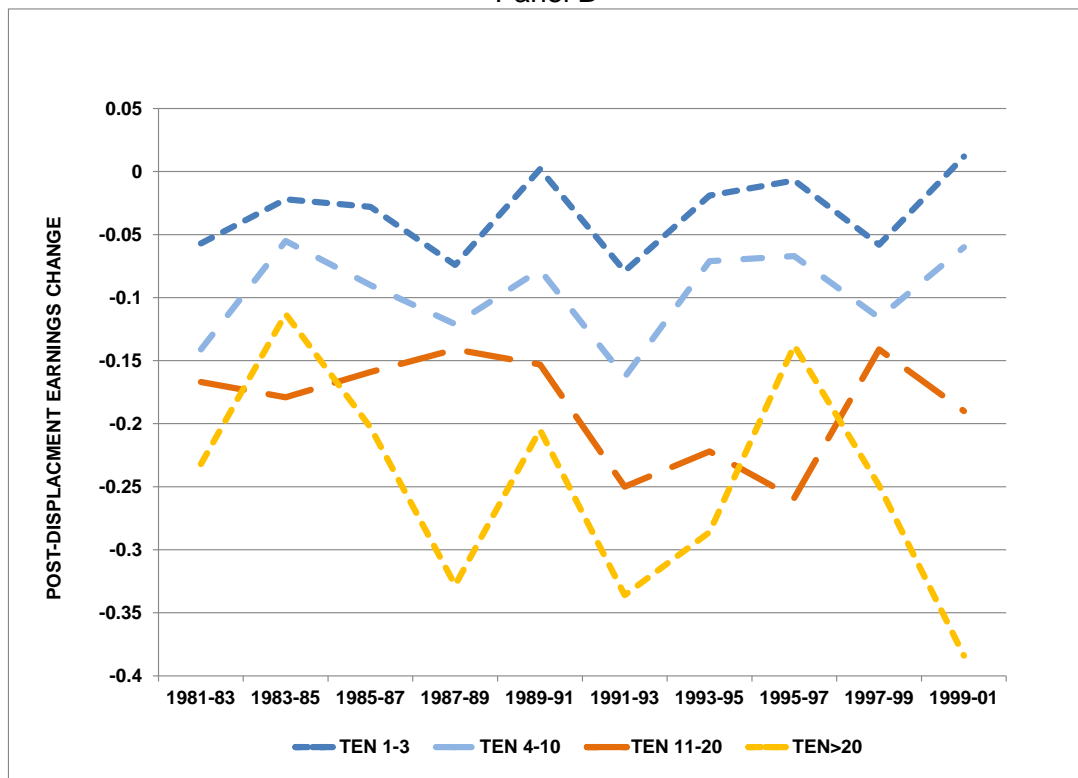
Figure 1

Earnings Losses (in Percent) By Years of Service (Tenure)
 Reemployed Displaced Workers Full-time before and After, with Controls

Panel A:



Panel B



Source: Panel A: Author's calculations from Farber (2015), 1984-2014 Displaced Worker Surveys. Panel B: Author's calculations from Farber (2004), 1981-1999 Displaced Worker Surveys

Figure 2
Eligibility Criteria For Severance Benefits
Mandated Plans, OECD Holzmann et al (2012)

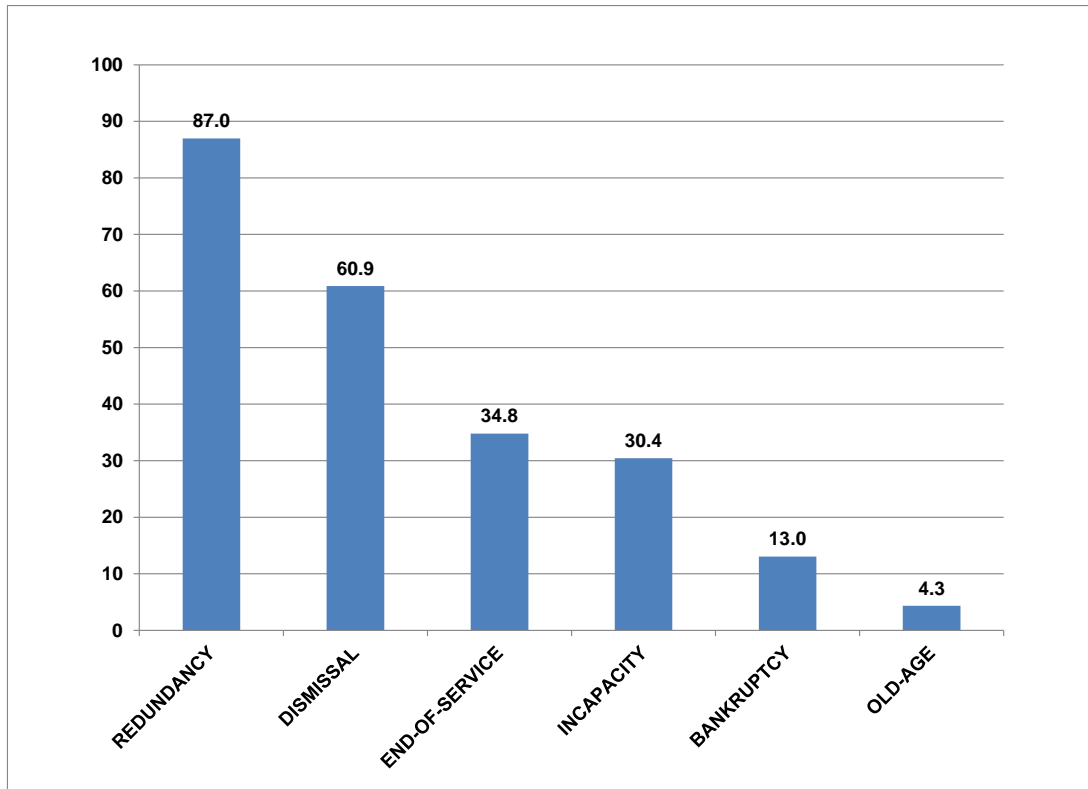
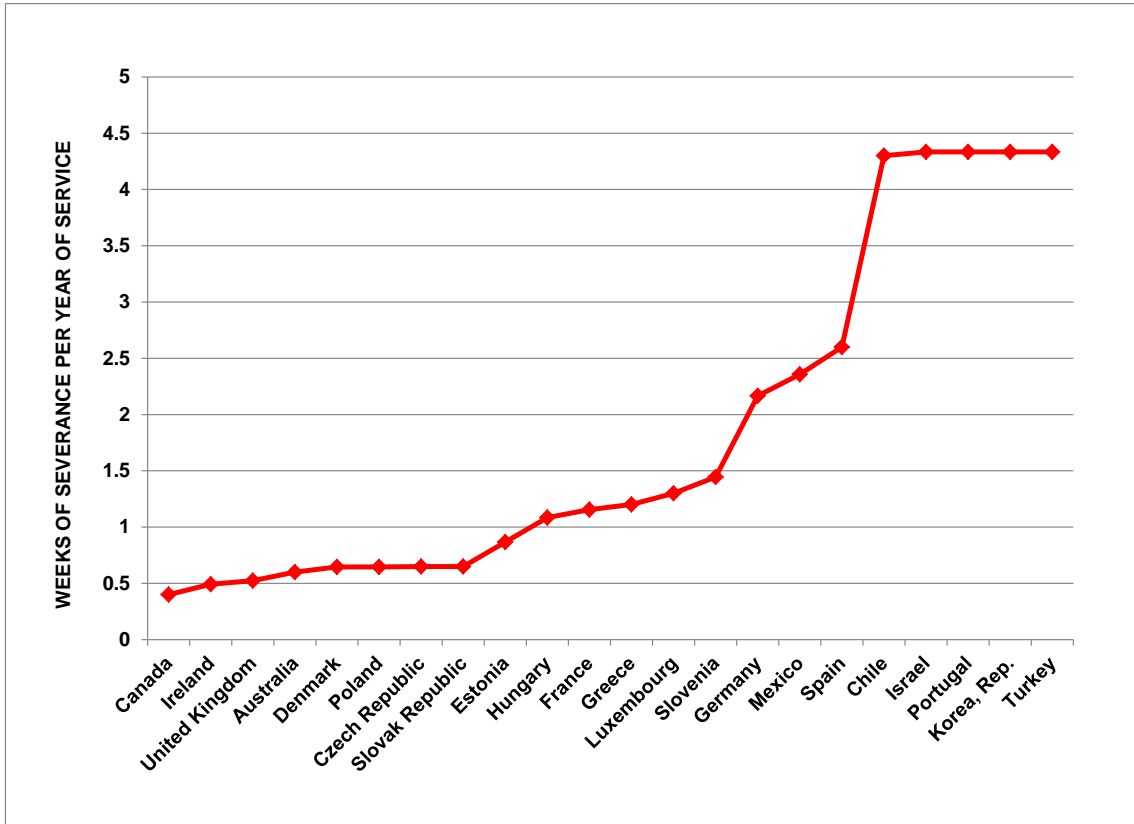


