Testimony before the Joint Economic Committee

Hearing on "Examining the Employment Effects of the Affordable Care Act"

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by

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Good afternoon Chairman Coats, Ranking Member Maloney and members of the Committee. Thank you for this opportunity to comment on the labor market effects of the Affordable Care Act.

Subsidizing health insurance in order to make it more affordable for a significant part of the population—as the Affordable Care Act does—necessarily involves the creation of disincentives to work and earn. The purpose of my testimony is to characterize the disincentives created by the Patient Protection and Affordable Care Act (hereafter, ACA) and to offer some estimates of their likely consequences for the labor market and the nation's economy as a whole. Results like mine are necessary for conducting a full cost-benefit analysis of the ACA, but they are not sufficient because (a) I have no estimate of the health and other benefits of subsidizing health insurance and (b) my analysis is limited to the insurance-coverage provisions of the ACA.[1]

My primary results relate to the character, size, and prevalence of the ACA's disincentives (and, in a few instances, incentives) to work and earn. The results require few assumptions about how people, businesses, and markets will react to the disincentives. Rather, these "tax measurement" results presented in Sections I and II are based on the law itself and measures of the structure of the labor market prior to the ACA. Sections III and IV offer estimates of the likely behavioral responses to the disincentives, which depend both on the tax measurements and historical observations of the effects of taxes.

Although elements of the ACA may push in the direction of more productivity and employment, they are overwhelmed by disincentives elsewhere in the law. Fully phased in, the ACA is likely to permanently reduce weekly employment and aggregate work hours three percent, and national income two percent, below what they would have been if the law had not been passed.

The remainder of my testimony offers more detail as to types and magnitudes of the economic forces involved. The testimony is my own and does not necessarily reflect the views of the University of Chicago.

I. The Economic Character of the ACA's Disincentives

The insurance-coverage provisions of the ACA that create disincentives have been variously described as taxes, penalties, assistance, credits, subsidies, and mandates, but most of them can either be understood as a tax on income or a tax on full-time employment.

[1] Those provisions are: the employer mandate, health insurance marketplaces and their related assistance programs, the individual mandate, and changes to the Medicaid program.

The ACA offers new assistance, credits, and subsidies for people without jobs or otherwise with low incomes.[2] Although these benefits are rarely called taxes by laymen, they have many of the characteristics of taxes because a program beneficiary loses some or all of her benefits as a consequence of either (i) earning more income or (ii) accepting a job, or both. The more income that a person receives when *not* working, the less is the reward to working.

In economics jargon, the withdrawal or "phasing out" of program benefits with beneficiary income is called an "implicit income tax." The ACA has at least three new implicit income taxes, which are part of its formulae for premium assistance amounts, cost-sharing subsidies, and end-of-tax-year reconciliation of premium tax credits. These new income taxes apply to the head of any household (and to the spouse, if there is one) in which head, spouse, or dependents are insured on the ACA's exchanges and receive one or more of these types of assistance. Among these people, the rate at which the ACA implicitly taxes incomes varies – it can exceed 100 percent in some instances – but I estimate that the average is about 20 percent (Mulligan 2014b, Chapter 5). This 20 percent is in addition to the longstanding taxes that people already pay on their incomes – such as normal federal income tax, state income tax, payroll tax, and the phaseout of income tax credits.

A majority of the full-time workforce will obtain health insurance through an employer, and thereby typically not experience the ACA's new income taxes while they are working. Nevertheless, the ACA creates a new implicit tax for them, too, that is arguably more important than the law's new income taxes. Specifically, employees offered affordable health insurance are deemed by the ACA to be ineligible for exchange subsidies until the moment they leave employment.[3] Their opportunity for exchange subsidies when not employed full-time reduces the costs of eliminating their job, temporarily suspending it, or failing to create the job in the first place. People without full-time jobs who receive the exchange subsidies will find that their eligibility ceases the moment they start a job and can be enrolled in affordable health insurance from the employer, even if starting the job does not increase income for the year.[4] From this perspective, the ACA's exchange subsidies have many of the economic characteristics of an implicit tax on full-time employment.

Full-time workers not able to obtain health insurance through their employer will, in effect, also experience a full-time employment tax (hereafter, FTET) from the ACA because their employment generates a penalty, or a threat of several penalties (more on that below) for the employer. The penalties and forgone subsidies can be avoided during any month by either working part time (defined by the ACA to be less than 30 hours weekly) or not working at all

[2] The ACA is not unique in this regard. Unemployment Insurance and the Supplemental Nutrition Assistance Program are two other examples of social programs that provide assistance on the basis of a participant's income or employment status.

[3] Section 36B(c)(2) of the Internal Revenue Code of 1986, as amended by the ACA.

[4] Normally, but not always (e.g., switching from part-time employment to full-time employment at the same weekly rate of pay), accepting a full-time position increases calendar-year income. But the point here is to distinguish between employment and income taxes. Income taxes deriving from the extra income generated by employment only add to the overall tax burden on that employment.

during that month. This is the essential economic characteristic of a full-time employment tax (hereafter, FTET).

Income taxes and FTETs are easily confused with each other because employment typically generates income, and thereby triggers income taxes. But the total tax burden on employment decisions includes the FTETs, too. Take the penalty on large employers pursuant to the ACA's employer mandate, which currently is $174 per month per full-time employee over eighty employees.[5] The $174 is not an income tax because it is what assessable employers owe for each full-time employee they add to a month's payroll during 2015, regardless of how rich or poor is the employee.[6] Full-time work is taxed by the $174 per month, at the same time that it is taxed by income and payroll taxes.

FTETs like these also reward full-time job separations such as layoffs, early retirements, and quits, as compared to what the costs and benefits would be without the ACA. Take an early retirement from a job that included health insurance. Before the ACA, such a retirement would require the employer and employee (together or individually) to continue to pay the full cost of the employee's health insurance even after he stopped working, or have the employee lose private insurance coverage.[7] From the perspective of employer and employee, the ACA shifts a significant part of this cost to the American taxpayer by offering assistance that is contingent on leaving the job.

Employers have already realized this, as with the City of Chicago, which "plan[ned] to start reducing health insurance coverage [in 2014] for more than 30,000 retired city workers and begin shifting them to President Barack Obama's new federal system" (Dardick 2013). New rewards for job separations give employers and employees less incentive to take steps that might avoid or delay layoffs, early retirements, and quits.

In February 2014, the White House responded to conclusions like these by celebrating job separations because the law supposedly helps people escape the drudgery of work by giving them "a better choice and a better option than they had before."[8] This conclusion contains a grain of truth because the health-insurance market before the ACA was tilted in the direction of employer-provided plans, but a complete economic analysis must also recognize the taxpayer burdens created by retirements, unemployment, and other cases in which able people are not

[5] The penalty in 2014 was $2,000 per year per full-time employee (over thirty), but was not enforced by the IRS (United States Internal Revenue Service 2015). After 2014, the penalty amount is indexed to health cost inflation as measured by the HHS secretary. Because she measured the inflation rate to be 4.213431463% (79 FR 13802), the annualized 2015 penalty is $2,084 per full-time employee (over 80, for 2015 only; see also Henry J. Kaiser Family Foundation (2014)), which is $174 per month. The monthly penalty rate for 2016 will be $181, because the premium adjustment percentage for that year has already been determined to be 8.316047520 (80 FR 10825).

[6] Appendix I of my testimony offers further illustration as to why the insurance-coverage provisions of the ACA have many of the economic characteristics of full-time employment taxes.

[7] The employer might have, for example, included early retirees (that is, people who retired before reaching the Medicare-eligibility age) in the company health plan, or the employee might have taken advantage of the COBRA provision to remain on the plan. A brief exception to the "full cost" situation was the temporary COBRA premium assistance program.

