An Economic Analysis of HB 17-1102

House Bill 17-1102 seeks to "prohibit the nuisance exhibition of motor vehicle exhaust" (Ginal, 2017). Drivers engaging in the production of thick, black exhaust create a nuisance for other drivers, cyclists, and pedestrians. HB17-1102 will eliminate this activity by applying a fine of $100 to any individual operating a vehicle weighing 14,000 pounds or less that produces nuisance exhaust.

There are numerous ways for vehicle owners to modify the amount of exhaust emitted from their vehicle. Existing state and federal laws already make it illegal to tamper with a vehicle's emissions control system. However, modifying a vehicle to produce black smoke involves making changes to the engine, not the emissions control system (Tabuchi, 2016). This law would eliminate nuisance exhaust by fining the emission of dark smoke, irrespective of what modifications the vehicle owner made to achieve that outcome (Ginal, 2017).

For vehicles trailing the individual producing nuisance exhaust, the smoke can cause a loss of visibility leading to a dangerous traffic situation. While other drivers are most likely to be impacted, cyclists and pedestrians can also experience negative impacts. For these individuals, not only is a temporarily loss of visibility a concern, but also the inhalation of the exhaust fumes, which can have adverse health effects. According to the American Cancer Society, diesel exhaust fumes have been linked to lung cancer ("Diesel Exhaust and Cancer," n.d.).

When nuisance exhaust impacts an individual, their well-being is reduced. In an ideal scenario, the driver would be required to compensate affected individuals for the nuisance

exhaust that impacts their well-being. Alternatively, the affected individuals could pay the driver not to produce nuisance exhaust. Either way, an efficient solution is achieved.

From an economist's perspective, every effort should be made to produce an efficient outcome. Because nuisance exhaust is a byproduct of one person's consumption choices it is considered a market externality. And, because nuisance vehicle exhaust is not dealt with effectively in a market, it is non-pecuniary. As a non-pecuniary externality, nuisance exhaust should be regulated and restricted by the government. But the question remains: what method of regulation should be used?

The government has two options in this situation, it can either create a market where parties can agree on an acceptable amount of exhaust or it can simply fine producers to restrict their production. The former, establishing a market, would prove difficult in this scenario due to the large number of polluters and even larger number of individuals affected. The administrative costs associated with this market would be prohibitive to its operation. It therefore makes more sense to impose a simple fine. It is difficult to ascertain what the proper fine for such an action might be; fines should be implemented to the extent that they ensure an economic outcome for all.

The ideal economic outcome would be a fine that covers any damages related to nuisance exhaust production. According to the EPA, nuisance vehicle exhaust has a negligible effect on the environment when considered on a global scale (Tabuchi, 2016). Additionally, immediate impacts can be hard to assess. An individual producing nuisance exhaust on a desolate country road would have little, if any impact on others, while one in the city could have an extensive impact. Such impact in a city could be as simple as causing a pedestrian to

cough and cover their eyes or as catastrophic as causing a car crash due to the loss of visibility.

Pinpointing an exact societal cost is difficult because there is no data showing how nuisance vehicle exhaust contributes to disease and vehicle collisions. That said, the total cost of car crashes in the United States is 871 billion US dollars annually and the cost of treating cancer is around $30,000 for one patient (Copeland, 2014), ("Costs of Chemotherapy & Other Mesothelioma Treatments," n.d.). If one producer of nuisance exhaust impacts 1 pedestrian or cyclist a week, then that means they impact 52 people in one year. And if this producer contributes to a very conservative one millionth of a percent increase in car crashes and lung cancer, then the total societal impact per vehicle is $8700 every year.

Under this assumption, the $100 fine proposed by this bill is eighty-seven times lower than the actual societal cost. And given that most drivers spend up to $5000 making engine modifications so their vehicle can produce nuisance exhaust, $100 seems inadequate as an enforcement standard ("Why Pickup Truck Drivers Are Paying $5,000 to Pollute More," n.d.). Not only is it unlikely to deter individuals from making vehicle modifications, but it is also inadequate for covering the societal costs related to nuisance vehicle exhaust.

