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LAW AND MACROECONOMICS: EMPLOYMENT DISCRIMINATION LITIGATION OVER THE BUSINESS CYCLE

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ARTICLES

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I. INTRODUCTION

For the past two decades the law and economics movement has been one of the most influential forces in the legal academy. Its practitioners have relentlessly sought to unleash microeconomic insights on formerly pristine areas of legal doctrine. This Article focuses on a branch of law—employment discrimination—that has already been examined from a *microeconomic* perspective.[1] However, it represents a departure from the previous literature in that it considers the impact of *macroeconomic* phenomena on several aspects of employment discrimination litigation.

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1. The seminal work in the economics of employment discrimination is GARY S. BECKER, THE ECONOMICS OF DISCRIMINATION (2d ed. 1971). Other important theoretical contributions come from Kenneth Arrow, *Models of Job Discrimination in the Labor Market*, in RACIAL DISCRIMINATION IN ECONOMIC LIFE 187 (Anthony H. Pascal ed., 1972), and Edmund S. Phelps, *The Statistical Theory of Racism and Sexism*, 62 AM. ECON. REV. 659 (1972). The theoretical and empirical

While law and macroeconomics is quite novel in the legal academic literature,[2] there are a number of reasons for adopting a macroeconomic perspective in analyzing the legal system in general and employment discrimination in particular. First, looking at federal antidiscrimination law from a macroeconomic perspective suggests new ways of understanding the nature of the protection antidiscrimination law offers. As we show in this Article, a strong economy is a powerful ally for victims of discrimination. Indeed, many such individuals have deemed this market remedy to be preferable to the legal remedies for discrimination that have been in place for the past twenty-five years. When the economy is healthy, victims of discrimination can more easily find new jobs without suffering an extended period of unemployment. Many potential litigants bypass their legal remedies when they believe that adequate market opportunities exist. Conversely, a recessionary economy, and the excess supply of labor that attends it, creates an opportunity for employers to indulge discriminatory preferences and choose workers on the basis of irrational prejudice or tastes. Our analysis also suggests that Title VII functions as a kind of unemployment insurance: It affords special protection to selected workers who lose their job and are unemployed for a substantial period of time.

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work has recently been surveyed by Glen G. Cain, *The Economic Analysis of Labor Market Discrimination: A Survey, in* HANDBOOK OF LABOR ECONOMICS 693 (Orley Ashenfelter & R. Layard eds., 1986).

In the law and economics community, recent works include the debates between Judge Posner and John J. Donohue III over race discrimination, published in the *Pennsylvania Law Review* (1986-87), and sex discrimination, in the *Chicago Law Review* (1989); RICHARD EPSTEIN, FORBIDDEN GROUNDS: THE CASE AGAINST EMPLOYMENT DISCRIMINATION LAWS (1992); and John J. Donohue III & Peter Siegelman, *The Changing Nature of Employment Discrimination Litigation*, 43 STAN. L. REV. 983 (1991).

2. This is the first article of which we are aware that shows that potential beneficiaries of an important federal statutory right are quite sensitive to the state of the macroeconomy in making decisions about whether to initiate litigation. There have been numerous articles, however, focusing on the relationship between the macroeconomy and phenomena of importance to legal scholars and policymakers. For example, an extensive literature explores the effect of recession on the crime rate. *See* Phillip Cook & Gary Zarkin, *Crime and the Business Cycle*, 14 J. LEGAL STUD. 115 (1985); Llad Phillips et al., *Crime, Youth, and the Labor Market*, 80 J. POL. ECON. 491 (1972). Recent work has also demonstrated that accident rates in manufacturing industries also tend to move with the business cycle. *See* John Shea, Accident Rates, Labor Effort, and the Business Cycle (1991) (unpublished paper, on file with the authors). There are also important articles discussing the potential macroeconomic problems created by requiring the federal budget to remain balanced. *See* Kate Stith, *Rewriting the Fiscal Constitution: The Case of Gramm-Rudman-Hollings*, 76 CAL. L. REV. 595 (1988); *see also* Mark Kelman, Could Lawyers Stop Decisions? Speculations on Law and Macroeconomics (Aug. 1992) (unpublished paper, on file with the Stanford Law School) (suggesting that certain legal reforms could reduce unemployment).

Second, examining the sharp changes in the number and character of employment discrimination lawsuits induced by short-term cyclical swings in the economy provides valuable insights into the character of employment discrimination litigation. When the economy goes into a recession, some dramatic changes occur in employment discrimination litigation: The number of cases filed in federal court jumps dramatically (while the impact on the number of EEOC filings is relatively minor); moreover, the plaintiff win rate falls (while the monetary amount of the awards by federal judges to successful plaintiffs increases significantly). These are some of the findings this paper seeks to explain. Moreover, illuminating these findings can serve to sharpen our understanding of two conflicting visions of employment discrimination litigation. One possible theory is that the surge of litigation during economic downturns shows that when times are bad individuals look around for economic life rafts, and employment discrimination litigation offers the possibility of just such a windfall to the class of protected workers. This generally pessimistic assessment of the operation of employment discrimination law might view the cyclical pattern of filings as strong evidence of rent-seeking on the part of the litigants.

An alternative theory offers a far more optimistic picture of antidiscrimination litigation: Given that only a small fraction of those who perceive themselves as victims of employment discrimination seek legal redress, and given the serious and pervasive nature of the employment discrimination problem, the jump in cases during recessions is unambiguously positive because it brings us closer to the appropriate level of employment discrimination litigation. While our circumstantial evidence cannot resolve the controversy over whether employment discrimination litigation is predominantly benign or generally lamentable rent-seeking, it does cast strong doubt on the most extreme version of the rent-seeking hypothesis. Individuals do not appear to complain of employment discrimination to the EEOC at higher rates simply because the economy is weak. In other words, the cyclicality of employment discrimination filings in federal court is not the product of more complaints of discrimination, but rather it is the result of a higher proportion of existing complaints ending up in federal court.

Third, our analysis of the determinants of litigation behavior provides new insights concerning the responsiveness of potential litigants to incentives and to changing circumstances. Critics of the economic model have suggested that whether someone with a potential claim decides to initiate a lawsuit depends largely on subjective cultural, psychological,

and sociological factors that are impossible to specify in advance.[3] Our results, by contrast, demonstrate that a large number of plaintiffs in employment discrimination cases seem to alter their behavior over the course of the business cycle in predictable and rational ways and are indeed more likely to pursue federal court litigation when their expected damages are higher. On the other hand, we establish that although prospective employment discrimination plaintiffs respond to the negative consequences that flow from a recessionary economy, they do not seem to anticipate these consequences very well. In other words, these prospective litigants do not manifest the degree of foresight that the more eager proponents of the view of rational actors maximizing their welfare might impute to them.

The outline of this Article is as follows: Part II documents the extent to which the number of employment discrimination suits rises during recessions and falls during times of economic prosperity. Part III discusses various worker and employer influences that could generate the cyclical pattern of employment discrimination litigation in the context of a simple model of the decision to file a lawsuit.

In Part IV we provide several empirical tests to help distinguish among the possible explanations for the cyclical pattern observed. These tests include (1) a comparison of the cyclicality of two different types of lawsuits—those filed against the U.S. government and those filed against other employers; (2) a comparison of the lag between the occurrence of a litigation-generating event and the filing of a lawsuit and the lag between the onset of recession and the upturn in case filings; (3) a demonstration that EEOC filings are not significantly influenced by the business cycle; and (4) an analysis of the kinds of incidents that generate litigation. All four of these tests suggest the same conclusion: The most significant link between the business cycle and the volume of litigation is that when deciding whether to file in federal court, workers are sensitive to the level of damages they have already experienced (but they are not good at anticipating these costs at the time of injury). Because the average duration of unemployment spells increases in a recessionary economy, monetary awards are elevated, inducing more litigants to proceed to federal court with their claims of discrimination. This we refer to as the *worker benefits effect*.

Further evidence of the importance of this mechanism is presented in Part V. There, we demonstrate that plaintiffs win less often (and settle

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3. In the context of employment discrimination litigation, see, e.g., KRISTIN BUMILLER, THE CIVIL RIGHTS SOCIETY (1988).

or drop a higher proportion of cases filed) during macroeconomic slumps than during booms. We also show that average awards to successful plaintiffs rise in business downturns, as predicted by our hypothesis that the worker benefits effect causes the cyclicality of employment discrimination litigation.

Finally, we draw on our findings to address one of the most important and hotly debated questions concerning the Civil Rights Act of 1991: What effect will increasing the potential damage awards in Title VII cases, by adding punitive and compensatory damages to the current limited back-pay remedy, have on the volume of litigation?

II. THE BUSINESS CYCLE AND THE VOLUME OF EMPLOYMENT DISCRIMINATION LITIGATION

A. DATA

Our primary data source in establishing the effect of the business cycle on the volume of and outcomes in employment discrimination litigation is a computer tape, compiled by the Administrative Office of the U.S. Courts, that contains a complete listing of all federal employment civil rights cases filed in U.S. district court between July 1, 1969, and June 30, 1989.[4] To supplement our understanding of the range of employment discrimination cases contained on our tape, we also examined some 1250 randomly selected civil rights employment cases in seven cities around the United States.[5] By going back to the original case files, we were able to learn much about the cases that is not contained on

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4. For all cases, the records list the date the case was filed, which makes it possible to construct a quarterly time series of the volume of litigation. The tape also identifies the parties' names, the basis of jurisdiction, and whether the case was still open as of June 30, 1989.

Each case is supposed to be identified by a docket number unique within each district. We found a small number of cases with identical docket numbers and identical or similar party names (e.g., *Shmoo v. Weinberger* and *Shmoo v. Secretary of Defense*), which prompted us to delete the duplicate from the data set. We also deleted all cases whose jurisdiction code indicated that they originated outside the federal court system. For further details on the Administrative Office Data Tape, see Donohue & Siegelman, *supra* note 1; Theodore Eisenberg, *The Relationship Between Plaintiff Success Rates Before Trial and at Trial*, 154 J. ROYAL STAT. SOC'Y 111 (1991).

Additional information on case outcomes—whether there was an adjudication of the dispute, which party won at trial, and how much damages were awarded—exists for a small minority of the cases. For a further discussion of outcomes, see *infra* part IV.

5. The cities are New York, Philadelphia, Chicago, Atlanta, New Orleans, Dallas, and San Francisco. These cities were chosen because they are the locations of the federal records centers where the files are housed. Together, they accounted for just under 20% of all employment discrimination cases filed in the federal courts between 1972 and 1987. Within each city we randomly selected cases for inclusion in the sample.

the Administrative Office data tape, such as the basis of the alleged discrimination (race, sex, national origin, age, etc.), the nature of the alleged discriminatory conduct (failure to hire, firing, adverse conditions of employment, etc.), and the plaintiff's occupation, industry, and salary.

Table 1 uses the data from this seven-city sample to give a sense of the relative frequency of the various statutory and constitutional bases for employment discrimination claims. As the table indicates, more than three quarters of the employment discrimination cases in our sample raised claims under Title VII of the 1964 Civil Rights Act and one third of all cases raised a section 1981 claim based on the Reconstruction Era Civil Rights Act.

B.   ESTABLISHING THE EMPIRICAL LINK BETWEEN UNEMPLOYMENT AND LITIGATION

In an earlier article we noted that the number of employment discrimination cases filed in federal courts has increased drastically over the past twenty years but that this growth has been quite uneven.[6] Figure 1 shows that there have been sharp upturns in the number of cases filed as well as periods of relative stagnation and even decline. We were immediately struck by one pattern that suggested the possible importance of a political phenomenon: During the Nixon and Ford administrations and then at the outset of the Reagan Administration, the number of employment discrimination cases rose sharply, while the caseload declined in each of the four years of the Carter Administration. When we began to explore the data more systematically, however, we learned that the deviations from the long-term growth trend in case filings were closely correlated with the business cycle, as measured by the national unemployment rate. This persuaded us that the health of the economy was the most likely cause of the pronounced cyclical variation in the level of case filings, rather than sociological or political phenomena associated with the ideologies of different political administrations.[7]

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6. Donohue & Siegelman, *supra* note 1.

7. Much research has concluded that the economy is affected by the political business cycle. *See* EDWARD TUFTE, POLITICAL CONTROL OF THE ECONOMY (1978); Alberto Alesina & Jeffrey Sacks, *Political Parties and the Business Cycle in the U.S.*, 20 J. MONEY CREDIT & BANKING 63 (1988); William Nordhaus, *The Political Business Cycle*, 42 REV. ECON. STUD. 169 (1975). American Presidents like to engineer (or have the Federal Reserve Board "fine-tune") the economy so that recessions occur early in their term—when the hard times can more plausibly be blamed on the excesses and errors of the prior administration—followed by strong recoveries as the next election approaches. Our point is not that the business cycle itself is unaffected by political phenomena, but rather that the proximate cause of the observed countercyclical pattern of filings of employment discrimination cases is the state of the economy.

TABLE 1:

LEGAL BASES FOR SUITS CODED "CIVIL RIGHTS, EMPLOYMENT" (NATURE OF SUIT = 442), 1972-1987

STATUTE	DESCRIPTION	% OF ALL EMPL. CIVIL RIGHTS CASES RAISING A CLAIM BASED ON STATUTE
Title VII of the 1964 Civil Rights Act	Most important source of protection from employment discrimination on basis of race, sex, national origin, or religion. Created EEOC (initially limited to investigation and conciliation of complaints). Modified in 1972 to allow suits by EEOC. Plaintiffs must meet strict procedural requirements (exhaust administrative remedies). Before 1991, remedies were limited to injunctive relief and back pay (no other compensatory or punitive damages, no right to jury trial). Now covers all employers with more than 15 employees, unions, employment agencies, etc.	75.5
§ 1981 of the 1866 Civil Rights Act	"All citizens shall have the same right to make and enforce contracts as white citizens." In 1976, the U.S. Supreme Court held that the statute applies to employment contracts. Covers only race discrimination. Damages in addition to back pay available. Looser procedural requirements and statute of limitations than Title VII. Jury trials available. No restrictions on size of firms covered.	33.1
§ 1983 of the 1871 Civil Rights Act	Forbids denial "under cover of state action" of any rights secured by the U.S. Constitution or federal law. Applies only to discrimination by government entities. Remedies essentially those of § 1981.	13.6
Age Discrimination in Employment Act (ADEA) of 1967	Forbids discrimination in employment by federal contractors on the basis of age.	10.3
Rehabilitation Act of 1973	Forbids discrimination in employment by federal contractors on the basis of handicapped status.	0.5
U.S. Constitution	Fifth and 14th amendments prohibit denial of due process by governments. Government employees can challenge discharge, failure to promote, etc., if proper procedures were not followed.	10.8
Pendant State Claims	Plaintiffs can attach claims under state law to any of the above.	0.9
Other	Equal Pay Act, Labor Relations Act, etc.	14.1

Note: The final column was calculated from an American Bar Foundation survey of employment civil rights cases that examined 1247 randomly selected cases in seven federal judicial districts. Because cases may state a claim under more than one statute, the figures in the final column do not sum to 100%.

FIGURE 1

NUMBER OF EMPLOYMENT CIVIL RIGHTS SUITS FILED IN FEDERAL DISTRICT COURTS BY
QUARTER, 1969:III- 1989:II (EXCLUDING DUPLICATE AND NONORIGINAL JURISDICTION CASES)

NUMBER OF CASES

YEAR AND QUARTER

SOURCE: Administrative Office (AO) data tape.
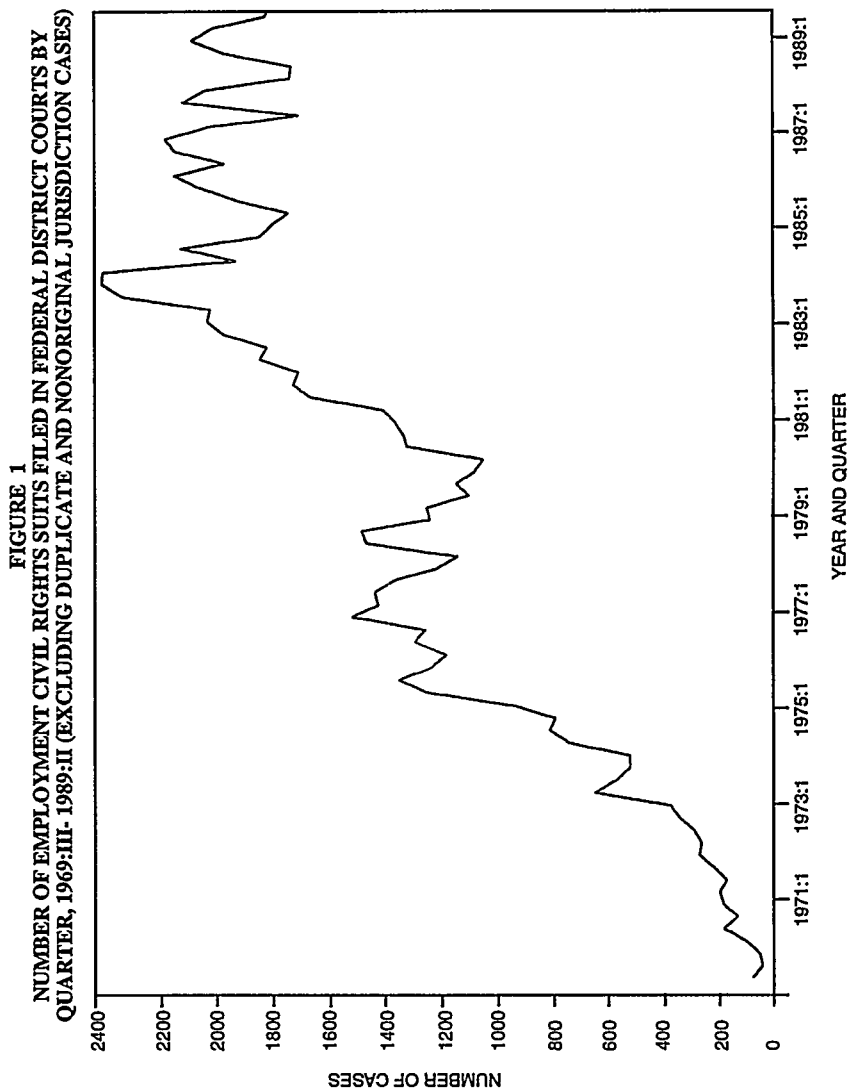
To capture the effects of the business cycle on the volume of litigation, we estimated a very simple regression model, in which the number of suits filed in a quarter is a function of time (the number of quarters since the data began in the third quarter of 1969), time^2, and lagged values of the unemployment rate.[8] Table 2 lays out the basic results of this analysis in seven different regression equations. These regressions clearly demonstrate a statistically significant relationship between the unemployment rate and the volume of employment discrimination litigation: When the economy booms, employment discrimination case filings fall in the next half year; when the economy slumps, case filings rise over the next half year. Each of these simple equations explains roughly ninety-five percent of the variance in the number of cases filed. From equation 6, we estimate that each additional percentage point of unemployment corresponds to an extra 151 suits filed (after a lag of two quarters). Moreover, with an elasticity of about 0.7,[9] a relatively modest rise in the unemployment rate from, say, 5% to 6.5% (which is a 30% increase) would generate a 21% increase in the number of employment discrimination cases.