[8] The quote is from the Chairman of the White House Council of Economic Advisers, Jason Furman, as recorded by the *Wall Street Journal* (2014).

working. When these job separations occur, American taxpayers will have to start paying a significant part of the person's insurance premiums, plus extra taxpayer-financed Social Security benefits that early retirees may receive. And we must also count the income, payroll, and sales tax revenues that both state and federal governments lose as people pursue the "better option than they had before," as well as the tendency (if any) for the productivity of workers to exceed their compensation.[9]

II. The Size and Prevalence of the ACA's Disincentives

As an example of the extreme incentives that can be created by the implicit FTET, consider a hypothetical person comparing a part-time position to a full-time position in 2016. The full-time position, shown in the left column of Table 1, requires 40 hours of work and $100 of employment expenses (such as commuting or child care) per week, for 50 weeks per year. The part-time position requires 29 hours of work and $75 of employment expenses per week. Each position costs the employer $26 per hour worked, including employer payroll taxes and employer contributions for health insurance (if any).[10]

Only the full-time position includes affordable health insurance, which means a full-time employee would not be eligible to receive assistance from the ACA for premiums or for out-of-pocket health expenses. The employer pays 78 percent of the premiums for the family insurance plan and withholds the remaining premiums of $3,146 from the paychecks of participating full-time employees (they also pay out-of-pocket costs, which are discussed separately below). A full-time employee's income subject to tax is $35,021, which excludes employer payroll taxes (7.65 percent of the $35,021), employer health insurance contributions, and employee premiums withheld.

Part-time employees get less total compensation—$37,700—because they work fewer hours. The part-time employees are not eligible for ESI and the tax exclusions that go with it, which makes their income subject to tax ($35,021) equal to their total compensation minus employer payroll taxes. It is a coincidence that income subject to tax is the same for full-time and part-time employees; more on this below.

The part-time employees are eligible for subsidized health plans from the ACA's exchanges because they are not offered affordable health insurance by their employer. I assume that the second-cheapest silver plan has the same expected covered medical expenses as the employer plan, namely, $17,300 per year including out-of-pocket payments for the covered expenses that are not reimbursed by the plan because of deductibles, copayments, and so on. By

[9] The White House explanation also errs by claiming that basic economics assigns blame or credit for job losses that result from changing market distortions (see also Furman's 2014 interview with Fox News). The economics of tax incidence demonstrates that it does not matter – in terms of employment and the welfare of market participants – whether an employment tax is the legal liability of employers (thereby reducing the demand for employees) or the legal liability of employees (thereby reducing the willingness of people to work).

[10] The dollar amounts in Table 1 are in 2014 dollars. See Mulligan (2014b, Chapter 4) for further details.

definition, a silver plan's full premium finances 70 percent of expenses and is therefore $12,110 per year. However, because the employee has a family income subject to tax of 147 percent of the federal poverty line (the employee is the sole earner in a family of four), the ACA caps premiums for the second-cheapest silver plan at 3.9 percent of their income subject to tax, or $1,379 per year. The other $10,731 is paid by the U.S. Treasury to the insurer as an advance premium tax credit.

By design, the silver health plans have lower premiums and greater out-of-pocket costs (deductibles, copayments, etc.) than the typical employer plan. That design feature is visible in Table 1 because exchange plan out-of-pocket costs total $5,190 rather than the $3,000 of out-of-pocket health expenses associated with ESI. However, because the employee's family is at 147 percent of the poverty line, the employee gets an 80 percent discount on the out-of-pocket expenses, with the remainder paid by the U.S. Treasury to the insurer as a cost-sharing subsidy.[11]

After health and work expenses, the part-time employee makes $28,854 per year, which exceeds the full-time income ($27,021) after health and work expenses! Table 1 does not show the employee payroll and personal income taxes, but those would be the same for the full-time and part-time employee because the amount of the income subject to the two taxes is, in this example, independent of full-time status. Thus, the part-time employee makes more after taxes, health expenses, and work expenses.

None of Table 1's results reflects the ACA's employer penalties because the comparison shown is for positions at employers that are offering affordable coverage to their full-time employees, whereas the penalty applies to large employers that are not offering affordable coverage. But Table 2 illustrates how the penalty can be as prohibitive as the implicit full-time employment tax is.

Large employers not offering coverage and having more than 49 full-time employees in 2016 will, as a consequence of the employer penalty, owe $2,166 per year for every full-time employee they add to their payroll. Small employers (as defined by the ACA) do not owe penalties, but the status of being a small employer itself depends on the number of employees.

Three possibilities are itemized in Table 2, for employers without any part-time workers. The first row represents employers with fewer than 49 employees, who can hire one more full-time employee without owing a penalty. The third row represents employers with 50 or more employees, who would add the aforementioned $2,166 to their penalty liability if they hired one more full-time employee, as shown in the Table's middle column.

The middle row represents employers with exactly 49 employees. For them, the penalty cost of hiring just one more full-time employee is at least $43,320. In other words, an employer that is paying no penalty still faces the threat of at least $43,320 in penalties, in addition to an

[11] In other words, the silver plan with cost-sharing subsidies limits average out-of-pocket charges to 147-percent-of-poverty families to 6 percent of the average total expenses of $17,300. The cost-sharing subsidy that achieves this limit is shown in Table 1's row (11): $4,152.

employee's normal salary and benefits, for hiring his 50th full-time employee![12] The sharp disincentive at crossing the large-employer threshold is one reason why the labor market disincentives of the employer penalty loom large relative to the amount of revenue to be obtained from the penalty.[13]

A second reason that the disincentives associated with the employer penalty are surprisingly large is that each $1,000 of penalties is more expensive than each $1,000 of employee salary because the penalties are not deductible for the purposes of determining the employer's business income taxes.[14] At a marginal business income tax rate of 39 percent (federal and state combined), $2,166 worth of penalties reduces the employer's bottom line the same as adding $3,298 to an employee's salary. The salary equivalents of the marginal penalties are shown in the final column of Table 2.

The economic significance of each $1,000 of FTET is related to each employee's wage rate. Low-wage employees need to work more hours to create $3,298 worth of value for their penalized employer (or, in the case of the implicit FTET, to earn enough after-taxes to make up for premium assistance that is forgone on the basis of employment status) than high-wage employees do. To put it another way, $3,298 is a larger percentage of a $20,000-per-year employee's salary than it is of a $200,000-per-year employee's salary. In the former case, FTETs create particularly strong incentives to rearrange work schedules in order to reduce the amounts of penalty paid or subsidies forgone.

One way to evaluate the economic significance of FTETs is to convert them into hours per week by dividing weekly dollar amounts by an estimate of each worker's hourly compensation. Take, for example, a worker experiencing a $100 weekly FTET (specifically, this is the weekly salary equivalent of the exchange subsidies that she forgoes because of her employment status). Her job compensates her $20 per hour, then it takes her 5 hours to earn $100. I refer to the 5 hours per week as the "hour equivalent" of her FTET.

Mulligan (2015) uses Current Population Survey (CPS) data to make such a conversion. Individual-level results vary widely, and differ from the $100 example above, because individual situations vary. Table 3 attached to my testimony is reproduced from Mulligan (2015), and

[12] I have not yet seen the IRS forms for submitting penalty payments, and therefore do not know at what point in the calculation penalties are rounded to the nearest dollar. There are other reasons why the marginal cost of crossing the large-employer threshold can differ from $43,320. One complication is the look-back provision: large-employer status is based on employment in the year prior to the coverage year, whereas the penalty amount is based on employment in the coverage year itself. For example, the consequence of adding the one employee to the payroll in 2015 that puts the employer over the large-employer threshold could be $216,632 for 2016 if the 2016 payroll is going to have 130 full-time employees. Another consequence of the look-back provision is that part of the penalty serves as a tax on work hours rather than full-time employment, because the look-back refers to full-time-equivalent employees rather than full-time employees. For simplicity, my testimony ignores the look-back provision and discusses large-employer status as if it were determined in the coverage year on the same basis as the penalty amount.

