

# The Affordable Care Act and Workers' Wages: What does Adam Smith Say?

By Casey B. Mulligan

December 2014

Prepared for *City Journal*

Spending on health care has grown faster than the economy itself, even while the share of the population without health insurance was increasing. The Affordable Care Act (a.k.a., Obamacare) intends to reverse these trends, but in doing so has economic side effects. Businesses are complaining about the law's new tax and regulatory burdens, whereas supporters say that it is a long-overdue "shot in the arm" that will promote entrepreneurship and a "more rapid economic recovery."

This article explores some of the consequences from the perspective of the father of economics, Adam Smith – especially his theory of equalizing differences. It differs from most of the discussion of the Affordable Care Act (hereafter, ACA), which focuses on the law's effects on insurance premiums or the delivery of health care. But the ACA also has great potential to affect the allocation of labor and thereby wages throughout the economy, especially because it creates new taxes and subsidies that vary based on employment situation.

In order to help the uninsured get health insurance coverage, the ACA created what it calls "health insurance exchanges," where individuals can shop for health insurance coverage for themselves and family members and in many cases get federal assistance. An exchange is not a physical location; rather, this refers to the collection of health insurance policies offered to each state's residents by private insurance companies

subject to state and federal regulations regarding standardization of policy benefits, provisions, and pricing. Many, but not all, individuals shop on the exchanges by visiting an internet site that gathers customer information and quotes prices.

Anyone lawfully present and living in the United States, but not incarcerated, can purchase health insurance on the exchanges (United States Department of Health and Human Services 2014a). Most persons getting insurance through the exchanges are receiving financial assistance (United States Department of Health and Human Services 2014b). The assistance is given in the forms of reduced insurance premiums (administered through an income tax credit system) and reduced out-of-pocket health costs such as copayments and deductibles. I collectively refer to the two subsidies as “exchange subsidies.”

Because exchange subsidies are available only to persons who are not eligible for affordable employer coverage, the ACA requires that large employers either provide affordable coverage or pay a penalty according to the number of full-time employees they have. The law defines a large employer to be one that had at least fifty full-time-equivalent employees in the calendar year previous to the year in which it failed to provide coverage. Part-time employees count toward full-time-equivalents in proportion to their hours worked for the purpose of defining a large employer. Unlike employee wages, the penalty is not deductible for the purpose of determining the employer’s business income tax. This together with the law’s procedure for indexing the penalty to health cost inflation, means that the employer penalty in 2016 (the first year in which the penalty is fully enforced) is as costly as \$3,163 per employee on the full-time payroll beyond thirty employees (Mulligan 2014).

## A. The Theory of Equalizing Differences

Both the employer penalty and the exchange subsidies affect the average level of wages and wage patterns across types of workers. Adam's Smith's theory of equalizing differences is the best way to understand the ACA's impact on wages, so this article begins with a simple, everyday illustration of the theory in action.<sup>1</sup> I then apply the theory to consider the employer penalty in isolation—as if it were the only tax in the ACA—and then expand the analysis to include the exchange subsidies.

### 1. Introduction: A Tale of Two Occupations

Even after adjusting for inflation, workers today earn far more than they did decades ago. The primary reasons for this are the changes in workers and their work environments that have made them vastly more productive. Workers today typically have more and better machinery to accomplish their tasks. Take the farmer. An early twentieth-century farm tractor is shown on the left (Figure 1a), and a modern tractor is shown on the right (Figure 1b).

[Figures 1a and 1b side-by-side here]

Today 100 bushels of corn can be produced with fewer than three labor hours and less than one acre of land (U.S. Department of Agriculture, National Institute of Food and Agriculture 2014). In 1945, it took fourteen labor hours and two acres of land to produce the same 100 bushels because farmers then did not have the farm equipment and education that is available today. Even more farm work was required to produce the same

---

<sup>1</sup> See Rosen (1986) for an overview of the theory.

results at the beginning of the twentieth century. It's no puzzle that farmers can earn more today than they did years ago.