III. THEORETICAL EXPLANATIONS FOR THE LINK

The evidence presented thus far has demonstrated a strong statistical relationship between the state of the economy, as measured by the unemployment rate, and the volume of federal employment discrimination cases. The aggregate statistics considered thus far mask a complex set of behaviors and decisions that ultimately determine the net effect of the unemployment rate on the number of employment discrimination

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8. The links between the business cycle and the volume of litigation are complicated, and the best way of capturing them is not obvious. Rather than dwelling at length on these technical issues here, we relegate them to an appendix, which is available on request from the authors. The gist of the appendix can be summarized as follows: The relationship between the business cycle and the other phenomena of interest, such as the volume of litigation and plaintiff win rates, may be analyzed in various ways. Among the alternatives considered were using first-differences; using detrended variables, including linear and quadratic trends; and using alternative measures of the business cycle, such as the number of unemployed job losers. In sum, our conclusions are not merely artifacts of the econometric methods we have used.

9. The elasticity of 0.7 means that a 1% increase in the unemployment rate generates a 0.7% increase in the number of employment discrimination eases filed in federal court. We rely on equation 6 because it includes only the unemployment rate figures that significantly affect the number of cases filed.

In addition to the unemployment effects, Table 2 and Figure 1 also document the previously mentioned rapid and sustained rise in the volume of employment discrimination suits. We analyze the long-term trends, including the growth in and changing composition of litigation (from hiring to firing suits), in the companion to this Article, Donohue & Siegelman, *supra* note 1.

TABLE 2:
REGRESSIONS EXPLAINING THE NUMBER OF EMPLOYMENT CIVIL RIGHTS SUITS FILED IN FEDERAL COURTS, 1969:III TO 1989:II, CORRECTED FOR AUTOCORRELATION USING MAXIMUM LIKELIHOOD (N = 80 QUARTERLY OBSERVATIONS)

Variable	EQUATION						
	1	2	3	4	5	6	7
Constant	−142.33	−52.61	−549.39	−639.39	−620.35	−692.53	−685.51
	(−0.87)	(−0.87)	(−4.17)	(−4.92)	(−4.54)	(−5.63)	(−5.38)
Time (Quarter	54.46	58.13	36.04	30.88	31.93	28.72	29.13
Since 1969:III)	(5.87)	(5.13)	(5.17)	(4.47)	(4.37)	(4.32)	(4.20)
Time^2	−0.36	−0.40	−0.08	−0.11	−0.12	−0.09	−0.09
	(−3.27)	(−2.98)	(−2.02)	(−1.42)	(−1.40)	(−1.14)	(−1.16)
% Unemployment Rate in Current Quarter		−22.12	−2.50	−27.06	−28.91		
		(−0.95)	(−0.13)	(−1.34)	(−1.41)		
Unemployment Rate in Previous Quarter			111.79	105.71	110.01	102.88	104.90
			(5.60)	(5.72)	(5.36)	(5.58)	(5.15)
Unemployment Rate Lagged 2 Quarters				59.52	61.25	48.33	48.85
				(2.96)	(2.98)	(2.62)	(2.62)
Unemployment Rate Lagged 3 Quarters					−10.20		−4.90
					(−0.49)		(−2.24)
Summary Statistics							
Rho-hat	0.75	0.79	0.60	0.60	0.61	0.60	0.60
Adj. R^2	0.90	0.93	0.95	0.96	0.95	0.95	0.95
Durb-Wats	1.97	1.91	2.00	2.00	2.00	1.98	1.99
SSR (x10^{-5})	15.53	15.51	11.20	10.01	9.98	10.26	10.25

Notes: For all regressions, the dependent variable is the number of original jurisdiction employment civil rights suits filed per calendar quarter (purged of duplicate docket numbers). T-statistics are in parentheses.
Sources: Administrative Office of U.S. Courts Data Tape (number of employment discrimination suits); Department of Commerce, Survey of Current Business (nonseasonally adjusted unemployment rate).

cases. The effects of conflicting influences are netted out in these aggregate statistics; yet, it is precisely these separate influences that we are most interested in identifying. In general, the unemployment rate can influence the amount of employment discrimination litigation by affecting (1) the propensity of workers to sue for a given amount of perceived discrimination; (2) the amount of actual discrimination against workers; and (3) the number of incidents that might be perceived as discriminatory conduct or as constituting an opportunity for generating revenue by claiming discrimination. We next systematically examine these various worker and employer effects in order to clarify the relationship between the health of the economy and the employment discrimination caseload.

A. WORKER EFFECTS

We begin with a simple heuristic model that describes the links between employment discrimination litigation and the business cycle by focusing on the worker's decision to bring a lawsuit once the employer has acted in a manner adverse to the worker. In other words, the model focuses on the factors that determine whether a worker will sue, given the employer's adverse conduct. It does not tell us how much discrimination or how many adverse employer actions have occurred, both of which, we shall see, are potentially significant factors in determining the volume of employment discrimination litigation. Nevertheless, the model is a useful device for illustrating some of the ways a change in the unemployment rate is likely to influence the volume of such litigation. The ensuing discussion expands the analysis to include the impact of the business cycle on both the level of discrimination and the number of incidents that might conceivably generate litigation.[10]

1. *A Heuristic, Comparative Statics Model of the Decision to Sue*

A rational, risk-neutral worker who is considering whether to bring an employment discrimination suit against an employer should be willing to bring any suit for which the expected value is positive.[11] To illuminate the elements of the decision that the worker must make, we introduce the following notation. Let:

p = the plaintiff's expected probability of winning, which we take to be a positive function of the amount of discrimination. Formally, $dp/d\delta > 0$.

δ = the severity of discrimination suffered by the plaintiff.[12] The relationship between δ and the unemployment rate (U) has an uncertain sign, so $d\delta/dU$ could be positive or negative.

C = the plaintiff's legal costs.

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10. *See infra* part III.B.1-2.

11. This simple model omits any consideration of nonpecuniary motives, such as revenge and vindictiveness, and, more significantly, it does not consider strategic behavior such as that characteristic of nuisance suits. For a wide-ranging survey of litigation models that do encompass such behavior, see Robert D. Cooter & Daniel L. Rubinfeld, *Economic Analysis of Legal Disputes and Their Relations*, 27 J. ECON. LITERATURE 1067 (1989).

12. This variable could be thought of as an index number ranging from zero to 100, reflecting the percentage of an employment decision attributable to discriminatory bias. In the case of a purely meritocratic decision $\delta = 0$, and in the case of a purely racially motivated act, $\delta = 100$.

> J = the amount of the judgment awarded (if plaintiff wins),
>   which is wD(U),[13] where
> U = the unemployment rate.
> D = the duration of the plaintiff's unemployment spell following
>   rejection (i.e., the employer's decision not to hire or to termi-
>   nate). Higher unemployment rates are associated with
>   longer durations of unemployment spells, so $dD/dU > 0$.
> w = the plaintiff's wage in the job for which plaintiff was rejected
>   (not hired, terminated, etc.).

Notice that the size of the back-pay award depends on the length of the plaintiff's unemployment spell, D, which is in turn a positive function of U.[14] The amount of discrimination is also a function of U. For reasons discussed below, it is not clear whether the effect of an increase in unemployment is to raise or lower the amount of discrimination, although there seem to be good reasons to believe that $d\delta/dU$ is positive.

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13. Paul Cox has summarized the status of the law on monetary damages in employment discrimination cases during the time covered by our data: "[T]itle VII provides only equitable remedies; damages other than backpay are not recoverable." PAUL COX, EMPLOYMENT DISCRIMINATION 5-17 (1987) (citing DeGrace v. Rumsfeld, 614 F.2d 796 (1st Cir. 1980); Harrington v. Vandalia-Butler Bd. of Educ., 585 F.2d 192 (6th Cir.), *cert. denied*, 441 U.S. 932 (1978); Pearson v. Western Elec. Installation Org., 542 F.2d 1150 (10th Cir. 1976)).

Reinstatement, promotion, and changes in employment practices are also available as remedies, but our data suggest that these awards are substantially less common than back-pay awards. Donohue & Siegelman, *supra* note 1, at 983.

The Age Discrimination in Employment Act offers a limited form of punitive damages, available only on proof of a willful violation of the statute: double recovery of actual damages. Cox, *supra*, at 23-14; *see, e.g.*, Fortino v. Quasar Co., 751 F. Supp. 1306 (N.D. Ill. 1990) (awarding double damages as liquidated damages for willful violation of the ADEA). Punitive and compensatory damages as such, however, appear to be unavailable under the ADEA. Cox, *supra*, at 23-16. Suits under 42 U.S.C. §§ 1981 and 1983 provide for punitive damages in addition to back pay.

The Civil Rights Act of 1991, Pub. L. No. 102-166, 105 Stat. 1071 (codified in scattered sections of 42 U.S.C.), substantially changed the types of damages allowed under Title VII and other antidiscrimination statutes, but these changes are not relevant for the cases in our sample, all of which closed before the Act took effect.

14. For recent evidence on the relationship between unemployment durations and the business cycle, see Mark Dynarski & Steven M. Sheffrin, *The Behavior of Unemployment Durations over the Cycle*, 72 REV. ECON. & STAT. 350, 350-56 (1990), and Michael Baker, *Unemployment Duration: Compositional Effects and Cyclical Variability*, 82 AM. ECON. REV. 313, 321 (1992). Both studies conclude that unemployment durations increase with the unemployment rate. Dynarski and Sheffrin find that the elasticity of duration of unemployment with respect to the unemployment rate is between 1.03 and 1.46. Controlling for worker heterogeneity at a more aggregate level, Baker estimates the elasticity to be about 0.6. It is almost 0.75 for workers who are unemployed because they have lost their job.

Under Title VII's one-way fee-shifting rules,[15] the net expected value of a suit to a plaintiff is

(1) $E(S) = pwD - (1-p)C$.

Equation (1) simply states that the probability of success times the back-pay award, minus the probability of losing times the costs of bringing the suit, is a measure of the expected value of the lawsuit to the plaintiff.[16] We noted earlier that the probability of the plaintiff winning is a function of the amount of discrimination suffered by the plaintiff, and that both the amount of discrimination and the duration of unemployment are likely to be functions of the unemployment rate, U. We can rewrite equation (1) to reflect these functional relationships as follows:

(2) $E(S) = p(\delta(U))wD(U) - (1-p(\delta(U)))C$.

Rearranging, we can solve for the minimum wage, w^*, necessary to make suing worthwhile for the plaintiff:

(3) $w^* = (1-p(\delta(U)))C/p(\delta(U))D(U)$.

By differentiating with respect to U, we can trace out the effects of the unemployment rate on the minimum wage necessary to bring suit:

(4) $\partial w^*/\partial U = C[p'\delta'D + (1-p)pD']/(pD)^2 < 0$ for $\delta' > 0$.[17]

Thus, an increase in unemployment lowers the threshold wage necessary to bring suit. For a given distribution of wages in the economy and a given amount of discrimination, then, a rise in the unemployment rate should increase the volume of litigation.[18]

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15. In Title VII litigation, winning plaintiffs recover their legal fees from defendants, while winning defendants do not collect legal fees from plaintiffs unless "the plaintiff's action was frivolous, unreasonable or without foundation, even though not brought in subjective bad faith." Christiansburg Garment Co. v. EEOC, 434 U.S. 412, 421 (1978).

16. The back-pay award is the weekly wage, w, times the number of weeks of unemployment, D. Note that employment discrimination plaintiffs frequently retain lawyers under contingency fee agreements. In such cases, the plaintiff will not necessarily consider the expected cost of bringing the lawsuit (i.e., (1-p)C). Contingency fee attorneys will screen the cases, however, to make sure that their expected fee (pC) is equal to or greater than the opportunity cost of their time plus any incidental litigation expenses, such as filing fees, depositions, and expert witness fees. To keep this model as simple as possible, we do not consider the impact of discounting the awards and costs to their present values.

17. The assumption that the severity of discrimination, δ, rises or remains constant as the unemployment rate rises is plausible, but not beyond dispute. *See infra* text accompanying note 23.

18. More precisely, let F(w) describe the distribution of wages paid in the economy, which implies that 1-F(w*) is the percentage of workers earning more than the threshold wage, w*. The number of suits filed is thus some positive function of G(w*) = 1-F(w*). As w* falls, G(w*) increases, as does the number of suits.

2. *The Worker Benefits Effect*

Equation (4) tells us that discharged workers should find it more attractive to bring a suit if they have been fired during a recession rather than during a boom. This is so because the damages that can be received in an employment discrimination case are limited to back pay, which depends on the duration of unemployment before a new job is secured. As the unemployment rate increases, so does the length of the average spell of unemployment. This, in turn, increases the expected benefit— back-pay damages—for potential plaintiffs. By lowering the threshold wage level needed to make suits profitable, an economic slump encourages more *potential* plaintiffs to bring suit, and the number of suits filed thus goes up. We refer to this phenomenon as the *worker benefits effect* or the *back-pay effect*. Put differently, even when the employer's treatment of the worker is held constant, the worker benefits effect tells us that there is a greater likelihood of suit—a higher propensity to sue— during an economic slump because expected damages are higher during such periods.[19]

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19. In addition to the prospect of higher damages, another possible reason why victims of perceived employment discrimination would be more likely to sue during slumps than during booms is that suing is time-consuming. Even if the damages to be received were identical, therefore, one might expect an unemployed worker to have more time to pursue litigation than a newly rehired worker would have. This "opportunity cost effect" suggests that the cost of bringing a suit falls when one is unemployed.

Although we do not explicitly model the opportunity cost effect, it can easily be reconciled with the worker benefits effect simply by noting that they both suggest that the net benefits for the plaintiff of bringing a lawsuit are greater during business downturns than in booms. Our data are not sufficiently rich to distinguish empirically between these two effects. Indeed, in Title VII cases, for which monetary damages were previously limited to back pay, these two effects will overlap exactly: A longer duration of unemployment will increase the level of damages and reduce the opportunity cost of pursuing litigation in identical amounts. With sufficient information on 42 U.S.C. § 1981 cases, for which compensatory and punitive damages have long been available, one might find enough examples in which monetary awards could be pursued even in the absence of a spell of unemployment, thereby providing an opportunity to distinguish empirically the worker benefits and opportunity cost effects.

There is, however, a conflicting worker effect that could conceivably cause more suits to be brought during booms. Specifically, there is much evidence suggesting that only a small percentage of the instances of perceived employment discrimination that occur on the job lead to lawsuits, in part because workers generally do not want to sue their current employer. *See, e.g.,* BUMILLER, *supra* note 3; BARBARA A. CURRAN, THE LEGAL NEEDS OF THE PUBLIC (1977); Richard E. Miller & Austin Sarat, *The Emergence and Transformation of Disputes,* 15 LAW & SOC'Y REV. 3-4, 525-65 (1980-81). For a dissenting view that perceived victims of discrimination are actually not less likely to sue than others, see Herbert M. Kritzer et al., *To Confront or Not to Confront: Measuring Claiming Rates in Discrimination Grievances,* 25 LAW & SOC'Y REV. 875 (1991). If the major fear that keeps current employees from suing is the risk of retaliatory discharge, then a highly prosperous economy might embolden victimized workers to bring suit. Furthermore, employers are presumably less likely to fire someone when there is much work to be done and replacement workers are difficult to find. For anecdotal evidence supporting the importance of this effect, see *Hartford Reports Drop*

B.   EMPLOYER BEHAVIOR

1.   *The Effect of a Slump on the Amount of Discrimination*

A second possible influence of the business cycle on the volume of litigation is the link between the amount of discrimination and the unemployment rate. There are two conflicting factors at work here.