[13] Specifically, the especially sharp disincentive comes from the fact that the law collects no penalty revenue from small employers.

[14] Sections 4980H(c)(7), as amended by the ACA, and 275(a)(6) of the Internal Revenue Code of 1986. The conversion from penalty amount to salary equivalent is obtained by dividing by 1.0765 (representing employer payroll taxes) and then dividing again by one minus the employer's marginal business income tax rate.

summarizes the typical amounts in the working population. The columns are different methods of quantifying "typical." The rows differ according to the form of the FTET (penalty versus the implicit FTET from the withholding of subsidies), whether workers not directly experiencing FTETs are included in the population (final row) and, whether, from a worker's perspective, exchange subsidies are worth the same as an equivalent amount of cash.[15]

The top row of the table shows that, among people working for an employer not offering coverage, the employer penalty is typically equivalent to the amount of salary generated in about four hours per week of work for every week of the year. The second row shows that the exchange subsidies forgone by workers solely because they have a job and their employer offers them coverage are typically equivalent to the amount of salary generated by 7.5 to 10.5 hours per week of work (that is a full day, or more) for every week of the year.

The second row of Table 3 also helps put Table 1's example in the context of the actual situations experienced by the nation's workers. In Table 1, the exchange subsidies are equivalent to more than 12 hours per week, which is why the worker can have more to spend by cutting his schedule by 11 hours per week. 12 hours per week is somewhat more than the averages shown in Table 3's second row. Therefore, while there are millions of workers who are like the one shown in Table 1 in that part-time work offers more net pay than full-time work (Mulligan 2014b, Table 4.9), there are even more workers for whom the ACA significantly reduces the financial reward to full-time work without fully eliminating it.

Table 3's bottom row shows the typical FTET amounts for all workers, including the slim majority (54%) of workers who will not directly experience either of them.[16] Still, the average amount for the entire workforce is equivalent to at least 2.5 hours per week, which is six percent of a 40-hour schedule. In other words, the ACA's FTETs together have a lot in common with a six percent tax on all full-time employment.

Figure 1 summarizes the economic importance of three major disincentives that came with the health reform. The first is the implicit full-time employment tax that comes from the fact that most full-time jobs automatically prohibit people from getting the law's new assistance. The middle is the employer penalty, and the last represents the implicit income taxes that come from the fact that assistance is phased out on the basis of a family's income.

The black bars are showing the percentage of workers who will directly experience each tax.[17] If you add the black bars together, and adjust for a bit of double counting because some workers will experience multiple of the taxes, you get 46% of the workforce.

[15] The bottom three rows of the table assume that workers value exchange coverage at 75% of the plan's unsubsidized premium.

[16] Workers offered coverage by their employers and living in families with incomes above 400 percent of the poverty line are a primary example of workers who would not be able to get exchange subsidies merely by changing their employment status.

[17] Such workers either work for a penalized employer, work for an employer whose growth would be subject to especially large penalties (recall the middle row of Table 2), receive means-tested assistance that was created by the ACA, or forgo that assistance solely because of their employment status.

The red bars show the average amount of the tax among the workers who will face it. For comparability, I have converted all of these taxes to a percentage of median full-time earnings.

The percentages are large. For this 46% of the workforce, the ACA's disincentives are of the magnitude of the entire payroll tax, except that the ACA's disincentives are not replacing the payroll tax but rather adding to it.

The ACA also contains provisions that, in some circumstances, encourage work and earning. An example is an increase in the incentive to earn above the poverty line rather than below it, created by the ACA's provision that the new exchange subsidies are not available to families living below the poverty line. The ACA also has provisions expected to reduce uncompensated care costs, and health care costs overall. These may also create some new incentives to work and earn. However, these various incentive-creating provisions can be measured on the same scale that this testimony measures the ACA's FTETs and its implicit income taxes. Doing so, Mulligan (2014b, Table 9.1) finds that the ACA's incentives are, in combination, an order of magnitude less than the ACA's disincentives. As a result, the provisions examined in my testimony (namely, the three types shown in Figure 1) also accurately represent the combined effect of several additional ACA provisions, including those that might encourage work.

III. The Likely Economic Consequences

It is too early to directly measure the labor market consequences of a fully phased-in ACA. First, the employer mandate was not enforced in 2014, and is only partially enforced this year. Second, participation in exchange plans is still low, due in part because the penalty pursuant to the individual mandate will not reach its full amount until next year, and also the problematic 2014 rollout of the exchanges themselves. Third, 2014 was the first year in some time that the Emergency Unemployment Compensation (EUC) program was not operating, and the expiration of EUC introduces incentives that offset some of the ACA's disincentives.[18]

But the ACA is not the first time that taxes have been changed or created. Historical episodes of tax changes give us an idea as to the likely effects of new tax changes. These episodes, as synthesized in meta-analysis of micro-econometric studies, are the basis for the estimates provided here.

The estimates here are limited to the long-run effects of the ACA's disincentives on employment, hours, and productivity. It is limited to long-run analysis in the sense that market

[18] See Mulligan (2012, Chapter 3), Mulligan (2014b, Chapter 9), and Hagedorn et al (2015). It has also been asserted (Sanzenbacker (2014) and the Department of Health and Human Services, as quoted by Contorno (2013)) that the national labor market effects of the ACA will be essentially the same as the statewide labor market effects of Massachusetts 2006 health reform, but in fact the two health reforms differ by at least an order of magnitude in terms of the labor market disincentives created (Mulligan 2014b, Chapter 10).

participants are assumed to understand and adapt to the new taxes, that market prices are assumed to be flexible, and workers are mobile.[19] I begin with a discussion of the relationship between FTETs and employment taxes, largely because the two have much in common and employment taxes have been more widely studied. I then discuss effects of the FTETs on weekly hours per employee and on output per hour.

Fully phased in, the ACA is likely to permanently reduce weekly employment and aggregate work hours three percent, and national income two percent, below what they would have been if the law had not been passed.

III.A. Employment rates

Suppose for the moment that hours per week were a fixed characteristic of a worker, perhaps based on her occupation or family situation, so that the only real choice in the labor market is the number of workers on the payroll each week. In this case, the FTETs would just be employment taxes and thereby reduce the weekly employment rate. When combined with its income taxes, the ACA would be reducing the average weekly employment rate by about three percent below what it would have been without the ACA (Mulligan 2014b, Chapter 6).

The effects on employment vary by sector and type of worker because the amount and economic significance of the FTETs also vary in these dimensions. The ACA disproportionately taxes large employers, low-skill employees, full-time employees, near-elderly employees, and employees heading large families (Mulligan 2015). The ACA also differentially taxes employers offering coverage, although the direction of the difference varies by type of employee.

I presume that, in the long run, employees are free to choose employers on the basis of size and benefit offerings. This does not mean that everyone avoids the implicit and explicit employment taxes, just that employees who avoid them pay for the privilege of doing so in the form of lower wages. In effect, all employees of the same skill, age, work schedule, and family composition face an employment tax regardless of the type of employer they have, as if the ACA's FTETs had been uniform by type of employee in an amount equal to the average FTET.[20]

Of course, a sector-specific tax reduces the size of the taxed sector. However, the fact that employment shifts away from sectors that are more heavily taxed does not mean that the aggregate employment effect is small. As long as a few workers remain on the margin between

[19] Most of the "long-run" effects should be present within about four years of 2014 (the first year of the exchanges). Over a longer time frame, health and other human capital effects of the law would be important and, as noted at the outset, are excluded from my analysis. At the time of writing, I am unsure of the direction of the net effect of the ACA on health: see, for example, Cole, Kim and Krueger (2012).

