Law, Economics, and Accommodations in the Internal Labor Market

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Part I - Introduction

The Americans with Disabilities Act (ADA)1 creates a problem-solving zone within which workers with disabilities and their employers have broad latitude to reach agreement about how the employer should accommodate the employee’s disability.2 The ADA’s central problem-

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solving forum is the “interactive process.” Workers with disabilities propose accommodations. Employers accept the workers’ proposals or offer alternatives. And, as its descriptive title suggests, the interactive process contemplates the employer and worker exchanging information and possible solutions in a collaborative effort to find the least costly and most effective accommodation.

Before an economically rational employer will engage meaningfully in the interactive process, however, it must conclude that the product of the interactive process — that is, an agreement to provide an accommodation to a worker with a disability — will benefit it. Simply, employers will agree to negotiate over accommodations for workers with disabilities if they can

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3 See 29 C.F.R. § 1630.2(o)(3) (2003) (in order to determine the appropriate accommodation for a qualified individual with a disability, the employer and the workers with a disability must engage in the interactive process).

4 See id.; 29 C.F.R. § 1630.9 (2003) (interpretive guidance stating that the employer “must” engage in the interactive process); S. REP. NO. 101-116, at 34 (1989) (“A problem-solving approach should be used to identify the particular tasks or aspects of the work environment that limit performance and to identify possible accommodations . . . employers first will consult with an involve the individual with a disability in deciding on the appropriate accommodation”); H.R. REP. NO. 101-485, pt. 2, at 65 (1990) (same).

5 The ADA requires only that employers provide “reasonable accommodations” that will not impose an “undue hardship” on the employer. See 42 U.S.C. § 12112(b)(5) (2000). Only when an employer and a worker with a disability cannot agree does the task of defining the “reasonableness” of a proposed accommodation, and how much hardship is “undue,” fall to a court. See Seth D. Harris, Re-Thinking the Economics of Discrimination: U.S. Airways v. Barnett, the ADA, and the Application of Internal Labor Market Theory, 89 IOWA L. REV. 123, 147 (2003).
expect the accommodation to generate a net benefit.\textsuperscript{6} Otherwise, the interactive process will likely fail or not occur at all. This article argues that employers can benefit from providing their incumbent employees with accommodations in some, perhaps many, circumstances. Thus, an economically rational employer should welcome the interactive process as a fertile opportunity to reap increased benefits from employing a worker with a disability.\textsuperscript{7}

\textsuperscript{6} One relevant consideration in the calculation of net benefits is the transaction costs of reaching, memorializing, and implementing the agreement to provide an accommodation. Ronald Coase described "transaction costs" as follows: "In order to carry out a market transaction it is necessary to discover who it is one wishes to deal with, to inform people that one wishes to deal and on what terms, to conduct negotiations leading up to a bargain, to draw up the contract, to undertake the inspection needed to make sure that the terms of the contract are being observed, and so on." Ronald H. Coase, \textit{The Problem of Social Cost}, 3 J.L. & Econ. 1, 15 (1960); see also R.H. Coase, \textit{The Firm, The Market, and the Law} 6 (quoting Carl. J. Dahlman, \textit{The Problem of Externality}, 22 J.L. & Econ. 148 (1979)) (describing "transaction costs" as "search and information costs, bargaining and decision costs, policing and enforcement costs."); Robert C. Ellickson, \textit{The Case for Coase and Against Coaseanism}, 99 Yale L.J. 611, 615-16 (1989) (defining "transaction costs" as including "get-together costs," "decision and execution costs," and "information costs"); Daniel A. Farber, \textit{Parody Lost/Pragmatism Regained: The Ironic History of the Coase Theorem}, 83 Va. L. Rev. 397, 405 (1997) ("measurable costs of entering into transactions"). See OLIVER E. WILLIAMSON, \textit{The Economic Institutions of Capitalism} 20-22 (1985) for a fuller discussion of transaction costs. This article does not address these transaction costs, but the subject is worthy of further consideration.

\textsuperscript{7} I will hereafter employ the ADA’s lexicon and refer to the employee’s “impairment” rather than the employee’s “disability.” The ADA defines “disability” as “a mental or physical impairment which substantially limits a major life activity.” 42 U.S.C. § 12102 (2000). Thus, the employee has an impairment, while the interaction of the impairment and the employee’s environment creates a “disability.” See Seth D. Harris, \textit{Introduction: Understanding the Context for the 'Coelho Challenge' - Our Right to Work, Our Demand to be Heard: People With
This article applies “internal labor market theory” to assess how employers benefit from providing accommodations. This labor economics theory considers the causes and effects of barriers to competition found in the labor market consisting of an employer’s incumbent workforce. Internal labor market theory holds that these barriers to competition can increase the

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Disabilities, the 2004 Election, and Beyond, 48 N.Y.L. SCH. L. REV. 711, 721 (2004); see generally Michael A. Stein, Same Struggle, Same Difference: ADA Accommodations as Antidiscrimination, 153 U. Pa. L. Rev. 579, 599 (2004) (discussing the received wisdom’s reliance on the flawed premise that disabilities inhere in workers with disabilities rather than the socially constructed environments in which they work).

efficiency of the relationships between employers and employees. Since accommodations issues involving incumbent employees frequently arise in an internal labor market, understanding the internal labor market’s competitive barriers and their effects on the employment relationship is critical to assessing when and whether employers will reap an economic benefit from providing an accommodation to an incumbent employee with an impairment.\textsuperscript{9} Thus, this article makes a new contribution to an ongoing debate among scholars like Michael Stein, J. Hoalt Verkerke, Christine Jolls, Stewart Schwab and Steven Willborn, and John Donohue whose economic analyses of workplace accommodations were premised on the assumption that employers’ accommodations decisions are made in a competitive labor market.\textsuperscript{10} Since a very large majority of employment discrimination claims, including ADA claims, are brought by incumbent employees rather than job applicants,\textsuperscript{11} this article’s internal labor market analysis

\textsuperscript{9} See infra Part IIB, Part IIC, and Part IID.


\textsuperscript{11} See Jolls, supra note 10, at 223, 227-28, 265-66, 275 (arguing that the ADA’s prohibitions on hiring are difficult to enforce and ineffective as a result); Susan Schwochau & Peter David Blanck, The Economics of the Americans with Disabilities Act, Part III: Does the ADA Disable the Disabled?, 21 BERKELEY J. EMP. & LAB. L. 271, 290, n.105 (2000) (same); see also Jolls, supra note 10, at 276-77 (discussing empirical evidence showing that the ADA has reduced the employment levels of people with disabilities consistent with this thesis); Daron Acemoglu & Joshua D. Angrist, Consequences of Employment Protection?: The Case of the Americans with
contributes an important and heretofore unwritten chapter — possibly the largest chapter — to the story of the economics of accommodating workers with disabilities.

Nonetheless, this article’s analysis and conclusions are limited. The analysis considers only accommodations for incumbent employees working for employers with internal labor markets. Also, because it offers an economic analysis, this article considers only workplace accommodations which affect an employee’s productivity. Finally, this article does not

12 More precisely, this article does not address the question of whether employers can benefit from agreeing to provide accommodations to workers hired from the entry-level market (i.e., the “external labor market”). See generally Verkerke, supra note 10, at 923-33 (discussing how the ADA redresses market failures in the external labor market); see also infra text accompanying notes 35-36 (discussion of the “external labor market”). Also, it does not address incumbent employees in industries that do not foster internal labor markets. See, e.g., ALAN HYDE, WORKING IN SILICON VALLEY: ECONOMIC AND LEGAL ANALYSIS OF A HIGH-VELOCITY LABOR MARKET (2003)(discussing the information technology industry’s labor market in California’s Silicon Valley).

13 See generally 42 U.S.C. § 12111 (2000) (“The term ‘qualified individual with a disability’ means an individual with a disability who, with or without reasonable accommodation, can perform the essential functions of the employment position that such individual holds or desires”). Accommodations neither necessarily nor universally increase productivity. By its terms, the ADA’s accommodation mandate is not limited to productivity-related measures. See infra note 20 (quoting the ADA’s definition of “discriminate”); see also Vande Zande v. Wisconsin Dept. of Admin., 33 F.3d 538, 545-546 (7th Cir. 1995) (discussing an accommodation unrelated to
endorse the normative proposition that efficiency considerations should define the scope of an employer’s obligation under the ADA nor any argument that efficiency defines the scope of the ADA’s accommodation mandate. Efficiency does not define “reasonable accommodation.”

The analysis will show that efficient accommodations are not merely facilitated by the internal labor market’s competitive barriers. Employer-provided accommodations and employees’ impairments are competitive barriers that can increase the efficiency of relationships between employers and their employees with impairments. Accommodations and impairments tighten the bonds between the employer and the employee. This tighter bond makes possible a range of cost cutting and productivity-enhancing behaviors that yield larger dividends for the employer. As a result, the cost of an accommodation is not the only factor that is relevant to determining whether an employer will benefit from providing an accommodation to an incumbent employee with an impairment. The willingness of the parties to seize the opportunity to make their relationship more productive and cost efficient — an opportunity created by the accommodation and impairment — is a critical factor in determining whether an employer benefits from accommodating an employee with an impairment.

14 Even jurists identified with the law and economics movement do not endorse that approach. See Vande Zande, 33 F.3d at 545-546 (Posner, J.) (“It would not follow that… an accommodation would have to be deemed unreasonable if the cost exceeded the benefit however slightly. But, at the very least, the cost could not be disproportionate to the benefit.”); see also Borkowski v. Valley Cent. Sch. Dist., 63 F.3d 131, 138 (2nd Cir. 1995) (Calabresi, J.) (interpreting the Rehabilitation Act, holding that “an accommodation is reasonable only if its costs are not clearly disproportionate to the benefits that it will produce”).
Some definition of “benefit” is needed to assess this article’s claim that employers can benefit from providing accommodations. This article will use two measures. First, the employer may be better off accommodating the employee than continuing its relationship with that employee without the accommodation. In other words, the employer is better off with the accommodation than without it. Second, the employer may be better off accommodating the employee than if the employee did not have an impairment; that is, the employer may be better off with the accommodation and the impairment than without the impairment. This article will argue that accommodating incumbent employees with impairments can benefit employers according to both of these measures, although satisfying the first measure will prove easier than satisfying the second.

These two measures of employer benefits are not beset by several problems that render a different, possibly more intuitively appealing measure less valuable — that is, comparing the costs and benefits of employing and accommodating workers with impairments with the costs and benefits of employing workers without impairments. First, relying on a comparison between two different groups of workers does not isolate the accommodation’s effects. It also takes the

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15 I acknowledge a moral hazard associated with this argument; that is, it suggests a risk that employers would benefit from inflicting some kind of harm on their employees that would result in an impairment. This risk is actually quite small, if it exists at all. First, this article does not argue that every employer will benefit from accommodating every impairment; thus, a baseball-bat wielding employer would bear the risk of deriving no benefit or suffering a loss in some cases. Second, this article argues that employers benefit from accommodating impairments through cooperation with their employees with impairments. Presumably, an employee would be less willing to cooperate with an employer who intentionally caused her harm. Finally, and most obviously, employers intentionally inflicting harm on their employees subject themselves to various kinds of civil and criminal liability.
impairment’s effects into account. Of course, the impairment and its effects are not products of the ADA’s accommodation mandate. Also, the accommodation and the impairment have different effects on the employment relationship.\textsuperscript{16} These effects must be isolated and assessed separately from an accommodation’s costs and benefits. This article’s analysis does that.

Second, comparing workers with impairments to workers without impairments confuses the analysis of accommodations’ costs and benefits by taking into account productivity differences among workers that are unrelated to impairments. Even in the absence of an impairment and an accommodation, workers’ productivity differs.\textsuperscript{17} So, the costs and benefits of employing different workers will vary even before taking accommodations into account. This article’s analysis eliminates this irrelevant factor by offering a model that compares one employee’s productivity both before and after an impairment arises and before and after the employer provides an accommodation. Finally, when an employee with an impairment is already a part of the employer’s workforce, hiring a replacement worker carries costs.\textsuperscript{18} Any comparison of employees with impairments and workers without impairments must take these costs into account. This article’s analysis does.

In pristine market conditions, rational economic actors ordinarily should not need a nudge to engage in behavior from which they will benefit. Assuming that such conditions ever exist, internal labor market theory explains that many employment relationships operate in a non-

\textsuperscript{16} Compare Part IIB1 with Part IIB2.

\textsuperscript{17} See Michael A. Stein, Labor Markets, Rationality, and Workers with Disabilities, 21 BERKELEY J. EMP. & LAB. L. 314, 325-328 (2000); see Verkerke, supra note 10, at 908.

\textsuperscript{18} See infra Part IIIA.
competitive environment — really, a bilateral monopoly\textsuperscript{19} — in which the parties are bargaining over the division of a surplus. As a result, there is room for the ADA to play a role in enhancing efficiency. This article argues that it can in many circumstances. In particular, the ADA helps to create the opportunity for employers to benefit from providing accommodations to their incumbent employees with impairments. Perhaps most important, it imposes an accommodation mandate\textsuperscript{20} and subjects employers who do not satisfy the accommodation mandate to added costs.\textsuperscript{21} Further, the ADA’s accommodation mandate sets the norm for appropriate treatment of workers with disabilities in American society. The ADA also either requires or strongly encourages employers to engage in an interactive process with their employees to find a cost-effective means to satisfy the accommodation mandate.\textsuperscript{22} It also urges the parties to use

\textsuperscript{19} See infra text accompanying note 49.

\textsuperscript{20} 42 U.S.C. 12112 (b)(5) (2000) (defining “discriminate” to include “not making reasonable accommodations to the known physical or mental limitations of an otherwise qualified individual with a disability who is an applicant or employee, unless such covered entity can demonstrate that the accommodation would impose an undue hardship on the operation of the business of such covered entity”).

\textsuperscript{21} See infra Part IIIB (discussion of litigation costs associated with ADA reasonable accommodations claims).

\textsuperscript{22} Courts disagree about whether a failure to engage in the interactive process is a violation of the ADA. \textit{Compare} Rehling v. City of Chicago, 207 F.3d 1009, 1015-1016 (7th Cir. 2000) (an employer’s failure to engage in the interactive process is not sufficient to show that the employer violated the ADA’s accommodation mandate) with Garcia-Ayala v. Lederle Parenterals, Inc., 212 F.3d 638 (1st Cir. 2000) (an employer’s failure to engage in the interactive process violates the ADA). Even if it is not, the ADA creates a significant incentive for employers to engage in the interactive process by exempting from compensatory and punitive damages those employers that
alternative disputes resolution systems, like mediation, to assist their negotiations over accommodations. In sum, this article tells a affirmative story about the ADA and the important role it plays in benefiting both employees with disabilities and their employers. It therefore stands in sharp contrast to the large body of scholarly literature that criticizes the ADA for being, on the one hand, ineffective, and on the other hand, inefficient.

For example, the received wisdom in the academy suggests that employers generally do not benefit from the ADA’s mandate to accommodate workers with disabilities. It holds that the ADA’s accommodation mandate is redistributive and, therefore, qualitatively and normatively different from traditional anti-discrimination mandates. Anti-discrimination mandates, according to this view, require employers to treat like workers alike. They merely prohibit employers from engaging in the inefficient behavior of drawing irrational distinctions between similarly situated
demonstrate “[a] good faith effort[, in consultation with the person with the disability . . . to identify and make a reasonable accommodation.” 42 U.S.C. § 1981a(a) (3) (2000).

