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ABSTRACT

In much economic analysis it is a convenient fiction to suppose that changes over time in wages and employment are determined by shifts in supply or demand within a more or less competitive market framework Indeed, this framework has been effectively deployed to understand many episodes in American economic history. We argue here, however, that by minimizing the role of labor-market institutions such an approach is incomplete. Drawing on the history of American labor markets over two centuries, we argue that institutions—by which we mean both formal and informal rules that constrain the choices of economic agents—have played a significant role in the determination of wages, employment and other market outcomes over time. The historical evolution of American labor markets can best be characterized as a sequence of relatively stable arrangements punctuated by shifts in institutional regimes. Our narrative emphasizes the importance of understanding the historically contingent role of institutional regimes in conditioning the operation of supply and demand in empirical and policy analysis of the labor market.

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Introduction

The 30-year trend of rising income inequality in the United States has led to heightened interest among labor economists in assessing the role of labor-market institutions in the determination of wages and other market outcomes. The central role of institutions governing work and compensation is a venerable theme in economics. Adam Smith famously held that the incentives associated with labor systems could explain the relative success of countries like England and the backwardness of economies based on slavery or metayage. Karl Marx based his stages theory of economic development on the nature of the relationship between workers and property holders under different economic regimes. Recently, economists and economic historians have revisited the long-run impact of institutions on economic growth and performance in an effort to understand the divergent fortunes of different countries and regions.[1]

The economic history of the United States presents a kind of laboratory for research on labor-market institutions and their impact. The contrast between the labor systems of chattel slavery in the cotton South and free wage labor in the industrializing North plays a leading role in our understanding of patterns of regional development in the antebellum period. After the Civil War, regional differences persisted, but much of the action shifted to the evolution of industrial and postindustrial labor markets, from the relatively unfettered competitive environment of the late nineteenth century to the emergence of a federally regulated and more centralized bargaining system by the 1950s. The partial unraveling of that system in recent decades is one of the prime suspects in the trend toward greater inequality.

No economist has spent more time in this laboratory, or produced more significant results, than Gavin Wright. In this chapter, our goal is to sketch a broad interpretation of the

[1] On the role of institutional heritage on long-run economic development see Acemoglu et al (2001); Engerman and Sokoloff (1997).

evolution of American labor markets, building on a key concept that informs Wright's work on both southern economic history and the growth of the U.S. industrial economy since the late nineteenth century—namely, what we will refer to as labor-market *institutional regimes*. We begin by providing a conceptual framework, defining what we mean by institutions and making a case for why labor-market institutions may be expected to exhibit both coherence and persistence—the defining traits of an institutional regime. We then begin our historical narrative with the familiar contrast between the labor systems of the antebellum northern and southern economies, and proceed through the dramatic changes in labor-market regimes wrought by the Civil War and later by the World Wars and the Great Depression. These regime shifts shaped not only important labor-market outcomes, such as wages, working conditions, and employment, but also the dynamics of technology and human capital accumulation. An important conclusion, which we draw from Wright's work and from the events recounted in our narrative, is that trends in the underlying economic "fundamentals" that are often given causal primacy are themselves partly the endogenous product of institutional regimes.

Labor-market regimes

The institutions of the labor market can be defined as the principal rules and organizations governing the transactions between the buyers and sellers of labor. In this context rules should be conceived broadly to include both formal laws and property rights—enforceable in the courts—and implicit or informal behavioral norms. Familiar examples of formal legal rules affecting the U.S. labor market would be the 13th Amendment to the Constitution, which by abolishing involuntary servitude established free labor as the standard form of property rights in labor nationwide, and the Fair Labor Standards Act of 1938, which set broad, legally enforceable minimum wages and maximum hours for most workers. An example of an informal rule, widely

observed in labor markets of the pre-civil rights South, was the requirement that in mixed-race workplaces a black worker may never supervise a white worker (Dewey 1952).

The distinction between institutions on the one hand and what are merely widespread contractual arrangements or patterns of behavior on the other is a fuzzy one. If almost all workers receive paid vacation time as part of their employment contract, are paid vacations "institutionalized," or merely an equilibrium form of non-wage compensation? We take the view here that institutions are something more than common patterns of behavior; they must constrain individual choices and contracts beyond the constraints determined by prices and endowments. In the case of legal regulations such as the minimum wage, the constraint is a rule that can be enforced by the state. Informal norms are not legally enforceable, but may be enforced through extra-legal social sanctions, such as ostracism or reciprocity. Finally, we include standardization of contractual terms as additional institutional constraints. Given transaction costs and bounded rationality, participants in the market may adhere to a coordinating equilibrium in which the range of contractual options is narrowed by convention—a familiar example from economic history is the conventional 50-50 split of the harvest between worker and landlord under sharecropping, with adjustment to changing market conditions being made along other margins, such as plot size.

The institutional features of labor markets differ considerably across political settings as well as industries and even individual firms. In the sizeable literature that has emerged in recent years attempting to classify and describe the variation of labor-market institutions across countries and assess their impact on economic performance, as measured by growth, unemployment, and inequality, the term "institutions" is often used as shorthand for the extent of governmental regulation of labor markets and the relative influence of unions or collective bargaining. We should be clear that while these factors are an important dimension of labor

market institutions we intend a broader definition here. There is widespread acknowledgment that in the universe of developed economies, labor markets in the United States tend to lie at the laissez faire end of the spectrum, but the implications for economic outcomes remain in dispute. In a useful survey, Freeman (2007) suggests that the one robust finding from studies of comparative labor-market performance is that institutions have significant effects on income distribution, with the more regulated and centralized wage-setting regimes of continental Europe exhibiting less inequality than the less-regulated Anglo-American regimes. The wage regulation and employment rigidities associated with European labor institutions have also often been blamed for higher rates of unemployment and sluggish employment growth, although the evidence is more mixed for these effects.

