A brief analysis of the proposed New-York-state "Fair Share for Health Care" legislation

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I. Introduction

This paper is a brief analysis of the"Fair Share for Health Care" pay-or-play legislation proposal currently under consideration in the state of New York. The legislation would require most large firms (defined as those with 100 or more employees) to pay a $3 per hour tax on all employees; firms could avoid the tax by paying at least as much for health insurance. The proposal follows a recent law aimed at much larger firms (those with 10,000 or more employees) in Maryland. At least 20 other states are also contemplating similar "pay-or-play" plans.

The paper begins by comparing two different ways of thinking about the labor market --the standard, perfectly competitive model and a more realistic model where firms have some "market power" over their workers. The two views of the labor market yield radically different predictions about the likely impact of the legislation. The paper then uses industry-level data on health-insurance coverage and employer expenditures on health-care and other forms of compensation to estimate the costs of the current version of the proposed legislation. Once we have basic, industry-level, estimates of the cost, the paper assesses whether these costs are small or large, relative to what New York's employers and workers can afford. The paper concludes with several recommendations about the implementation of a pay-or-play plan in New York state.

Besides its brevity, the paper has two main shortcomings. First, the empirical discussion is limited to industry-level data. Since firms differ substantially with respect to their expenditures on health insurance, even within the same industry and rough firm size, what we really need to understand the full impact of the legislation is firm-level data. Some firm-level data exist, but analysis of the microdata is a bigger project than is possible here. The second short-coming of the paper is that it pays only minimal attention to details of the legislation that might lead firms to engage in strategic behavior to evade bearing costs imposed by the proposed law.

II. Two competing views of the labor market

The proposed "pay or play" tax in New York state is for analytical purposes, not very different from a straightforward tax on hours of work. The most important differences are that if firms pay the tax in the form of health-insurance expenditures for their employees, firms can "avoid" paying the tax directly to the government, and that many firms are already paying some or all of the proposed tax through their current health-insurance expenditures. This section compares the likely impact of the "pay or

play" tax under two different sets of assumptions about the way the labor market functions. The first set of assumptions are those of the text-book "perfectly competitive" model that serves as the benchmark for most economic analysis of these kinds of proposals. The second set of assumptions are those of a more realistic model of the labor market, one that allow employers to have some "market power" over their employees and prospective employees.

A. Perfectly competitive world

The standard "perfectly competitive" model of the labor market makes fairly clear predictions about the impact of any tax on hours worked. Several assumptions of the model are particularly relevant to the analysis here. First, the perfectly competitive model assumes that firms, even large firms, have no "market power," that is, they can buy as many hours of work as they would like simply by paying the "going wage." This unrealistic, but fairly innocuous-sounding assumption, has a decisive influence on the potential labor-market effects of an hours tax. A second key assumption of the standard model is that each worker has a particular, given, level of productivity that is known with certainty, before work begins, to both the worker and the employer. One implication of the first assumption (that firms have no market power in the labor market) in combination with the second, is that firms pay workers exactly what they contribute to production, also referred to as the workers' "marginal product." These and a few other assumptions of the standard model can tell us a lot about the likely impact of a "play or pay" tax on: wages, employment, prices, and firms' location decisions.

1. Impact on wages

Since workers have a fixed, known, "marginal product" and they receive a wage (or total compensation in the form of wages and benefits) that is exactly equal to their marginal product, the standard model makes the clear prediction that "play-or-pay"-style legislation will induce a one-for-one trade-off with wages. To take a simple example, imagine that workers have a known "productivity" of $10 per hour. Currently, these workers are earning a wage (with no benefits) of $10 per hour. The play-or-pay law requires the firm either to pay a tax of $3 per hour or to provide health benefits worth three dollars per hour. By implication of the standard assumptions, workers can only receive total compensation equal to their "marginal product" of $10 per hour; if the firm tries to pay less, even $9.95, the firm will lose all its workers to competitors paying $10; if the firm tries to pay more, even $10.05, the firm will go out of business because its costs will rise relative to its competitors and investors will take their investment out of

the firm and put it into a firm paying $10 per hour. So, any firm that tries to pay a $10 wage plus $3 in benefits for a worker that only produces $10 per hour, will go out of business. Since workers know that they can't earn more than $10 per hour in total compensation, they will quickly agree to cut their wage to $7 per hour plus $3 per hour in benefits. The result is, effectively, a one-for-one trade-off between wages and benefits.

Imperfections in the health-insurance market, however, could conceivably alter the one-for-one trade-off even if the labor market is perfectly competitive. Individual workers generally must pay substantially more for health insurance than what even small employers pay (because of problems of "adverse selection" and economies of scale in insurance provision, say). As a result, workers may value health insurance that costs employers $3 per hour at $4 per hour --the cost that they might have to pay, as individuals, for comparable coverage. If this were the case, the "wedge" between what employers pay and what employees "receive" could, in principle, allow firms to pay, in this example, only $9 per hour in total compensation --$3 per hour in health insurance plus $6 per hour in wages. Firms could still attract workers because they would be "receiving" a compensation package worth $10 per hour to them --$6 per hour in wages and health insurance "worth" $4 per hour to them. Note that in this simple example the trade-off is still one-for-one from the workers' perspective --$4 dollars "worth" of health insurance buys a $4 reduction in wages. From the employers' perspective, however, $3 spent on health insurance reduces wages by $4 per hour, making the trade-off greater than one-for-one.

These imperfections in the health-insurance market may help to explain why so many firms already provide some form of health-insurance benefits to their employees. Health-care costs for individuals and firms rise roughly at the same pace, so the usefulness of the health-insurance-cost "wedge" remains as health-care costs grow faster than other costs. The preceding logic, however, raises a separate set of questions about why all firms don't take advantage of the "wedge" between individual and firm costs for health insurance. One possibility, of course, is that some workers, say younger workers, or workers who think of themselves as particularly healthy, may value $1 worth of health insurance less than $1 worth of wages.

2. Impact on employment

The standard model also makes clear predictions about the employment impact of a pay-or-play tax. Let's consider two extreme cases separately. In the first case, a firm decides to provide the mandated $3 per hour in health-insurance coverage. In the second

case, the firm decides to pay the tax instead of providing health insurance.

In the first case, where the employer chooses to provide the mandated minimum level of health-insurance, the legislation has no employment impact at all. As above, wages fall exactly enough to pay for the new benefits. The cost to the employer is the same, so the employer demands the same quantity of labor as before. The after-tax wage plus benefits is exactly equal to the old wage, so workers provide the same amount of labor. As a result, total employment, the total compensation bill paid by the employer, and the total wage and benefit package is the same before and after the pay-or-play tax. Only the composition of wages and benefits has changed, to now include health-insurance benefits. (The preceding analysis, of course, depends on the assumption that workers value the $3 in health-care spending exactly as much as they value $3 in wages. If some workers actually value health insurance less than wages, then the shift in compensation toward health insurance could lead some workers to stop working after the introduction of health insurance.)