On the one hand, employers with discriminatory tastes may find it cheaper to discriminate when the unemployment rate is high because slack labor markets make it easier for them to find white males to substitute for blacks or women. In other words, when there is an excess supply of job applicants, employers can pick and choose among those queuing for a job and can more easily select applicants on the basis of race or gender.[20] The *availability effect*—when white males are more available, discriminatory employers find it easier to indulge their preference for such workers—thus suggests that discrimination may increase during slumps. This, in turn, means that the plaintiff's probability of winning, p, is now a positive function of the unemployment rate because plaintiffs are more likely to win a case given higher "levels" of discrimination ($dp/d\delta > 0$ by assumption). As a result, the threshold wage, w*, will be lower and the volume of litigation should be higher in slumps than in booms. This countercyclical pattern would reinforce the worker benefits effect discussed above.

The second effect, however, suggests that discrimination might move *procyclically*. The *employer damages effect* is simply the reverse of

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in Bias Complaints, N.Y. TIMES, Apr. 7, 1992, at A16 (quoting state official as saying, "It's speculation, but based on the rocky job market it's likely that people are complaining less about conditions if they have a job."). Because this factor would tend to cause the filings of employment discrimination cases to be procyclical—higher in booms, lower in recessions—rather than countercyclical, as Table 2 indicates, we consider it to be less significant than either the worker benefits effect or the opportunity cost effect. Moreover, there are two reasons for expecting this effect to be modest. First, most employment discrimination plaintiffs are not actually working for the defendant at the time suit is filed. Donohue & Siegelman, *supra* note 1, at 1025-27 (figs. 6 & 7). Thus, the scope of operation of this possible conflicting effect is weakened. Second, while workers might feel that a boom affords them some protection, they would probably expect that retaliation would always be possible in any subsequent downturn.

20.   This is precisely analogous to the microeconomic analysis that Becker, Friedman, and Posner use to discuss the effects of unions and minimum wage laws on employment discrimination. Anything that creates an excess supply of labor—including a macroeconomic slump with sticky wages—gives employers the ability to pick from the queue of job applicants those whom they favor on racial or other grounds. BECKER, *supra* note 1, at 62-74; MILTON FRIEDMAN, CAPITALISM AND FREEDOM 108-09 (1962); RICHARD POSNER, ECONOMIC ANALYSIS OF LAW 313, 616-17 (3d ed. 1986).

TABLE 3:
TYPES OF DISCRIMINATION ALLEGED IN FEDERAL EMPLOYMENT DISCRIMINATION CASES, 1972-1987

TYPE OF DISCRIMINATION	NUMBER OF ALLEGATIONS	PERCENTAGE OF ALL CASES
Hiring	238	21.6
Discharge	720	65.5
Pay	244	22.2
Promotion/Demotion	409	37.2
Conditions of Employment	455	41.4
Retaliation	191	17.4
All Others	205	17.7

Note: This table is based on 1100 cases for which the type of discrimination could be identified. Because plaintiffs may allege more than one type of discrimination, the percentages total more than 100%. There were 2462 different allegations of discrimination contained in our sample, for an average of 2.24 allegations per case.

the *worker benefits effect* discussed earlier.[21] Employers find that discrimination against workers who sue and win is more costly during slumps than during booms because the amount of damages paid to prevailing plaintiffs is higher during economic downturns. This increased liability should mean that, other things equal, employers are *less* likely to discriminate during slumps.

It thus appears that in some ways a sluggish economy makes it easier for an employer to discriminate but more costly if the employer gets caught. Depending on which effect dominates, the cost of discrimination will either fall or rise and therefore the amount of discrimination should either increase or decrease. Because these two effects work in opposite directions, it is impossible to say on theoretical grounds alone which will dominate. It seems plausible, however, to conclude that discrimination increases (or at least does not fall) during slumps.[22] That is, our intuition suggests that the availability effect dominates the employer damages effect, although, as we discuss below, we doubt that either effect is very strong.

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21.   *See supra* part III.A.2.

22.   Anthony DePalma, *Bounties and Vans: Jersey Copes with a Labor Shortage,* N.Y. TIMES, Jan. 19, 1989, at B1 (providing anecdotal evidence of how conditions of employment improve in an extremely tight labor market). Glen Cain, however, concludes that the black/white income ratio is not procyclical. Cain, *supra* note 1, at 799. These findings could be consistent if employers adjust relative nonwage compensation, such as workplace quality, rather than adjusting relative wages over the business cycle. *See* Sam Rosenberg, *Economic Contractions and Racial Differentials in Male Job Mobility,* 26 INDUS. REL. 291 (1987) (demonstrating that in a recession promotion rates decline more for black men than for white men).

2. *The Effect of a Slump on the Number of Incidents That Could Generate Litigation*

Finally, we need to consider the simplest explanation for the statistical relationship between the business cycle and the volume of federal employment discrimination case filings: Because more bad things happen to workers during economic downturns, the number of incidents that can lead to an employment discrimination suit might vary over the business cycle. Table 3 presents data from our American Bar Foundation survey indicating that most of the suits filed allege discrimination in discharge (firing or layoff), hiring, or promotion, all of which are presumably sensitive to the level of demand for a firm's product. Indeed, seventy-eight percent of the 1100 employment civil rights suits in which a type of discrimination could be identified claimed at least one of these factors as a basis for the suit.[23]

A similar pattern is observed in the data on charges filed with the EEOC. Looking across fiscal years 1982 through 1989, we find that on average, 61.9% of all charges alleged discrimination in discharge or layoff; an additional 10.3% alleged discriminatory failure to hire.[24]

The number of rejected workers is thus likely to increase during recessions and to fall in tight labor markets. If a constant fraction of all rejected workers actually files suit, then the volume of suits will also move countercyclically. We refer to this potential connection between the business cycle and the volume of litigation as the *incidents effect*.

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23. Note that because of multiple bases of suit, the 78% figure cannot be derived from Table 3.

24. These figures were calculated from the EEOC annual reports for fiscal years 1982 through 1989. Charges typically allege more than one basis of discrimination, so these results cannot be interpreted as the share of all allegations of discrimination.

Although more than 66% of charges claimed discriminatory discharge or layoff during the early 1980s, this share (and the absolute number of such allegations) fell precipitously—to 55%—in 1986; it continued at this lower level through 1989. We do not have a good explanation for this drop-off, but it does not seem to be related to the business cycle, since the drop occurred before the recession of the late 1980s got under way and did not worsen as the recession unfolded.

IV.   DISTINGUISHING BETWEEN WORKER AND EMPLOYER EFFECTS

A.   BACKGROUND

Thus far, we have shown that the observed positive relationship between the unemployment rate and the level of employment discrimination case filings[25] may be caused by (1) the higher propensity to sue induced by the worker benefits effect, (2) the greater amount of discrimination caused by the availability effect, or (3) the higher number of rejections generated during recessions—the incidents effect. We also know that in the aggregate these factors substantially outweigh the employer damages effect (which tends to inhibit employer discrimination during recessions).[26]

It would be helpful to know whether the countercyclical pattern of employment discrimination case filings is the result of worker behavior (the worker benefits effect) or employer decisions (the availability effect and the incidents effect).[27] Are potential plaintiffs actually more inclined to file suit when the unemployment rate rises? Or do the positive and significant coefficients on the unemployment rate in the regressions in Table 2 merely reflect the fact that during recessions, employers may discriminate more and the number of possible incidents (especially firings) that could give rise to a lawsuit is therefore higher? The answer is important because it allows one to attribute the source of the cyclicality in litigation volume to potential plaintiffs, defendants, or perhaps both. If the incidents effect or the availability effect is what drives the cyclicality of litigation, then the regressions in Table 2 tell us relatively little about what makes people sue once they have been fired or otherwise rejected. On the other hand, if the worker benefits effect is shown to be important, we will have demonstrated that potential plaintiffs in employment discrimination cases respond to the level of damages when calculating—explicitly or implicitly—whether to bring an employment discrimination suit. This information may be used to help predict the effect of the increase in damages authorized by the Civil Rights Act of

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25.   Note that a positive relationship between the unemployment rate and the number of case filings implies that the relationship between the number of filings and the business cycle is negative, or countercyclical. In other words, because the unemployment rate is countercyclical, anything that varies positively with the unemployment rate will be countercyclical as well.

26.   Column 2 of Table 11, *infra*, summarizes the predictions of these four effects on the volume of cases filed in district court. *See infra* part VI.

27.   Note that the availability effect operates whenever the unemployment rate is high. The incidents effect is most significant when the unemployment rate is *increasing* sharply.

1991 on the number of lawsuits filed. It also has paradigmatic implications, as discussed earlier.[28] If we believe that the decision to bring a lawsuit is essentially a psychological, cultural, or in some sense irrational one,[29] it should not respond to changes in incentives. Showing that plaintiff behavior does indeed respond to changes in the economic environment—albeit with a greater degree of myopia than some economists might suspect—lends strength to the economic analysis of litigation by suggesting that the decision to sue is not merely a function of irrational or noneconomic factors.

Econometric analysis of litigation behavior is extremely difficult with the present data, which only describe the outcome of cases in terms of the *combined* behavior of two parties (plaintiff and defendant), not the separate actions of each. Either party, or both together, may be responsible for the link between unemployment rates and the volume of litigation. That is, the increase in cases generated as the economy goes into a downturn is the sum of the worker benefits effect (plaintiff behavior) plus the availability and incidents effects (defendant behavior) minus the countervailing influence of the employer damages effect (defendant behavior).

In sections B through E below, we explore four possible approaches to distinguishing between worker and employer behavior. First, we examine the behavior of suits against one particular defendant—the U.S. government—for which we have reason to think employer effects are not particularly strong. If (as turns out to be true) the pattern of employment discrimination cases filed against the U.S. government is still strongly cyclical, then the worker benefits effect is the likely cause. Second, we consider the lag between the time an adverse employer action occurs and the time a case is filed in federal court. Our theory is that the lag should be longer if employer behavior is causing the cyclicality and shorter if the cyclicality is driven by worker decisions to sue that are made considerably *after* adverse employment outcomes have occurred. Third, we examine whether filings of discrimination charges with the EEOC are influenced by the business cycle and find that they are not. Finally, we analyze the kinds of incidents that are most likely to give rise to litigation and show that the distribution of such incidents over time is *not* likely to be a function of the business cycle. In all four cases, the evidence seems to support the conclusion that the employer effects on the cyclicality of filing are weak, while the worker benefits effect operates

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28. *See supra* part III.A.2.
29. *See, e.g.,* BUMILLER, *supra* note 3.

strongly on filings in federal court. The absence of cyclicality in complaints lodged with the EEOC suggests that potential litigants respond to the effects of recessions but do not fully anticipate these effects.

B.   EVIDENCE FROM SUITS AGAINST THE GOVERNMENT

The U.S. government is unlike private defendants in employment discrimination cases[30] because it is not subject to sales slumps that force it to lay off workers, as is the case with many private employers. There is thus probably no incidents effect for suits against the federal government because the government does not fire workers more frequently during recessions. Similarly, the employer damages effect is probably reduced because federal officials are likely to be far less sensitive to the cost of potential Title VII damage awards than private employers are.[31] Moreover, it may be reasonable to assume that the availability effect is less

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30. The data on employment discrimination suits classify each suit on the basis of its jurisdiction, defined loosely as the reason why federal court is the appropriate forum in which the lawsuit should be heard. There are essentially only three jurisdictional bases that are relevant for employment discrimination cases: (1) The U.S. government is the plaintiff bringing suit; (2) the U.S. government is the defendant being sued; and (3) the suit raises a "federal question" (i.e., the suit is brought under a federal law, such as Title VII).

About 4% of all employment civil rights cases on the AO tape involve the U.S. government as a plaintiff; 9% involve the U.S. government as a defendant; the remaining 87% involve other defendants. In AO coding, if a case is brought against the federal government under Title VII, the "U.S. Defendant" jurisdiction trumps the federal question jurisdiction, and the basis of jurisdiction is listed as "U.S. Defendant."

It is interesting that over the past 20 years, roughly 3 million U.S. government employees have generated about 9000 suits (one suit per 6666 workers per year), while 94 million other employees have generated about 87,000 suits (or one suit per 21,610 workers per year). Thus, suits per worker are about 3.25 times higher among U.S. government workers than among other workers. There are at least three possible reasons for this higher rate of employment discrimination litigation against the federal government. First, federal government employees, who are protected by civil service rules, are much more likely to sue their current employer than are private employees (see Table 5, *infra*). Second, any government decision adverse to the employee can potentially lead to a due process complaint, regardless of the race, sex, or age of the aggrieved individual. Moreover, because most employment discrimination cases are brought by current and former employees (as opposed to rejected applicants), the federal government may be sued more than private employers because it has proportionally more minority and female employees. Third, wages in the federal sector are generally higher than in the private sector, and therefore plaintiffs can probably win larger damage awards by suing the federal government. Additionally, one might speculate that if the discipline of market competition inhibits discrimination more effectively than political pressure, then the government may actually discriminate more than private-sector firms. *See* Craig Zwerling & Hilary Silver, *Race and Job Dismissals in a Federal Bureaucracy*, 57 AM. SOC. REV. 651 (1992) (finding that black postal employees are fired at roughly twice the rate of white postal employees, with the vast majority of the discharges occurring during a 90-day probationary period).

31. Both government and private employers would probably like to avoid the negative publicity that attends the loss of an employment discrimination case, but private employers are probably more sensitive than federal employers to the size of the monetary loss.

important for the federal government than for private employers. Because federal wages tend to be high relative to private wages, federal employers generally have the ability to pick and choose regardless of relative eeonomic conditions, thus weakening the ordinary link between the economic cycle and employer discrimination (it is easier for most employers to discriminate during recessions). In summary, all three of the employer influences on the cyclical pattern of litigation are probably absent or small for suits against the federal government, leaving only the worker benefits effect to generate cyclicality in the filing of employment discrimination cases against the United States. Thus, any relationship between the business cycle and the volume of litigation against the federal government presumably resnlts from the behavior of plaintiffs because the cycle is far less relevant to the government's behavior as an employer.[32] Consequently, examining the cyclicality of suits brought against the federal government shonld provide insight into the existence and strength of the worker benefits effect.

Colunin 2 of Table 4 reports estimates of the elasticity of lawsuits with respect to unemployment rates for suits in which the U.S. government is the defendant. The table shows that the number of suits filed *against* the government varies positively with the unemployment rate, as predicted by the worker benefits effect.

Table 4 also presents elasticity ineasures for two other categories of cases: suits brought *by* the federal government (column 1) and suits not involving the United States as either plaintiff or defendant (column 3). The overall pattern that emerges from this table is that suits against the government and all other employers are sensitive to the business cycle, but suits brought *by* the government are not.[33]

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32. This proposition can be tested empirically. We do so in an appendix (available from the authors) and conclude that a very small and statistically insignificant negative relationship exists between the federal government's employment and the unemployment rate.

33. None of the coefficients in column 1 are significantly different from zero, and some are actually negative. We were not surprised that suits initiated by the federal government, most of which are brought by the EEOC, are unrelated to the business cycle. First, there is no worker benefits effect generating a higher propensity to sue during slumps for the EEOC. If the worker benefits effect is the dominant contributor to the cyclicality of lawsuits, there should be little cyclicality when this effect is absent. Second, the other three factors inay still be present in suits brought by the EEOC; that is, the private employers sued by the EEOC may still be responding to the state of the economy when deciding whether to discriminate (the availability effect and the employer damages effect) or generating incidents that could lead to litigation (the incidents effect). However, given the nature of EEOC suits, which tend to be larger lawsuits challenging a pattern and practice of discrimination over a period of time rather than inore isolated events, one would expect that the relationship between the timing of EEOC suits and the business cycle would be very weak.

TABLE 4:
COMPARISON OF ELASTICITIES FOR THREE TYPES OF EMPLOYMENT DISCRIMINATION CASES (1969:III-1989:II, EXCLUDING NONORIGINAL JURISDICTION AND DUPLICATES).

MODEL 1:

Dependent Variable Is Number of Cases per Quarter in Which:

	(1) U.S. GOV'T Is PLAINTIFF	(2) U.S. GOV'T Is DEFENDANT	(3) U.S. GOV'T IS NEITHER PLAINTIFF NOR DEFENDANT	(4) MEAN OF REGRESSOR
Elasticity of No. of Cases Filed, with Respect to:				
1. Unemployment Rate	0.02	0.42	0.56	6.68
Lagged 1 Quarter	(0.04)	(2.14)	(5.59)	
2. Unemployment Rate	0.26	0.14	0.56	6.66
Lagged 2 Quarters	(0.55)	(0.72)	(2.40)	
3. Sum (Lines 1 + 2)	0.28	0.56	0.80	
$\chi^2(2)$	0.40	7.20*	14.92*	
Mean of Dep. Variable	3.72	4.37	6.75	

MODEL 2:

Dependent Variable Is Natural Log of Number of Cases per Quarter in Which:

	(1) U.S. GOV'T Is PLAINTIFF	(2) U.S. GOV'T Is DEFENDANT	(3) U.S. GOV'T IS NEITHER PLAINTIFF NOR DEFENDANT	(4) MEAN OF REGRESSOR
Elasticity of No. of Cases Filed, with Respect to:				
4. Unemployment Rate	0.46	1.07	0.70	1.87
Lagged 1 Quarter	(1.00)	(2.68)	(4.33)	
5. Unemployment Rate	−0.21	0.45	0.42	1.87
Lagged 2 Quarters	−(0.46)	(1.14)	(2.61)	
6. Sum (Lines 4 + 5)	0.25	2.52	1.12	
$\chi^2(2)$	1.00	7.71*	10.26*	

Notes: T-statistics are in parentheses.

Model 1: Regressors were one- and two-period-lagged unemployment time, time^2, and a constant term. Elasticities are calculated as $\epsilon_{y,x} = (\partial Y/\partial X)(X/Y)$, where $(\partial Y/\partial X) = \hat{\beta}$, and thus have the same sign as the estimated coefficient from which they are derived. Underlying regression is corrected for autocorrelated residuals using the Beach-McKinnon ML estimator.