As we document in this chapter, it is also clear that within a given national setting labor-market institutions are subject to considerable temporal change. U.S. labor markets may now be thought of as a relatively unregulated "wild west" by developed capitalist standards, but even in America centralized federal regulation increased substantially over the course of the past century. These changes did not occur along a steady, continuous path; rather, periods of relative stasis in the basic rules of the game were punctuated by episodes of rapid change. Emancipation and the New Deal are perhaps the most obvious instances of such "revolutionary" episodes in U.S. labor-market history. Furthermore, the direction of change is not necessarily monotonic. While U.S. labor markets are subject to more government regulation today than they were a century ago, it is certainly arguable that the same period witnessed the rise and then fall of centralized wage bargaining institutions, and therefore that U.S. labor markets more closely resembled those of contemporary continental Europe in the 1950s than they do today.

Although labor-market institutions vary across countries, regions, and periods of time, the question arises whether it makes sense to think of the configuration of institutional elements in a

particular time and place as constituting a coherent institutional regime or system rather than a mere collection of rules and laws. The idea of such an institutional regime should be familiar to readers of Gavin Wright's seminal work on slavery and the postbellum American South. In contrasting the developmental paths of the slave South and the free-labor North, Wright stresses ways in which each region's system of property rights over labor shaped private incentives as well as political interests and behavior, with profound implications for the path of economic development (Wright 1978; 2006a). With the Civil War and emancipation, the labor-market institutions of South and North necessarily converged in terms of basic property rights, but Wright (1986) argues that the South retained a distinctive regional labor-market regime for decades, one that rested on geographical isolation, political domination by the planter class, disfranchisement of African-Americans, inferior education, and low wages.

We argue here that an institutional regime must exhibit two characteristics: coherence and persistence (or path dependence). By coherence we mean that important institutional elements are complementary and mutually reinforcing, and therefore tend to occur together as a set. For example, the mid-twentieth century high-wage regime depicted by Wright (2006b) emerged behind the protective barrier of restrictive immigration policy, which not only contributed to the high-wage equilibrium itself by reducing labor supply and making it less elastic, but also helped protect organized labor from immigrant strikebreaking and thus complemented the legal protection and sometimes active governmental promotion of collective bargaining. It is at least arguable that a regime with widespread collective bargaining is incompatible in the long run with free immigration. By contrast, in the labor regime of the early twentieth-century South, lower state spending on education was consistent with the regional political-economic strategy of maintaining a comparative advantage in low-wage industries and an isolated low-wage labor market by limiting information and opportunities for mobility of the

workforce.

Once established, institutional regimes are sticky, with periods of relative institutional stability punctuated by crisis periods of relatively rapid change. Paul David (1994) notes three important factors that make institutions path dependent, or as he puts it the "carriers of history." First, institutions facilitate coordination among agents by creating mutually consistent expectations; in other words, institutional rules and norms are standards. Common language, social conventions, and the delineation of social roles all permit agents to economize on information gathering and learning in social transactions. In the context of labor markets, exchange is facilitated if workers can expect that the basic contractual rules of the game are common across employers. These rules could include legal rights, such as common-law rules governing workplace liability, or terms and conditions of the employment relationship, such as standard hours of labor and pay periods or labor's share of the harvest. Standards serve to reduce the dimensionality of the labor contract (which could otherwise be extraordinarily complex), thereby reducing the costs of evaluating and negotiating terms. Because the gains from adopting a behavioral standard or convention are a function of how many others have adopted the same standard, such conventions are subject to increasing returns and potential lock-in effects (David 1986).

A second, related source of historical persistence in an institutional regime is learning. The information channels, codes, and conventions that facilitate labor transactions must, like a language, be learned by individuals and organizations. These investments in human and organizational capital are largely irreversible, in the sense that the stock of knowledge is not readily transferable to new institutional settings.[2] Third, institutional complementarities themselves can increase rigidity by increasing the costs of adjusting any single institutional

[2] The role of irreversible investments in generating path dependence is stressed by Arrow (2004).

element. During the 1960s and 1970s, for example, racial integration of job ladders in some southern industries was hampered not only by lingering racial hostilities on the part of white workers, but by vested interests created under the seniority system (Minchin 2007).

The path dependence of institutional regimes obviously does not imply that institutions are completely exogenous to broader historical and economic forces, but it does give them an important codetermining role in shaping economic outcomes over fairly long periods of time. Institutional regimes affect not only the static equilibrium of the labor market—the level and distribution of wages, employment and unemployment—but the dynamics of the market as well. In particular, institutions shape the evolution of the technologies and endowments often considered to be market fundamentals.

In this chapter we discuss several important illustrative cases from U.S. labor market history, including the impact of slavery on southern economic development and the contrasting role of free labor in the industrializing North, and the implications of the "high-wage" institutional regime of the mid-twentieth century for productivity growth and human capital accumulation. With regard to the latter case, Wright (2006b, p. 158) argues that "... the primary causal influence ran from the labor market to productivity rather than the other way round," with labor-market outcomes affecting not only the choice of technique along a static isoquant, but the very pace of technological progress. At the risk of oversimplifying some complex arguments, we suggest that this neo-institutionalist view may be contrasted with the important work of Goldin and Katz, summarized in their recent book (2008), which emphasizes a more conventionally neoclassical causal story: technological change is the fundamental driver of labor demand, the existing stock of skills determines labor supply, and investment in education responds endogenously in the long run to the relative price of skills. But even in the Goldin and Katz narrative, political institutions play a central role in the accumulation of human capital, and

labor-market institutions such as unions and regulation play at least a supporting part in determining the wage structure in the medium run. As in many cases where there are competing institutional and neoclassical narratives, historical studies can help sort out the relative importance of these causal influences.

Legal Foundations of American Labor Markets

The legal foundations of employment law in the United States and Britain developed from common precedents in the seventeenth century, but different circumstances led to divergent practices. This divergence was sharpened in the wake of the American Revolution, when the abolition of slavery across the northern states led Americans toward a distinctive conception of the meaning of "free labor." In many respects these legal foundations have exerted a persistent effect on American labor markets even into the present day, contributing to the relatively high levels of mobility and competition that characterize American labor markets.