In the second case, where employers choose to pay the tax instead of offer the benefit, pay-or-play is a standard tax on hours of work (similar to Social Security, for example). In the standard model, a $3 per hour tax on hourly wages drives a wedge between what firms pay and what workers take home. Returning to the simple example above where workers were earning $10 per hour and paying no tax, the imposition of a $3 tax will have several effects. Since workers have the same marginal product as before the tax, employers cannot pay them any more than $10 per hour. The workings of the perfectly competitive market ensure that the workers will have to pay the full cost of the $3 per hour tax, by lowering their take-home pay to $7 per hour. But, not all workers who were willing to work at a take-home pay of $10 per hour, will be willing to work for a take-home pay of $7 per hour. As a result, the effective labor supply of the firm paying $10 per hour will be lower after the tax than it was before the tax. Employment in the firm will fall.

One important variation on the perfectly competitive market is relevant here. If the labor market behaves as the standard perfectly competitive model assumes, but the state also has a minimum wage, the interaction of the pay-or-play tax with the minimum wage could potentially have a significant impact on employment. Under standard assumptions, providing health insurance under pay-or-play has no impact on employment because workers can lower the wage portion of their compensation dollar-for-dollar to pay for their health-care premiums. In the example above, if workers earn $10 per hour, and the pay-or-play law requires $3 of that be spent on health insurance, then wages

would fall to $7. If, however, a separate state minimum-wage law prevents wages from falling below $8 per hour, say, then workers would not be able to accept wage cuts deep enough to compensate for the health benefits. Under the standard assumptions of a perfectly competitive labor markets, employment would have to fall.

3. Impact on prices

Imagine that all employers simply added the $3 per hour cost of pay-or-play onto current wages and then passed on these costs to consumers in the form of higher prices. Since firms would be "passing through" their cost increase in the form of higher prices, initially at least, firms would see no change in their profits (sales revenues minus their labor costs). Roughly speaking, employers would, therefore, continue to hire the same number of workers as before. Meanwhile, workers would have seen a large increase in their total compensation, so, if anything, more workers would be willing to work at the going wage, potentially leading to an increase in employment. The fundamental problem with the preceding analysis, however, is that it implicitly assumes that all firms can sell just as much of their output at the new higher price as they did at the old lower price. Once we factor in the decline in total industry sales at the new higher price, however, we realize that the whole industry will be selling less output, meaning that the whole industry would be employing fewer workers.

The full size of the employment effect in this scenario would depend primarily on two things: first, how important labor costs are in the total costs of production; and second, how responsive the demand for the industry's output is to price changes. If labor costs are relatively small portion of total industry costs, even large increases in compensation costs might not have a large impact on final prices. For example, in fast-food restaurants, labor costs are about 30 percent of total costs (meal ingredients, rent, and utilities are large parts of total costs; see, David Card and Alan Krueger, *Myth and Measurement: The New Economics of the Minimum Wage*, Princeton University Press, 1995, p. 358). Even a 10 percent increase in labor costs would only increase total costs by about three percent. In the overly simplified example above, where firms simply pass the bill for the increase through to consumers, this would mean a three percent increase in consumer prices. On average, in the economy as a whole, labor costs are about two-thirds of total costs. At the economy-wide average, a 10 percent increase in labor costs would, assuming full pass-through, translate to a 6-7 percent increase in consumer prices.

To understand the impact of price increases on employment, we need to gauge the effect of any increase in industry prices on consumer demand for the industry's output. If

consumer demand for an industry's output is relatively responsive to price changes in the industry (restaurant meals or movie-theater tickets, for example), then employment would likely fall more than if consumer demand for the industry's output were relatively unresponsive to price (prescription drugs or cigarettes, for example). To give an idea of the possible range of impacts, we can look at the impact of a 2 percent price increase on three kinds of industries: an industry where consumer demand is very responsive to price changes (what economists call "elastic"), one where consumer demand is not responsive ("inelastic"), and one where consumer demand lies in between ("unit elastic"). An industry where demand is very responsive (an "elasticity" of 2, say) would see demand fall 4 percent if prices rose 2 percent. Assuming that employment is proportional to output, we would expect employment in an elastic industry to drop about 4 percent as a result of a 2 percent increase in prices. If industry demand is not particularly responsive (an elasticity of say, 0.5), industry demand would only fall about 1 percent after a 2 percent price increase. Again, assuming that employment is proportional to output, this would mean employment would decline about 1 percent. If industry demand responds to prices somewhere in between (an elasticity of 1, for example), then a 2 percent price increase would lower demand and, therefore, employment about 2 percent in this example. Most economists tend to believe that most industries face relatively inelastic demand curves, with the likely impact of a 2 percent price increase lying somewhere between a 1 and a 2 percent decline in demand. (Most economists, however, in violation of the perfectly competitive model, would not expect the employment effects, at least in the short-run to be so large, since, in the real world firms face significant adjustment costs, which we'll return to below.)

The key point here is that, within the confines of the competitive model, the ability to pass prices onto consumers does not resolve problems with the potential employment impacts of pay-or-play plans.

4. Impact on profits

The standard model is completely unambiguous --but also probably at its most counter-intuitive-- with respect to the impact of pay-or-play legislation on corporate profits. Under the assumptions of the standard model, the pay-or-play legislation would have no impact on corporate profits. In the perfectly competitive world, firms make only "normal" profits, a return to the firm's capital that is identical in all firms in all industries. Since workers ultimately pay the full cost of the tax or benefits, the pay-or-play legislation has no impact on profits. Even in the case where price increases force reductions in industry output, firms continue to earn "normal" profits on the portion of

their capital that they have invested in the effected industry. (Firms withdraw some of their investment after the price increase; the remaining investment earns the same "normal" profits as before; and, in the perfectly competitive world, firms reallocate the displaced investment to another industry or market where the capital also earns "normal" profits. If the tax reduces profitable investments in the whole economy, then, in principle, firms might see a reduction in profits on their "displaced" investments.)

5. Impact on firms' location decisions

The preceding, somewhat counter-intuitive, discussion of profits in the perfectly competitive model is also relevant for firms' locations decisions. One concern about pay-or-play legislation is that it may lead some firms that are seeking to avoid the costs of the legislation to locate to areas (nearby states) that don't have such regulations. As we've seen, in the perfectly competitive model, however, workers bear essentially 100 percent of the costs of the law. As a result, in a perfectly competitive world, the existence of pay-or-play legislation would have no impact on firms' location decisions. Even where a state minimum-wage law makes it impossible for firms to lower wages one-for-one with health-care costs, it is workers who pay, in the form of involuntary unemployment, for the extra costs. The pay-or-play legislation has no impact on firm-level profits, measured as returns to capital.

