

The Convenience of Pollution: The Struggle over
Gasoline-Powered Leaf Blowers in the United States

An STS Research Paper
presented to the faculty of the
School of Engineering and Applied Science
University of Virginia

by

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May 11, 2023

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For many Americans, gasoline-powered leaf blowers are a convenient and essential tool for managing their lawns. However, leaf blowers have often been criticized for causing unnecessary environmental damage and excessive noise, leading to public resentment and efforts to constrain them. Gasoline-powered leaf blowers (GLBs) have been controversial for decades; attempts to ban the devices date back to 1978 (CCBH, 1978). Although GLBs remain a common sight in the US, recent trends towards electrification and efforts to reduce greenhouse gas emissions have resulted in a decline in their use. A number of localities now ban them, and some jurisdictions plan to phase them out. In 2021 the California Air Resources Board (CARB) amended its small off-road engine emissions standards to introduce a zero-emission policy for new spark-ignition engines sold after 2024 (CARB, 2021b).

Despite critics' attempts to restrict them, defenders of GLBs seek to justify and normalize their use. Examining how this struggle has unfolded over the past two decades can help us understand why these devices are still in use despite quieter and more environmentally friendly alternatives, and will reveal market factors that affect consumers' adoption of sustainable technology. Small hand-held motors, such as the two-stroke engines often used in GLBs, produce more harmful emissions than many other engine designs because the engine oil added to the fuel does not completely combust before release as exhaust (Tsai et al., 2020). According to the California Air Resources Board (CARB, 2021a), operating a GLB for one hour can emit pollution roughly comparable to driving 1100 miles in a car. Despite the imminent threat of global climate change (NASA, 2022), some social groups defend the use of GLBs. Their position must be understood before it can be addressed.

Many landscaping workers and companies, along with the professional associations under which they are organized, support GLBs. These workers must often perform tasks made much easier by leaf blowers and find GLBs to be the most attractive option, arguing that electric counterparts are less powerful and require more time to complete the same task (NALP, n.d.). Although many landscaping companies support GLBs, some oppose them on grounds of health and environmental concerns. Lawn equipment manufacturers and the trade associations that represent them also defend the use of GLBs, as they have clear financial incentives to promote their products.

Homeowners also play an important role in this issue, as much of the landscaping work that leaf blowers are typically used for takes place in or near residential areas. Some homeowners have organized under local “Quiet Clean” or similarly named advocacy groups to oppose the use of GLBs in their communities, citing the disturbances caused by the loud noises these devices cause when operated and the lingering dust that they can stir up into the air (QCNOVA, n.d.-b; QCS, 2022; QCW, 2022). However, there are also less-organized homeowners who defend the use of GLBs, often on grounds of personal freedom (Feiner, 2019).

The struggle between these opposing groups in the US has been primarily driven by conflicting perceptions of personal responsibility with regards to environmental stewardship and how individual and free-enterprise rights should be balanced with regulation for the common good. Both sides of the debate lobby respectively for or against proposed GLB restrictions and engage in propaganda or public awareness campaigns, including conducting targeted scientific research to strengthen their arguments.

Review of Research

Researchers have studied how the purchasing trends of consumers are affected by the values that they hold, such as Thieme et al. (2015) who showed evidence that consumers who pay more for an environmentally friendly product are much more likely to do so to save energy than to reduce environmental impact. This finding can shed light on the motivations in the debate over GLBs, and may suggest more effective ways to promote further adoption of environmentally friendly technology. Research on the “not in my back yard” (NIMBY) syndrome has revealed how a community may respond to unwanted local activities in residential areas, such as by organizing movements to oppose certain land use practices (Sénécal & Reyburn, 2006). Such research indicates how communities come together to form advocacy groups, sometimes to resist proposals that may be beneficial to the community.