In colonial British North America a variety of different and overlapping arrangements concerning property rights in labor coexisted with one another. At one extreme, the legal system accepted the right of European-Americans to own African-Americans. Slave owners enjoyed a largely unrestricted authority over the allocation of time and effort of their slaves and their offspring, and this property was freely transferable, just as other property. At the other extreme, free colonists were able to sell their labor effort for a limited period of time in ways that resembled modern labor market transactions. In between these extremes, however, were a number of intermediate relationships; the numerically most important of which was indentured servitude. Like free laborers, indentured servants were seen as having entered "voluntarily" into their employment relationship, but once they had indentured themselves to a master they became for the period specified in their contract the property of that master. Law and custom provided

servants some protection, but ownership of their labor could be freely transferred, the master could enforce obedience to his wishes, and servants were not free to leave their owner before the conclusion of their term of service.[3]

Before American independence these varying systems of property rights co-existed throughout all of the colonies that would become the United States. Although slavery was most prevalent in the Southern colonies, there were slaves and slave-owners in every colony prior to the Revolution. In the wake of the American Revolution, however, all of the northern states adopted some form of abolition. Writing about changing attitudes toward slavery, Peter Kolchin (1993, 63-70) argued that the rhetoric of the American revolution appears to have contributed to changing views of the legitimacy of slavery and thus to northern abolition. Although many southern states did ease restrictions on voluntary manumission following the Revolution, Southerners also developed increasingly elaborate intellectual defenses of slavery in response to the emerging northern critique of the institution.

The North-South divide over slavery that emerged after the Revolution was formalized in the Northwest Ordinance. Passed in 1787 to govern the settlement of western territories, the Ordinance prohibited the introduction of slavery into areas north of the Ohio River. On the frontier, slavery offered the possibility of more rapid settlement, a faster transition to commercial agriculture, and a quicker rise in property values, all of which appealed strongly to early settlers. The restraints of the Northwest Ordinance, however, prevented them from legalizing slavery, and as the number of free settlers in the territories increased, political opposition to slavery grew in the region (Wright 1978, pp. 12-13). As a result, by the beginning of the nineteenth century, the

[3] See Steinfeld (1991, chs. 1-2) on the status of servants. Indentures were entered into in Europe prior to passage and the merchants carrying the servants recouped their investment by selling the contracts once they had reached the colonies. In another, closely related contractual form, immigrants would borrow money from merchants to finance their passage and repay this on arrival by selling themselves into long-term labor contracts in the colonies. These so-called "redemptioners" retained greater freedom to select between potential employers, but also bore additional risks since they did not know when they embarked what labor market conditions would be like once they arrived.

United States was characterized by two distinct labor market regimes: one in the South that allowed slavery and one in the North that prohibited it.

The geographic division between the slave South and the free North contributed to the emergence in the early nineteenth century of an increasingly sharply drawn and uniquely American conception of "free" labor. In the late-eighteenth and early-nineteenth centuries this emerging sense of what it meant to be a free worker was manifested in growing tensions between masters and journeymen in a variety of skilled crafts. As one visitor to the country observed at the time: "There is no such relation as *master* and *servant* in the United States: indeed the name is not permitted;--'help' is the designation of one who condescends to receive wages for service" (quoted in Steinfeld 1991, p. 127; emphasis in original). At the same time, court decisions were gradually exposing the logical contradictions between the abolition of slavery and the persistence of voluntary servitude. The culmination of this trend came in 1821, when the Indiana Supreme Court concluded employers could not impose specific enforcement of a labor contract.

Other court decisions in the early nineteenth century reflect the formation of a uniquely American regime of high labor turnover and worker mobility. For example, while English Courts continued to hold that an indefinite labor contract was an annual one, and that the worker was entitled to compensation only at the completion of the entire year's work, northern courts increasingly ruled that workers who left prior to the termination of their contract were nonetheless entitled to compensation for the time that they had served. They also increasingly ruled in ways that set strict limits on an employer's ability to physically discipline employees. The confluence of these trends helped to establish in the antebellum North the notion of "employment at will," in which the employment relationship was viewed as a kind of lease, but one that could be maintained only so long as both parties assented to its perpetuation (Steinfeld 1991, 147-72; 2001). Even when a legal contract might in principle have bound a worker to an

employer for a limited duration, the geographic mobility of American workers and availability of the frontier "escape valve" often rendered such contracts unenforceable from the employer's perspective. This problem is a recurring theme in explanations of the weakness of apprenticeship in North American labor markets, although its significance has been questioned (Elbaum 1989; Hamilton 1995). The norms of low attachment and high mobility established the context in which the initial stages of American industrialization took place.

Northern Labor Markets in the Nineteenth Century

At the beginning of the nineteenth century, the United States remained a predominantly agricultural economy, and industrial employment competed directly with agricultural opportunities. Native-born white males concentrated in farming, shop-keeping, the professions and independent craft work (Gordon, Edwards and Reich 1982, p. 48). When textile manufacturing began to expand in New England after the embargo Act of 1807, the proprietors of these businesses were obliged to turn to other sources of labor. The early Rhode Island manufacturers relied primarily on children drawn from nearby farms to run the small spinning mills they established. This source of labor proved inadequate, however, for the larger integrated spinning and weaving mills built on the model introduced by the Boston Manufacturing Company in 1814. Faced with the challenge of securing several hundred workers to staff a large-scale production process, Frances Lowell and his partners chose to recruit young women from the surrounding region, dispatching labor recruiters to rural areas and building dormitories to house the women who came to work in the mills (Rosenbloom 2004). Industrialization thus depended from the outset on expanding the scope of the labor markets, both geographically and in the definition of the labor force, rather than accepting local labor supply conditions.

