

*Income Inequality, Wage Determination,
and the Fissured Workplace*

DAVID WEIL

Economist David Weil, who served as administrator of the Wages and Hours Division of the U.S. Department of Labor, writes here about the concept he dubbed the “fissured workplace,” meaning the increasing stratification of the labor market outside the walls of individual firms. Instead of the old model of large corporations employing workers at all levels—skilled professionals, mid-level administrators, and manual workers, under a single roof, as was the case in the past—increasingly jobs are outsourced by function, and workers who would once have been employees, and thus entitled to de jure and de facto privileges, are now forced into a race to the bottom. This chapter analyses the extent of and motivation for that phenomenon and its implications for observed patterns of inequality and for future research into the labor market’s functioning, concluding that it’s time for economists to return to the old-fashioned concept of wage determination as a sui generis phenomenon worthy of study. All of that matters for C21 because it complicates the picture of future inequality as arising from a straightforward capital-labor split.

The post–World War II era was a remarkable period in reducing earnings inequality during a prolonged economic expansion. Wages and benefits of the workforce employed inside the walls of major businesses like General Motors, Hilton, GE, and Westinghouse moved in roughly the same direction as rising productivity. From 1947 to 1979, productivity increased by 119 percent while average hourly wages increased by 72 percent and average hour compensation (wages plus benefits) by 100 percent.¹ In the auto industry, that exemplar of the postwar era, expansion of consumer demand

led to rising profits and executive compensation increases, and the pay for workers on auto assembly lines also rose. But so did the pay for janitors, maintenance personnel, clerical workers, and lawn care attendants also employed by automakers.

Those parallel movements began to change in the 1970s. Productivity growth over the three decades beginning in the late 1970s continued to rise, growing some 80 percent. Yet over the same period, average hourly wages increased a meager 7 percent and average hourly compensation by only 8 percent. Growing inequality has appropriately become a central concern for academic study and policy makers and of course a central reason for the intense interest in Thomas Piketty's *Capital in the Twenty-First Century*.

There is an enormous theoretical and empirical literature that attempts to explain the dramatic changes in how the gains of economic expansion have been shared in the United States and other industrialized nations. This body of literature probes the causes driving the decreasing share of national income going to the labor share and toward capital. It examines increases in inequality arising from observable characteristics of workers (the returns to work) as well as changes in the composition of firms. Studies have dived deeply into the impact of skill-biased technology change, the impacts of globalization, and the secular decline of unions, among other sources driving inequality.²

This chapter sets out an alternative lens with which to undertake the analysis of inequality. I will argue that an important driver of that change over the last three decades has been an evolution of business organization that has fundamentally altered the employment relationship and, in turn, the way that wages are set for workers in a growing range of industries. My focus here is on the particular evolution of wage setting through the changing definitions of the boundaries of employment occasioned by what I have called the “fissured workplace.”

As activities have been shed by lead businesses in many industries in the economy to other business entities, wage setting has been altered in fundamental ways. The motivations for a range of changed business practices related to the shedding of employment—for example, outsourcing, subcontracting, and misclassification of workers as independent contractors—are often misconstrued either solely as tactics instituted to dodge legal obligations or as a set of necessary adjustments made by modern, flexible business

organizations. Both stories fail to explain the sources of a more fundamental realignment of employment now common in many sectors of the economy.

The consequence of this shift has been that in more and more labor markets, wage-setting processes that once led to a greater sharing of rents in both union and nonunion workplaces are now driven toward the marginal productivity of labor for workers whose jobs have been shed from leading businesses. While lead businesses—the firms that continue to directly employ workers who provide the goods and services in the economy recognized by consumers—remain highly profitable and may continue to provide generous pay for their workforce, the workers whose jobs have been shed to other subordinate businesses face far more competitive market conditions. Lower margins in these subordinate markets—which often are further “fissured” to other networks—create conditions for wage setting more consistent with competitive labor market models, where wages move toward marginal productivity.

The fissured workplace hypothesis explains how wage-setting norms are altered when workers are shed from lead employers to external businesses, effectively changing a wage-setting problem into a pricing problem. It also provides a story regarding not only the growing level of inequality in earnings, but why that inequality might be particularly associated with growing diversion in earning *among* rather than *within* firms. As a result, I argue that future research must refocus on the age-old question of wage determination (a phrase from an earlier era of labor economics) and its impacts on the labor share of income.

The Fissured Workplace Hypothesis

When we walk into a well-known hotel chain, we assume that the people who greet us at the front desk, or the people who clean our rooms each day, or deliver our room service, are employees of that hotel (as their uniforms and name badges imply). This, however, is not our twenty-first-century workplace. Many hotel workers are employed by separate management, janitorial, catering, and staffing companies. In some cases workers are jointly employed by the hotel and the businesses but often they may not even know for whom they work.

In my book *The Fissured Workplace*, I argue that capital markets drove the fissured workplace evolution.³ In the last few decades, major companies faced, and they continue to face, pressure to improve their financial performance for private and public investors. They responded by focusing their businesses on core competencies—that is, what provides greatest value to their consumers and investors. A natural complement of this approach was to “shed” activities not essential to the core competency of the organization. Typically, this started with activities like payroll, publications, accounting, and human resource functions. It spread to outsourcing activities like janitorial and maintenance of facilities and security. But then the shedding went deeper—in many cases, into employment activities that would be regarded as core to the company.

As a result, the employment relationship “fissured” apart. And as in geology, once fissures start, they deepen: once an activity like janitorial services or housekeeping was shed, the secondary businesses doing that work deepened the fissures even further, often shifting those activities to still other businesses. The farther down in the fissures one goes, the slimmer the profit margins, and the greater the incentives to cut corners. Labor costs are often the first place employers look to reduce expenses to remain competitive, even at the cost of compliance. Typically, the farther away the laborer is from the ultimate beneficiary of that labor, the greater the chance for violation or exploitation. Violations tend to be greatest where margins are slimmest.

But lead businesses must still monitor and police the behavior of the subordinate firms that provide key activities so that they do not undermine core competencies like brand identities or new product development. Fissuring is therefore accomplished through a variety of business structures that allow them to do so: subcontracting arrangements and staffing agency contracts that are built on explicit and often detailed outcome standards and franchising, licensing, and third-party management systems with similarly extensive performance requirements.⁴ Although a portion of the fissured workplace arises from an effort to thwart workplace policies, the above account indicates why it is mistaken to view that as the sole driving force, particularly at its source in lead business organizations. But whether the fissured workplace is associated with legitimate or illegitimate prac-

tices, employment relationships become more tenuous, responsibility for compliance with laws is shifted to other businesses and made murky, and the workforce becomes vulnerable to violations of even the most basic protections of our laws.

Drivers of Wage Determination

In virtually any market situation, businesses face incentives to lower costs. The more intense the competition, the greater is that pressure. Although the changes in capital markets sharpened that pressure, it would be folly to forget its ongoing presence in markets. It is therefore axiomatic that businesses will seek methods to reduce labor costs. Unit labor costs are driven by two factors: the price of labor (also known as wages and benefits) and the amount of output produced per each unit of labor input (also known as productivity). To the extent that shifting employment to other firms through practices like outsourcing reduces labor costs without compromising product or service integrity, one would expect a movement in that direction.

Many discussions of elements of fissuring—the increasing use of contracting and outsourcing and contingent work arrangements—focus on motivations driven by reducing labor costs. One important example is the long-term effort by businesses to avoid unionization. Unions raise wages, increase benefits, reduce management authority to unilaterally dismiss workers, and increase scrutiny of compliance with workplace regulations. The National Labor Relations Act precludes employers from simply closing down workplaces solely because of the presence of unions, or threatening to do so if a union is elected. But shedding employment can provide more subtle ways to shift away from a highly unionized workforce or move work to forms of employment that are both legally and strategically difficult for unions to organize, at least historically.