Greenbaum (2000) investigated the conflicting views dividing supporters and critics of lawn herbicides, an issue with many parallels to the GLB debate. Greenbaum proposes viewing both lawn herbicides and weeds as lawn pollutants, a framing under which using harmful lawn herbicides can be seen as exchanging one pollutant for another, rather than a purely destructive action. In her 2018 study, Mason explored the differing effects of identity-based and issue-based ideology on political polarization in the United States. Mason characterizes identity-based ideology as ideology based on social identity, where individuals identify as either liberal or conservative, and issue-based ideology as ideology based on beliefs about specific policy issues. Mason found that identity-based ideology had a greater impact on affective polarization and the probability of policy extremism than issue-based ideology. This implies that polarized social groups may default to the stance held by the group that they identify with on policy issues

without diligent reasoning. Iyengar et al. (2019) found that social identity factors such as group loyalty, perceived threats to their partisan identities, and discomfort when interacting with out-group members were major contributors to affective polarization.

Environmental & Human Impacts

Community advocacy groups that have organized to oppose GLBs have primarily been motivated by a desire to reduce environmental degradation. This degradation includes both large scale effects like global air pollution and more local effects such as excessive noise pollution and lingering dust clouds stirred up by GLBs. In a petition to the Virginia General Assembly launched by Quiet Clean NOVA (QCNOVA) seeking to grant local governments authority over GLB regulations (QCNOVA, n.d-b), the petition authors state that “the noise from GLBs reduces quality of life in both urban and suburban residential communities as well as in working environments,” and that “high levels of noise pollution exert a deleterious effect on wildlife.” The petition also cites the environmental impacts of “antiquated” two-stroke engines, claiming that “today’s machines have virtually no emissions controls, spewing known carcinogens.” In a public meeting with the New Haven, CT, Board of Alders addressing concerns residents had about GLBs, community member Dr. Karen Jubanyik offers an explanation of why she began advocating against GLBs (BoA, 2022). As a local hospital ER worker and educator, Jubanyik often needed to work at night and sleep during the day. However, she reports having a difficult time getting adequate rest due to “incessant noise from overpowered gas-powered landscaping equipment” that she was unable to suppress with ear plugs or insulation, causing her to move to a different neighborhood. Although noise was her initial concern, Jubanyik says that she became

alarmed by other factors after learning more about GLBs, leading her to believe that “Some people may think that this issue is unimportant to compared to others, but from the point of protecting humankind for many generations, this is a critical issue as irresponsible use of gas powered lawn equipment is a major contributor to pollution.” Fugitive dust is also a major issue for many advocates, which can be inferred from the collection of testimonials provided to Hawaii lawmakers in support of a proposed bill (Hawaii State Legislature, 2010). Many Honolulu residents including Judi Bowman, Mollie Meade, Tim Apicella, and Harvey Hakoda complained about the prevalence of fugitive dust and the inconveniences it causes them, while Gail Schaffer and Darla Thomas expressed concern over rodent droppings, CO₂, CO, and other harmful chemicals potentially in these dust clouds. Bowman notes that “dust and debris is blown into people's homes and on their cars,” while Meade states that she has to “close all my windows and door to block the noise and the dust.”

One primary concern of anti-GLB activists is human health. A common strategy employed by these groups is to appeal to the possible negative health impacts of GLBs. Many advocacy groups include a “fact sheet” on their main web pages that include claims about the threats to human health GLBs pose, often supported by scientific literature with compatible findings. Examples include Quiet Clean Seattle (QCS, 2022) claiming on its homepage that GLBs produce “enormous amounts of dust, mold spores, and other particulate matter” that “gets in people's eyes, lungs, and can cause health complications,” as well as Quiet Clean DC (QCDC, 2018a), which states as fact that GLBs create “hazardous air pollutants for workers and neighbors,” and that noise levels can have “serious effects on humans,” such as impacting the cardiovascular and immune systems as well as child development. Landscaping company owners