23 See 42 U.S.C. § 12212 (2000) ("Where appropriate and to the extent authorized by law, the use of alternative means of dispute resolution, including settlement negotiations, conciliation, facilitation, mediation, fact-finding, mini-trials, arbitration, is encouraged to resolve disputes arising under this chapter") (emphasis added); see also H.R. REP. NO. 101-485 Pt. 3 at 76-77 (1990), reprinted in 1990 U.S.C.A.A.N. 445, 499-500 (further discussing Congress’ encouragement of voluntary alternative dispute resolution in ADA cases).

24 See, e.g., infra note 136 (citing studies showing that plaintiffs lose 90% of ADA litigation that matures into a reported judicial decision); supra note 11 (listing articles and studies finding that the ADA has not increased the employment rate among people with disabilities). See also generally infra note 25 (listing articles articulating the “received wisdom” that the ADA is inefficient because it imposes added costs on employers without assuring any added benefits).
workers. Accommodation mandates, on the other hand, require employers to treat different workers differently or, more precisely, better, without any assurance that employers will reap benefits in return. Thus, the ADA requires employers to give special benefits to workers with disabilities while receiving the same productivity that could be provided by workers without disabilities absent the added costs of an accommodation, according to this majority view. 25

25 See, e.g., Deborah A. Calloway, Dealing with Diversity: Changing Theories of Discrimination, 10 St. John’s J. Legal Comment 481, 492 (1995)(“Even if reasonable accommodations enable individuals to perform the essential functions of a job they could not otherwise perform, will they be as effective as an applicant who does not require accommodation?”); John J. Donohue III, Employment Discrimination Law in Perspective: Three Concepts of Equality, 92 Mich. L. Rev. 2583, 2609 (1994)(“Clearly, given a choice between two equally productive workers, one requiring the expenditure of significant sums in order to accommodate him and one requiring no such expenditures, the profit-maximizing firm would prefer the worker who is less costly to hire.”); RICHARD EPSTEIN, FORBIDDEN GROUNDS: THE CASE AGAINST EMPLOYMENT DISCRIMINATION LAWS 487 (1992)(describing the ADA as “[i]nsisting that disabled individuals be accorded job opportunities that cost more than they are worth”); Samuel Issacharoff & Justin Nelson, Discrimination with a Difference: Can Employment Discrimination Law Accommodate the Americans with Disabilities Act?, 79 N.C. L. Rev. 307, 315-16 (2001)(“the basic accommodation claim under the ADA accepts the propriety of the employer’s ability to measure productivity while simultaneously arguing that there is an intervening duty to alter the work environment, even if a disabled employee may never be as productive as a non-disabled potential employee.”); MARK KELMAN, STRATEGY OR PRINCIPLE?: THE CHOICE BETWEEN REGULATION AND TAXATION 8-9 (1999)(describing the ADA’s accommodation mandate as requiring the provision of “beneficial, non-market-rational treatment to certain customers (or workers)”); Mark Kelman, Market Discrimination and Groups, 53 Stan. L. Rev. 833, 836 (Apr. 2001)(defining “accommodation” as “a claim to receive treatment from a defendant that disregards some (though not all) differential input costs”); Linda Hamilton Krieger, Foreword — Backlash Against the ADA: Interdisciplinary 21 Berkeley J. Emp. & Lab. L. 1, 4 (2000)(“The ADA required not only that disabled individuals be treated no worse than non-disabled individuals with
Accommodation mandates thereby violate anti-discrimination law’s equality principle without the justification that efficiency gains will result.26

Critics of the received wisdom have responded with several arguments. Some scholars, including Amy Wax,27 have enlisted the societal costs of unequal employment opportunities for whom they were similarly situated, but also directed that in certain contexts they be treated differently, arguably better, to achieve an equal effect.”); Miranda Oshige McGowan, Reconsidering the Americans with Disabilities Act, 35 GA. L. REV. 27, 31 (the ADA “not only required employers to stop discriminating against persons with disabilities, but explicitly demanded that they shoulder the costs necessary to enable persons with disabilities to work”); Sherwin Rosen, Disability Accommodation and the Labor Market, in Disability and Work: Incentives, Rights and Opportunities 18, 21 (Carolyn L. Weaver, ed., 1991)(“By forcing employers to pay for work site and other job accommodations that might allow workers with impairing conditions defined by the law to compete on equal terms, it would require firm to treat unequal people equally, this discriminating in favor of the disabled.”); Schwab & Willborn, supra note 10; but see also Karlan & Rutherglen, supra note 2, at 14 (explaining that accommodations may benefit employers if they increase the productivity of employees with disabilities or other employees or expand the employer’s customer base, but also asserting that some employers will not benefit because employers will incur higher costs associated with accommodations and assessments of employees with disabilities’ productivity).

26 This view is so widely held and deeply believed that it has been dubbed “canonical” by two prominent scholars who dissent from it. See Christine Jolls, Antidiscrimination and Accommodation, 115 HARV. L. REV. 642, 643 (2001); Michael A. Stein, supra note 7, at 582.

27 Amy L. Wax, Disability, Reciprocity, and "Real Efficiency": A Unified Approach, 44 WM. & MARY L. REV. 1421 (2003); see also Samuel R. Bagenstos, The Americans with Disabilities Act as Welfare Reform, 44 WM. & MARY L. REV. 921 (2003) (arguing that this “welfare reform” argument in support of the ADA was a principal rhetorical tool of the ADA’s proponents in Congress and beyond, but that this approach limitats the effective implementation of the ADA); Matthew Diller, Dissonant Disability Policies: The Tensions Between the Americans
people with disabilities — for example, the high costs of Social Security Disability Insurance (SSDI) — to argue that the ADA promotes societal efficiency, if not efficiency for any particular employer. While essentially conceding that the accommodation-providing employer’s costs will exceed its benefits, these critics have argued that society benefits because accommodations increase employment among workers with disabilities and society avoids the costs associated with these workers’ idleness. If the money saved on SSDI and other cash transfers exceeds the aggregate costs of accommodations, then society derives a net benefit, even if individual employers do not. A second group of scholars, including J. Hoalt Verkerke and Michael Stein, have argued that the ADA’s accommodation mandate cures significant labor market failures. Smoother functioning markets increase societal efficiency. By clearing away barriers to smooth competition in the labor market, the ADA may also benefit some employers.

A third group of scholars, most notably Christine Jolls and Michael Stein (again), has attacked the notion that a clear and immutable distinction can be drawn between anti-discrimination mandates and accommodation mandates. Jolls emphasized the practical similarities between accommodation mandates and certain disparate impact claims and the normative similarities between accommodation mandates and disparate treatment claims directed


28 See Verkerke, supra note 10 (discussing how the ADA redresses market failures); Stein, supra note 10, at 84-86 (same); Stein, supra note 17, at 320-322 (same). For a discussion of Verkerke’s analysis, see Part IIC.

29 See Verkerke, supra note 10, at 933; Stein, supra note 17, at 325-28.

30 See Jolls, supra note 26, at 644-47; Stein, supra note 7, at 583-86.
These similarities belie the notion that anti-discrimination measures and accommodation mandates are fundamentally and qualitatively different. Stein expanded Jolls’s argument. Building on the disabilities studies movement’s teachings that the barriers confronting workers with disabilities are socially constructed, Stein concluded that eliminating socially constructed barriers to equal employment opportunity lies at the heart of the anti-discrimination enterprise regardless of whether the barriers relate to race, sex, or disability. Most important for this article’s purposes, Jolls and Stein also argued that, because of their similarities, both anti-discrimination mandates and accommodation mandates impose costs on employers. Thus, the received wisdom’s reliance on costs as a basis for distinguishing accommodation mandates from traditional anti-discrimination efforts is misplaced.

This article contributes to the growing and multi-faceted critique of the received wisdom. Like Jolls and Stein, I address the role of accommodations’ costs; however, this article directly challenges the assumption that accommodations’ costs typically exceed their benefits for the employers that provide them. This article’s analysis will show that employers can derive economic benefits from accommodating their incumbent employees with impairments. As a result, workplace accommodations can produce Pareto superior outcomes for employers and

31 See Jolls, supra note 26, at 684.

32 Id.

employees with disabilities rather than the zero-sum redistributions of resources suggested by the received wisdom.

Part II describes internal labor market theory and how internal labor markets benefit both employees and employers in the absence of an impairment and accommodation. Looking at three different scenarios in which incumbent employees might request accommodations, Part II will describe how employees’ impairments can affect the efficiencies of the internal labor market. It will also explain how an accommodation can restore an efficient employment relationship and, in some circumstances, yield additional productivity benefits for the employer. Part III considers other benefits an employer derives from accommodating an employee with a disability. This part identifies costs which an accommodation allows the employer to avoid — that is, the “opportunity benefits” of providing an accommodation. The added productivity benefits made possible by impairments and accommodations in internal labor markets, and the opportunity benefits of accommodations, combine to benefit employers providing accommodations to their incumbent employees with disabilities.

Part II - Labor Markets, Impairments, and Accommodations

From the employer’s perspective, which is the perspective with which this article is concerned, an accommodation produces a net benefit if the productivity increase resulting from the accommodation plus any costs avoided as a result of providing the accommodation exceeds the cost of the accommodation. This part will discuss accommodations’ costs and their effects on productivity. The next part will discuss the costs that employers can avoid by accommodating employees.
This part offers a general and theoretical model for assessing the economic benefits of workplace accommodations. Different inputs will produce different results. It is not possible to declare categorically that accommodating every employee with an impairment will benefit each employer.\(^3^4\) Rather, this part concludes only that there are some circumstances in which accommodating an employee with an impairment can benefit her employer. The model presented in this section seeks to describe those circumstances and to provide a framework for assessing the costs and benefits of accommodations.

A. Internal Labor Markets and External Labor Markets

(1) The Internal Labor Market Relationship

Workers may request accommodations in either of two labor markets. The job applicant and the incumbent employee are situated differently. An employer’s incumbent employee requests an accommodation in the “internal labor market.” A job applicant requests an accommodation in the “external labor market.”\(^3^5\) The external labor market, where employers and job applicants bargain over the terms and conditions of employment, is a competitive market. Job applicants are generally mobile. They offer general skills that may benefit many employers. As a result, employers can choose from among many fungible job applicants.

\(^3^4\) In fact, this model takes into account the possibility that accommodating an employee with an impairment may not be the optimal decision for an employer.

\(^3^5\) The ADA’s protections extend to job applicants. See 42 U.S.C. § 12112(a) (2000) (“No covered entity shall discriminate against a qualified individual with a disability because of the disability of such individual in regard to job application procedures, the hiring, advancement, or discharge of employees, employee compensation, job training, and other terms, conditions, and privileges of employment”) (emphasis added); see also 42 U.S.C. § 12112(b)(5) (2000) (requiring reasonable accommodations for applicants as well as employees).
Similarly, job applicants can choose from among many fungible employers. Neither party has invested in the relationship before a job offer and acceptance are extended; therefore, there are few transaction costs associated with choosing one employer or one worker. As a result, economists expect the external labor market to be competitive and, therefore, supply and demand will set the terms and conditions of employment.36

This article is not concerned with the external labor market. Instead, it will focus on incumbent employees who bargain with their employers in the “internal labor market.”37 The internal labor market is characterized by barriers to competition. These barriers may have several sources. The human capital theory of the internal labor market identifies firm-specific skills and knowledge as the principal barrier to competition.38 Incumbent employees acquire firm-specific skills and knowledge either through experience, formal training, or relationships developed in the workplace.39 These firm-specific skills and knowledge make incumbent

36 See Wachter & Cohen, supra note 8, at 1353.


38 See Oliver E. Williamson et al., Understanding the Employment Relation: The Analysis of Idiosyncratic Exchange, 6 BELL J. ECON. & MGMT. SCI. 250, 253 (1975); see also EHRENBERG & SMITH, supra note 37, at 174 (“Firms most likely to decide that the benefits of using an internal labor market outweigh the costs are those whose upper-level workers must have a lot of firm-specific knowledge and training that can best be attained by on-the-job learning over the years.”) "Human capital theory," the leading version of internal labor market theory, was given early definition in Gary Becker, Investment in Human Capital: A Theoretical Analysis, 70 J. POL. ECON. 9 (1962), and Walter Oi, Labor as a Quasi-Fixed Factor, 70 J. POL. ECON. 538 (1962).

39 See Williamson et al., supra note 38, at 253, 257; Becker, supra note 38, at 11.
employees more productive than otherwise qualified workers who could be hired from the external labor market. They also make the incumbent employees more productive for their current employer than they would be working for another employer. As a result, both parties are willing to invest in the employee’s acquisition of firm-specific skills and knowledge because they will share the productivity dividends reaped from them. The employer benefits from greater profits generated by the employee’s increased productivity. The employee benefits because her greater productivity allows her aggregate wages (i.e., career compensation) with her current employer to exceed the compensation that any other employer could provide.

Firm-specific skills and knowledge differ from general skills and knowledge. General skills and knowledge would benefit any employer. Like firm-specific skills and knowledge, they increase an employee’s productivity. But employers face a significant risk if they invest in their employees’ general skills; that is, employees may quit and sell their general skills and knowledge to other employers in the external labor market. No employer wants to invest so that a

40 See Ehrenberg & Smith, supra note 37, at 155; Becker, supra note 38, at 11; Williamson et al., supra note 38, at 253.

41 See Schwab, supra note 8, at 15 (“Because the parties share the costs and benefits of training throughout the employee's work life, both parties want to continue the relationship. The employer pays employees less than their full value later in their career. This protects employees from discharge because a discharge would harm the employer as well. The late-career wage exceeds, however, the outside wage the employee could receive, thereby discouraging the employee from quitting.”). Empirical evidence supports the view that wages in internal labor markets are set according to different standards than those typically considered relevant to the external labor market. See, e.g., George Baker & Bengt Holmstrom, Internal Labor Markets: Too Many Theories, Too Few Facts, 85 AM. ECON. REV. 255, 258-59 (1995).
competitor can yield the productivity returns.\textsuperscript{42} Thus, employers may be willing to forego the productivity benefits of providing their employees with further general skills and knowledge in order to avoid the risk of losing their investment.

The job-match theory posits that a different set of competitive barriers define the internal labor market. According to job-match theory, an employer systematically underpays its employee in the early stages of her career because the employer sets the entry-level wage with inadequate information about the employee’s productivity in the job. As the employer learns more about the employee’s productivity over time, the employer becomes better able to pay higher wages to employees who are well-matched to their jobs and, therefore, highly productive. Longer job tenure exposes better information to the employer; therefore, the employer becomes better able over time to pay the employee commensurate with her productivity and to compensate her for earlier underpayments.\textsuperscript{43} In addition, better information about an employee’s capabilities allows the employer to match the employee with her “optimal assignment” — that is, the job in which the employee will be most productive.\textsuperscript{44} In turn, the employee’s higher productivity in the optimal assignment permits the employer to pay the employee higher wages.

\textsuperscript{42} See Schwab, supra note 8, at 13 & n.18.

\textsuperscript{43} See Boyan Jovanovic, \textit{Firm-Specific Capital and Turnover}, 87 J. POL. ECON. 1246 (1979) (setting forth the job match theory); Boyan Jovanovic, \textit{Job Matching and the Theory of Turnover}, 87 J. POL. ECON. 972 (1979) [hereinafter \textit{Job Matching}].