The growth of the American textile industry depended not only on expanding the

geographic scope of labor markets but on technological innovations that were conditioned by the nature of the available labor. The mutual interaction between labor supply and innovation jointly shaped the emerging northern labor market regime. Habakkuk (1962) was among the first to seek to link the direction of American technological innovation in the nineteenth century to American labor supply conditions, arguing that relative labor scarcity led to capital-intensive (labor-saving) technological innovations. This conjecture has prompted both theoretical arguments seeking to rationalize this conjecture (e.g., David 1975) and a large empirical literature.

Although the burden of the empirical evidence suggests that Habakkuk was mistaken in his argument that the U.S. adopted more capital-intensive methods of production than Britain (Field, 1983; James and Skinner 1985), careful examination of a number of industries does support the causal connection between labor supply and the direction of technological innovation. Rather than substituting capital for labor it appears that American innovators sought to develop ways of conserving on traditional craft skills, which were in short supply in the United States. They did this by substituting raw materials and special purpose machinery, which could be used by the less skilled workers who were available in greater abundance (Ames and Rosenberg 1968, 1976). One of the chief examples of this substitution is provided by the production of firearms. By the 1850s American innovations in this industry had attracted significant attention from the British who sent engineers to inspect American factories with the goal of transferring American advances back to Britain. As Rosenbloom (1993) notes, the central feature of American innovations in the manufacture of firearms was the use of specialized machine tools and systems of measurement in lieu of the all around craft skills of British gunsmiths.

Another, and quantitatively more significant, illustration of this pattern of technological

response comes from the development of the American textile industry. Initially borrowing British spinning technologies, this industry grew to prominence through the development of a distinct technological paradigm uniquely adapted to American conditions. Following the British model, the earliest textile ventures spun yarn in small factories and then shipped this yarn to hand-loom weavers in the surrounding countryside to be made into cloth. But the shortage of skilled weavers (compared to Britain) imposed significant limits on the possible scale of production. To overcome the shortage of skilled weavers that constrained earlier ventures, Francis Lowell developed a mechanical loom and designed an integrated factory method of production to supply yarn that could be woven by this loom. The Boston Manufacturing Company, which Lowell and his associates established in 1814, proved enormously successful, and the production technology they introduced became the model for the industry's rapid expansion in the following decades.

The success of the New England textile manufacturers depended on securing an adequate supply of labor to operate the new factories, and it was the genius of Lowell's approach that his technological innovations were adapted to take advantage of the labor that was available at that time. As Field (1978) has pointed out, in the early decades of the nineteenth century, westward migration and the growth of Midwestern agriculture created a labor surplus on New England farms. Competition from Midwestern agricultural products was undermining markets for the less efficient farms of New England, and the selective migration of young men in response to the opportunities created on the frontier was producing a surplus of young women on these declining eastern farms. To take advantage of this *potential* source of labor, however, Lowell had to build dormitories to house them and develop a network of recruiters throughout the region to encourage them to take factory jobs. Because the majority of the young women attracted in this way viewed industrial work as a temporary episode, factory labor systems were shaped by the

need to continually attract and train new workers, thus reinforcing the tendency of American employment relationships toward low attachment and high mobility.

By the 1840s demographic shifts in New England combined with the continued expansion of textile production produced a new episode of labor shortage. But the organization of the factories made it relatively easy to introduce new sources of labor as they became available. Responding to the rising tide of Irish immigration at this time, mill owners adapted by hiring the newly arrived immigrants. As Wright (1979, pp. 676-79) has observed, the causes of rising immigration in the 1840s—the Irish potato famine, European political unrest, and falling trans-Atlantic passage rates—were largely exogenous to the American textile industry. But the fact that many immigrants were drawn to New England reflects the fact that the region's textile mills created an attractive destination for migrants lacking resources to go into farming and thus seeking industrial employment.

By the middle of the nineteenth century a distinctive northern labor market regime had emerged from the interaction of the legal framework of free labor, technological innovations that reduced the need for craft skill and facilitated the integration of new factory workers through on-the-job training, and the purposeful expansion of the sources of labor supply. This regime facilitated the rising volume of European migration that continued until World War I, and provided the foundation for American industrialization in the second half of the century. It also resulted in a high degree of geographic integration across the northeast and Midwestern regions of the country, and linked labor markets in the United States increasingly closely with European ones (Rosenbloom 2002; Hatton and Williamson 2005). Meanwhile, an entirely distinct and largely isolated labor-market regime took shape in the American South.

Antebellum Southern Labor Markets

Coincident with developments in the North, a very different labor market regime was developing in the southern United States under the influence of slavery. The divergent course of economic development in the two regions comes as close to providing a "natural experiment" in institutional development as economic history is likely to offer. "In 1790, the two economies were nearly equal in population area, and levels of wealth," notes Wright (2006a, p. 49). "Broadly speaking they shared a similar culture and legal heritage. So the economic competition boiled down to the institutional differences between them." Having started with relatively similar economies and populations the two regions had diverged markedly on the eve of the American Civil War. In comparison to the North, the Southern states in 1860 had a smaller, more rural, and less dense population, as well as substantially lower levels of manufacturing employment, immigration, and railroad miles per capita (Wright 1986; Bateman and Weiss 1981). The point is not that one path of development was superior to the other, but rather that the differences in regional development can be traced to the different labor market regimes that emerged as a result of the differences property rights in the two regions.

In comparison to the northern states, Slavery facilitated westward migration and settlement, and by doing so deprived southern industry of the labor supply necessary for expansion. Individual preferences, attachments to family, aversion to risk, and access to capital and information, all of which slowed migration in the North, created no obstacle to the movement of slaves to western lands where they were more productive. Moreover, because male and female slaves were both used for fieldwork, there was no difference in migration response by gender. The circumstances of individual slave owners posed no barrier to mobility either, since owners who could not finance a move to the West, or preferred to remain in the East could easily sell their slaves to planters in the West. In effect, while northern manufacturers were able to recruit within a fairly localized labor market, southern manufacturers found themselves

competing on a region-wide level for slave labor. Given the extremely high value of labor on western cotton plantations, the price of labor that potential southern industrialists faced was much higher than in the North. If employers chose instead to rely on free labor, the lower density of population in the South Atlantic region meant that recruitment costs were higher. Additionally, because free southern farmers were less involved in production for the market than their northern counterparts, they were less subject to the dislocations created by competition from western producers that Field identifies as a key factor in releasing labor to industry in the Northeast (Field 1978; Wright 1979).

