Job Loss and the Incoherent Expansion of Cost-Benefit Analysis

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How, if at all, should regulators take new rules’ impacts on employment into account? One might argue that regulators should not take job loss into account, since historically regulation’s impact on jobs has been minor and somewhat positive. Environmental regulations, for example, account for far less than ½ of 1% of mass layoffs.2

Congress, however, has sometimes determined otherwise. It has enacted a number of statutory provisions that demand that agencies only promulgate “feasible” regulations, suggesting that agencies should avoid establishing standards that might cause widespread plant shutdowns significantly contributing to unemployment. I have defended this feasibility-based approach as a rational response to concerns about costs’ distribution.3 While most rules have no impact on unemployment but simply raise prices in ways that have too little impact to matter, a few standards may concentrate costs in ways that cause mass layoffs. When this occurs, the severity of the impacts on the affected workers may justify moderating standards, even standards protecting people from serious health impacts. This makes the feasibility principle found in many environmental statutes at least a rational way of addressing concerns about the distribution of costs and benefits.

Jonathan Masur and Eric Posner, after initially resisting the suggestion that unemployment matters a lot,4 now embrace my argument that job loss matters to people’s overall well-being.5 But instead of accepting the feasibility principle as a rational, if imperfect, way to take cost’s distribution into account, they would make it an additional regulatory cost to be used to weaken regulation through cost-benefit analysis (CBA).

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2 See Shapiro & Irons, supra note 1, at 3 (since 2007, job loss from regulation has produced about .3% of the extended mass job layoffs occurring in the economy); EBAN GODSTEIN, THE TRADE-OFF MYTH: FACTION AND FICTION ABOUT JOBS AND THE ENVIRONMENT 35-37 (1999) (finding that environmental regulation produces far less than 1% of mass layoffs).


I argue against that proposal below. In spite of the authors’ effort at evenhandedness and objectivity, their proposal embodies significant anti-regulatory bias, manifested through double counting of unemployment’s most obvious costs and asymmetrical analysis that neglects significant positive impacts on employment. Once one pares away the double counting and asymmetries to attempt to craft a better way to incorporate employment impacts into (CBA), one finds a set of residual indirect benefits and costs that resist quantification. The difficulty astute analysts like Jonathan Masur and Eric Posner have with coming up with a coherent and practical way to quantify employment impacts in dollar terms suggests that expanding CBA’s domain to take into account distribution and secondary effects creates a morass of difficulties that make the expansion’s costs outweigh its benefits.

I. Background on Direct and Indirect Costs and Benefits

As Masur and Posner note, textbook CBA does not consider employment impacts. Textbook CBA focuses upon a regulatory proposal’s direct costs and benefits. The direct benefits consist of saved lives, avoided illness, and protected natural resources. The direct costs consist of the dollar value of expenditures that regulated companies must make to comply. Thus, regulatory CBA constitutes what economists call a “partial equilibrium analysis,” focusing on direct impacts, without considering how the direct costs and benefits may indirectly cause additional ancillary impacts on the economy as a whole. Nor does textbook CBA take into account the distribution of costs and benefits, focusing instead on their total dollar equivalents.

Accordingly, CBA makes no mention of how companies distribute the costs they must incur in complying with regulations. Masur and Posner claim that agency CBA measures costs “in terms of losses to consumers and shareholders.” This is not quite correct. The typical agency CBA focuses on losses to regulated firms, the costs they must incur in complying. Textbook CBA does not care about how the firms distribute those costs. The firm may distribute those costs in at least three ways. It may pass the cost on to consumers; it may cut dividends to shareholders; or it may pass the costs on to workers by either eliminating jobs or reducing wages. Thus, unemployment arises when firms respond to a compliance obligation by distributing its cost to workers by discharging employees.