\textsuperscript{44} See Jovanovic, \textit{Job Matching}, supra note 43, at 974 (assuming that “imperfect information exists on both sides of the market about the exact location of one’s optimal assignment. Following an initial assignment, new information becomes available, and the reassignment becomes optimal in certain cases”).
Better matched workers are more productive and tend to remain with their firms longer, in part because they earn high wages that other employers will not match.\textsuperscript{45} A virtuous cycle results. The incumbent employee is more valuable to the employer than workers from the external labor market. The employer remunerates the employee more richly than would other employers.

The “supervision” or “efficiency wage” theory of the internal labor market, on the other hand, suggests that employers defer wage payments — that is, they increase employees’ wages as the employees’ tenure increases — as a means of encouraging employees to sustain their productivity early in their careers. Although higher wages do not reward incumbent employees directly for their present productivity, incumbent employees work harder in the near term to earn their reward in the long term. In other words, higher wages in the later stages of employees’ careers are a reward for employees’ earlier diligence.\textsuperscript{46} Thus, incumbent employees’ expectations based on employers’ implicit (or perhaps explicit) promises make the employees more productive than workers from the external labor market.


\textsuperscript{46} See Erling Barth, Firm-Specific Seniority and Wages, 17 J. LAB. ECON. 495, 496 (1997); see also Robert M. Hutchens, Seniority, Wages and Productivity: A Turbulent Decade, 3 J. ECON. PERSP. 49, 60-61 (1989) (discussing research supporting the “supervision” theory); see generally Edward Lazear, Agency, Earnings Profiles, Productivity, and Hours Restrictions, 71 AM. ECON. REV. 606 (1981).
The relationship between wages, firm tenure, productivity in the internal labor market, and productivity and wages in the external labor market has been depicted using the following graph.\footnote{See, e.g., Wachter & Cohen, supra note 8, at 1362-63 (offering this graph to depict the internal labor market relationship). This graph best describes the internal labor market relationships posited by human capital theory and job-match theory. Both of these theories assume a relationship between productivity rising with tenure and wages rising with tenure. Supervision theory disconnects the employee’s productivity from her wages; therefore, a graphical representation of this theory would look different. The wage curve would be roughly similar to the wage curve found in the graph below. In supervision theory’s purest form, the employee’s productivity curve would be close to horizontal, with a slow, steady declining slope like that of the opportunity wage curve.}
In this graph, $W$ (wage) represents all forms of compensation paid by the employer to its employee; $MP$ (marginal productivity) represents the employee’s productivity with her current employer; and $OW$ (opportunity wage) represents the worker’s wage in the external labor market — that is, the wage the worker would earn from the next best employer. Because the external labor market is competitive, the opportunity wage also tracks the worker’s productivity with the next best employer. Tenure $A$ is the point at which the worker enters the internal labor market. Tenure $F$ represents the employee’s retirement from her career with the employer.

The employee invests in her relationship with the employer from Tenure $A$ to Tenure $D$. This investment results from the employee accepting a lower wage from her employer than her opportunity wage. After Tenure $D$ until Tenure $F$, the employee earns dividends because her wage exceeds her opportunity wage. As long as the difference between the present value of the employee’s wage and the present value of her opportunity wage after Tenure $D$ (i.e., $PV(W_{D:F} - OW_{D:F})$) exceeds the difference between the present value of the opportunity wage and the present value of the wage prior to Tenure $D$ (i.e., $PV(OW_{A:D} - W_{A:D})$), the employee will reap a net dividend from her sunk investments (i.e., $D_{ce} = PV(W_{D:F} - OW_{D:F}) - PV(OW_{A:D} - W_{A:D})$). If this net dividend is greater than zero (i.e., $D_{ce} > 0$), then the employee benefits from her relationship with the employer in the internal labor market. Further, since the employee earns dividends until retirement at Tenure $F$, the employee has an incentive to remain in the relationship with her employer as long as possible, all other things being equal.

The employer invests between Tenure $A$ and Tenure $B$ and again between Tenure $E$ and Tenure $F$. During these periods, the employee’s wage exceeds her productivity. The employer earns dividends between Tenure $B$ and Tenure $E$ when the employee’s productivity, higher
because of her implicit contract with the employer, exceeds her actual wage. Once again, as long as the difference between the present value of the employee’s productivity and the present value of the employee’s actual wage from Tenure B to Tenure E (i.e., \(PV(MP_{B,E} - W_{B,E})\)) exceeds the difference between the present value of the wage and the present value of the productivity from Tenure A to Tenure B and from Tenure E to Tenure F (i.e., \(PV(W_{A,B} - MP_{A,B}) + PV(W_{E,F} - MP_{E,F})\)), the employer will reap a net dividend from its investments (i.e., \(Der = PV(MP_{B,E} - W_{B,E}) - (PV(W_{A,B} - MP_{A,B}) + PV(W_{E,F} - MP_{E,F}))\)). If the net dividend is greater than zero (i.e., \(Der > 0\)), the employer benefits from its relationship with the employee in the internal labor market.48

Regardless of whether the barrier to competition is incumbent employees’ firm-specific skills and knowledge, job matches, or the employer’s productivity incentive system, the internal labor market creates a bilateral monopoly.49 Under ordinary circumstances, the parties will try to

48 This model is subject to caveats. Perhaps most important, employers have great difficulty isolating an individual worker’s productivity or measuring it with the precision suggested by this graph. One important cause of this measurement problem is that employees rarely work entirely on their own, but measuring an individual’s contribution to a group’s product may not be possible. Accordingly, discussions of productivity should usually be preceded by a warning that most productivity measures are rough estimates, at best. See Stein, supra note 10, at 140-42.

49 There has been a substantial debate over the continuing viability of internal labor markets and, therefore, the relevance of internal labor market theory. No scholar has argued that internal labor markets have entirely disappeared from the American economy. Nonetheless, Katherine Stone, Peter Cappelli, and Paul Osterman, among others, have described a series of shocks to the American economy during the 1980s and 1990s wrought by globalization, technological developments, deregulation, declining union density rates, and other factors that weakened internal labor markets and reduced their relevance. See Katherine V.W. Stone, From Widgets to Digits: Employment Regulation for the Changing Workplace (2004); Peter Cappelli, The New Deal at
WORK (1999); Peter Cappelli, *Career Jobs Are Dead*, 42 CALIF. MGT. REV. 146 (Fall 1999); PAUL OSTERMAN, SECURING PROSPERITY (1999); *see generally* PAUL OSTERMAN ET AL., WORKING IN AMERICA (2001) (taking a more ambiguous position on the viability of internal labor markets, probably reflecting the book’s authorship by committee). Other scholars, most notably Sanford Jacoby, acknowledge the economic shocks to the American economy and their importance, but argue that their effects on internal labor markets have been overstated and that they signal little more than evolutionary change. *See* SANFORD JACOBY, EMPLOYING BUREAUCRACY: MANAGERS, UNIONS, AND THE TRANSFORMATION OF WORK IN THE 20TH CENTURY (2004); Sanford Jacoby, *Melting into Air? Downsizing, Job Stability, and the Future of Work*, 76 CHI.-KENT L. REV. 1195 (2000); Sanford Jacoby, *Are Career Jobs Headed for Extinction?*, 42 CALIF. MGT. REV. 123 (Fall 1999); *see also* Erica L. Groshen & David I. Levine, *The Rise and Decline (?) Of U.S. Internal Labor Markets* (July 1998) (manuscript on file with author) (empirical study finding no evidence of decline in internal labor markets); Gary Charness, *Changes in the Employment Contract? Evidence from a Quasi-Experiment* (Dec. 1999) (manuscript on file with author) (finding that employee attitudes have not shifted in a manner that is consistent with a decline in internal labor markets).

The better argument is that internal labor markets have survived, but with some modifications that do not match the traditional expectations of how they will operate. Michael Piore, whose seminal work with Peter Doeringer defined internal labor markets for a generation of labor economists and scholars in law, industrial relations, management, human resources, and organizational theory, *see* PETER DOERINGER & MICHAEL PIORE, INTERNAL LABOR MARKETS AND MANPOWER ADJUSTMENT (1971), explains the results in this way:

> The world into which we are moving is [] not a world in which the pricing and allocation of labor will be wholly governed by market forces, unmediated by administrative rules and social customs. We will, in other words, continue to have internal labor markets in the broad sense of the term. But the particular forms these internal labor markets will take are extremely varied. No single form will be dominant in the way in which the bureaucratic organization was dominant earlier in the post-war period.

continue their relationship because each party reaps dividends that are not available elsewhere and each party sinks investments into the relationship which they do not want to forfeit. Thus, the employer will be disinclined to discharge the employee. The employer will also avoid behaviors that might cause the employee to quit. Similarly, the employee will be disinclined to quit because no other employer would compensate her at a level equal to that paid by her current employer. In sum, the benefits derived by the parties from continuing their relationship create incentives for a long-term relationship. The boundary between the external labor market and the


50 See EHRENBERG & SMITH, supra note 37, at 168-170, 381-382; see also Schwab, supra note 8, at 115.
internal labor market is the point at which there are sunk investments and prospective dividends which the parties do not want to lose.

Yet, there is no formal, explicit, legally enforceable contract codifying this arrangement in typical circumstances. These implicit agreements in the internal labor market broadly set the terms for a long-term employment relationship but do not mandate specific behaviors throughout the life of the agreement.\footnote{See Ehrenberg & Smith, supra note 37, at 168-170, 381-382; see also Schwab, supra note 8, at 115.} The type of detailed, long-term, written contract that would be needed to produce this result is impractical and uncommon. Among other reasons, the transaction costs associated with negotiating and enforcing a formal, detailed, complex, and contingent contract would be prohibitive.\footnote{See Michael L. Wachter & Randall D. Wright, The Economics of Internal Labor Markets, in The Economics of Human Resource Management 86, 97 (Daniel J.B. Mitchell & Mahmoud A. Zaidi eds., 1990) ("If the parties inside the firm attempt to maximize the coalition’s surplus, they must obviously attempt to reduce transactions costs as much as possible (or, more accurately, as much as it is efficient to do so). Since negotiating, writing and enforcing contracts often incur high transaction costs, complex state-contingent contracts might not be joint profit maximizing.").} Further, specific agreements regarding future behaviors (i.e., the amount of work expected from the employee, the amount of pay required of the employer) subject the parties to the risks associated with changing circumstances. The parties’ inability to predict every contingency that might arise over the life of their employment relationship — that is, “bounded rationality” — requires preserving flexibility to take account of changing circumstances.\footnote{Oliver D. Hart, Optimal Labour Contracts Under Asymmetric Information: An Introduction, 50 Rev. Econ. Stud. 3, 23 (1983) (discussing the role of bounded rationality in contracting).} Less specificity and greater flexibility, however, make the agreement
difficult to enforce at law.\textsuperscript{54} As a result, after the worker is hired, the parties engage in rolling renegotiations and reinterpretations of their relationship to re-calibrate the distribution of investments and dividends.\textsuperscript{55}

Without a legal enforcement mechanism, a danger arises that one party will engage in “strategic” or “opportunistic” behavior which expropriates some of the other party’s benefits or shifts costs onto the other party.\textsuperscript{56} For example, an employer may be tempted to engage in strategic behavior between Tenure E and Tenure F. The employer has already reaped all of its dividends, but the incumbent employee awaits a portion of her dividend because the employer is expected to pay the employee a wage in excess of her productivity during this phase of her tenure. So, the employer might fire the employee. The discharge allows the employer to avoid paying wages that will exceed the employee’s productivity. The employer thereby usurps some of the employee’s dividend.\textsuperscript{57} On the other hand, the employee might be tempted to engage in strategic behavior during the period between Tenure B and Tenure E when the employee’s productivity exceeds her wage. If the employee “shirks” during this period, and thereby reduces

\textsuperscript{54} See Harris, supra note 8, at 1212.

\textsuperscript{55} Hart, supra note 53, at 23 (“In reality, there exist few contracts between firms and workers containing the amount of detail which [may be] appropriate…[C]ontracts tend to be in force for limited periods of time, and are then renegotiated.”).

\textsuperscript{56} See Wachter & Cohen, supra note 8, at 1360.

\textsuperscript{57} See Harris, supra note 8, at 1208. Other scholars have offered a similar analysis to argue that the Age Discrimination in Employment Act, by deterring this kind of employer opportunism, defends the internal labor market’s efficiencies. See, e.g., Minda, supra note 8, at 529-530; Schwab, supra note 8, at 12.
her productivity, she usurps some of the employer’s dividend and transforms it into her own leisure. Further, the employer must pay the costs of monitoring the employee’s work more closely to minimize her shirking and, perhaps, risk disciplining the employee and undermining their relationship further.\footnote{See Wachter & Cohen, \textit{supra} note 8, at 1358.}

Strategic behavior may benefit the party that engages in it, but it threatens the efficiencies made possible by the internal labor market. It may also have effects beyond the instant parties which, in turn, deprive the party engaging in the strategic behavior of its benefits. For example, an employer’s strategic behavior with respect to one worker might cause other incumbent employees to doubt the reliability of their relationship with the employer.\footnote{See Harris, \textit{supra} note 8, at 1208.} These co-workers might shirk, quit, or demand a costly and specific written agreement that assures them their expected dividends. These costs may exceed the appropriated dividends.\footnote{See Wachter & Cohen, \textit{supra} note 8, at 1358.} Workers in the external labor market might also learn of the employer’s reputation and shy away from entering into an agreement with the employer or demand additional guarantees.\footnote{See Cohen & Wachter, \textit{supra} note 8, at 109, 118.}

**B. Efficient Accommodations in the Internal Labor Market: The After-Hiring Impairment**

The preceding section described the general context — the internal labor market relationship — in which an incumbent employee may request an accommodation. An accommodation request may arise in any one of three scenarios in the internal labor market. In the first scenario, the employee develops a physical or mental impairment after being hired
which interacts with her current job to limit the employee’s productivity (i.e., an “after-hiring impairment”). For example, an industrial accident might have caused the employee to suffer a permanent partial impairment that must be accommodated for her to perform her job.⁶² This section will consider after-hiring impairments.

The second scenario actually involves two different factual situations which, for the purposes of this analysis, can be considered together. An incumbent employee may be promoted or transferred out of a job for which she did not need an accommodation into a differently structured job that she cannot perform without an accommodation (i.e., “promotion or transfer”). For example, an employee with a bad back might be transferred from a sedentary job in an airline’s mail room to a cargo-moving job requiring heavy lifting.⁶³ Or, an incumbent employee’s job may be re-designed to include new and different functions (i.e., “job re-design”) that the employee cannot perform without an accommodation. For example, an employee with carpal tunnel syndrome and tendonitis in her arms and shoulders might be newly required to hold blocks of wood at shoulder-level.⁶⁴ The next section will consider promotions, transfers, and job re-designs.

⁶² See, e.g., Allen v. Georgia Power Co., 980 F. Supp. 470, 472 (N.D. Ga., 1997) (“Plaintiff injured his back when he and co-worker attempted to lift cross-ties onto a truck . . . . Subsequently, [he] experienced leg pain, in addition to the back pain, and was not able to perform numerous job tasks that [employees at the plant] were required to perform.”).


A third scenario would involve an employee with a non-observable impairment that interacts with her current job to reduce her productivity to a level lower than the employer expected when the employee was hired. For example, an employee may have an undisclosed hearing limitation which causes her to miss certain instructions from her supervisor. The section following the next section will consider non-observable, or “hidden,” impairments.

