

# Research impact: making a difference

## Locating fast food outlets away from schools to prevent obesity

A research team from Columbia, Berkeley and LSE linked obesity levels in schoolchildren to the proximity of fast food restaurants to schools

### What was the problem?

Recent years have witnessed a rapid increase in obesity, accompanied by an alarming increase in obesity-related health disorders. Several studies have sought to implicate the rising consumption of fast food in this epidemic, but these have generally established a correlation between fast food and obesity without producing convincing evidence of cause and effect.

Rising obesity levels in schoolchildren have caused concern among parents, health providers and public policymakers, who have sought answers to two key questions: What is the actual effect of siting fast food outlets close to schools? And is there a case for restricting the availability of fast food in and around schools?

### What did we do?

Research focused on addressing these urgent questions was carried out by Janet Currie, then at Columbia University and now the Henry Putnam Professor of Economics and Public Affairs at Princeton University; Professors Enrico Moretti and Stefan DellaVigna of the University of California, Berkeley; and LSE Research Fellow Vikram Pathania, now at the University of Sussex.

Their approach aimed to go beyond correlation and establish cause and effect. They took the exact geographical location of fast food restaurants in California and investigated obesity levels among children attending a subset of 1,047 schools sited within 0.25 miles of such outlets. This produced very precise data on more than 3 million students, recorded over eight years. All were in their first year of high school (grade 9), and typically aged between fourteen and fifteen. The data came from fitness tests administered to the students in spring, after 30 weeks at school.

Simply comparing obesity levels at schools close to a fast food restaurant with those that have no nearby outlet could produce misleading results: the schools and their students might have very different characteristics. Instead, researchers compared results for schools sited very close to a fast food outlet (within 0.1 miles) with results for schools sited from 0.1 to 0.25 miles.

Overall, siting a fast food outlet right next to a school produced a 5.2 per cent increase in obesity among students. Researchers calculated that students' calorific intake at such schools increased by 30–100 calories per school day, roughly equivalent to one additional Big Mac every two weeks. Students at schools sited further away showed no such effects.

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## What happened?

The study received wide media coverage across the US when its findings were released in March 2009. The *Los Angeles Times* carried a front-page article on the study, which was also covered by the *New York Times*, the *Boston Globe* and several local newspapers in California. Television and radio coverage included the national US channel *ABC News*.

Interest in California was especially high since policymakers had started to restrict the availability of fast food in certain areas. In 2007, California had moved to restrict the availability of soda and fast food within schools, and the following year Los Angeles had imposed a moratorium on the construction of new fast food outlets in south central Los Angeles, a low-income neighbourhood with high levels of obesity.

By providing precise estimates of how the proximity of fast food outlets affected obesity levels among a very large sample of students, the study strengthened the case for policies targeted at schools. It also had a direct impact in New York, where council members and health advocates used its findings to call for a ban on opening new fast food outlets within a 0.1 radius (about a city block) around schools.

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