A simple example will illustrate the distributional relationship between unemployment and compliance cost. Suppose that a firm must pay $100,000 annually to comply with a regulation. In all likelihood, it will prefer to pass this cost on to the consumer by raising prices. But if unregulated competition is too stiff or if consumers would reduce their demand for the firm’s goods in response to a price increase, raising prices may prove impractical. In that case, the regulated firm may fire a worker drawing $100,000 a year in salary to generate sufficient cost savings to pay for the improvement.

A regulation only imposes direct costs on firms. But the imposition of costs on firms has indirect effects on consumers, shareholders, or workers. The firm decides how to distribute the cost, not the regulatory agency. Even if economic conditions predictably preclude imposition of cost on consumers (a rarity), companies can still choose whether to cut dividends or wages or instead reduce employment. Job loss is an indirect effect in the sense that it is the result not only of the regulator’s decision about what standard to impose, but also of the firm’s independent
decision of how to pay for the costs. Thus, the question of whether a particular regulatory
decision produces unemployment requires prediction of firm’s choices in how they wish to fund
compliance costs.

II. Double-Counting

An examination of the $100,000 hypothetical above shows that Masur and Posner’s
treatment of a decision about distribution as an added cost produces double counting. To see this
consider the following question: If a firm funds a $100,000 annual compliance expenditure by
firing a worker, what is the cost of the regulation assuming that the worker never gets another job
and no costs and benefits arise from the job loss except lost wages?

Masur and Posner basically answer: $200,000 a year, for they assume that the cost of lost
wages (with some adjustments) should be added to the other costs included within CBA (i.e.
compliance costs). They are wrong. The cost of the regulation is $100,000. The firm avoided
paying the $100,000 cost by reducing its profits or cutting its dividends. Instead, it transferred
the cost onto the worker. To be a little more precise, the firm incurred a $100,000 cost saving
when it fired the worker. It then turned around and paid the $100,000 compliance costs from
that saving for a net cost to the firm of $0. The worker, however, incurred a $100,000
loss.

Masur and Posner’s methodology, which makes lost wages a key component of the estimate,
double counts compliance costs when they get passed on to worker.

Double counting remains a problem in cases very different from this stylized example.
For example, suppose that an agency imposes a regulation on a marginal facility making it
unprofitable and the owner decides to shut it down. In that case, the discharged work force’s lost
wages may well exceed the costs that the plant owner would have paid to comply. But counting
all of the lost wages and the compliance cost together still involves double counting. In fact, the
operator paid no compliance cost. The cost was borne by the workers. So, the true cost of this
regulation equals the lost wages, not the lost wages plus the compliance cost. The double
counting, whatever its scope, biases the analysis toward less stringent regulation.

This analysis does not deny that we should care about unemployment. Masur, Posner,
and I all agree, for very good reasons, that unemployment matters. It just means that concerns
about employment do not coherently and conveniently fit within a cost-benefit framework.

In order to carry out a CBA, one must have a coherent concept of what a cost and benefit
is. Every cost is a benefit to someone else. That is why economic textbooks focus on consumer
welfare. Economists typically consider costs to firms as ultimately costs to consumers. This
analytical convenience establishes a basis for modeling regulations and much else.

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6 The firm by shutting down the facility has lost whatever small profit it might derive from that marginal facility. Of
course, it may sell the facility or reinvest the capital formerly devoted to running it in ways that make up for this
small loss. In any case, as long as the net costs are less than the compliance costs, there is some double counting
involved. There is no good economic reason to shut down a facility if the costs of doing so exceed the compliance
costs.

7 See generally Driesen, Response, supra note 3, at 325 (characterizing economist’s habitual focus on consumer
welfare as “extremely useful for economic modeling”).
The fact that such astute analysts as Masur and Posner end up double counting costs suggests that adapting a framework designed to measure economic efficiency to make it into an objective measure of overall wellbeing creates incoherence. If gifted scholars make these sorts of mistakes, we can expect government agencies faced with formidable political and time pressures to fail to properly grapple with the enormous theoretical and practical difficulties that expansion of CBA to include distributional or indirect effects creates.