(1) Isolating the After-Hiring Impairment’s Effects

The first scenario arises when an incumbent employee suffers an injury or otherwise develops a physical or mental impairment for which the employee needs accommodation to perform her current job at the expected level of productivity. I will assume, as a preliminary matter, that the accommodation would allow the employee’s productivity to return to its pre-impairment level and increase as expected over time. I will also assume that the

65 See e.g., Schmidt v. Methodist Hosp., 89 F.3d 342 (7th Cir. 1996) (plaintiff, who was “seriously hard of hearing” accepted a job as a nurse in the hemodialysis unit at Methodist Hospital, but due to his impairment he could not hear and distinguish between the different alarms from the dialysis machines).

66 I do not mean to suggest that people with disabilities are inherently less productive that people without disabilities. They are not. See Stein, supra note 10, at 130-134. Rather, the factual predicate for this analysis is that an employee with an impairment requests an accommodation that would affect her productivity by adapting her work environment to her impairment.

67 This result is suggested by the ADA’s definition of “qualified individual with a disability.” See supra note 13 (giving the ADA’s definition of “qualified individual with a disability”). Thus, it is reasonable to assume that employees with disabilities who have been accommodated can perform at the level expected of an unimpaired worker. Some accommodations may not produce this result. Nonetheless, making this assumption allows for the creation of a model which can take into account circumstances that do not fit this assumption.
accommodation entails some cost. Absent accommodation, and assuming no change in the employee’s compensation in the first instance, it is possible to assess the impairment’s effects on the employee’s dividends and investments and the employer’s dividends and investments.

On Graph #1, the incumbent employee’s productivity with her current employer is illustrated by the marginal productivity curve (MP). The employee’s productivity with the next best employer is depicted by the opportunity wage curve (OW). When the impairment occurs, both the MP curve and the OW curve will shift down because the impairment interacts with the employee’s job in a manner that reduces the employee’s productivity. The consequences of the after-hiring impairment are depicted in Graphs #2 and #3. In each graph, the solid lines

68 This article assumes that the accommodation must bear some positive cost because it is very unlikely that an employer would hesitate to adopt a cost-free means of increasing an employee’s productivity or, more important for this article’s purposes, force a worker into negotiations over adopting the cost-free accommodation.

69 See infra Part IIC (discussing a scenario in which the employee’s compensation changes).

70 The analysis in this section assumes that the impairment’s productivity effects are the same in the internal and external labor markets. Once again, I do not mean to suggest that this assumption is always true; however, this model can be easily modified to relax this assumption and predict the effects therefrom. See generally Verkerke, supra note 10, at 910-12 (discussing how workers’ impairments may find better and more productive matches in different jobs). Also, this discussion assumes that the employee’s opportunity wage is a direct function of her productivity. The opportunity wage may be disconnected from and lower than the employee’s actual productivity because of market failures, including discrimination. Finally, the depiction of the impairment’s effects on the employee’s productivity in all of the graphs in this paper assumes that the employee’s condition does not change over time. Of course, this assumption will not hold true for people with multiple sclerosis and other degenerative conditions. In these circumstances, the gap between the unadjusted MP and OW curves and the adjusted MP and OW curves would grow over time.
represent the productivity curves that would have been observed absent the impairment (MP, OW), while the dotted lines depict the productivity curves observed with the impairment (MP\textsuperscript{i}, OW\textsuperscript{(i)}).

On Graph #2, the impairment occurs at Tenure D. One very important effect of the impairment is that the employee’s dividend increases. The relationship between the employee’s wage and her opportunity wage remains unchanged from Tenure A to Tenure D, so the employee does not make any larger investment as a consequence of the impairment. Yet, the employee reaps a larger dividend from Tenure D to Tenure F because the wage remains unchanged while the opportunity wage is lower as a result of the impairment. A larger dividend results because the employee’s actual wage exceeds her opportunity wage by a larger amount during this period than it would have absent the impairment.
The incumbent employee does not realize this increased dividend. She receives no greater compensation, for example. Instead, the larger dividend is an additional competitive barrier in the internal labor market. It more tightly binds the employee to the employer. Moving from an internal labor market to the external labor market ordinarily causes a worker without a disability to suffer a loss in career compensation.\textsuperscript{71} The impairment effects a tighter bond between the employee and the employer because the employee with an after-hiring impairment would suffer an even greater wage loss if she were required to seek alternative employment in the external labor market. The additional loss would be equal to the value of the productivity lost as a consequence of the impairment. The incumbent employee’s relationship with the employer, therefore, becomes far more valuable to the employee.

On Graph #2, the impairment causes the employer to reap smaller dividends than expected from its relationship with this employee. The employer makes the same level of investment in the employee between Tenure A and Tenure B and reaps the same dividend between Tenure B and Tenure D because the employee’s wage and marginal productivity have not changed during periods preceding the impairment. The employer reaps a smaller dividend after Tenure D than it would have received absent the impairment because of the employee’s lower level of productivity. Also, the dividend period no longer extends to Tenure E. As a result of the shift in the marginal productivity curve, the employer’s dividend period ends at Tenure D’. For the same reasons, the employer makes a larger investment between Tenure D’ and Tenure F. This larger investment further discounts the employer’s net dividend. As a result, the employer has a weaker economic rationale for sustaining a relationship with the incumbent employee. At

\textsuperscript{71} See supra note 50 and accompanying text.
best, the employer will reap some dividends from its larger investments. At worst, the employer’s increased investments will exceed the smaller dividends. Thus, the relationship may remain profitable for the employer after the impairment, but this result is less likely than it would have been absent the impairment.

In Graph #3, with the impairment occurring at Tenure B, the employer’s net dividends are even smaller. The employer receives a smaller dividend — that is, marginal productivity in excess of wage — for a shorter period of time (i.e., Tenure B’ to Tenure D’ rather than Tenure B to Tenure E). The employer also makes the same larger investment between Tenure D’ and Tenure F as was depicted in Graph #2. Only the investment between Tenure A and Tenure B remains unaffected because the employee’s marginal productivity does not change during this period. As a result, the employer’s dividend is smaller when the impairment occurs at Tenure B.
than when it occurs at Tenure D. With the impairment occurring at Tenure B, all other things being equal, it becomes even less likely that the employer will benefit from a long-term relationship with the employee after the impairment.

If the impairment occurs at Tenure B, the effect on the employee’s opportunity wage means that the employee makes a smaller investment for a shorter period of time (i.e., the investment period begins at Tenure A, but ends at Tenure C’ rather than Tenure D). The employee also reaps a larger dividend and the dividend period begins at Tenure C’, rather than Tenure D, and lasts until Tenure F. 72 No change occurs between Tenure A and Tenure B. As a result, the employee reaps a dividend that is larger by the amount of the change in her opportunity wage. The employee’s total dividend is also greater than it would have been with a later-occurring impairment because the aggregate decrease in the opportunity wage is greater. Thus, an earlier impairment — that is, Tenure B rather than Tenure D — further increases the employee’s dividend. The effect of this larger dividend is to bind the employee with an after-hiring impairment even more tightly to the employer’s internal labor market.

The preceding analysis demonstrates that the effects of an after-hiring impairment on the economic relationship between the employer and the incumbent employee vary according to the timing of the impairment. But timing does not change the conclusion that the impairment causes the employer’s dividend to shrink and the employee’s dividend to grow. These are the background conditions for determining whether employers can benefit from accommodating

72 There remains a short period at and after Tenure B where the employee’s post-impairment opportunity wage exceeds her actual wage. Seeking employment in the external labor market at this point may benefit the employee in the short term. In the long term, however, the employee’s aggregate compensation will be lower.
workers with after-hiring impairments. The next sub-section introduces an accommodation into the equation.

(2) *Assessing the Accommodation’s Costs and Benefits*

Both parties’ dividends are derived by considering the relationship between the employee’s wage and the employee’s productivity; however, the wage is compared to different productivity measures to yield each party’s dividend. The employer compares the wage to the employee’s productivity. The employee compares the wage to her opportunity wage. Also, the effective wage — the value which each party assigns to the wage — may differ for the employee and the employer. This section will explain how these differences create the opportunity for an accommodation to produce a Pareto superior result. Disabilities accommodations are not necessarily a zero-sum game and, as a result, they may benefit the employers that provide them.

Accommodations costs have been treated as wage increases because they purportedly increase the employer’s cost of employing the worker with a disability (i.e., the “effective wage”). But care must be taken before assigning an accommodation’s costs to an employee’s

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73 Although this article’s analysis relies on this assumption, it is troubling. It may mask a policy choice. Workers without disabilities also need accommodations. Workers without wheelchairs need office chairs. Workers with sight need lights. Workers with hearing need earplugs in some loud environments. Yet, the costs of these accommodations are typically treated as capital investments when they benefit workers without disabilities, not wage increases. An argument has been made that the policy choice to treat accommodations for workers with disabilities differently suggests bias. See, e.g., Harlan Hahn, *Accommodations and the ADA: Unreasonable Bias or Biased Reasoning?*, 21 BERKELEY J. EMP. & LAB. L. 166, 167 (2000) (“Such judgments have ignored the many advantages conferred on the non-disabled and the disadvantages imposed on people with disabilities by features of the environment that are virtually invisible or taken for granted. In fact, judicial opinions have increasingly seemed
wages. At a minimum, it may be inappropriate to charge the entire cost of an accommodation to an individual employee with an impairment. The ADA’s Title III requires any employer providing a “public accommodation” to make their facilities accessible to people with disabilities; therefore, a workplace accommodation may also satisfy the employer’s obligation to accommodate the public. For example, installing a ramp for an employee using a wheelchair also makes the employer’s facilities accessible to motion-impaired customers. Although there is no legal obligation in this regard, a ramp also makes the employer’s facility more accessible for caregivers pushing strollers, bicyclists, and others.74 The employer may benefit as a result. Thus, the cost of the ramp should be amortized across all of its users and reduced by these other

to suggest that the protection granted Americans with disabilities constitutes a kind of unreasonable bias which extends beyond the guarantees bestowed on other individuals. No attention is devoted to the biased reasoning produced by the failure to consider the benefits bequeathed to the non-disabled or the penalties inflicted on disabled citizens by the existing milieu.”); see generally Stein, supra note 7, at 604-09 (“The canonical treatment of ADA accommodations views the source of whatever extra cost their provision engenders as arising from the endogenous, inherent inability of the disabled, rather than through the exogenous, constructed social environment.”).

74 See Susan Stefan, “You’d Have to be Crazy to Work Here”: Worker Stress, The Abusive Workplace, and Title I of the ADA, 31 LOY. L.A. L. REV. 795, 832 n.164 (1998) (“For example, curb cuts and ramps benefit people on bicycles, people with strollers, people on skates, as well as people with mobility or visual impairments.”); see also Vicki Shultz, Life’s Work, 100 COLUM. L. REV. 1881, 1931-32 (2000) (“Once again, making way for ‘them’ helps make way for all of us. The ADA requires both structural transformations - such as building ramps - and individual accommodation - such as allowing employees to work around their treatment schedules. These changes can benefit all of us, not simply those of us who meet the legal definition of ‘persons with disabilities.’ People who push baby strollers or ride bicycles appreciate ramps along with people in wheelchairs; and almost everyone can benefit from flexibility in scheduling.”).
benefits rather than charged in its entirety to the employee with a wheelchair. In addition, an accommodation may benefit many employees. For example, providing a text-only feature on an employer’s intranet would benefit many employees with vision impairments, not merely the employee who requested it. The cost of the software needed to make the intranet accessible should be spread across any employee whose productivity increases due to the intranet’s greater accessibility. All of these factors should be taken into account before assigning an accommodation’s costs to an employee’s wage.
Graph #4, which is a further elaboration of Graph #3, depicts how an accommodation may increase the employer’s dividends when an after-hiring impairment arises. An accommodation may be a one-time accommodation (e.g., the purchase of an assistive device, the modification of physical work space) or a continuing accommodation (e.g., hiring a reader for a vision-impaired employee, providing an employee with regular, intermittent medical leaves). This analysis assumes that an employer will amortize the accommodation’s costs over the term of its relationship with the employee in either case; accordingly, the costs of a one-time accommodation last as long as the costs of a continuing accommodation. Regardless, there is some evidence that the average cost of accommodations is quite small. See, e.g., Heidi M. Berven & Peter David Blanck, The Economics of the Americans with Disabilities Act Part II - Patents and Innovations in Assistive Technology, 12 NOTRE DAME J.L. ETHICS & PUB. POL'Y 9, 88-90 (1998) (“The findings of the present study show that the AT inventions typically were "low tech," inexpensive, and represent "capital improvements" from which all employees may benefit. The low direct costs of accommodations for employees with disabilities has been shown to produce substantial economic benefits to companies, in terms of increased work productivity, injury prevention, reduced workers' compensation costs, and workplace effectiveness and efficiency.”).

The adjusted wage curve $W^A$ illustrates the effects on the employee’s wage of an accommodation provided by the employer at or around Tenure B. The employee’s effective wage increases at Tenure B as a result of the accommodation’s cost and remains at that higher level through Tenure F. In essence, the employee’s effective wage shifts up and remains higher for the duration of the employment relationship. Because of the accommodation, the employee’s productivity returns to the level expected prior to the impairment (i.e., to $MP$ from $MP^{B(B)}$) for the duration of the accommodation.

An accommodation may be a one-time accommodation (e.g., the purchase of an assistive device, the modification of physical work space) or a continuing accommodation (e.g., hiring a reader for a vision-impaired employee, providing an employee with regular, intermittent medical leaves). This analysis assumes that an employer will amortize the accommodation’s costs over the term of its relationship with the employee in either case; accordingly, the costs of a one-time accommodation last as long as the costs of a continuing accommodation. Regardless, there is some evidence that the average cost of accommodations is quite small. See, e.g., Heidi M. Berven & Peter David Blanck, The Economics of the Americans with Disabilities Act Part II - Patents and Innovations in Assistive Technology, 12 NOTRE DAME J.L. ETHICS & PUB. POL'Y 9, 88-90 (1998) (“The findings of the present study show that the AT inventions typically were "low tech," inexpensive, and represent "capital improvements" from which all employees may benefit. The low direct costs of accommodations for employees with disabilities has been shown to produce substantial economic benefits to companies, in terms of increased work productivity, injury prevention, reduced workers' compensation costs, and workplace effectiveness and efficiency.”).

The cost of the accommodation also could be expressed as the marginal productivity curve shifting down because the impairment requires the employer to invest more capital for the worker to achieve the same productivity. This would simply be another way to express the same general concept reflected in this section’s treatment of the accommodation as a wage increase.
employment relationship (i.e., until Tenure F). For the purposes of this discussion, I will assume that the accommodation has no greater productivity effects, although I will relax this assumption below.\footnote{For this reason, the \textit{MP}\textsuperscript{A} is not relevant to the instant discussion. It becomes relevant below. Further, the assumption made here that the employee’s productivity returns to \textit{MP} as a result of the accommodation serves only to simplify this discussion and the attending graph. It is not essential to the conclusion discussed in the next paragraph.}

If the improvement in the employee’s productivity (e.g., from \textit{MP}\textsuperscript{B} to \textit{MP}) exceeds the cost of the accommodation (i.e., \textit{W}\textsuperscript{A1} - \textit{W}), then the employer benefits from the accommodation according to the first measure: the employer is better off with the accommodation than without it.\footnote{This conclusion is correct whether or not the employee’s productivity returns to \textit{MP} or increases only to a level between \textit{MP} and \textit{MP}\textsuperscript{B}. As long as the difference between the employee’s post-accommodation and pre-accommodation productivity exceeds the cost of the accommodation, this conclusion stands.} The employer’s dividend is larger than it would have been if the employee continued working without the accommodation. Yet, the employer’s dividend will not return to the level it would have reached absent the impairment. It necessarily falls short by the amount of the accommodation’s cost. The employer, therefore, does not benefit according to the second measure: the employer is not better off with the accommodation and the impairment than it would have been without the impairment. But further analysis is required before arriving at a firm conclusion about whether the second measure can be satisfied.