Model 2: Regressors were a constant, time, the log of time, and the log of one- and two-period-lagged unemployment. Regressions corrected for autocorrelated residuals as above.

Likelihood ratio test: Two times the absolute difference between the log-likelihood for the current model and one with no unemployment variables is distributed $\chi^2_{(2)}$.

*= significantly different from zero at the five percent level.

Source: Administrative Office of U.S. Courts Data Tape.

Note that for column 2 cases we expect only the worker benefits effect to operate, but that for column 3 cases we expect all four effects to operate: the worker benefits effect, the employer damages effect, the availability effect, and the incidents effect. This suggests that subtracting the elasticity measure for column 2 cases from that for column 3 might indicate the sign and size of the combined effect of the three employer effects, because the worker benefits effect—which is constant in both classes of cases—would be subtracted out.

Unfortunately, this approach fails for two reasons. First, although the patterns of cyclicality are roughly similar in suits against the government (column 2) and in private suits against private employers (column 3),[34] it is difficult to conclude that the cyclicality of filings is greater for either of these two classes of cases. For example, one might get a rough sense of the magnitude of cyclicality by adding the elasticities for both quarters.[35] However, this measure suggests that private employment discrimination cases are more cyclical than cases against the federal government using the specification of model 1 and less cyclical using the specification of model 2.[36]

Second, the hope of precisely measuring the three employer effects depends on the assumption that the worker benefits effect operates identically in suits against the United States and in suits against private employers. There are reasons, however, to suspect that the worker benefits effect is not identical in the two categories of cases, because the composition of suits against the U.S. government is quite different from those against private employers. Many of the suits in which the U.S. government is the defendant are actually due process cases[37] rather than employment discrimination cases per se. Civil service regulations give government employees much stronger protection against discharge, discipline, and retaliation than private-sector workers have. As the data in Table 5 make clear, a much higher percentage of suits by government employees involve workers who are *working for their employer* at the time of suit. This means that such workers are unlikely to have experienced any unemployment spell. For such suits, the higher potential

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34. In both models for column 2 and 3, the χ^2 tests clearly reject the hypothesis that the unemployment coefficients are jointly zero.

35. *See* line 3 of model 1 and line 6 of model 2.

36. We can, however, reject the hypothesis that the unemployment coefficients in model 2 are identical for the U.S. government and other employer-defendants (columns 2 and 3).

37. That is, plaintiffs allege that they were injured as a result of their employers' failure to follow civil service procedures or that the procedures followed were inadequate to protect their due process rights under the Fifth Amendment.

TABLE 5:

NUMBER OF SUITS BY DEFENDANT TYPE AND WHETHER OR NOT PLAINTIFF IS SUING CURRENT EMPLOYER

	Number of Suits in Which Defendant (Employer) Is:		
	U.S. GOV'T	OTHER	TOTAL
Plaintiff is suing:			
Current Employer	90	104	194
(column percent)	(35.4)	(10.5)	(15.5)
Former Employer or Desired Employer	153	714	863
Missing	11	175	186
Total	254	993	1247

Source: ABF survey of employment civil rights litigation.

back-pay award that is the basis of the worker benefits effect is missing. Consequently, we would expect the worker benefits effect to be somewhat less potent for suits against the government (column 2) than in purely private employment discrimination litigation (column 3).

In sum, the elasticities presented in column 2 of Table 4 are probably best viewed as lower-bound estimates of the worker benefits effect that operates in employment discrimination cases against private employers. The size and significance of these elasticities suggest that this effect plays an important role in linking the business cycle and the volume of employment discrimination litigation. In other words, potential plaintiffs appear to alter their litigation behavior over the business cycle. More tentatively, a comparison of the elasticities in columns 2 and 3 might suggest that the combined effect of the three employer factors is far smaller than the worker benefits effect.[38]

C. EVIDENCE FROM LAGS BETWEEN ALLEGED EMPLOYER VIOLATIONS AND FILING SUIT IN FEDERAL COURT

We have provided evidence that workers are sensitive to the state of the business cycle when determining whether to bring federal employment discrimination lawsuits.[39] We have also speculated that the three employer factors are much less important in explaining the cyclical pattern of case filings.[40]

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38. Note that because the availability and incidents effects work in opposition to the employer damages effect, their combined influence on the cyclicality of employment discrimination case filings could be small even if the individual effects were large.

39. *See supra* parts IV.A.-B.

40. *See supra* part IV.B.

In order to shed light on the potential collective significance of these employer factors, we now examine evidence concerning the timing of the lawsuits relative to the occurrence of the employer actions that form the basis of the suits.

Workers who believe they have experienced discrimination on the job do not—indeed, cannot—move instantaneously from the perceived act of discrimination to the filing of a lawsuit in federal court. There are both "behavioral" lags and legally mandated procedural hurdles that introduce a delay between the occurrence of an underlying incident—the alleged act of discrimination—and the filing of a lawsuit. We already know that employment discrimination case filings swell one to two quarters after a rise in unemployment.[41] We can now examine whether this observed pattern is consistent with the lags in filings predicted by the different worker and employer effects.

The key insight here is that the worker and the employer effects must occur in a fixed order. The influence of the unemployment rate on *employer* behavior (through the employer damages effect, the availability effect, and the incidents effect) is always chronologically prior to its effect on worker behavior (through longer durations of unemployment and larger potential back-pay awards). What we wish to determine is whether a downturn in the economy stimulates an increase in actual or perceived discriminatory incidents or merely an increase in the percentage of putative victims who elect to sue. If the number of incidents rises, then at least three quarters must elapse between the downturn in the economy and the filing in federal court in order for the plaintiffs to meet the procedural requirements for litigation. However, we have discovered that the upturn in the number of cases occurs within one or two quarters, suggesting that the cyclical pattern is not caused by the incidents effect (or other employer behavior). Once again, the evidence suggests that the worker benefits effect is the cause of the countercyclical pattern of district court case filings alleging discrimination in employment.
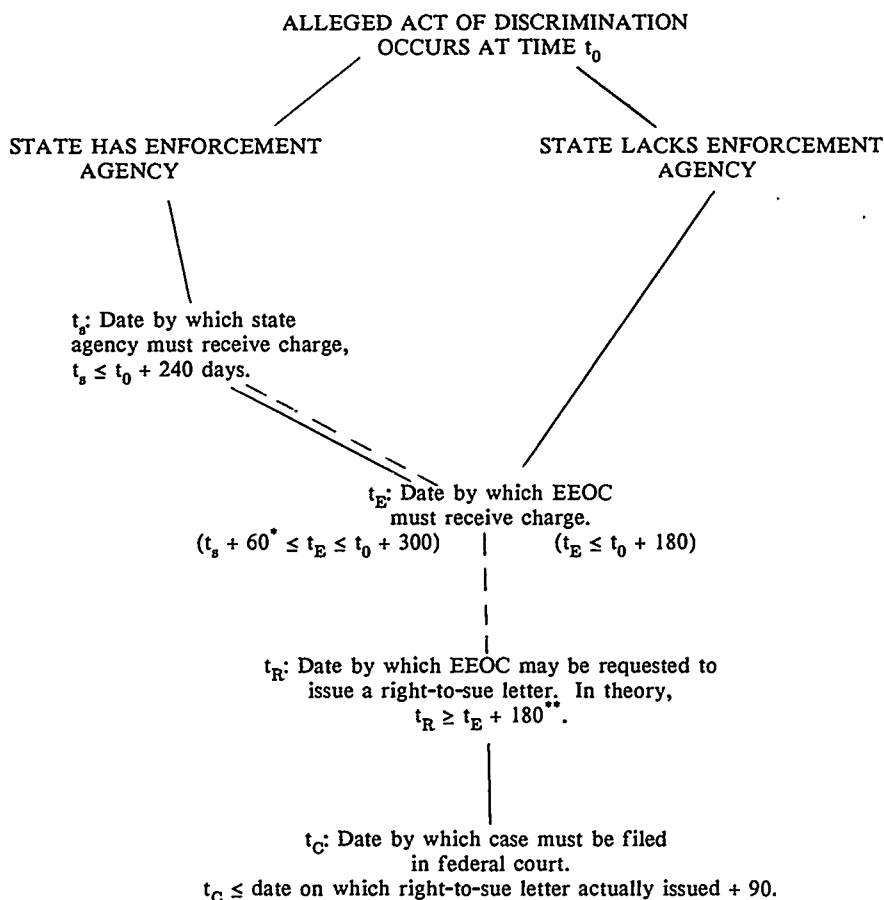
1. *Legally Induced and Behavioral Lags*

Figure 2 provides an overview of the legal and procedural sources of time lags. In essence, these arise from the requirement that Title VII, Equal Pay Act, and ADEA plaintiffs exhaust their administrative remedies before they are allowed access to federal court. For several reasons,

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41. *See supra* text accompanying notes 8-9.

however, it is difficult to be precise about the minimum or maximum length of these lags.

FIGURE 2:
AN OUTLINE OF THE PROCEDURAL REQUIREMENTS IN TITLE VII, EPA, AND ADEA CASES

ALLEGED ACT OF DISCRIMINATION
OCCURS AT TIME t_0

STATE HAS ENFORCEMENT
AGENCY

STATE LACKS ENFORCEMENT
AGENCY

t_s: Date by which state
agency must receive charge,
$t_s \leq t_0 + 240$ days.

t_E: Date by which EEOC
must receive charge.

$(t_s + 60^* \leq t_E \leq t_0 + 300)$ | $(t_E \leq t_0 + 180)$

t_R: Date by which EEOC may be requested to
issue a right-to-sue letter. In theory,
$t_R \geq t_E + 180^{**}$.

t_C: Date by which case must be filed
in federal court.
$t_C \leq$ date on which right-to-sue letter actually issued + 90.

Notes:
———— = Maximum time allowed before moving to next stage.
- - - - - = Minimum waiting time required before moving to next stage.
 * In addition, a charging party has 30 days from the *conclusion* of state proceedings to file a charge with the EEOC. In some jurisdictions, a party may file initially with the EEOC, which forwards the case to the state agency and then automatically takes it up after 60 days. Filing with the EEOC tolls the statute of limitations for a Title VII suit (although not for an ADEA suit).
** Actual practice varies by jurisdiction. In some regions, right-to-sue letters may be issued immediately if the charging party so requests.

First, as Figure 2 illustrates, the procedural requirements differ depending on whether the alleged act occurred in a state or locality that has an antidiscrimination agency.[42] Second, although there are formal rules governing the process of filing an employment discrimination suit, these rules apparently are often ignored or modified in practice.[43] Moreover, not all of the rules require the plaintiff to proceed within a certain amount of time. Once a charge has been filed with the EEOC, the Commission is never obligated to issue a right-to-sue letter if the plaintiff does not request one. And as long as the charge is still pending, "there is no overall time limit . . . within which to file suit following the filing of an EEOC charge" in a Title VII case.[44] Third, not all employment civil rights cases require the plaintiff to proceed through the state antidiscrimination agency and the EEOC. Cases brought under the Reconstruction Era Civil Rights Act[45] or under provisions of the U.S. Constitution can be filed directly in federal court, and thus have no mandatory period at all. The proportion of cases without any prefiling procedural requirements is relatively small—perhaps ten to fifteen percent.[46]

The end result of this complicated mix of procedures, exceptions, and qualifications is that one cannot derive a precise legally induced lag period by reference to the statute alone. At least in the period before

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42. Section 706 of Title VII of the 1964 Civil Rights Act (current version at 42 U.S.C. § 2000e-5 (1988)) requires potential plaintiffs to file charges with designated state or local fair employment agencies, where they exist, as a precursor to filing with the EEOC. By the early 1980s, most states had created analogous agencies, although there were still a few holdouts among southern states. As early as 1972, the EEOC "adopted a procedure under which it . . . automatically forward[ed] a charge initially filed with it to the appropriate state agency and . . . then treat[ed] the charge as filed with it after the expiration of sixty days." COX, *supra* note 13, at 21-29 (fig. 2); *see* Peter Siegelman, An Economic Analysis of Employment Discrimination Litigation (1991) (unpublished Ph.D. dissertation, Yale University). Chapter 4 of Siegelman's dissertation shows that lags are longer and the unemployment coefficients are smaller for federal lawsuits in states that have fair employment practice commissions. *Id.*

43. For instance, potential plaintiffs who wish to get into federal court under Title VII must first submit a charge of discrimination to the EEOC. According to both the terms of the statute and the EEOC's own regulations, the Commission may not issue charging parties the right-to-sue letter until 180 days after the filing of a charge. During this 180-day period, the Commission is supposed to investigate the charge and, when warranted, institute conciliation procedures. But because of the Commission's substantial backlog of investigations, some, but not all, district offices long ago began issuing right-to-sue letters as soon as charges were filed. BARBARA SCHLEI & PAUL GROSSMAN, EMPLOYMENT DISCRIMINATION LAW 916 (1976).

44. *Id.* at 915.

45. 42 U.S.C. §§ 1981, 1983 (1988).

46. Table 1 reveals that as many as 85% of federal employment discrimination cases involve either Title VII or age discrimination claims and are therefore subject to the administrative filing requirements.

some EEOC regional offices started to issue right-to-sue letters almost immediately after charges had been filed with the Commission, a plausible minimum lag pattern for a Title VII case that was pursued expeditiously in a jurisdiction with a state enforcement agency might have looked like this: thirty days to retain a lawyer and file a charge of discrimination; sixty days of waiting in the state agency before the EEOC would process the complaint; 180 days of waiting for a right-to-sue letter from the EEOC; and thirty days to draft and file a federal court complaint. The total: 300 days lag between the violation and filing in federal court. The end result of this set of hurdles is that 300 days—three and one-third quarters—would have elapsed from the time of the alleged discriminatory act until the case arrived in federal court.

2. *Survey Results*

The American Bar Foundation's employment discrimination study has examined approximately 1250 employment civil rights cases in considerable detail. By looking at the case files themselves, we were able to determine in 1049 cases the date on which the violation (i.e., the act of discrimination) allegedly occurred and to calculate the lag between the occurrence of the event and the date the case was filed in federal court.[47]

Figure 3 summarizes the distribution of these lag lengths. The median lag was five quarters (fifteen months), the modal lag was 3.5 quarters, and only 26.5% of the cases had lags of less than three quarters. Accordingly, our speculation about minimum filing lags computed above[48] seems reasonable. Because the distribution of lags is quite skewed, the mean lag between the occurrence of an alleged violation and the filing of a suit in federal court of 8.34 quarters (twenty-five months) was substantially higher than the median lag. Although the maximum lag was sixty-seven quarters, only ten percent of the cases had lags of more than sixteen quarters.

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47. Calculating the lag is not completely straightforward for violations occurring over a period of time or when there are multiple violations. Fortunately, most of the complaints concerned either termination alone or termination plus some other discriminatory action, such as unequal pay. In cases of violations over a period of time, we designated the incident giving rise to the complaint as having occurred on the date of job termination if the plaintiff was no longer working for the employer-defendant. If the plaintiff was still employed by the employer-defendant, however, we designated the violation as having occurred at the start of the continuing violation period, rather than at the end. The six complaints about prospective violations were calculated as having a lag of zero.

48. *See supra* part IV.C.1.

FIGURE 3

DISTRIBUTION OF LAGS IN THE AMERICAN BAR FOUNDATION'S SAMPLE (1049 EMPLOYMENT
CIVIL RIGHTS CASES FROM SEVEN CITIES)
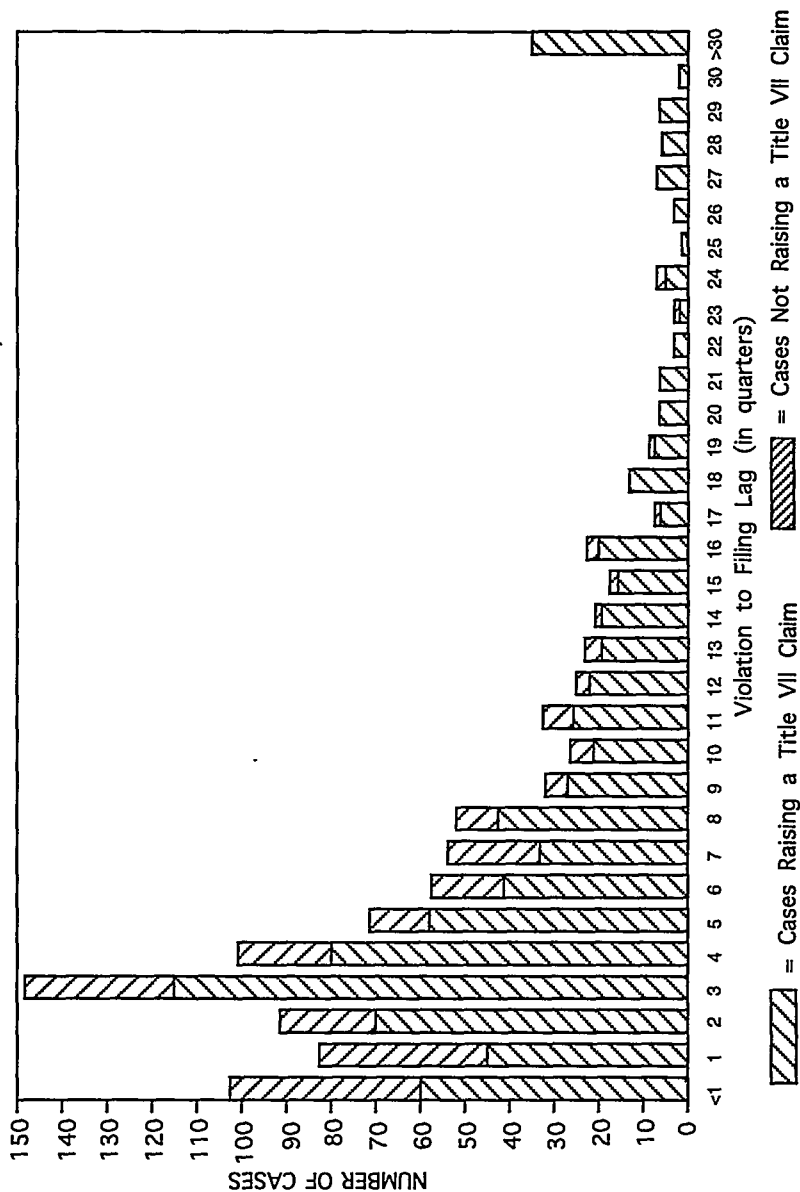
Source: ABF Survey

TABLE 6:
SUMMARY STATISTICS ON DISTRIBUTION OF LAG BETWEEN OCCURRENCE OF VIOLATION AND FILING OF LAWSUIT IN FEDERAL EMPLOYMENT CIVIL RIGHTS CASES IN THE ABF SAMPLE (IN QUARTERS)

	(1) ALL CASES	(2) CASES RAISING A TITLE VII CLAIM	(3) ALL OTHER CASES
1. Median Lag	5.04	5.52	4.04
2. Average Lag	8.34	9.35	5.05
3. Standard Deviation	10.46	11.45	4.61
4. Modal Lag	3.5	3.5	0.5
5. % of Cases with Lag Less Than 3 Quarters	26.5	22.7	40.0
Total Number of Cases	1049	812	237

Source: ABF seven-city sample of employment discrimination cases.