Beyond its direct labor market effects, slavery altered the incentives of property owners in the South. In the North, property owners had a broadly unified interest in promoting immigration, because immigrants raised real property values, expanded markets for domestic manufactures, and drove down unit labor costs. In the South, by contrast, slaves dominated the portfolios of wealthy property owners, and immigration threatened to reduce the value of these assets. Rather than promoting immigration they opposed any action that would increase the labor supply. As an editorial in the *Southern Banne*r of Athens Georgia observed in an editorial opposing the reopening of the slave trade in 1859: "We want to see labor high…No country can be really prosperous and happy where it is otherwise…Cheap labor is a curse to any country. We wish it was twice as high in the country as it is" (Quoted in Wright 1979, p. 678). The regional difference in the economic interests of the propertied elite could be summarized, in Wright's (2006a) terminology, as a contrast between southern "laborlords" and northern "landlords." These differences resulted in vastly different conditions of labor supply and ultimately economic development.

Perhaps the clearest indication of the role that slavery played in affecting the course of southern development is the marked shift in the nature of southern development after abolition.

With this dramatic shift in property rights wealthy southerners displayed a much greater interest in investment in railroads, town promotion, and industry. Urban growth and industrialization, which had lagged behind the North before 1860, grew faster than in the North after 1880 (Wright 1986, pp. 17-26).

Emancipation and Postbellum Southern Labor Markets

The Civil War and emancipation imposed an abrupt and sudden shift in labor market regimes in the South. The end of slavery transferred property rights in labor from planters to their former slaves. To produce a crop it was necessary to develop new ways of combining labor with land and capital. Southerners' efforts to forge a solution provide a graphic illustration of how many characteristics of the employment relationship we ordinarily take for granted. A list compiled by an official of the Freedman's Bureau in 1866 and reproduced by Harold Woodman notes among these issues: whether the freedpeople would work on Saturdays, whether the contract would end on a set date, or when the crops were gathered, whether those working for a portion of the crop would be require to do other work and whether they would receive any payment in advance of the harvest, who was responsible for maintaining fences, whether a physician is to be employed, whether an overseer is to be employed, if the land owner furnishes tools or stock animals, who will be responsible if the tools are broken or the animals die, the kind and quantity of rations, quarters, and clothing to be provided, the number of hours to be worked, whether women and children will work, if wages are paid when they will be paid and what portion will be retained until the crop is harvested (Woodman 1984, p. 535; cited in Wright 1987, p. 320).

The dominant labor market regime of the Postbellum South, sharecropping, emerged from a process of competition between a number of alternative labor arrangements, including

wage labor and cash tenancy, and it continued to coexist with these alternatives throughout the late nineteenth and early twentieth centuries. Once established, however, sharecropping exerted an important influence on the technological evolution of southern agriculture.

Sharecropping has often been portrayed as effectively reinstating slavery through the debt obligations that the croppers undertook. Yet, sharecropping coexisted with a highly competitive wage labor market in the South, and croppers displayed a considerable degree of geographic mobility, suggesting that the situation was more fluid and less constraining than this traditional view (Wright 1986, pp. 84-107). Settling in one place and becoming a sharecropper was a conscious choice that southerners, both Black and White, made as the first step up an agricultural ladder that led to cash tenancy and ultimately independent farming. Climbing this ladder required that they obtain access to capital to finance seed, equipment and other short-term borrowing; and access to capital required that they establish their creditworthiness by committing themselves to a particular locale.

For both landowners and laborers wage labor was an alternative to sharecropping. But for landowners the seasonal nature of labor inputs required in cotton cultivation made wage labor impractical except near urban areas where the supply of labor was sufficiently elastic that they could meet their need for temporary workers. For laborers, wage work offered higher pay, but greater uncertainty, and did not provide a means to put other family members to work. Thus the wage labor force was composed primarily of young, single men.

Sharecropping emerged out of an initial period of flexibility, but once established this labor market regime imposed significant constraints on subsequent technological developments. In wheat farming mechanical harvesters had from the 1840s begun to reduce labor requirements in agriculture. In contrast, however, cotton picking was not mechanized until nearly a century later, in the 1940s. An important reason for this delay was the fact that while the peak labor

demand in wheat production occurred at harvest time, cotton growing had two peak periods of labor demand—the first occurring in June when the crops were cultivated, and the second at harvest time. Sharecropping effectively insured that labor effort would be available to meet both of these peaks, and efforts to mechanize cotton foundered on the fact that unless they reduced labor demand throughout the growing cycle they would not be of much value. As Whatley (1987) documents, International Harvester did not begin to seriously explore development of a mechanical cotton picker until the diffusion of tractors in the 1920s had made it feasible to mechanize cultivation, and the first successful mechanical cotton pickers were introduced during World War II.[4]

By this time, however, the stability of sharecropping had been significantly undermined by the severe economic contraction of the 1930s. As alternative employment opportunities dried up, landowners were able to shift a greater proportion of their land to wage labor, reducing the number of share cropping contracts. But the major factor in displacing croppers came from New Deal agricultural policies that encouraged landowners to displace croppers to collect agricultural subsidy payments for idling the land (Whatley 1983). Not only did this shift create further incentives for efforts to mechanize cotton picking, but it also severed the ties holding many poor blacks to southern agriculture. There were scant opportunities to induce them to move in the 1930s, but once labor demand began to expand during the Second World War, and given the context of restrictive immigration policies that choked off old sources of supply (Collins 197), the Great Migration of African-Americans to northern cities in search of industrial employment commenced, as did the integration of Southern labor markets more fully into the national economy.