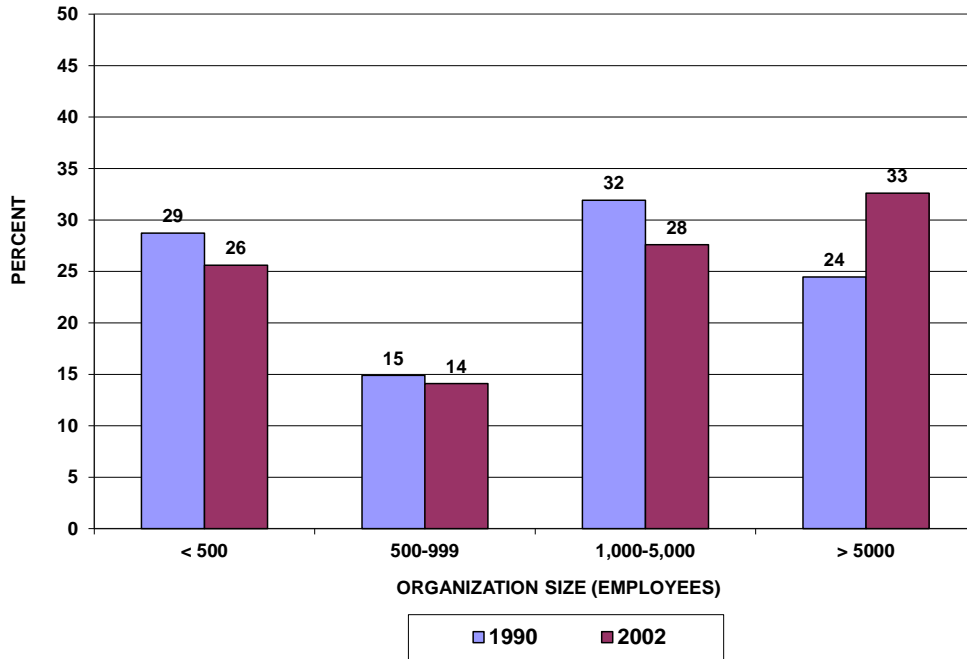
Figure 3
Weeks of Severance Pay per Year of Service,
OECD Countries with Service-Gradient Mandated Plans



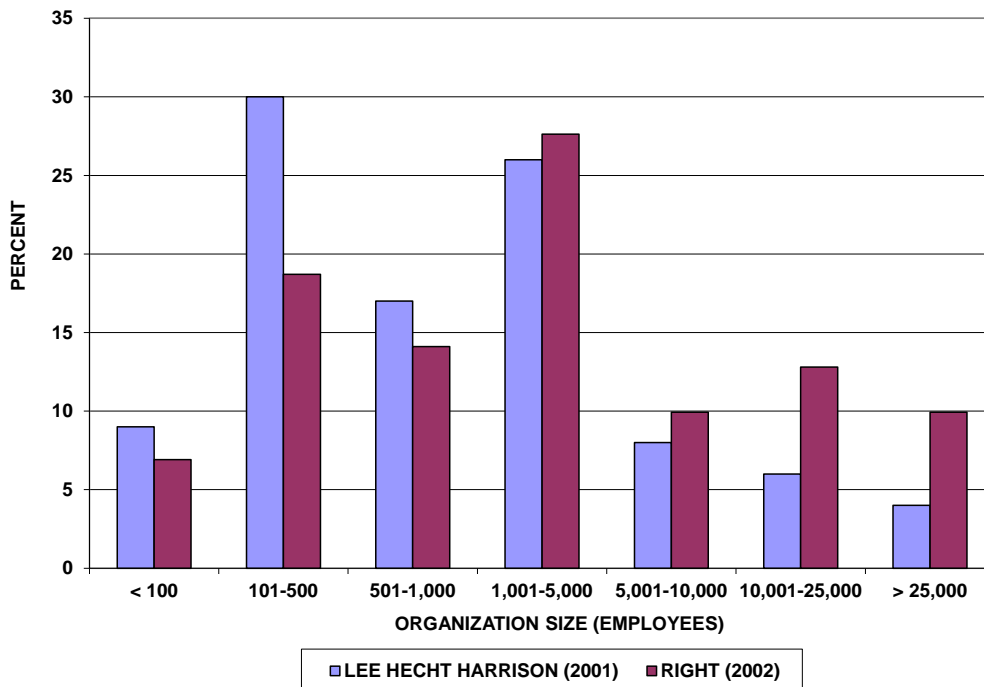
Source: Holzmann et al (2012, Annex B) and author computations.

