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The Evidence on Employee Stock Ownership and Profit Sharing

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Our goal is to explain the state of the evidence of the last few decades on shares. Think of it like this: we're going to walk you through the medical studies on shares just like a doctor would walk you through the medical studies on health. The statistical evidence relates not to exemplars but to averages that reflect the experience of all firms in which employees have some property stake. The averages show that the key indicator of economic performance, productivity, and many other measures related to firm performance are higher for firms that operate with profit-sharing and employee stock ownership than for otherwise comparable firms that do not follow those practices. The averages also show that workers in firms with shares and participatory work relations have higher compensation, stay on the job longer, and offer more suggestions for

improvement than workers in other firms. In addition, workers in these businesses try to correct the behavior of workers who are not working as hard as they should more than do workers without a property stake in their firm.

Studies that compare firms before and after they adopt profit-sharing or employee stock ownership relative to firms that did not change policies also show that shares and participatory work practices improve performance. And in the few cases in which firms have experimented with different forms of shares or structures of work, or in which researchers have varied modes of pay and work in social science laboratories, the data show that workers also do better when they earn “what are usually two distinct revenues, belonging to two distinct persons, the profits of stock, and the wages of labour,” as Adam Smith so clearly wrote about the way the craftsman was paid in 1776 in The Wealth of Nations. In a discussion contrasting feudalism to workers who had shares in agriculture, Adam Smith long ago recognized that a worker could be interested in owning a piece of the rock and having capital income in addition to wage income.ⁱ However, let’s return back to the studies. Beneath the averages, several studies find that success with broad-based and related work practices depends as much or more on the company building a supportive corporate culture as on pecuniary rewards.ⁱⁱ

Most of the evidence is from observational studies that compare outcomes between firms that have shares and participatory work relations because they believe this is the best choice for them versus firms that chose to operate differently because they believe that is their best choice. This type of evidence resembles medical studies where doctors analyze health outcomes between smokers and non-smokers or between persons who take aspirin several times a week and those who do not take aspirin regularly, rather than from

the scientific ideal where the scientist randomly assigns persons to smoking/not smoking or to take/not take aspirin. It is always possible that some unobserved genetic or other difference about people (or businesses in our case) induced them to make those choices and also determined the outcomes. This muddies inferences about the causal impact of the choice and what would happen if the person (or firm) changed their choice.

In addition, just as people differ from each other in ways that can produce different reactions to a medicine, companies differ in ways that make a particular share approach work for one firm but not for another. In the medical case, differences in genetic make-up, medical history, environment, and age, among other factors, determine how a given medicine impacts a person. In the company case, differences in organizational structure, history, economic environment, composition of the work force, and age (think greenfield start-ups in Silicon Valley versus mature older companies) can influence how profit-sharing, employee stock ownership, or granting stock options or restricted stock grants to all workers will affect performance. Just as clinical trials of new drugs test whether the drug works on average, statistical evidence on shares test whether the practice works on average. There is no guarantee that they work for any particular patient or firm.

In the medical sciences this is likely to change in the future. The frontier of medical science is personalized medicine, where doctors tailor medicines to individual patients. Building on the Human Genome Project, the National Institute of Health invests billions of dollars on basic research to create the knowledge base for personalized medicine. The biotechnology industry and large pharmaceutical firms also spend large sums to move personalized medicine from lab research to patient care. The speed of scientific advance will, the experts tell us, create personalized medicine in the foreseeable future.

In the social and business sciences, the knowledge base for predicting how specific corporations or workers will respond to the introduction of profit sharing or employee stock ownership is not yet on the horizon. We do not have a Firm-Employee Genome Project to provide the scientific basis for developing share programs tailored to individual firms. What we have is still valuable for decision-making: a substantial body of evidence on the concomitants of employee stock ownership and profit sharing and related work practices that can help guide judgments about the likely outcomes of increasing workers' stake in firms on average and in society broadly. The reader can best assess the evidence as they would evidence from medical science on healthy living styles, medicines to take, and so on.

Starting Points

When groups like the National Civic Federation or the Special Conference Committee or the Industrial Relations Unit at Princeton University tried to assess employee ownership and profit sharing in the 1920s, they spent a lot of time analyzing the detailed case histories of the companies. Now it is possible to be even more systematic. With the advent of computerized data sets and statistical packages to analyze the data, many social scientists have estimated the effects of profit sharing and employee stock ownership on the productivity of firms. The standard study of firm production relates the output of a firm to the inputs it deploys to create goods and services--capital, labor, and in some cases materials. Most studies use linear regression techniques to estimate the economists' workhorse "Cobb-Douglas" production function--a model that

stretches back to U.S. Senator Paul Douglas' work in the 1920s when, as a University of Chicago professor, he sought to estimate the marginal product of additional workers and capital on output.ⁱⁱⁱ Some studies add statistical bells and whistles to the model that improve standard errors of estimate or adjust for diverse statistical problems.^{iv}

To assess the effects of workers having a greater property stake on output, analysts expand the standard model with measures of the extent to which a firm has profit sharing, employee stock ownership, or related practices. The goal is to estimate the sign and magnitude of the coefficient of the measures of broad-based capitalism on output, conditional on all other inputs being the same. If the coefficient is positive and significant by standard statistical criterion, the analyst concludes that, on average, ownership or profit-sharing is associated with greater productivity.

Several researchers, including the authors of this book, have reviewed this work.^v In 1995 Christopher Doucouliagos undertook a meta-statistic analysis of the evidence. Metastatistics is a technique widely used in medical science to put together results from many disparate studies to assess the magnitude and significance of coefficients from those studies in one fell swoop. It combines estimates from individual studies from different data sets, samples of different size, and subject to different biases or data imperfections, into a single estimate covering all studies. The notion is that the imperfections across studies are random so that averaging gives a more accurate estimate of reality.

The scholars who have reviewed many studies plus newer studies not covered in the reviews—over 100 studies total—find that firms with share arrangements average better outcomes than otherwise comparable firms without share arrangements.^{vi} The magnitude

of effects is usually on the order of 2 percent to 5 percent. Meaningful profit sharing generally has larger effects on output than employee stock ownership. The weaker effect of ownership than of profit sharing may reflect the fact that meaningful profit sharing is a more immediate reward than employee stock ownership which is a more long-term reward. It may also reflect the fact that some companies are motivated by the tax incentives to offer shares to their employees but choose that organizational form without changing their mode of operation to treat workers as owners or partners in the business. They talk the talk but do not walk the walk. For example, one would not expect a bank with 100,000 employees that offers 10 stock options to each teller and customer service worker without otherwise changing its corporate culture to have much of a change in performance. In many of these average studies the firms that implement the programs with intensity like a Google (that uses broad-based stock rewards) or a ComSonics (that uses the Employee Stock Ownership Plan) are combined with firms that implement the program thinly.

Combinations of programs—employee stock ownership and profit-sharing or a stock purchase plan and profit-sharing—have larger effects on output than individual programs by themselves. Analyzing the pattern of programs at U.S. firms, Arin Dube and Richard Freeman found that companies tend to combine different kinds of share programs more than would occur than if they selected them independently.^{vii} Combining different kinds of shares makes a bigger difference. The higher return to combinations of programs than to single programs and disproportionate combinations suggests that share programs have substantial complementarity in their effects. A profit-sharing system gives fairly immediate rewards while a stock ownership or employee stock option or restricted stock

program focuses attention on actions that improve outcomes over the longer term. So it is better to combine them.