[20] This is the theory of equalizing differences (Rosen 1986), and has been an important part of tax incidence theory (Harberger 1962).

the taxed and untaxed sectors, workers in the untaxed sector are induced to work less because the tax reduces their wages.[21]

III.B. Weekly work hours

Jed Graham (2014) has documented hundreds of instances in which employers say that they will cut jobs or work hours in response to the ACA. Particularly salient are the stories of workers to be put on 29-hour weekly schedules so that they are deemed part-time workers (and thereby penalty free) by the ACA. My analysis agrees that the ACA will make 29-hour schedules far more common than they used to be. However, these are schedules that often would have been less than 35 hours without the ACA.[22] A complete analysis must also consider the ACA's effect on the schedules that most jobs have: 40 hours or more.

In a few instances of low-wage jobs, 40-hour schedules may be reduced to 29, because part-time work is one way that FTETs can be avoided. But the other way that FTETs can be avoided is fewer workers overall. My analysis suggests that the far more common adjustment to FTETs will be fewer employees each of which has a somewhat *longer* weekly schedule in order to make up for *part* of the work and income lost due to reduced employment. In other words, FTETs increase the *inequality* of work schedules – with relatively short schedules getting shorter and relatively long schedules getting somewhat longer – but may have little effect on the *average* weekly hours worked by those who are employed.

A conventional wisdom says that employment rates increase to fully "compensate" for work hours lost from taxes on full-time schedules. Under this view, more people working 29 hours rather than, say, 34, would mean that employers simply have to hire more or keep workers on the payroll longer in order to accomplish the tasks necessary to conduct their business. The conventional wisdom fails in two ways. As noted above, full-time employment taxes can be avoided by reducing employment and *increasing* hours per employee.

Moreover, even if full-time employment taxes were avoided by reducing weekly work hours, there would not be a commensurate increase in the employment rate because weekly hours would not be reduced for normal business or personal reasons, but rather to avoid penalties and implicit taxes. The penalties and implicit taxes make the business of an employer more expensive, or being an employee less rewarding, even in those cases when people avoid the new tax by adjusting their employment conditions rather than writing a check to the federal treasury.

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[21] This is why I disagree with the Congressional Budget Office's (2014, p. 120) conclusion that "the cost of forgoing exchange subsidies operates primarily as an implicit tax on employment-based insurance, which does not imply a change in hours worked." Because of compensating differences in the labor market, their conclusion does not follow from CBO's premise that "the tax can be avoided if a worker switches to a different full-time job without health insurance (or possibly two part-time jobs) or if the employer decides to stop offering that benefit." In other words, the avoidance behaviors cited by CBO have costs that reduce the net benefits of employment generally.

[22] Note that the ACA and the Bureau of Labor Statistics (BLS) have different definitions of full-time work. Changing 34-hour schedules to 29-hours is considered a change from full time to part time by the former definition, but a change from part time to part time by the latter definition. For this reason, BLS data will not show much of the ACA's effects on work schedules, even when the law is fully phased in (see also Casselman (2015)).

Some employers may go out of business, or never start their businesses in the first place, because of the extra cost of the tax (or the costs of adjustments needed to avoid the tax) or because of the additional costs (e.g., higher wages) needed to attract workers to positions that render them ineligible for exchange subsidies. The net result is that the labor market will involve fewer total hours, and that higher employment rates, if any, will not be enough to compensate for the reduced hours per week. This economic reasoning has been confirmed by empirical studies of previous public policies that raised the relative employer cost of weekly work hours, and failed to create a commensurate increase in employment because the average hour worked by employees had been made more expensive or less productive.[23]

My estimates suggest that the ACA's two opposing effects on weekly work hours among employees will offset on average, so that the fixed-weekly-hours thought experiment discussed above is a good description for the purposes of understanding the law's effects on overall averages. In particular, I estimate that the ACA will reduce the nationwide weekly employment rate and aggregate hours worked by about 3 percent below what they would have been without the ACA.[24]

III.C. Productivity

The Affordable Care Act has several effects on productivity (which refers to the value created in the economy per hour worked) and therefore several effects on average wages.[25] Households and businesses sacrifice productivity in order to rearrange activities for less of a tax burden. These include excessive part-time work, segregation of low-skill and high-skill employees, constricting large employers in order to expand small ones, and failing to invest as much in business capital.[26]

Take the case of small versus large businesses. Each type of business has its own advantages. Large businesses can be more bureaucratic and its leaders have a greater challenge digesting and organizing the large number of activities in their establishment. But large businesses enjoy economies of scale in other things, such as marketing, the use of specialized

[23] See especially the book by Hart (1987) and the literature surveyed by Hamermesh (1996a, Chapter 3) and Hamermesh (1996b, pp. 106-7). See also Garicano, Lelarge and Van Reenan (2013) who show how employment taxes increase hours per employee.

[24] See Appendix II for a more detailed demonstration of why the employment effect is 3 percent (in the direction of less employment) rather than, say 1 percent or 10 percent. The 3 percent estimate is an impact and not an estimate of the employment rate change between, say, 2012 (before the exchanges and penalties took effect) and 2016. Non-ACA factors, such as the aging of the workforce and the expiration of the Emergency Unemployment Compensation program, have also been changing between 2012 and 2016.

[25] Value added refers to the market value of the various types of production that occur in the economy net of interbusiness transactions (that is, when one business' production is part of the materials or services that another business uses to produce). Although the term value added is sometimes used synonymously with "production," the former depends not only on the physical quantities of items produced but also on the value of all of that production as measured by the price the final consumer pays. This distinction is important because one of the consequences of the ACA can be to increase the frequency of transactions with relatively little value at the expense of other transactions that would be more valuable.

[26] In technical jargon, these are the kinds of "misallocation" effects on productivity emphasized by Restuccia and Rogerson (2008) and Hsieh and Klenow (2009)).

and expensive equipment, and providing a wider range of benefit options to their employees. Their distinct advantages allow small and large businesses to coexist in the marketplace, and encourage them to take on the types of activities that profit most from their advantages. Absent taxes and regulations, the marketplace allocates activity between small and large businesses to maximize total value to customers, employees, and owners, thereby balancing the value of large businesses' advantages with the costs of their disadvantages.

Starbucks, which has thousands of coffee stores most of which are company owned, coexists in many markets with independent coffee shops and with franchised coffee shops like Dunkin Donuts.[27] The consumer market for coffee is thereby continually allocating employees, materials, and customers between these types of shops on the basis of location, employee preferences, and consumer preferences. The market at one location may support a Starbucks rather than the others because Starbuck's upscale product or familiar brand especially appeals to the customers in that area, or employees especially appreciate the benefits of working for Starbucks. At the same time, an independent shop may be located in another place where the owner is especially familiar with the local area's customers or employees appreciate a small business working environment rather than a corporate one. These are examples where the market is creating value for customers and employees by featuring a mix of suppliers. Forcing (that is, without the consent of any of the market participants) one type of shop to be replaced by another type would destroy some of that value.

The Affordable Care Act does not literally force coffee shops to change type, but its penalties and subsidies give a strong push that is unrelated to the fundamental customer, employee, and owner preferences in that marketplace. The employer mandate pushes small employers to replace large ones, for example an independent shop to replace one of the Dunkin Donuts locations owned by a multi-unit franchise because the latter is handicapped by the costs associated with the employer mandate.

