

# Would a Carbon Tax Dividend Help Poor Households?

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IER President Tom Pyle recently [wrote an article](#) for *National Review*'s online magazine responding to George Schultz and Ted Halstead's [own NRO piece](#) making their case for a carbon tax. Pyle did a good job covering the important points of the argument, but space constraints prevented him from focusing on one issue in particular: If we could (naïvely) trust the federal government to refund all carbon tax receipts in lump sum checks, is it true that "the bottom 70 percent of Americans would come out ahead," as Schultz and Halstead claimed?

As I'll show in this post, their argument doesn't actually prove what they're suggesting. Even on its own terms, a carbon-tax-and-dividend scheme would still impose the biggest hardships on poorer households, since energy expenditures are a bigger share of their budget. Even if they "made money" on the deal, they would still be hurt by higher energy prices, and so Schultz and Halstead's claims are very misleading, even if we take them at face value.

## The Carbon Tax Claim

Schultz and Halstead are promoting the Climate Leadership Council's [call for a carbon tax](#). It would start at "\$40 a ton and increase steadily over time." One of the key elements of the plan—which supposedly limits the danger of Big Government—is that all of the revenues "would be returned to the American people on an equal and quarterly basis via dividend checks, direct deposits or contributions to their individual retirement accounts," and they estimate that originally "a family of four would receive approximately \$2,000 in carbon dividend payments in the first year."

It is well known that taxes on energy are regressive in the sense that poorer households spend a higher fraction of their income on energy. This is why [progressive outfits such as ThinkProgress](#) argue *against* using carbon tax receipts for broad-based tax cuts, and instead argue that they must be returned lump sum if there is any chance to spare the poor from bearing the brunt of the policy change.

This is what Schultz and Halstead have in mind when they write:

*[T]he bottom 70 percent of Americans would come out ahead if our plan were enacted, meaning that they would receive more in dividends than they would pay in increased energy costs. In other words, we could help alleviate climate change while benefiting 223 million Americans economically.*

Now as Pyle pointed out, one huge problem with this rhetorical strategy is that it relies on a naïve faith in the government actually sticking to its promises and ignores what happened in places as diverse as [Australia](#) and [British Columbia](#) when they imposed their respective carbon taxes. But even on its own terms, the argument is very misleading.

## Why "Making Money" Doesn't Render Carbon Tax Harmless

To see why Schultz and Halstead's argument doesn't prove what they think it proves, let's consider an exaggerated example looking just at gasoline. We will also focus on a typical poor household, and a typical rich household. I'll make up some hypothetical numbers just to illustrate the point.

Suppose gas is originally \$3 per gallon. Our poor household in a typical week buys 10 gallons. In contrast, the rich household in a typical week buys 20 gallons, because they drive more and because they drive an SUV.

Now imagine the government imposes a draconian \$4 per gallon carbon tax that more than doubles the price of a gallon of gasoline to \$7. In response, the poor household practically stops driving; people take the bus whenever

they can. They end up buying only 2 gallon of gas per week. So they implicitly pay  $2 \times \$4 = \$8$  total in carbon taxes per week.

The rich household however is better able to shoulder the blow. They reduce their gasoline consumption to 15 gallons per week. At this level of consumption, they implicitly pay  $15 \times \$4 = \$60$  in carbon taxes per week.

Now if the government took these tax receipts and then issued an even rebate, the  $\$8 + \$60 = \$68$  total would get split into payments of \$34 each. So Schultz and Halstead would conclude that the poor household “gained”  $\$34 - \$8 = \$26$  per week in net dividends from the scheme, while the rich household lost  $\$60 - \$34 = \$26$  per week in net payments. (This makes sense: If these are the only two households, the gain to one must be the loss to the other.)

But would we conclude that the poor household in our scenario is better off? Not at all! Yes, the household would have an extra \$26 per week in money, but now (by assumption) gasoline would cost \$7 per gallon. This artificially high price led the household to “choose” much lower gasoline consumption, but this was a coerced choice. The extra \$26 per week in monetary terms would not mean the same as it would have in the original scenario, when gasoline was cheaper.

Would the household prefer the new arrangement to the old? Well, notice that our poor household (with these numbers) can no longer *afford* the original arrangement. In our scenario, after the draconian tax is applied to gasoline, the poor household went from buying 10 gallons down to buying 2 gallons, while the price of gasoline more than doubled from \$3 to \$7 per gallon.

It's true, the household gets a check for \$34 from the government as a “dividend,” but at a price of \$7 per gallon that would only buy about 4.9 gallons at the pump—not the full 8 gallons that the household cut back.<sup>[1]</sup> So from the poor household's perspective, it has been forced to cut back on gasoline purchases—even with the dividend check, it can no longer afford to operate the way it did originally. It is entirely plausible in this scenario that the household, if offered a choice, would have preferred the original arrangement, where there was no dividend check but where gasoline was \$4 per gallon cheaper.

And if it's complex to see how the poor household makes out, it's crystal clear that the rich household in our scenario loses—gasoline more than doubles in price *and* the household on net pays out \$26 more in carbon taxes per week than it receives in dividends.

## Conclusion

When economists analyze the harmful impact of taxes, they often focus on the *deadweight loss*—how much the tax alters economic behavior in ways that push the outcome away from efficiency. In general, if the government levies a tax on a commodity and then returns the revenue back to everyone in lump sum fashion, that will make the community worse off, if we're considering individual household judgments (as opposed to “macro” considerations about climate change and so on). Even if the tax collections differ from person to person, so that some people get more back (on net) than they paid in, it's still entirely possible that *everybody* is worse off in utility terms from the scheme.

When it comes to taxes on energy, they are “regressive” in the sense that they represent a higher fraction of a poor household's budget. Even if a household is given a dividend higher than what it paid in taxes, that might not overcome the pain of higher energy prices.

In the presence of a high enough carbon tax, households would adjust their behavior and reduce how much they explicitly paid in tax. Yet the high prices would still have caused the households to switch to a lifestyle they didn't enjoy as much as the status quo. The interventionists might favor such a coerced lifestyle change because of concerns over climate change, but they shouldn't pretend that poorer households will *enjoy* being forced to cut back their energy usage.

[1] Strictly speaking, we should also consider the \$16 that was effectively “freed up” in the household’s budget by cutting back on gasoline consumption. (Originally the household spent  $10 \times \$3 = \$30$  on gas, now it spends  $2 \times \$7 = \$14$  on gas, freeing up \$16.) On the other hand, taking the bus isn’t free, even in money terms (let alone time). But notice that even if we assume taking the bus is free, with the full \$16 plus the \$34 in dividend check, the household has \$50 extra and still couldn’t afford to buy 8 gallons at \$7 each, because that would cost \$56 total. So clearly the household cannot afford its original lifestyle, even taking into account the dividend check.