But wage growth is not limited to occupations where technology has progressed, capital has accumulated, or education is essential. Barbers today cut hair almost exactly the way they did in the first half of the twentieth century. The barbershop photographed in Figure 2a is circa 1920, and the equipment looks about the same as it does now (Figure 2b): scissors, chairs, and a sink. Yet barbers now are paid much more than the barbers from the era of the photograph.<sup>2</sup>

[Figures 2a and 2b side-by-side here]

The fact that both farmers and barbers shared wage growth but not technology and other sources of productivity growth would seem to defy productivity explanations for wage growth, but this impression ignores the theory of equalizing differences. Because men's desired quantity (not styles!) of haircuts have been pretty constant over the years, men must pay barbers enough to induce people to pursue the occupation and not some other profession for which productivity has been significantly advanced by capital accumulation, modern technology, and advanced education. Through the market

---

<sup>2</sup> For example, the Chicago Barbers Association (2011) reports that the inflation-adjusted price of haircuts more than doubled from the 1920s to the 1960s, and more than doubled again in the subsequent decades. Also note that the average price of a men's haircut today is about \$28 (<http://www.usnews.com/news/blogs/data-mine/2014/02/28/what-america-pays-for-a-haircut>), which would be \$2.11 in 1925 prices (<http://research.stlouisfed.org/fred2/series/CPIAUCNS>). Legend has it that haircuts cost about \$0.25 back then (the CBA data suggest closer to \$0.50); we can be sure that 1925 haircut prices were far less than \$2.11, and therefore sure that haircut prices far outpaced inflation 1925 to present, because \$2.11 was about a day's wages for a laborer (U.S. Department of Labor 1939, and Wolman 1935) and regular people would not pay that much for a haircut and would seriously consider getting into the barber business if they could earn a day's wages in less than an hour.

mechanism, wage growth for barbers is a consequence of productivity growth in other occupations.

## **2. The Employer Penalty, Sectoral Shifts, and Hidden Taxes**

For the same reason that a barber's pay has been affected by technological changes outside his profession, almost every American worker's pay will be affected by the ACA's penalties and subsidies. In what follows I use Adam Smith's theory to trace out and quantify some of those effects.

At first glance, the ACA's employer penalty would seem to be just the problem of workers employed at penalized employers, with their workers receiving less weekly pay or losing their jobs altogether. However, as workers leave penalized employers and compete for jobs at employers that offer coverage, their departures drive down wages at employers that offer health coverage (hereafter "ESI employers" for "Employer-sponsored insurance") and mitigate some of the penalty's effect on wages at employers that do not offer coverage (hereafter, "non-ESI employers").

Figure 3a illustrates. The overall height of the bars indicates compensation per employee in each of two sectors (no-ESI and ESI) without the ACA, adjusted for any sectoral differences in nonpecuniary job attributes.<sup>3</sup> The two heights are equal to indicate the competition between the two sectors for employees, so that employees cannot get a better deal by leaving their sector. Now the ACA penalty comes along and takes part of the pay of the no-ESI (i.e., penalized) sector, as indicated by the red "penalty" part of the

---

<sup>3</sup> For the sake of illustration, I do not consider the possibility that the two sectors have different weekly work schedules, so equalized compensation per employee is the same as equalized compensation per hour.

no-ESI bar.<sup>4</sup> Employees leave the penalized sector to take advantage of the higher ESI-sector pay. The more employees who seek work in the ESI sector, the less ESI employers are willing to pay for them.<sup>5</sup> At the same time, the more employees who leave the penalized sector, the more penalized employers are willing to pay the employees who remain. Just as barbers were partially compensated for the technological progress that occurred outside their occupation, non-ESI employees will be partially compensated for the penalty-free opportunities existing outside their sector.

[Figure 3a here]

[Figure 3b here]

The labor market equilibrium in the presence of the penalty also equalizes compensation between sectors, as shown in Figure 3b. The figure includes a dashed outline of the ESI bar to indicate its height without the penalty (see Figure 3a) and thereby the amount by which the penalty depresses pay among ESI employees. This amount can be interpreted as a hidden tax on ESI employees: the employer penalty reduces their pay even though their employers do not pay it! In effect, penalized employees escape part of their penalty by passing it on to ESI employees. Ultimately employees in both sectors pay the same amount, which is the degree to which the two

---

<sup>4</sup> An alternative way to draw Figure 7.3a would be to have the penalty paid by the non-ESI employer (that is, stacked above the dashed horizontal line), with penalized employers responding by letting employees go and lowering wages. The important point is that the sector-specific penalty is a force moving employees in the direction of the arrow.