Although Starbucks was already offering health insurance to its employees, this offer had conferred the company with a well-earned competitive advantage in the market for employees, and the health reform erodes some of that advantage. In this way, the health reform might also cause an independent shop to replace a Starbucks location, or an independent shop to start in a location where a Starbucks would have without the health reform.

Law-induced changes like these affect productivity, and generally in the direction of less productivity unless the market had previously failed to have enough of the subsidized businesses and had too many of the penalized ones. Activity moves away from large business and toward small business despite the lost productivity because the activity is moving to avoid the ACA's employer penalty. The managers of these businesses do not maximize productivity per se, but rather what they produce net of penalties, taxes, and other costs.

[27] Jargon (2013) and Dunkin' Donuts (2014) describe ownership structures for Starbucks and Dunkin' Donuts, respectively. Of course, Dunkin' Donuts sells more than just coffee.

Not all of the labor reallocations induced by the ACA reduce productivity. The ACA's subsidies will induce, among other things, a segment of the population to move from employer-sponsored coverage (ESI) to individual coverage, and my analysis accounts for the fact that some of them will raise the nation's productivity by doing so because it was inefficient for them to have ESI in the first place (they were sacrificing productivity in order to enjoy the longstanding tax-avoidance advantages of ESI). For example, absent the ACA there may have been too many Starbucks locations and not enough independent coffee shops because Starbucks is an ESI employer (Starbucks 2014) whereas the independent shops typically are not. Perhaps such instances of productivity gain should be interpreted as the purported ACA-induced surge in entrepreneurship that has been advertised as a labor-market benefit.[28] However, this benefit has to be put in the context of the subsidies involved: both the amount of the subsidies that were suppressing entrepreneurship in the first place, and the amount of the subsidies that are being used to get people to give up their ESI. Moreover, "entrepreneurship" is by no means the only margin on which the ACA operates; among other things, its employer penalty encourages part of the population to give up its individual coverage and get ESI instead![29] A comprehensive productivity analysis has to consider the productivity-reducing forces together with the productivity-increasing ones.

ACA-induced reallocations are not limited to coffee shops or even to substitution between large and small firms because the ACA affects incentives in many other dimensions of business behavior. Including the productivity effects of the employer penalty and the exchange subsidies, the overall productivity effect is 0.9 percent in the direction of less productivity Mulligan (2014b, Chapter 8). In the long run, workers are paid according to their productivity, so 0.9 percent less productivity by itself means wages will be 0.9 percent lower.

The ACA will also distort the way that productivity is measured, giving the appearance of more productivity than there really is. The FTETs likely change the composition of the workforce because they are more significant for low-skill workers. All else the same, a workforce that excludes low-skill workers appears to be more productive. People and businesses may also misreport hours worked (or manipulate their measurement, or at least be careful to avoid accidentally over-reporting work hours) so that the employer avoids a penalty or the employee remains eligible for exchange subsidies. Misreporting hours and incomes is not necessarily an alternative to genuine adjustments of hours and incomes, especially if misreporting has limits and the ACA's income or employment taxes are still experienced by workers who misreport. But the misreports would give the (false) impression that workers have become more productive, because productivity is measured as output per reported hour worked.

[28] Over 300 economists wrote to Congress urging them not to repeal the ACA, asserting, among other things, that "reform-induced expansions in insurance coverage would spur many talented Americans to launch their own companies" (Cutler, et al. 2011). See also Bailey (2013), Gruber (2009), and Council of Economic Advisers (June 2009, p. 38).

[29] Workers who pick up the ESI will tend to be more skilled than those who drop it for individual coverage, so the ACA may end up reducing the average quality of entrepreneurs, if the word "entrepreneurs" is how we describe workers without ESI.

III.D. Misperceptions about tax effects

It is sometimes claimed, by non-economists at least, that the safety net does not prevent anyone from working because everyone strives to have more income rather than less, and would gladly take any available job that paid them more than the safety net did. This "income maximization" hypothesis is contradicted by the most basic labor market observations, not to mention decades of labor market research.

Before the recession began, over 80 million American adults were not working. To be sure, some of them could find no reward in the labor market and would be stuck without gainful employment no matter how lean the safety net got. But many others were not working by choice. You probably know skilled stay-at-home mothers or fathers who could readily find a job but believe that the net pay from that job would not justify the personal sacrifices required. They are examples of people who deliberately do not maximize their income. Other examples are people who turn down an out-of-town promotion in order to avoid relocating their families, and workers who eschew higher paying but less safe occupations. Earning income requires sacrifices, and people evaluate whether the net income earned is enough to justify the sacrifices.

When social programs pay more to people not working, the sacrifices that jobs require do not disappear. The commuting hassle is still there, the possibility for injury on the job is still there, and jobs still take time away from family, schooling, hobbies, and sleep. But the reward to working declines, because some of the money earned on the job is now available even when not working.

A related fallacy is that employees would do absolutely anything to avoid a layoff, regardless of the amount that layoffs are subsidized. It is true that employers sometimes experience reductions in demand from their customers, as auto manufacturers and home builders did early in the recession. But layoffs are not always the inevitable result. Employers and employees might be able to adapt to less demand by work sharing (Baker 2011), reducing prices charged to customers, reducing wages, or have pursued a less cyclical line of business in the first place. Heavy layoff subsidies, such as those created by the ACA, give them less reason to pursue the alternatives to layoffs (Topel and Welch 1980).

Decades of empirical economic research show that the reward to working, as determined by the safety net and other factors, affects how many people work and how many hours they work. To name a small fraction of the many studies: Hoynes and Schanzenbach (2012) show how potential participants stopped working or reduced their work hours when the food stamp program was introduced. Studies of unemployment insurance find that program rules have a statistically significant effect on how many people are employed, and how long unemployment lasts. Yelowitz' (2000) research shows how a number of single mothers found employment exactly when, and where, state-level Medicaid reforms increased their reward from working. Gruber and Wise (1999) and collaborators show how the safety net for the elderly results in less employment among elderly people. Autor and Duggan (2006) and the Congressional Budget Office (2010a) explain how the number of disabled people who switch from work to employment-tested disability subsidies depends on the amount of the subsidy relative to the

earnings from work. Murphy and Topel (1997) show how poor wage growth among less-skilled men helps explain their declining employment rates during the 1970s and 1980s.

Among the hundreds of labor market studies, two of them – Rothstein (2011) and Ben-Shalom, Moffitt and Scholz (2011) – have been misrepresented as showing that recession-era safety net expansions had no visible effect on employment. Ben-Shalom et al. (2011) looks at the pre-recession safety net, and thereby does not consider the safety net expansions that have occurred since then. Rothstein (2011) looks at the allowable duration of unemployment benefits, finding that benefit durations have a statistically significant effect on unemployment exits, but otherwise does not examine a single one of the many other safety net program parameters that were changing at the same time. Neither study considers layoff subsidies or what happens when marginal tax rates approach one hundred percent, as in my Table 1.

The direction and order of magnitude of the ACA's employment and aggregate hours impacts are clear, but their precise magnitudes depend exactly on how the labor market responds to taxes generally, and the ACA's taxes specifically. In terms of the general tax responsiveness, I assume that the labor markets of the future will continue to respond as they have in the past as micro-econometricians have measured from "natural experiments" and other historical instances of tax changes. It would be going much too far to conclude that taxes do not matter, but one could reasonably assert that somewhat less, or somewhat more, responsiveness to taxes is consistent with the historical evidence. In addition, the ACA's taxes are unique: the politically precarious employer penalty is highly nonlinear as to the size of the employer, and avoidance of the implicit full-time employment tax requires participating in the law's new health insurance plans. Hardly any historical tax has been truly uniform across workers, but some of the concentration of the ACA's taxes is novel.