A second explanation is the desire to shift to other parties a wide range of required social insurance benefits like unemployment insurance and workers' compensation premiums as well as private benefits like insurance and retirement. Socially required and privately provided benefits make the cost to employers of hiring workers far greater than wages or salaries. Wages

and salaries comprise 69.4 percent of employer costs per hours worked in the United States for all workers. An additional 7.8 percent of employer costs are related to federally required benefits (Social Security, Medicare, and Federal Unemployment Insurance) as well as state benefits (unemployment insurance and workers' compensation). Privately provided benefits for insurance (health, life, disability) and retirement average an additional 13.5 percent.⁵

To the extent that institutions like staffing agencies or smaller companies doing subcontracted work for a lead business comply with the law, required social payments should be captured in the price those subordinate labor providers charge. There is abundant evidence of extensive noncompliance in subcontracting chains, staffing agencies, and other businesses in fissured workplace networks arising from misclassification of workers as well as pay practices like piece rates that lead to violations of minimum wage and overtime.

Even given payment of legally required benefits, businesses in fissured structures may provide fewer—or no—benefits in the area of insurance or retirement, lowering the costs to the lead businesses that may draw on them. For example, the federal laws regulating employee benefits require that if a benefit like health care is offered to one worker, it must be offered to all workers. By shifting out employment to another business (such as a temporary agency that does not provide its workforce with health benefits), the company can lower the de facto cost of hiring additional workers.

A third incentive for shedding employment arises from the desire to minimize liability. With employment comes responsibility for outcomes like workplace injuries, illnesses, and fatalities as well as for discrimination, harassment, and unjust dismissal. If shedding employment shifts liabilities to other parties, it lowers expected costs to lead businesses.

All of the above explanations can reduce labor costs and the risks associated with employment. But attributing the dramatic rise in shedding employment solely to them does not adequately explain how lead businesses balance the benefits of lower costs from shedding employment against the benefits of continuing to use workers from inside their company, and why the fissured workplace has spread and deepened. There is something more subtle afoot. It requires thinking about wage determination in large companies.

Monopsony Power, and Wage Determination

The most autocratic and unfettered employer spontaneously adopts Standard Rates for classes of workmen, just as the large shopkeeper fixes his prices, not according to the haggling capacity of particular customers, but by a definite percentage on cost.

—Sidney and Beatrice Webb⁶

The large employers that dominated business in much of the twentieth century were in a different position than employers in traditional labor market models. The extreme case occurs in a company town where a single employer essentially provides the only jobs in the labor market. As the sole purchaser of labor, such an employer (or monopsonist) effectively faces the entire labor supply, and must pay higher wages if it wishes to increase the number of people employed.⁷ For a unitary employer paying the same wage rate to workers for a similar job, the cost of an additional hired worker reflects not only the wage for that worker but also the incremental costs for all employees who have already been hired for that job, because the company pays all workers at the same wage as that paid to the last worker hired. As a result, the employer hires fewer workers and pays a lower wage than would occur in a competitive labor market with multiple employers.

Company towns are rare, but an employer need not rule over a coal town to wield some level of monopsony power. A common source of employer power in a labor market arises from information problems. A labor market works by matching workers' job preferences with employers' demand for workers. That makes information a critical lubricant in the operation of a labor market. Pure labor market models (which assume that markets function like a freewheeling bourse) assume that such information costs are minimal. Employer suitors quickly find their employee mates.

But information is not costless, nor is it held equally by all the parties in a labor market. In practice, a worker's search for a job is limited by time, knowledge, and geographic preferences. Large employers have more robust information because of their size, sophistication, and economies of scale in acquiring it. Workers, however, face "search frictions" in the labor market because of limited information on employment options as well as family, social, and other geographic ties that restrict their willingness to move.

Information asymmetries and search frictions create some degree of monopsony power, meaning that large employers set wages rather than simply accepting the going rate in the labor market. This gives them greater latitude in establishing compensation policies, although the employer's policies still must reflect the supply of workers and their contribution to the production of the firm.⁸

Some level of monopsony control and discretion in setting wages underlies the compensation and human resource policies set by major companies across the economy. As the social scientists Beatrice and Sidney Webb pointed out at the turn of the twentieth century, large employers that dominated the economy and the labor market required unified personnel and pay policies and internal labor markets for a variety of reasons: to take advantage of administrative efficiencies, to create consistency in corporate policies, and to reduce exposure to violations of laws.

Like the Webbs, early American labor economists conceived of wage setting within the firm as the outcome of a match-specific negotiation, but they focused attention on the roles played by limited outside options faced by workers and their impact on relative bargaining power. Richard Ely and his academic disciples in the "Institutionalist" school of labor economics highlighted the role that unionization and collective action play in setting wages, or more specifically, they argued that in the absence of unions, employers held a superior bargaining position, given the inelastic demand for labor arising from the barriers to mobility faced by workers as well as the pressing need to feed their families.⁹

A later generation of Institutional economists, like Sumner Slichter, John T. Dunlop, James Healy, and others studying collective bargaining in the post-World War II era, found similar managerial behavior in the major companies setting wage and price policies in critical sectors of the economy.¹⁰ Setting wage policies via complex internal labor market systems with consistent wages across groups of workers arose not only in unionized settings. Fred Foulkes, for example, carefully documented similar wage- and salary-setting practices in relation to large, nonunion enterprises.¹¹

The contemporary literature seeks to square the general existence of elaborate internal labor markets and findings like wage premiums in large firms with the operation of competitive labor markets. One view argues that these phenomena are not incompatible with the functioning of competitive

labor markets, but simply reflect the complexity of labor as an input in production—an input whose productivity changes over the course of employment.¹² Another set of theories explains internal labor markets in terms of “implicit contract” theory, where risk-neutral employers strike agreements with risk-averse workers that smooth wages over time, accommodating both parties in the process. These arrangements have some of the characteristics of internal labor markets but arise from underlying supply and demand features. A third view explains internal labor markets as the methods by which firms overcome the day-to-day holdup problems, given that the employment contract between workers and employers is inherently incomplete—that is, it cannot adequately commit to language the complicated and changing nature of what the employer wishes the worker to do. As a result, a combination of explicit and implicit contract devices arises to prevent either party from cheating the other.¹³

None of these explanations, however, recognizes a basic aspect of the workplace: it brings together large groups of people, and people by nature are deeply social beings. Workers operating under one roof communicate and quickly discover a lot about their coworkers. This includes whether the person sitting in the next cubicle is being paid more for doing the same job. Paying individuals who do similar jobs different wages could have deleterious consequences on productivity, increase turnover, or even inspire a union-organizing drive. Unified personnel policies and simplified compensation structures for workers with varying levels of productivity play a fundamental role in reducing friction among workers.

Fairness and Wage Determination

Fairness matters. In contrast to assumptions of traditional economics that individuals maximize gains solely for themselves, a large empirical literature from psychology, decision science, and more recently behavioral economics reveals that people care not only about their own gains but also about those of others. In fact, people frequently gauge the magnitude of their own benefits relative to those of others. And they are often willing to sacrifice some of their own gains because of equally important beliefs about fairness.

The “ultimatum game” is one of the best demonstrations of the importance of fairness in human interactions and has been extensively tested

experimentally and in the field. The game is simple: two people are told there is a pot of money (say \$10) to be split between them. One player gets the right to decide how to split it. The second player can accept or reject the first player's decision. If the second player rejects it, no one receives anything. If people were completely self-interested, the expected result would be clear: the first player would keep almost everything and leave a few crumbs (coins) for the second player. Since the second player is still better off with a little (for example, \$.50) than before the game started, he or she should accept any nonzero offer.