<sup>5</sup> In technical terms, the marginal revenue product of labor in the ESI sector fall as the sector absorbs additional employees. This may happen because the marginal product of labor is diminishing in the amount of labor in the sector or because the goods produced in that sector become less scarce and thereby less expensive.

green bars in Figure 3b are less tall than the bars in Figure 3a. Here is how the father of economics, Adam Smith, would put it:

If ... there was any employment evidently either more or less advantageous than the rest, so many people would crowd into it in the one case, and so many would desert it in the other [think “employer penalty”], that its advantages would soon return to the level of other employments. (Smith 1776/1904, chapter I.10.1, brackets added)

The wage cut for ESI employees shown in Figure 3b as the dashed outline is known as a “compensating” or “equalizing” difference because it equalizes wages net of the other advantages of ESI employment (in this case, the advantage is penalty avoidance), exactly as Adam Smith observed.<sup>6</sup>

In effect all workers pay part of the employer penalty, even when their employer is not penalized. In that case, the worker pays the penalty indirectly through lower wages, which are themselves the result of competition for positions with employers that are not penalized.

## **B. The Impact of the Employer Penalty on Wages, Assuming No Productivity Loss**

The effect of the employer penalty on employee pay increases with the size of the penalty itself, but it also depends on the size of the no-ESI sector. The larger the no-ESI sector, the more that ESI wages will have to fall to absorb workers leaving the sector and thereby the more the employer penalty is a hidden tax on ESI employees. A helpful estimate of the amount that the penalty depresses overall wages is the product of the penalty and the

---

<sup>6</sup> Economics uses the phrases “compensating difference” or “equalizing difference” to describe the relationship between wage and nonwage attributes of a job as described by Adam Smith. Figure 3 also shows how the employer penalty causes penalized sectors to contract and other sectors to expand, which in the short run may reduce profits in the penalized sectors and increase profits in the others.

no-ESI share of the labor market. In other words, the larger the penalty, or the larger the number of workers at penalized employers, the greater the wage effect.

Table 1 shows three estimates, one in each column. The first column pertains to workers in relatively low-income families (hereafter, “low-income workers”): at or below three times the federal poverty line (FPL).<sup>7</sup> The second column pertains to workers in relatively high-income families; the final column summarizes all workers.

The table’s top row has the size of the penalty, which is the salary equivalent of \$3,163 regardless of family income. The second row has the fraction of workers who work full time for an employer that does not offer coverage, which is an employer that will be penalized or face the threat of a huge penalty if expanding beyond 49 employees. For low-income workers, that fraction is 0.22. In terms of Figures 3a and 3b, the size of the no-ESI sector is about 22 percent of all employment by low-income workers.

[Table 1 here]

The last row, shown in bold, is the penalty’s overall wage impact. An impact \$683 per year on low-income workers is 22 percent of the full penalty. Before the ACA, their average annual wages among low-income workers was \$21,254. Subtracting the \$683 is therefore a rough estimate of what their average annual wages will be with a penalty, holding labor supply fixed.

For all workers, the penalty impact averages \$577 per year. The bad news for ESI workers is that, in effect, they help pay the penalties owed by *other workers’* employers in the form of lower wages (\$577 per year, on average). The good news for the

---

<sup>7</sup> In 2014, three times FPL is about \$72,000 per year for a family of four and about \$35,000 for a one-person family.

employees at penalized firms is that their wage is not depressed nearly as much as the penalty itself, which is effectively \$3,163 per year.

### **C. The ACA's Penalties and Exchange Subsidies Reduce Productivity, and Therefore Wages**

For simplicity, Table 1 assumes that the bad news for the ESI workers is, in aggregate, exactly equal to the good news for workers at penalized firms. This amounts to assuming that the penalty does not affect aggregate productivity, which means that a complete estimate of the wage effects of the ACA's employer penalty and exchange subsidies needs to add the productivity impact to Table 1's results.

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.<sup>8</sup> 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. The first part of this article emphasizes how some of these rearrangements are related to gaps in wages among sectors, but they also affect the level of productivity and wages.

---

<sup>8</sup> 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.

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 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.<sup>9</sup> 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 Starbucks' 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

---

<sup>9</sup> Jargon (2013) and Dunkin' Donuts (2014) describe ownership structures for Starbucks and Dunkin' Donuts, respectively. Of course, Dunkin' Donuts sells more than just coffee.