I do not assume that everyone has, or even that most people have, an intimate understanding of tax incentives. I use the historical experience from actual tax changes experienced by actual people, however knowledgeable or unaware people were during those episodes. The real question is whether taxpayers will be less knowledgeable than they have been in the past.

People can also receive assistance and advice from others who are knowledgeable. Personal finance columnists began offering advice even before the exchanges opened in 2013 (Davidson 2013; Pender 2013), with headlines like "Lower 2014 Income Can Net Huge Health Care Subsidy." The federal and state governments have hired navigators—20,000 in California alone—to help people understand the exchanges and the application process (Bagley 2013). I also expect large employers to help their workers navigate the complexities of the ACA's health insurance plans. For example, Walmart is working "with a health coverage specialist to guide workers through the process of finding alternative coverage" (Tabuchi 2014).

IV. Conclusions

The bottom line is that helping people who cannot or will not purchase health insurance has a price in terms of labor market inefficiency. The ACA is no exception: it creates new income taxes and full-time employment taxes that will be directly experienced by about half of the workforce and indirectly experienced by essentially the entire nation. As long as incentives to work and earn remain far below what they were eight or nine years ago, we cannot reasonably expect the labor market to return to where it was back then. We cannot expect employment per capita to go back to where it was.

Nobel laureate James Tobin was a leading Keynesian economist and key adviser to President Kennedy, and pointedly described the large disincentives that sometimes come out of social programs. He said that they "caus[e] needless waste and demoralization…. It is almost as if our present programs of public assistance had been consciously contrived to perpetuate the conditions they are supposed to alleviate." (Tobin 1965, p. 890)

V. Appendix I: Subsidies and Penalties Together Tax Full-time Employment

Figure 2 illustrates some of the economic relationships between the ACA's employer penalties and the exchange subsidies by measuring how they depend on the monthly employment situation of nonelderly household heads and spouses.[30] A full-time worker for an "ESI" employer—that is, an employer that conforms to the employer mandate by offering employer-sponsored insurance coverage to its full-time employees—is ineligible for exchange subsidies. Every other kind of worker and nonworker is potentially eligible, which is why the pink subsidy bars appear only next to the top two employment situations in figure 2.[31] As noted above, the employer penalty applies to persons who work full time for a non-ESI employer (i.e., one that does not offer coverage), but not to any other kind of employee, which is why a black penalty bar appears only next to the top employment situation. Each employment situation's red star indicates the net subsidy, that is, the length of the subsidy bar (if any) minus the length of the penalty bar (if any).

The non-ESI full-time situation has a net-subsidy star close to zero ($623 per year, to be exact) because its penalty and subsidy bars are approximately equal. The ESI full-time situation has a net-subsidy star at exactly zero because neither subsidies nor penalties apply. But we cannot conclude that full-time employment is unaffected because the alternatives to full-time employment—namely, part-time employment or not working—receive a significant net subsidy. Figure 2's middle employment situation is the only one in the chart where the subsidy can be received without an offsetting penalty. By subsidizing without penalties all employment and nonemployment situations except full-time work, the ACA is creating a large hidden full-time employment tax.

[30] Figure 2 is reproduced from Mulligan (2014b, Chapter 4).

[31] The length of figure 2's pink subsidy bars is the salary equivalent of the average subsidy forgone among the 64 million workers who work full time for an ESI employer, including zeros in the average for many of them whose employment status is not the only reason for their subsidy ineligibility. The measurement and composition of this average is explained further below.

VI. Appendix II: Why 3 Percent Less Work?

The ACA will likely reduce the amount of labor used in the economy because, as explained above, labor is what the ACA is taxing. The law is creating a new set of subsidies that reduce work incentives as they are financed from taxpayers (e.g., employer-penalty payments) *and* as they are distributed to beneficiaries. The logic of supply and demand tells us that when we tax something we get less of it.[32] Because the size of the effect depends on the size of the tax, the bottom line from Table 3 is critical: the ACA increases average full-time employment tax (FTET) rates by more than 2 hours per week. In addition, the ACA increases average income tax rates by 1.9 percentage points.[33]

In order to translate the tax amount estimates into a simple but rough estimate of the law's overall impact on the amount of work in the economy, let's assume for the moment that weekly work hours are a fixed characteristic of a worker, perhaps based on her occupation or family situation, so that the only real choice for workers is the number of weeks that they are at work. In this case, the FTETs have no direct effect on part-time workers because those workers pay the same FTET amount regardless of how many weeks they work: zero. For full-time employees, who are about 83 percent of all employees, the FTETs are simply an employment tax because, by assumption, not working is the only way that such employees can avoid it.

Because the FTETs amount to 5.4 percent of a full-time schedule for full-time workers and zero for part-time workers (the remaining 17 percent of the workforce), the FTETs are, on average, of the same magnitude as a 4.5 percent employment tax on all employees, as derived in rows (1)–(3) of table 4.

Row (4) is the average implicit income tax rate created by the ACA. This income tax is in addition to the FTETs. Altogether, the ACA taxes plus the non-ACA taxes of 25 percent add up to 31.3 percent. According to this calculation, the average 2016 worker under the ACA keeps 68.7 percent of what he earns at the margin, as compared to the 75.0 percent that he would have kept if the ACA had not been passed. This is a 6.3 *percentage point* reduction in the reward to work, which is 8.8 percent of the reward to work itself.[34]

[32] In theory a tax on labor might not reduce labor in the long term because of a large aggregate income effect of taking resources away from households (e.g., to fight a war). However, the offsetting income effect is not applicable to the ACA because the taxes in that law are used to finance redistribution: government transfers and/or purchases that are close substitutes for private purchases. In this regard, the ACA's effects on the amount of labor have a lot in common with the effects of a negative income tax.

[33] 1.9% is the product of the heights of Figure 1's last black bar and its last red bar.

[34] To be exact, 6.3 percentage points is 9.2 percent of 68.7 and 8.5 percent of 75.0; the −8.8 percent shown in table 4's row (8) is essentially the average of these two.

The final estimation step is to approximate the direction and amount of the impact of an 8.8 percent reduction in the reward to work on the aggregate amount of work. Both everyday experience and extensive labor economics research has shown that, when labor taxes reduce the economic rewards that work generates for employers and employees, some of them respond to taxes by creating, retaining, and accepting fewer jobs. Obviously a great many people would not quit their job, shut down a business, or reduce work hours in response to a tax because the gains or "surplus" they get from working and producing far exceed the tax amount. But it's wrong to conclude that all people and businesses have a surplus from working that is large enough to withstand all of the ACA's taxes.

The logic of supply and demand therefore predicts that the ACA will reduce the average amount that people work by moving some of the low-surplus workers, some of the time, from working to not working. Before the Affordable Care Act was passed, much evidence had accumulated as to the effects of labor taxes on the amount of labor used in the economy. This evidence ranges from income tax reforms to household experiments to country comparisons to the rollout of social programs with implicit taxes. Unemployment benefits are an example of an implicit employment tax, and one that has been well studied.[35] Unemployment benefits reduce labor supply both by discouraging unemployed people from returning to work (Krueger and Meyer 2002) and by encouraging layoffs (Topel and Welch 1980). Although economists continue to gather new data and reconcile the variation in results among historical studies, the evidence is also starting to show roughly the amount that labor is reduced with every unit by which taxes reduce the reward to work. From a slightly conservative reading of all this (that is, leaning in the direction of less responsiveness), I assume that aggregate hours worked fall, in the long run, about 0.36 percent for every 1 percent that taxes reduce the economy-wide average reward to working, including both the substitution effect and the aggregate income effect of the taxation.[36]

The 0.36 reward coefficient is entered in table 4's row (9). Multiplying it by the ACA's impact on the reward to work (row (8)), the reward coefficient is enough to give us an estimate of the ACA's percentage impact on aggregate work hours. That product is shown in the final row of table 4 and says that the ACA will reduce aggregate work hours 3.2 percent below what aggregate hours would be without the ACA.