III. Asymmetry

Masur and Posner not only double count, they suggest an asymmetric analysis. They frame their analysis as a proposal to count unemployment as a regulatory cost. Regulations, however, produce added employment slightly more often than they produce unemployment.

If regulators must count the unemployment that regulations produce, they should also count the added employment it produces. Additional employment arises from the regulated firm’s need to have work performed in order to comply with environmental regulations. Sometimes they must hire workers or pay contractors to install pollution controls, redesign processes, or take other actions complying with regulations. Furthermore, regulations producing some plant closures causing unemployment often simultaneously boost employment at competing facilities. In the absence of a decline in demand, shutdown of one facility will often provide another facility with the opportunity to increase production to pick up the slack, which can generate a need for additional hiring. Masur and Posner, in spite of the one-sided framing of their proposal, recognize in an easily overlooked footnote that an analysis counting employment impacts must include counting job increases.

An additional asymmetry occurs because Masur and Posner focus only on costs’ ancillary employment impacts without considering the benefits’ ancillary impacts. They mention that air pollution standards can allow asthma suffers to avoid unemployment by helping them retain sufficient health to continue working, but decline to count this employment benefit, because they find it impossible to quantify.

This move belies the seriousness of the problem lurking in their asymmetric analysis. If they are correct that we can analyze unemployment but not its avoidance through health protection, then it follows that the move from measuring direct effects to including unemployment (but not all added employment) systematically makes regulation too lax. Symmetry is not just an aesthetic nicety. If an agency broadening its analysis to include ancillary effects cannot establish a coherent, balanced and defensible line, rules based on that analysis will be essentially arbitrary.

IV. The Unquantifiable Residual

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8 The double counting analysis developed above applies to employment as well as unemployment. To see this, assume that a firm complies with a regulation generating a $100,000 compliance expenditure hires a new employee to carry out all of the work necessary for compliance. The firm pays the worker $100,000. The cost of the regulation remains $100,000, not $0.

9 See Masur & Posner, supra note 5, at ____ n. 101.
Unemployment does create impacts other than the often double-counted wage loss. I argued in previous articles that unemployment often has a profound psychological effect on workers, and Masur and Posner now embrace that argument. Accordingly, one can eliminate double counting but still have a residual harm that CBA could, in principle, count in all cases (ignoring, for argument’s sake, the asymmetry problem).

As a practical matter, that residual almost surely defies reasonable quantification, as my previous work pointed out. Masur and Posner, far from rebutting my previous assertion that regulators will find it impossible to estimate the monetary value of the psychological distress from unemployment, point out additional factors that make calculation of “non-pecuniary” losses even more complex and intractable. They point out that a loss of employment involves an increase in leisure time that an employee may value. Hence, valuing the residual left over when analysts dispense with double-counting involves not only unemployment’s negative psychological impacts, but the positive value of increased leisure time as well. People vary in how much value they attach to leisure time, and Masur and Posner do not show that a regulatory agency could make reasonably good dollar cost estimates of its value.

Masur and Posner also point out that the dollar value of unemployment depends in part on how long the workers losing a job because of an employer’s response to regulation remain unemployed and, if the job loss is not permanent, what sort of job they obtain when unemployment ends. So, they say, CBA must include an estimate of unemployment’s and underemployment’s duration. They acknowledge that the length of unemployment and underemployment depend upon a host of variables, such as whether the industries for which the worker is trained grow and how geographically flexible the worker is. Nowhere do they even consider the ability of agencies to make good estimates of these things. Declining industries have sometimes revived (witness the U.S. auto industry) and thriving industries have disappeared (e.g. the typewriter industry). Every worker who loses a job would like to know when she will find another one and what sort of pay and benefits it will offer. But nobody knows these things in advance. Assuming that a government agency can predict this sort of thing reasonably reliably on an industry-specific basis seems heroic.