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 them with a well-earned competitive advantage in 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.

Yabo's Tacos in Ohio is another example. It has grown to three locations and about 45 employees. According to Eaton (2013), Yabo's owner Scott Bowles has been successful developing and managing new locations himself. He would like to continue expanding that way – company-owned expansion – but the health reform's employer mandate induces him to expand with franchises instead.<sup>10</sup> The franchise owners may not know Yabo's as well as Mr. Bowles does, but the employment at a Yabo's franchises

---

<sup>10</sup> See also Falk (2013), who testified that the ACA's employer mandate may stop his business expansion altogether.

would not count against Mr. Bowles' total, and thereby permit him to avoid tens of thousands of dollars in penalties or health costs.

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, as described by the Adam Smith quote above, 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.<sup>11</sup>

Adam's Smith's logic of equalizing differences helps us to estimate the nationwide value that will be lost as activity attempts to escape the employer penalty. Some activities at large businesses were already on the margin between small and large business: for those activities, the big-business advantages were just enough to outweigh the disadvantages. As the ACA moves these marginal activities to small businesses, hardly any value is lost. Other activities that were at large businesses may lose value of, say, \$1,000 per year by moving to small businesses, but it is still worth moving them because it avoids an even greater penalty. Because the penalty is effectively \$3,163, even a value loss of \$3,162 would be worth enduring. The annual value lost by the average activity that moves from large employer to small employer is therefore somewhere in between \$0 and \$3,163. My estimates use the midpoint of these two.

---

<sup>11</sup> Arguably, the ACA further aggravates the effects of pre-ACA policies that had already favored small businesses, such as the common regulatory rule of exemption businesses with fewer than fifty employees. If so, then I have underestimated the amount by which the ACA reduces productivity.

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.<sup>12</sup> 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!<sup>13</sup> This article contains a more comprehensive productivity analysis than ACA advocates have offered so far.

---

<sup>12</sup> 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).

<sup>13</sup> 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).

Reallocations like these 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. Table 2 shows the nationwide results. It includes productivity effects of the employer penalty and the exchange subsidies, including those effects involving enhanced productivity. The overall productivity effect is 0.9 percent in the direction of less productivity. In the long run, workers are paid according to their productivity, so 0.9 percent less productivity by itself means wages that are 0.9 percent lower. For the average worker from a low-income family (first column), that means earning \$201 less per year for the same amount of work. For the average worker from a high-income family (second column), that means earning \$600 less per year for the same amount of work. When added to the employer penalty's effect on worker's incomes, that's a combined annual loss of \$884 for workers from low-income families and \$1,110 for workers from high-income families. As a percentage of what these workers would be earning before taxes, those are losses of 4.2 percent and 1.7 percent respectively.

[Table 2 here]