[35] One difference between the ACA's FTETs and unemployment benefits is the treatment of people out of the labor force: they are eligible for ACA subsidies but not unemployment benefits.

[36] This conclusion is for tax revenues that are spent on transfers or on goods and services that are close substitutes for household spending. Mulligan (2014b) explains how I use Chetty et al.'s (2011) survey and synthesis of the micro-econometric literature to estimate the reward coefficient.

Although the 3.2 percent estimate assumes uniform taxation, it does not imply that the responses to taxation are uniform. The 0.36 reward coefficient reflects the historical-average response to taxes, which includes large responses by some people and small—often zero—responses by others. It is both a logical fallacy and inconsistent with the historical evidence to conclude from instances of zero response that the average response is also zero. Table 4 says that 3.2 percent of the work that would have been done without the ACA will not be done; the other 96.8 percent of work will continue even under the law. For many of the same reasons that the vast majority of people who work will continue to do so even during severe recessions, the vast majority of people who work will continue to work despite the ACA's disincentives.

To be clear, table 4 is just an illustration that takes a number of shortcuts so that the result can (a) be understood with just simple arithmetic and (b) have its ingredients limited to just the essential economic forces. Table 4 assumes fixed weekly work hours, uniform taxation, and fixed worker productivity at the margin despite the reduced amount of labor supplied. Mulligan (2014b, Chapter 6) relaxes these assumptions in order to obtain more accurate estimates, which turn out to be remarkably close to the 3.2 percent reduction in aggregate work hours shown in table 4.

Table 1. The ACA's Implicit Tax on Full-time Work: An Example

Positions offered in 2016 by employers offering health insurance only to full-time employees.
All dollar amounts are annualized 2014 dollars.
Subsidies are calculated for a family of four with one earner.

Job attributes	Full-time position	Part-time position	
Health insurance source	Employer (ESI)	ACA exchange	
Employee costs			
weekly hours worked	40	29	(1)
weekly work expense	$100	$75	(2)
Employer costs			
hourly cost	$26	$26	(3)
annual cost	52,000	37,700	(4) = 50*(3)*(1)
employer payroll taxes	2,679	2,679	(5) = [(4)-(6)-(7)]*0.0765/1.0765
Health insurance premiums			
employer	11,154	0	(6) = 78% of total premium (ESI only)
employee, excluded from tax base	3,146	0	(7) = 22% of total premium (ESI only)
employee, included in tax base	0	1,379	(8) = 3.9% of (12)
ACA	0	10,731	(9) = 70% of total health expenses - (8)
Out-of-pocket health expenses			
employee	3,000	1,038	(10) = 17% (6%) of total ESI (exch.) expenses
ACA	0	4,152	(11) = (3/7)*[(8)+(9)]-(10)
Employee income subject to tax			
total	$35,021	$35,021	(12) = (4) - (5) - (6) - (7)
ratio to federal poverty line	1.47	1.47	(13) = (12)/23850
after health & work expenses, annua	$27,021	$28,854	(14) = (12) - (8) - (10) - 50*(2)

Notes: Both types of employees work 50 weeks per year (see rows (4) and (14)). The ACA exchange plan is assumed to be a silver plan (70% actuarial value). Neither employee type is subject to the employer penalty.

Source: Mulligan, Casey B. "The Affordable Care Act and the New Economics of Part-time Work." George Mason University, Mercatus Working Paper, October 2014a.

Table 2. The distribution of marginal penalty amounts among employers not offering coverage

Coverage year 2016.

Number of full-time employees	Penalties triggered by hiring one more full-time employee	
	amount	salary equivalent
< 49	0	0
49	$43,320	$65,970
50+	$2,166	$3,298

Notes : "Penalties triggered" refers to the impact of an additional hire on the employer's annual penalty. The table assumes zero part-time employees and ignores the "look back" for determining large-employer status. The salary equivalent assumes a 39% business income tax rate and a 7.65% employer payroll tax rate.

Source : Author's calculations for the Joint Economic Committee.

Table 3. Estimators of the various hour-equivalent FTETs

Type of full-time employment tax	Estimator of the average hour equivalent: Mean ratio, with individual wage in the denominator	Mean ratio, with demographic wage in the denominator	Median ratio, with individual wage in the denominator
Employer penalty, conditional on employer not offering coverage	4.3	3.9	3.9
Full amount of exchange subsidy, conditional on positive subsidy	10.5	9.7	7.5
Value of exchange subsidy (25% features discount), conditional on positive subsidy	7.5	6.8	4.7
Either FTET (25% features discount), conditional on positive FTET	5.9	5.4	4.3
Either FTET (25% features discount), entire population	2.7	2.5	0.0

Note: The hour equilavent of a tax is the number of hours to be worked each week in order to generate enough employee compensation to pay the tax.

Source: Mulligan, Casey B. "The New Full-time Employment Taxes." *Tax Policy and the Economy*. Volume 29. Forthcoming, 2015