Masur and Posner state that we cannot quantify employment benefits experienced by those able to work because of regulation’s public health benefits and therefore exclude those employment increases from CBA. But they apply no scrutiny at all to their own proposals’ long list of items that more thoroughly resist quantification.

The flaws in Masur and Posner’s analysis— the double counting of compliance costs distributed to workers through discharges, the asymmetries, and the failure to even consider whether agencies can calculate the dollar value of non-double counted residual— suggest there must be a better way. Masur and Posner acknowledge that the agencies do consider unemployment now. Indeed, their paper examines numerous examples of them doing so. The agencies estimate job losses from regulation and often list them in their regulatory impact

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10 See Driesen, Response, supra note 3, at 328 (stating that “CBA has no way of counting job loss’ impact on welfare, because” economists cannot measure the value of unemployment psychological effects).
analysis, the document that scholars always describe as embodying CBA. They simply do not quantify the job loss’ value in dollar terms.

The difficulties Masur and Posner’s article stumbles across suggest that the agencies may have acted wisely in declining to convert job loss estimates into dollar value estimates for purposes of tilting CBA. Instead, they consider plant shutdowns, and perhaps other job losses, in order to take them into account as they implement statutory mandates insisting that agencies, in many cases, should only impose “feasible” regulations. If a regulation forces numerous plants to shutdown, instead of install pollution controls (for example), perhaps it is not feasible.

Masur and Posner attempt to delegitimize this practice of considering job loss as part of a feasibility analysis by arguing against the reasonableness of agencies’ attempts to estimate the number of job losses (or increases) a regulation might produce. This argument, however, undermines their own proposal. For they identify quantifying the number of job losses a proposed regulation will produce as step one in their attempt to quantify the dollar value of unemployment impacts. If agencies do not estimate the number of jobs lost or gained reasonably well, it follows that any attempt to quantify the dollar value of regulation’s employment impacts on workers will be very far off. On the other hand, nothing in their analysis suggests that calculating the number of plant closures, as required by feasibility analysis, poses equally great difficulties.

The problems Masur and Posner find in agencies’ analysis of job losses reflect the uncertainties of the enterprise. It follows that neither the agencies nor the Office of Management and Budget will find it easy to properly estimate job losses, which regulated companies claim all the time but materialize much less often. These uncertainties tend to surface when a regulatory impact analysis presents job loss numbers by themselves with appropriate caveats, but tend to get lost if job losses becomes but one among hundreds of factors generating dollar values in a CBA.

Finally, Masur and Posner, in a reprise of our debates in other articles, argue that the feasibility principle—the principle that agencies should presumptively avoid widespread plant shutdowns—provides indefinite guidance to administrative agencies. For reasons that they never explain, they imagine that simply presenting a bunch of numbers (CBA) somehow solves this problem of statutory language inevitably leaving agencies with some difficult discretionary judgments. Even if Masur and Posner intend to rewrite statutes to make regulatory decisions hinge on a formula, rather than on the words one now finds in relevant statutes, the agencies would have difficulty coming up with non-arbitrary rationales for the judgments they make in coming up with numbers. Masur and Posner’s arbitrary methodology of double counting, asymmetric analysis, and heavy reliance on non-quantifiable variables hint at the difficulties expansion of CBA into matters of distribution and ancillary effects will create.
Conclusion

Masur and Posner begin their piece by citing a YouTube video depicting a hapless EPA official struggling to answer Congressman Gary Gardner’s question about whether economic analysis ignores job impacts. If Congressman Gardner had asked a different question—Does EPA consider job impacts in crafting technology-based regulation?—the EPA official would have had little difficulty answering yes. But CBA focuses on costs to consumers, not workers, and that focus enables it maintain a kind of conceptual coherence. Masur and Posner’s analysis inadvertently shows why squeezing jobs impacts into the CBA framework just does not work. Even if they eliminated double counting, symmetric analysis and accurate quantification of welfare effects would prove impossible.