B. Firms have market power

The preceding discussion of the labor market is pretty unsatisfying. If the model predicts essentially no meaningful impact of pay-or-play on profits, why would firms spend so much money and effort opposing this kind of legislation? If workers are left either no better off or conceivably worse off (in the case of a binding minimum-wage, for example), why are so many union and non-union representatives and advocates for workers' rights supportive of such legislation? (Opponents argue, of course, that unions and advocates are responding to a different set of market distortions that mean that such legislation helps union workers, say, at the expense of non-union workers. This logic, however, still doesn't explain why corporations oppose legislation that, by the competitive model, has no significant impact on their profits.) At the root of the dissatisfaction is the basic assumption that firms have no "market power" in the labor market. Once we allow firms to have market power, much of the preceding analysis changes. Firms oppose pay-or-play legislation because their market power in the labor market means that they pay many of their workers less than their "marginal product," meaning that they are currently earning more than "normal profits." The pay-or-play

legislation takes away some of their market power by constraining firms behavior in the labor market and, effectively, increasing workers' bargaining power, even those workers that are not in a union, which also would explain why so many workers and their representatives would actively favor legislation that the competitive model suggests would have either no impact or a negative impact on their well-being.

To understand what economists mean when they refer to "market power", it helps to think of the case of a simple monopolist. Imagine that we live in a one-store town. In the absence of competition, we would assume that the firm would charge more than the "competitive price" that would prevail in a town with many stores competing with each other. The competitive model would assume that the existence of higher than normal profits would attract other stores to the town, but imagine for now that stores were expensive to start or that zoning laws limited development. The competitive model would also predict that residents of the town would travel to other towns to shop, but assume for now that other towns are far enough away that gas prices or travel time would represent a significant cost relative to the cost of items purchased in the store, or that people in the town did not have good information about the prices of goods available in other towns, or that other towns tended to have only one store, too.

In this context, what distinguishes the monopoly store from a competitive store is that the competitive store can sell as much merchandise as it would like at the going price, while the monopoly store realizes that if it wants to sell more merchandise it has to lower its price. At first glance, this distinction sounds counter-intuitive. The competitive store can sell as much as it would like without lowering its price, while the monopoly store, which has "market power," has to lower its prices to sell more output. The point is, however, what happens when the two kinds of stores *raise* their prices. When the perfectly competitive store raises it price, sales drop immediately to zero. Patrons walk into the store, see that prices have gone up, and they immediately walk across the street and buy the identical merchandise at the prevailing --lower-- price. When the monopolist raises its prices, customers enter the store, see the new, higher, prices and have to make a decision. Some will choose not to buy merchandise at the new, higher price. Others will go ahead and pay the higher price. The monopolist will maximize its profits by setting the price that balances the extra revenue from higher prices with the decline in sales from higher prices. Returning to an earlier example, imagine that a monopoly store knows that in the current market, the store can raise prices 2 percent, but that sales will only fall by 1 percent in response. If current sales, which we'll assume represent the outcome that would have occurred in a competitive market, are 100 grocery bags at 1 dollar each, then the 2 percent price increase would raise total sales to 102, before factoring in the effect of

higher prices on demand. The higher prices, of course, would cut sales of bags, by 1 percent, to 99. But, each bag would sell for 2 percent more than before, leaving the store with total revenues of $101 (99 bags at $1.02 per bag). Since revenues are up (from $100 to $101), and costs are down (the store only has to make 99 bags now, instead of 100), the monopolists profits are up. An important implication of the this analysis is that consumers end up paying a price ($1.02) that is higher than the monopolist's marginal cost for producing the output ($1.00).

In the same way that the monopoly store has market power with respect to consumers, we can imagine that if the store were also the only employer in town, the monopolist could have an analogous market power in the labor market. Economists refer to this situation of one buyer as "monopsony" (as opposed to a situation where there is only one seller, or monopoly). As with monopoly, what distinguishes a perfectly competitive employer from a monopsonist that a perfectly competitive firm can hire all the workers that it wants at the going wage, while a monopsonist must raise the wage if it wants to attract more workers. Initially, this sounds as counter-intuitive as the monopolist who must cut prices to sell more output. But, as with monopolists, the crucial distinction is what happens when the monopsonist *lowers* the wage it pays its workers. When a store that operates in a perfectly competitive labor market lowers its wage, the store immediately loses all of its work force to the store across the street that is still paying the competitive wage. When a monopsonist lowers its wage, some of the workers decide to quit because they value their leisure time more than the new wage the monopsonist is offering. At the same time, some of the workers decide to stay on at the new, lower, wage. Reworking the example of the monopolist grocer, imagine that a monopsonist store knows that in the current market, it can cut wages 2 percent, but that employment will only fall by 1 percent in response. If its current work force is 100 workers, each earning a wage of 1 dollar, which we'll assume was what the wage would have been in a perfectly competitive labor market, then the 2 percent wage cut would initially lower wage costs 2 percent, without affecting employment or output. The lower wage, however, would lead some workers to quit, reducing employment, by our assumptions, by 1 percent, to 99 workers, with some corresponding, let's assume proportional, 1 percent decline in sales. But, since each worker is earning 2 percent less than before, even after the 1 percent decline in sales (because fewer workers sell fewer groceries), the store's profits will be higher than before the wage cut. The store will have seen its total revenues fall only 1 percent (to 99 bags produced by 99 workers at $1.00 per bag), while the store's costs will have fallen by almost 3 percent (one less worker plus 99 remaining workers earning 2 percent less than before). Since, in this example, costs have declined more than revenues have dropped, the monopsonist's profits have increased as a result of the wage

cut. The monopsonist will maximize its profits by lowering wages to the point where the decline in revenues from lower employment just balances the cost savings from lower revenues. A fundamental implication of the preceding analysis is that *monopsonists pay workers less than their "marginal product."* In the example above, the value of the worker's output is $1.00, but workers only receive 0.98 cents. (Here and elsewhere, for simplicity, we've assumed that the only cost employers face are their wage costs.)

Traditionally, economists have dismissed monopsony as a model of the labor market because few, if any, labor markets appear to be dominated by a single employer. Recent research, however, pioneered by economist Alan Manning (*Monopsony in Motion*, Princeton University Press, 2003), has emphasized that the key feature of monopsony is not that a firm is the only firm in a particular labor market. The key feature of monopsony is, rather, that firms have some "market power," that they find themselves in a situation where they can cut their wages without losing all of their labor force. As Manning observes, few if any firms operate in a labor market that behaves according to the predictions of the competitive model, by which even a one penny decline in the wage would mean the loss of the firm's entire work force. He argues, reasonably, that many firms have some market power in the labor market because the labor market has imperfections, most importantly, around information. Workers and potential workers are not aware of all available vacancies. The flow of information may be particularly poor in low-wage labor markets, where workers sometimes lack basic literacy skills or easy access to computers. Even when workers hear about vacancies they often can't know important details of the jobs before they actually start working at them. Transportation costs or the need to work near children or sick family members may limit the geographic scope of available jobs, a constraint that could, again, be particularly important for less-skilled, lower-wage, workers who live in areas isolated from higher-end employment opportunities. (Employers also face information and other problems of their own. In practice, even in labor markets with some unemployment, employers may have trouble finding workers to fill vacancies at the going rate. Employers may also have difficulty judging a worker's ability (identical to their "marginal product" in the perfectly competitive model), before and, in practice, even after hiring the worker.)