Data from the General Social Survey sponsored by the National Science Foundation indicates that a large number of citizens across the country have combinations of share programs so managers appear to have figured this out. About a third of all workers with shares have a combination of forms: 12 percent of all workers have profit-sharing and employee stock ownership, 4 percent have profit sharing and stock options; 5 percent have employee ownership and stock options, and 12 percent of all workers have all three forms together. The General Social Survey is the most used source of Federal data for social science research next to the U.S. Census itself and is based on a representative sample of adults in the United States. It is carried out by the National Opinion Research Center at the University of Chicago.¹

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According to the 2006 General Social Survey, 17.5 percent of adult private sector workers own stock in the company where they work while 10.8 percent hold stock options in the company where they work. About thirty percent received profit sharing in the previous year while 21.3 percent received a gain-sharing payment. According to the 2010 General Social Survey 17.4 percent percent of adult private sector workers own stock in the company where they work while 8.7 percent hold stock options in the company where they work. For a review of the U.S. General Social Survey data, see “Shared Capitalism in the U.S. Economy: Prevalence, Characteristics, and Employee Views of Financial Participation in Enterprises,” p. 47 in Shared Capitalism at Work: Employee Ownership, Profit and Gain-Sharing and Broad-based Stock Options. Edited by Douglas L. Kruse, Richard B. Freeman, and Joseph R. Blasi. Chicago: University of

A historical review shows that combining profit sharing and employee stock ownership quickly became common from the 1880s throughout the 1900s. Combining less risky approaches such as cash profit sharing and stock options and ESOPs and outright grants of company stock with more risky approaches such as Employee Stock Purchase Plans and buying company stock in 401k plans may be a way to design the share plan of the future.

To turn to specific studies, Appendix I summarizes five studies of the effects of share approaches on outcomes. The British government sponsored the first study, arguably the best existing study that uses standard production function methodology. The General Accountability Office (GAO) of the U.S. Congress sponsored the second study. Both of the governments wanted to know whether policies that encouraged firms to introduce share approaches in their respective countries improved the productivity of firms, as proponents of the policies had predicted when the legislation was debated. Government sponsorship gave researchers access to financial and production information on firms that was not in the public domain.

The study commissioned by the British Government's Treasury department examined whether programs that gave firms tax incentives to introduce individual stock ownership, profit-sharing, and employee stock options affected the economic performance of those firms. Because they were the government they had access to the private financial records of the companies. The quality of the data and number of firms covered "made the study as close as we could imagine to giving a definitive analysis of tax-advantaged modes of

Chicago Press, 2010: 41-76. The analysis of the combinations is based on the 2006

Survey from Table 1.1, p. 47.

shared capitalism on productivity”. The analysis covered a sufficiently large proportion of the United Kingdom’s economy to suggest that broad-based employee ownership improved performance economy-wide.^{viii} A parallel study of publicly available information of corporations with broad-based capitalism in the U.K. by Alex Bryson of the London School of Economics and Richard Freeman of the Department of Economics at Harvard University and the London School of Economics gave comparable results and found that the effects were greatly influenced by management giving workers greater autonomy in decision-making.^{ix}

The General Accounting Office study examined 414 firms that set up Employee Stock Ownership Plans in 1976-1979 when ESOPs were just getting off the ground. The research design matched each ESOP firm with a similarly sized non-ESOP firm in the same industry. Again, the government had access to private financial information of the companies. This study found that a combination of employee stock ownership with a supportive corporate culture raised productivity whereas ESOPs by themselves had no statistically significant effect on output. Research on employee ownership in the General Social Survey indicates that workers with employee ownership tend to have many elements of a supportive corporate culture more than other workers.^x

The third study, by Joseph Blasi and Douglas Kruse, followed the design of the General Accounting Office study and looked at 300 privately-held firms that set up ESOPs between 1988 and 1994 and compared each ESOP firm to similar companies of the same size in the same industry, but without an ESOP. It found that the ESOP firms had significantly higher sales growth and higher sales per worker and were more likely to have survived through 1999 than matching firms without ESOPs.^{xi}

The fourth study was a field experiment in which researchers were allowed to randomly assign profit sharing to several stores, helping overcome concerns that other factors could be responsible for any changes in performance. The stores where profit sharing was established had increases in productivity and profitability, and decreased turnover, relative to a group of stores that were not assigned profit sharing, and the improvements for the profit sharing firms were more immediate and long-lasting than for the non-profit sharing companies.^{xii}

The last study differs from the others by relying on management reports on quality of output, financial performance, and worker turnover rather than on financial and production data. It gives a similar picture: firms do better when they combine a participatory company culture with profit sharing and employee stock ownership.^{xiii}

Finding a positive relation between broad-based capitalism approaches such as employee stock ownership and profit sharing and firm output across many studies shows that something real is going on with corporations that adopt profit-sharing or employee stock ownership. To get a better sense of what that real something was, in 2000 we initiated the Shared Capitalism Research Project at the National Bureau of Economic Research in Cambridge, Massachusetts^{xiv}. In contrast to the studies just discussed, which obtained information from companies about their performance as firms, we sought information from workers about what was happening at their workplaces, what their responses were to having a property stake in the business, and what benefits flowed to them from employment in a shared capitalist firm.

The NBER Shared Capitalism Study.

Our study surveyed over 40,000 employees in 14 corporations. The companies included large multinationals traded on major U.S. stock markets, important high technology innovators large and small, medium-sized corporations and smaller factories with ESOPs and financial service firms and other service-oriented companies spread across over three hundred workplaces around the country and in their foreign divisions. This meant that we have data on lots of workers but a small, almost case study sized, sample of firms. Business school researchers call studies like this “insider econometrics”^{xv}, by which they mean a study that gathers sufficient quantitative data on performance to test hypotheses in a small number of companies (sometimes just one) but combines the quantitative analysis with discussions with the firm to help interpret the data. Economists sometimes call this “pin factory” economics in honor of Adam's Smith's famous pin factory: you go to a company, observe what goes on, talk with management and workers, and then generalize what you learned.^{xvi} The difference between analysis today and in Smith's time is that analysts today also gather enough data to test statistically their interpretation of what the firm does.

Our initial plan was to pair firms that had profit sharing and employee stock ownership with their closest competitors who paid workers solely with wages or salaries per unit of time, but this plan did not pan out. Fourteen firms with some form of broad-based capitalism agreed to participate in the study but their competitors were unwilling to participate. We feared this would not give us enough contrast to reach firm conclusions about broad-based capitalism. To use the medical science analogy we had firms that were trying the medicine but did not have evidence on the control firms without the medicine.