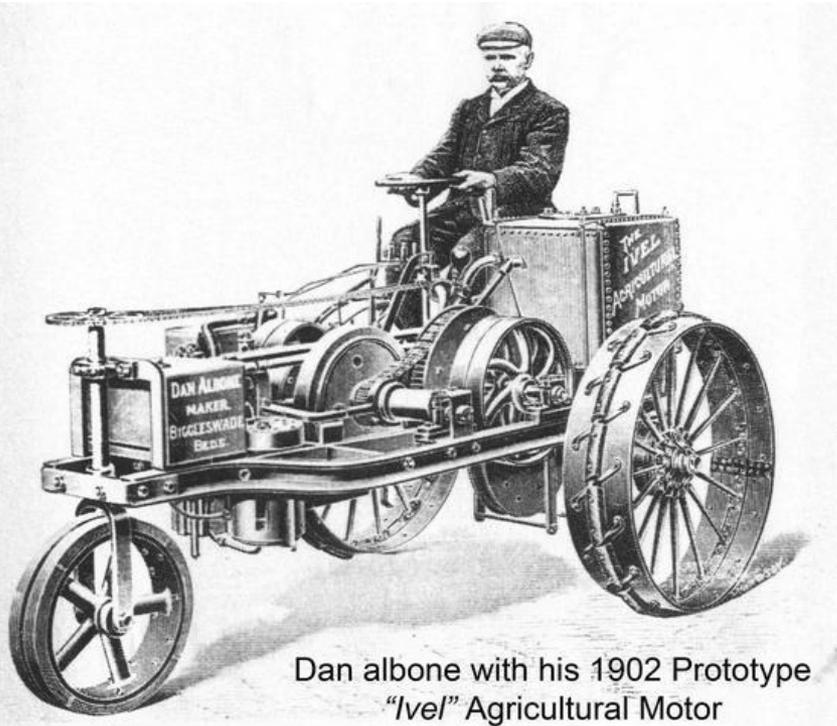
## **D. Conclusions**

This article adds to the ongoing list of side effects of increasing insurance coverage with a law like the ACA. Before the ACA, non-ESI employers (that is, employers not offering coverage to their full-time employees) were at a competitive disadvantage and had to either pay extra for employees—an example of the “compensating difference” that Adam Smith wrote about—or be content with workers who didn't want employer health insurance. The ACA reduces or even reverses the

competitive disadvantage experienced by non-ESI employers in the market for low-skill workers.

A growing body of research is finding that productivity in economies is depressed by misallocations of resources across sectors, regions, and firms. Restuccia and Rogerson (2008) show how, in theory, taxes and subsidies have the potential to significantly depress productivity if those policies fail to be uniform across firms, and they suggest that future research needs to carefully examine and quantify specific public policies causing misallocations. Hsieh and Klenow (2009) suggests that total factor productivity (that is, the amount of production adjusted for the contributions of the aggregate quantities of labor and capital) in manufacturing industries has been depressed 50 percent or so in both China and India because of misallocations of labor and capital across firms. Moreover, they suspect that many of the misallocations are unfortunate byproducts of public policies that fail to be uniform across firms but have not conducted a detailed public finance analysis of such policies. Garicano et al (2013) show how taxes and regulations on large employers reduce overall productivity.

By itself, the employer penalty will depress wages about \$600 per year, even among workers whose employer is not penalized. Productivity losses from the exchange subsidies and employer penalty together add another \$400 or \$500 per year to the wages losses from the ACA. Overall, the ACA will reduce wages by \$1000 per year, which is about four percent of wages for workers from low-income families and two percent of wages for workers from high-income families. None of this counts the additional effect of the employer penalty on overall employment, which will further reduce worker incomes.



Dan albone with his 1902 Prototype "Ivel" Agricultural Motor

**Figure 1a. Antique Farm Tractor**



**Figure 1b. Modern Farm Tractor**

*Sources:* Public domain photo (1a) download from Wikipedia Commons and credited to North Bedfordshire Gazette, 1/23/1903. Figure 1b used with permission under the Creative Commons Attribution 3.0 unported license (<http://creativecommons.org/licenses/by/3.0/legalcode>) and was cropped.