These and other factors mean that employers can typically lower the wage they pay without losing all or even a large share of their workforce. Workers won't quit because finding another job --in reality, though not in the perfectly competitive model-- is costly. This simple fact means that even small employers can have "market power" that is analytically similar to that of a monopsonist. (Manning and others refer to this as "dynamic monopsony," reflecting the idea that the monopsony-like market power derives

from the "dynamics" of imperfect information flows and other, even minor, imperfections of the labor market.)

The rest of this section re-analyzes the impact of pay-or-play legislation on wages, employment, prices, profits, and firms' location decisions under the assumption that firms have some market power in the labor market. The predicted effects of pay-or-play legislation are, in fact, considerably different if we assume that firms have market power with respect to their workforce.

1. Impact on wages

Since firms with market power in the labor market generally pay workers less than their marginal product, pay-or-play legislation could result in an increase in total compensation without reducing employment (primarily by reducing "monopsony" profits, that is profits over and above the "normal" profits that firms earn in a perfectly competitive market).

On its face, the simple existence of market power does not necessarily mean that pay-or-play style legislation would raise compensation with no significant impact on employment. In practice, however, firms have significant difficulties cutting workers' wages. The reason for this difficulty almost certainly has to do with social norms. (These kinds of norms, of course, do not factor into the standard competitive model. As Keynes observed, firms can circumvent social norms about wage cuts by keeping wages fixed and letting inflation erode the real purchasing power of those wages.) If firms do have trouble cutting wages, then firms may not be able to reduce wages enough to pay for the tax or health benefits mandated by the law (especially if the size of the mandate would require a wage decline that is larger in size than the inflation rate). Under these circumstances, the mandated increase in health-insurance expenditure could lead to an increase in total compensation paid for by lower corporate profits. What makes this outcome possible is that before the pay-or-play law, firms with market power are paying workers less than their marginal product. Firms can, in fact, "afford" to pay them more than the current wage (since each worker contributes more in output than they are being paid in wages). But, in the absence of the pay-or-play legislation (or a minimum wage, say), firms can earn higher profits by paying lower wages.

Relative to a perfectly competitive model, when firms have market power in the labor market, workers may not face a one-to-one trade-off between wages and benefits; or, put another way, firms may not be able to shift all costs of the mandated benefit (or

tax) to workers.

2. Impact on employment

The preceding analysis of the wage impact of pay-or-play in a context where firms have some market power suggests that such legislation could raise wages without a significant negative impact on employment. Of course, if the mandated increase in taxes or health insurance is too large, then even firms with market power will lay-off workers. The decisive point is when the legislation forces employers to pay workers more than the value of their contribution to output.

Unfortunately, economic theory gives us little guidance on how to estimate when a particular government intervention crosses that threshold. The experience from the minimum wage appears to be that regular, "moderate," increases in the minimum wage appear to have a significant impact on earnings of low-wage workers, but little measurable negative effect on employment. These outcomes suggest that the largely political decision-making process involved in setting the minimum wage appears to produce minimum-wage levels that push workers wages up toward those that would be set in a perfectly competitive labor market, generally without crossing the line. So far, in the United States, at least, infrequent and typically fairly small increases in the minimum wage at the state and federal level have not shed much light on what kind of increases would clearly be too high.

The earlier discussion of the employment impacts of pay-or-play in a perfectly competitive labor market emphasized that the existence of a binding minimum wage could mean that low-wage workers might not be able to reduce their wages enough to compensate for the rise in health benefits. The analysis of the minimum wage in the context of a labor market where employers have market power, however, suggests that the employment effects might not be as sharp as they would be if labor markets were indeed perfectly competitive.

In the perfectly competitive case, pay-or-play legislation generally had no effect on employment as long as workers were able to lower their wages, one-for-one, with benefit increases. Under perfect competition, though, a binding minimum wage could prevent some lower-wage workers from accepting that trade-off and, therefore, could lead to job loss. When firms have market power, pay-or-pay legislation will not have any impact on employment if the mandated benefits do not raise total compensation above workers' "marginal product." If, however, mandated increases in total compensation are

sufficiently large, firms will lay-off workers until they are left with a workforce whose (marginal) output equals the new, higher, compensation requirements. Over some range, apparently important in practice if we use the minimum wage as a benchmark, if firms have market power even a binding tax or minimum wage may not lead to employments losses.

3. Impact on prices

If firms have labor-market power, the costs of the pay-or-play legislation will fall first on profits (by inducing increases in total compensation, which then reduce firms' "monopsony" profits). If pay-or-play legislation, however, raises compensation to the point where wages plus benefits (or taxes) exceed workers' marginal product, then firms might try to pass on part of costs to consumers. Under these circumstances, when the required increases in compensation are large enough to exceed workers' current contribution to output, the market-power model makes predictions similar to those in the perfectly competitive framework. Price increases lead to a reduction in consumer demand for the industry's output, and the decline in consumer demand feeds back to reduce employment in the industry. The size of the final employment losses depends primarily on how responsive consumer demand is for the industry's output.

4. Impact on profits

In the perfectly competitive framework, pay-or-play generally had no impact on firm profits: workers bear all the cost of the legislation, and the workings of the market guarantee all investors "normal" profits before and after the law goes into effect. If firms have labor-market power, however, the costs of the pay-or-play legislation will fall first on profits. As discussed in the analysis of the wage impacts above, when firms have market power, the pay-or-play legislation, especially in the context where social norms prevent firms from cutting (nominal) wages, essentially acts to reduce firms' market power in the labor market. Before the introduction of pay-or-play, firms use their market power to pay workers less than their contribution to the firms' output, and employers pocket the difference as profit. Pay-or-play acts to reduce market power, raising workers' wages toward the level where workers earn their "marginal product" (the ideal in the perfectly competitive model). In the process, pay-or-play lowers or eliminates the portion of firms' profits based on their power in the labor market. (As in the perfectly competitive model, firms will still earn "normal" profits and could still earn higher than "normal" profits for other reasons, including, for example, being a monopolist in their product market.)

The perfectly competitive model of the labor market makes the very counter-intuitive prediction that pay-or-play would have no impact on firm profits. The market-power model, however, suggests that the main impact of a well-designed pay-or-play law would be a redistribution from firm profits to workers' total compensation. If nothing else, the market-power model has one distinct advantage over the competitive model: the market-power model is able to predict that firms will generally oppose and workers generally favor pay-or-play laws.