Figure 4
 The Distributions of Organization Size (Employees) in the Right (1990, 2002) and Lee Hecht
 Hanson (2001)

Panel A: Right Samples 1990 and 2001

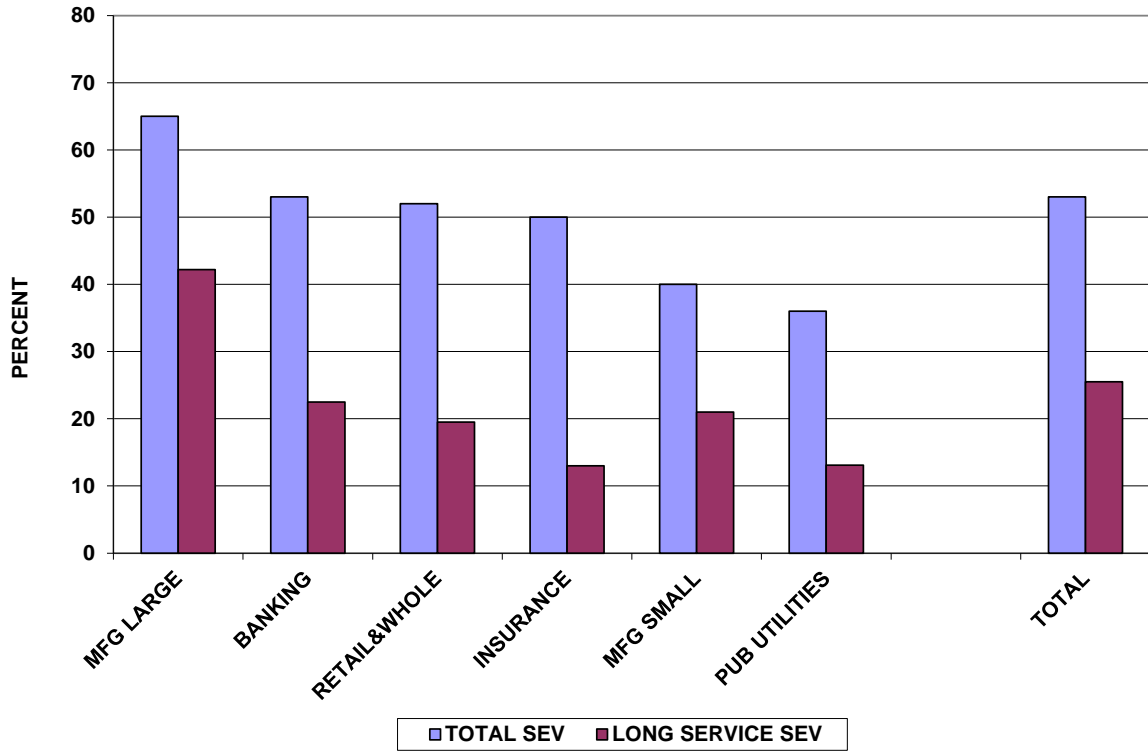


Panel B: Comparison of LHH (2001) and Right (2002) Samples



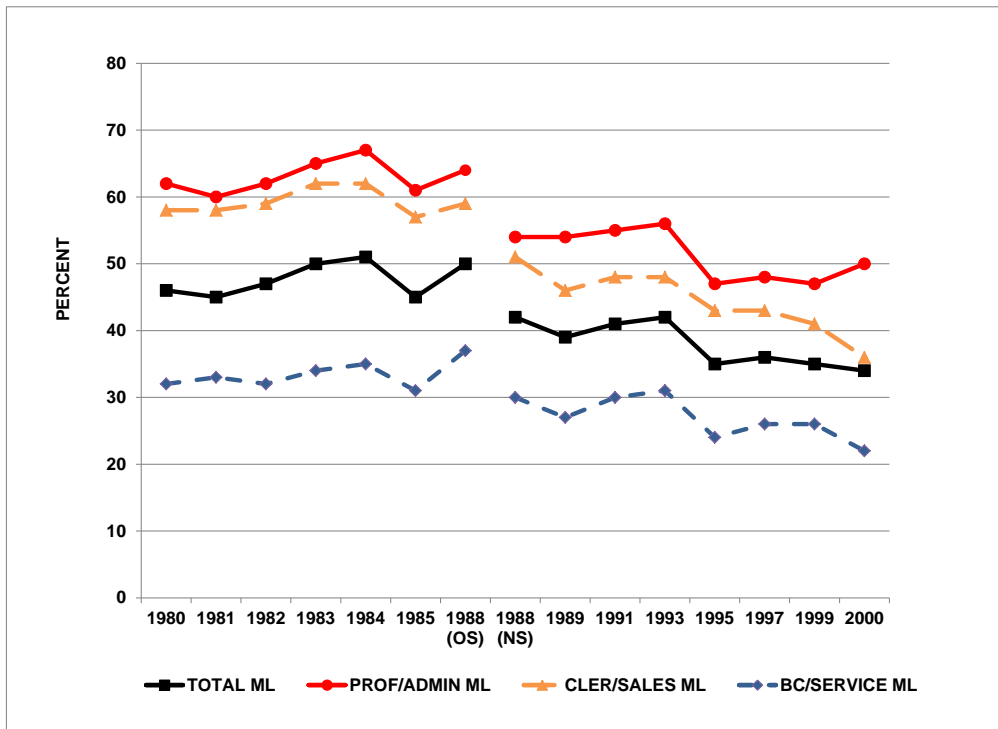
Sources: Right (1990, p.19-20, adjusted for nonrespondents), Right (2002, North American Demographics, p.3) and Lee Hecht Harrison (2001, p.24)

Figure 5
 Companies with Severance Coverage for Nonexempt Office Workers
 Total and Long-Service Only, By Industry and Total 1979



Source: Table 1.