**Figure 2a. Antique Barber Shop**

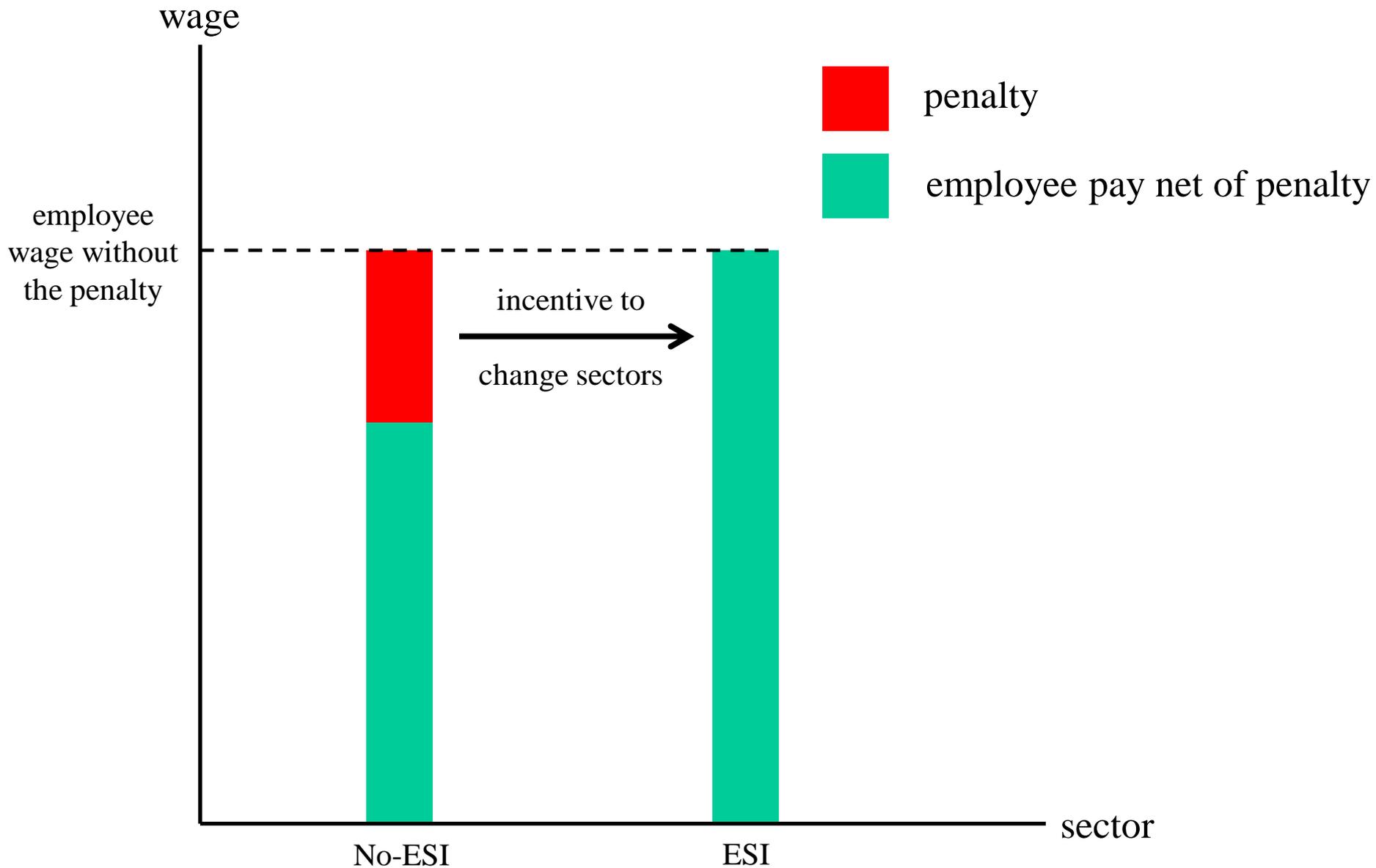


**Figure 2b. Modern Barber Shop**

*Sources:* Public domain photo (2a) download from Wikipedia Commons and credited to Richardson (Texas) Historical and Genealogical Society. Figure 2b used with permission under the Creative Commons Attribution 3.0 unported license (<http://creativecommons.org/licenses/by/3.0/legalcode>) and was cropped.