who oppose GLBs have made similar statements, such as Steve Antos of Setauket Landscape Design, who suggested that decreasing GLB use would “provide a safer work environment for landscape workers” by reducing toxic emissions (CALC, 2017). Dan Delventhal, whose landscaping company MowGreen bases its branding on providing “Quiet, Electric & Organic Lawn Care” (MowGreen, 2023), condemned the noise levels of GLBs (BoA, 2022), stating that “the low frequency noise that gas leaf blowers make ... makes it hard to concentrate. It can raise your blood pressure. ... it goes through walls.” Delventhal claims that noise levels are even more dangerous for GLB operators and can cause hearing loss, as in addition to being closer to the source of the noise, “many of the young men even when [told] to put their ear protection on, they don't,” according to anecdotes Delventhal has heard from others in the lawn care industry. These stories are corroborated by Matt Kadosh’s (2021) account of Lois Kraus’s statements regarding GLB misuse, where Kraus recounts that some GLB operators don’t properly follow the Occupational Safety and Health Administration guidelines for ear and eye protection when using the devices. Although some might consider the workers to be at fault, Delventhal (BoA, 2022) believes that “you can have all the regulations around it that you want, but it doesn't mean they're going to be followed, and if there's a public danger you really have got to manage it.”

Free Enterprise & Personal Freedoms

In contrast to the ideals held by GLB opponents, many supporters view attempts to ban or regulate GLBs as threats to their individual liberty, free enterprise, and property rights. In an anonymized email to Greenburgh, NY, Town Supervisor Paul Feiner, one concerned homeowner wrote that “I believe people should have the right ... to care for their own property as they see

fit,” (Feiner, 2019), as well as expressing fears of regulatory creep for related gasoline-powered products like lawn mowers and string trimmers. Another anonymized response echoed this sentiment, noting that “there are people in the town who feel a ban would be an affront to their personal rights,” (Feiner, 2019). In testimony against a proposed GLB ban (QCDC, 2018b), Daniel Mustico, Vice President of Government & Market Affairs for the Outdoor Power Equipment Institute (OPEI), argued that “it’s best that the market dictate what products are best for those jobs, and they have availability to them,” and that regulation “puts restraints on the many businesses ... that rely on these products, and certainly homeowners and business owners ... if they don’t have the full range of options of equipment that are available in the market to do jobs.”

Workers in the landscaping industry often share similar feelings, and believe that supporting their livelihoods with electric leaf blowers is infeasible. As such, they feel that they have the right to keep using GLBs despite the negative impacts. Following a 1998 attempt to ban leaf blowers in Los Angeles, Jean Merl (1998) reported on a hunger strike by landscaping workers led by Adrian Alvarez, a member of the Association of Latin American Gardeners of Los Angeles. According to Merl, Alvarez felt that “a hunger strike is the only way we can be heard,” and that “the reality is that gardeners need the leaf blowers to do their jobs.” Alvarez justified continued GLB use by saying that “other technology is also noisy and polluting and so is regulated, not banned,” which shows that he accepts the downsides of GLBs, but considers the livelihood of workers to be of greater importance. When speaking to the Board of Alders (BoA, 2022), New Haven, CT, groundskeeper Michael Frawley described GLBs as being an “irreplaceable tool in our arsenal. Their maneuverability, their power, their versatility, and their

efficiency are incomparable with other options available to us at this time.” Frawley discussed electric alternatives, maintaining that “none of these are as capable as a standard gas blower and they are all very cost prohibitive.” In response to a proposed ordinance in Westport, CT, that would severely limit GLB use, the Fairfield County Hunt Club groundskeeper said that “landscapers don’t want to hurt the environment or people’s health,” but that in the competitive landscaping market GLBs are needed to complete work efficiently (Bishop, 2022).

Outreach & Propaganda

A sense of GLB necessity and acceptability is a common belief held by supporters of GLBs. This perception is a form of propaganda perpetuated by professional associations for lawn care and trade associations for small engine manufacturers. The National Association of Landscape Professionals (NALP) promotes this belief in its GLB position statement (NALP, n.d.) by remarking that electric alternatives are “not an acceptable substitute,” and downplaying GLB impacts with statements like “leaf blowers make no more noise than many other types of power equipment” and “actual emissions from leaf blowers are few because of the equipment’s intermittent use.” NALP also dismisses local governments’ concerns over emissions and desire to enact regulations as “spurious” due to the existence of larger regulating bodies like CARB and the Environmental Protection Agency, making it harder for opposing voices to be heard. OPEI spokesman Daniel Mustico also dismisses the severity of GLB emissions by citing continuous innovation by manufacturers which “reduced air emissions as much as 90%” and made GLBs “75% quieter” over a span of 15 years, claiming that such innovation is “effectively addressing the underlying concerns,” and thus GLB use is acceptable (QCDC, 2018b). OPEI also includes a