But that is not how the game turns out. The typical person in the second player position will reject lowball offers (looking across studies, offers below 20 percent of the pot of money are usually rejected)—even at the expense of walking away with nothing. Equally important, first players seem to understand this in advance, because they typically offer the second player 40 to 50 percent of the pot.¹⁴ The results, which have been replicated many times in many different forms, attest to the importance of fairness, because they are based on one-round (non-repeat) games where the incentives are high for the proposer to take as much as possible and for the responder to accept any offer. When ultimatum games are played in multiple-round scenarios, the incentives to share that pot only become higher.

Fairness perceptions affect all kinds of real-world interactions and relationships. Relationships are an intrinsic part of the workplace, and fairness perceptions are therefore basic to how decisions are made within it. The factors driving wage setting arise not just from an employer's consideration of the additional output a worker might provide if given a higher wage, but on the worker's perceptions of the fairness of that wage. For example, Daniel Kahneman, one of the pioneers of behavioral economics, showed that people's perception of the fairness of a wage cut depends on why they feel it was done: cuts driven by increases in unemployment (and therefore more people looking for work) are viewed as unfair; a company that cuts wages because it is on the brink of bankruptcy is judged more favorably. Like the proposer in the ultimatum game, managers seem to understand this and seldom cut nominal wages in practice.

Similarly, fairness considerations about compensation depend not only on how much I think I deserve to be paid on an absolute basis (given my experience, education, skills), but also on what I am paid relative to

others. Who are relevant comparison groups? It depends on where I am when making the appraisal. If I am looking for a job, my assessment is based on what I see in the labor market—as predicted by traditional economic theory. My sources of information may be incomplete, but I will be looking at comparable jobs in my search. The acceptability of a wage offer will bounce up and down with the overall conditions in the labor market.

Once I am inside an organization, however, the wage level that becomes relevant to me focuses on other workers in my company. Just as, in experiments, how two people split their joint gains matters as much (or more) than their absolute gains, once inside an employer's organization, I care more about what the person in the next cubicle is being paid than about what someone across the street doing the same type of work is being paid by a different employer.¹⁵ "Referent wages" are important not only in terms of others doing work similar to mine, but also for those I perceive as at higher and lower levels of the organization.¹⁶

Large employers adopted the wage and internal labor markets used in previous decades because of two kinds of fairness notions as they apply to wages. Horizontal equity regards how people think about different pay rates for similar work. Vertical equity regards how they think about different pay rates for different types of work.

Large employers historically fudged horizontal compensation problems by creating consistent pay for people in comparable positions in a company, even if their performance varied. The vast majority of businesses (78 percent) interviewed in Truman Bewley's study of compensation policies cited "internal harmony and morale" as the main reason internal pay equity was important.¹⁷ Labor market studies show that wages within firms vary far less than one would expect given the existence of considerable differences in productivity across workers. Firms move toward a single-wage policy for workers of similarly observable skill / ability because of the negative consequences arising from having multiple rates for workers who otherwise seem similar.

Workers' contentment with their wages also is affected by vertical fairness notions and norms. In particular, experimental and empirical evidence points to the fact that people look "up" in judging their pay, asking, What is my pay relative to the jobs at the next rung in my organization?¹⁸ If the pay

of the group just above me is too high—or if the gap widens over time—I may be less and less happy with the pay I receive, regardless of its absolute level.

In a large organization, vertical equity issues like these can be particularly vexing. Unionized workplaces in traditional manufacturing solved this problem through collectively bargained deals that linked these grades—often providing for upward ratcheting of the whole wage system (leaving relative wages intact) over time. The collectively bargained contract creates a transparent set of expectations of what is fair (in part because it reflects the preferences of the workforce, at least as represented by the union’s negotiating committee). Large nonunion workplaces also must accommodate the demands of vertical equity in setting compensation policies, even though unfettered by collective bargaining. Higher wages in part reflect an effort to avoid unionization, but also an effort to avoid the kind of internal frictions described above. Studies of wage determination found that executives in large nonunion enterprises frequently justified formal internal pay structures on the basis of equity.¹⁹

Why Lead Businesses Shed Workers

Taking horizontal and vertical equity concerns together leads to a prediction that large firms might end up paying more for jobs at different levels of the organization to solve these problems than would occur on the outside. This aspect of wage determination explains the large-employer wage premium prevalent in the latter half of the twentieth century. Much of the literature seeks to explain firm size effects on the basis of underlying productivity differentials and related matching behaviors between workers and employers.²⁰ The fissured workplace hypothesis puts wage determination behavior by firms as central to the analytic problem. In the post-World War II era, lead businesses exercising some level of market power but facing the need to accommodate fairness perceptions among their workforce were led to select policies that resulted in wage premiums for a cross section of workers in larger firms. Over the last few decades, however, firms have become less constrained by those fairness perceptions in wage determination by changing the boundaries of employment through shedding activities to other business entities.

The basic monopsony model assumes that an employer will set a single wage rate for workers of a particular type (that is, skill or occupation) rather than follow what is called in a monopoly situation a price discrimination policy (that is, charging different prices to different consumers). The need to set a single wage for the workplace has the effect of pushing up the cost to the employer of hiring more workers of a given type, since the additional cost of one more worker requires paying him or her more, as well as more for all who are already employed at that type of work.²¹

In principle, an employer with monopsony power could compensate workers according to their individual contribution to production (or “marginal product,” the additional output per worker) if it pursued a varied wage policy. But this goes against the fairness grain and, as we have seen, has never been a common form of compensation. Wage discrimination (à la price discrimination) is rarely seen in large firms despite the benefits it could confer. As long as workers are under one roof, the problems presented by horizontal and vertical equity remain.

But what if the large employer could wage discriminate by changing the boundaries of the firm itself? What if, instead of facing a wage determination problem for a large and varied workforce, it creates a situation of setting prices for work to be done by other parties external to the enterprise? If multiple businesses compete vigorously with one another to obtain that firm’s business, each small firm would offer its workers wages to perform work for the lead firm. Under this setup, the large employer (or now former employer) receives a price for the contractors’ services or production rather than being required to directly set and pay wages to the individual workers who actually undertake the work.

As such, the larger employer creates competition for work among different purveyors and pays them based on its assessment of their contribution. Less-efficient producers could be paid less than more-efficient producers. In this way, the lead organization faces a schedule of *prices for services* rather than *wages for labor*, leaving the task of compensation to the individual providers of the service or product. In effect, the lead firm devolves its employment activity to a network of smaller providers. In so doing, it creates a mechanism—a competitive market for services that in the past were handled internally through direct employment—in the form of a network of service providers.

By shifting employment to subordinate organizations external to the enterprise that operate in competitive markets, the lead firm creates a mechanism whereby workers will receive a wage close to the additional value they create. At the same time, this avoids the problem of having workers with very different wages operating under one roof. The lead firm captures the difference between the individual additional productivity of each worker and what would be the prevailing single wage rate if it set one.

As a result, two workers on the same project may effectively end up being paid very different wages, closer to something reflecting their individual marginal productivity than would be the case if they were in the direct employ of the parent organization. Such a mechanism would benefit the employer over the case where it set a single wage rate for workers with similar job titles but variation in productivity, or in cases where an employer's wage policy affects the market as a whole. A related argument for shifting work outward arises from the problems created by vertical equity expectations in internal labor markets. Even if workers have differing skill levels and job assignments, vertical equity norms in firms may lead large employers to pay lower-skill workers higher wages because of the presence of higher-paid workers whose compensation becomes a referent wage within the internal labor market.²² Shifting those lower-skilled jobs outward can solve this problem.