5. Impact on firms' location decisions

In the perfectly competitive model, since pay-or-play legislation generally has no impact on profits, such legislation generally has no impact on firms' decisions about new locations. When firms have labor-market power, and stand to lose some or all of it through pay-or-play legislation, however, firms may factor pay-or-play laws into their location decision. In this context, two factors will loom largest in firms' decisions. The first, not surprisingly, is the cost of the pay-or-play provisions. Even if pay-or-play completely eliminates the portion of firm profits that flow from their market power in the labor market, firms would still earn "normal" profits based on selling their output at competitive prices. If the pay-or-play legislation falls short of extracting all of the labor-market-power-based profits, firms would still be earning "normal" profits plus some additional return based on their power in the labor market. If the pay-or-play legislation "overshoots" and sets a benefit package that would require firms to pay more than workers' marginal product (especially because firms generally have difficulty cutting workers' nominal wages), firms would be facing a situation where they would be earning less than "normal" profits would likely choose to reduce their investment. In theory, firms would be most likely to scale back their investment to the point where the marginal value of the reduced number of workers just equaled the new post-pay-or-play compensation level. In practice, however, many investment decisions are either-or propositions and some firms might decide not to invest in New York in order to invest elsewhere instead.

The second relevant factor in the investment decision is the nature of the firms' product markets. If firms sell their goods and services in industries where location and proximity to consumers is not particularly important (much of manufacturing, for example, where low transportation costs make selling to distant consumers relatively easy), firms facing rising labor costs as a result of a pay-or-play law might decide to relocate existing businesses or locate new businesses outside of the state. If firms sell goods and services for which location is important (such as retail outlets, restaurants,

hotels, health-care, and construction, for example, the industries, as we will see below, where the pay-or-play proposal will likely have the biggest impact), pay-or-play legislation will have less impact on firms' location decisions.

Effectively, residents of the state of New York have "market power." Within limits, New York state can raise the costs of doing business here without losing all its employers --the straightforward, but obviously unrealistic prediction of the standard perfectly competitive model. By analogy to the case of the monopolist or the monopolist, New York can actually improve the welfare of its citizens by exercising its market power, essentially taxing back some of the benefits firms obtain by doing business in the state.

Unlike the perfectly competitive model, where location decisions don't depend significantly on pay-or-play legislation (because workers ultimately pay the full cost of the measure), when firms have market power, pay-or-play laws can have a meaningful effect on location decisions. Pay-or-play legislation would likely have a more significant impact on industries, such as much of manufacturing, where proximity to customers is not important, and a less significant impact on industries, such as retail, restaurants, hotels, health care and construction, where firms generally need to be "near" their customers to sell their goods and services. An important consideration from a public-policy perspective, however, is that residents of the state of New York have their own form of market power with respect to businesses operating in the state. The welfare of New York state residents will be highest if state laws recover some portion of the profits generated by businesses operating in the state.

IV. Estimating the cost

The preceding discussion of the market-power model argued that if firms currently exercise market power, then, government has scope for taking actions in the labor market such as minimum-wage or pay-or-play legislation that would actually move the labor market closer to its "perfectly competitive" ideal. This possibility for improvement exists because firms with market power in the labor market pay workers less than the value of their contribution to output, and a minimum wage or pay-or-play legislation compels firms to move toward paying their workers the full value of their "marginal product." The preceding section, however, also emphasized repeatedly that interventions that go "too far" will potentially inflict significant harm on their intended beneficiaries. The central question in this kind of analysis is what kinds and sizes of interventions push the economy toward greater efficiency and equity, and what kinds and sizes of interventions are "too much"? This section of the paper presents estimates of the

total cost of proposed "Fair Share for Health Care" (and a few possible variations of the bill). The next section tries to assess whether these costs are small, large, or "just right," using several possible benchmarks.

Table 1 presents some simple estimates of the "total" cost of the "Fair Share" law, under the assumption that workers' wages don't fall to compensate for the rise in health benefits (or the tax). The estimates draw on firm-level health-care expenditure data for the United States and for New York state from the Medical Expenditure Survey (as analyzed by Josh Mason), and establishment-level data on average compensation costs from the U.S. Census Bureau's county business patterns. **Table 2** presents the underlying estimates of current average hourly health-insurance expenditures across all employees in each industry (that is, across both insured and uninsured workers); these current hourly cost estimates were used to estimate the total cost of the "Fair Share" law in Table 1. The combination of firm- and establishment-level data in Table 1 is not entirely satisfactory, but the estimates provides a reasonably realistic picture of the initial cost structure. Table 1 expresses all costs of the legislation as a share of firms' current total compensation expenditures, which is, as we shall see below, probably the most relevant benchmark for pay-or-play costs.

The proposed legislation requires that all firms of 100 or more employees pay a $3 tax per hour worked (with some exemptions for new employees). Firms then earn a tax credit equal to their expenditure on health care that they can use to pay the hourly "Fair Share" tax. The current proposal exempts agriculture and manufacturing. Of the remaining industries, the estimates in the table suggest that "Other Services," which includes health-care, restaurants, and hotels, and "Retail Trade" would see the largest increases in compensation costs. Large firms in "Other Services" currently spend 8 to 11 percent of total compensation on health insurance (7.8 percent for firms with 100-999 employees; 10.5 percent for firms with 1,000 or more employees). A $3 per hour target for health insurance spending would raise these industries total compensation costs by 12 or 13 percentage points (13.3 percentage points for 100-999; 11.7 percentage points for 1,000+). The retail industry currently spends, on average, 11 to 12 percent of total compensation on health insurance (11.9 percent for 100-999; 11.4 percent for 1,000+). The "Fair Share" legislation would raise spending another 10 to 12 percentage points (11.8 percent for 100-999; 9.5 percent for 1,000+). Construction is the industry with the next-highest average increase in compensation costs, estimated at about 4 percent. Most of the rest of the industries have estimated cost increases in the area of about 2 percent. The legislation would have the smallest impact on financial services (less than 0.5 percent) and manufacturing (about 0.5 percent), which is exempt.

The table also presents cost estimates for variations on the proposed legislation: a $3 tax applied only to firms with 1,000 or more employees; a $2 tax applied to firms with 100 or more employees; and a $2 tax applied to firms with 1,000 or more employees. The $2 per hour variations generally show substantially lower estimated costs of the legislation. For "Other Services," for example, the estimated cost drops by about half, to between 4 and 6 percentage points of current compensation. For retail, the decline is also substantial, to about 3 to 4 percentage points of current compensation. For most other industries, where large firms already have average expenditures exceeding $2 per hour, a $2 target would, on average, have no cost impact.

Table 1, however, only reports industry averages. Within industries some firms pay above the industry average, and the cost impact of the legislation would be smaller than the estimated average impact. Other firms pay below the industry average on health care (in some cases even nothing), meaning that the impact on their compensation expenses would be greater than the estimated average. Unfortunately, an analysis of firm-level data within these industries is beyond the scope of this analysis.

V. What can firms absorb?

If we make the reasonable assumption that firms generally have some market power in the labor market, the earlier analysis suggests that, in principle, governments can act to regulate the labor market in ways that improve outcomes by moving the economy closer to conditions that would prevail in a "perfectly competitive" labor market. The difficulty, however, is that, in practice, we often don't have a clear idea exactly what kinds and sizes of interventions hit the "sweet spot" where firms' market power is reduced, but their costs don't rise so much that output and employment fall. This section examines several possible reference points for assessing the "size" of the proposed pay-or-play intervention in the labor market: relative to a minimum-wage increase; relative to average annual productivity growth; and relative to annual average inflation rates. The goal is to try to establish tentative bounds on the size of "safe" labor-market interventions --safe in the sense that interventions in this range would accomplish their intended goals without lowering output, employment, or earnings.