[4] Because tractors were of general utility throughout northern and southern agriculture, the limitations of cotton cultivation did not significantly impede development of this technology.

The evolution of industrial labor markets to World War I

By the turn of the twentieth century, the United States was emerging as the world's preeminent industrial economy, although still an economy with sizable agricultural and mineral extraction sectors. The period between the Civil War and the First World War is often seen as an era of unfettered, competitive labor markets, characterized by a legal regime of employment at will, loose attachments between workers and employers, mass immigration of low-skilled workers, weak unions, flexible wages, and minimal government regulation—in other words, the kind of market well-suited to the standard theory of supply and demand (Fishback 1998).

The general validity of this view as a snapshot of the institutions at a point in time is hard to deny. But it also obscures some important dynamics that became forces for institutional change. Production technologies and ultimately labor-market institutions evolved during these decades under the pressure of four interrelated influences: relatively inelastic and scarce supply of skilled labor; conflict between employers and skilled workers over control of the production process; the growing scale of firms as organizations, with attendant problems of monitoring and incentives; and emerging forms of government regulation of labor markets, particularly at the state level.

Labor historians and radical economists have often interpreted the technological and institutional trajectory of late nineteenth-century America as the result of a purposeful effort by employers to forestall or weaken organized labor and wrest control of the production process from skilled artisans (Edwards 1979; Gordon, Edwards and Reich 1982; Montgomery 1987). While the evidence of such class struggle in the workplace is plentiful, the same developments also reflect the fact that the labor market regime was more effective in mobilizing unskilled labor than in providing workers with traditional craft skills. During the second half of the nineteenth

century, large scale factory production was associated with more intensive use of low-skilled labor, as Atack, Bateman, and Margo (2004) have documented. Technological innovation and capital investment thus appear to have had an overall skill-saving bias. Nonetheless, over the same period, wage premiums for skilled craft workers were actually rising, suggesting that however much employers had "deskilling" in mind, overall growth in the demand for skills continued to outpace supply (Dawson 1979; Rosenbloom 2002). Experimentation with various methods of attaching workers to the firm and training them internally, such as rudimentary promotion ladders and welfare capitalism, can also be seen as responses to perceived skill shortages, attacking the problem from the supply side. These developments were reflected in the job-tenure data: despite overall high rates of labor turnover, sizable minorities of workers in industrial establishments could expect to have a job with the same employer for many years (Carter and Savoca 1990).

Indeed, by the turn of the century, the advanced industrial sectors of the U.S. economy were increasingly characterized by technology-skill complementarity (Goldin and Katz 1998). New technologies were more "skilling" than deskilling. Goldin and Katz (2008) argue that this complementarity, initially associated with the rise of large-scale batch and continuous process production technologies, would impart a skill bias to technological change that persisted across the twentieth century and beyond. That the relative wages of skilled workers failed to rise steadily during the twentieth century is evidence of the extraordinary increase in the supply of skills, largely driven by rising educational attainment.

In the advanced sectors of the industrial economy, growing organizational scale created other challenges—most notably, management of the employment relationship had to be delegated to a growing cadre of subordinates. In many industries this was accomplished by leaving labor management in the hands of first-line supervisors, a system that Nelson (1975)

referred to as the “foreman’s empire.” Delegation created growing principal-agent problems, and firms began to experiment with reforms that removed some of the foreman’s discretion over hiring and firing, pay, training, and task assignments. Still, the bureaucratic managerial revolution would not have a widespread impact on the employment relationship until well after World War I (Jacoby 1985).

As for the role of government, late nineteenth-century U.S. labor markets undoubtedly came closer to the *laissez faire* ideal than they would 50 years later, but as in other areas of economic life, the decades leading up to World War I witnessed a flurry of regulatory activity. Under the federalist system, government regulation of labor-market institutions was largely left to the states. States passed laws limiting the work hours of children and women and established bureaus of labor statistics, factory inspection systems, and arbitration boards. By1915, all of the major industrial states had established workers’ compensation programs (Fishback and Kantor 1996). These regulations set the stage for broader interventions to come but on the whole were fairly weak. Comparing the United States with advanced European countries during the same period, Robertson (2000) contends that the purported exceptionalism of American labor laws and institutions did not emerge until after World War I. While state policies and programs were piecemeal and often ineffectual, labor regulation was similarly weak elsewhere in the western world as well.

To summarize, the period between the Civil War and World War I was one during which the elements of the institutional regime were becoming increasingly discordant. While mass immigration, high mobility, and employment at will fostered a labor market of readily available unskilled labor and posed challenges for training skilled workers, new technological opportunities militated toward increased organizational scale and greater importance of skills that were learned on the job or in school. Much of the conflict of this era can thus be seen as

symptomatic of the groping toward a solution within the constraints of the existing labor market institutions. The eventual institutional regime shift would come in response to the series of severe shocks to the system generated by two world wars, the Great Depression, and a dramatic realignment of the government's role in the economy.

The command economy and the Great Depression: The emergence of a high-wage regime

World War I is often seen as a watershed in the evolution of labor-market institutions in the United States. With the onset of the War, mass immigration from Europe was curtailed, and coupled with the wartime stimulus to industry, the scissors of demand and supply closed, driving unemployment down and wages dramatically up. Tight market conditions increased the bargaining power of labor, and strikes and unionization rates spiked. In an effort to minimize the disruption to critical war production, the federal government implemented a short-lived but historically influential experiment in regulating industrial labor markets and arbitrating disputes, in the form of the National War Labor Board. The corporatist character of the Board, which sought to bring captains of industry together with labor leaders under the guiding umbrella of the federal government, would be echoed in the early phase of the New Deal (NIRA) as well as similar efforts during the Second World War.