Setting Wages by Setting Prices

Imagine that a hotel directly hired all of its workers—from landscapers, to maids, to valets, to front desk personnel. Horizontal equity would require comparable pay for those in a grade—and maybe even across the properties in a metropolitan area (particularly if the workforce moved among properties). Vertical equity would require considering the pay of maids and valets in setting the pay of landscapers and considering the wages of managers in setting the pay of desk personnel. The hotel would be required to create and administer a comprehensive pay and human resources policy.

But what if the hotel focuses its attention on its reputation (its core competency) and no longer sees the actual administration of hotels as central to its business strategy? This would allow it to cut loose the messy process of hotel operations to other organizations—particularly organizations

that might bid against one another for the right to undertake that activity. Now the hotel could transform the production of hotel services into a market, with different entities competing for pieces of the business. Each provider would offer its services—which once would have been undertaken directly by the hotel itself—for a price.

As a result, the hotel would create competition for work among different purveyors and pay them a price based on its assessment of their contribution. Less-efficient producers could be paid less than more-efficient producers. In this way, the company faces a schedule of *prices for services* (for example, management of its workforce) rather than *wages for labor*, leaving the complex task of compensation to the individual providers of the service or product. In effect, the lead enterprise devolves its employment activity to a network of smaller providers. In so doing, it creates a mechanism—a competitive market for services that in the past were handled internally through direct employment—in the form of a network of service providers.

By shifting employment to smaller organizations operating in competitive markets, a large employer creates a mechanism to pay workers closer to the additional value they create but avoids the problem of having workers with very different wages operating under one roof. In so doing, the employer captures the difference between the individual additional productivity of each worker and what would be the prevailing single wage rate if it set one.²³

Businesses at the top of supply chains split off employment so that they can focus their attention on more profitable activities connected to the revenue side of their income statement, leaving the manufacture of products or the provision of service to be fissured off. This has important implications for how the profitability of those companies is shared between different parties. Recall that in the former, integrated model of large employers, firms ended up sharing part of their gains with the workforce in the form of higher pay to deal with internal perceptions of fairness. That meant less to share with consumers in the form of lower prices and with investors in the form of higher returns.

With fissuring, the fairness problems are less acute and wages can be pushed downward. That means more gains to be passed on to consumers as lower prices or better returns for investors. In those fissured structures

where a firm's core competency has attracted a particularly devoted customer base through branding or the ongoing introduction of cool new products, the reduced wage costs will flow particularly toward investors.²⁴ Shifting work outward allows redistribution of gains upward.

Increased Inequality and the Fissured Workplace Hypothesis

The fissured workplace hypothesis would suggest a distinctive source of earnings inequality. First, the fissured workplace hypothesis predicts that the earnings of workers undertaking the same work inside of companies have lower earnings when that work is shifted to contractors / firms outside of those companies. Empirical evidence on specific occupations that are shifted from "inside" to "outside" of a business confirm this prediction.

Janitors and security guards were in the vanguard of fissuring. By 2000 about 45 percent of janitors worked under contracting arrangements, and more than 70 percent of guards were employed as contractors.²⁵ As predicted by the above logic, shifting janitors and security guards from inside to outside the walls of lead businesses has indeed significantly impacted pay for workers in those occupations.²⁶ A study by Samuel Berlinski found that janitors who worked as contractors earned 15 percent less than those working in-house, and contracted security guards earned 17 percent less than comparable in-house guards.²⁷ Similarly, Arandajit Dube and Ethan Kaplan similarly found impacts of contracting, with a "wage penalty" for working as a contractor of 4 to 7 percent for janitors and 8 to 24 percent for security guards.²⁸

More recently, Deborah Goldschmidt and Johannes Schmieder provide compelling evidence of similar effects on wage structures in Germany. They show significant growth in domestic service outsourcing of a variety of activities beginning in the 1990s. Using a carefully constructed sample allowing them to compare wages of food service, cleaning, security, and logistic workers, they examine the impact of moving the same jobs from "inside" to "outside" businesses engaged in domestic outsourcing. Their results using an events-study framework, show reductions in wages ranging from 10 to 15 percent of those jobs outsourced relative to those that were not. What is more, because of the ability to match workers who have experienced

outsourcing to control for unobservable human capital characteristics, they argue that the reductions arise from the loss of wage premiums earned by workers when they move from inside to outside the outsourcing firm.²⁹

The fissured workplace hypothesis, however, has broader implications about the drivers of increased earnings dispersion and income inequality over time. Increasing earnings inequality can arise from growing inequality within firms (more and more dispersion of earnings of the workers “inside” the walls) versus growing inequality between firms (more dispersion in earnings “outside” the walls of a given firm). The fissured workplace hypothesis would predict growing inequality from the latter effects (that is increased variation of earnings across firms). Lead businesses would continue to extract rents arising from their core competency. For the fairness reasons discussed above, they would continue to share some of those gains with the workers who remained “inside their four walls.” At the same time, other firms who competed to provide the activities shed by lead businesses would have lower rents (for the traditional reasons predicted in competitive labor markets) and therefore less to share with their workforce. At the bottom of fissured workplaces, where firms compete to provide more homogeneous products and services for lead businesses, in more competitive markets with lower barriers to entry, one would find businesses with lower profitability, paying wages closer to marginal productivity.

The fissured workplace hypothesis heuristically describes manufacturing processes that have undergone significant outsourcing where the companies at the end of those supply chains (for example, companies like Apple that develop, brand, and market digital devices) are some of the most profitable in the economy while the earnings of suppliers who undertake specific steps of the manufacturing process farther down in the supply chain have far lower rates of return.

The fissured workplace hypothesis is therefore consistent with recent evidence on growing earnings dispersion in sectors that are increasingly reliant on franchising as a form of business organization. Branding products to consumers is a critical core competency in industries like eating and drinking and hospitality, and studies that compare wages earned by workers in branded companies find that those workers earn, on average,

more than workers who work in similar, nonbranded companies in the same sector.³⁰ Franchising allows a company to split out the gains of developing and marketing the brand from the delivery of the actual product, with the franchisor capturing a significant portion of the rents of owning the brand, with the residual value going to the business entities purchasing use of that brand (the franchisees).³¹ In the 1980s many branded chains in the fast-food and hotel industries sold off a high percentage of fast-food outlets and hotel properties to franchisees. This changed wage structures among the establishments within the sector, to a higher percentage of firms (franchisees) having a lower wage structure than the units that continued to be held by the franchisor. This would result in increased overall dispersion of earnings in the sector where franchising became more common, driven by growing divergence of earnings across franchisees and franchisors.³²

A number of recent studies that have expressly focused on the sources of earnings inequality provide compelling evidence consistent with the fissured workplace hypothesis. Research by Erling Barth, Alex Bryson, James Davis, and Richard Freeman finds that the vast majority of increases in the dispersion of earnings between 1992 and 2007 arise from increases in the variance of earning between rather than within firms. In their matched data set, the authors find that about 80 percent of increased earnings inequality for those workers who stayed with the same establishment from one year to the next arose from growing divergence in the earnings of different establishments, as opposed to arising from growing divergences in the pay structure of the firms where they remained.³³

Arguing that their results show that almost none of the growing dispersion of earnings arises from a widening gap between CEO pay and that of the workforce, Jae Song and colleagues find that virtually all of the earnings dispersion between 1978 and 2012 for firms with fewer than 10,000 workers arose from increased variation between rather than within firms. In their sample, the large wage gap between CEOs/high-level executives and average workers employed by the firm increased by only a small amount over the study period. Very large firms (those with more than 10,000 workers) are more affected by growing inequality within their ranks, as I will discuss below.³⁴

David Card, Jörg Heining, and Patrick Kline found evidence of both “within” and “between” factors driving the growing inequality of wages in Germany. In their study, the authors found that inequality was roughly equally explained by increases in the heterogeneity of workers (within firm), increases in the heterogeneity of firms (between firm), and increases in the matching of workers and firms.³⁵

These findings suggest that workers have experienced relatively less change in the inequality of their coworkers that *remain with them at their firms* than earlier accounts suggest. Instead, growing dispersion of earnings can be thought of as a “big bang” leading firms to rush away from one another, with lead businesses and their set of workers moving upward and subordinate firms and their associated distribution of earnings moving downward. This is consistent with the fissured workplace hypothesis, in that the distribution no longer includes workers whose activities and jobs have been shed to other employers external to the firm.