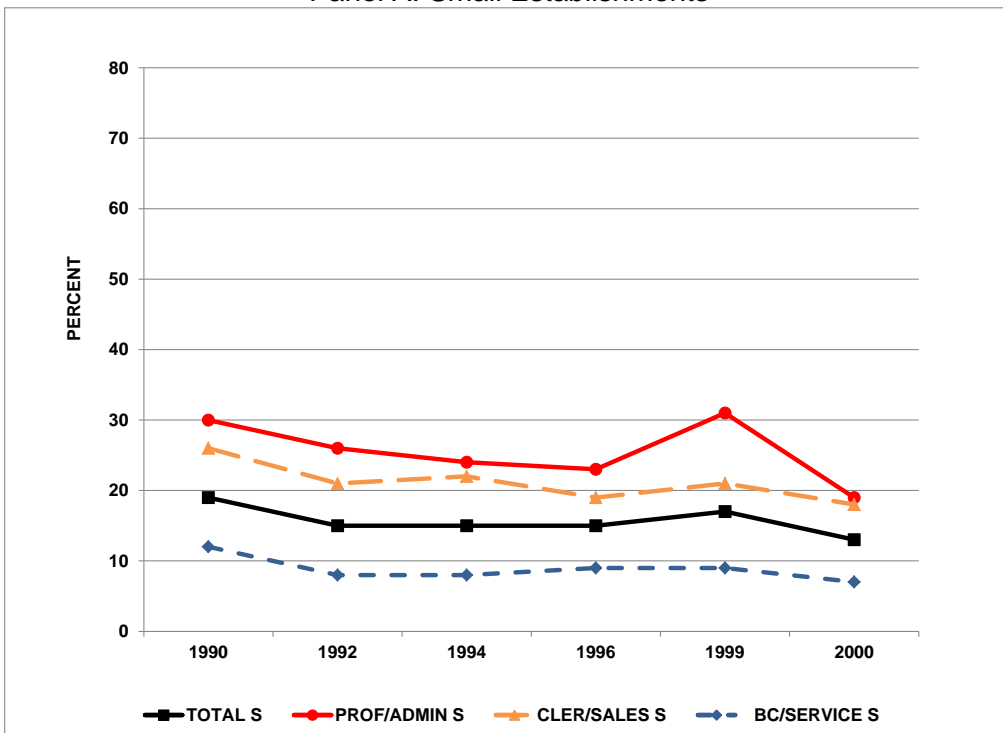
Figure 6
Trends in Severance Coverage in Medium and Large establishments in the U.S.
1980-1988 (Old Series), 1988-2000 (New Series) BLS