“fact sheet” style document on its web page similar to those used by anti-GLB advocacies, in which it claims to debunk common myths about GLBs (OPEI, 2023) using favorable scientific research. This list states that claims of GLBs producing excessive emissions, noise, or debris are all myths, while promoting the benefits of GLBs and stating that they are “considered acceptable in many cities and municipalities.”

Advocacies in opposition to GLBs advertise their beliefs by performing and circulating targeted research chosen to support their position and by directly engaging with and educating the community. In an update to an online petition, QCPDX member Susan Orlins informed signees that “we now need to pay for a scientifically designed study that will show how the sound quality of gas-powered leaf blowers harms operators.” This statement shows the desire to have research performed to reach a preconceived result, rather than an unbiased study where findings are reached without an agenda. Examples of targeted research can also be seen from Quiet Communities, Inc, as the founder Jamie Banks is listed as an author on several reports with findings critical of GLBs (Walker & Banks, 2015; Banks & McConnell, 2017). When discussing community awareness and education on GLBs (Kadosh, 2021), Westfield Green Team co-chair Lois Kraus remarked that “education first is what we think is the most important,” and that “we don’t want to ram it down anybody’s throat because we know people feel strongly about it.” The American Green Zone Alliance (AGZA) specializes in educating landscapers about battery electric equipment and certifying workers in sustainable landscape maintenance (AGZA, 2023; Stewart, 2021). When interviewed about his experiences educating landscaping workers (Stewart, 2021), AGZA founder Dan Mabe reported that many of the workers he trained came to prefer the electric alternatives, recounting “They do. They literally say, I can go home and hug

my kids, I don't have to go in the garage and disrobe and go jump in the shower immediately. So, the workers, they were always afraid to say anything, but now they're saying yeah, this is better for me.”

Social media and having a presence on the internet has been an important strategy for grassroots advocacies opposing GLBs, and has allowed these groups to reach larger audiences and to more effectively attempt to educate and spread awareness. Quiet Clean PDX (QCPDX) prominently displays a negative video showing fugitive dust stirred up by a leaf blower under dramatic lighting (ZAP, 2009) embedded in the footer of their web page, which the group urges visitors to watch and share with others (QCPDX, 2023). QCPDX is also active on Facebook (QCPDX, n.d.), where as of 2023 they post regularly about the benefits of communities without GLBs and ways citizens can get involved. QCNOVA also maintains a Facebook page with similar contents and updates on GLB legislation efforts (QCNOVA, n.d.-a). According to Susan Orlins of QCDC, being able to create a petition on change.org was instrumental to securing a hearing with the DC Council Chair, as implied by her thanks and gratitude to signees (QCPDX, 2018). When referencing this petition during her testimony (QCDC, 2018b), Orlins recounts that “we were told not to expect more than a few hundred signatures, but in short order we had a thousand. Today our petition has over 2,000.”

Conclusion

Although the struggle over GLBs may be regarded by many as an issue of low priority, it functions as a small-scale analog to a much larger conversation reflecting a deeper conflict between societal values and interests. In particular, the debate highlights the tension between

individual freedom and collective responsibility through regulation and sustainable choices, which is broadly applicable to climate control regulations and understanding the importance and drawbacks of fossil fuel use in the United States, as well as the effects these regulations can have on the livelihoods of those involved. Observing the impacts that educating rather than vilifying the landscaping workers who use GLBs provides a practical example of how perceptions towards sustainable technology can be changed and effect the adoption rate of these technologies, as these workers also generally care about the environment and may not have considered the effects of GLBs or known of the viability of alternatives. Examining the arguments and implications of both sides of the GLB controversy gives insight into the ways and reasons why those who benefit from controversial technologies, be it financially or otherwise, will push back against efforts to regulate them.

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