The effect of the accommodation on the employee’s dividend is the sum of the difference between the effective wage and the actual wage (i.e., \textit{W}\textsuperscript{A} - \textit{W}) and the difference between the pre-impairment and post-impairment opportunity wages (i.e., \textit{OW} - \textit{OW}\textsuperscript{B}). The wage simply
increases with the cost of the accommodation. As intuition might suggest, a more expensive accommodation yields a higher dividend for the employee because the difference between the aggregate effective wage and the aggregate actual wage is greater while the opportunity wage remains at its post-impairment level.

The opportunity wage may be the more intriguing factor. The current employer’s provision of an accommodation does not affect the employee’s post-impairment opportunity wage (\(\text{OW}^{I(B)}\)). Simply, other employers do not reap productivity benefits or pay higher wages because this employer has provided an accommodation. Accommodations that involve modifications to an employer’s physical work environment, like a ramp or expanded doorways that accommodate workers in wheelchairs, cannot be transferred from one employer to the next. It is also reasonable to assume that an employer would not consent to a departing employee taking a mobile accommodation (e.g., specialized software, an assistive device) with her to a new employer. Strictly speaking, therefore, the current employer’s accommodation should not affect the employee’s opportunity wage. As a result, the opportunity wage will remain at the lower, post-impairment level (\(\text{OW}^{R(B)}\)) after the accommodation is provided rather than returning to the pre-impairment level (\(\text{OW}\)). The employee’s adjusted dividend, therefore, is larger after the accommodation.79

79 Some employers in the external labor market may have previously modified their workplaces to accommodate other workers with similar or identical impairments. If these accommodations would equally benefit employees working for other employers (e.g., a ramp for employees with wheelchairs would benefit any prospective employee using a wheelchair), then these employees’ opportunity wages would not shift down to \(\text{OW}^{R(B)}\). This result will occur only with easily shared accommodations that are made widely available throughout the workforce, like a ramp or other architectural change, as opposed to individualized accommodations tailored to bridging the gap.
An objection might be raised that, while it is literally true that the next best employer does not benefit from the current employer’s provision of an accommodation, employers in the external labor market are also subject to the ADA’s accommodation mandate. If the next best employer obeys this mandate, then the employee’s productivity in the external labor market (and, therefore, her opportunity wage) should also return to its expected pre-impairment level (i.e., OW). But this objection runs counter to the economics of the external labor market and the realities of employment discrimination practice. The external labor market is a competitive market. Prospective employees and employers are largely fungible.\textsuperscript{80} Employers will not hire workers with impairments who are made more expensive by an accommodation’s costs when they can hire comparatively cheaper workers who do not need accommodations.\textsuperscript{81} Unfortunately, the ADA has not changed employers’ decision making in this regard. The ADA’s prohibitions on discrimination in hiring decisions are largely unenforceable, in part because discrimination-in-hiring claims are very difficult to prove.\textsuperscript{82} In addition, the worker has little or no investment in its relationship with any given employer in the external labor market, so she has between an employee’s impairment and the workplace environment, like a particular assistive device or alternative work arrangement.

\textsuperscript{80} See supra text accompanying note 35-36 (discussion of the external labor market).

\textsuperscript{81} This analysis presumes that the worker’s impairment is known. See infra Part IID for a discussion of hidden impairments in the external labor market.

\textsuperscript{82} See supra note 11 (discussing evidence regarding ADA hiring claims and hiring claims under other employment discrimination statutes).
less incentive to bring a hiring discrimination claim. In the absence of an enforceable
prohibition on hiring discrimination that exposes the next best employer to a genuine risk of
added costs, the next best employer cannot be expected to provide an accommodation. As a
result, the employee’s opportunity wage will not return to its pre-impairment level when the
current employer provides an accommodation.

In sum, the accommodation and the impairment combine to raise the height of the
internal labor market’s competitive barriers. Just like firm-specific skills and knowledge, the
accommodation and the impairment increase the benefits of the internal labor market for the
employee. As with the employee’s unaccommodated impairment, the alternative to continuing
her relationship with her current employer — that is, seeking employment in the external labor
market — is less remunerative over the long term because of her lower opportunity wage. But
the introduction of the accommodation means that the employee also receives a higher effective
wage from her current employer than she would receive from another employer. As a result, the
competitive barrier is higher with the accommodation and the impairment than it would be with
the impairment alone and significantly higher than it would be without the accommodation and
the impairment.

The preliminary conclusion of this analysis, therefore, is that an accommodation can
produce a Pareto superior outcome when compared with a continuing employment relationship
without an accommodation. The employer’s dividend increases and the employee’s dividend
increases. Thus, accommodating an employee’s after-hiring impairment can satisfy the first

83 See supra text accompanying notes 35-61 (discussion of the nature of relationships in the external labor
market and contrasting it with the shared investments found in the internal labor market).
measure of providing a benefit to the employer: the employer’s dividend is higher with the accommodation than it would have been if the employer continued the employment relationship without an accommodation. But this preliminary conclusion is incomplete. Also, it does not answer the question of whether the employer would be better off according to the second measure — that is, the employer is better off continuing its relationship and accommodating the incumbent employee with an after-hiring impairment than it would have been if the employee did not have an impairment. The following sub-sections will add more relevant factors to the analysis.

(3) The Consequences of Delaying the Accommodation
Graph #5 depicts the consequences for the employer of delaying an accommodation when the employee experiences an after-hiring impairment at Tenure B. A delay could result from difficulties with identifying an appropriate accommodation, a protracted interactive process, or employer or employee intransigence.\textsuperscript{84} If the employee were to file a charge with the EEOC, and certainly if that charge were to be litigated in federal court, then a significant delay is likely.\textsuperscript{85} Rather than providing the accommodation at Tenure B, therefore, this graph assumes that the employer provides the accommodation at Tenure C. It also assumes that the employee continues working for the employer between Tenure B and Tenure C and her productivity during this period is lower (i.e., \(MP^{(B)}\)) because of the impairment’s interaction with the employer’s unadapted work environment.

The delay effects a small reduction in the employee’s dividend increase. The accommodation increases the employee’s effective wage from \(W\) to \(W^{A}\) beginning at Tenure C until Tenure F rather than from Tenure B to Tenure F, so the aggregate wage increase is smaller. The post-impairment opportunity wage is lower than the pre-impairment opportunity wage and

\textsuperscript{84} See, e.g., Harris, \textit{supra} note 5, at 132 (US Airways took five months to respond to Barnett’s request for an accommodation).

\textsuperscript{85} See Paul Steven Miller, \textit{A Just Alternative or Just an Alternative? Mediation and the Americans with Disabilities Act}, 62 Ohio St. L.J. 11 20-22 (2001) (“When mediated, the average processing time for ADA complaints is nearly cut in half, as compared to the time it would take the EEOC to administratively address the complaint. This time frame includes the time from the charging party walking in the door of the EEOC to the time of resolution or impasse. On average, ADA charges take 286 days to reach a determination in the EEOC’s administrative process while mediated ADA charges took on average 151 days to reach final resolution.”).
unaffected by the accommodation. By contrast, the employer’s situation is worse than if it had
provided the accommodation at Tenure B. The employer’s dividend period begins later (i.e., at
Tenure B’ rather than at Tenure B). Also, the employee’s productivity is lower from Tenure B to
Tenure C than it otherwise would have been. Since the employee’s effective wage does not
change between Tenure B and Tenure C, the employer’s dividend is larger than it would have
been absent any accommodation, but smaller than it would have been if the employer had
provided the accommodation as soon as possible after the impairment arose.86

This analysis enriches the preliminary conclusion. The employer can benefit from
providing an accommodation, at least according to the first measure, but it is more likely to
benefit if it accommodates the employee as soon as possible after the impairment arises. But
timing is only one additional factor, along with cost, in the economic assessment of an
accommodation. Productivity is the other critical factor. Even with the employee’s effective
wage shifting up and remaining higher at Tenure B because the employer immediately
accommodated the employee’s impairment when it arose, the critical factor from the employer’s
perspective is the employee’s productivity. If the employee’s productivity merely returns to the
level expected before the impairment (i.e., return from MP^{(B)} to MP) for the remainder of the

86 This difference would be narrowed to the extent that the employer is insured against any losses that
might occur during the period after the impairment and before the provision of the accommodation. For example,
workers’ compensation insurance or temporary disability insurance may provide the employee with full or partial
wage replacement during this period. See, e.g., N.Y. WORKERS’ COMP. LAW § 1-401 (McKinney 1994 & Supp.
temporary disability insurance law). However, insurance bears costs, so the general principle remains true even if
the employer has insured itself against this risk.
employment relationship, then the employer’s dividend will be smaller than it would have been absent the impairment.

(4) The Accommodation’s Enhanced Productivity Effect

The nature of the employee’s relationship with her employer changes as a result of the employee’s after-hiring impairment and the employer-provided accommodation. The employee reaps a larger dividend which raises the height of the competitive barrier in the internal labor market. The higher competitive barriers effect a tighter binding of the employee to the employer. This tighter bond creates an opportunity for the employer and the employee to reduce the employer’s labor costs and increase the employee’s productivity. The parties’ response to the employee’s impairment and the accommodation can influence, even determine, the accommodation’s effect on productivity. The parties are not passive observers of economic, physical, or mental phenomena unfolding before them. Accommodations create conditions in which the parties’ behavior can change their efficiency calculi.

Thus, the change in the nature of the employment relationship requires relaxing the assumption that an accommodation’s only productivity effect is to return the employee’s marginal productivity to its pre-impairment level. By relaxing this assumption, it becomes possible to identify circumstances within which the accommodation will have an enhanced productivity effect that could make it possible to satisfy the second measure of whether an employer benefits from providing the accommodation — that is, the employer may be better off providing an incumbent employee with an accommodation than it would have been if the employee did not have an impairment.
More tightly binding the employee to the internal labor market may largely or entirely free the employer from potential risks of loss in its relationship with the employee. The employee’s aversion to the external labor market increases as the opportunity wage decreases. The employee’s commitment to the internal labor market increases with her effective wage which includes the accommodation’s cost. As a result, the impairment and accommodation will reduce the risk that the employee will separate from her current employer to seek employment in the external labor market before the employer can reap its full dividends. The risk may even be eliminated. Also, the employee will avoid any behaviors that might subject her to being discharged into the external labor market. Thus, the risk that the employee will shirk or engage in other strategic behavior will be significantly reduced or eliminated. Empirical evidence supports these conclusions. Employees with disabilities receiving accommodations have lower job turnover rates and equivalent or lower absenteeism rates when compared with employees without disabilities.

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87 This conclusion and others in this section are premised on the assumption that labor supply is elastic.

Reducing the employer’s risks may have two effects. First, the employee’s productivity increases if the employee shirks less, or not at all. Second, the employer’s costs of monitoring the employee to avoid shirking decline; therefore, the employee’s cost to the employer — the effective wage — declines. But risk reduction may be only the beginning of the beneficial effects an accommodation can have on the productivity of an employee with an after-hiring impairment.

The employee’s tighter bond to the internal labor market makes it possible for the employee and the employer to cooperate more fully for the purpose of increasing the employee’s productivity to a level beyond what she might have achieved absent the impairment. At a minimum, the employee with a disability can be expected to undertake all necessary efforts to increase her productivity over the life of her relationship with the employer, like acquiring firm-specific skills and knowledge or willingly acceding to her employer’s job match decisions. In addition, while employers in typical relationships with employees hesitate to invest in their employees’ acquisition of general skills because of the risk that the employee will quit, this hesitation should disappear in this scenario. The accommodated employee with an after-hiring impairment is significantly less likely to quit for the purpose of selling her general skills to other


89 See generally Verkerke, *supra* note 10, at 948 (“While cost sharing responds to unusual worker preferences, efficient job assignments in more ordinary circumstances require matching workers to jobs in which they will be most productive. Indeed, one of the central lessons of the economic framework is that matching plays a critical role in promoting labor market efficiency.”).
employers. The employer can invest in the employee’s acquisition of productivity-enhancing general skills without fear that these investments will benefit a competitor.

Graph #4 illustrates all of these effects, again assuming that the employer provides the accommodation when the impairment occurs at Tenure B. First, the marginal productivity curve shifts up (i.e., from MP to MP\(^A\)) if the employee does not shirk and/or the employer and employee cooperate more fully in productivity-enhancing behaviors. Second, the employer’s costs of monitoring the employee to avoid shirking decline; therefore, the employee’s cost to the employer — the effective wage — shifts down. These lower monitoring costs may decrease the effective wage sufficiently to offset the increase in the effective wage that results from the accommodation (i.e., returning to W from W\(^A\)). The combined effect of higher productivity and a lower effective wage would be to increase the employer’s dividend and to allow the dividend period to last longer (i.e., until Tenure E’ rather than Tenure E).

If the increase in the employer’s productivity above the level of productivity expected before the impairment (i.e., MP\(^A\) - MP) equals the net costs of the accommodation (i.e., subtracting the reduced monitoring costs from the accommodation’s gross costs), then the employer will not merely reap a higher dividend than it would have yielded after the employee’s impairment arose. The employer will yield the same dividend it expected from its relationship with the employee before the after-hiring impairment arose. If the present value of the difference between the effective wage curve W\(^A\) (or even W) and the adjusted productivity curve MP\(^A\) between Tenure B and Tenure E’ exceeds the difference between the marginal productivity curve MP and the actual wage curve W from Tenure B to Tenure E, then providing the accommodation will generate a larger dividend for the employer than the employer could have expected before
the after-hiring impairment arose. The employer will be better off accommodating the employee with an after-hiring impairment than it would have been if the worker did not have an impairment. Of course, satisfying this higher standard necessarily also means satisfying the first measure’s lower standard.

Thus, the preliminary conclusion is further enriched by taking account of the accommodation’s enhanced productivity effect. The cost of the accommodation and the timing of the accommodation are not the only factors relevant to determining an accommodation’s economic consequences. The response of the employee and the employer to the impairment and accommodation — that is, their ability and willingness to cooperate to exploit the opportunity presented to them — is an equally critical factor.

In sum, the enriched — but still preliminary — conclusion of this analysis is that employers can benefit from accommodating employees with after-hiring impairments according to both measures of employer benefits. The employer’s dividend is likely to be higher than would have been expected after the impairment arose (i.e. the first measure). The employer’s dividend may also be higher than expected before the impairment arose; that is, the employer may be better off accommodating the employee with an impairment than if the employee did not have an impairment (i.e., the second measure). This result depends upon the accommodation’s cost, which is partly a function of timing, and its effect on the employee’s productivity. Most important, the parties’ response to the employee’s impairment and the accommodation can influence, even determine, the accommodation’s effect on productivity. The parties are not

90 I have not discounted the cost of the accommodation to its present value because the cost arises at the time of the accommodation rather than over time or at a later time.
passive observers. Accommodations and impairments create conditions in which the parties’ behavior can determine their economic fate.

