

# Energy consumption and air pollution assignment

[Environment](#), [Air](#)



Both sides of this will be issued as well as a few alternative energy sources that would help to reduce pollution even further. Based on Of the website sponsored by the Foundation for Clean Air progress (FACE), many changes have been made in the last thirty years that have affected the rate of air pollution as energy consumption has increased. The FACE is a non-profit foundation in the private sector aimed at educating the public on air quality improvements. The FACE obviously hold a bias towards the improvement of air quality over the last 30 plus years, but also back it up with gathered data from reputable sources.

In a 1999 poll the FACE commissioned, roughly 61 percent of the respondents felt that air pollution had increased while only roughly 22 percent felt that the air quality was increasing. The FACE also conducted a study that compared both air quality and energy consumption at national levels. The study began analyzing national information from 1970, when the Clean Air Act was enacted and state level information since 1985 from sources at both state and federal levels, such as the Environmental Protection Agency. The first area covered in the study was that energy consumption has definitively grown. Within the

U. S. , the study shows how overall consumption grew by 41 percent in the time period of 1970 -?? 2000. The study broke it up into four categories and showed growth percentages in each: 1) commercial grew by 80 percent, 2) transportation grew by 64 percent, 3) residential grew by 34 percent, and 4) industrial grew by 21 percent. This is easily explained by the second area in the study which showed that many factors, including population growth by 38 percent, employment rates, licensed drivers, registered vehicles, miles, <https://assignbuster.com/energy-consumption-and-air-pollution-assignment/>

and gross domestic product growth had all increased by between 70 and 158 percent each.

It is to be expected that as a country grows, employs more people, and increases miles traveled, that the energy expenditure would grow as well. However, what was surprising was the following data gathered within the third part of the study. This data showed that pertaining to the six identified air pollutants in the Clean Air Act; five of them had been significantly reduced: Airborne lead emissions dropped by 98 percent. Particulate matter (PM-II) emissions dropped by 75 percent. Volatile organic compound (VOCE) emissions, which cause smog, dropped by 42 percent.

Sulfur dioxide (ASS) emissions dropped by 39 percent. Carbon monoxide (CO) emissions dropped by 28 percent. The only air pollutant to have increased during this time period was Nitrogen Oxide (KNOX). This pollutant is currently targeted for reductions as new technology to reduce it is developed. These reductions should not be that much of a surprise as the U. S. Has stressed the importance of them through education, voluntary and regulatory emission reduction efforts, as well as through technological advances made in the area of air pollutant reductions. Breathing Easier, 2005). On the other side of this are other countries that are developing like China. Currently, China is the second in both consumption of energy and dispensing of greenhouse gases, behind the U. S. It is predicted to pass the U. S. Within the next two decades as it is still industrialization and has a greater population. At this time, 16 of the 20 most polluted cities in the world

are within the Chinese borders. The main pollutant producer in China right now is the burning of high sulfur content coal.

China does not currently have the level of regulations as the U. S. Maintains and does not fall under the Kyoto Protocol as it is still classified as a developing nation. (Globalization and China's Environment, N. D. ). There are several alternative energy sources and other ways in which to reduce the number of air pollutants and raise air quality. The biggest factor in these other options is either financial, technological, or time constraints.

There currently are on-going developments in ways to reduce air pollution through current energy consumption. Some of these include changing the types of fuel we use in automotive and industrial pursuits. Such examples are switching to hybrid vehicles, utilizing more bio-fuels and less petroleum based gases, using hydrogen-cell batteries, and lower sulfur content coals. The issue with many of these, besides the coal, is that the technology is still being refined to where it will produce the same results in energy and especially availability.

Some other ways are trying to harness the energy available in nature and converting it into electricity, such as using wind, solar, or hydrological power. This is difficult due to the technology not being refined enough at this time (wind), that there is the possibility of severe environmental effects (building dams), that nature is not always providing the right conditions in which to effectively harness it as a dependable source of energy, and that it normally entails a large reserve of money to get the project started.

The last way to cut down on energy consumption and emissions is to simply utilize our own energy and either ride a bicycle or walk. The main constraint with this option is the time that it takes then to get from one place to another. As stated at the beginning of this paper, am still surprised that our air quality has improved. It makes sense that it would raise as the nation uses more energy for more people. However, due mainly to the Clean Air Act of 1970 and education, the U. S. Has been able to reduce its percentage of air pollution overall.