The fissured hypothesis, however, does not preclude increasing dispersion within firms as well, if there have been changes in fairness norms of behavior within those firms. For example, CEOs of lead businesses with valuable core competencies may extract more rents and propel themselves to ever higher levels of compensation—what Piketty aptly calls the “Takeoff of the Super-managers.” Anecdotal evidence of the compensation practices of highly profitable enterprises in the finance and digital sectors certainly comport with this view. The CEOs in firms in the subordinate fissured universes may be less able to extract such rents, although evidence still shows they earn many, many times the earnings of average workers. This further heightens the overall extent of inequality, albeit from changing norms, capture of corporate governance, and other factors driving the excessive growth of executive compensation.

In sum, recent studies offer compelling evidence consistent with the fissured workplace hypothesis. The fissured workplace has led to a separation of activities between lead businesses and subordinate networks of other enterprises who support them. This has enabled lead businesses in the economy to solve the pay problem suggested by the Webbs by transforming their wage determination woes into a conventional pricing problem. For those workers whose jobs no longer benefit from the penumbral effects of fairness in wage setting, the impacts have been significant.

Frontiers of Research: Wage Determination, the Fissured Workplace, and Inequality

The main problem with the theory of marginal productivity is quite simply it fails to explain the diversity of wage distributions we observe in different countries at different times. In order to understand the dynamics of wage inequality, we must introduce other factors, such as the institutions and rules that govern the operation of the labor market in each society.

—Piketty, *Capital*, 308

The generation of scholars who shaped the study of U.S. labor markets in the aftermath of World War II—John Dunlop, Frederick Meyers, Clark Kerr, and Lloyd Reynolds, to name the most prominent—were deeply influenced by their own experiences in wage determination, because many played the role of mediators and arbitrators in the emerging world of collective bargaining, serving on government panels (including the National War Labor Board) charged with wage and price controls, and engaging in dispute resolution in major industries such as coal, steel, and construction. Their scholarship reflected a preoccupation with the institutions that shaped wages, benefits, and workplace conditions.³⁶

A new generation of labor economists in the 1960s, building on the wedding of the neoclassical economic framework with a mathematical approach to framing problems pioneered by Paul Samuelson, displaced the institutional approach, beginning in the 1960s, by turning the study of wage and workplace outcomes into a framework driven by the supply and demand for labor as a factor of production.³⁷ Scholars in this area like Gary Becker, H. Gregg Lewis, Jacob Mincer, and Sherwin Rosen approached the study of workplace outcomes, rooted in theoretical models and girded by mathematics, by drawing on the relative wealth of data available for studying labor markets and aided by the falling costs of analysis with the development of computers and early statistics software. The role of institutions in setting wages was gradually viewed as incidental to the ultimate labor market outcomes with both growing sophistication of statistical tools to analyze data and of mathematical models to shape theory.³⁸ Subsequent generations of leading economists like David Card, Richard Freeman,

Daniel Hamermesh, Larry Katz, and Alan Krueger in the 1980s and 1990s reintroduced institutional considerations into modern labor economics. Yet attention to wage-setting processes per se has remained a legacy of an earlier era.

As Thomas Piketty's quote makes clear, examining the structure of inequality provides a challenge for scholars to place institutions and wage-setting process into sharper and more central focus once again. This is particularly critical in understanding the changing nature of how rents are shared between labor and capital in the setting of wages. Here I briefly outline four broad groups of research questions that the fissured workplace hypothesis, and the broader questions of inequality posed by Piketty's *Capital*, place on the table:

1. We need to expand our understanding of how fairness norms play out in different types of firms / sectors of the economy. For example, how does the ratio of CEO to average employee pay differ between the firms who are rapidly moving upward in the distribution of firms from those mired in the middle or bottom portions of the distribution? Do we see widening of pay differentials in those firms at the top, which can square the views of Piketty and others on the impacts of super-managers with the previously cited findings of Barth, Bryson, Davis, and Freeman and Song et. al.? For example, Song et al. estimate that the faster income growth of the top 0.2 percent of earners at firms with more than 10,000 employees relative to average workers in their firms could be indicative of the dual effects of a big bang in the interfirm distribution of earnings combined with the impacts of a secondary big bang of the intrafirm distribution of earnings of that subset of select companies.

Studying norms of wage setting as discussed in the prior section requires a broader set of methodological tools. Although fairness notions and behavioral motivations have entered the economics mainstream, a broader analytic lens is important. As Piketty notes, "The problem is now to explain where these social norms come from and how they evolve, which is obviously a question for sociology, psychology, cultural and political history, and the study of beliefs and perceptions at least as much as for economics per se."³⁹

2. Similarly, what is the role of social norms in the way that wages are set at the lower levels of fissured industries (including at the geographic level)? How much does wage setting for those firms that have been shed comport with traditional predictions of economic theory, given their more competitive nature, versus still being affected by normative pressures on the employer as well as in the labor markets where workers are drawn? For example, there is a growing empirical literature on the impact of social networks on expectations of pay.⁴⁰ How do social networks affect the pay practices of low-wage firms? How do wages and related outcomes propagate in local / regional labor markets and how are they impacted by key referent wages (such as statutory minimum wages or socially defined wage referents like the “Fight for \$15”)? Answers to these questions have both academic implications regarding the functioning of labor markets as well as policy implications for where labor standards problems might be found and how policy tools can be used to affect them.
3. In a related vein, decisions to fissure activities have been gradually moving upward to higher and higher skilled jobs, including human resource planning, law, engineering, and journalism. How is wage setting evolving in these areas where workers positioned “inside” lead businesses historically had some bargaining power because skill provided them outside options arising from their human capital? How does the creation of more permeable labor markets for these workers because of fissuring change the structure of wages and wage determination for them?
4. If the fissured workplace hypothesis is promising, we need to build clearer models of it and undertake deeper research on its mechanisms. Richard Freeman has written “The economics of fissuring is a difficult problem. . . . [T]he basic market model predicts that competition will reduce establishment-based variation of earnings among comparable workers. Either our models misrepresent how a relatively unfettered labor market works in reality or we are missing important market forces in applying the model. From either perspective, the evidence of fissuring creates a puzzle to labor economics and social science more broadly. We need a new fissured market model that goes beyond

standard analysis, new measures of wage determinants in the existing framework, or some judicious mixture of the two.”⁴¹

The empirical work discussed in the prior section demonstrates that economists are diving into the core question of what is driving growing inequality in the United States and economies around the world.⁴² There is clearly a need for further work on the contribution of the factors discussed here as well as contending theories about the evidence. In this regard, I would echo what Freeman notes above as well as Piketty, who writes: “The problem of inequality is a problem for the social sciences in general, not for just one of its disciplines.”⁴³

I have the unique opportunity to think about the questions of income inequality as an academic who has studied this question for many years, and more recently as the head of the federal agency most responsible for the enforcement of basic labor standards. My experience in both roles make me emphatically feel that there are few more fundamental questions that we must explore given the consequences of growing inequality on a democratic political economy.