C. Efficient Accommodations in the Internal Labor Market: Transfers, Promotions and Job Re-Designs

The second scenario in which an incumbent employee might request an accommodation would involve a promotion or transfer into a new job which the employee could not perform adequately without an accommodation. A job may also be re-designed to include new requirements that the employee will not be able to satisfy without an accommodation. While different in many respects, promotions, transfers, and job-designs have the same effect on the relationship between an employer and an employee with an impairment.91 Accordingly, this section will analyze them together.

Promotions and transfers are a predictable product of the rolling renegotiations that occur as the employee and the employer seek to assure both rising productivity and rising wages.92 In fact, the job-match theory of the internal labor market presupposes promotions and transfers. As the employer learns more about an employee’s abilities, the employer moves the employee into

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91 Distinguishing this analysis from the preceding section’s analysis does not require assuming that the employee’s impairment was present at the time she was hired. The only necessary assumption is that the impairment, regardless of when it arose, had no effect on the employee’s productivity prior to the promotion, transfer, or job re-design.

92 See supra text accompanying note 55 (discussing the rolling renegotiations that occur in the internal labor market).
the optimal assignment.\textsuperscript{93} Human capital theory would explain promotions and transfers in much the same way. In order to reap the fullest benefits of the employee’s acquisition of firm-specific skills and knowledge over time, the employer may move the employee into a job in which her skills and knowledge can be best exploited.\textsuperscript{94} Thus, in these circumstances, promotions and transfers can fulfill the employer’s expectations of rising productivity and, derivatively, the employee’s expectations of rising wages.

Promotions and transfers play a different role in supervision theory. Understanding this role requires re-defining “wages.” Employees may value non-pecuniary aspects of their working environment as much as they value cash wages. For example, employees may prefer to avoid strenuous physical labor, night work, or dangerous assignments. Working in jobs with these characteristics would impose “shadow prices” on the employee; that is, the jobs are less valuable to the employee.\textsuperscript{95} The shadow prices reduce the job’s effective wage. By comparison, transferring from a job with shadow prices to a job without shadow prices increases the employee’s effective wage even if the employee’s cash wages have not changed. Similarly, transferring to a job with “shadow benefits” — for example, greater prestige or a larger, more comfortable office — would increase the employee’s effective wage.\textsuperscript{96}

\textsuperscript{93} See supra text accompanying notes 43-44.

\textsuperscript{94} See Harris, supra note 5, at 188.

\textsuperscript{95} See Wim Groot & Maartje Verberne, Aging, Job Mobility, and Compensation, 49 Oxford Econ. Papers 380, 382-83 (July 1997).

\textsuperscript{96} See id. at 381-82.
Unlike human capital theory and job match theory, supervision theory detaches wages that rise with tenure from productivity that rises with tenure.\textsuperscript{97} Supervision theory posits that rising wages are a reward deferred until later in the employee’s career as an incentive for greater effort expended earlier in the employee’s career.\textsuperscript{98} The employer benefits, therefore, by finding a reward that does not entail higher cash wages. The employer may increase an employee’s effective wage over the course of the employee’s tenure by promoting or transferring the employee from high shadow-price jobs into lower shadow-price jobs or higher shadow-benefit jobs. For example, airline employees in cargo-handling jobs may prefer less physically strenuous work as they age. The airline might increase these employees’ effective wage by reserving easier, lower shadow-price jobs — like sedentary jobs in a mail room — for senior workers. These lower shadow prices would be intended to deter the cargo handlers from shirking.\textsuperscript{99} The lower shadow prices of the less strenuous jobs take the place of higher actual wages as the enforcement tool.

An employer might use shadow prices and shadow benefits to reward employees for higher productivity consistent with human capital theory and job match theory, but it is less likely. Human capital theory and job match theory both posit a causal — if not perfect — connection between rising productivity and rising wages throughout much of an employee’s career.\textsuperscript{100} Rising productivity creates the additional resources necessary to pay rising actual wages.

\textsuperscript{97} See supra text accompanying note 47.

\textsuperscript{98} See id.

\textsuperscript{99} See Harris, supra note 5, at 163.

\textsuperscript{100} See supra note 47 and text accompanying notes 38-45.
wages. There is no need to find a non-cash substitute. However, if the employee agrees to accept lower shadow prices or higher shadow benefits in lieu of cash wages, an intriguing and important wage effect occurs: the employee and the employer experience different effective wages. The employee’s effective wage is the actual wage plus or minus the shadow benefit or shadow price. The employer’s effective wage is simply the actual cash wage. Thus, the introduction of a promotion, transfer, or job re-design which changes the values of shadow prices and benefits would cause these two wage curves to diverge. This divergence will prove relevant to assessing an accommodation’s effects on the economics of the employment relationship.

Job re-designs will operate much like promotions and transfers. Consistent with human capital theory or job match theory, an employee’s job might be reorganized to increase the employee’s productivity by better exploiting her skills and knowledge. Consistent with supervision theory, a re-design might reduce shadow prices by removing unpleasant or physically taxing aspects of the employee’s job.101 Thus, job-redesigns are included in the following analysis.

Of course, an employee’s impairment may have no effect on her employer’s decision to promote or transfer the employee or to re-design the employee’s job. An employee with an impairment who is capable of performing the essential functions of one job may be perfectly capable of performing the essential functions of many jobs.102 In addition, internal labor market

101 It is also possible to increase shadow prices with a job re-design. See, e.g., Toyota Motor Mfg., Ky., Inc. v. Williams, 534 U.S. 184, 188-90 (2002) (plaintiff with carpal tunnel syndrome and bilateral tendinitis was newly required to open and close car doors on the assembly line, apply oil to the cars, and wipe them down).

102 Cf. supra 13 (giving the ADA’s definition of “qualified individual with a disability”).
theory does not presuppose that each employee has a fixed career path laid out on the day she is hired. Each employee may well follow an idiosyncratic career path. As long as wages exceed productivity and the opportunity wage, efficiencies result. It follows, therefore, that an employee’s career path may not lead inexorably to a single promotion or transfer. An employee who is unable to accept one job because of her impairment might be more productive with rising wages in a different job without an accommodation. Nonetheless, this analysis is concerned only with those circumstances in which the promotion, transfer, or job re-design necessarily precedes further increases in wages and productivity and the promotion, transfer, or job re-design cannot occur unless the employer accommodates the employee. The employer may be accommodating the employee for the first time or the employer may be required to substitute a new accommodation for an old accommodation that is inadequate for the employee’s new or newly re-designed job.

(1) Promotions, Transfers, Job Re-Designs, and Actual Wages

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104 See generally Harris, supra note 5, at 156-63 (discussing the role of promotions in the various internal labor market theories).
Graph #6 depicts the effects of an accommodation that facilitates a promotion, transfer, or job-redesign when the employee receives higher actual wages as her tenure increases. In this situation, the employee and the employer have the same effective wage — that is, the actual wage. This graph assumes that the employee’s unaccommodated impairment would prevent her from being promoted or transferred, or her job re-designed, at Tenure B. Without the accommodation, the productivity curve flattens as a result of the impairment (i.e., from MP to MP^{(B)}). As compared with the employer’s expectations, the employer would earn a smaller dividend lasting only from Tenure B to Tenure D'', rather than from Tenure B to Tenure E. The employer would also invest more for a longer period of time (i.e., from Tenure D'', rather than Tenure E, to Tenure F). The smaller dividend and the larger investment make it less likely that
the employer’s relationship with this employee will yield a dividend because of the employee’s impairment.

As with the after-hiring impairment scenario, the accommodation changes this result. Once again, the opening assumption is that the accommodation merely returns the employee’s productivity to its expected level (i.e., back to MP from MP^(B)). Unlike in the analysis of an after-hiring impairment, however, the employee’s opportunity wage curve (OW) has not shifted down as a consequence of the impairment. The employee’s productivity with another employer would not be affected by this employer’s inability to promote or transfer the employee or redesign her job. This difference proves to be very important.

The remaining factor in this efficiency analysis is the employee’s effective wage. The effective wage includes the costs of the accommodation. W^A depicts the effect on both parties’ effective wage of an accommodation. The effective wage shifts up at Tenure B and remains higher from Tenure B through Tenure F. The essential calculus has not changed. If the productivity increase (i.e., MP - MP^(B)) exceeds the cost of the accommodation (i.e., W^A - W), then the accommodation benefits the employer according to our first measure. The employer’s dividend will be greater than it would have been if the employer did not provide the accommodation and the employee was, as a result, inhibited from being promoted or transferred or her job re-designed. The question remains whether the employer would earn a higher dividend than it expected before learning that the impairment would inhibit the promotion, transfer, or job re-design — that is, whether the second measure can be satisfied. This question depends upon whether this impairment and accommodation will effect a further increase in the employee’s productivity.
As the previous section explained, the enhanced productivity effect is a possible consequence of the increase in the employee’s dividend. In the after-hiring impairment scenario, the employee reaped a larger dividend because her impairment drove down her opportunity wage and the accommodation drove up her effective wage. In this scenario, however, the employee’s dividend increases only by the amount of the accommodation’s cost. The impairment does not cause the opportunity wage to shift down; therefore, the dividend increases only in the amount of \( W^A - W \) because \( OW \) remains constant. Thus, the employee’s increased dividend is probably not as large as it would be with an after-hiring impairment, but larger than it would have been in the absence of the impairment and accommodation.

This larger dividend more tightly binds the employee to the internal labor market, but to a lesser extent than in the after-hiring impairment scenario. Nonetheless, conditions will be created for less shirking, lower monitoring costs, and greater productivity-enhancing cooperation than would have been possible absent the impairment and accommodation.\(^{105}\) Productivity may not increase and costs may not decrease as much as they might with the accommodation of an after-hiring impairment. As a result, the possibility that the employer’s dividend will increase beyond the expected dividend is smaller. The first measure of whether the employer benefits from the accommodation may be satisfied, but it is less likely that the second measure — the employer is better off with the accommodation and impairment — will be satisfied. Yet, some possibility remains.

(2) The Role of Shadow Prices and Shadow Benefits

\(^{105}\) Again, this assumes some elasticity of labor supply.
Graph #7 introduces shadow prices and shadow benefits into the analysis. Again, the accommodation and the promotion, transfer, or job re-design would occur at Tenure B. The employee’s position depicted in Graph #6 does not change, so it is not repeated on Graph #7; however, the explanation for the employee’s position changes. The employee’s effective “wage” no longer consists merely of the actual wage or, after the accommodation, the actual wage plus the accommodation’s cost. The effective wage takes into account the fact that the employee has been promoted or transferred into a job with a lower shadow price or higher shadow benefits, or had her job re-designed to reduce its shadow price or increase its shadow benefits. Thus, $W_A$ — the employee’s effective wage curve — is the sum of the actual wage, the cost of the accommodation, and the jobs’ shadow prices and benefits.
The employer’s effective wage changes for the same reasons, but in a different way. Shadow prices and shadow benefits reflect employee preferences. They do not contribute to the employer’s effective wage curve. The employer’s effective wage would be the employee’s actual wage; therefore, the employer’s effective wage is lower than the employee’s effective wage. On Graph #7, $W$ illustrates the employee’s effective wage absent the accommodation — that is, the actual wage with shadow prices or benefits. $W_{er}$ illustrates the employer’s effective wage without an accommodation if (1) the employee could be promoted or transferred, or her job re-designed, and (2) the promotion, transfer, or job re-design reduces shadow prices or increases shadow benefits. It is the employee’s actual wage without shadow prices or benefits. The difference between $W$ and $W_{er}$ is the value of the shadow prices or shadow benefits to the employee.\(^{106}\)

The inability to promote or transfer the employee or re-design her job because of her impairment reduces the employer’s dividend. Without the impairment, the employer had expected to earn dividends from Tenure B to Tenure E. The unaccommodated impairment will

\(^{106}\) I have assumed that shadow prices would change the slope of the employer’s effective wage curve ($W_{er}$) when compared with the employee’s effective wage curve ($W$). The slope would change if the employer prefers that shadow prices play an increasing role, and actual cash wages a declining role, as the employee’s tenure increases. It is reasonable to assume that employers would prefer lower labor costs over time. But this assumption is not essential to the analysis. If shadow prices play a constant role over the course of the employment relationship, the employers’ effective wage curve ($W_{er}$ and $W^{A}_{er}$) would be parallel, or even identical, to the employee’s effective wage curve ($W$). Further, the difference between the employee’s effective wage curve and the employer’s effective wage curve would remain the value of the shadow prices and benefits associated with the job into which the employee has been promoted or transferred, or the job re-design.
cause the employer to earn smaller dividends and only during the period from Tenure B to
Tenure E. Adding the accommodation into the calculus has two effects. First, the employee’s
productivity returns to its expected course (i.e., from MP^{(B)} to MP) or the higher curve (MP^{A})
that might result from the accommodation’s enhanced productivity effect. Second, the effective
wage curve shifts up to W_{cr}^{A}. Once again, the question of whether the employer benefits can be
answered by comparing the accommodation’s productivity effect with its cost. If the
productivity increase (i.e., MP^{A} - MP^{(B)} or MP - MP^{H(B)}) exceeds the cost of the accommodation
(i.e., W_{cr}^{A} - W_{cr}), then the employer will reap a larger dividend as a result of the accommodation
and satisfy the first measure of employer benefits.

The role of shadow prices in this calculus highlights how the parties might choose to
resolve an accommodations dispute in a manner that the ADA does not approve: a wage
concession by the employee. Without the accommodation, the promotion, transfer, or job re-
design would confer lower shadow prices or higher shadow benefits on the employee in lieu of
higher actual wages. The accommodation makes this substitution process less likely. The added
real cost of the accommodation eliminates or reduces the employer’s benefit from promoting or
transferring the employee into a position with lower shadow prices or re-designing her job to
reduce shadow prices. Thus, the employer will make the promotion, transfer, or job re-design
only if it will receive something in return — that is, higher productivity or, perhaps, a wage
concession from the employee. Higher productivity is possible, as the preceding analysis
demonstrated; however, it may not be sufficient or it may not occur at all.
Why would the employee agree to a wage concession, particularly when the law prohibits the employer from requiring it?\textsuperscript{107} The simple answer is that the employee faces a lower-than-expected wage if she is not promoted or transferred or her job is not re-designed. The employee’s actual wage, or her effective wage taking shadow prices and benefits into account, will not rise because the promotion, transfer, or job re-design is the pre-condition for higher wages. Yet, the promotion, transfer, or job re-design will occur only if the employer provides the accommodation. Thus, this employee must choose between (1) agreeing with the employer to reduce the employee’s future wage increases in return for an accommodation that leads to higher actual or effective wages, or (2) refusing to adjust her wages and being denied the promotion, transfer, or job re-design without which she will receive no future wage increases. Given this choice, the employee may well volunteer for smaller wage increases to help pay for an accommodation that will lead to a larger wage increase over time. An agreement of this sort might allow the employer to satisfy the second measure of employer benefits.

While the promotion-transfer-job-redesign scenario may best illustrate the circumstances in which a wage concession is plausible, wage concessions may also change the economic calculus for after-hiring impairments. Any change of circumstances that allows productivity

\textsuperscript{107} See generally U.S. Equal Emp. Opportunity Comm’n, The ADA: Your Employment Rights as an Individual with a Disability, http://www.eeoc.gov/facts/ada18.html (last visited Aug. 11, 2005) (“The ADA requires that the employer provide the accommodation unless to do so would impose an undue hardship on the operation of the employer's business. If the cost of providing the needed accommodation would be an undue hardship, the employee must be given the choice of providing the accommodation or paying for the portion of the accommodation that causes the undue hardship.” Cf. 42 U.S.C. 12112(b)(5) (2000) (imposing the obligation to provide the accommodation on the employer with no reference to the employee).
increases to match or exceed effective wage increases resulting from an accommodation sets the stage for a discussion about wage concessions between the employer and the employee. Once again, the parties have the opportunity to determine the economic outcomes through discussions of productivity and wages.

