Throughout the 20th century, Pittsburgh, Pennsylvania, was known in the United States and indeed the world for its legendarily dirty air. Until the late 1960s, there was no political mechanism for the explicit inclusion of the public in regulation of air pollution in this industrial city. Most decisions about pollution policy were made in privately-arranged meetings, between representatives of industry, government and regional elites. But in 1969, fueled by popular unrest and major changes in legal philosophy and federal legislation, a new experiment in public inclusion began, with locally-controlled regulation of air pollution supported by an independent, quasi-state Variance Board hearing requests from polluters for exemptions to county laws. Specifically, the county passed a more stringent, new air pollution code in 1969, but also created a new institution in the health department: a committee made up of appointed experts and citizens that would hear requests from emitters who wished to have an exemption from (or a brief delay in meeting) more strict sulfur dioxide and particulate emission standards. In other words, polluters were forced to ask for a variance from air pollution law, and their requests were heard by a public board whose actions were widely covered in the local press. This board was the organizational method chosen to respond to increasing demand for public involvement; as such it mandated membership from the public and experts, but excluded industry representation.

In the early 1970s, this experiment in control was lauded in Pittsburgh and across the U.S. as a successful example of local control and public inclusion. There were many reasons for this success, but chief among these was the quality and quantity of scientific expertise among the Pittsburgh public. The historical transition from regulating smoke (which anyone with eyes can see and gauge) to regulating the amounts and percentages of chemicals or solid particles in air pollution (which can only be detected and measured with advanced equipment and knowledge) raises difficulties of scientific certainty. But local environmental groups had membership from independent scientific and technical voices that were not only the most knowledgeable in the region, but would later come to be recognized as national experts in this specific subject matter. Between private technical universities, public universities with graduate programs in public health, federal agencies studying air quality in coal mines, private research institutions, large manufacturing firms employing many engineers and research scientists, large numbers of hospitals, and consulting engineers who built the nation’s first automated air pollution monitoring equipment, Pittsburgh was home to the most knowledgeable air pollution experts in the nation. Many of these individuals became members of a citizen’s group known as GASP (or the Group Against Smog and Pollution) and similar organizations, offering technical reports, expert testimony, and journalistic interviews that countered industry viewpoints. The Variance Board, media outlets, and local judges drew on the expertise of these individuals and groups to build a public consensus for regulation.

Beyond the educated populace, there were also political and legal reasons for the success of local control in Pittsburgh. The power to regulate was concentrated at the county level. An awkwardly large number of municipalities led to deference to county control, as there was no way for individual cities to legislate highly mobile air pollution. The state also empowered Allegheny County more than other Pennsylvania counties to enforce its own rules. Beyond the region, the development of the legal concept of “citizen standing” in federal courts virtually
guaranteed environmental groups the right to intervene in lawsuits and enforcement matters for the first time. Most importantly, federal legislation in the form of the 1967 Air Quality Act and the 1970 Clean Air Act specifically mandated public inclusion in the formation and implementation of state-level air pollution laws.

Success was also possible because a large proportion of the public was interested in air pollution matters, and until at least 1973, the public agreed that regulation was necessary. For a variety of reasons, the salience of air pollution control was high. Pittsburgh’s geography of valleys and hills, with most industrial polluters located along rivers at the bottom of steep ridges, increased and localized the impact of air pollution on specific communities. This reminded many of Pittsburgh’s long history of smoke pollution and of the lethal Donora smog disaster of 1948. The moderate nature of GASP and its maternalist rhetoric was also appealing for many. Increased environmental consciousness as a result of the national environmental moment helped, as did a general sentiment of “power to the people” from the many social movements of the 1960s. But local activists were also successful in raising awareness through films, commercials, constant press coverage, and the creation of the nation’s first automated air pollution control monitoring network and index.

While the success was real, the failures of the Pittsburgh experiment were evident by the mid-1970s. Imposition of more strict control on small and medium-sized Pittsburgh-based polluters was largely successful, but larger corporations resisted the power of local control, and survived into a new, economically-depressed decade with weaker public support for strict control of pollution. Industrial giant United States Steel defended its Clairton Coke Works – known as the largest in the world, and home to a dirty and difficult-to-regulate process – through legal and political maneuvers, successfully avoiding the Variance Board and regulation by the county and state. By the end of the 20th century, many of the actions of the Variance Board were moot – large industry had left Pittsburgh of its own volition, and politicians campaigned against the existence of the Variance Board as a means to encourage industry to return.

Overall, viewing the case study of the Variance Board as a temporary experiment in public inclusion leads to several conclusions. Meaningful and substantive inclusion of the public was possible here, even on a highly technical topic. However, the social capital of Pittsburgh’s environmental groups might have been unique or exceptional. Also, the institutional design of the Variance Board limited the power of public participation to the role of oversight or “safety valve”. Finally, while the experiment of the Variance Board worked for smaller polluters, it was completely overmatched by the legal, political and economic power of large polluters. Massive steelmaking companies evaded local control by threatening to reduce employment, and pollution only decreased when they shut down or minimized production in the 1970s. This is a troubling conclusion: if Pittsburgh’s success in limiting pollution is mostly attributable to the end of industrialization in the region, exactly how successful was the inclusion of the public in controlling pollution?