So a Guy Walks Into a Bar With an Air Monitor . . .

By RICHARD PÉREZ-PÉÑA

It takes a toll, being the scientist who has to measure the air quality in a bar after bar around the East and West Coasts, wearing breathing masks and monitoring smoke particles between beers.

"You go to a bar, have a beer, go to another bar," said Mark Travers, a 28-year-old doctoral candidate at the University of Buffalo, part of the State University of New York. He carried his sophisticated monitoring equipment in a shoulder case.

"By the end of the night, you aren't so motivated to pick up and go on to the next bar," he said. "Occupational hazard. I'm not really complaining. "Oh, I have to go bar-hopping again." But I definitely don't go in to work early like I used to."

Nonetheless, after months of arduous research, Mr. Travers and other scientists at Roswell Park Cancer Institute in Buffalo have reached a significant conclusion about indoor air in Mayor Michael R. Bloomberg's New York, a year after the city banned smoking in all bars and restaurants: The atmosphere in them has, on average, less than one-tenth as many fine particles and other harmful chemicals as in cities where smoking is still allowed. When they looked only at bars, and only late at night when the indoor haze was thickest, the contrast to New York City was much sharper.

While the results he gathered may not be terribly surprising, the study, financed in part by the Campaign for Tobacco-Free Kids, an anti-smoking group, helps put a numerical stamp on the still-new experience of walking into a bar past midnight and being able to see across the room, without having a pint or two and not having your eyes sting or your hair and clothes smell of the experience the next morning.

"It still seems really strange to be in the bar at 1 a.m., when I'd say 90 percent of the people are at least part-time smokers, and not see that cloud," said William Schumacher, a bartender at Kenny's Broome Street Bar in SoHo. "I always thought the smoke didn't bother me, but I go home feeling better these days."

In a sampling of Manhattan taverns Mr. Travers visited last Saturday night, the average concentration of those tiny particles, soot, was 25 micrograms per cubic meter of air, about the same as he had found a few weeks earlier in Buffalo. Health experts say that number is not particularly good - the city has measured lower concentrations at the mouth of the Holland Tunnel at rush hour - and reflects New York City's general air pollution problems.

But it is a far cry from cities where smoking is still allowed. In dozens of bars and restaurants in Washington, Baltimore, Philadelphia and Hoboken, N.J., Mr. Travers found an average particulate concentration of almost 300. That number includes measurements taken at places that are primarily restaurants, and some readings taken before the nights got busy. In bars visited late at night, the particulate pollution in other cities often topped, 400, 600, even 1,000, in one case.

California began the effort to ban smoking in bars in 1998. But for all its health-conscious image, the trend-setting left coast did not match New York in Mr. Travers' findings, for the simple reason that people there cheated. In some Los Angeles night spots, he found smokers defying the ban, and an average particulate level of 94.

In addition to particulates, secondhand smoke contains carbon monoxide and a group of carcinogens called polycyclic aromatic hydrocarbons, or PAH. Mr. Travers measured carbon monoxide and found significant, but less striking, differences between smoking and nonsmoking businesses. He did not test for PAH, which studies show varies in direct proportion to particulates.

Several studies have shown that secondhand smoke poses a risk of cancer and heart disease, while the few others - the ones cited by opponents of smoking bans - have not shown any link. Inhaling fine particles in large amounts, from whatever source, can cause many health problems.

The numbers collected by Mr. Travers show striking variation, in ways that both sides in the ongoing debate might seize on to support their arguments. In Albany, tavern owners and some legislators are proposing exemptions to the ban that New York State passed last year, for bars with good air-flow systems.

The ESPN Zone at Baltimore's Inner Harbor presented one extreme early one evening. Families with children having dinner sat at many of the tables, and there were only a few smokers in a half-full, modern room with high ceilings and gale-force ventilation. The particulate level was 70 - far below most other smoking places, but still almost triple the New York City average.

A few hours later, at the Horse You Came In On bar in Fell's Point, a low-ceilinged old Baltimore place packed with hard-drinking people in their 20's listening to a band playing Cheap Trick covers, it was 526. And that was mild compared with the upstairs bar the next night at Millie & Al's, in the Adams Morgan section of Washington, D.C., where the particulate level hit 1,119, or about 45 times as high as a typical New York City place.

Even the nonsmoking places varied, depending on factors like the presence of a kitchen (stoves and ovens produce some particulates), and the general level of air pollution in the city.

Tagging along with Mr. Travers and talking with patrons also turned up a wide range of attitudes. Some nonsmokers said they did not mind smoking and opposed any infringement on the right to smoke, while some smokers said they would be happy to see a ban.

People said that smoking prohibitions had subtly altered their social equations, encouraging them or discouraging them from going out to bars, depending on their tastes, and causing nicotine refugees to gather out on the sidewalks.

"I believe in personal accountability, and I know what I'm doing to myself, and this is one of my happiest moments," Hafeez Raji, a visiting New Yorker, said between drags on a Parliament in Garrett's, a bar in the Georgetown section of Washington.

A number of smokers said they approved of nonsmoking laws, and even saw a benefit to themselves. "I smoke a lot less now because of it, " said Matt O'Brien, 26, who sat with friends last weekend at the Heartland Brewery Union Square in Manhattan.

The ban has even changed the pickup scene, according to Mr. Schumacher, the bartender. "There are a lot of guys you see in here, not smoking," he said, "but as soon as they see a pretty girl go out there for a smoke, they step out and light up."