Thus, the preliminary conclusion about whether an employer can benefit from accommodating an employee subject to a promotion, transfer, or job re-design differs slightly from the conclusion reached with respect to employees with after-hiring impairments. It is still possible that an employer could benefit according to both measures. The employer may be better off with the accommodation than without the accommodation (i.e., the first measure). As with the after-hiring impairment, this result principally depends upon the accommodation’s cost and its effect on the employee’s productivity. But the employee’s preferences, expressed in the form of shadow prices and shadow benefits, will also be relevant when determining whether the employer will benefit. The employer may also be better off with the accommodation than it would have been if the employee did not have an impairment (i.e., the second measure), although this result may be less likely in this scenario than when the employee has an after-hiring impairment. The competitive barriers will not be as high in this scenario, but the importance of shadow prices and shadow benefits may expand the opportunity to reduce labor costs and increase the employee’s productivity is smaller. Some opportunity exists. An opportunity also exists for the parties to discuss other changes in their relationship, like wage concessions, that will effect the desired result. Once again, the parties can determine the outcome.

D. Efficient Accommodations in the Internal Labor Market: Hidden Impairments
J. Hoalt Verkerke provided a well-considered analysis of the consequences that unobservable or “hidden” impairments may have on workers’ efforts to seek employment in the external labor market.108 This analysis provides a starting place for consideration of hidden impairments’ effects on an internal labor market relationship. Verkerke began with the premise that employee turnover can be efficient. An employee who changes jobs to improve the match between her job and her skills and knowledge, or even her impairment, increases her productivity and her wages.109 Yet, hidden impairments frustrate the matching process, according to Verkerke.

Verkerke posited that the hidden impairment would effect the following self-perpetuating series of failures in the matching process in the absence of the ADA’s protections. Employer #1 learns about the worker’s hidden impairment through the worker’s failure to satisfy productivity expectations. Unconstrained by the ADA, Employer #1 discharges the worker into the external labor market. Employer #2 hires the worker without knowing that the worker has an impairment. Employer #1, in order to avoid a defamation claim by the discharged worker, does not disclose that the worker has a hidden impairment.110 Employer #2, therefore, cannot assess the effects of the worker’s impairment on her productivity in the job into which she would be

108 Verkerke, supra note 10, at 910-11.


110 Verkerke, supra note 10, at 914-15.
Thus, a “mismatch” between the worker and the job which Employer #2 has hired her to perform becomes very likely. The cycle then repeats itself. Employer #2 will discharge the worker as it learns more about her productivity, but it will not disclose what it knows to Employer #3. Employer #3 will discharge the worker and fail to disclose her impairment, as well. The result will be serial discharges of the worker, or “churning” and “scarring,” in Verkerke’s lexicon. The worker’s record of serial discharges will eventually deter employers from hiring the worker regardless of the actual quality of the match between the worker’s abilities and the prospective job. Market failure and inefficiency will result.

The ADA’s reasonable accommodation mandate serves as a brake on this process. The ADA encourages employees to disclose their impairments in return for the prospect of an accommodation. Also, rather than immediately discharging the unproductive employee, the employer must endeavor to find a reasonable accommodation for her impairment, if one is available. If an accommodation can be found that would allow the employee to increase her productivity to the expected level, then the employer may not discharge the employee and the inefficiencies of churning and scarring will be avoided.

Verkerke also correctly notes that the ADA prohibits the employer from seeking medical information that might disclose the hidden impairment before employment commences and limits such requests after hiring commences. See id. at 924-25.

See id. at 921-22.

See id. at 936.

See id.
Graph #8 depicts the internal labor market relationship between an employer and an employee with a hidden impairment. The employee is hired with the impairment at Tenure A, but the employer learns about the impairment at Tenure B. Absent the accommodation, the employee’s entire productivity curve would be lower than the employer’s pre-hiring expectations (i.e., $MP^{(A)}$ rather than $MP$) because the hidden impairment inhibits the employee’s ability to perform. The opportunity wage does not change, however. Even though the employee’s actual productivity with the next best employer would be lower, the impairment would be hidden from all employers in the external labor market. Verkerke’s analysis suggests that this market failure would cause other employers to pay the employee the same wage they would pay an unimpaired employee, at least at the outset of their relationship. The current employer pays the expected wage ($W$) to the employee.
The results are entirely predictable. The employee’s dividend remains unchanged because its determinants — wage and opportunity wage — do not differ from the employer’s and the employee’s expectations. The employer’s dividend, however, is smaller than expected and lasts for a shorter period of time (i.e., from Tenure B’ to Tenure D’ rather than Tenure B to Tenure E) because of the employee’s unexpectedly low level of productivity. The accommodation is introduced at Tenure B. The wage curve shifts up to reflect the cost of the accommodation. As before, \( W^A \) represents the wage taking into account the accommodation. At a minimum, productivity returns to its expected course (i.e., to MP from \( MP^{(A)} \)).

The first measure of employer benefits asks whether the employer is better off than it would have been if it continued its relationship with the employee without providing an accommodation. Once again, if the value of the employee’s increased productivity exceeds the accommodation’s costs, then the employer benefits according to the first measure. In other words, if the employee’s productivity returns to its expected level (i.e., to MP from \( MP^{(A)} \)), then the question of whether the employer derives a benefit can be answered by comparing the increase in productivity (\( MP - MP^{(A)} \)) to the increase in the effective wage (\( W^A - W \)).

The second measure asks whether the employer can expect a larger dividend than it would have received without the accommodation and impairment. A larger dividend would result only if the employee’s productivity increased beyond its expected level (i.e., \( MP^A \) rather than MP) and, therefore, exceeded the accommodation’s cost. But this enhanced productivity effect is less likely in this scenario than in the after-hiring impairment scenario and about as likely as in the promotion-transfer-job-redesign scenario. The opportunity wage dictates this result. In the after-hiring impairment scenario, the employee earned a larger dividend increased
by the cost of the accommodation and the decreased value of the opportunity wage. In this scenario and the promotion-transfer-job-redesign scenarios, the employee’s dividend increased only by the amount of the accommodation’s costs. As a result, the competitive barriers are lower in the latter two scenarios than in the after-hiring impairment scenario. Any productivity benefits from the higher competitive barriers are likely to be smaller, if they occur at all. Thus, the productivity increase may exceed the cost of an inexpensive accommodation, like a one-time accommodation, but it less likely to exceed the expense of a more costly, continuing accommodation. The employer is, therefore, less likely to benefit when compared with its position absent the employee’s impairment.

The preliminary conclusion for this analysis closely resembles the conclusions reached in the two preceding sections. An employer can benefit from accommodating an employee with a hidden impairment. Depending upon the accommodation’s cost and its effect on the employee’s productivity, the employer may be better off with the accommodation than without the accommodation (i.e., the first measure). It is somewhat less likely that the employer will also be better off with the accommodation than it would have been if the employee did not have an impairment (i.e., the second measure). As with the promotion-transfer-job-redesign scenario, the competitive barriers will not be as high in this scenario as in the after-hiring impairment scenario. But some increase will result from the employer’s provision of the accommodation, so some opportunity exists for the parties to use the interactive process to negotiate over labor costs, productivity, and other matter that will influence the economic results of the accommodation.

All three analyses in this part strongly suggest that employers can, and in some cases will, derive economic benefits from accommodating their employees with disabilities, even
taking into account only the factors contained within the narrow boundaries of the employer-
employee relationship. Assuming that this relationship will continue, this part has shown that the
employer will often benefit from accommodating the employee. The more difficult question is
whether the employer would be better off than it would have been if it had never encountered the
accommodations issue. This part has considered this issue in the guise of the hypothetical
question of whether the employer is better off with the accommodation than it would have been
if the employee did not have an impairment. This question has avoided the issue of the costs
associated with substituting the employee with an impairment for an employee without an
impairment. The next part will consider these costs and thereby move the economic analysis of
accommodations’ benefits for employers closer to a final conclusion.

Part III - The Opportunity Benefits of Workplace Accommodations

Many of the scholars considering the ADA’s efficiency have assumed a competitive labor
market. This assumption presupposes that the employer makes an essentially costless choice
between an employee with an impairment and an employee without an impairment.115 Relying
on this assumption, these scholars would likely reject the analyses in the preceding part because
of its presumption that the employer would continue its relationship with the employee with an
impairment. In a competitive labor market, where costless exchanges of employees are possible,
employers would not be expected to retain these employees. But exchanging an incumbent
employee with an impairment in the internal labor market for a new worker without an
impairment from the external labor market is not costless. This part will discuss the costs of this

115 See supra note 10 and accompanying text.
exchange and how they should factor into an employer’s assessment of whether it can benefit from an accommodation.

The preceding part identified three scenarios in which an employee with an impairment might request an accommodation from her employer and analyzed the economic benefits that an employer might derive from providing that employee with an accommodation. This part will add the final piece to this cost-benefit analysis. An employer who provides an accommodation to an incumbent employee avoids predictable, if not certain, costs. Just as the wage an employee might earn in the external labor market is an “opportunity cost” of remaining with the employee’s current employer (i.e., the “opportunity wage”), these avoided costs might be called the accommodation’s “opportunity benefits.” These opportunity benefits are another important factor in determining whether an employer benefits from providing an accommodation.

The employer might not take opportunity benefits into account when an accommodation’s benefits otherwise exceed its costs. Opportunity benefits are most relevant in those situations in which the costs of the accommodation exceed its benefits. If an accommodation’s opportunity benefits exceed the difference between the present value of an accommodation’s costs (i.e., the difference between the employee’s effective wage and actual wage) and the present value of the accommodation’s productivity benefits (i.e., the difference between the employee’s productivity with the accommodation and without it), then the economically rational employer should choose to provide the accommodation. At a minimum, an employer with notice that opportunity benefits could play this role should willingly participate in an interactive process to negotiate the employee’s request for an accommodation.

A. Opportunity Benefits and the Internal Labor Market’s Efficiencies
Apart from the direct productivity dividends an employer derives from a long-term relationship with an incumbent employee in the internal labor market, the employer also benefits by not having to bear the transaction costs of searching for a new employee in the external labor market. Each step in a hiring process entails transaction costs. Among other benefits, the employer is freed from soliciting and screening resumes, reviewing credentials and references, interviewing applicants, and deciding which applicant to hire, among other hiring-related activities. But these opportunity benefits are only a beginning. This section will consider how an employer’s failure to provide an accommodation might indirectly sabotage its employees’ productivity and increase its labor costs, and thereby undermine the internal labor market’s efficiencies.

An employer’s refusal to provide an accommodation may have several consequences in the internal labor market. The analyses in the preceding part considered the direct effects on the productivity of the employee with an impairment if the employer does not provide the accommodation; that is, the employee would not be able to perform as well without the accommodation. But there may be other consequences. In particular, the denial of an accommodation may cause the employee to sever its relationship with the employer. The employee may be literally incapable of working without an accommodation in the job to which the employer has assigned her. For example, an employee who suffers a severe back injury may be unable to work in a job with heavy lifting responsibilities.116 Or, the employee may simply quit out of frustration or anger. In both of these situations, the employer could suffer a loss. The

116 See Harris, supra note 5, at 181 (describing how U.S. Airways refused to grant Barnett his accommodation thereby forcing him to quit and search for another employer).
employee with an impairment may have generated dividends (i.e., productivity in excess of wage) without the accommodation, even if those dividends would have been smaller than the employer expected. For example, an employee with a bad back might have been productive in a job that did not require lifting. Separation would cause these dividends to be lost. In addition, the employer would lose any unrecovered investments it has sunk into the worker’s acquisition of skills and knowledge or its own acquisition of information about the employee’s optimal job match.

If the employee does not separate from the employer, she may feel that her expectational interests in promotions, transfers, job re-designs, or rising wages have been frustrated. Her frustration may cause her to shirk. Or, the employee may conclude that the employer’s denial of her accommodation request is strategic behavior. For example, if the employer refused to provide an accommodation that the employee needs in order to accept a promotion that will result in higher wages, the employee may conclude that the employer has chosen to appropriate her expected wage increases. The employee’s response may be to shirk as a means of recovering her lost dividends. Even if the employee does not perceive the employer’s action as strategic behavior, her morale may suffer if she perceives that the employer has discriminated against her or treated her unfairly. Lower morale might also lead the employee to shirk.

Shirking for any reason decreases the employee’s productivity. It would also force the employer to invest additional resources in monitoring the employee’s performance. The

117 See supra text accompanying note 92-95.

118 “Shirking” is nothing more or less than the employee’s failure to contribute actively to improving firm productivity. It might include slothfulness, a refusal to assist the employer with problem-solving, or any omission or
failure to provide the accommodation, therefore, would cause productivity to decline and the
effective wage to rise — that is, precisely the opposite effect that providing the accommodation
might have had.119 Yet, shirking entails risks for the employer and the employee beyond its
direct effects on productivity and the employee’s effective wage. If shirking causes the
employee’s productivity to decline sufficiently, the employer may be deprived of any remaining
dividends it might have earned from its relationship with the employee. Lacking an economic
rationale for continuing the relationship, the employer may discharge the shirking employee.120
Both parties would lose any benefits that could have been derived from their relationship, and the
employer would be required to invest in searching for a new employee. Thus, shirking may lead
to separation and all of the consequences associated with it.

The employer’s treatment of one employee may also have consequences for its
relationships with other workers. The group of workers most likely to be affected would be
other incumbent employees. As a general matter, incumbent employees have good information
about wages, productivity, and other matters that are relevant to their implicit contracts with the

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119 See supra text accompanying notes 77, 85-88, and 105.

120 See H. Lorne Carmichael, Self-Enforcing Contracts, Shirking and Life Cycle Incentives, 3 J. Econ.
PERSP. 65, 67-68 (Fall 1989); Dau-Schmidt, supra note 8, at 432.
employer. In particular, incumbent employees pay attention to the employer’s treatment of their co-workers because the co-worker’s relationship with the employer may be relevant to the employee’s own relationship with the employer. Like the employee seeking an accommodation, other incumbent employees may perceive the employer’s decision as a signal that the employer may engage in strategic behavior. Some co-workers may also value a workplace culture of respect in which the employer searches for ways to allow every employee to make a contribution. Co-workers’ most negative response would be to quit or shirk and thereby deprive the employer of some or all of their productivity. More likely, these incumbent employees would seek some kind of procedural protections against future acts of opportunism by the employer. These protections could range from organizing a union to insisting on written contracts or explicit rules spelled out in an employee handbook. Any of these responses would entail potentially substantial additional costs for the employer.

These negative responses stand at one end-point on a spectrum of possibilities. A second, mid-range possibility is that incumbent employees without disabilities will view their employer’s

121 See Harris, supra note 8, at 1204-05. This general situation differs from the particular situation of accommodations and disabilities which is characterized by asymmetric information. See infra text accompanying notes 174-77. Incumbent employees have the best information in a unionized workplace because the union becomes a repository for institutional history as the workers’ representative on wage, hours, terms, and conditions of employment. See Harris, supra note 8, at 1209.