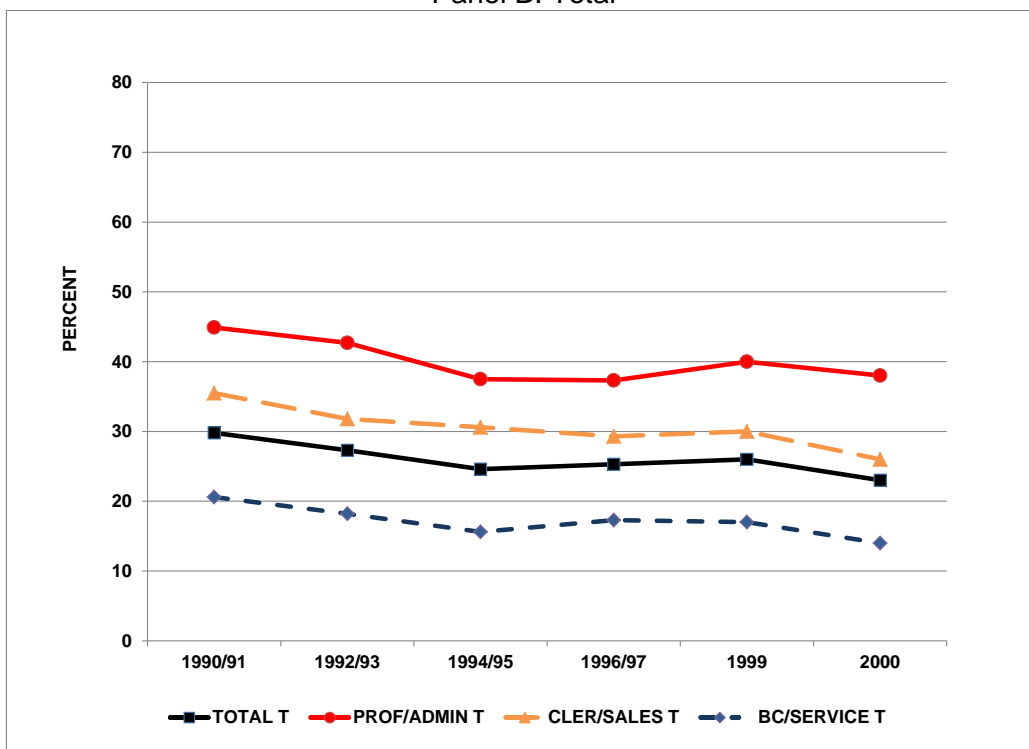
Source: Table 4

Figure 7

Panel A: Small Establishments

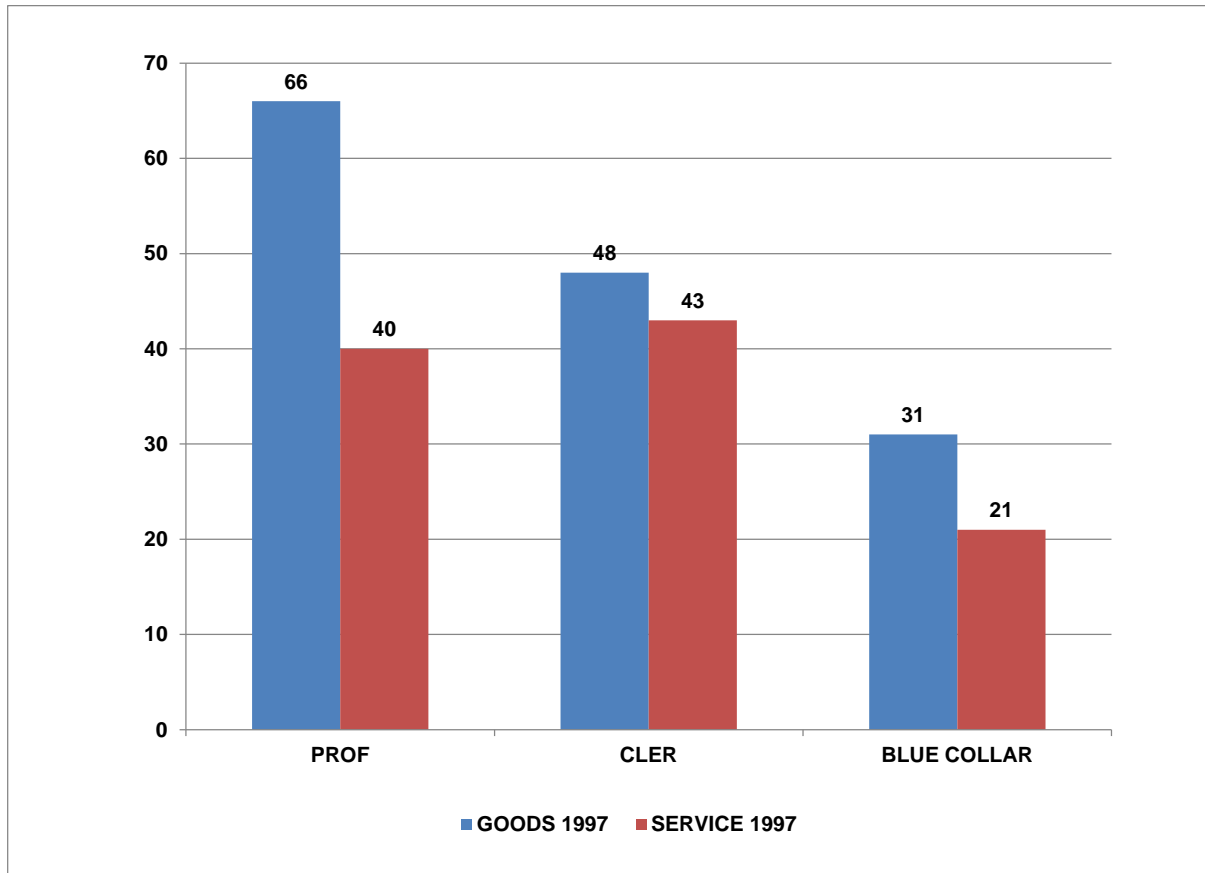


Panel B: Total



Source: Table 5

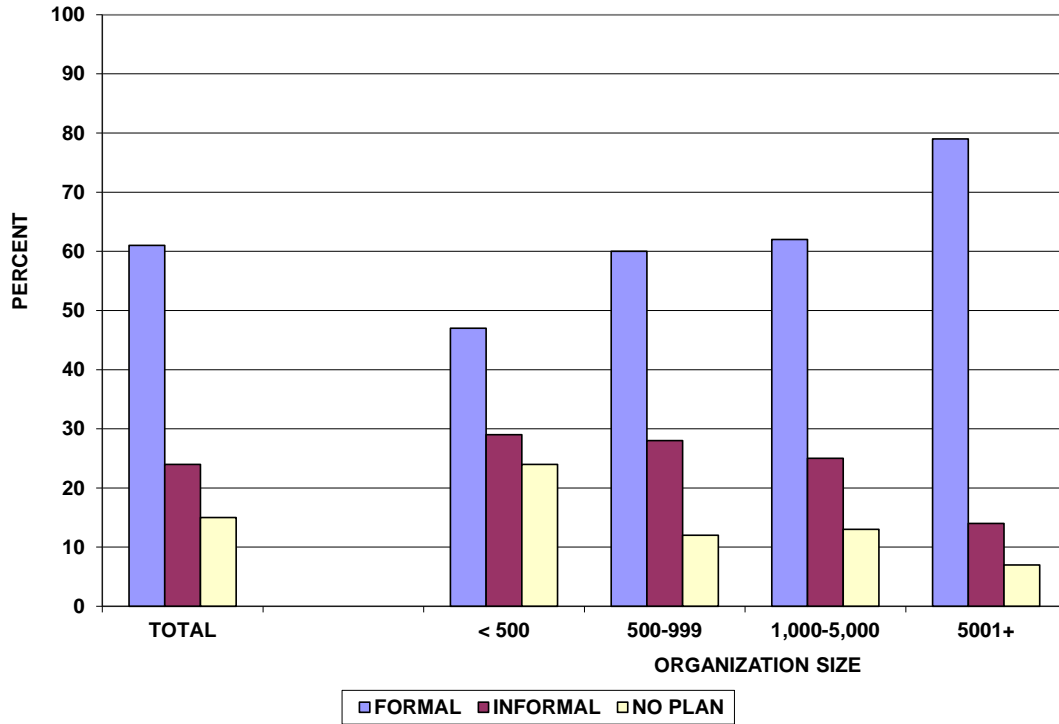
Figure 8
Severance Coverage, Full-Time Workers
By Occupation 1997



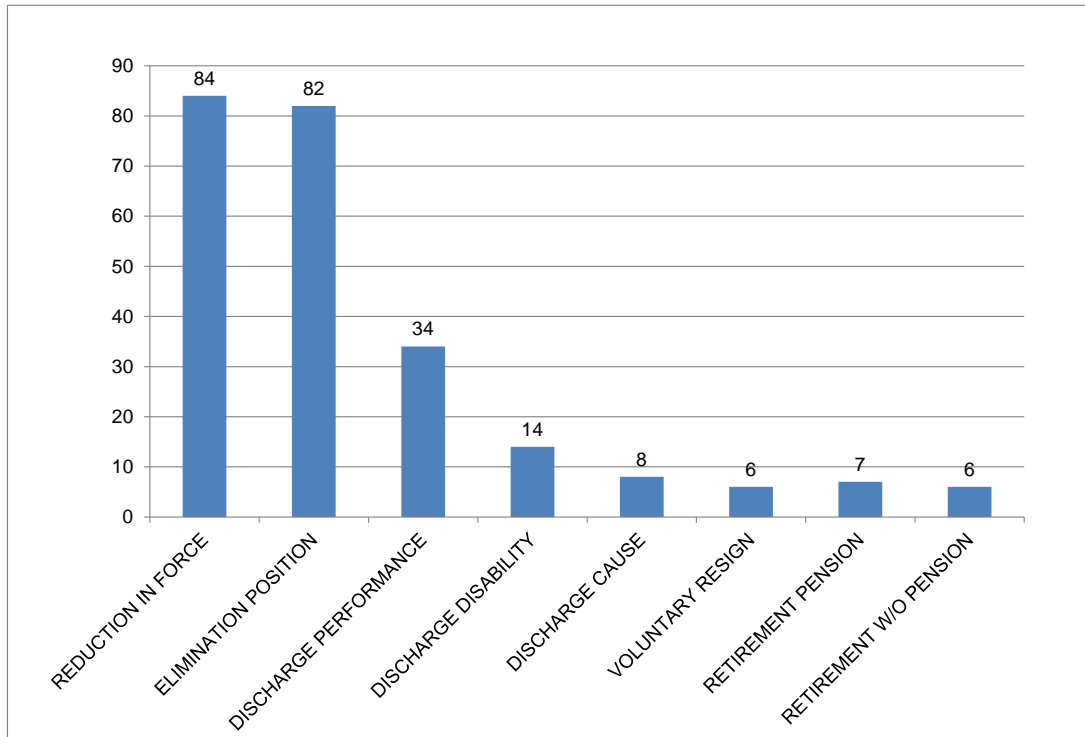
Source: Table 6

Figure 9
Severance Characteristics, U.S. 1990

Panel A: Coverage, Total and by Firm Size



Panel B: Eligibility Criteria For Severance Benefits
Voluntary Plans U.S. Right (1990)