One might also want to consider the lag separately for different kinds of cases: Table 6 thus presents some summary data, disaggregated by type of case. Cases that do not raise a Title VII claim take less time to get to court than those that do, as a comparison of columns 2 and 3 suggests. Because Title VII cases make up seventy-five percent of the sample, however, the distribution of lags in Title VII cases is quite similar to that shown in Figure 3.

Figure 3 reveals that in both the Title VII cases and the entire sample more than seventy percent of the cases had lags of at least three quarters. Yet in regressions of the volume of cases on the unemployment rate, these lag values are never either large (relative to the coefficients on other lags of unemployment) or statistically significant, as demonstrated by Table 7.[49] In other words, our earlier speculation that it would take at least three quarters for a Title VII case to be filed in federal court[50] is confirmed by our actual survey data: The vast majority of cases are filed at least three quarters after the alleged discriminatory incident occurred. However, the upturn in filings resulting from increased unemployment during recessionary periods occurred only one or two quarters after the economy worsened.

This result constitutes additional evidence of the relative unimportance of the employer effects and buttresses the argument that the cyclical pattern of case filings is caused by plaintiff rather than employer

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49. *See also supra* Table 2.
50. *See supra* part IV.C.1.

behavior. If the unemployment rate were influencing the volume of litigation through its effect on the number of rejected workers, we would expect to see the sample distribution of lags between violation and filing date match up with the distribution of lags between an economic downturn and the jump in filings estimated from the regressions in Table 7. Instead, the lags from event to filing, presented in Figure 3, are considerably longer than the lags estimated by regressions 1 through 6 in Table 7, which suggests that the unemployment rate has its dominant effect on the volume of suits via plaintiff behavior *after the incident giving rise to the suit has already occurred.* This is clearly consistent with the importance of the worker benefits effect, because a longer duration of unemployment leads directly to a higher potential back-pay award.

The preceding discussion on the relative importance of the incidents effect and the worker benefits effect based on a comparison of the lag structure in the filing of actual cases with that implied by the regression coefficients on lagged values of the unemployment rate is marred by a certain imprecision. The incidents effect predicts that employment discrimination case filings will rise when more workers start losing jobs through discharge or layoff, which is probably best proxied by the *change* in the unemployment rate. The worker benefits effect predicts an increase in case filings when it is difficult for workers to find a job, which is probably best proxied by the *level* of the unemployment rate.[51] In fact, both of these proxies are imperfect because of the complex nature of the concept of the unemployment rate. At any point in time, the unemployment rate depends on the net effects of (1) the rate at which workers lose their jobs through firing and layoffs, (2) the rate at which unemployed workers are hired, and (3) the rate of movement from "out of the labor force" (not working and not looking for work) into unemployment. All three flows are themselves dependent on the level of the unemployment rate. Although the first of the three is probably the best measure of the volume of incidents that could give rise to employment discrimination litigation, these data are unavailable.

It is possible to ask econometrically whether the volume of litigation responds to the *change* in the unemployment rate or to its level. Although this is by no means a perfect test of the incidents effect versus the worker benefits effect, a finding in favor of changes in the unemployment rates would argue against the worker benefits effect. In fact, however, our tests reveal that it is the level of the unemployment rate, rather

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51. Another business cycle measure might be the capacity utilization rate.

TABLE 7:
REGRESSIONS EXPLAINING THE NUMBER OF EMPLOYMENT CIVIL RIGHTS CASES FILED IN FEDERAL COURTS, 1969:IV TO 1989:II

	EQUATION					
Variable	1	2	3	4	5	6
Constant	−685.65	−681.24	−243.85	20.13	23.70	50.60
	(−5.89)	(−5.06)	(−1.34)	(0.74)	(0.85)	(1.67)
Time	28.61	28.87	49.84			
(1-79)	(4.54)	(4.32)	(4.83)			
Time^2	−0.13	−0.13	−0.35	−0.08	−0.12	−0.41
	(−1.80)	(−1.75)	(−3.02)	(−0.28)	(−0.40)	(−1.26)
Unemployment Rate	90.26	89.85		90.13	85.66	
Lagged 1 Quarter	(4.99)	(4.86)		(4.78)	(4.30)	
Unemployment Rate	38.60	39.62		35.38	37.40	
Lagged 2 Quarters	(2.32)	(2.14)		(1.89)	(1.96)	
Unemployment Rate	7.85	8.24	30.06	1.98	0.22	17.40
Lagged 3 Quarters	(0.43)	(0.44)	(1.48)	(0.10)	(0.01)	(0.36)
Unemployment Rate		−2.44	−15.53		−14.46	−35.95
Lagged 4 Quarters		(−0.13)	(−0.76)		(−0.72)	(−1.73)
Summary Statistics						
Rho-hat	0.60	0.60	0.76			
Adjusted R^2	0.95	0.95	0.93	0.22	0.21	0.02
Durbin-Watson	2.10	2.10	2.07	2.48	2.48	2.25
SSR (x10^{-5})	7.98	7.98	11.30	9.81	9.74	12.47

Notes: For regressions 1-3, the dependent variable is the number of original jurisdiction non-U.S. government plaintiff, non-U.S. government defendant employment civil rights suits filed per calendar quarter. These equations contain maximum likelihood corrections for AR1 autocorrelation in the residuals. Regressions 4-6 are the first-differenced versions of 1-3, estimated using OLS. All six equations were estimated over 79 quarters. T-statistics are in parentheses.
Sources: Administrative Office of U.S. Courts Data Tape (number of employment discrimination suits); Department of Commerce, Survey of Current Business (nonseasonally adjusted unemployment rate).

than the change in the rate, that influences the volume of litigation, supporting the importance of the worker benefits effect—in which a longer duration of unemployment leads directly to a higher potential back-pay award.[52]

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52. Here we present an intuitive justification for a test of whether it is changes in the unemployment rate or the rate itself that influences the number of suits filed. Let Y_t be the volume of litigation in quarter t, α be a constant, U_1 be the unemployment rate in quarter t-1, and U_2 be the unemployment rate in quarter t-2. If we assume that what matters is the *level* of the unemployment rate in periods t-1 and t-2 rather than the change in the unemployment rate between the two periods, the appropriate equation to estimate is
$Y_t = \alpha + \beta_1 U_1 + \beta_2 U_2.$

D. ARE EEOC FILINGS CYCLICAL?

We have just established that even though it takes at least three quarters to get to the federal courthouse from the time of an alleged discriminatory practice, there is a sharp upturn in antidiscrimination complaints filed in federal court one or two periods after the economy turns downward. In other words, the incidents that lead to the bulge in complaints tend to occur *before* the economy goes into recession. In a typical year, more than 100,000 complaints of employment discrimination are filed with the EEOC. These represent the class of cases from which the roughly 8000 annual federal district court filings are drawn. Our findings on the lags suggest that aggrieved workers do not decide to initiate the complaint process with the EEOC when the economy turns downward. Rather, of the large class of individuals who have already initiated administrative proceedings in the EEOC, a significantly larger percentage of those who are considering pressing the case on to federal court will actually do so if the economy turns downward. This may imply that aggrieved workers commouly complain to the EEOC but that as they return to work they let their case lapse if the EEOC response is not satisfactory. Those who are still out of work when the economy goes into a downturn are more likely to pursue their claim to federal court.

We offer the following hypothesis: Alleged acts of employment discrimination and EEOC complaints based on them occur at a fairly constant rate throughout the business cycle. Months after these events have occurred, aggrieved workers are more likely to advance their claim to federal court if the economy has worsened (presumably because they have had difficulty finding alternative employment, which will swell their back-pay damages in a successful suit). ·

If instead we believe that the *change* in the unemployment rate is what influences the volume of litigation, we would specify our model as

$$Y_t = \gamma + \delta(U_1 - U_2).$$

The second equation can also be written as

$$Y_t = \gamma + \delta U_1 - \delta U_2.$$

This is just a special case of the first equation, in which the coefficients β_1 and β_2 have identical magnitudes and opposite signs, which provides the basis for an empirical test. We first run the unconstrained version of the equation (the first model). We then impose the restriction that $\beta_1 + \beta_2 = 0$ and reestimate the equation. If imposing the restriction results in a significantly worse-fitting model (as measured by the increase in the sum of squared residuals between the unconstrained and the constrained versions), then we reject the restriction and with it the idea that *changes* in the unemployment rate influence the volume of litigation.

This is exactly what happens in practice: The appropriate F-test (with $(1,73)$ degrees of freedom) has a value of 100.18, which implies that the constraint significantly impairs the fit of the model, and therefore that it is the level of unemployment, rather than its change, that determines the volume of litigation.

One testable implication of this hypothesis is that filings with the EEOC should not be characterized by the same cyclical pattern that we have observed for filings in federal district court.

We confirmed this proposition by running regressions similar to those employed in exploring the cyclicality of filings in federal court, although, owing to the limitations of the EEOC data, we were obliged to use annual rather than quarterly filing data. Our results are reported in the first three columns of Table 8, which reveal that no statistically significant relationship exists between the unemployment rate and annual EEOC filings.[53] In order to be certain that the lack of cyclicality in EEOC filings is not simply the product of our use of annual rather than quarterly filing data, we converted our data on federal court filings into the same annual format. Columns 4 through 6 of Table 8 show that the same cyclical pattern in district court case filings that we previously identified with quarterly data emerges with the annual data. Clearly, if any cyclical pattern in the filing of EEOC charges exists, it is less strong than the cyclical pattern in the filing of employment discrimination cases in the federal courts.[54]

The model of the decision to sue that we set forth earlier[55] required litigants to make some judgment about the expected costs and benefits of filing suit. On average, a prospective Title VII litigant who is discharged or not hired during a recession is likely to be out of work longer and thus entitled to a greater back-pay award (should the suit be successful) than a prospective litigant who is discharged or not hired during a boom. Given this, it may be somewhat puzzling that the same pattern of cyclicality that we attribute to the worker benefits effect does not emerge at the EEOC filing stage. There are two possible explanations for this finding.

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53. Originally, the EEOC reported its annual case filings under a fiscal year beginning on July 1. In 1976 the agency switched to a fiscal year beginning October 1. As a result the 1976 EEOC filing figure covers 15 months rather than 12. We adjusted for this by splitting this 15-month period into a 12-month period (July 1, 1975, through June 30, 1976), to which we assigned 80% of the EEOC charges, and a three-month period (July 1, 1976, through September 30, 1976), to which we assigned the remaining 20%. We then included a dummy variable in our regression to identify this shortened period from July through September 1976.

54. While the effect of the detrended unemployment rate on EEOC filings is not statistically significant in Table 8, the positive coefficients on the unemployment rate variables provide some evidence of cyclicality. Indeed, it is conceivable that these coefficients could become statistically significant with a greater number of observations than we had for this annual time series. Nonetheless, even if the coefficients in columns 1 through 3 rose to significance, they would still show a weaker cyclical pattern than that found for case filings in columns 4 through 6. Specifically, computing the elasticity of filings with respect to the previous year's unemployment rate (from columns 3 and 6) led to a figure of 0.352 for EEOC filings and 0.607 for court filings.

55. *See supra* part III.A.1.

TABLE 8:
REGRESSIONS EXPLAINING THE NUMBER OF EMPLOYMENT DISCRIMINATION CHARGES AND CASES, 1970-1987

	EQUATION					
	EEOC CHARGES			DISTRICT COURT FILINGS		
Variable	1	2	3	4	5	6
Constant	15501.9	15480.1	15492.6	−5.5	−23.4	−14.3
	(1.91)	(1.91)	(1.98)	(−0.01)	(−0.04)	(−0.03)
Time	10495.0	10486.6	10499.6	855.1	850.7	858.0
(1-80)	(4.81)	(4.81)	(4.99)	(5.91)	(6.09)	(6.19)
Time^2	−274.0	−273.2	−274.3	−17.9	−17.4	−18.0
	(−2.22)	(−2.22)	(−2.31)	(−2.19)	(−2.22)	(−2.31)
Unemployment Rate	74.41			68.7		
	(.03)			(0.42)		
Unemployment Rate	3876.3	3812.1	3895.9	453.2	409.7	470.9
Lagged 1 Year	(1.38)	(1.37)	(1.50)	(2.75)	(2.77)	(3.02)
Unemployment Rate		326.3			251.4	
Lagged 2 Years		(0.12)			(1.74)	
Summary Statistics						
Rho-hat	0.27	0.26	0.28	0.39	0.45	0.37
Adjusted R^2	0.91	0.91	0.92	0.96	0.96	0.96
Durbin-Watson	1.87	1.88	1.87	1.76	1.60	1.79

Notes: For regressions 1-3, the dependent variable is the annual number of charges filed with the EEOC. For regressions 4-6, the dependent variable is the annual number of original jurisdiction, nonduplicate employment civil rights suits filed in U.S. district courts. Although we do not report the coefficients, we used a dummy variable to identify the quarter from July-September 1976. This was necessary for the first three equations in order to adjust for the EEOC's changed fiscal year, but we employed the parallel approach for the last three equations to maintain consistency between the EEOC and court filing regressions. These equations were estimated with maximum likelihood corrections for AR1 autocorrelation in the residuals. The unemployment rate figures are detrended. T-statistics are in parentheses.
Sources: EEOC Annual Reports; Administrative Office of U.S. Courts Data Tape (number of employment discrimination suits); Department of Commerce, Survey of Current Business (non-seasonally adjusted unemployment rate).

First, filing with the EEOC is both a low-cost event—all it requires is filling out a one-page form—and something that must be done quickly in order to preserve the right to bring a lawsuit in the future. Given that the cost of filing with the EEOC is essentially zero and the time frame for filing is very short, there is little chance for the operation of the worker benefits effect because everyone who might want to sue later files a discrimination charge with the EEOC. Therefore, the short filing deadline for and the low cost of EEOC filings probably dampen the operation of the worker benefits effect on the filing of EEOC charges.

The second reason for the absence of a significant worker benefits effect at the EEOC filing stage is that workers have less information

about how long they will be out of work—and thus about their expected damages—at the time they must decide to file with the EEOC than when they have to decide whether to file a lawsuit in federal court. Of course, if potential litigants were farsighted, they would presumably realize that a termination that occurs in a recession will be more costly than one that occurs in a boom. The lack of cyclicality in EEOC filings coupled with the strong cyclical pattern in federal court filings suggests, however, that although litigants will react to the changed incentives of the higher back-pay awards when they know they have been out of work for some time as their case grinds through the EEOC, they are not good at anticipating that in a recessionary economy they will likely be unemployed longer than they would in a boom time. In other words, the absence of a strong worker benefits effect operating on the filing of EEOC charges suggests that prospective litigants are myopic in their decision making (or at least ignorant of the likely connection between the current health of the economy and the duration of their current spell of unemployment).

E.   EVIDENCE FROM THE KINDS OF INCIDENTS THAT LEAD TO LITIGATION

The lack of cyclicality in the filing of employment discrimination charges with the EEOC also provides strong evidence that the cyclical pattern of district court filings is *not* caused by the incidents effect. One conclusion to be drawn from this finding is that workers do not complain more about discrimination simply when times are bad. (If they did, the EEOC filing pattern would be countercyclical, but it is not.)[56] It may seem puzzling that the incidents effect does not appear to be an important factor contributing to the cyclical pattern of federal court filings. The answer to this puzzle may be that while bad employment outcomes are more common during hard economic times, not all such outcomes are equally likely to generate employment discrimination litigation. Being the victim of a plant closing, for instance, may be more common during a business downturn, but it is not clear that being fired for alleged misconduct or poor performance is more likely to occur in downturns, and our impression is that the latter type of termination is more likely to generate a complaint of discrimination than the former.

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56. The lack of statistically significant cyclicality in EEOC filings comports with the similar lack of cyclicality in worker and union filings of unfair labor practice charges with the National Labor Relations Board. ROBERT FLANAGAN, LABOR RELATIONS AND THE LITIGATION EXPLOSION 96-97 (1987).