Trouble in River City With a Capital T

A few things rescued our study from Trouble. We quickly learned that there was a wide variation in the share programs at the different corporations and in the extent to which workers had a property stake inside each corporation across all the businesses, among establishments within firms, and even among workers within establishments. The variation was sufficient to allow for detailed statistical analysis. We recognized (more slowly than we should have, perhaps) that to the extent that broad-based capitalist arrangements improved outcomes, the absence of firms without such programs would likely bias downward estimates of those impacts.^{xvii} While it is always desirable to have a representative sample, second best is to have a sample biased in a given direction since that means that if the results are in that direction, they understate the effect and thus provide a lower bound in what the relevant policy accomplishes. Finally, we obtained information from the General Social Survey national survey on workers that had no employee stock ownership or profit sharing in order to obtain a valid control group. We asked workers in each of our 14 firms to fill out a detailed confidential survey. Over 40,000 did so, with a response rate averaging 53 percent. The survey measures can be found in our book Shared Capitalism at Work.^{xviii}

The first finding from the worker surveys was that shares and work practices varied widely inside and across these companies. We gave each worker a score based on how much ownership he or she had in their company and how much he or she shared in profits and stock options. We called it their shared capitalism score. The scores varied

substantially among workers. Some had a large ownership stake. Some had little. Some were in establishments with a strong gain-sharing or profit-sharing programs. Others were not. We then compared workers who had different shared capitalism scores but who were similar in their occupation, their fixed wages, supervisory responsibilities, tenure with the company, gender, age, disability, and so forth. Sometimes we analyzed how economic outcomes varied among workers within the same company. Sometimes we analyzed how economic outcomes varied among workplaces. While we had too few companies to compare across companies, we used the General Social Survey sample of workers, who are chosen at random from the country as a whole and thus likely to represent single firms, to compare workers in companies with and without broad-based capitalism. Our goal was to estimate how workers responded to the different forms of shared equity and profits and their views of these modes of sharing and work practices.

We found that workers with higher shared capitalism scores were more committed to their employer along a variety of dimensions than those with lower scores and that these workers were better off in a host of important aspects of their work lives. In particular, workers with greater property in corporations in firms are more likely to stay with the company, are more loyal, are more willing to work hard, make more suggestions, and have better fixed pay and working conditions. This is quite similar to the characteristics that many of the Founders of the American Republic ascribed to the independent proprietor of land in early American history.

More Likely to Stay With Their Firm.

Management in most firms seeks to lower the rate of turnover. The reason is that recruiting, training, and integrating new employees into a work force costs money, time, and effort.^{xix} Our measure of turnover was whether workers intended to look for a new job – a strong predictor of actual future turnover behavior. In the National Bureau for Economic Research study, nine percent of workers with high levels of profit sharing, employee stock ownership, or stock options reported that they were likely to look for a new job compared to fifteen percent of employees with low levels of shared capitalist compensation—a difference of six percentage points in the likelihood of staying. Among individual forms of shares, profit or gain sharing was associated with the lowest turnover. But the combination with employee stock ownership had an even greater impact in reducing turnover.^{xx} To see if this result fit the nation we examined responses to an similar question on the General Social Survey and found that fifteen percent of workers with profit-sharing, stock options, or employee ownership were likely to leave their firm compared to a fifth of workers without any form of broad-based capitalism—a difference of five percentage points.

Have Greater Loyalty and Pride Working For the Firm

Fifty-eight percent of workers on the National Bureau for Economic Research study with a high level of shared capitalism reported great loyalty to the firm compared to forty-six percent of workers with low amounts of such shares. The national General Social Survey asked a comparable question about whether workers were proud to work for an employer. Forty-four percent of workers with a high level of shared capitalism

reported a high level of pride compared to twenty nine percent of workers without employee stock ownership or profit or gain sharing. Workers with profit or gain sharing expressed the highest loyalty while those with employee stock ownership and stock options had somewhat more modest increases in loyalty that still exceeded that of workers without these forms of shares. Workers with the combination of the different forms, namely, employee stock ownership and profit shares, showed the greatest loyalty to their firm and greatest pride in working for it.

Express Greater Willingness to Work Hard

To obtain a measure of the work effort that employees give to their firm we asked: To what extent do you agree or disagree with this statement: I am willing to work harder than I have to in order to help the company I work for succeed. Answers to a question like this offer potentially great insight into how workers feel about their firm and their effort at work. On a scale of 1 (strongly disagree) to 5 (strongly agree), the average response of workers in the fourteen Shared Capitalism firms was 4 (agree). The proportion who strongly agreed was 36 percent for workers with high levels of broad-based capitalism compared to 30 percent for workers with no shared capitalism.^{xxi} Workers with profit sharing and gain sharing were at the top of the willingness to work hard ladder whereas those who had just broad-based employee stock ownership and stock options did not differ from other workers. Remember that we are only comparing workers with stock shares versus profit shares without, for the moment in this discussion, taking into consideration the corporate culture of their companies. Employee stock

ownership, as many other studies done over the last forty years indicate, works mainly with a supportive corporate culture and the types and approach to employee ownership matter a lot.

Make More Suggestions

In 1832 Charles Babbage, famous as inventor of the programmable computer, proposed two principles for spurring innovation: “1. That a considerable part of the wages received by each person should depend on the profits made by the establishment; and 2. That every person connected with it should derive more advantage from applying any improvement he might discover than he could by any other course.”^{xxii} We asked workers how often they made suggestions to their firm and found that among those with some form of broad-based capitalism, 26 percent made a suggestion at least once a month, compared to only 18 percent among workers without shares. Employee stock ownership had a larger impact than profit-sharing on making suggestions but the most effective practice, here as elsewhere, is to combine employee stock ownership and profit sharing with supportive work practices.^{xxiii} Ownership gives workers a capital stake in the company. Profit-sharing gives them short-term capital income. Employee involvement programs of diverse sorts such as worker town meetings, open door policies, self-directed work teams and worker problem-solving committees, encourage workers to participate in decisions. Workers in firms with employee stock ownership and profit sharing and supportive work practices not only make more suggestions than workers in

other firms but they also report that management was more likely to heed their suggestions than did workers in other firms. xxiv

One large company especially interested in innovation asked us to add questions to our survey of their corporation to find out whether their workers perceived a culture of innovation, or not, at their workplace. The responses to these questions showed that workers who had shares, a cooperative culture, and mutual monitoring were most likely to view the firm's culture as positively inclined toward innovation. One has to look beyond measurements of “effort” in order to really understand broad-based capitalism in the new workplaces today because a lot of the success of work teams in the current post-industrial economy has to do more with ingenuity and innovation rather than sheer physical or mental effort. Citizens across the nation do a lot less heavy lifting and pushing and pulling and shoveling and carrying and putting things on and taking things off than they did fifty years ago. Much of this effort is now done by machines so what happens in teams and between workers and with workers and customers is far more important. New research by Dan Weltman indicates that the initial effect of employee share ownership on individual workers appears to kick in at very low thresholds in influencing the frequency with which workers make suggestions and whether they have ideas for innovations rather than slight improvements. The effect on their overall company loyalty and their willingness to work on innovations appears to increase as share ownership expands.^{xxv} We will talk in a bit later about how workers with shares interact and monitor each other and work together.