Table 4. The ACA's impact on aggregate hours: first-order considerations

The long-term impact of the ACA parameters for calendar year 2016

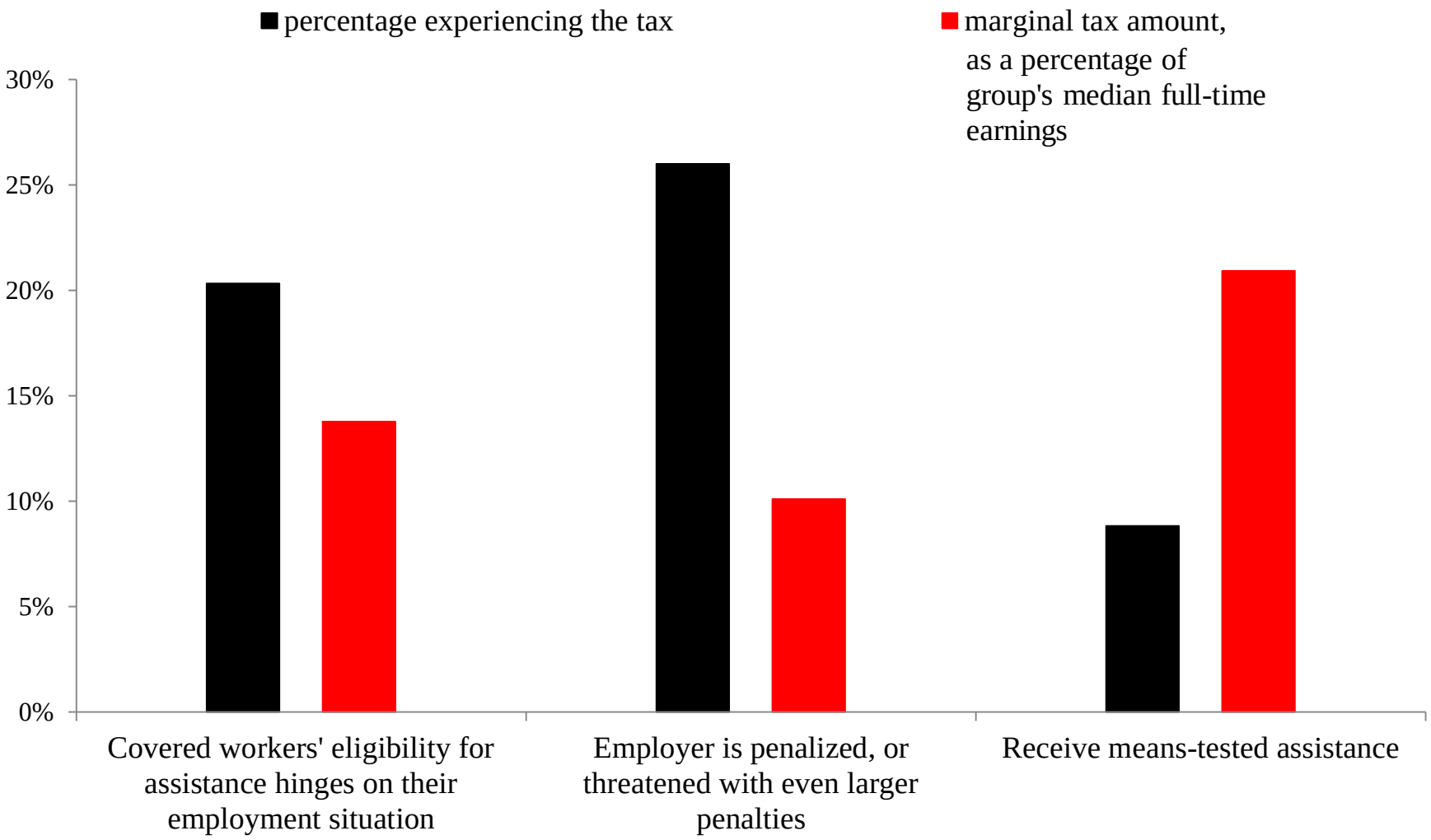
	Without the ACA	With the ACA	Row number and source
Tax incentives for the average worker			
Fraction of workers who are full-time, weeks weighted	0.83	0.83	(1) March 2012 CPS. Full-time = 35+ hours
Full-time employment tax as a % of full-time schedule	0	5.4%	(2) Mulligan (2014b, Table 5.2)
Employment tax as a percentage of full-time schedule	0	4.5%	(3) = (1)*(2)
Implicit earnings tax rate	0	1.9%	(4) Mulligan (2014b, Table 5.2)
Non-ACA marginal earnings tax rate	25.0%	25.0%	(5) Mulligan (2014b, Table 5.2)
All tax rates combined	25.0%	31.3%	(6) = (3) + (4) + (5)
Percentage of earnings kept at the margin	75.0%	68.7%	(7) = 100% - (6)
ACA's impact on the percentage kept at the margin		**-8.8%**	(8) = [row (6) ACA - non-ACA]/[row (6) avg.]
Aggregate hours effect of tax incentives			
reward coefficient		0.36	(9) Micro-econometric literature on tax effects
ACA's impact on aggregate hours		**-3.2%**	(10) = (8)*(9)
		first-order approximation	

Notes: The table presents a first-order approximation of the impact of the ACA, as parameterized in 2016, on aggregate work hours in the U.S. Its purpose is to just highlight the main economic determinants of that impact. The best impact calculations are later in this chapter and in the chapters that follow.

The employer penalty is 2.2 percentage points out of the 4.5 percentage points reported in row (3). The remaining 2.3 percentage points are from the implicit FTET.

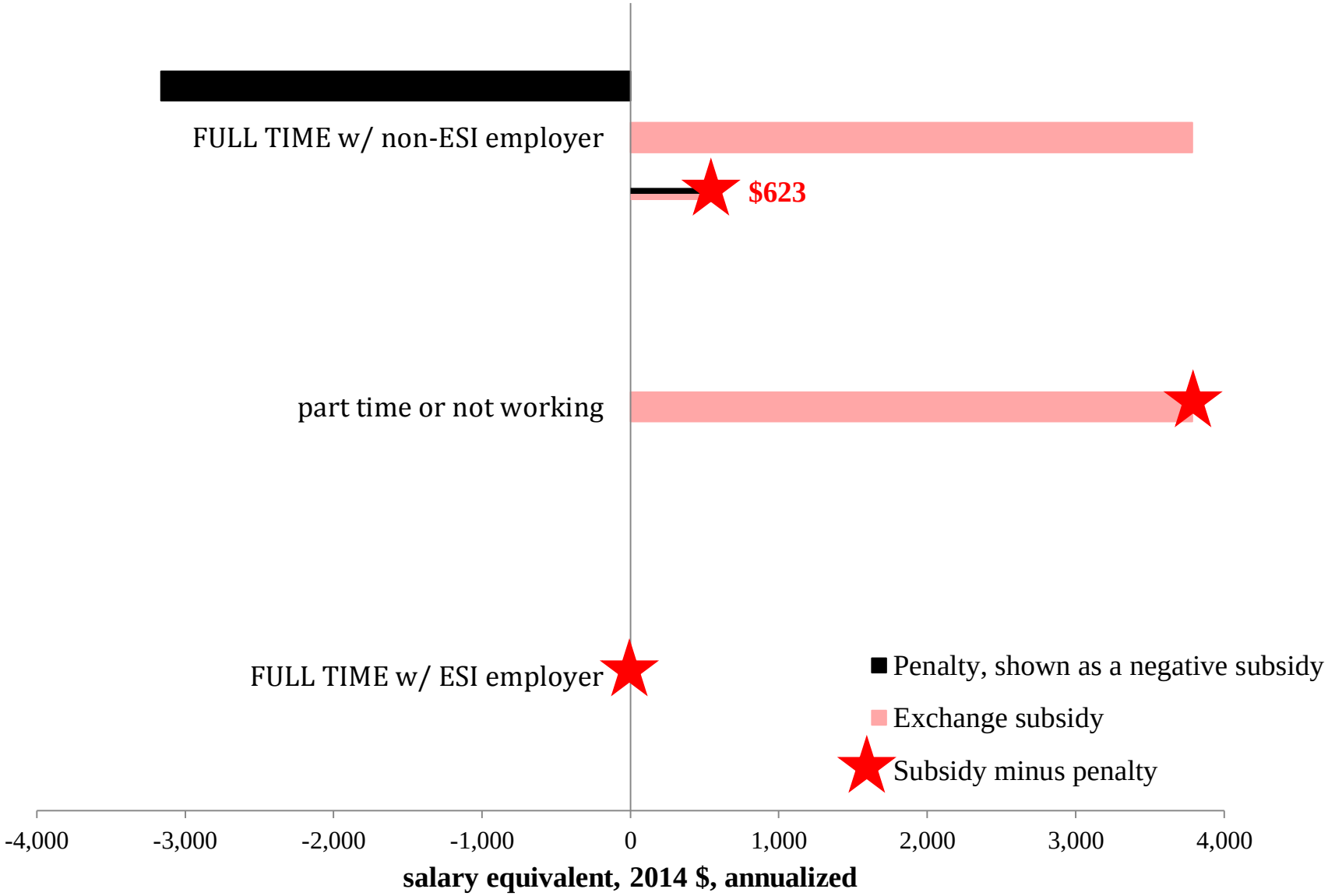
Source: Mulligan, Casey B. *Side Effects: The Economic Consequences of the Health Reform*. 2014b, Kindle edition.

Figure 1. The size and prevalence of the ACA's three largest taxes
in 2016



Source: Mulligan, Casey B. *Side Effects: The Economic Consequences of the Health Reform*. 2014b, Kindle edition.

Figure 2. Patterns of penalties and subsidies by employment situation, 2016



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