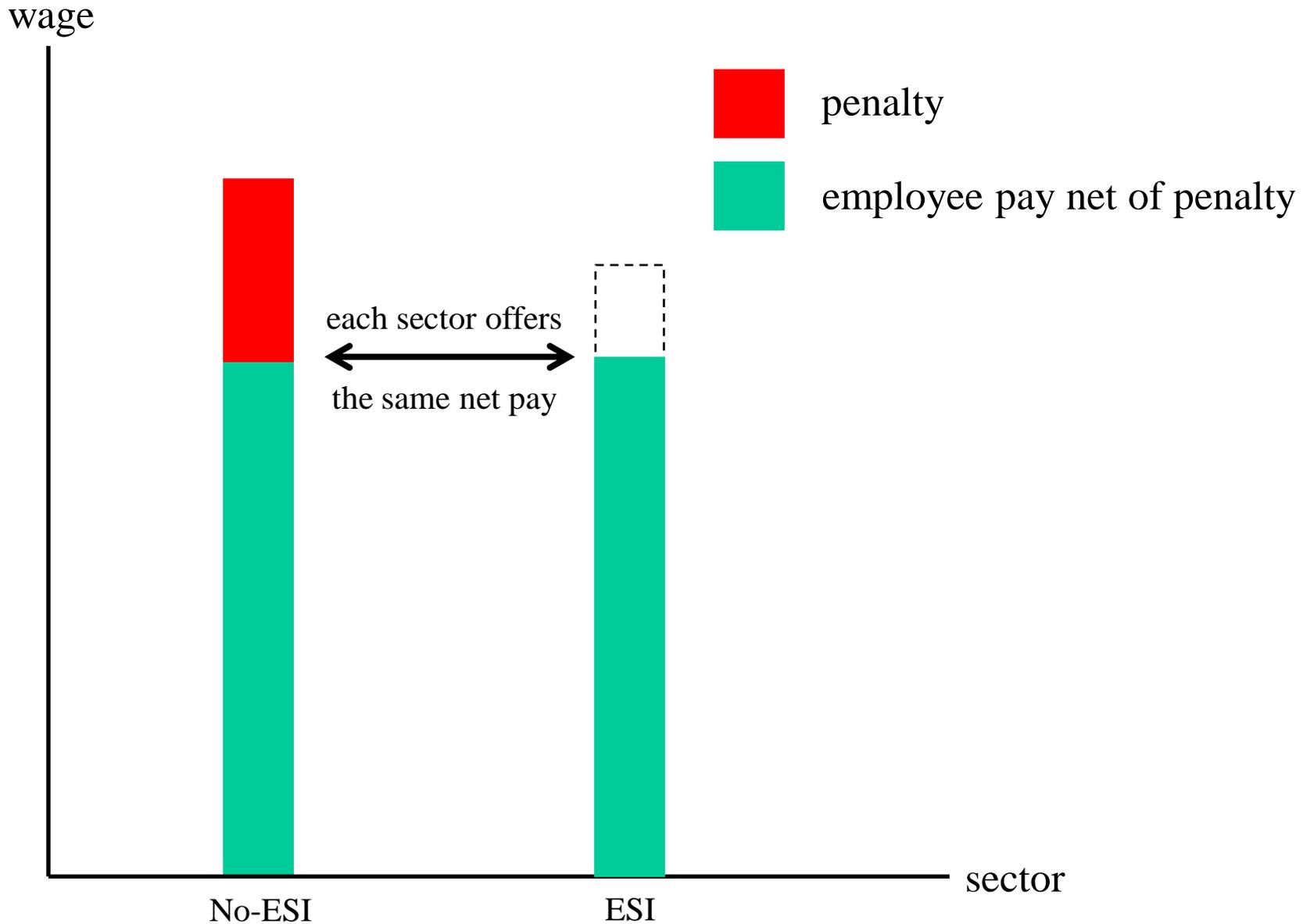
### Figure 3a. Sector-specific penalties create compensating differences.

Without a wage reduction in the ESI sector, the penalty encourages employees to change sectors in the direction of the arrow.



### Figure 3b. Sector-specific penalties create compensating differences.

The penalty must depress ESI-sector wages as shown below in order for the no-ESI sector to retain employees. The arrow indicates that employees are willing to move in either direction.



**Table 1. The wage impact of the 2016 employer penalty, assuming no productivity loss**

*Amounts are in 2014 dollars. Annual work hours are held constant.*

	Type of worker		
	Family income $\leq$ 3*FPL	Family income $>$ 3*FPL	All
Penalty amount, annual salary equivalent	\$3,163	\$3,163	\$3,163
Share of the year that an average worker is both with a non-ESI employer and working at least 30 hours	0.22	0.16	0.18
Average annual earnings per worker without ACA or penalty	\$21,254	\$63,461	\$47,160
with penalty (but not the rest of the ACA)	\$20,571	\$62,951	\$46,583
<b>penalty impact</b>	<b>-\$683</b>	<b>-\$510</b>	<b>-\$577</b>

*Notes* : FPL refers to the federal poverty line. Earnings do not include fringe benefits and include zeros for weeks not employed and are estimated from the March 2012 CPS. The magnitude of the penalty impact estimate is the product of the first two rows of the table.

**Table 2. The wage impact of the 2016 employer penalty and exchange subsidies, including induced productivity losses**

*Amounts are in 2014 dollars. Annual work hours are held constant.*

	Type of worker		All
	Family income $\leq$ 3*FPL	Family income $>$ 3*FPL	
Productivity loss from the ACA's labor reallocations	-\$201	-\$600	-\$446
Penalties passed on to workers (from Table 1)	-\$683	-\$510	-\$577
Average annual earnings per worker			
without the ACA	\$21,254	\$63,461	\$47,160
with the ACA	\$20,370	\$62,351	\$46,137
<b>ACA impact, dollars per year</b>	<b>-\$884</b>	<b>-\$1,110</b>	<b>-\$1,023</b>
<b>ACA impact, percent</b>	<b>-4.2%</b>	<b>-1.7%</b>	<b>-2.2%</b>

*Notes* : FPL refers to the federal poverty line. Earnings do not include fringe benefits and include zeros for weeks not employed and are estimated from the March 2012 CPS. The dollar amount of the ACA impact estimate is the sum of the productivity loss and the penalties passed on to workers.