D.Weil. “Income Inequality, Wage Determination, and the Fissured Workplace.” In H. Boushey, J.Delong, and M. Steinbaum, *After Piketty: The Agenda for Economics and Inequality*, (Cambridge, MA: Harvard University Press, 2017), pp. 209-234.

Endnotes

¹ See Mishel, Larry, Josh Bivens, Elise Gould, and Heidi Shierholz. 2013. *The State of Working America*. 12th Ed. Ithaca, NY: Cornell University Press.

² Along with Piketty, Thomas. 2014. *Capital*. Cambridge, MA: Harvard University Press, see Autor, David, Lawrence Katz, and Melissa Kearney. 2008. “Trends in U.S. Wage Inequality: Revising the Revisionists.” *Review of Economics and Statistics*, Vol. 90, no. 2, pp. 300-323; and Acemoglu, Daron and David Autor. 2011. “Skills, Tasks and Technologies: Implications for Employment and Earnings.” in *Handbook of Labor Economics*, Vol. 4B, pp. 1043–1166 for overall facts and surveys of theoretical work in the area.

³ See Weil, David. 2014. *The Fissured Workplace: Why Work Became So Bad for So Many and What Can be Done to Improve It*. Cambridge, MA: Harvard University Press.

⁴ The development of these standards—the “glue” that keeps the mechanisms of the fissured workplace together—have become more available with the falling costs of monitoring arising from digital technologies. See Weil, David. 2014. *The Fissured Workplace: Why Work Became So Bad for So Many and What Can be Done to Improve It*. Cambridge, MA: Harvard University Press, chapter 3.

⁵ These estimates are from Hallock, Kevin. 2009. “Job Loss and the Fraying of the Implicit Employment Contract.” *Journal of Economic Perspectives*. vol. 23, no. 4, pp. 40-43). They are based on data from the National Compensation Survey for 2011. The averages mask differences in the components of employer hourly costs across workers, occupations, and industries. For example, wages and salaries for service workers account for 71% and legally required benefits account for 9.3% of employer hourly costs because employees in service industries typically receive far lower insurance and retirement benefits than workers in other industries.

⁶ Webb, Sidney and Beatrice Webb. 1897. *Industrial Democracy*. (London, England: Macmillan), p.281.

⁷ This assumes that the supply of labor is upward sloping—that is, in order to induce additional people into a labor market, employers must pay an increasingly higher wage rate as they increase employment. How quickly the wage needs to increase to entice additional people in the market (measured as the elasticity of labor supply) affects the degree that a labor market is affected by a monopsonistic employer. For a complete discussion, see Manning, Alan. 2003. *Monopsony in Motion: Imperfect Competition in Labor Markets*. Princeton, NJ: Princeton University Press, chapter 4.

⁸ In a competitive labor market, the supply of labor facing a firm is totally elastic, meaning it can purchase as much labor at a certain skill level as it wants at the market price. But search frictions reduce the willingness of workers to move, which means the supply of labor slopes upward and firms have an ability to set wages (Boal, William and Michael Ransom. 1997. “Monopsony in the Labor Market.” *Journal of Economic Literature*. vol. 35, no. 1, pp. 86-112). Ransom and Oaxaca estimate elasticity of labor supply for men and women in the grocery store industry and show that the supply of

labor for women is less elastic than for men, and as a result their wages are more affected by the monopsony position of employers in that industry— specifically that the relative pay of women is lower. See Boal, William and Michael Ransom.

1997. “Monopsony in the Labor Market.” *Journal of Economic Literature*. vol. 35, no. 1, pp. 86- 112.

⁹Another reason for employer-side power, they argued, was that leisure is a normal good at the household level, and hence in response to wage cuts male workers would supply their wives and children to the labor market. For that reason, namely sustaining a high wage rate for men, the Institutionalists supported statutory limits on child labor, working hours for women, and championed the nascent concept of minimum wages. See Ely, Richard. 1886. *The Labor Movement in America*. New York: Thomas Y. Crowell & Co.

¹⁰ See Slichter, Sumner. 1950. “Notes on the Structure of Wages.” *The Review of Economics and Statistics*, Vol. 32, no. 1, pp. 80-91; Slichter, Sumner, James Healy, and Robert Livernash. 1960. *The Impact of Collective Bargaining on Management*. Washington, DC: The Brookings Institution.

¹¹Foulkes, Fred. 1980. *Personnel Policies in Large Non-Union Workplaces*. Englewood Cliff, NJ: Prentice Hall.

¹² Gary Becker and Walter Oi proposed models to help explain why, as John Dunlop often commented, “labor markets are not a bourse” and instantaneous wage rates do not allocate labor efficiently on their own. The presence of either quasi-fixed costs of labor or the need to provide specific training (i.e., training that benefits a worker at a specific employer) creates a compensation problem that firms must find a way to solve by acting as if, in the Oi model, only a portion of compensation costs are variable or, in the case of Becker, thinking about compensation policy as part of a human capital investment that the firm must recover over time. See Becker, Gary. 1964. *Human Capital: A Theoretical and Empirical Analysis with Special Reference to Education*. NY: Columbia University Press and Oi, Walter. 1983. “The Fixed Employment Costs of Specialized Labor.” in Jack Triplett, ed. *The Measurement of Labor Costs*. Chicago, IL: University Chicago Press, pp.63-122.

¹³ In this view, the overall employment relationship creates value that the parties then must figure out a way to share in the course of ongoing employment. These contracts reflect both conditions in the external labor markets and relative bargaining power within the firm. This view is developed in Milgrom, Paul. 1988. “Employment Contracts, Influence Activities, and Efficient Organization Design.” *Journal of Political Economy*, vol. 96, no. 1, pp. 42-60. For an overview of implicit contract theory in employment, see Rosen, Sherwin. 1988. “Implicit Contracts: A Survey.” *Journal of Economic Literature*, vol.25, no. 4, pp. 1144-1175.

¹⁴ The ultimatum game and a wide variety of variants of it (e.g., the “dictator game,” where the proposer’s split is imposed without the consent of the second player) have been used both as experiments, where people play the game with real money but in a decision laboratory, and in the field, where experimenters try to create similar conditions but with more realistic setups. They have also been replicated at different levels of payoffs—that is, with much larger pots of money at stake. In general, the same results hold up. Fehr and Schmidt and Camerer (1999, 2002, 2007) and Camerer (2003) provide detailed discussions and extensive references about these results. See Fehr, Ernst and Klaus Schmidt. 1999. “A Theory of Fairness, Competition, and Cooperation.” *American Economic Review*. vol. 114, no. 3, pp. 177-181; Fehr, D. Weil, Endnotes to “Income Inequality, Wage Determination and the Fissured Workplace” (2017)

Ernst and Klaus Schmidt. 2002. "Theories of Fairness and Reciprocity." In Matthias Dewatripont, I. Hansen, S. Turnovsky, eds. *Advances in Economics and Econometrics*. NY: Cambridge University Press, pp. 208-257; Fehr, Ernst and Klaus Schmidt. 2007. "A Theory of Fairness, Competition, and Cooperation." *Quarterly Journal of Economics*. vol. 97, no. 2, pp. 817-868; and Camerer, Colin. 2003. *Behavioral Game Theory*. Princeton, NJ: Princeton University Press.