A. Minimum wage

Ideally, we would like to have some objective measure of firms' market power in the labor market. Economists David Card and Alan Krueger have used evidence on the

responsiveness of workers' quit rates and employers' hiring rates to changes in wage levels in order to produce a fairly speculative estimate of firms' market power. They conclude that firms' market power allows them to pay workers 10 to 20 percent less than their marginal product (*Myth and Measurement*, p. 376). This is precisely the kind of estimate we'd like to have in order to evaluate the impact of the proposed pay-or-play legislation. According to Table 1, even a $3 tax applied to all firms with 100 or more employees would only raised total compensation by 12 to 13 percent in the most effected industries (health, restaurants, hotels, and other services). If the simple calculation from Card and Krueger is correct, the estimated cost increase of the "Fair Share" bill would probably not push wages above workers contribution to the firm. Unfortunately, Card and Krueger's calculation is not much more than a back-of-the-envelope calculation and probably not a wise basis, on its own, for making important policy decisions. (Manning proposes a simple measure in *Monopsony in Motion* (pp. 44-49), but his measure is useful primarily for showing relative labor-market power across employers in different industries, not for helping to establish guidelines for setting labor-market interventions in situations where firms have labor-market power.) The Card and Krueger estimate of the size of the gap between what workers are paid and what they are worth to their firm also provides no guidance on how quickly government action in the labor market could work to close the gap without having unintended negative consequences.

Another way of getting a feel for the degree of labor-market power, and therefore the degree of latitude the state of New York might have in implementing pay-or-play legislation, is to use past experience with the minimum wage. In a review of several studies of minimum-wage increases at the federal and state level in the 1980s and early 1990s, Card and Krueger show that legislated wage increases raised wages on average between 5 and 11 percent among effected workers with no measurable negative effects on employment for these workers in these studies (Card and Krueger, Table 12.1, p. 388). Since workers earning near the minimum-wage make up only part of the work-force, even in fairly low-wage industries, the impact on average industry-wide or economy-wide compensation was substantially smaller, generally less than 2 percent across the full economy, and sometimes significantly less than that.

A simple way to get an idea of the potential economic impact of the "Fair Share" legislation is to reframe it as an increase in the minimum wage and compare it directly to an earlier increase in the minimum wage. We could, for example, examine the likely impact of a proposal to increase the New York state minimum wage (currently $6.75 per hour) by $3 per hour to $9.75. For several reasons, such an increase would have substantially smaller effect on firms' total compensation than the "Fair Share" law,

primarily because the "Fair Share" legislation affects workers across the full wage distribution, while the minimum wage only affects low-wage workers. **Table 3** shows an estimate of the share of New York workers that would receive a pay increase under proposals to increase the state minimum wage from $6.75 to $9.75 per hour. (The estimates are based on an analysis of pooled data for New York state for 2003 through 2005, where all wages have been adjusted to reflect 2006 price levels.) The data suggest that just under one fourth (23.0 percent) of state workers would receive some kind of increase under the hypothetical increase. The share of workers getting a pay increase would be particularly high in agriculture (52.3 percent), retail (43.4 percent), and other services (33.9 percent). A $2 per hour increase would affect a smaller, but still substantial share of workers (17.6 percent overall), with the same basic pattern across industries.

Knowing the share of workers effected by any increase in the minimum wage, however, is not enough to judge the potential impact. **Table 4** summarizes the results of an analysis where the total implied pay increase associated with a proposed state-level increase in the minimum wage has been converted into shares of the total wage bill (the wage bill shares here are not directly comparable to the compensation bill shares we've seen earlier, because these wage bill shares do not take benefits into consideration). The last column of the table suggests that a $3 per hour increase in the minimum wage would raise the total wage bill of New York state firms by about 2.6 percent. The wage-bill impact would be greatest for agriculture (9.4 percent), retail trade (6.8 percent), and other services (including health care, hotels, and restaurants, 5.5 percent). A more modest $2 per hour increase would raise the state wage bill about 1.6 percent, with increases for agriculture, retail, and other services in the 3 to 5 percent range.

The first column of Table 4 provides roughly comparable calculations for the wage bill costs of the $0.90 per hour increase in the federal minimum wage in 1996-1997, the most recent increase in the federal minimum wage and one that did not produce any measurable impact on employment of low-wage workers (see, for example, Jared Bernstein and John Schmitt, *Making Work Pay: The Impact of the 1996-1997 Minimum Wage Increase*, Washington, DC: Economic Policy Institute, 1998.) The estimated cost of the increase are crude and, importantly, the industrial classifications differ in important ways between 1996-1997 and 2003-2005. Nevertheless, the data in the table are sufficiently robust to conclude that a $3.00 per hour increase in the state minimum wage would be about five times as costly to New York state's employers as the 1996-1997 federal increase was to the nation's employers. A $2 per hour increase would be about three times more expensive than the 1996-1997 increase. (The "other services" category differs substantially across the two years; the differences are sufficiently large to suggest

not making comparisons for these categories across the two periods.) Since the total compensation impact of a $3 "Fair Share" level are substantially greater than the total compensation impact of $3 per hour increase in the minimum wage, and a $3 per hour increase in the state minimum wage would be several times larger than our most recent experience with federal minimum wage increases, the results in Table 4 suggest proceeding with some caution.

Research on the minimum-wage might be a more useful benchmark if we had recent experiences with increases that had wage-bill effects as large or larger than the current "Fair Share" proposal, or large enough to produce measurable declines in employment. In the absence of increases in the minimum wage of this magnitude, any attempt to use past minimum-wage increases as a benchmark will necessarily be fairly conservative estimates of the scope for government action.

B. Productivity

Even in the absence of market-power, New York state firms could, in principle, pay for their obligations under pay-or-play legislation out of annual productivity growth. Productivity is the value of goods and services produced in an average hour of growth. Technological progress, rising skill levels of the workforce, greater capital investment, and other factors generate regular increases in productivity. In recent years, productivity growth across the economy has averaged about 2 percent per year, with most long-term forecasters projecting similar rates into the future. If productivity does grow 2 percent per year, then, in principle, workers could pay for improvements equal to 2 percent of their total compensation each year entirely out of productivity growth, without experiencing any decline in their current (inflation-adjusted) wage.