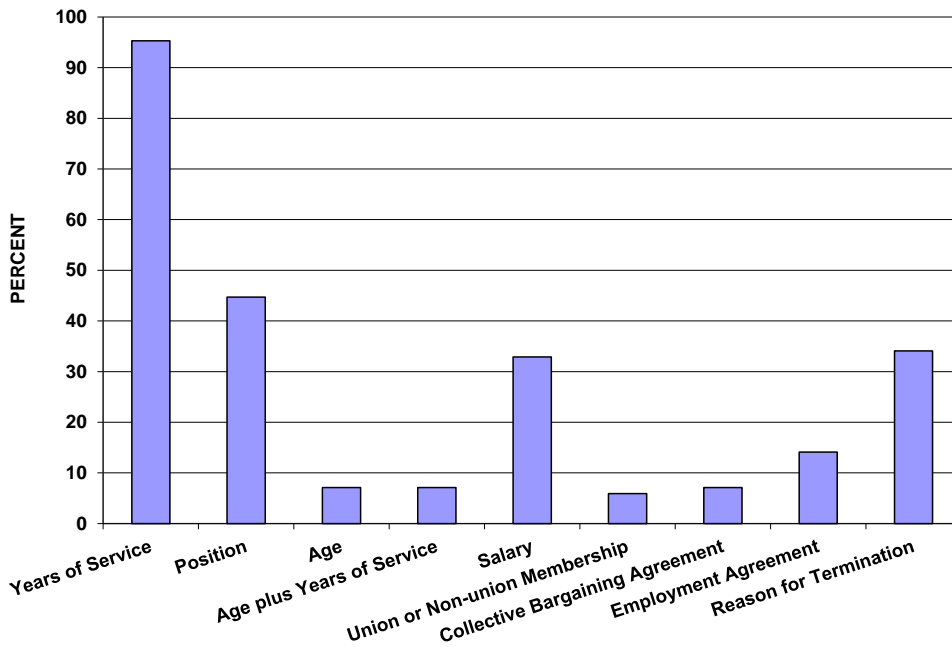


Source Right (1990)

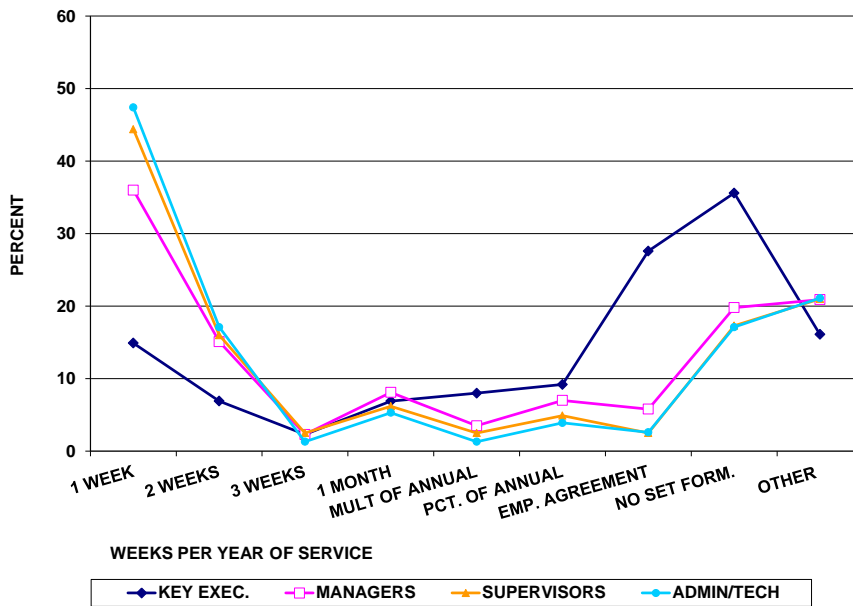
Figure 10

The Severance Benefit Schedule, 1990

Panel A
 Panel A: The Basis for Benefit Calculations,
 Multiple Responses Permitted