Lawmakers should consider increasing the proposed fine to more adequately cover the societal costs. By comparison, the New Jersey General Assembly recently passed a similar law that would impose a $5000 fine on individuals producing nuisance exhaust (Tabuchi, 2016). Accurately predicting the optimal fine may require research into the true impact of nuisance vehicle exhaust production on collisions and public health. If this bill is

passed with the current $100 fine assigned, regulators should continue to monitor the situation to ensure the bill is having the intended effect. Adjustments to the fine should be considered in the future if necessary.

In the past, the debate over an individual's right to produce nuisance exhaust has largely been taken out of context. Proponents have justified it as a method of free speech. They often claim they are protesting environmentalists and government (Walker, 2014). But, claiming that this is free speech ignores the issue at hand entirely. Producing nuisance exhaust is dangerous and can have adverse health effects on individuals in the vicinity. It goes far beyond simple free speech.

Free speech should not impact the health or well-being of those in its vicinity. Producing nuisance exhaust originally emerged as a response to President Obama's pro-environment stance (Walker, 2014). As the activity has become more popular, there have been numerous reports of this activity being used to harass bikers, pedestrians, and individuals driving smart cars (Tabuchi, 2016). Such actions are not permitted by the First Amendment under the Fighting Words Doctrine laid out by the Supreme Court ("Chaplinsky v. New Hampshire 315 U.S. 568 (1942)," 1942). Under the Fighting Words Doctrine, individuals are restricted from actions that "…inflict injury or tend to invite an immediate breach of the peace." Enforcing the Fighting Words Doctrine starts with limiting individuals from producing nuisance exhaust in the first place.

For some, producing thick, black exhaust might be seen as fun or exciting. But for the many individuals who must deal with its effect, this exhaust is a nuisance. This bill will

eliminate a market externality and in doing so improve road safety and public health. Failing to pass this bill is analogous to letting a market failure persist.

Works Cited

Chaplinsky v. New Hampshire 315 U.S. 568 (1942). (1942, March 9). Retrieved February 8, 2017, from https://supreme.justia.com/cases/federal/us/315/568/case.html

Copeland, L. (2014, May 29). Staggering toll: Car crashes cost $871 billion a year. Retrieved February 8, 2017, from http://www.usatoday.com/story/news/nation/2014/05/29/steep-economic-toll-of-crashes/9715893/

Costs of Chemotherapy & Other Mesothelioma Treatments. (n.d.). Retrieved from https://www.asbestos.com/treatment/expenses/

Diesel Exhaust and Cancer. (n.d.). Retrieved February 6, 2017, from https://www.cancer.org/cancer/cancer-causes/diesel-exhaust-and-cancer.html

Ginal, J. Prohibit Nuisance Exhibition Motor Vehicle Exhaust, Pub. L. No. HB17-1102 (2017). Retrieved from http://leg.colorado.gov/sites/default/files/documents/2017A/bills/2017A_1102_01.pdf

Tabuchi, H. (2016, September 4). “Rolling Coal” in Diesel Trucks, to Rebel and Provoke. *The New York Times*. Retrieved from https://www.nytimes.com/2016/09/05/business/energy-environment/rolling-coal-in-diesel-trucks-to-rebel-and-provoke.html

Walker, H. (2014, July 5). Conservatives Are Purposely Making Their Cars Spew Black Smoke To Protest Obama And Environmentalists. Retrieved February 6, 2017, from

http://www.businessinsider.com/conservatives-purposely-making-cars-spew-black-smoke-2014-7

Why Pickup Truck Drivers Are Paying $5,000 to Pollute More. (n.d.). Retrieved February 6, 2017, from http://nymag.com/scienceofus/2014/07/why-people-are-paying-5000-to-pollute-more.html