Any failure to hire or promote, as well as any firing or layoff, provides plaintiffs with an opportunity to file a lawsuit. But in considering whether such incidents (let us call them "rejections") are likely to produce litigation, it is worth distinguishing between "microeconomic rejections"—those in which an *individual worker's* productivity is at issue—and "macroeconomic rejections"—those caused by macroeconomic factors, such as economic downturns.[57] Most rejections seem to be caused by macroeconomic factors rather than by an employer's adverse assessment of an individual worker's performance. Naturally, the number of such rejections rises when the economy goes into a slump—fewer applicants are hired at such times, existing job holders are laid off or discharged, and promotion rates slow down. Most of the incidents *that lead to employment discrimination litigation*, in contrast, seem to be individual specific and therefore much less subject to the broad cyclical swings associated with macroeconomic terminations.[58] This in turn may explain why the incidents effect does not appear to be the factor linking the business cycle with the volume of litigation.[59]

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57. In a macroeconomic termination or nonhiring, insufficient demand for a firm's output, combined with wage/price stickiness, causes the firm to reduce production and lay off or decline to hire workers. Janet Madden makes a similar distinction in slightly different terms: "Unlike workers who are fired or involuntarily laid-off because their personal productivity is lower than that of other available workers, the layoff of a displaced worker is exogenous to the worker, that is, is not the result of his or her individual job performance." Janet F. Madden, *Gender Differences in the Cost of Displacement: An Empirical Test of Discrimination in the Labor Market*, 77 AM. ECON. REV. 246, 246-47 (1987). Put another way, in a microeconomic incident neither the firm's labor demand nor its output decrease because the employer presumably replaces the rejected employee. In a macroeconomic incident, output and employment do, and are intended to, decline after the firing.

58. Note that the employer damages effect and the availability effect are conflicting factors that might influence microeconomic rejections. In other words, an employer who is thinking about firing a worker from a protected class might refrain in a slump out of fear of the potentially larger damages. On the other hand, the employer can more easily replace the minority or female worker with a white male. For the reasons just discussed, we suspect that these effects are relatively modest.

59. We believe that individuals are most likely to sue if they have been discharged for misconduct or poor performance rather than laid off because a macroeconomic downturn has reduced the demand for the firm's product. However, it is possible that firms will be more likely to discharge personnel during downturns, which would thereby lend some cyclicality to microeconomic rejections. Specifically, individual-specific firings might have some macroeconomic causal component if employers' costs of discharge are procyclical. That is, in a tight labor market, an employee caught stealing might nevertheless be retained, while the same offense would be punished by dismissal in a slack labor market, in which a replacement worker could be easily found or a replacement might be unnecessary altogether. We doubt, however, that this factor will generate a significant pattern of countercyclical discharges for misconduct or poor performance. First, personnel experts generally argue against such discretionary practices. That is, they suggest that prespecified rules about what constitutes an offense warranting discharge are appropriate and, indeed, are widely used. *See, e.g.*, RICHARD PERES, DEALING WITH EMPLOYMENT DISCRIMINATION 133-34 (1978); JAMES R. REDEKER, EMPLOYEE DISCIPLINE: POLICIES AND PRACTICES 55 (1989); ALAN F. WESTIN & ALFRED G. FELIU, RESOLVING EMPLOYMENT DISPUTES WITHOUT LITIGATION 219 (1988); *see*

Because the two kinds of rejections (microeconomic and macroeconomic) are somewhat vaguely defined, evidence of their relative proportions is difficult to come by. If it is true that individuals choose to sue only when they have been specifically rejected and not when there is a massive temporary or permanent layoff, then we would like to know the ratio of such discharges to all involuntary terminations.[60] Robert Topel notes that "temporary layoffs . . . account for as much as ninety percent of unemployment spells among workers who have separated from their previous jobs (quits, discharges, and layoffs)."[61] This statement implies that discharges constitute far less than fifty percent of all involuntary terminations.[62] In contrast, 80.8% of the cases in the Dertouzos study of 120 California wrongful termination trials involved firings based on "inadequate performance [by the plaintiff]," whereas only 19.2% were based on "exogenous economic factors."[63]

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also Hubert S. Feild & Willaim H. Holley, *The Relationship of Performance Appraisal System Characteristics to Verdicts in Selected Employment Discrimination Cases*, 25 ACAD. MGMT. J. 2, 392-406, 397 (1982) (noting that half of all firms whose performance-evaluation policies were challenged had specific written instructions for evaluating workers' performance). Second, if employers are much stricter during slumps, workers will be more careful during these periods. Knowing that they can be replaced more easily in a slump than in a boom, they should reason that the expected penalties for engaging in theft, tardiness, or other forms of misconduct are higher in a slack labor market. This factor should dampen the number of on-the-job thefts during recessions, notwithstanding that the motivations for thievery may be higher during slumps. Thus, the probability of dismissal for a worker caught stealing should be higher in slack labor markets, but the probability that a worker will steal may well be lower. The net result, we suspect, is that the number of individual-specific discharges for theft, absenteeism, and other similar offenses is likely to be fairly constant over the business cycle.

60. Involuntary terminations include discharges, temporary layoffs, and permanent layoffs. Some employment discrimination cases are brought by workers who have just quit their job in protest over some allegedly discriminatory conduct on the part of the employer, but this is a relatively small proportion of the total caseload.

61. Robert Topel, *On Layoffs and Unemployment Insurance*, 73 AM. ECON. REV. 541, 541 n.2 (1983). Although not all separations generate a spell of unemployment, Topel's statement refers only to those that do. This is the relevant class of separations for our purposes because there is no possible damage award in a Title VII case if the rejected worker can immediately secure equally lucrative employment elsewhere. Thus, it is almost certain that a discharged worker who brings a Title VII claim will have experienced a spell of unemployment. The exception would be a worker who immediately secured employment but at a much lower wage, although we consider this scenario to be somewhat rare.

62. If temporary layoffs constitute 50% of the total number of separations—involuntary separations plus resignations—then temporary layoffs must make up more than 50% of involuntary separations, excluding resignations. Macroeconomic terminations also include some permanent separations (e.g., due to plant closings), which means that macroeconomic separations must constitute substantially more than 50% of all involuntary separations. Conversely, microeconomic separations (i.e., discharges) must account for less than 50% of all involuntary separations.

63. JAMES DERTOUZOS ET AL., *The Legal and Economic Consequences of Wrongful Termination*, *in* THE RAND CORPORATION INSTITUTE FOR CIVIL JUSTICE REPORT 21 (tbl. 4). These data should be interpreted with caution, however, because they are based on the defendant's statement of

Similarly, a substantial fraction of the employment discrimination disputes in the American Bar Foundation's sample of such cases[64] are framed in terms of the performance of individual plaintiffs, usually in comparison with "bench mark" white male workers. (For example, X, a black female, asserts that she was fired for being late for work three times, while white male employees Y and Z, who were late more often than she was, were kept on.) Barbara Schlei and Paul Grossman suggest that this pattern is common, citing numerous cases in which individual plaintiffs contested·their discharge on the ground that others who committed the same infractions were not similarly disciplined.[65] For example, consider only two of the numerous cases they describe: In *Alexander v. Gardner-Denver Co.*,[66] the black male plaintiff was fired for producing "excessive" amounts of scrap, even though white employees allegedly made equal or greater amounts of scrap than the plaintiff. And in *Martin v. Chrysler Corp.*,[67] a black production worker alleged that he was discharged for falsifying his work count while white workers who falsified their work count were not discharged.[68] Courts, as well as plaintiffs, often view discrimination this way.[69]

Thus, even though most job *losers* (i.e., terminated employees) are victims of industrywide or economywide slumps, most job losers *who sue* have probably lost their job because of some individual-specific factor, such as a bad work evaluation.[70] This appears reasonable, given that it is much more difficult to prove discrimination when 100 workers are laid

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why the discharge occurred. Employers have a natural incentive to represent the plaintiff in as negative a light as possible in the context of a suit alleging unlawful discharge. Accordingly, the 80% figure may overstate the true proportion of discharges based on inadequate performance.

64. *See* Donohue & Siegelman, *supra* note 1.

65. *See* SCHLEI & GROSSMAN, *supra* note 43.

66. 519 F.2d 503 (10th Cir. 1975), *cert. denied*, 423 U.S. 1058 (1976).

67. 10 Fair Empl. Prac. Cas. (BNA) 329 (E.D. Mich. 1974).

68. In a somewhat different context, see McDonald v. Santa Fe Trail Transp. Co., 427 U.S. 273 (1976) (involving the dismissal of white employees charged with misappropriating property from their employer but not a black employee accused of the same).

69. *See, e.g.*, McDonnell Douglas Corp. v. Green, 411 U.S. 792 (1973) (holding that an employer's possible dissimilar treatment of whites and blacks is relevant when assessing whether the stated reason for failing to hire a black applicant was a pretext). The same kinds of intracompany worker comparisons are nsed in discharge cases: "The plaintiff mnst . . . produce evidence of disparate treatment [of blacks and whites] from which the court may infer" that a discriminatory discharge has occurred. SCHLEI & GROSSMAN, *supra* note 43, at 511.

70. Even the first part of this statement may be open to question. Dauiel S. Hamermesh suggests that worker displacement (i.e., job loss by workers with significant labor force attachment) is not strongly cyclical, perhaps becanse industry-specific factors, such as foreign competition, dominate macroeconomic factors in accounting for job loss (as opposed to temporary layoffs). Daniel S. Hamermesh, *What Do We Know About Worker Displacement in the U.S.?*, 28 INDUS. REL. 51-59 (1989).

off in a sales slump than when a single worker is fired for some alleged malfeasance.[71] The implication of this conclusion is that the kinds of incidents that produce most of the employment discrimination litigation are *not* likely to vary in proportion to the tightness of the labor market. The fact that an individual-specific discharge underlies most suits thus casts further doubt on the incidents effect as the explanation for the cyclicality of litigation volume.

V. THE PATTERN OF OUTCOMES IN EMPLOYMENT DISCRIMINATION LITIGATION OVER THE BUSINESS CYCLE

Thus far we have demonstrated that the volume of litigation (but not EEOC charges of discrimination) responds to the business cycle and that there are a number of worker and employer effects that could explain the observed countercyclical pattern of case filings. On the basis of both indirect econometric evidence and on theoretical grounds, we have argued that the worker benefits effect is the most important factor linking the business cycle and the volume of employment discrimination litigation. We now extend this analysis to show that litigation *outcomes* also vary over the business cycle. Once again, we will explore the various worker and employer effects that could influence the quality of cases that make it to federal court. (Presumably case outcomes reflect the quality of the cases brought.) Our argument for the importance of the worker benefits effect is strengthened by evidence that plaintiffs are less likely to win cases that are brought during economic downturns, and that the awards to plaintiffs who *do* win are higher during a slumping economy than during other periods.

A. VARIATION IN THE QUALITY OF SUITS BROUGHT OVER THE BUSINESS CYCLE

The simplest possible economic model of the decision to file suit suggests that there should be a negative relationship between the unemployment rate and the plaintiff win rate. After discussing this theoretical prediction, we will examine the effect of complicating the model—by allowing for (1) variation in the threshold wage needed to bring a lawsuit, (2) nonrandom selection of disputes through settlement, and (3)

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71. This may not be true for "reductions in force," in which older employees—typically, midlevel managers—are discharged and replaced by younger workers. Such discharges frequently produce age discrimination litigation.

changes in employer behavior over the business cycle. These complications tend to dilute the prediction of procyclical win rates.

1. *Worker Effects*

This section discusses two worker effects that affect the quality of employment discrimination cases brought over the business cycle: the worker benefits effect, which also influences the volume of case filings, and the worker wage effect.

a. *The worker benefits effect:* As discussed earlier,[72] the worker benefits effect implies that the damages awarded to a plaintiff in a successful employment discrimination suit vary over the course of the business cycle because the typical spell of unemployment after termination is greater in a slump than in a boom. One can summarize this relationship formally by writing $B=B(U)$, where B is the back-pay award in a successful suit, U is the unemployment rate, and $dB/dU > 0$, so higher unemployment rates imply greater average back-pay awards.

In considering whether to sue, the plaintiff must determine the *expected* net benefit of bringing suit. This requires the litigant to consider the costs of suit,[73] which we will call C, the likely back-pay award, B, and the probability of succeeding at trial. Under Title VII rules, plaintiffs pay their own costs only if they lose their suit, so the expected net benefits of suit are $E(NB) = pB(U) - (1-p)C$, where p is the probability that the plaintiff will prevail at trial. Obviously, p will vary depending on the "quality" of the plaintiff's case—strong cases have high values for p.[74]

Plaintiffs will decide to sue when the net expected benefits are positive. That is, a plaintiff will sue if and only if $pB(U) - (1-p)C > 0$. This implies that where C is fixed, the minimum probability of victory needed to justify bringing suit is negatively correlated with the amount of damages awarded if the suit ends in victory (i.e., when B falls, p rises, and when B rises, p falls).[75]

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72. *See supra* part III.A.2.

73. These are likely to be known with some precision in advance of the decision to litigate. In what follows, we assume that the plaintiff is risk neutral, which simplifies the analysis without altering the results in any fundamental way.

74. This is a crucial feature of the Priest/Klein model of settlement. *See* Priest & Klein, *infra* note 84, at 62-63.

75. We can solve mathematically for the threshold value of p below which potential plaintiffs will decide not to sue and above which they will sue. Recall that

$$pB(U) - (1-p)C = 0$$

To illustrate, suppose a suit costs $1000 to bring (C = 1000) and that at a five percent unemployment rate, the average plaintiff will get a $5000 award if successful (B = 5000). This implies that a litigant with an estimated probability of success of 0.20 (p = 0.20) would calculate the net expected benefit of the suit to be $200, because *(.2)(5000) − (.8)(1000) = $200*. A risk-neutral plaintiff would be expected to bring such a suit. In fact, as long as the litigant's odds of winning are one in six or greater there is a net expected gain from litigation, so the suit will be brought. Suppose that the unemployment rate rises to 7.5% and that the size of the award rises to $8000. Given the 0.20 probability of victory, the suit is now worth $800, because *(.2)(8000) − (.8)(1000) = $800*. Indeed, with the higher unemployment rate and concomitant higher average back-pay award, the plaintiff would need only a one-in-nine chance of victory to justify bringing suit. Thus, when unemployment rises and average back-pay awards increase, plaintiffs will bring marginal suits with a lower probability of victory that would not otherwise have been brought. This implies that the average quality of suit and the probability of victory are lower for suits filed in quarters with high unemployment. Plaintiffs should therefore win fewer of the cases brought during such periods.[76]

b. *The worker wage effect:* The previous section illustrates how some potential litigants who have less meritorious or less provable claims of employment discrimination will find it worthwhile to bring them if the

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defines the threshold condition, which implies that the reservation or threshold probability, p^*, can be defined as

$$p^* = C/[C+B(U)].$$

Differentiating with respect to U, we have

$$dp^*/dU = -CB'/[C+B]^2 < 0,$$

because $B' = dB/dU > 0$. Thus, an increase in the unemployment rate implies a decline in the minimum probability of victory necessary for a plaintiff to bring suit.

The effect of a change in unemployment on the plaintiff win rate is smaller under the Title VII fee-allocation rule (one-way fee shifting) than under the typical rule (no fee shifting). Without fee shifting, dp /dU is $-CB'/B^2$, which is greater than $-CB'/[C+B]^2$ under Title VII rules. Intuitively, this is so because under Title VII rules a change in the probability of winning simultaneously raises expected benefits and lowers expected costs. Under the typical non-fee-shifting regime, costs are fixed regardless of who prevails, and the plaintiff's expected costs do not depend on the probability of success. Thus, a change in the probability of victory has a greater effect on expected net benefits for a Title VII plaintiff than for a plaintiff under normal fee-shifting rules. For any given decrease in damages awarded, Title VII plaintiffs need less of an increase in the probability of victory to maintain their willingness to bring suit.

76. We should stress that the causal mechanism for the lower average win rate for cases filed during recessions is *not* that the recession lowers the success probability for any given case, but rather that more low-probability cases are filed during such periods, thereby degrading the quality of the average suit.

gross benefit of suit, B, goes up. Thus, if the effect of an increase in unemployment is to drive B up, the average value of plaintiffs' probability of success, p, should move in the opposite direction (i.e., if unemployment goes up, p should go down). But a more discerning analysis shows that the gross benefit from a successful Title VII lawsuit can be written as $B = wD(U)$, where w is the plaintiff's wage and D(U) is the duration of unemployment, which is a function of the unemployment rate (i.e., $dD/dU > 0$). With this formulation, we can rewrite the decision rule for whether to bring suit as $pwD(U) - (1-p)C > 0$. The earlier formulation contemplated a simple relationship in which the average plaintiff win rate, p, falls when average benefits, B, rise. The reformulation shows that as D rises, either p or w can move in an offsetting fashion. Thus, rather than only the *reservation quality of the plaintiff's case*, p*, being a function of the unemployment rate, the plaintiff's *reservation wage* also depends on the business cycle.

For any given quality of the plaintiff's case, when the unemployment rate increases and the duration of unemployment goes up, the threshold wage needed to justify bringing a lawsuit tends to fall. In other words, lower-wage plaintiffs will find it increasingly worthwhile to bring suit as the unemployment rate increases. Changes in the threshold wage will weaken the relationship between plaintiff win rates and the business cycle. Indeed, if all the adjustment were to occur in the threshold wage, the win rate would be constant over the business cycle, with plaintiffs' average wages falling as the unemployment rate rises.[77] Therefore, the prediction that emerges from examining the two worker effects is that the plaintiff win rate should fall during business downturns because of the worker benefits effect, although this tendency might be dampened by the worker wage effect.