Have Better Wages and Work Conditions

Do workers gain from a property stake in their firm? The question may strike some readers as a clumsy set-up to an obvious answer. However, some critics of employee stock ownership believe that when workers have a stake in ownership, this stake comes at the cost of lower wages or other benefits so that on a net basis, workers may not be better off with profit-sharing or employee ownership or otherwise. It is entirely possible that this is how shares could end up. In fact, some managers believe in what they call “pay at risk” by putting the worker under the maximum possible pressure to earn even fair wages. AFL-CIO leader Samuel Gompers harshly criticized some profit sharing programs in the twenties as being unfair for this reason. Other critics view the share systems as a bit of a sham, designed to elicit greater worker effort and to shift risk to workers without increasing their pay or the quality of their jobs or their overall take-home compensation. Some call such a system “management by stress,” a method of sweating the workforce and curbing worker power and influence.”^{xxvi} Our evidence dispels this criticism and supports the “obvious answer.”

There is strong evidence that employee stock ownership and profit sharing have meaningful impacts on workers’ wealth. Workers with profit-sharing or employee stock ownership are higher paid and have more benefits than other workers.^{xxvii} This means that the substantial profit sharing and gain sharing and ownership stakes for the typical worker in these plans tend to come on top of (not in place of) fair fixed wages and benefits.^{xxviii} These workers also obtain more training and have greater job security than other workers, and enjoy better work conditions with greater participation in decisions, better treatment by the employer, and less supervision.^{xxix} These better conditions are

consistently linked to profit-sharing, although some of the conditions are also better for workers with gain sharing, stock options, and employee stock ownership. Being eligible for profit sharing or being an employee-owner by itself is associated with better wages and work conditions. But the size of a profit or gain share, the value of the employer stock ownership stake, and the size of the potential stock option profit are also associated with much better conditions for workers. Having a stake in the firm is not manna from heaven to workers but it brings American workers closer to the vision of the Founders for our democracy—as property owners with greater say than hired hands in their working lives.

What About Those Free Riders?

Imagine you are part of a team of 100 workers that produces goods or services in a business that pays workers a share of profits beyond some level, so that by sharing with the other workers you get 1/100th of the extra profits from better performance. You may be in a position to increase firm profits by \$10 through your own extra effort, but because any extra profits are shared with all of the other workers, you get only 10 cents of that extra \$10 (with the rest going to the other 99 workers). Let's say you value the personal cost of the time and energy you put into the extra effort at \$1.00. Does it make sense for you to work hard? The arithmetic says no. The payoff of 10 cents is far short of the \$1.00 cost of effort. But if every worker can increase profits by \$10, does it make sense for all workers to work hard? Yes, because then the profits would rise by \$1,000 (= 100 x \$10), and the payoff to each worker would be \$10, which far exceeds the \$1.00 cost of

effort. Everyone benefits if everyone works hard. But the incentive for every individual is to shirk.

This example illustrates the classic free rider objection to broad-based capitalism—that profit-sharing or employee stock ownership in a large group cannot succeed because each individual has an incentive to shirk. Since all workers presumably know that everyone thinks this way, the gist of this criticism is that ownership stakes and profit shares will fail to motivate anyone to work hard. The free rider objection is rooted in the self-interested rational behavior on which much of standard economics and game theory is built. The same analysis says no one should vote, that people should always defect in prisoner dilemma games, should never give to charity, and so on. In the free rider's world altruism or cooperation for the good of all is as rare as hen's teeth.

For whatever reason or reasons,^{xxx} the world is not like that. People vote, give to charity, cooperate with their neighbors, are willing to sacrifice some current consumption for the benefit of future generations, donate to charity, and so on. Bernard Madoff is the exception, not the rule.

What do actual corporations and actual workers in companies where workers share in profits or hold shares or stock options in the firm do to overcome the incentive to free ride and produce the positive outcomes that studies find enterprises with broad-based capitalism experience?

One potentially important channel for overcoming the free rider problem is through worker co-monitoring—the process by which workers with an ownership stake and a profit share take on the responsibility of assuring that fellow workers do their part at work places. Another way to think of it is mutual support, encouragement, coaching, or that

good old-fashioned word, help. While the notion that co-monitoring can reduce free-rider behavior is an old one in the analysis of team production, until the National Bureau for Economic Research's Shared Capitalism Project no major survey had documented co-monitoring behavior, linked it to shares and the structure of work, and examined how it affected employee performance at workplaces.

The first step in our analysis was to find out if workers could observe fellow employees' work activity—a necessary precondition for acting against employees who were not working up to speed. We asked each of the workers in the study: “In your job how easy is it for you to see whether your co-workers are working well or poorly?” On a scale of 0 (not easy at all to see) to 10 (very easy to see) the vast majority of workers reported that they could observe their co-workers' performance. On the General Social Survey of workers across the United States, seventy-seven percent of workers gave answers in the 7-10 category meaning that they too could observe their co-workers' performance, with nearly half giving the highest possible score (10). On the National Bureau for Economic Research's fourteen firm survey, sixty-two percent of workers gave a response of 7 or more to this question. Thus, workers say that they can figure out what their fellow worker is doing.

Given that most workers could observe the effort of co-workers, we next asked how likely it was that they would take action involving “a fellow employee not working as hard or well as he or she should”—anti-shirking behavior, supporting the fellow worker. Workers varied a lot in their answers to this question. Some said it was very likely they would talk directly to the employer about their fellow shirking worker. Some said they would speak to a supervisor or manager. And some said it was very likely they would do

nothing. The size of an employees' workplace was an important factor in these differences. In a workplace with less than 10 employees, 44 percent of workers said they would definitely respond in some fashion to seeing a fellow employee shirk whereas in a workplace with over 100 workers, only 35 percent said they would respond. Since getting a shirker to shape up has smaller benefits to other workers in a larger workplace, this is free-rider behavior at work in monitoring free riding!

Having an ownership stake or a profit share in the firm is another important determinant of anti-shirking behavior. What we discovered was that workers with employee stock ownership or profit-sharing or gain-sharing are more likely to step forward and take action and support the shirking fellow employee more than other workers without shares. In the 14 firm survey of corporations with some form of broad-based capitalism, the intensity of profit-sharing and gain-sharing was the most important factor in whether workers would take action for cash profit sharing. For shares of stock, workers took action against shirkers just as a result of owning any company stock or holding any employee stock options. In the General Social Survey, where some workers are in firms with no programs at all, the presence of profit-sharing and gain-sharing and employee stock ownership was the most important determinant of anti-shirking behavior. But it was the combination of the different share approaches with personnel practices that create an ownership culture that induced the most co-monitoring behavior: being part of a team, having a high participation in decisions, being treated with respect by their supervisor, having formal training and job security, and being paid relatively well for their job. By contrast, when workers were paid large individual bonuses they were less willing to get involved with a shirking co-worker. If you and I are competing for a

bonus, why should I help you perform better?—the worse you do, the more likely I get the bonus. It is the team reward that generates cooperation and the willingness to take time and effort to press other workers to produce up to speed.

At one seminar where we presented these results, a critic complained that our question was a hypothetical one: “if you were to see someone not working as well...how likely would you be to (do X)?” Perhaps many of the workers who said they would take action were giving an answer they thought best fit social norms or that gave a positive impression of themselves. Because we surveyed companies on a rolling basis—first surveying company A, then company B, then C, and so on, we could improve the survey as we proceeded. Taking the concern about having asked a hypothetical question very seriously, we added questions to the survey to find out if the workers had ever actually seen a fellow employees not working as hard as they should, and what the employee had in fact done. The results from these questions about actual incidents correlated highly with those from the hypothetical incidents. Workers who had seen shirking and responded in a particular way reported that was what they would do in the hypothetical question too. We found that workers with shares also work harder to support and monitor free riders, and better corporate cultures magnify this effect,.