122 See generally supra text accompanying notes 56-60 (discussing “strategic” or “opportunistic” behavior).

123 See Dau-Schmidt, supra note 8, at 443; Schwab, supra note 8, at 11, 33 (discussing contract protections enforced by courts for the protection of workers throughout their life cycles).
rejection of an accommodation request as entirely irrelevant to their work life. Employees without disabilities may not expect to need or request an accommodation. They may also view the employer’s accommodation decisions as qualitatively different from other decisions that will affect their work lives like raises, promotions, training opportunities, or other workplace benefits. If the other incumbent employees draw these conclusions, then their relationships with the employer will not change and the employer will experience no additional costs.

A third possibility is that incumbent employees without disabilities will view the employer’s denial of an accommodation request as a wholly appropriate refusal to provide a “special benefit” to the employee requesting the accommodation. This is the opposite end-point on the spectrum. Incumbent employees without disabilities may feel that, by withholding an accommodation, the employer has refused to engage in favoritism for an employee with a disability. Further, circumstances may arise in which incumbent employees without disabilities consider themselves to be competing with an employee with a disability for some workplace benefit (e.g., a promotion, a transfer, retention in a layoff). In this context, incumbent employees without a disability may perceive the accommodation as an unfair competitive advantage for the employee with a disability. In US Airways v. Barnett,¹²⁴ for example, Barnett sought to remain in his mail-room position as an accommodation for his weak back. According to the employer’s seniority system, the mail-room position should have been open for seniority-based bidding. Two co-workers with more seniority than Barnett also wanted the mail-room job.¹²⁵ It is entirely plausible, even likely, that these senior co-workers would have perceived the employer granting


¹²⁵ Id. at 394.
the requested accommodation as an unfair benefit for Barnett.126 In these circumstances, the incumbent employees without disabilities would applaud the employer’s denial of the accommodation request and, perhaps, view it as evidence of the vitality of their internal labor market relationships. Once again, the employer would suffer no additional costs due to the co-workers’ reactions to its accommodation decision.

Co-workers without disabilities may respond to an employer’s denial of an accommodation in any of these ways, or variations thereof. Their responses will depend upon whether they expect to need an accommodation in the future, whether they view accommodations decisions as representative of the employer’s approach to other human capital issues, and their assessment of whether they are in competition with the employee with a disability. For these same reasons, co-workers with disabilities can be expected to judge matters differently. Depending upon the nature of their impairments and jobs, these employees are more likely to view themselves as potential accommodations requesters in the future. The employer’s response to an accommodation request, therefore, would foreshadow future issues in these employees’ own employment relationships.127 Further, the work experiences of employees with disabilities would likely cause them to view accommodations as necessary measures to facilitate performance and eliminate discriminatory barriers in the workplace rather than “special

126 Id. at 395. I have argued that this perception is partly the consequence of the employer’s failure to explain the role of workplace accommodations to the co-workers. See Harris, supra note 5, at 134.

127 It is always perilous to make general statements about the attitudes of people with disabilities because the disabilities community is diverse and, at times, diffuse. See Joseph Shapiro, No Pity: People with Disabilities Forging a New Civil Rights Movement 323-24 (1994).
benefits.” These employees may also be more likely to adopt the view that the employer’s denial of an accommodations request is strategic behavior. Accordingly, incumbent employees with disabilities are more likely to respond to an employer’s denial of an accommodation by seeking new employment or some form of assurance that they will receive their dividends from the internal labor market relationship. As a result, the employer may experience a loss of these employees’ productivity and its sunk investments and higher labor costs.

The employer’s denial of its employee’s accommodation request may also affect the behavior of prospective employees in the external labor market, although this effect is less likely. In theory, prospective employees would learn of the employer’s refusal to provide the accommodation and, in response, either refuse any job the employer might offer or demand written protections to codify the implicit contract that is formed upon entry into the internal labor market. But reputation has a weaker effect in the external labor market than in the internal labor market, if it has any effect at all. Simply, workers in the external labor market have significantly less information about the employer than incumbent employees have. Even outside the disabilities context, the relationship between an employer and a prospective employee is characterized by asymmetric information. Thus, these workers may never learn about the employer’s decision to deny the accommodation. If the information gets out, workers in the external labor market may be less interested. They tend to be younger than incumbent employees and would not have finally chosen whether to make a long-term commitment to this

128 See Cohen & Wachter, supra note 8, at 115-16 (certain provisions can be made that are explicit contracts protecting workers in the internal labor market).

129 See Ehrenberg & Smith, supra note 37, at 155.
particular employer.\textsuperscript{130} Thus, they are less concerned with issues related to job security and less likely to value or recognize a firm’s reputation.\textsuperscript{131}

Just like in the internal labor market, workers with disabilities in the external labor market may be more attentive to an employer’s accommodations policies and practices than workers without disabilities. Because an accommodation could determine whether the worker will reap the long-term benefits of an implicit contract with the employer, it may be the single most critical piece of information for the worker’s decision about which employment opportunity to pursue. Yet, the information may not be available, and the worker may be hesitant to inquire too deeply into the employer’s accommodations policies and practices out of fear of losing a job opportunity. Some workers may have an informal network of contacts within the employer’s organization who can provide information.\textsuperscript{132} But those who do not must depend upon some form of public disclosure to learn about how an employer treats its employees with disabilities.

Without public disclosure, most workers with disabilities in the external labor market will be unable to base their decisions on the employer’s accommodations policies and practices. A

\textsuperscript{130} See U.S. Bureau of Labor Statistics, Employer Tenure Summary (2004), http://www.bls.gov/news.release/tenure.nr0.htm (showing that median employee tenure is higher among older workers than younger ones). For example, in January 2004, the median tenure of workers age 55 to 64 (9.6 years) was more than three times that of workers age 25 to 34 (2.9 years). \textit{Id.}

\textsuperscript{131} See Schwab, \textit{supra} note 8, at 32; PAUL C. WEILER, GOVERNING THE WORKPLACE 74-75 and n.53 (1990).

\textsuperscript{132} See Harris, \textit{supra} note 8, at 1209. Workers may have social relationships with employees of the employer with whom the workers are negotiating. These social relationships, even acquaintanceships, may provide sources of useful information.
mismatch may result if the worker accepts the employer’s job offer. A better match would be a job with an employer that is willing to accommodate the worker’s particular impairment, or an employer that would not need to accommodate the worker’s impairment. The worker’s lack of information, therefore, could lead to market failure and losses for the employer. On the other hand, public disclosure may cause workers with disabilities to shy away from seeking jobs with the employer or to insist upon some form of assurance that they will receive the accommodations they will need. Like Verkerke’s “churning” and “scarring,” the signal from the employer’s accommodation decision could prevent a worker from being matched to a job with the employer in which she would be highly productive — a market failure that would also effect a loss for the employer.

Thus, the preliminary conclusions in the preceding part that an employer can benefit from accommodating an employee with an impairment in any of the three scenarios considered must be enriched with an understanding of opportunity benefits. Opportunity benefits increase the likelihood that an employer will benefit from an accommodation. If avoiding the costs of searching for a new employee represents the first category of opportunity benefits, then a second category relates to the employee’s productivity, the productivity of her co-workers, and the transaction costs associated with maintaining productive employment relationships with all of these employees. Accommodations may avoid shirking, quitting, and demands for procedural protections that are not typical of the implicit contractual arrangements in the internal labor market. Accommodations may also avoid negative reputational effects in the external labor market, although these effects are less likely and their consequences more difficult to measure.
Each of these potential opportunity benefits are relevant to determining whether an employer benefits from accommodating an employee with an impairment.

B. Litigation Costs

The ADA and other anti-discrimination statutes add the potentially substantial cost of a discrimination lawsuit to an employer’s economic analysis of an employee’s request for an accommodation. Simply, the employee who is denied an accommodation may bring a discrimination claim against the employer. The ADA defines “discrimination” to include failing to provide a reasonable accommodation for a qualified individual’s known physical or mental impairment.\(^{133}\) Thus, an employee who can demonstrate that she is a “qualified individual with a disability”\(^{134}\) may bring a claim against her employer if it denies her accommodation request.

There is no assurance that an employee’s discrimination claim will succeed. To the contrary, there is evidence that employers have a disproportionately high success rate in ADA cases that proceed to final judgment in federal court.\(^{135}\) The Supreme Court has reduced plaintiffs’ chances of success by significantly narrowing the scope of the ADA’s protected


\(^{135}\) See Ruth Colker, The Americans with Disabilities Act: A Windfall for Defendants, 34 HARV. C.R.-C.L. L. REV. 99, 100 (1999) (showing that employers win more than ninety-three percent of the ADA cases brought against them); Study Finds Employers Win Most ADA Title I Judicial and Administrative Complaints, 22 MENT. & PHYS. DISAB. L. REP. 403 (May-June 1998) (discussing report by the American Bar Association analyzing almost every reported and unreported case brought under Title I of the ADA and finding that employers won 92.11 percent of the cases).
class\textsuperscript{136} and interpreting the ADA’s defenses favorably for employers\textsuperscript{137}. Nonetheless, the employer bears some risk of losing, even if that risk may be small under the ADA.\textsuperscript{138} Losing in litigation could subject the employer to the costs of the accommodation it refused to provide plus back pay, reinstatement, and other remedies.\textsuperscript{139}

Winning avoids court-imposed remedies, but it does not free the employer from the transaction costs of conducting the litigation. The employer must retain lawyers, respond to an

\textsuperscript{136} See, e.g., Albertson’s v. Kirkingburg, 527 U.S. 555 (1999) (holding that whether an individual has a disability is determined by taking into account natural adjustments he has made to his impairment); Murphy v. UPS, 527 U.S. 516 (1999) (holding that whether an employee has a “disability” is determined by taking into account the mitigating factors that he employs); Sutton v. United Air Lines, 527 U.S. 471 (1999) (holding that corrective and mitigating measures, including eyeglasses, should be considered in determining whether an individual is disabled under the ADA, and that for an employee to be “substantially limited” in the major life activity of “working” she must be excluded from a broad class of jobs); Toyota Motor Mfg., Ky. v. Williams, 534 U.S. 184 (2002) (holding that an employee must be prevented or severely restricted from doing tasks central to most people’s daily lives before she will be found to have a “disability”). See also Bd. of Trs. of the Univ. of Ala. v. Garrett, 531 U.S. 356 (2001) (holding that states are immune from suit under the ADA’s Title I).

\textsuperscript{137} See, e.g., Chevron U.S.A. v. Echazabal, 536 U.S. 73 (2002) (employer may rely on “business necessity” defense when prohibiting an employee from working in a job that could jeopardize his health); US Airways, Inc. v. Barnett, 535 U.S. 391 (2002) (holding that an employer’s showing that an accommodation request conflicts with seniority rules is sufficient to show that the accommodation is “ordinarily” not reasonable).

\textsuperscript{138} See N.J. Stat. § 10:5-12 (2005) (making it an unlawful employment practice for an employer, because of a person’s disability [or a host of other categories], to refuse to hire or continue to employ such an individual).

EEOC investigation of the employee’s complaint, conduct and respond to discovery, and cover any other litigation expenses. The employer must also bear the cost of any time which human resources personnel, managers, and other employees dedicate to depositions, document requests, meetings with lawyers, and appearances in court.140 Litigation also publicly discloses the employer’s decision to deny an accommodation and thereby increases the likelihood that prospective employees in the external labor market will learn about the decision.141 The employer’s costs will be lower if it can defeat the claim with a dispositive pre-trial motion, but litigation of any kind or duration will impose costs on the employer.

The most obvious way for the employer to avoid a discrimination claim and the attendant litigation costs is to provide the employee with an accommodation that she finds acceptable. The employer avoids liability if the accommodation is “reasonable.” But the employer avoids litigation costs, regardless of how a court might define “reasonable,” only if the accommodation is sufficient to deter the employee from filing a claim. The employer need not provide the accommodation that the employee requested. The provided accommodation can be more cost-

140 See, e.g., Witnesses Debate Effects of ADA at Civil Rights Commission Hearing, 67 U.S.L.W., Legal News, (BNA) No. 19 at 2294 (November 24, 1998) (arguing that, while employers win most ADA lawsuits brought against them, the average cost of these victories is $150,000 per case).

141 See supra text accompanying note 128-32; see, e.g., Barbara Rose, $7 Million HIV-Bias Suit Hits Penneys, CHI. TRIB., May 24, 2005, at pg. 1; Sue Lindsay, Ex-Worker Sues Zoo, Warns of Illness; 23-Year Veteran Got Lung Disease; Zoo Says It’s Safe, ROCKY MTN. NEWS, May 21, 2005, at 4A; L.M. Sixel, Policy Falls as Deaf Teen Settles Case, HOUS. CHRON., November 9, 2004, at pg. 1; Jill Hodges, EEOC Sues Bloomingdale’s, Alleging Store Refused to Accommodate Worker with Lupus; Suit Says Mall Store Violated Americans With Disabilities Act, STAR TRIB. (Minneapolis, MN), August 10, 1995, at 1D.
effective or less helpful to the employee than a court might order. As long as the employee agrees, the accommodation delivers the opportunity benefit of avoided litigation costs to the employer.

Accommodating the employee is not the only way for the employer to avoid litigation costs. The employer and the employee might agree to a work arrangement or career path different from that contemplated when the employer hired the employee. Or, the employee and the employer might separate in an amicable and efficient way, perhaps after a financial settlement or help from the employer finding a superior job match with another employer. The ADA does not contemplate amicable separations, but it also does not prohibit them. The economics of the employment relationship may lead the parties to conclude that separation or a restructuring of their relationship is the most efficient solution. Again, any agreement that the employee finds acceptable will allow the employer to avoid litigation costs. The question for the employer is, which resolution to the accommodation problem will result in benefits exceeding costs. Prospective litigation costs are a part of that calculus.

Avoided litigation costs are a third category of opportunity benefits that an employer might derive by accommodating an employee with an impairment. Losing in litigation may impose the greatest costs, but merely engaging in litigation imposes both direct and indirect costs. Avoiding these costs also provides opportunity benefits that may change the calculus of whether an employer benefits from accommodating an employee with an impairment. But

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142 See Miller, supra note 85, at 21-22 (according to a July 2000 EEOC report, the average monetary settlement of an ADA charge resulting from mediated negotiations was $11,000; other means of resolution produced an average result of $29,391).
preventing litigation almost certainly will require the employer to enter into the interactive process with the employee who is requesting an accommodation to persuade the employee not to bring a discrimination claim.

**Conclusion**

The ADA’s interactive process — that is, the forum within which a worker with a disability and an employer seek to find the means to adapt the employer’s environment to the worker’s impairment — has long been understood as part of the statute’s authors’ codification of the sociological model of disability.\(^{143}\) But the economic utility of the interactive process and the negotiations that occur therein has not received adequate attention. This article has argued that the interactive process is critical to understanding the economics of accommodations and, in the process, to broadening the dialogue about how to assess the costs and benefits of accommodations.

This article has argued that employers can benefit from accommodating their incumbent employees with disabilities. The exigencies of the internal labor market, and the competitive barriers created by an employee’s impairment and an employer’s accommodation of that impairment, create an opportunity for the parties to reduce the employer’s labor costs and increase the employee’s productivity. A mutually profitable accommodation agreement, therefore, is available to parties perceptive enough to understand their circumstances and their implications. Accordingly, employers presented with a request from an incumbent employee for

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\(^{143}\) *See supra* note 7 and accompanying text.
a workplace accommodations can, and often will, make a rational economic choice by entering into the interactive process and providing the employee with an accommodation.