¹⁵ The vast majority of managers (87%) in Bewley's study of compensation policies agreed with the statement "Most or all employees know one another's pay." See Bewley, Truman. 1999. *Why Wages Don't Fall During a Recession*. Cambridge, MA: Harvard University Press, table 6.6, p.80.

¹⁶ I discuss two types of equity notions—horizontal versus vertical fairness—in greater depth in *The Fissured Workplace*, Chapter 4.

¹⁷ Just under 50% cited "job performance" and only 7% cited "avoidance of discrimination suits" as the major reason for internal pay equity. Bewley quotes a human resources manager in a unionized manufacturing company with 27,000 employees remarking: "Unfairness can cause upheaval within an organization and lead to dysfunctional activities. People want to be treated fairly and to see that their contributions are recognized and that this is done on a consistent basis from one location to another and from one profession to another." See Bewley, Truman. 1999. *Why Wages Don't Fall During a Recession*. Cambridge, MA: Harvard University Press, pp. 79, 81. For a related formal model of how fairness concerns play out in workplaces, see Stark, Oded, and Walter Hyll. 2011. "On the Economic Architecture of the Workplace: Repercussions of Social Comparisons among Heterogeneous Workers." *Journal of Labor Economics*. vol. 29, no. 2, pp. 349-375.

¹⁸ See Fehr, Ernst, Lorenz Goette, and Christian Zehnder. 2009. "A Behavioral Account of the Labor Market: The Role of Fairness Concerns." *Annual Review of Economics*. vol. 1, pp. 355-384, at 378. The literature on loss aversion and "framing" in psychology is extensive.

Kahneman provides an overview of the extensive research in the field in the decades following his landmark work with Amos Tversky. See Kahneman, Daniel. 2011. *Thinking Fast and Slow*. New York, NY: Farrar, Straus, and Giroux.

¹⁹ Fred Foulkes in his study of large nonunion workplaces in the 1970s found that "The pay policies of the companies [large nonunion employers] are designed to provide and demonstrate equity." (Foulkes, Fred. 1980. *Personnel Policies in Large Non-Union Workplaces*. Englewood Cliff, NJ: Prentice Hall, p.185). Bewley similarly found that although executives acknowledged that differences in pay between grades proved useful as incentives, 69% of the businesses interviewed cited "internal equity, internal harmony, fairness, and good morale" as the principal justification (See Bewley, Truman. 1999. *Why Wages Don't Fall During a Recession*. Cambridge, MA: Harvard University Press, table 6.4 and discussion on pp.75–79).

²⁰ For an overview of this literature, see Oi, Walter and Todd Idson (1999) "Firm Size and Wages." In *Handbook of Labor Economics*, Orley Ashenfelter and David Card, eds., Vol.3, New York: Elsevier, pp. 2165-2214. Two seminal studies of the effects are found in Brown, Charles and James Medoff. 1989. "The Employer Size-Wage Effect." *Journal of Political Economy*. vol. 97, no. 5, pp. 1027-1059; and Brown, Charles, James Hamilton, and James D. Weil, Endnotes to "Income Inequality, Wage Determination and the Fissured Workplace" (2017)

Medoff. 1990. *Employers Large and Small*. Cambridge, MA: Harvard University Press. See also Groshen, Erica. 1991. "Five Reasons Why Wages Vary Across Employers." *Industrial Relations*, Vol. 30, no.1, pp. 350-381. A more recent study finds that large firm-effect on wages declined by about one-third between 1988 and 2003 (see Hollister, Matissa. 2004. "Does Firm Size Matter Anymore? The New Economy and Firm Size Wage Effect." *American Sociological Review*, vol. 69, no. 5, pp. 659-676. Binnur Balkan and Semih Tumen find larger firm size effects in informal jobs than formal jobs in the Turkish economy, raising interesting organizational questions around wage setting differences within firms. See Balkan, Binnur and Semih Tumen. 2016. "Firm-Size Wage Gaps along the Formal-Informal Divide: Theory and Evidence." *Industrial Relations*, Vol. 55, no. 2, pp. 235-266.

²¹ A recent set of empirical papers estimating the degree of monopsony power provide interesting evidence. The papers are summarized in Ashenfelter, Orley, Henry Farber, and Michael Ransom. 2010. "Labor Market Monopsony." *Journal of Labor Economics*, vol. 28, no. 2, pp. 203-210.

²² Jim Rebitzer and Lowell Taylor summarize literature on problems arising from more complex monitoring/agency where workers have multiple aspects of effort to monitor. If there are two aspects of effort, for example, and they are complementary, but one aspect is not observable, the employer faces a difficult problem in creating a compensation model. Shifting this work to an independent contractor is desirable in such cases in that the payment becomes one more directly related to output of the provider than to the input of the worker. See Rebitzer, James and Lowell Taylor. 2011. "Extrinsic Rewards and Intrinsic Motives: Standard and Behavioral Approaches to Agency and Labor Markets." *Handbook of Labor Economics*, Amsterdam: Elsevier.

²³ Ironically, it would also remove the resource distortion introduced by monopsony, since under these circumstances the employer would end up hiring additional workers to the point that would be found in a competitive market. However, unlike the situation in a competitive market, the monopsonist would capture the "bonus" received by workers whose wage rate exceeded their marginal contribution to production (i.e., the rents of inframarginal workers).

²⁴ More technically, successful core competency in branding or product development means less elastic demand for those companies (and therefore a greater ability to price at higher levels for a given level of costs). In those cases, the reduction of labor costs arising from fissuring can go primarily to investors. In core competency areas of coordination (think retailing) or with economies of scale, lead companies may still face more competition in their product markets. Labor cost savings are more likely to flow into reduced prices for consumers (as well as to higher returns for investors).

²⁵ See Dey, Matthew, Susan Houseman, and Anne Polivka. 2010. "What Do We Know about Contracting Out in the United States? Evidence from Household and Establishment Surveys." in Katherine Abraham, James Spletzer, and Michael Harper, eds. *Essay in Labor in the New Economy*. Chicago, IL: University of Chicago Press, pp. 267-304.

²⁶ Katherine Abraham and Taylor demonstrate that the higher the typical wage for the workforce at an establishment, the more likely that establishment will contract out its janitorial work. They also show that establishments that do any contracting out of janitorial workers tend

to shift out the function entirely. See Abraham, Katherine and Susan Taylor. 1996. "Firms' Use of Outside Contractors: Theory and Evidence." *Journal of Labor Economics*, Vol. 14, no, 3, pp. 394-424, in particular tables 4 and 5 and pp. 407-410.

²⁷ Berlinski, Samuel. 2008. "Wages and Contracting Out: Does the Law of One Price Hold?" *British Journal of Industrial Relations*. vol. 46, no. 1, pp. 59-75.

²⁸ Dube, Arandajit and Ethan Kaplan. 2010. "Does Outsourcing Reduce Wages in the Low-Wage Service Occupations? Evidence from Janitors and Guards." *Industrial and Labor Relations Review*, vol.63, no.2, pp.287-306. The cited differences control for a variety of factors that might be associated with differences in the workforce as well as the places where the work is done. The Dube and Kaplan study provides a particularly rich set of estimates that allow the authors to rule out a number of potentially "unmeasured" characteristics of contract vs. in-house workers.

²⁹ See Goldschmidt, Deborah and Johannes Schmieder. 2015. "The Rise of Domestic Outsourcing and the Evolution of the German Wage Structure." Working Paper, Boston University. The authors also show that food, cleaning, security and janitorial workers receive wage premia comparable to that of the overall workforce prior to outsourcing. This result, like the earlier Abraham and Taylor study, have significant incentives to outsource work that are not central to core competencies, particularly where they can find other methods to monitor the output of subordinate providers of those services.