## Bibliography

- Bailey, James. "Health Insurance and the Supply of Entrepreneurs: New Evidence from the Affordable Care Act's Dependent Coverage Mandate." *manuscript, Temple University*, 2013.
- Chicago Barbers Association. "A History of Barbering in Chicago." *chicagobarbersassociation.org*. 2011.  
<http://chicagobarbersassociation.org/history-2/> (accessed May 17, 2014).
- Council of Economic Advisers. *The Economic Case for Health Care Reform*. Executive Office of the President, June 2009.
- Cutler, David M., Harold Pollack, Henry J. Aaron, Jean Marie Abraham, and et al. "Letter to the U.S. House Committee on the Budget." *americanprogressaction.org*. January 26, 2011.  
<http://www.americanprogressaction.org/wp-content/uploads/issues/2011/01/pdf/budgetcommitteeefinal.pdf> (accessed April 3, 2014).
- Dunkin' Donuts. *Dunkin' Donuts Press Kit*. October 29, 2014.  
<http://news.dunkindonuts.com/Press-Kit/Dunkin-39-Donuts-Press-Kit-40a.aspx> (accessed December 3, 2014).
- Eaton, Dan. "Obamacare mandates providing fuel for franchising." *bizjournals.com*. March 22, 2013. <http://www.bizjournals.com/columbus/print-edition/2013/03/22/obamacare-providing-fuel-for-franchising.html?page=all> (accessed December 3, 2014).
- Falk, Sean. "State of the Small Business Economy." Testimony before the Committee on Small Business, U.S. House of Representatives, Washington, DC, 2013.
- Garicano, Luis, Claire Lelarge, and John Van Reenan. "Firm Size Distortions and the Productivity Distribution: Evidence from France." *NBER working paper*, no. 18841 (February 2013).
- Gruber, Jonathan. "A Shot in the Arm: How Today's Health Care Reform can Create Tomorrow's Entrepreneurs." *Washington Monthly*, May 2009.
- Jargon, Julie. "Starbucks Tries Franchising to Perk Up Europe Business." *Wall Street Journal*, November 29, 2013: on-line edition.
- Mulligan, Casey B. *Side Effects: The Economic Consequences of the Health Reform*. (acasideeffects.com), 2014.
- Rosen, Sherwin. "The Theory of Equalizing Differences." In *Handbook of Labor Economics, vol. I*, by Orley C. Ashenfelter and Richard, eds. Layard, 641-92. Amsterdam: North-holland, 1986.
- Smith, Adam. *An Inquiry into the Nature and Causes of the Wealth of Nations*. Edited by Edwin Cannan. London: Methuen & Co., Ltd, 1776/1904.
- Starbucks. "Working at Starbucks." *starbucks.com*. 2014.  
<http://www.starbucks.com/careers/working-at-starbucks> (accessed December 3, 2014).
- U.S. Department of Agriculture, National Institute of Food and Agriculture. *About us: extension*. March 28, 2014. <http://www.csrees.usda.gov/qlinks/extension.html> (accessed May 16, 2014).
- U.S. Department of Labor. "Wages and Income of Farm Workers, 1909 to 1938." *Monthly Labor Review*, July 1939: 59-71.

- United States Department of Health and Human Services. "Am I eligible for coverage in the Marketplace?" *healthcare.gov*. 2014a. <https://www.healthcare.gov/am-i-eligible-for-coverage-in-the-marketplace/> (accessed March 25, 2014).
- . "How do I choose Marketplace insurance?" *healthcare.gov*. 2014b. <https://www.healthcare.gov/how-do-i-choose-marketplace-insurance/> (accessed March 25, 2014).
- Wolman, Leo. *Wages and Hours Under the Codes of Fair Competition*. New York: National Bureau of Economic Research, 1935.