The influence of organized labor in most industries fell apart rapidly with some disastrous strikes–such as the steel strike in 1919–and the short but deep postwar recession of 1921. Still, some of the War's effects on labor markets were lasting. Most importantly, perhaps, restrictive immigration quotas passed in 1921 and 1924–spurred in part by xenophobia and concerns about European radicalism–made permanent the wartime cutoff of mass immigration of low-skilled labor. Given this restriction of labor supply growth and ongoing productivity advances, labor earnings rose quite dramatically. Indeed, Gavin Wright has argued that the 1920s

witnessed the emergence of a "high-wage national regime" that would last half a century and coincide with the "one big wave" of 20th century productivity growth (Wright 2006b; Gordon 1999). The evidence on real wages is striking. Standard manufacturing wage series show that real hourly wages of production workers were nearly stagnant between 1890 and the Great War, but by the early 1920s they had risen by more than 50 percent and then continued to grow modestly until further increases occurred during the 1930s (Wright 2006b; see also Goldin and Katz 2008). Wright argues that high wages induced a set of institutional and technological responses that drove further productivity changes; hence the correlation between the great wave of productivity growth and high wages is not mere coincidence.

The implications of the high-wage regime for labor relations during the 1920s, even before the dramatic labor-law reforms of the New Deal, were nicely summarized by Sumner Slichter (1929). Employers faced with high wages sought to "upgrade" their employees to match productivity to pay; fear of the return of labor unrest and high turnover spurred not only efficiency wages but experimentation with more systematic personnel management, internal labor markets, and various incentives designed to attach workers to firms. These schemes elaborated on and bureaucratized some of the practices developed by the welfare capitalism and scientific management movements of the late 19th Century. The extent to which these reforms were widely adopted by U.S. firms before World War II remains subject to some debate (see Jacoby 1985; Moriguchi 2003, 2005). Large corporate employers were generally the leaders in adopting more formal, systematic methods; but there was considerable heterogeneity across firms of all sizes, and informal modes of personnel management were remarkably persistent (see esp. Licht 1991).

There seems little doubt, however, that the advent of the high-wage regime coincided with changes in other broad measures of labor-market structure and performance. After peaking

in 1919 or 1920, both union density and strike activity fell throughout the 1920s. Data on labor turnover rates are spotty before 1920, but the available evidence suggests that turnover fell dramatically between the teens and 1920s, led by falling rates of voluntary quits. Because the quit rate tended to be dominated by a fairly small unstable segment of the workforce (Woytinsky 1942) and was sensitive to short-run fluctuations in business-cycle conditions, its movements are not necessarily indicative of changes in the prevalence of long-term labor attachments. Still, Owen (1995) builds a case for the view that changes in employment management practices were a significant contributing factor.

The broader institutional manifestation of labor upgrading was the continuing rapid development of the American system of mass public education—in this period, largely the high-school movement. Goldin and Katz (2008) attribute the United States' global leadership in secondary education to a set of longstanding social and political "virtues"—including social and political egalitarianism and local political control—that facilitated publicly funded schooling for the masses, as well as the strong price incentive provided by a substantial educational wage premium. The extent to which mass schooling in America was shaped predominantly by economic forces and interests (cf. Bowles and Gintis 1976) may be debated, but the apparent complementarity between educational and labor-market institutions is nicely illustrated by the regional contrast between the American South and the rest of the country. Public support of schooling in the South lagged substantially, a phenomenon attributable in considerable measure to the disfranchisement of African-Americans, but also to the commitment of political and economic elites in the region to maintaining an isolated, low-wage labor-market regime (Wright 1983; Margo 1994).

By the late 1920s, it seemed that U.S. industrial labor market institutions were settling into a stable regime of relatively high wages, managerial paternalism, minimal government

intervention, and low rates of unionization and labor unrest—what might be referred to as corporate welfarism. The economic crisis of the 1930s, however, brought an early demise to this episode. Two well-known and interrelated developments characterize labor market institutions in the 1930s: the resurgence of mass unionism, and the advent of significant federal regulation. As Wright (2006b) notes, these developments helped to ratchet up real wages again during the early 1930s–a truly remarkable phenomenon within the context of massive excess supply of labor.[5]

The surges in labor unrest and union membership during the 1930s are often attributed to changes in the legal environment, especially protective labor legislation, such as Section 7(a) of the 1933 National Industrial Recovery Act (NIRA) and its successor, the 1935 Wagner Act. It is also true that some cracks in the generally anti-union, open-shop orientation of American labor law had begun to appear by the late 1920s (see Ebell and Ritschl 2008). But, as David Brody (1980) has argued, labor organizing in the 1930s was initially spurred as much by economic conditions and changes in employer behavior as it was by a more favorable political climate. In particular, the abandonment of welfare capitalist benefits by financially strapped corporations was viewed by many workers as reneging on an implicit contract that had maintained the peace, and led to the collapse of the prior institutional equilibrium (Moriguchi 2005).

The expanded role of federal regulation also included a national minimum wage and the set of social insurance measures associated with the Social Security Act of 1935: unemployment insurance, retirement insurance, and welfare support for single mothers. The social safety net was undoubtedly emblematic of labor's increased political power, but may in turn have served to strengthen labor's bargaining power by improving workers' threat points.

The key role of the federal government in shaping labor-market institutions continued

[5] Wage growth was, however, consistent with the extraordinary rise in total factor productivity during the 1930s (Field 2003).

during World War II. As Jacoby (1985, 261) puts it, “During the war the nation came close to having a command labor market...” Building on the precedent of World War I, a National War Labor Board was reestablished with the primary goal of avoiding strikes that could undermine the war effort; the NWLB compelled bargaining between firms and unions, the latter’s right to bargain collectively now legally protected by the NLRA. Government reporting requirements and the dissemination of best-practice personnel management practices served to standardize and bureaucratize labor relations in large firms (Jacoby 1985; Baron et al 1986). In the aftermath of the War, the power and influence of American industrial unions were at their zenith. Levy and Temin (2007) argue that the postwar agreements between the UAW and the Big Three auto firms, the so-called “Treaty of Detroit,” were particularly important in establishing the practice of pattern bargaining, whereby key contracts had wide spillover effects on wages and working conditions across industries. In this interpretation, during the 1950s U.S. labor markets had in important respects come to resemble the collective, centralized wage-setting institutions often associated with labor markets in continental Western Europe.