A Natural Experiment

Serendipity provided us with a “natural experiment” test of the impact of shares on anti-shirking behavior. As we were discussing our survey with one firm the management told us that it intended to introduce a new profit-sharing plan a few months later. To

measure workers' behavior before and after a firm changed policy was as close as we would get to the controlled before/after experiment that laboratory scientists regularly conduct in their labs. Management agreed to our administering the survey before and after the implementation of the cash profit sharing. This was already a generous company with broad-based employee stock ownership and stock options. The new cash profit sharing plan that they were adding increased the number of workers who had cash profit sharing from sixty percent to ninety percent. After the profit sharing was introduced, we discovered a significant impact on worker responses. The percent of workers who said they were very likely to talk to a shirking worker increased from 42 percent to 55 percent. The percent who said they would take action in connection with the shirker because poor performance would hurt their share or stock value increased from 39 percent to 56 percent. The finding that only these responses changed identifies the role of the monetary incentive of profit-sharing on anti-shirking behavior about as well as one could do in a survey.^{xxxi}

Co-monitoring and Performance

The final step in our exploration of co-worker monitoring was to see if the anti-shirking activities of workers improved company performance. We asked workers who had taken action to get their co-workers to improve their performance what happened as a result of their actions. Thirty five percent of the workers said that the employee who was not working well resented it. But forty five percent said that the other employee appreciated the action and forty percent said the supervisor appreciated it. Over one third

said the employees' performance improved but nearly the same proportion said the employees' performance did not improve, and one third did not know. This could be viewed as a successful intervention, if the shirking employees who did not improve their performance did not reduce it, which we unfortunately did not ask.

Going beyond particular incidents, individual workers who report greater anti-shirking activity also report that their co-workers' effort levels are higher and that workers encourage each other at their work place more than do workers who say they would not intervene with a worker who was not performing up to speed. They report higher performance of their workplace in other areas of behavior that reflect higher productivity. One interpretation of this pattern is that having a stake in their firm leads these workers and their peers to develop a workplace norm for hard work that worker co-monitoring and support buttresses over time. To see if in fact co-monitoring is more extensive at particular work places, we put together the individual worker reports on their response to shirking at each of the 323 work sites in the National Bureau for Economic Research survey and gave each work site a co-monitoring score. The proportion of workers who reported engaging in anti-shirking activity to monitor and support their co-workers differed substantially among sites, indicating that co-monitoring is extensive in some workplaces and not in others. The key thing we found was that the measures of worker effort and workplace behavior were higher in workplaces where a higher proportion of workers said they would intervene against shirking.

In short, as best we can tell, the anti-shirking activity of workers co-monitoring each other improves group effort and workplace performance. It is one way in which

employees in a firm with profit-sharing and gain-sharing and other forms of shares keep the free-rider devil at bay.^{xxxii}

The Nation's Best Employers

Every year the Great Place to Work Institute reviews the applications of major corporations who seek a place on the list of “100 Best Companies to Work for in America” that Fortune Magazine presents with great fanfare. Because being named one of the hundred best is an honor that can attract additional and better job applicants and help retain and spur current employees and bring companies lots of acclaim and attention, every year about 400 of the largest and most successful corporations apply for consideration and compete. The shares of half of the corporations applying are traded on the New York Stock Exchange and the NASDAQ, where they represent twenty percent of the market value of the public stock market and ten percent of employment and sales of all stock market companies. Because of this, any study of shares among the applicants is a study of a major slice of America’s corporations and the American economy.

To determine the 100 Best Companies to Work For, the Great Place to Work Institute queries managements about their corporate culture and practices and obtains data on turnover and other aspects of work practices and corporate culture. The Institute then surveys a representative group of each company’s workers and asks them how they are paid—with cash profit sharing, employee stock ownership, and broad-based stock options—and their attitude towards the company and behavior at work. Between 2006 and 2008 over 1300 corporations applied for the 100 Best Companies to Work for in America competition. Over 300,000 of their workers filled out the Great Place To Work Institute

survey that ultimately helps determine whether a corporation makes the 100 Best list and where it places on the list. The Institute uses the survey responses to develop a comprehensive indicator of corporate culture called the Trust Index that measures workers' view of the credibility, respect, fairness, pride and camaraderie of their company.

The Great Place to Work Institute gave us limited access to their data under strict confidentiality procedures to examine the relation between employee stock ownership and profit sharing and work practices and the performance of applicant firms. We sought to determine whether firms that gave their workers some property stake were disproportionately represented among applicants and whether firms with greater degrees of shares and work practices performed better than their peer firms with weaker or no such programs.

Since firms with exceptional human resource policies and corporate cultures self select into the applicant pool, comparisons of outcomes within this group are likely biased against finding any effects for broad-based capitalism approaches such as employee stock ownership and profit sharing. A firm that believed its practices merited recognition as among the 100 Best and that did not have profit-sharing or employee ownership presumably had other policies to reward and motivate workers (an especially well-designed promotion system? generous worker friendly-benefits?) that would compensate for the absence of those programs. One can presume that many applicants were trying very hard to be "the best" corporations.

It is interesting that a large proportion of the applicants for the 100 Best Company to Work For competition had some form of employee stock ownership or profit sharing for

their workers. Eighteen percent had ESOPs. Eighteen percent had cash profit or gain sharing plans. Twenty-two percent had deferred profit sharing plans. The average ESOP in the sample owned about 17 percent of company stock. One tenth of the companies were even majority worker-owned. One in six companies granted stock options to a majority of their workers. Another 17 percent of the companies granted stock options to between a quarter and half of all the corporation's workers. The average profit sharing or gain sharing plan provided a worker a 7 percent bonus on top of their pay. Here is more concrete evidence as we saw in the General Social Survey that shares are becoming quite common in the U.S.

We discovered that corporations with more extensive employee ownership and profit sharing had higher scores on the Trust Index. The workers in these corporations rated their company as more credible, respectful of workers interests, fairer, and as providing greater participation in decisions than workers than other firms. ESOPs and profit sharing plans where profits added a lot to annual salary topped the list in the Trust Index. Workers with stock options did not differ much on the Trust Index from workers without those options. Corporations with more extensive broad-based capitalism, namely broad-based employee stock ownership and profit sharing and stock options, had reduced voluntary turnover, increased employees' intentions to stay with the firm, and higher return on equity for the firm. Corporations that combined shares with participative work practices and a supportive corporate culture had the biggest payoff in reduced turnover and higher return on equity. Finding these effects in the non-representative "100 Best Companies to Work For" sample strengthens the likelihood that the policies have a causal impact on employee well-being and firm performance.^{xxxiii}

Participative Ownership Culture

Persons are not machines so the social conditions under which democratic capitalism operates may have a lot to do with its performance. Going back to the historical examples, if a citizen owns an individual farm, one can imagine this person trying to be productive with a lot of interfering rules of a tyrannical government versus trying to be productive in a supportive social and political atmosphere. This is why the Framers of the Constitution and the Founders were concerned about more than protecting the rights of property. Liberty and freedom created good social conditions for wealth to prosper. Similarly, every corporation will have a corporate culture that will encourage or discourage the freedom of individuals to contribute to the common enterprise and create new wealth. Perhaps, as the Social Darwinists believe, organizations are by nature essentially hierarchical, that they perform best only when organized into tellers and doers, when the best rewards and the best culture are at the top and the worst rewards and the worst culture at the bottom. If this is proven to be true then the implications are enormous. For it would clearly mean that the positive and progressive views of how citizens participate in a representative democracy of the Founders and Framers cannot be easily translated to many modern and post-modern economic organizations.