C. Inflation

In the standard, perfectly competitive model, workers pay the full cost of pay-or-play legislation because their wages fall one-for-one to compensate for their now higher benefits package. In practice, however, employers (probably in response to social norms) generally find it difficult to reduce workers' nominal wages. In this context, inflation can act as a shock absorber. If inflation is 3 percent, for example, firms can lower their total wage costs 3 percent, in real terms, by freezing wages at the end of the year. While workers don't welcome wage freezes, social norms appear to allow much greater room for wage freezes than nominal wage cuts. In practice, this means that inflation could serve as a mechanism for shifting a portion of the costs of the pay-or-play legislation to

workers. If, for example, a firm needed to make additional health-care expenditures totaling 3 percent of current compensation, firms could freeze nominal wages, thereby lowering real wages 3 percent, just enough to offset the increase in health-insurance expenditures. From both the workers' and the employers' perspective, total, after-inflation, compensation is unchanged before and after this version of the pay-or-play measure. The main reason for mentioning inflation is that it can provide an extra cushion in case the pay-or-play plan raised total compensation "too much," that is, beyond what closing the gap between workers current wages and their marginal product, and productivity growth, would otherwise allow.

VI. Some Additional Considerations

This section examines several additional economic issues relevant to the analysis of the "Fair Share" legislation, but not discussed elsewhere. Most of the discussion here deals with the possibility of firms responding "strategically" to avoid bearing the costs of the legislation. Almost all of the analysis in this section, therefore, implicitly assumes that employers have some market power in the labor force. If firms had no market power, they would have no reason to respond "strategically" to the law since in a perfectly competitive world, workers would absorb the full costs.

A. Part-time vs. full-time workers

The legislation requires that firms pay the tax for all workers (except very recent hires), or to pay the equivalent in health benefits. The proposal, however, does not require firms to provide the $3 per hour in health benefits to all employees, only that the firm average meet or exceed the $3 target. The law constrains firms' ability to discriminate against their workers, but the law does allow firms to provide benefits to full-time workers while excluding part-time workers. Firms could decide to provide excellent health-insurance benefits to full-time workers and nothing to part-timers. Under these circumstances, the tax on part-timers effectively subsidizes the benefits of full-time workers, which raises equity concerns. From the perspective of part-time workers in this situation, the legislation would constitute a fairly large tax, with no offsetting health-insurance benefit. Indeed, if the firm "plays" and uses the tax credit to provide full-timers with benefits, the firm actually makes no net contribution to New York state to help defray the cost of providing health care to the uninsured part-timers.

One possible solution to this problem would be to exempt part-timers from the tax, but this opens up a large loophole for employers. A firm could, for example, define

full-timers as those working 40 hours per week or more, then put its entire workforce on 39 hours per week, and entirely escape the law. Even if the state defined, for purposes of the bill, a specific weekly-hours cutoff for part-time workers, firms would have a strong incentive to restructure their workforce to fall just below the cutoff. The result could be an increase in the share of part-time jobs with no benefits.

B. New-hire exemption

If the bill exempts new hires from the $3 tax, firms --especially those in industries that already have high turnover-- would face a significant incentive to keep workers on just until the new-hire exemption expired. The incentives to avoid a $3 per hour tax are likely to fairly large for low-wage workers earning in the range of $6 to $12, for example.

C. Redefining firm size

The estimates in Table 1 suggest that the additional cost of either the tax or providing health-insurance benefits could be large for effected firms. Firms would have an incentive to restructure their holding in New York state in order to fall under the 100 employee threshold.

D. Leveling the Playing Field

This paper has focused on industry-level rather than firm-level data. The earlier discussion of costs emphasized that firm-level data would almost certainly show significant differences in current spending on health insurance and therefore significant differences in the likely cost of the "Fair Share" legislation. One implication of these disparities within industries is that those firms already providing health insurance above the mandated minimum may support the legislation because the tax would raise their competitors' costs. Firms who face cost increases will likely warn that they will have to raise prices and cut employment. This may well be true, but these low-cost firms will lose business to competitors who have already organized their production efficiently around a higher-cost structure that includes adequate health benefits. Net employment effects, even in the case where the pay-or-play level is set "too high" are therefore likely to be significantly lower than the "gross" effects on current low-cost firms.

E. Indexing

The "Fair Share" legislation appears to plan to use the medical-care component of

the Consumer Price Index (CPI) to update the minimum health-benefit target. For technical reasons, the medical services component of the CPI rises much more slowly than the cost of employer-provided health insurance. For example, between 2000 and 2005, the medical services component of the CPI (http://data.bls.gov/; series code: SUUR0000SAM2) saw annual increases of 4.6, 5.0, 4.4, 4.9, and 4.9 percent, while the Kaiser Family Foundation's annual survey of the cost of employer-provided health-insurance coverage premiums increased 10.9, 12.9, 13.9, 11.2, and 9.2 percent (http://www.kff.org/insurance/7315/summary/ehbs05-summary-a.cfm0). The average annual gap between the two price indexes was almost 7 percent per year. At this rate, using the CPI instead of a more appropriate health-insurance premium index could lead to an erosion in the level of the pay-or-play benefit by close to 25 percent within just three years.

F. Rational non-cooperation

Given that 20 to 30 states appear to be considering "Fair Share"-style legislation, large, multi-state employers might consider taking a stand in New York in order to discourage other states from passing similar legislation. Even if the firms businesses here were still sufficiently profitable after the legislation went into effect, multi-state employers might profit from taking action such as closing down a store or office in New York, citing the costs of the "Fair Share" legislation, in order to persuade other states not to impose similar kinds of regulation.

VII. Some Conclusions and Recommendations

A realistic model of the labor market allays many of the worst fears and predictions made by opponents to labor-market regulation. Imperfections in the labor market mean that employers generally have some market power over their workers. One implication of firms' market power is that they will, in the absence of concerted action to the contrary (either government regulation or a labor union), pay workers less than their marginal contribution to the firm. The gap between workers' pay and their "marginal product" is a sign that the currently existing labor market suffers from inefficiencies. The gap also makes it possible for government regulation (or labor unions) to take action, over certain ranges, to increase workers' wages and benefits, without reducing workers' employment prospects.

The preceding analysis suggests several recommendations. First, at the industry level, total compensation could reasonable rise 2 to 2.5 percent per year without any

noticeable impact on industry employment. About 2 percent of this increase could be financed out of average productivity growth. Based on our most recent experience with federal minimum-wage hikes, another 0.5 percent (though possibly significantly more than that), could be financed out of a reduction in the above-"normal" profits that firms with market-power in the labor market currently earn at the expense of their workers. (These are industry and aggregate effects. Of course, some firms will see employment fall, while others will see employment rise. Employers that can't compete under "Fair Share" will typically lose market share and jobs to firms that are already meeting or exceeding "Fair Share" targets.)