Coinciding with these institutional changes was a dramatic reduction in the dispersion of wages between 1940 and 1950, a phenomenon dubbed the “Great Compression” by Goldin and Margo (1992). Wage differentials declined rapidly both between and within observable skill groups, as classified by education and experience. The new wage structure persisted well beyond the wartime period of tight labor markets. The fact that wage inequality ratcheted downward, rather than exhibiting a temporary wartime compression followed by a postwar decompression, suggests that neither tight wartime markets nor wartime wage controls offer a complete explanation. Rather, the evidence is consistent with a significant role of more long-lived institutional change, including the power of organized labor and advances in the legal minimum wage, which relative to labor productivity reached an all-time high during the 1950s (Levy and

Temin 2007). Trends in labor-market fundamentals, especially the relative supply of human capital, may have been at least as important in the long run: Goldin and Katz (2008) emphasize changes in educational attainment that served to compress the skill premium during the immediate postwar decades.

The demise of the high-wage regime?

Developments in U.S. labor markets since 1970 have suggested to many observers an unraveling of the postwar institutional regime. Much of the work by labor economists has stressed the dramatic increase in wage and income inequality, both within and across skill groups, but the paradox of slow median wage growth, even as productivity growth accelerated during the 1990s, is another piece of the puzzle. Levy and Temin (2007) document the slowdown in wage growth using what they refer to as a bargaining power index, which they measure as the ratio of median worker pay to (average) labor productivity. This ratio deteriorated fairly steadily beginning in the late 1960s, with the decline especially pronounced for low-skilled men.

The widening of the gap between median worker pay and productivity is not, as one might surmise, due to a change in the distribution between labor and capital; labor's share of national income has in fact been remarkably stable over time. Rather, pay at the top of the wage distribution has steadily pulled away from the middle for some 30 years (Autor et al 2006; Piketty and Saez 2003). At the same time, especially during the 1980s, the pay of workers in the lower deciles of the wage distribution stagnated, further contributing to the "polarization" of the labor market.

Explaining the trends in wages and inequality since the late 1970s remains an active and contentious area of research. Wright (2006b) and others have pointed to an institutional regime change in response to the economic crisis of the 1970s, characterized by deregulation, the

erosion of the real minimum wage, weakened private-sector unionism, increased low-skilled immigration, increased international trade, and– more vaguely– the weakening of distributional norms that placed constraints on the acceptable degree of wage inequality.[6] A competing, neoclassical account stresses the changing structure of labor demand due largely to skill bias in the impact of computerization, coupled with a significant slowdown in the rate of growth of human capital, as the educational attainment of recent cohorts has stagnated (Autor et al 2006, 2008; Goldin and Katz 2008).

These debates relate to two fundamental and unresolved issues regarding the role of institutions in capitalist labor markets. The first is the extent to which specific institutional arrangements can have a significant and long-term impact on market outcomes, such as wages, working conditions, and employment, beyond what is determined by the underlying fundamentals of technology and human capital. Although Goldin and Katz (2008) acknowledge a significant supporting role for such labor-market institutions as labor unions and regulations during certain historical episodes, in the longer run these institutions are merely waves riding the larger tidal force of the race between education and technology—that is, between supply and demand. Still, we know from international comparisons that wage distributions, hours, and employment can vary dramatically (and persistently) across economies with apparently similar technologies and levels of educational attainment, for what seem to be institutionally driven reasons. Regulatory regimes clearly matter across countries, but their significance in explaining temporal change within the U.S. setting is debatable.

A dimension of the impact of institutions on labor market outcomes deserving of greater attention is their potential role in determining the size and distribution of economic rents. An

[6] On institutional explanations, see also Levy and Temin (2007); Piketty and Saez (2003); and the recent survey by Lemieux (2008).

important body of work in the 1980s and 1990s suggested that rent sharing has been a significant factor in wage determination in the United States, at least for inter-industry wage patterns (Krueger and Summers 1988, and Blanchflower et al 1996). The importance of rent sharing implies a role for non-competitive—and thus perhaps "institutional"—forces in labor markets, whether unions, personnel management practices, or social norms. How institutional change may have affected economic rents and their distribution is poorly understood, in part because of the difficulty of identifying and measuring the rents themselves.

The second issue in assessing the role of institutions is the extent to which the underlying economic fundamentals of technologies and endowments (such as human capital) are endogenously determined by institutions. If, for example, as Acemoglu (2002) and Wright (2006b) contend, the skill bias of technological change is endogenous to the pattern of relative prices, and institutional regimes help determine relative prices, the identification strategy of treating technological change as an exogenous residual is problematic.

Conclusion

In much economic analysis it is a convenient fiction to suppose that wages and employment are determined by shifts in supply or demand within a more or less competitive market framework. And indeed this framework can be conveniently deployed to understand many episodes in American economic history. Thus, for example, within the northern United States the influx of relatively unskilled European immigrants between the end of the Civil War and the beginning of World War I raised skill premia while promoting spatial wage equalization. Similarly, within the postbellum South adjustments in acreage farmed by sharecroppers can be understood as a response to variations in relative supply and demand.

As the foregoing account demonstrates, however, the interaction of supply and demand

takes place within an institutional context that is, itself, endogenously determined. And the prevailing institutional context can profoundly alter the wage and employment outcomes produced by markets, a point that is starkly illustrated by the divergent development of northern and southern labor markets in the antebellum period. Although labor market institutional regimes are determined endogenously they tend to be persistent, reflecting the interdependent nature of the institutions that support market exchange.

As a result, the history of American labor markets can best be characterized as a sequence of relatively stable arrangements punctuated by abrupt changes in institutional regimes. Such a narrative suggests that policy advice that focuses solely on efforts to influence supply and demand conditions, and ignores the role of institutional regimes in conditioning the operation of supply and demand, ignores one of the central features of the labor market.

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