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77. That is, when both w and p are functions of U, we can write:

$w = [C - p(U)C]/p(U)D(U)$,

so that

$\partial w^* /\partial U = [pDCp' - (C - pC)(pD' + Dp')]/(pD)^2$.

If all the adjustment is in w rather than in p, then p' = 0, so

$\partial w^* /\partial U = -(C - pC)pD'/(pD)^2$.

In this case win rates are unaffected by the business cycle and only the threshold, w*, moves with the unemployment rate.

Even if threshold wages rather than the quality of plaintiffs' cases adjust to the business cycle, a relationship between unemployment and the win rate might nevertheless be detectable. Lower-wage plaintiffs are presumably less sophisticated, have poorer legal representation than those with higher wages, or both, and may therefore prevail less often for any given level of case quality. A negative relationship between the unemployment rate and the win rate might therefore exist, not because the average quality of cases changes over the business cycle, but because of changes in the quality of legal representation or in the plaintiff's legal sophistication.

2. *Employer-Driven Suit Quality Effects*

The employer effects that we discussed in our analysis of the cyclical pattern of the employment discrimination caseload[78] may also influence the pattern of case outcomes over the business cycle. Thus, in seeking to clarify the relationship between the unemployment rate and plaintiff win rates, we must once again consider the operation of the incidents effect, the employer damages effect, and the availability effect.

Let's begin with the incidents effect: Suppose that a constant proportion of all fired plaintiffs bring suit in each quarter, regardless of the quality of the underlying claims they have.[79] In quarters of high unemployment, most terminations are recession-induced group layoffs rather than individual-specific terminations for poor performance. To prevail, plaintiffs must prove that they were treated differently from others because of their race or sex. But such claims are harder to sustain when a diverse group of workers has been laid off for macroeconomic reasons than when the plaintiff has been singled out for something the plaintiff is alleged to have done. Thus, case "quality" may vary over the business cycle even if plaintiffs are irrational (i.e., if they do not make the decision to sue by calculating the expected net benefits of their suit), simply because discriminatory firing is harder to prove during slumps than during booms.

The employer damages effect implies that discrimination is curtailed during slumps because the price of discrimination—the cost of paying back-pay damages to employment discrimination plaintiffs—is higher in a weak economy.[80] Conversely, the availability effect postulates that there might be more discrimination during slumps than booms because employers can pick and choose from among their more preferred class of workers according to discriminatory preferences.[81] Just as they did in our earlier discussion of case filings,[82] these two effects yield conflicting predictions about the pattern of plaintiff win rates. If the employer damages effect dominates, plaintiffs should fare worse in cases filed during periods of high unemployment because the evidence of discrimination is presumably less convincing during such periods. The exact opposite is true if the availability effect dominates. Thus, the incidents effect and the

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78. *See supra* part III.B.
79. This would seem to be inconsistent with rational behavior.
80. *See supra* part III.B.1.
81. *Id.*
82. *Id.*

employer damages effect lead to procyclical plaintiff win rates and the availability effect leads to countercyclical plaintiff win rates.

As summarized in the third column of Table 11, if the worker benefits effect on quality of suit is stronger than the employer effects, then we would expect plaintiffs to win a higher proportion of cases filed in booms than in recessions. Nonetheless, the magnitude of this effect should be diluted to some degree by another worker effect—the tendency of plaintiffs to file some highly meritorious but lower-wage suits during recessions. The employer effects, though likely to be less important for the reasons discussed previously with respect to the cyclicality of the caseload,[83] are again in conflict.

3. *Selection Effects*

One of the key findings to emerge from empirical studies of litigation conducted over the past decade is the importance of selection effects.[84] These effects occur because parties do not randomly decide which disputes will become filed legal claims or which claims will be settled (or dropped) as opposed to litigated to a final judgment. Thus, filed claims and litigated cases do not represent random samples from the population of all claims, and any generalization from such samples to the larger population must be made with extreme care.

Indeed, there are reasons to suspect that selection effects (along the lines proposed by George Priest and Benjamin Klein)[85] are operating in this context.[86] We have argued that the higher back-pay awards induced by recession will prompt weaker cases to be pursued, yet these are precisely the cases that are most likely to be settled through the selection process.[87] In our context, settlement of particularly strong or weak cases

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83. *See supra* part IV.

84. Eisenberg, *supra* note 4; James Hughes & Edward Snyder, *Policy Analysis of Medical Malpractice Reforms: What Can We Learn from Claims Data?*, 7 J. BUS. & ECON. STAT. 423 (1989); George Priest & Benjamin Klein, *The Selection of Disputes for Litigation*, 13 J. LEGAL STUD. 1 (1984); Edward Snyder & James Hughes, *The English Rule for Allocating Legal Costs: Evidence Confronts Theory*, 6 J.L. ECON. & ORGANIZATION 2, 345-80 (1990); Stewart Schwab & Theodore Eisenberg, The Influence of Judicial Background on Settling and Winning Cases and a Study of the Dispute Pyramid (1993) (unpublished manuscript, on file with the authors).

85. Priest & Klein, *supra* note 84. *See also* Samuel Gross & Kent Syverud, *Getting to No: A Study of Settlement Negotiations and the Selection of Cases for Trial*, 90 MICH. L. REV. 319 (1991).

86. We discuss the issue of selection effects at greater length in Peter Siegelman & John J. Donohue III, The Selection of Employment Discrimination Suits for Litigation: Using Business Cycle Effects to Test the Priest/Klein Hypothesis (1993) (unpublished manuscript, on file with the American Bar Foundation).

87. Indeed, as we show in *id.*, a higher proportion of cases filed during recessions is settled than of cases filed during booms.

means that the effect of unemployment on win rates will be diluted by the selection process; estimates of the unemployment coefficient should thus be biased toward zero.

Although sophisticated methods are available that can correct for this problem,[88] they require access to individual data for each case in the population,[89] data we do not have. Instead, therefore, we adopt a simpler strategy. Our argument is an a fortiori one: Sample selection should *weaken* the relationship between unemployment rates and plaintiff win rates. Thus, if we find *any* link between the two rates, we can be confident that the relationship exists and would be even stronger in the absence of sample selection. Without more detailed information about individual cases, we cannot estimate the magnitude of the selection effect. Hence, the best we ean do is develop a lower-bound estimate of the true effect of the unemployment rate on the plaintiff win rate.

B. EMPIRICAL EVIDENCE OF PROCYCLICAL PLAINTIFF WIN RATES

We used data on the outcomes of federal employment discrimination cases from 1977 through 1989 to ascertain the relationship of the unemployment rate to the plaintiff win rate.

Outcome data are only meaningful for closed cases. By definition, cases that are still in the process of being adjudicated lack a final outcome. Thus, we begin by restricting the sample to closed cases. To avoid overinclusion of cases with unusually long or short durations, the sample was limited to cases opened between 1977:II and 1988:III.[90] For each

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88. The pioneering work on sample selection is James Heckman, *Sample Selection as a Specification Error*, 47 ECONOMETRICA 153 (1979). Snyder & Hughes, *supra* note 84, and WILLIAM GREENE, ECONOMETRIC ANALYSIS (1990), provide cogent analyses of the problem in applied contexts.

89. The strategy is typically to estimate two equations. The first is the selection equation, which gives the probability that each case will be litigated, as opposed to settled or dropped, as a function of the attributes of that case (e.g., the size of defendant firm, the plaintiff's occupation, whether the plaintiff has a lawyer). The second equation then estimates the probability of plaintiff victory as a function of individual case characteristics, such as presence of a lawyer and the unemployment rate. The estimated probability of litigation from the first equation must be included as an explanatory variable in the second, thus yielding unbiased coefficient estimates. In our context, the problem is more complicated than this because the dependent variable in the second equation also has a dichotomous (logit or probit) structure. For an explanation and application, see Synder & Hughes, *supra* note 84.

90. We began by sorting all cases by the date they were originally filed and then removing all those that were still open when the AO tape ended, on June 31, 1989. Arranged in this manner, the average duration of the closed cases appears to decrease as the filing date moves closer to June 31, 1989: Any case filed in June 1988 that closed before June 1989 has a maximum duration of one year; any case filed in July 1988 has a maximum duration of 11 months; and so on. If there is a relationship between the duration of a case and its outcome, using all closed cases increasingly overincludes

calendar quarter between 1977:II and 1988:III, we tabulated the number of cases filed in that quarter that were ultimately won by the plaintiff and the number won by the defendant. The plaintiff *win rate* in quarter t is thus the number of cases filed in quarter t that are ultimately won by the plaintiff, divided by the total number of cases filed in quarter t won by either plaintiff or defendant.[91] The *adjudication rate* in quarter t is the ratio of the number of cases filed in quarter t and won by either party (or both) to the total number of closed cases filed in quarter t.[92] (The win rate and the adjudication rate are graphed in Figure 4.)

Weighted (grouped) logit regressions were then used to estimate the effect of time and unemployment rates on the plaintiff win rate.[93] Table 9, which tests the predictions of our theoretical model by regressing the plaintiff win rate in each quarter on time and lagged unemployment

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short cases as the filing date approaches June 1989 and could thus impart a spurious time trend to the win rate. The reverse is true for cases filed before June 31, 1978, when the AO started keeping track of outcomes. As a crude way of avoiding these problems, we limited the sample to cases filed between 1977:II and 1988:III. These dates were chosen because the average case lasts approximately four quarters.

Including all closed cases for which we have outcome data does not substantially change any of the results we report herein.

91. That is,

$WINRATE_t = PWIN_t/(PWIN_t + DWIN_t)$,

where t is the quarter in which the case was filed, $PWIN_t$ is the number of cases filed in quarter t that were ultimately won by plaintiff, and $DWIN_t$ is the number of cases filed in quarter t in which the defendant prevailed. Note that defining the win rate as

$(PWIN_t + BOTHWIN_t)/(PWIN_t + BOTHWIN_t + DWIN_t)$,

where $BOTHWIN_t$ is the number of cases listed as won by "both parties," does not change our results in any important way.

92. The adjudication rate in quarter t is thus

$ADJRATE_t = (PWIN_t + DWIN_t + BOTHWIN_t)/(PWIN_t + DWIN_t + BOTHWIN_t + OTHER_t)$, where $OTHER_t$ includes cases coded "other" and those coded "missing."

93. Weighted logit is appropriate when using grouped data in which the underlying model is discrete (a 0/1 variable, such as plaintiff loses or wins) and the observed dependent variable is a proportion. This occurs when "a number of respondents have the same values of the independent variables and the observed dependent variable is the proportion of . . . [respondents] with individual responses equal to 1." WILLIAM GREENE, LIMDEP MANUAL 19.3 (1989). This is precisely the situation with the AO data because we have no information about any individual case, except for the outcome, that would enable us to distinguish it from any other case filed during the same quarter.

Consider two different quarters: In the first, two cases are filed and the plaintiff wins one of them. The win rate for this quarter is 0.5, or 50%. In the second quarter, 100 cases are filed and the plaintiff wins 50 of them. Again the win rate is 50%. Clearly, however, the estimated win rate for the second quarter is more precise (i.e., has a lower variance) and should be given greater weight than the first in estimating the overall win rate across all periods. The "group data" specification corrects for this heteroscedasticity by weighting each quarter's observation on WINRATE by the number of cases in the sample that were filed in that quarter—that is, weighting by $(PWIN_t+DWIN_t)$. See tables 9 and 10 for these results.

FIGURE 4

ADJUDICATION RATE AND PLAINTIFF WIN RATE FOR EMPLOYMENT CIVIL RIGHTS CASES,
1977:II-1988:II (CLOSED CASES ONLY)

ADJUDICATION RATE

PLAINTIFF WIN RATE
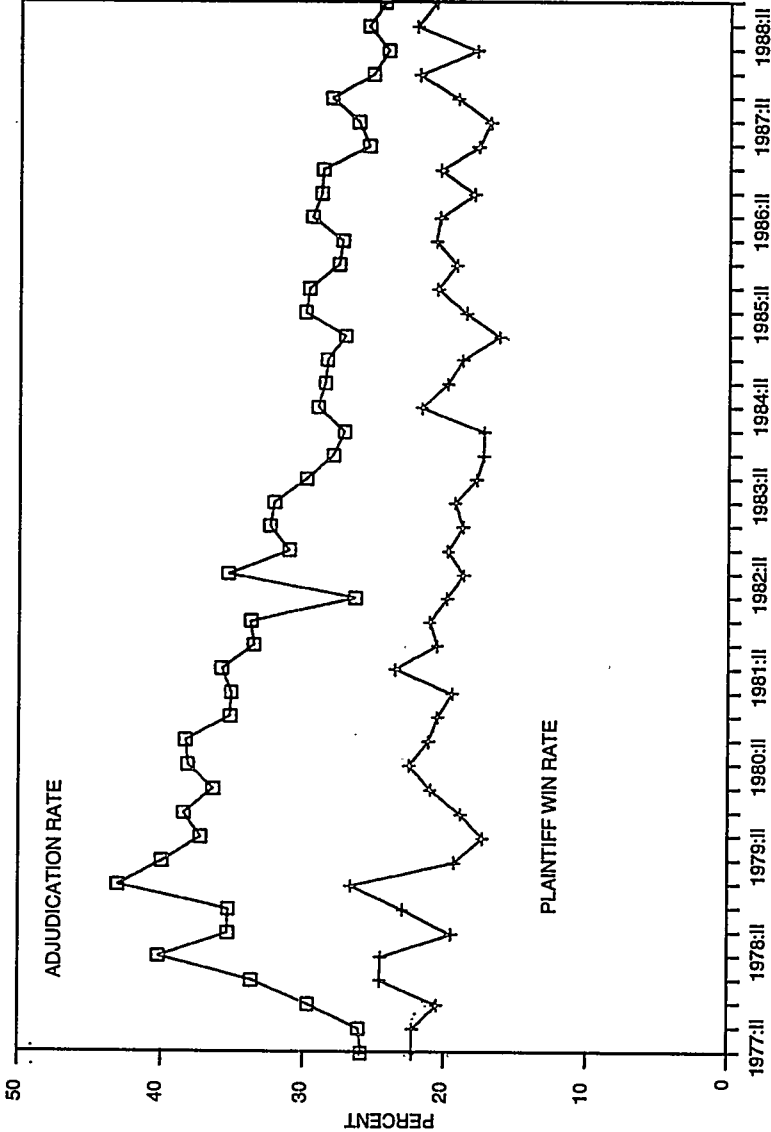
rates, supports the theory that workers bring weaker cases during economic downturns.[94] Most of the unemployment coefficients are different from zero at the conventional five percent level of significance; all have the predicted negative sign. Because of multicollinearity between one- and two-quarter-lagged unemployment, the coefficients in model 3 are not estimated precisely, and therefore the individual unemployment coefficients are not statistically significant. However, the likelihood ratio test of model 3 versus model 1 (a simple alternative containing only a constant and a time trend, with no unemployment rate) easily rejects the hypothesis that both unemployment coefficients are zero at the 0.05 level.[95]

The unemployment effect is small in magnitude. For example, suppose that the unemployment rate for the period had been constant at five percent instead of its actual average of 7.34%.[96] The results in Table 8 imply that the average plaintiff win rate would have risen only from 21.4% to 22.4%. Thus, plaintiffs would have won only 257 (4.9%) more cases than the 5204 they actually won, an extra 5.6 plaintiff victories per quarter.[97] Figure 5 graphs the actual win rate, as well as the fitted values and the simulated effect of a constant five percent unemployment rate.

Despite the small magnitude of the unemployment effect, it seems highly unlikely that the relationship between win rates and unemployment could be an artifact of the data. The clerks who code the outcome data at the closing of each case are presumably unaware of the unemployment rate during the quarters before the case was filed. Thus, any errors in coding introduced by these clerks could not plausibly be correlated with unemployment rates.

C. SIZE OF AWARDS TO SUCCESSFUL PLAINTIFFS

A key finding of this Article is that a variety of tests supports the importance of the worker benefits effect as the cause of both the countercyclical pattern of case filings and the procyclical pattern of win

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94. The regressions also suggest that there is a negative time trend to the win rate—that is, plaintiffs prevail less frequently over time. It is possible that this finding merely reflects the general upward trend in the unemployment rate, which encourages more marginal suits to be filed.

95. In estimating the regressions presented in Table 9, we used detrended unemployment rates. We also ran the same regressions using actual unemployment rates and got virtually identical results.

96. Of course, this is not a realistic possibility, given policymakers' current inability to control the macroeconomy.

97. This calculation was made on the basis of a model using time, time^2, and the unemployment rate lagged one and two quarters as independent variables and assumes, contrary to fact, that a change in the unemployment rate has no influence on the total volume of cases, only on the plaintiff win rate.