Every worker has the discretion to try harder, work harder, think more creatively, cooperate with fellow workers or choose not to cooperate. Management cannot get into workers' minds and tap into this discretionary effort. This is a matter of free choice. It is either given or not given by the individual person through a complex set of perceptions,

motivations, and judgments. Corporations can observe activity but corporate supervisors cannot control what goes on inside the head of the independent person who can grant discretionary effort or problem-solving capacity or not out of their own mind. In the post-industrial workplace much of what the worker has to do is not a matter of mere effort or extra time. If a worker has ownership of the company and finds that the corporate culture throws up barriers to his or her discretion to try harder through physical or mental or emotional or social effort, then it is difficult to imagine how broad-based capitalism can be tied to better performance.

Every workplace has its own culture. In some workplaces workers have considerable leeway about how to do their job and cooperate with their peers. Those workers fit closely with the independent farmer/citizens that the Founders of the American Republic saw as fundamental to a successful democracy. In other workplaces, workers feel the heavy hand of management in what they do and have little leeway to use their own judgment in their job, much less to offer suggestions for improvement. They are more dependent.

The statistical evidence that firms in which workers have a property stake in their firm are more productive, induce more worker effort and responsibility, spur workers to innovate more, and produce diverse other benefits for workers and the corporation, all of these findings, show that this is a viable organizational form of capitalism. It pays off, at least for those firms and workers that choose it. It is important to recognize that most research studies show that a very thin layer of shares--a stock option or two for every bank teller in a large publicly-traded bank--is not going to make much difference. The impacts are larger when the programs are meaningful as they are in many closely-held

ESOP companies and some model publicly-traded companies. But shares are not simply about workers getting more money in the pocket from an ownership or profit stake and firms benefiting with lower turnover, greater work effort, and higher production. It is also about the firm and its employees developing a culture that supports employee participation and cooperation between management and employees over the long term. The corporations and workers that do best combine shares and workplace practices in the context of a participative ownership culture. Our analysis found that giving workers more responsibility, having more teams and problem-solving groups, having a less hierarchical workplace where supervision involved more coaching than control, paying workers at or above the market rate for their fixed wages, and providing workers with greater training opportunities defined this culture.

This evidence sets the stage for discussing policies to significantly increase broad-based capitalism in the United States. One fascinating question is whether firms that adopt employee stock ownership or profit or gain sharing are likely to also adopt a supportive corporate culture. The answer is yes. At many periods in U.S. history, the 1880s and the 1920s, and after WWII, industry associations of corporations implementing employee stock ownership and profit sharing and peer groups of managers collectively explored best practices. Our national surveys show that workers in these firms report significantly more participation in solving company problems through employee involvement teams and self-directed work teams, and say they have more influence, and, in some cases, more training. Managers appear to be either increasingly inferring the better company culture or learning from each other as they compare one company to another.^{xxxiv}

Extending these practices to more workers and firms, and strengthening the practices in the workplaces where they exist, offers a road for normal workers to tap into the wealth embodied in corporate property.

Appendix I. Five Studies of the Relation Between Shared Capitalism and Firm Outputs

Study 1: UK Treasury Sponsored Study of British firms (2007). This study obtained data from confidential tax records that identified firms that had approved profit-sharing plans, Save as You Earn plans, and company share option plans for 16,844 firms. It linked this data to company value added, employment, profits, and capital for 7,633 businesses. The study covered enough firms and years to permit the analysts to conduct a panel study of firms that entered or left the programs as well as to compare firms with and without the programs at a point in time, and to examine whether the effects differed among industries. The conclusion: “on average, across the whole sample, the effect of tax-advantaged share schemes is significant and increases productivity by 2.5% in the long run”

Study 2: General Accountability Office of the U.S. Congress (1987). This study examined 414 corporations which established Employee Stock Ownership Plans that were set up between 1976-1979 when ESOPs were just getting off the ground in the United States. The companies were mostly small and medium size businesses whose stock was not traded on a public stock market. The average company was just under ten percent owned by its workers. The study matched the ESOP firms with non-ESOP firms in the same industry and of the same size and compared outcomes three years after employee ownership started to two years before. The conclusion: By itself employee stock ownership did not change performance but the combination of employee stock ownership with a change in corporate culture was associated with an increase in

productivity “fifty two percentage points higher than the change for firms that did not have such employee involvement.”

Study 3: Blasi-Kruse study of ESOPs set up between 1988 and 1994. These were small businesses with about four hundred workers each. The study compared ESOPs to similarly sized businesses without broad-based employee ownership in the same industry a decade into the future. Workers in the ESOPs had a capital ownership stake of about \$15,000, were five times more likely to have a traditional pension plan, were five times more likely to have a 401k plan, were four times more likely to have a profit sharing plan, and seven times more likely to have another retirement plan than workers in the non-ESOP companies. The ESOPs had significantly higher sales growth and higher sales per worker than the companies without employee ownership. The ESOP corporations survived longer and had fewer bankruptcies. By 1999 almost seventy percent of the employee ownership businesses were still in existence compared to only fifty-five percent of the non-employee ownership companies. A 2002 follow-up on all ESOPs found similar results.

Study 4. This is a field experiment based on 21 fast-food franchises owned by one firm, where researchers were allowed to randomly assign profit sharing to 3 franchises and non-financial incentives (social recognition and performance feedback) to 6 franchises, with the remaining 12 as the control group. A pre/post comparison using monthly data found increased profitability and productivity, and decreased employee turnover, in the profit-sharing franchises relative to the control group. In addition, profit sharing had a

more immediate positive effect on profitability and productivity as well as a greater long-lasting effect on employee turnover relative to the non-financial incentives.

Study 5: A 2003 survey of just over a thousand establishments in the State of California done at the Goldman School of Public Policy at the University of California at Berkeley came to similar conclusions. Managers' assessments of quality, financial performance, and the turnover of workers were best when a participatory company culture was combined with profit sharing and employee stock ownership.