³⁰ See Cappelli, Peter and Monika Hamori. 2008. "Are Franchises Bad Employers?" *Industrial and Labor Relations Review*, Vol. 61, no. 2, pp. 146-162.

³¹ Franchisees (independent businesses who pay royalties to be a part of a franchised system) have significantly lower rates of return than do the franchisors (the owners of the brand—the core competency—and sometimes operators of a limited number of "company-owned" outlets). See Kaufmann, Patrick J., and Francine Lafontaine. 1994. "Costs of Control: The Source of Economic Rents for McDonald's Franchisees." *Journal of Law and Economics*, Vol. 37, No. 2, pp. 417-453 and Weil, David. 2014. *The Fissured Workplace: Why Work Became So Bad for So Many and What Can be Done to Improve It*. Cambridge, MA: Harvard University Press, Chapter 6.

³² Alan Krueger found that managers of franchisees earned significantly less than managers of comparable fast outlets owned by the company (Krueger, Alan. 1991. "Ownership, Agency, and Wages: An Examination of Franchising in the Fast Food Industry." *Quarterly Journal of Economics*, Vol. 106, no. 1, pp. 75-101). MinWoong Ji and I found in a related vein far higher violations of labor standards in terms of frequency and severity among franchisees than in the company-owned units of the franchisors (Ji, MinWoong and David Weil. 2015. "The Impact of Franchising on Labor Standards Compliance." *Industrial and Labor Relations Review*, Vol. 68, no. 5, pp. 977-1006). Richard Freeman presents consistent evidence of the impacts of fissuring on overall earnings in the hotel industry (Freeman, Richard. 2014. "The Subcontracted Labor Market." *Perspectives on Work*, Vol. 18, pp. 38-42).

³³ The authors use a combined data set of the March Current Population Survey, the Census Longitudinal Business Data Base, and the Longitudinal Employer-Household Dynamics data set. This provides them detailed data on both workers and the firms for which they work. Since most workers stay at the same establishment in any given year, the approach of looking at

the sources of growing inequality “around” the stayers provides a useful mooring post to explore the causes of growing earning dispersion around them. See Barth, Erling, Alex Bryson, James Davis, and Richard Freeman. 2016. “It’s Where You Work: Increases in Earnings Dispersion Across Establishments and Individuals in the U.S.” *Journal of Labor Economics*, Vol. 34, no. 2, pp. S67-S97.

³⁴ The authors, use administrative data from the confidential Master Earnings File (MEF) compiled and maintained by the U.S. Social Security Administration for their analysis. The MEF contains labor earning data, which, unlike other sources of earnings data, is not capped and also includes non-salary forms of compensation such as bonuses, exercised stock options, and estimated dollar values of restricted stock grants provided to employees (executives in most cases). See Song, Jae, David Price, Nicholas Bloom, Faith Guvenen, and Till von Wachter. 2015. “Firming Up Inequality.” National Bureau of Economic Research, Working Paper 21199.

³⁵ See Card, David, Jörg Heining, and Patrick Kline. 2013. “Workplace Heterogeneity and the Rise of West German Wage Inequality.” *The Quarterly Journal of Economics*. Vol. 128, no. 3, pp. 967-1015. A more recent paper by this team (along with Cardoso) builds a model where firms exercise some monopsony power arising from heterogeneity in workers preferences for different employers (with no particular model of the source of that heterogeneity). Their model precludes price discrimination based on idiosyncratic preferences of the workers, but still allows firms to “...post a common wage for each skill group that is marked down from marginal product in inverse proportion to their elasticity of labor supply to the firm.” See Card, David, Ana Rute Cardoso, Joerg Heining, and Patrick Kline. 2016. “Firms and Labor Market Inequality: Evidence and Some Theory.” Working Paper. University of California, Berkeley.

³⁶ John Dunlop articulated this view—and in many ways founded a new area that sought to wed economic principles to the realities of wage determination—in his book *Industrial Relations Systems*, first published in 1957 (Dunlop, John T. 1993. *Industrial Relations Systems*. Revised Edition. Cambridge, MA: Harvard Business School Press Classic). The book set out a theoretical framework for assessing the market-, institutional-, technological-, and social forces driving actors in industrial relations systems (both union and nonunion) to the outcomes observed in the labor market.

³⁷ Indicative of the wedding of economic theory and mathematics, Paul Samuelson’s seminal book, *Foundations of Economic Analysis*, begins with the following statement. “The existence of analogies between central features of various theories implies the existence of a general theory which underlies the particular theories and unifies them with respect to those central features. This fundamental principle of generalization by abstraction was enunciated by the eminent American mathematician E.H. Moore more than thirty years ago. It is the purpose of the pages that follow to work out its implications for theoretical and applied economics.” See Samuelson, Paul. 1947. *Foundations of Economic Analysis*. Cambridge, MA: Harvard University Press.

³⁸ Ronald Coase commented on the ascendancy of neoclassical approaches over institutionalists, “Without a theory they had nothing to pass on except a mass of descriptive material waiting for a theory, or a fire.” Coase, quoted in Posner, Richard. 1993. “Nobel Laureate: Ronald Coase and Methodology.” *Journal of Economic Perspectives*, Vol. 7, No. 4, D. Weil, Endnotes to “Income Inequality, Wage Determination and the Fissured Workplace” (2017)

pp. 195-210, at p. 206.

³⁹ Piketty, *Capital*, 333.

⁴⁰ See, for example, Bayer, Patrick, Stephen Ross, and Giorgio Topa. 2008. “Place of Work and Place of Residence: Informal Hiring Networks and Labor Market Outcomes.” *Journal of Political Economy*, Vol. 116, no. 6, pp. 1150-1196; Hellerstein, Judith, Melissa McInerney, and David Neumark. 2011. “Neighbors and Coworkers: The Importance of Residential Labor Market Networks. *Journal of Labor Economics*, v. 29, no. 4, pp. 659-695; and Zenou, Yves. 2015. “A Dynamic Model of Weak and Strong Ties in the Labor Market.” *Journal of Labor Economics*, Vol. 33, no. 4, pp. 891-932.

⁴¹ See Freeman, Richard. 2014. “The Subcontracted Labor Market.” *Perspectives on Work*, Vol. 18, p.42. In a similar vein, David Card and co-authors note “Finally, the idea that even highly advanced labor markets like that of the United States might be better characterized as imperfectly competitive opens a host of questions about the welfare implications of industrial policies and labor market institutions such as the minimum wage, unemployment insurance, and employment protection.” See Card, David, Ana Rute Cardoso, Joerg Heining, and Patrick Kline. 2016. “Firms and Labor Market Inequality: Evidence and Some Theory.” Working Paper. University of California, Berkeley, p. 24.

⁴² The fissured workplace phenomenon is also being documented in countries around the world. A number of the aforementioned studies focused on the impact on earnings for specific occupations and job types in Germany and Turkey. Another set of studies discussed by David Card and co-authors examines the growth in earnings inequality in Germany, Portugal, the United Kingdom, Italy, and other countries. See Card, David, Ana Rute Cardoso, Joerg Heining, and Patrick Kline. 2016. “Firms and Labor Market Inequality: Evidence and Some Theory.” Working Paper. University of California, Berkeley, Appendix Table 1 for a summary of studies. A recent volume of the *Comparative Labor Law and Policy Journal* (Volume 37) provides articles on the growth and impact of the fissured workplace in nine countries including France, the United Kingdom, Israel, Brazil, and Japan.

⁴³ Piketty, *Capital*, 333.