TABLE 9:
GROUPED LOGIT REGRESSIONS EXPLAINING PLAINTIFF WIN RATES 1977:II TO 1988:III (STANDARD ERRORS IN PARENTHESES)

	MODEL			
	1	2	3	4
Variable				
Constant	−0.99*	−1.00*	−1.00*	−0.24
	(0.07)	(0.07)	(0.07)	(0.33)
Time Trend	0.0056*	−0.0054*	0.0054*	−0.034*
	(0.0001)	(0.0013)	(0.0013)	(0.012)
Time^2				0.00025*
				(0.00011)
Unemployment Rate in Previous Quarter			−0.001	
			(0.02)	
Unemployment Rate Lagged, 2 Quarters		−0.028*	−0.027	−0.025**
		(0.014)	(0.023)	(0.014)
Nobs	24,403	24,403	24,403	24,403
−(Log-Likelihood)	12,637.4	12,635.3	12,635.3	12,632.6
Likelihood Ratio Test (vs. model 1)		$\chi^2_{(1)}$=4.2*	$\chi^2_{(2)}$=4.2*	$\chi^2_{(2)}$=9.6*

Notes:
1. The grouped logit specification is based on 45 quarterly observations of WINRATE, but uses all 24,403 observations on case outcomes (win or loss for plaintiff). See text for further explanation. Dependent variable weighted mean = 0.214; weighted standard deviation = 0.022; minimum = 0.174; maximum = 0.280.
2. Detrended unemployment rates were obtained as the residual from a regression of unemployment rate on a constant, Time, and Time^2.
3. Likelihood ratio tests: two times the absolute value of the difference between the log likelihood for model 1 and the competing mode is distributed $\chi^2_{(j)}$, where j is the number of restrictions relaxed (variables added) in moving from model 1 to the alternative model.
4. −(Log-Likelihood) for model with constant term only (all slope coefficients constrained to be zero) = 12,646.5. For all four of the models above, one can always reject the hypothesis that all slope coefficients are zero at the five percent level.
   * Significant at the five percent level.
   ** Significant at the 10% level.

rates. The theory of litigation we developed implies that, in addition to the volume and outcome of litigation, the amount awarded to successful plaintiffs should also be a function of the business cycle. Indeed, the existence of the worker benefits effect requires that successful plaintiffs who bring suit when the economy is slumping win larger awards than those whose suits originate when the economy is strong. Given the way the law calculates back-pay damages, this link between the unemployment rate and the size of awards to successful plaintiffs seems plausible in theory. Since it is crucial to the worker benefits effect, however, it would be useful to know if the relationship between unemployment rates and award size is also detectable in the data.

FIGURE 5
ACTUAL, FITTED, AND SIMULATED (FIVE PERCENT UNEMPLOYMENT RATE) PLAINTIFF WIN
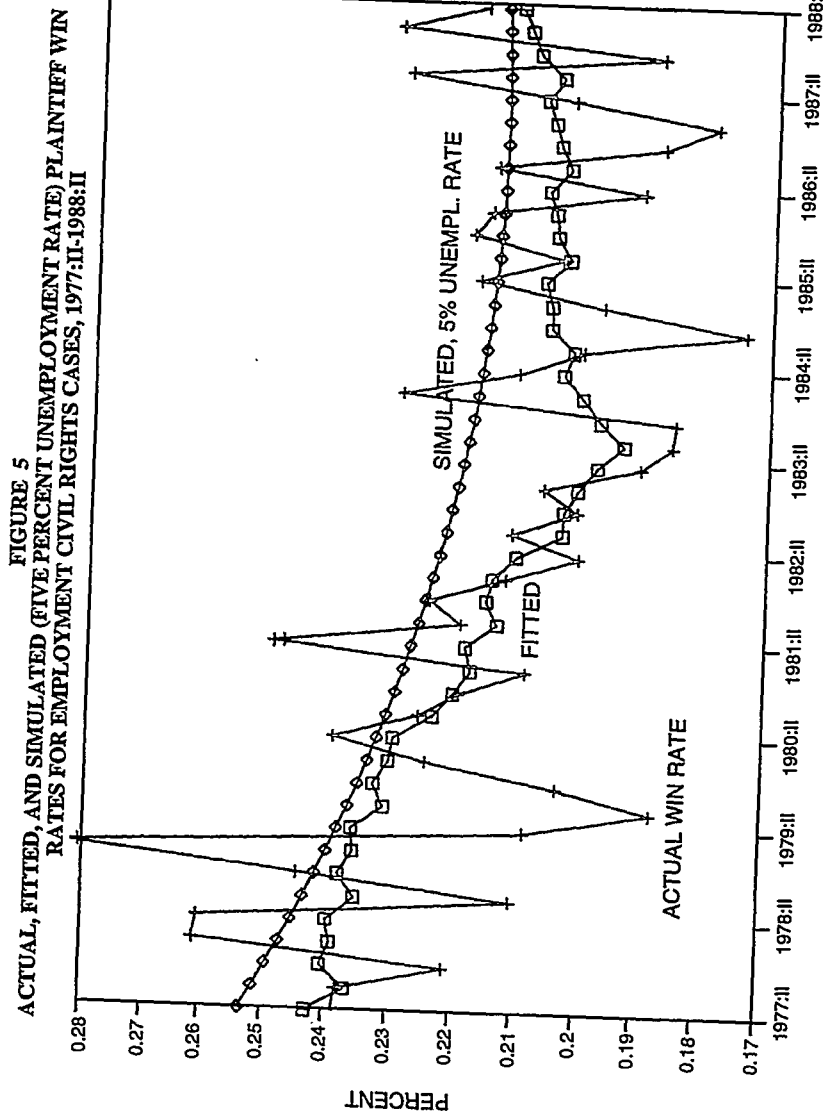RATES FOR EMPLOYMENT CIVIL RIGHTS CASES, 1977:II-1988:II

Table 10 confirms that a rise in the unemployment rate one or two quarters before a case is filed does indeed generate a larger award to successful plaintiffs.[98]. Specifically, a one percentage point increase in the unemployment rate raises the average award to a successful plaintiff by between $2000 and $3000.[99]

Two cautions are in order in interpreting this result. First, the statistically significant relationship between award size and lagged unemployment rates applies only to cases decided by a judge.[100] The relationship is much weaker for cases decided by a jury. Second, the estimates in Table 10 are made conditional on a plaintiff victory. But our theory really suggests that the probability of plaintiff victory is itself a function of the unemployment rate and should move in the opposite direction from the amount awarded to plaintiffs who do prevail. In another paper, we employ a more sophisticated technique to test for the negative relationship between the probability of a plaintiff victory and the amount awarded to the successful plaintiff. We find that the probability of victory and the size of the expected award do indeed move in opposite directions over the course of the business cycle.[101]

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98. We note our reservations about the quality of the Administrative Office data on award size. Specifically, the data tape is supposed to indicate the award in thousands of dollars (so that an entry of "4" means $4000). We were therefore surprised to learn that 95 cases were deemed to have awards in excess of $10 million! To assess the accuracy of the data tape, we searched LEXIS for all 95 of these cases and for 34 other cases drawn from the sample of awards listed as being between $1 million and $10 million (the highest possible entry). Of these 129 awards, the published opinions contained information about the dollar award in 28 cases (22%). In every case, the amount of the award shown on the tape vastly overstated the actual amount awarded by the court. For example, in one case the tape listed the award as "3863" (in thousands), while the correct number *for attorney's fees* was 38.63. (The damages award in that case was actually $106,635; costs of $12,452 were also awarded.) In another case, the tape listed "2700" when the true number in thousands was 27 ($27,000). In another case, an award that should have been 70 ($70,000) appears as 7000 (which we would have interpreted as $7 million). As a result, we were forced to delete 301 awards (of a total of 4581 positive awards) listed as having been larger than $1 million. Our tests of awards less than $1 million thankfully revealed a higher degree of accuracy, which persuaded us to repose confidence in the regression process to screen out the effects of what we hope are randomly distributed errors.

99. Suppose the one percentage point increase in the unemployment rate causes the average worker to be unemployed for an additional five weeks. The coefficient estimates in Table 10 imply that the plaintiff's weekly wage would equal between $400 and $600 per week, which seems plausible. *See supra* note 13.

100. We have stressed that it is the limitation of Title VII damages to back pay that drives the cyclical pattern of filings and award sizes. For the period in which our data were collected, Title VII cases were required to be tried by judges, and therefore any case that was tried to a jury was not a Title VII case and did not have monetary damages limited exclusively to back pay. Consequently, one might well expect that judge- and jury-decided cases would not have the same pattern of award size. This was confirmed by a Chow test. The magnitude of awards in jury-decided cases did not fluctuate with the business cycle.

101. Siegelman & Donohue, *supra* note 86. The technique used is described in GREENE, *supra* note 88, at 736.

TABLE 10:
REGRESSION EXPLAINING THE REAL VALUE OF PLAINTIFF AWARDS (IN CASES DECIDED BY A JUDGE), 1977:II TO 1988:III (STANDARD ERRORS IN PARENTHESES)

Variable	(1)	(2)	(3)	(4)
Constant	22521.70*	20364.92*	21348.13*	20811.71*
	(5176.69)	(5163.29)	(5520.77)	(5439.92)
Time Trend	−108.01	−113.63	−108.29	−113.69
	(104.85)	(103.27)	(104.96)	(103.25)
Detrended Unemployment Rate, Lagged 1 Quarter		3111.10*		3216.95*
		(1176.26)		(103.25)
Detrended Unemployment Rate, Lagged 2 Quarters			2865.72	−1270.95
			(4651.11)	(1242.85)
N	772	772	772	772
−(Log-Likelihood)	9229	9225	9227	9224
Adj. R^2 (OLS regression)	0.01	0.01	0.01	0.01
Rho-hat	0.02	0.01	0.02	0.01
Durbin-Watson	2.00	2.00	2.00	2.00

Notes: All regressions were estimated with maximum likelihood correction for AR1 errors.
Dependent variable is the amount awarded plaintiff divided by the consumer price index (1967=100).
* Significantly different from zero at the five percent level.

VI. CONCLUSION

We have shown that the business cycle strongly influences the volume of federal employment discrimination cases, the likelihood of success for plaintiffs, and the magnitude of awards to successful litigants. At some level, this should not be very surprising. After all, macroeconomic disruptions are complicated and momentous social events. It would be odd to imagine that their effects would *not* show up in the legal system.

What is novel and interesting about this Article is our attempt to specify a small number of effects that link the business cycle and litigation and to test empirically which of these effects is responsible for the observed link. The evidence suggests that the most important connection between macroeconomic performance and employment discrimination litigation is not that the number of litigation-generating incidents rises during recessions. Rather, the key link is what we have termed the worker benefits effect, which is based on the fact that potential victims of employment discrimination receive higher damage awards when they have been out of work for longer periods of time. Because business downturns are associated with longer average spells of nnemployment, damages tend to rise during such periods. Higher potential damage

awards cause an increase in the number of suits filed. The prospect of greater awards for successful complaints also encourages some less meritorious (or less easily proved) discrimination claims to be brought, which is reflected in the data as lower plaintiff win rates for cases brought during recessions.

Table 11 summarizes some of the major findings of the Article. It documents that the five theoretical predictions concerning the worker benefits effect all conform to the empirical data. Conversely, the theoretical predictions concerning the three employer effects—the incidents effect, the availability effect, and the employer damages effect—depart from the empirical findings of the Article in a number of dimensions.

Table 11 highlights our reasons for rejecting the closest competitor to our preferred worker benefits effect—the incidents effect, which posits that an increase in the number of unfavorable employment decisions during business downturns induces more employment discrimination cases to be filed during such periods. The incidents effect yields correct predictions about the volume of court filings, plaintiff win rates, and award size, but it incorrectly predicts a time lag of three to four quarters between an economic downturn and case filing even though the actual duration of the lag is only one to two quarters. If the incidents effect drove our results, we would expect that the filing of EEOC charges would be at least as cyclical, and probably more so, as district court filings, when in fact the opposite is true. Moreover, as we argued earlier,[102] one employer who is unlikely to have a cyclical pattern of discharge such as that predicted by the incidents effect—the federal government—is still sued on a fairly pronounced countercyclical basis, which suggests the importance of the worker benefits effect.

On the basis of our findings, we conclude that workers are more sensitive than employers to possible increases in damage awards caused by the business cycle. We can make use of this fact and the findings in this Article to speculate about the effect on the volume of employment discrimination litigation to be expected from the increase in monetary damages authorized by the Civil Rights Act of 1991. Our analysis is as follows:

(1) We know that a one percent increase in the unemployment rate is associated with a roughly 0.7% increase in case filings.[103]

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102. *See supra* part IV.B.
103. See our calculation, *supra* text accompanying note 9, based on Table 2.

TABLE 11:
SUMMARY OF THE PREDICTED INFLUENCE OF FOUR WORKER AND EMPLOYER EFFECTS LINKING THE BUSINESS CYCLE AND EMPLOYMENT DISCRIMINATION LITIGATION

	EEOC FILINGS	DISTRICT COURT CASE FILINGS	PLAINTIFF WIN RATES**	AWARD SIZE	LAGS (IN QUARTERS)
		THEORETICAL PREDICTIONS			
Worker Benefits Effect	No Effect (on Myopic Decision Makers)	Private & Gov't* Counter-cyclical	Procyclical	Counter-cyclical	1-2
Incidents Effect	Counter-cyclical	Pvt. Counter-cyclical, Gov't not	Procyclical	Counter-cyclical	3-4
Availability Effect	Counter-cyclical	Pvt. Counter-cyclical, Gov't not	Counter-cyclical	Uncertain	3-4
Employer Damages Effect	Procyclical	Pvt. procyclical, Gov't not	Procyclical	Counter-cyclical	3-4
		.ACTUAL PATTERN			
	No Effect	Both Pvt. & Gov't Counter-cyclical	Procyclical	Counter-cyclical	1-2

Notes:
   * Private suits are those brought by private individuals against employers other than the U.S. government. Government suits are those brought by private individuals against the U.S. government.
   ** The strong version of the Priest/Klein model suggests that there should be no relationship between the plaintiff win rate and the unemployment rate; the weak version allows for incomplete selection and some systematic relationship (which we here find to be negative—that is, procyclical).

(2) We contend that this increase is generated by the following causal chain: A one percent increase in the unemployment rate is associated with a one percent increase in the duration of the average spell of unemployment,[104] which generates a one percent increase in the size of potential damage awards, which in turn spurs the greater volume of litigation.[105]

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104. *See supra* note 14. Similar calculations could be made using an elasticity measure of 1.5.

105. The increase in cases in response to unemployment rate increases could conceivably be generated by an alternative causal mechanism rather than potential litigants responding to the higher expected damages. One might offer a psychological theory positing that individuals file employment discrimination suits when they feel moral outrage at perceived employer misconduct. This could lead to the cyclical pattern we have attributed to the worker benefits effect, depending upon how badly the worker is hurt by the adverse employer action. Presumably, this harm would be

(3) We hypothesize that the Civil Rights Act of 1991 will cause a seventeen to twenty-five percent increase in the average size of damage awards for successful plaintiffs filing under the Act.[106]

(4) In the absence of any employer response to the higher damage awards, a seventeen to twenty-five percent increase in award size might be expected to increase the volume of cases by twelve to eighteen percent.[107]

(5) Because employers are likely to respond to increased potential damages, we estimate that the actual increase in litigation will be closer to nine to twelve percent.[108]

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greater during recessions. According to this theory, the dimension of the harm generates cyclicality rather than the opportunity for gain through litigation. Both theories would appear to be consistent with the evidence presented in this Article, but they might generate sharply different predictions about the effect of raising the possible damage awards in employment discrimination cases. For example, if the psychological theory is correct, the higher potential damage awards of the new Civil Rights Act might lead to no increase in cases. We doubt that this theory is correct, however, because even if litigant behavior is dominated by responses to perceived morally objectionable behavior and its consequences, most litigants will need to find an attorney, who will likely respond to the expected damages from litigation. Accordingly, we favor the economic theory over the psychological theory.

106. How much will the new Act increase the average award size for successful plaintiffs? This depends on a great number of issues, including (1) the distribution of cases according to employer size because different monetary caps apply to punitive damages in sex discrimination cases depending upon the size of the firm; (2) the prevalence of punitive damage awards and their ultimate size; and (3) the frequency and size of compensatory damage awards that go beyond the current level of back-pay damages. The ultimate effect of these factors could lead to consequences similar to those observed in ADEA cases, where cases involving willful violation receive twice the damages ordinarily awarded in typical Title VII litigation. If this occurs, we might see a potential doubling of damages in all non-ADEA employment discrimination cases that could not already allege intentional discrimination under 42 U.S.C. § 1981, under which compensatory and punitive damages were previously available. This class of cases would make up roughly 33%-50% of the employment discrimination cases. But plaintiffs in these cases would also recognize that perhaps only half of all successful litigants would be awarded the higher compensatory or punitive damages. Thus, 17%-25% of the litigants might be striving for a 100% higher damage award. We use the 17%-25% figure as a very rough lower-bound estimate of the expected increase in the average award size for successful plaintiffs resulting from adoption of the tougher penalties under the new Civil Rights Act. If jury awards in federal employment discrimination cases were to more closely imitate awards in state wrongful discharge actions (compared with previous ADEA cases, as we speculated), then average award size would grow far more significantly.

107. The estimated increase in the volume of employment discrimination lawsuits is based on a presumed elasticity of 0.7.

108. If employers responded strongly to the higher potential awards by trying to reduce the likelihood of plaintiff success—either by decreasing discrimination or by taking measures, such as documenting employment decisions more thoroughly, that enhance employer success in litigation— then the increase in the volume of litigation could be curtailed or even eliminated. One lesson to be gleaned from this paper, though, is that employer responses to higher damage awards seem less powerful than worker responses to monetary inducements to pursue litigation. Accordingly, we reduce the estimated pure worker response of a 12%-18% increase in litigation by one third, leaving the estimate of increased litigation at 9%-12%.

In summary, using a conservative estimate of the possible increase in potential damage-award size under the Civil Rights Act of 1991, we expect to see roughly 10,000 more complaints filed with the EEOC and 800 to 1000 more cases filed in federal district court each year. Moreover, we anticipate that the increased ability of plaintiffs to obtain significant compensatory and punitive damages, regardless of the degree of back-pay damages that might be available, will dampen the strong cyclical pattern in case filings, win rates, and settlement rates documented in this Article.