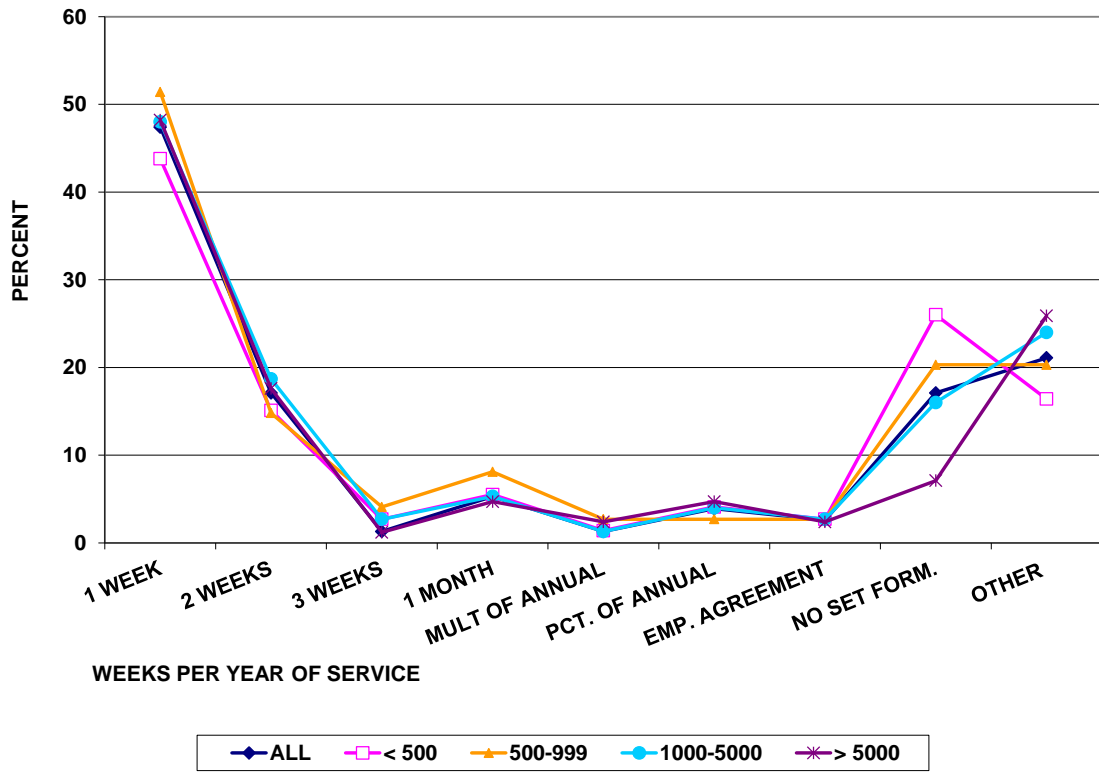


Panel B: Weeks of Severance Pay per Year of Service by Occupation



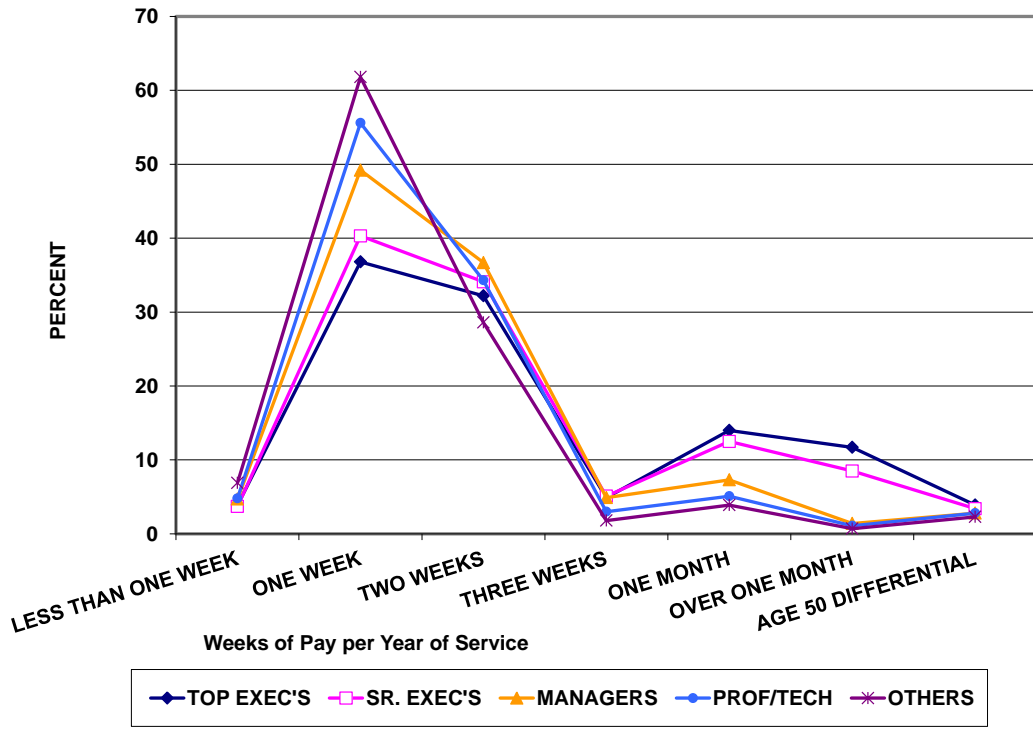
Sources: Right (1990), Panel A, Table @, Panel @@ Table 7.

Figure 11
 Weeks of Pay per Year of Service,
 By company Size, Admin/Technical Workers Only



Source: Right (1990).

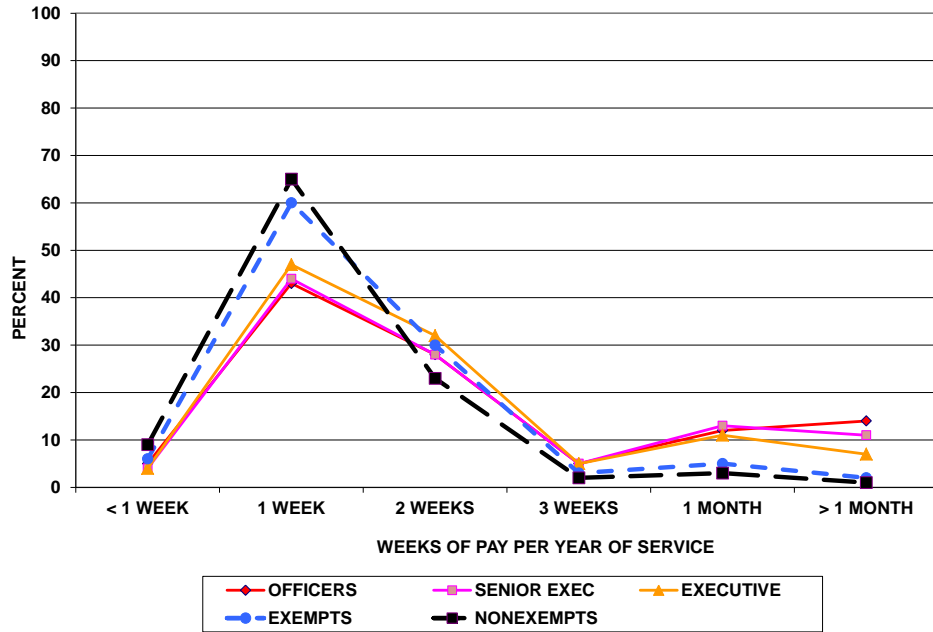
Figure 12
 Weeks of Severance Pay per Year of Service,
 Involuntary Separations Only, By Occupations, 2002



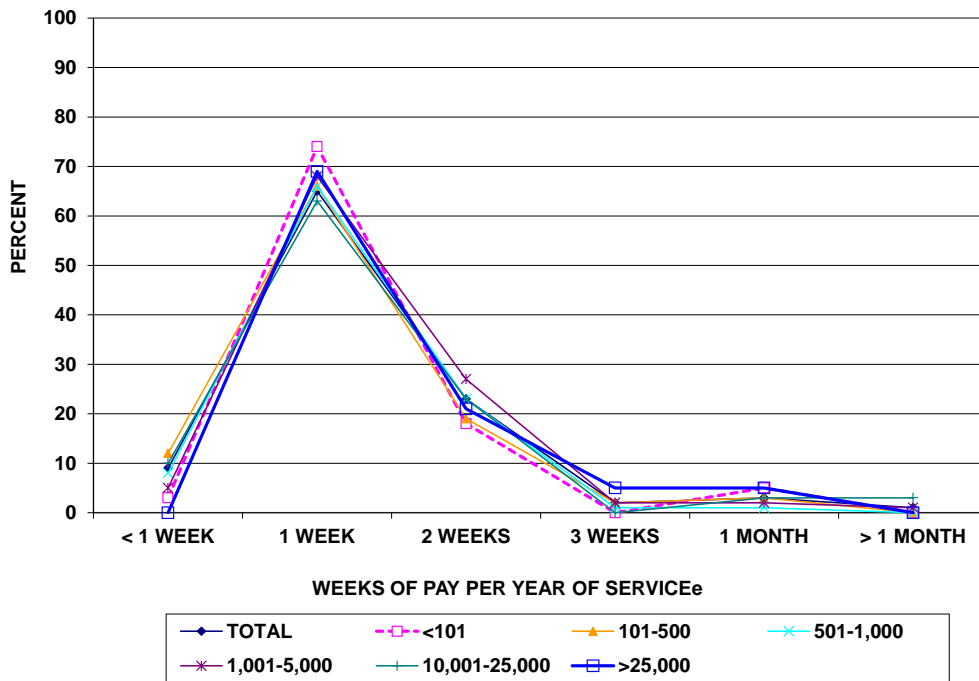
Source: Right (2002)

Figure 13
 Weeks of Pay Per Year of Service in Pure Service-Gradient Plans, LHH 2001