Second, a cautious approach would involve phasing in the pay-or-play target levels over several years. If we use a 2 percent per year increase in the total wage bill as an upper limit, phasing in the $3 per hour increase for employers of 100 or more would take 5 to 7 years in the most effected industries. Switching the firm-size cutoff to 1,000 or more employees only lowers the phase in period to 5 to 6 years. Lowering the "Fair Share" target level from $3 per hour to $2 per hour, however, would allow complete phase-in in 2 to 3 years. One possible phase-in schedule would be to start with an initial level of $1. The $1 level would lie below the current industry average in all the aggregated industries here, but even $1 per hour would "bite" for those firms now providing little or no health insurance coverage. At the end of the first year, the "Fair Share" target would rise to $1.50 per hour (adjusted for the rise in health insurance coverage over the year). At the end of the second year, the "Fair Share" target would rise to $2 per hour (again, updated to reflect the "real" cost of health insurance premiums). This would phase in a full $2 increase within two years. By this schedule, only smaller firms (100-999) in the "other services" area would be moving faster than 2 percent of the compensation bill per year. These employers may well be able to adapt at a slightly faster pace; if not, the legislation could be phased in over three years, which would allow this group to move at a 2 percent per year pace (say by going initially to $1, then (inflation-adjusted) $1.50 at 18 months and $2.00 at 36 months).

Third, once the minimum health-care contribution is at its fully phased-in level, that level should increase according to the Kaiser Family Foundation or similar's estimates of cost increases in employer-provided health-insurance plans, not the medical services component of the CPI. Actual employer outlays for health insurance have been rising about 7 percentage points faster than the medical services component of the CPI. If the "Fair Share" legislation locks in a CPI-based annual adjustment rate, the law could become almost irrelevant in a matter of just a few years.

Fourth, the preceding analysis take a broad-brush, industry-level, view. To understand the full impact of the legislation, more research within industries, at the firm level, is necessary. The most interesting questions concern how firms currently spending widely different amounts on health benefits, but selling goods and services in the same markets, will respond to a mandated health-care expenditure.

TABLE 1

Costs of proposed health-care tax, by industry, firm-size cutoff, and tax level

(estimated percent share of 2006 total compensation)

	Current health-care spending			Additional spending											
Tax level				$3 per hour			$3 per hour			$2 per hour			$2 per hour		
Minimum firm size				100 employees			1,000 employees			100 employees			1,000 employees		
		100-			100-			100-			100-			100-	
Industry	All	999	1000+	All	999	1000+	All	999	1000+	All	999	1000+	All	999	1000+
All	7.7	10.0	10.7	2.3	4.2	3.3	1.6	0.0	3.3	0.2	0.0	0.0	0.2	0.0	0.0
Agriculture	6.0	5.9	(D)	4.8	11.7	(D)	1.7	0.0	(D)	2.5	5.8	(D)	1.0	0.0	(D)
Manufacturing	13.1	16.7	16.4	0.2	0.6	0.3	0.1	0.0	0.3	-0.1	0.0	0.0	-0.1	0.0	0.0
Construction	6.5	8.1	7.2	1.4	4.1	4.2	0.8	0.0	4.2	0.4	0.0	0.4	0.4	0.0	0.4
Utilities	5.5	5.7	6.6	1.2	2.0	2.0	0.9	0.0	2.0	-0.2	0.0	0.0	-0.2	0.0	0.0
Wholesale trade	9.1	9.1	10.9	0.9	2.5	0.7	0.4	0.0	0.7	0.1	0.0	0.0	0.1	0.0	0.0
Financial servs.	5.4	6.1	6.3	-0.1	0.4	0.2	-0.1	0.0	0.2	-0.3	0.0	0.0	-0.3	0.0	0.0
Retail trade	10.9	11.9	11.4	6.8	11.8	9.5	5.3	0.0	9.5	1.8	3.9	2.6	1.3	0.0	2.6
Professional servs.	7.0	8.1	8.7	1.2	2.6	1.6	0.7	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0
Other services	6.5	7.8	10.5	5.7	13.3	11.7	3.4	0.0	11.7	2.3	6.2	4.3	1.3	0.0	4.3

Notes: Agriculture includes forestry and fishing; manufacturing includes mining; utilities includes transportation; financial services include real estate. (D) indicates that data for these categories were suppressed by underlying sources for reasons of confidentiality. Some cost estimates for "all" are negative, reflecting imprecisions in the estimation procedure; these values marked 0.0*.

TABLE 2
Estimated employer spending on health insurance per worker hour, New York
(2006 dollars per hour)

	Total	<10	10-24	25-99	100-999	1000+
Total	1.89	1.15	1.61	1.60	2.11	2.29
Agric., fish., forest.	0.89	0.62	0.76	1.22	1.00	1.10
Mining and manufacturing	2.70	1.38	2.20	2.01	2.90	2.94
Construction	1.60	1.23	1.72	1.86	2.00	1.89
Utilities and transp.	2.15	1.08	1.24	2.09	2.22	2.31
Wholesale trade	2.33	1.56	2.11	1.99	2.36	2.81
Fin. svs. and real estate	2.75	1.89	1.56	1.96	2.81	2.89
Retail trade	1.45	0.73	1.30	1.42	1.50	1.63
Professional services	2.21	1.44	1.93	1.88	2.27	2.53
Other services	1.13	0.85	1.00	0.86	1.11	1.42

Notes: From "JM - MEPS data - sector and firm size.xls" prepared by Josh Mason, modified to reflect average full-time and part-time hours by industry groups, based on CEPR CPS ORG extracts for 2005. Cost is spread across all employees, including those who do not currently receive health insurance. Costs are for 2006, in 2006 dollars (based on actual 2003 figures from the Medical Expenditure Survey, assuming a 10 percent annual increase in employer health-insurance expenditures).

TABLE 3
Share of workers earning within $2 and $3 of the New York state minimum wage, 2003-2005
(percent)

	New York state minimum-wage ($6.75) plus:	
	$2.00	$3.00
All	17.6	23.0
Agriculture	37.0	52.3
Manufacturing	13.2	17.8
Construction	7.0	10.8
Utilities	10.5	14.4
Wholesale trade	9.7	16.3
Financial servs.	7.0	9.7
Retail trade	35.1	43.4
Professional servs.	14.4	19.0
Other services	26.2	33.9

Notes: Analysis of New York state data from CEPR CPS ORG extracts for 2003, 2004, and 2005. Share of workers whose hourly wage in real $2005 was within range of $6.75 per hour; including workers making less than $6.75 to capture workers on tip-credit.

TABLE 4
Comparison of wage bill costs of 1996-97 increase in federal minimum wage and a $2 and $3 per hour increase in the New York state minimum wage

	Estimated additional wage costs (as percent of total wage bill)		
	1996-97	Simulated 2006 New York state increase	
	federal increase	$2.00 per hour	$3.00 per hour
All	0.5	1.6	2.6
Agriculture	2.4	5.3	9.4
Manufacturing	0.2	1.2	2.0
Construction	0.2	0.5	1.0
Utilities	0.2	1.1	1.8
Wholesale trade	0.2	0.8	1.6
Financial servs.	0.2	0.6	0.9
Retail trade	2.2	4.1	6.8
Professional servs.	0.4	1.2	2.0
Other services	0.5	3.5	5.5

Notes: Analysis of CEPR CPS ORG data for United States Sep 1995-Aug 1996, and 2003-2005. Changes in industry classifications between 1996-1997 and 2003-2005 make industry-level comparisons inexact. In 1996-1997, retail includes restaurants and hotels, which are in "other services" in 2006.