

## What Makes a Study “Good” and Why?

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When handed a report or study on secondhand smoke—particularly if it claims that going smoke-free hurts the hospitality industry—consider these factors. The more questions you can answer “yes,” the more confidence you can have in the results.

<p><i>Did the study measure what actually happened (not just what people feared would happen?)</i></p>	<p><input checked="" type="checkbox"/> YES</p>	<p>Because of the decades-long propaganda campaign that the tobacco industry has been running, many restaurateurs believe that smoke-free laws will cost them business. As a result, surveys asking people what they expect to happen usually result in negative predictions. These polls are in reality a measure of the effectiveness of tobacco industry propaganda, not the truth about the effects of creating smoke-free restaurants and bars. Subjective measures, such as polls asking people what they thought happened are also subject to manipulation (such as by biasing the sample of who you ask).</p>
<p><i>Did the study use hard numbers (such as actual revenues or employment statistics collected by an unbiased source?)</i></p>	<p><input checked="" type="checkbox"/> YES</p>	<p>To be believable, a study should be based on “hard data” (objective measures) collected by a neutral party (such as the tax or employment agencies in government) with no interest in whether smoke-free laws affect the hospitality industry. The data should include all businesses. A common way is to express restaurant revenues as a fraction of all retail sales.</p>
<p><i>Did the study include information for a reasonable time before the smoke-free policy went into effect and account for underlying trends and random fluctuations in the business cycle?</i></p>	<p><input checked="" type="checkbox"/> YES</p>	<p>Several factors in the economy may affect economic studies: (1) good or bad overall economic conditions; (2) inflation; (3) seasonal variation; (4) random fluctuations due to the high profile events, severe weather or other extraneous factors. By collecting data for several years before the smoke-free policy takes effect, it is possible to quantify these trends and effects and take them into account. This is important so that some normal (or random) fluctuation in the economy is not attributed (one way or the other) to the ordinance.</p>

<p><b><i>Did the study use at least one year's data (usually 4 quarters) to assess the effects of the ordinance?</i></b></p>	<input checked="" type="checkbox"/> YES	<p>Even if the ordinance has no effect, because of random fluctuations in the economy it is virtually certain that sales in any quarter (or other reporting period) will be higher or lower than an earlier quarter simply because of random fluctuations in the economy. By waiting until you have at least one year's experience, it is likely that these random fluctuations will balance out, ensuring that any effects that are attributed to the ordinance (positive or negative) are not simply chance variations.</p>
<p><b><i>Is the source of funding for the study disclosed?</i></b></p>	<input checked="" type="checkbox"/> YES	<p>Studies financed by the tobacco industry (directly or indirectly) often fail to disclose the source of financial support.</p>
<p><b><i>Is the study in a "peer reviewed" journal?</i></b></p>	<input checked="" type="checkbox"/> YES	<p>"Peer review" is the process by which academic studies are evaluated by objective parties. When a paper is sent to an academic journal the editor typically sends the manuscript to 1-3 outside reviewers who have expertise in the field but no vested interest in the study. These reviewers critique the study and make recommendations to the editor. (Their identities are generally not disclosed to the author and some journals do not tell the reviewers who the author is.) The editor then accepts or rejects the paper in accordance with the reviewers' comments. While the process is not perfect, it does substantially increase the chances that a study is not based on a biased sample, that the methods are scientifically sound, and that the conclusions made by the author are based on the evidence of the study.</p>
<p><b><i>Is the study financed by an agency that has no ties with the tobacco industry?</i></b></p>	<input checked="" type="checkbox"/> YES	<p>As of August 2005, the only studies that claim to find that smoke-free ordinances have a negative effect on the hospitality industry are ones supported by the tobacco industry, its allies, or front groups. As with studies of the health effects of secondhand smoke (where affiliation with the tobacco industry increased the odds of concluding that secondhand smoke is not dangerous by more than 88 times), affiliation with the industry is a strong predictor of a negative conclusion. If the study is sponsored by a restaurant association, is it an independent group or one with financial or other ties to the tobacco industry?</p>