Notes.

i

See **An Inquiry Into the Nature and Causes of the Wealth of Nations**. Hollywood, Florida: Simon & Brown, 2012: 488-503 (Book III), 93 (Book I).

ii

See Chris Doucouliagos, "Worker Participation and Productivity in Labor-managed and Participatory Capitalist Firms: a Meta-analysis," **Industrial and Labor Relations Review**, Volume 40, Number 1(1995): 58-77, especially 67-72 which uses a method called a meta-analysis to re-analyze the statistical findings of multiple systematic studies, Douglas Kruse and Joseph Blasi, **Employee Ownership, Employee Attitudes and Firm Performance**. National Bureau for Economic Research, Working Paper 5277. Cambridge: National Bureau for Economic Research, 1995: 1-52, especially, 24 and 26 summarizing 26 studies of employee attitudes and 29 studied of firm performance, and, examining over 128 studies, Eric

Kaarsemaker, Employee Ownership and Human Resource Management, Doctoral Dissertation, Radboud University, Nijmegen, The Netherlands, 2006: 29-37 (Table 2.2), 37-44 (Table 2.3) which finds “by far the majority...of the studies found a clearly favorable result” (35-36, 44) on both employee attitudes and behaviors and firm performance, while underlining the importance of supportive people practices.

iii

Cobb, C. W.; Douglas, P. H., "A Theory of Production", American Economic Review, Volume 18 (Supplement, 1928): 139–165

iv

For example, there may be time-varying unobservable variables that affect the firm’s choice of when to adopt a plan, and that may be responsible for any performance changes. To address this, many of the studies have used selectivity corrections (e.g., instrumental variables, 2-stage least squares, Heckman corrections) and continued to find generally positive results. While it is possible that worker self-selection helps account for the higher performance of shared capitalism firms, pre/post evidence from two studies indicates that average worker quality did not change as compensation was changed from individual to group incentives (initially high- and low-productivity workers were equally likely to leave), while average worker performance improved under the group incentives.

See Daniel G. Hansen, “Worker Performance and Group Incentives,” Industrial and Labor Relations Review, Volume 51, Number 1(October, 1997): 37- 49 and Andrew Weiss, “Incentives and Worker Behavior,” in Information, Incentives, and Risk Sharing, Haig Nalbantian, ed. Totowa, N.J.: Rowan and Littlefield, 1987: 137-150.

v

See Martin L. Weitzman and Douglas L. Kruse, “Profit Sharing and Productivity,” in Alan S. Blinder, ed., Paying for Productivity. Washington, D.C.: Brookings Institution, 1990: 95-141. Blasi and Kruse, 1995; Alex Bryson and Richard Freeman, Doing the Right Thing? Does Fair Share Capitalism Improve Workplace Performance? London: UK Department of Trade and Industry, Employment Relations Research Series, Number 81, 2007. The following studies reviewed research for the United Kingdom: Oxera Economic Consultancy, Tax Advantaged Employee Share Schemes: Analysis of Productivity Effects, Report 1, Productivity Measured Using Turnover. Prepared for Her Majesty’s Revenue And Customs. London: Her Majesty’s Revenue and Customs- HMRC, Report 33, August 2007a; Oxera Economic Consultancy, Tax Advantaged Employee Share Schemes: Analysis of Productivity Effects, Report 2, Productivity Measured Using Gross Value Added. Prepared for Her Majesty’s Revenue And Customs. London: Her Majesty’s Revenue and Customs- HMRC, Report 33, August 2007b; Oxera Economic Consultancy, Tax Advantaged Employee Share Schemes: Analysis of Productivity

Effects, Overview. Prepared for Her Majesty’s Revenue And Customs. London: Her Majesty’s Revenue and Customs- HMRC, Report 33, August 2007c, and, Oxera Economic Consultancy, Tax Advantaged Employee Share Schemes: Analysis of Productivity Effects, Appendices to Report 1. Prepared for Her Majesty’s Revenue And Customs. London: Her Majesty’s Revenue and Customs- HMRC, Report 33, August 2007d.

vi

These studies are listed in a document at the website of this book:

www.thecitizensshare.com

vii

See Arindrajit Dube and Richard Freeman, “Complementarity of Shared Compensation and Decision-Making Systems: Evidence from the American Labor Market” in Kruse, Freeman, and Blasi, Shared Capitalism at Work: 167-200.

viii

See Oxera, Tax Advantaged Employee Share Schemes: 2007abcd. In 2010 the UK commissioned another economic consultancy to review the evidence that supported these conclusions in the Matrix report. See Matrix Knowledge Group, The Employee Ownership Effect: A Review of the Evidence. London: Matrix Evidence, a division of Matrix Knowledge Group, 2010.

ix

See Alex Bryson and Richard Freeman, "How Does Shared Capitalism Affect Economic Performance in the United Kingdom?" in Kruse, Freeman, and Blasi, Shared Capitalism at Work, 201-224.

x

See United States General Accounting Office, Employee Stock Ownership Plans: Report to the Chairman, Committee on Finance, U.S. Senate. Washington, D.C.: U.S. General Accounting Office, October 1987), Report Number GAO-PEMD-88-1. On the General Social Survey, see Kruse, Freeman, and Blasi, Shared Capitalism at Work: 58 (Table 1.5), 61-2 (Table 1.6).

xi

See Joseph Blasi, Douglas Kruse, and Daniel Weltmann, "Firm Survival, Performance, and Employee Ownership: Comparing Privately-held ESOP and non-ESOP Firms," Advances in Economic Analysis of Participatory and Self-managed Firms. Greenwich, Connecticut: JAI Press, forthcoming 2013. In 2002, Douglas Kruse replicated some of the findings of the commissioned study with the conclusion that ESOPs were four times more likely to offer defined benefit plans to their employees in an analysis of the entire research file of the U.S. Department of Labor's Form 5500s records on ESOPs using the U.S. Department of Labor's 1998 research file.

xii

Peterson, Suzanne J., and Fred Luthans, "The Impact of Financial and Nonfinancial Incentives on Business-Unit Outcomes Over Time," Journal of Applied Psychology,

Volume 91, Number 1(2006): 156–165.

xiii

This survey was designed by the University of California Berkeley Institute of Industrial Relations and conducted between May and October of 2003 of 2,806 establishments. On this California Establishment Survey see Kruse, Freeman, and Blasi, Shared Capitalism at Work, 187-191.

xiv

The National Bureau of Economic Research is the world's leading nonprofit, nonpartisan economic research center, sufficiently trusted that it determines business cycles for the U.S. economy. It was set up in the 1920s. It does extensive economic analysis and makes no policy recommendations. The study is Kruse, Freeman, and Blasi, Shared Capitalism at Work. The book can be found at: <http://www.nber.org/books/krus08-1/> and is available in print and online at the University of Chicago Press and online at Google Books.

xv

Ann Bartel, Casey Ichniowski, Kathryn Shaw, “Using ‘Insider Econometrics’ to Study Productivity,” The American Economic Review, Volume 94, Number 2, Papers and Proceedings of the One Hundred Sixteenth Annual Meeting of the American Economic Association San Diego, California, January 3-5, 2004, May, 2004, 217-223

xvi

Severin Borenstein and Joseph Farrell, “Inside the Pin-Factory: Empirical Studies Augmented by Manager Interviews,” The Journal of Industrial Economics, Volume XLVI, Number 2(June, 1998): 123-124.

xvii

This assumes that the arrangements have a reasonably monotonic linear relation to outcomes.

xviii

See Kruse, Freeman, and Blasi, Shared Capitalism, 10-11, 24-34, and the survey measures in Appendix A, 387-401

xix

See turnover cost calculator at http://www.cepr.net/calculators/turnover_calc.html

xx.