Panel A: By Occupation

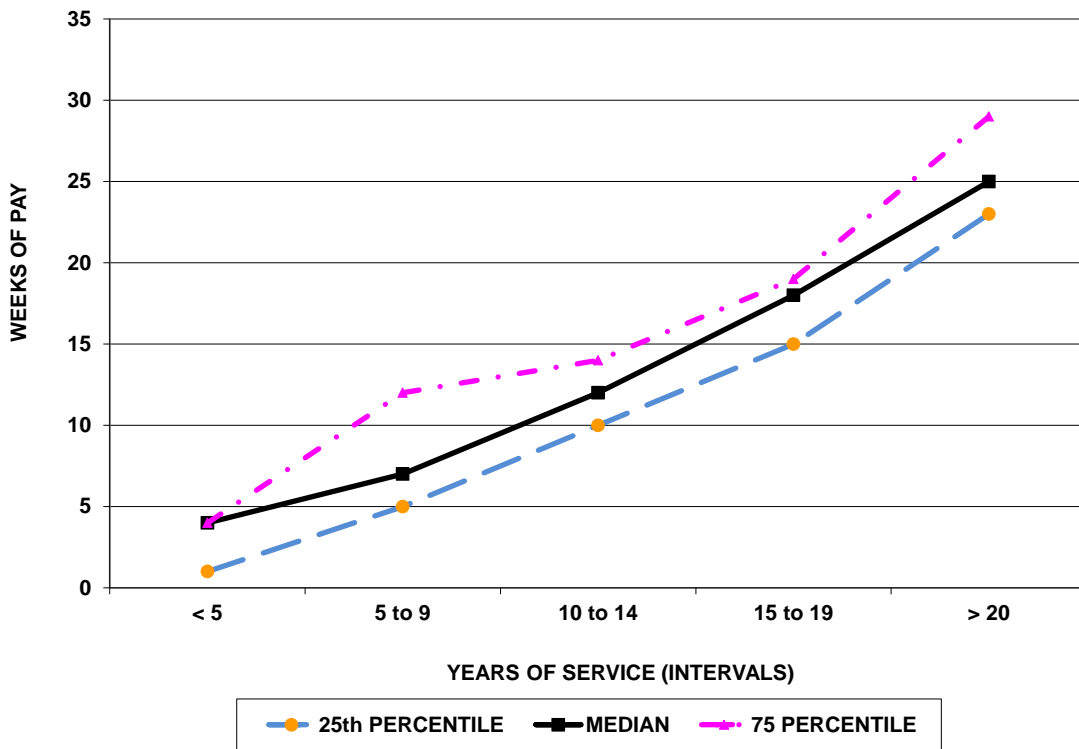


Panel B: By Organization Size



Sources: Panel A, Table 18A; Panel B, Table 18B.

Figure 14
 The Distribution (25,50,75 Percentile of Weeks of Severance Benefits
 By Years of Service, Displaced Workers in Mass, 1991-1994

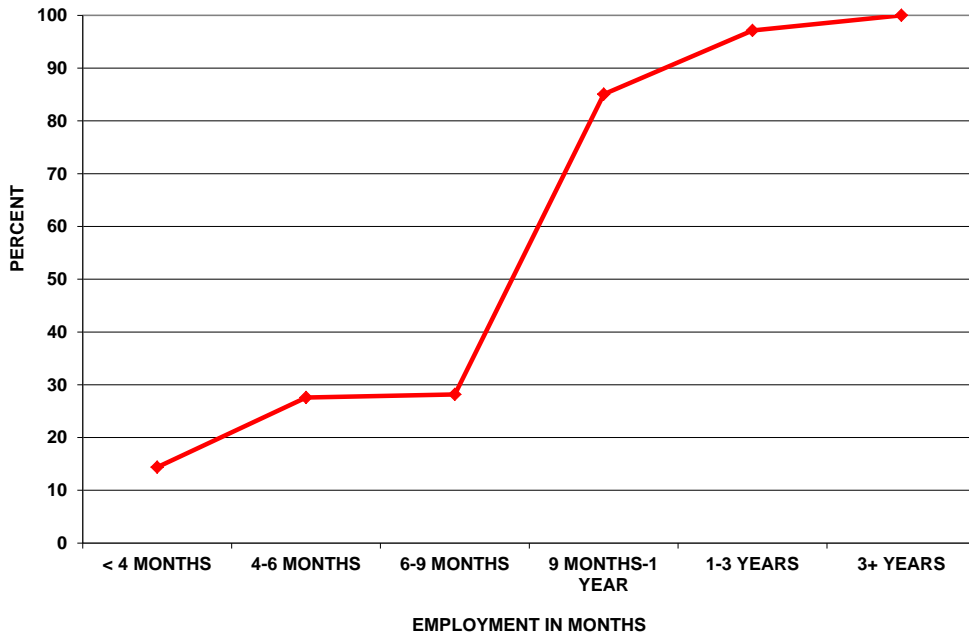


Source: Kodryzcki (1999, p.)

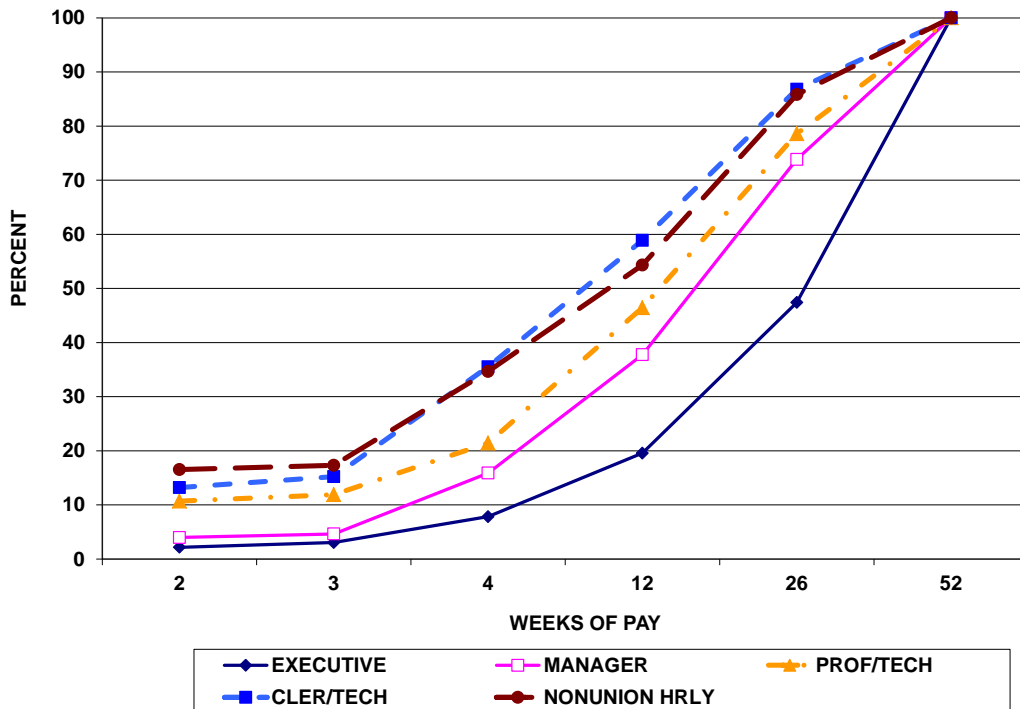
Figure 15

Minimum Service Requirements And Service Benefit Caps, Mercer (2002)

Panel A: Cumulative Distribution of Service Minimums for Benefits



Panel B: Cumulative Distributions of Benefit Caps By Occupation



Source: Panel A: Mercer (2002, p. 4) : Panel B: Mercer (2002, p.6)