See Kruse, Freeman, and Blasi, Shared Capitalism at Work, 152-157.

xxi

This comparison adjusts for differences in demographic and job characteristics (e.g., age, sex, tenure, occupation). The numbers represent the estimated likelihood of strong agreement for an average worker in the sample.

xxii

See Jean-Jacques Laffont and David Martimort, The Theory of Incentives: The Principal-Agent Model. Princeton: Princeton University Press, 2001: 11 [quoting Babbage 1989, Vol. 8, 177]).

xxiii

See Erika E. Harden, Douglas Kruse and Joseph Blasi, “Who Has A Better Idea? Innovation, Shared Capitalism, and Human Resources Policies,” in Kruse, Freeman, and Blasi, Shared Capitalism at Work, 225-256.

xxiv

See Arindrajit Dube and Richard Freeman, “Complementarity of Shared Compensation and Decision-Making Systems: Evidence from the American Labor Market” in Kruse, Freeman, and Blasi, Shared Capitalism at Work, 167-200.

xxv

See Dan Weltmann, Joseph Blasi, and Douglas Kruse. At What Threshold Do Employee Shares Have A Meaningful Effect? New Brunswick: Rutgers University School of Management and Labor Relations, 2013.

xxvi

David Handel and David Levine, “The Effect of New Work Practices on Workers,”

Industrial Relations, Volume 43, Number 1(January, 2004):1-41, especially 6.

xxvii

See Kruse, Freeman, and Blasi, “Do Workers Gain by Sharing?” in Kruse,

Freeman, and Blasi, Shared Capitalism at Work, 257-289.

xxviii

The most recent evidence is from the 2006 General Social Survey where 70-80 percent of a random sample of adult workers reported that they were paid at or above the market rate for their jobs if covered by profit sharing, gain sharing, employee stock ownership or if they were holding employee stock options in their firm. See Douglas Kruse and Joseph Blasi. Report on the 2006 General Social Survey on Shared Capitalism. New Brunswick, N.J.: Rutgers University School of Management and Labor Relations: Table 3. The higher pay and benefits under these plans would appear to go against the economic theory of compensating wage differentials, which predicts that workers receiving employee ownership or profit sharing will have lower regular pay, fewer benefits, and/or worse working conditions to compensate for the benefits of these plans. There were some

publicized cases of workers making wage or benefit concessions in exchange for employee ownership or profit sharing in the 1980s, but these constituted a very small fraction of plan adoptions (between 4 percent and 7 percent according to a General Accounting Office survey). On this, see U.S. General Accounting Office, Employee Stock Ownership Plans: Benefits and Costs of ESOP Tax Incentives for Broadening Stock Ownership. Washington, D.C., U.S. General Accounting Office, 1986. On concession bargaining with employee stock ownership, see Joseph Blasi and Douglas Kruse, The New Owners The Mass Emergence of Employee Ownership in Public Companies and What it Means to American Business. New York: HarperCollins, 1991: 325-328. Apart from these few concessionary situations, over 20 studies find employee ownership and profit sharing are not linked to generally lower fixed pay or benefits, and are often found to exist along with higher base pay and benefits. This is found both in comparisons of matched ESOP and non-ESOP firms. On this, see P. Kardas, A.L. Scharf, and J. Keogh, “Wealth and Income Consequences of ESOPs and Employee Ownership: A Comparative Study from Washington State,” Journal of Employee Ownership Law and Finance, Volume 10, Number 4(1998): 3-52, and A. Scharf and C.M. Mackin,

Census of Massachusetts Companies with Employee Stock Ownership Plans

(ESOPs). Boston: Commonwealth Corporation, 2000. It is also found in pre/post

comparisons of plan adoption controlling for state-level and industry-level wage

changes and other company characteristics. See E. H. Kim and P. Ouimet,

Employee Capitalism or Corporate Socialism: Broad-based Employee Stock

Ownership. Washington, D.C. U.S. Census Bureau Center for Economic Studies,

Paper Number CES-WP-09-44, 2009. ESOP companies are four times more likely

than non-ESOP companies to have traditional pensions as noted in Kruse, **Research**

Evidence on Prevalence and Effects of Employee Ownership, 2002. The pension

assets per employee of ESOP companies are substantially higher than in non-ESOP

companies with other types of defined contribution plans. On this, see Loren

Rodgers, “Are ESOPs Good for Employees?” **Pensions & Benefits Daily**, Volume

100, November 1, 2010: 1-5. (The Bureau of National Affairs). For detailed reports

on the original data, see Loren Rodgers and Michael Keeling, **ESOPs as Retirement**

Benefits. Oakland, California and Washington, D.C.: National Center for Employee

Ownership and The Employee Ownership Foundation, September 20, 2010, and

National Center for Employee Ownership, **ESOPs as Retirement Benefits**–

Supplemental Tables. Oakland, Ca. and Washington, D.C.: National Center for

Employee Ownership and Employee Ownership Foundation, September 15, 2010.

Going against the idea that the higher pay levels simply reflect higher worker quality, average base pay of individuals goes up as workers join profit sharing companies, and down as they leave them. See Douglas Kruse, “Profit -Sharing and the Demand for Low-Skill Workers,” in Peter Gottschalk and Richard Freeman eds., Generating Jobs. New York: Russell Sage Foundation,1998: 105-153. Workers appear to be sharing in the average higher productivity of broad-based capitalism firms. As such, their higher total compensation may represent a compensating differential for their higher quantity and quality of work, and/or an efficiency wage that motivates and sustains high performance. See George Akerlof, “Gift Exchange and Efficiency-Wage Theory: Four Views,” American Economic Review, Volume 74, Number 2(May 1984): 79-83. For a listing of studies on this topic see the website of this book.

xxix

See Kruse, Freeman, and Blasi, “Do Workers Gain by Sharing?” in Kruse,

Freeman, and Blasi, Shared Capitalism at Work, 257-289.

xxx

A massive scientific literature seeks to explain the prevalence of cooperative behavior in the face of the incentive to free ride, that stretches from genetics to game theory to psychology and neuroscience. See for example: Robert Axelrod, The Evolution of Cooperation. New York: Basic Books, 1984.

xxxi

See Richard Freeman, Douglas Kruse, and Joseph Blasi, “Worker Responses to Shirking under Shared Capitalism,” in Kruse, Freeman, and Blasi, Shared Capitalism at Work, 77-104.

xxxii

For the preceding sections, see Joseph Blasi, Richard Freeman, Christopher Mackin, and Douglas Kruse, “Creating a Bigger Pie? The Effects of Employee Ownership, Profit Sharing and Stock Options on Workplace Performance,” in Kruse, Freeman, and Blasi, Shared Capitalism at Work, 139-166.

xxxiii

Douglas Kruse, Joseph Blasi, and Richard Freeman. Does Shared Capitalism Help the Best Firms Do Even Better? Cambridge: National Bureau for Economic Research, 2011, Working Paper 7745.

xxxiv

For this evidence see Kruse, Blasi, and Park, “Shared Capitalism in the U.S.

Economy,” in Kruse, Freeman, and Blasi, Shared Capitalism at Work, 61 ((Table

1.6).

END