

# How much cigarette tax avoidance is there in the US?

## Different estimates from smoker surveys and physical pack collection methods<sup>1</sup>



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### ABSTRACT

A number of recent studies measure the degree to which cigarette smokers avoid cigarette taxes. Two primary methods of assessing cigarette tax avoidance have been used: survey methods and physical pack collection. Surveys consistently reveal a substantially lower rate of cigarette tax avoidance than physical pack collections. We document and compare the avoidance rates from the two methods and explore potential explanations for differences in the findings. Further research is needed to better understand differences in avoidance estimates.

### DATA

We compare estimates using a number of both survey and physical pack collection sources.

#### Surveys

One method of estimating whether people avoid cigarette taxes is to ask them about their tobacco purchasing habits. For example, if a survey respondent from the state of New York indicates that he or she typically buys cigarettes in a lower tax state (e.g. New Jersey), we may see evidence of tax avoidance. Two recent surveys have been used to estimate cigarette tax avoidance at the national level. One survey, the Tobacco Use Supplement of the Current Population Survey (CPS-TUS), has been conducted by the United States Census for the Bureau of Labor Statistics since 1992. We use the results of the January 2011 survey alone, as well as in combination with the May 2010 and August 2010 surveys. DeCicca, Kenkel, & Liu (2010) analyzed the 2003 and 2006-2007 CPS-TUS, and their results are included here. A second survey, the International Tobacco Control Policy Evaluation Project, was conducted by Guindon, Driezen, Chaloupka, and Fong (2013) from 2002 to 2011 using eight waves of surveys.

In addition to various surveys that aim to estimate the national cigarette tax avoidance rate, surveys have been used to estimate local tax avoidance rates. The annual New York City Community Health Survey asks 10,000 New York City residents via a telephone survey whether they smoke, and if so, where they got their last cigarette (Chernick & Merriman, n.d.).

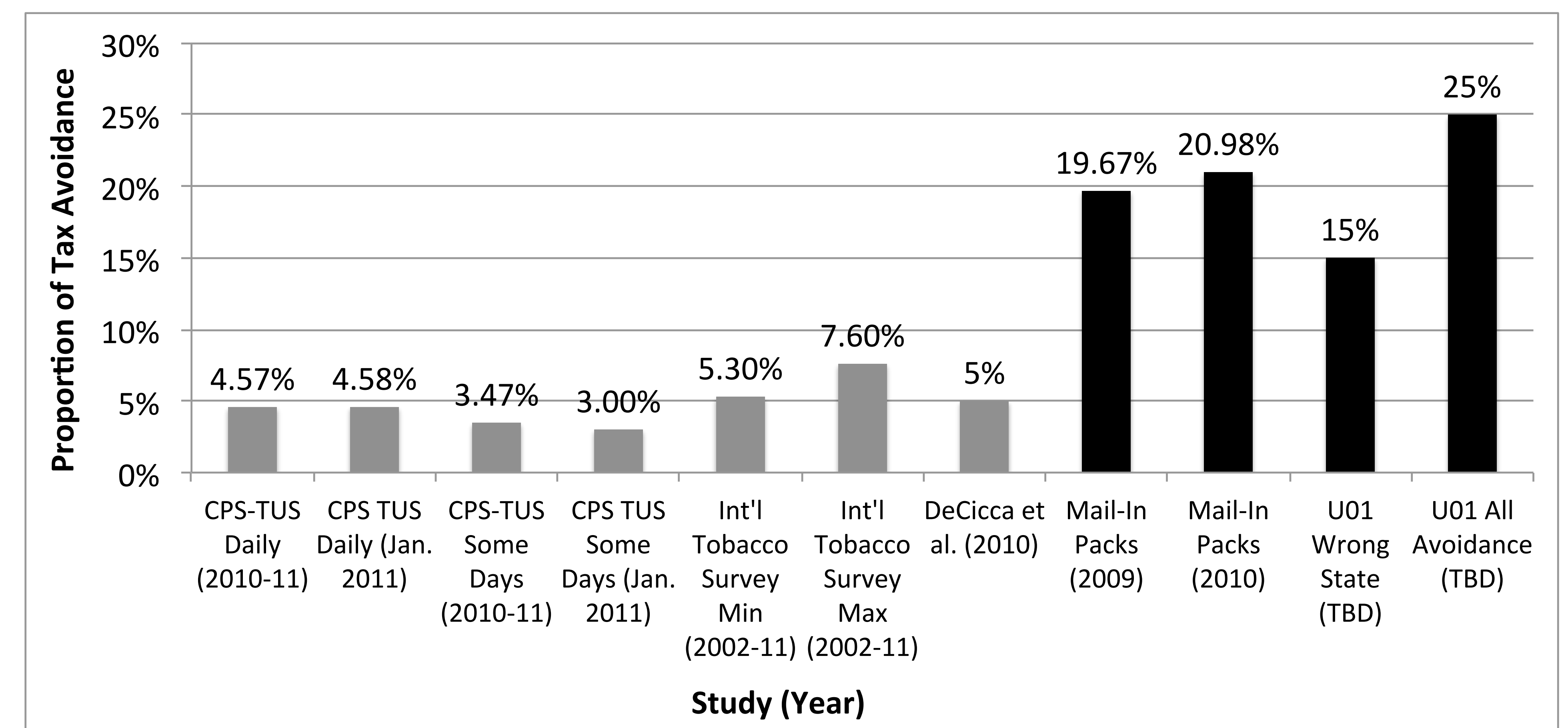
#### Physical Pack Collection Methods

Another strategy that has been used to estimate tax avoidance is to examine physical packs of cigarettes. In most US states and some cities tax stamps affixed to cigarette packs indicate the jurisdiction(s) to which taxes have been paid. A pack of cigarettes found in Illinois that has a tax stamp from a lower tax state (e.g. Indiana) may indicate tax avoidance. Fix, Hyland, O'Connor, Cummings, Fong, Chaloupka, and Licht (2013) measured tax avoidance using data about physical packs collected in 2009 and 2010. The International Tobacco Control mailed pack survey asked members of a nationally representative cohort to send in an unopened pack of their usual brand of cigarettes. We also report new empirical results based on a recent collection of littered cigarette packs in a representative sample of US school attendance zones (reported as U01 in the graphs to the right). In this study, which is based on a nationally representative sample of school attendance zones, nearly 4,000 littered cigarette packs were collected across 38 states including Washington, DC in the spring and summer of 2012. One hundred and sixty school zones were included in the study and 132 zones contained littered cigarette packs with cellophane that could be used to estimate tax avoidance.

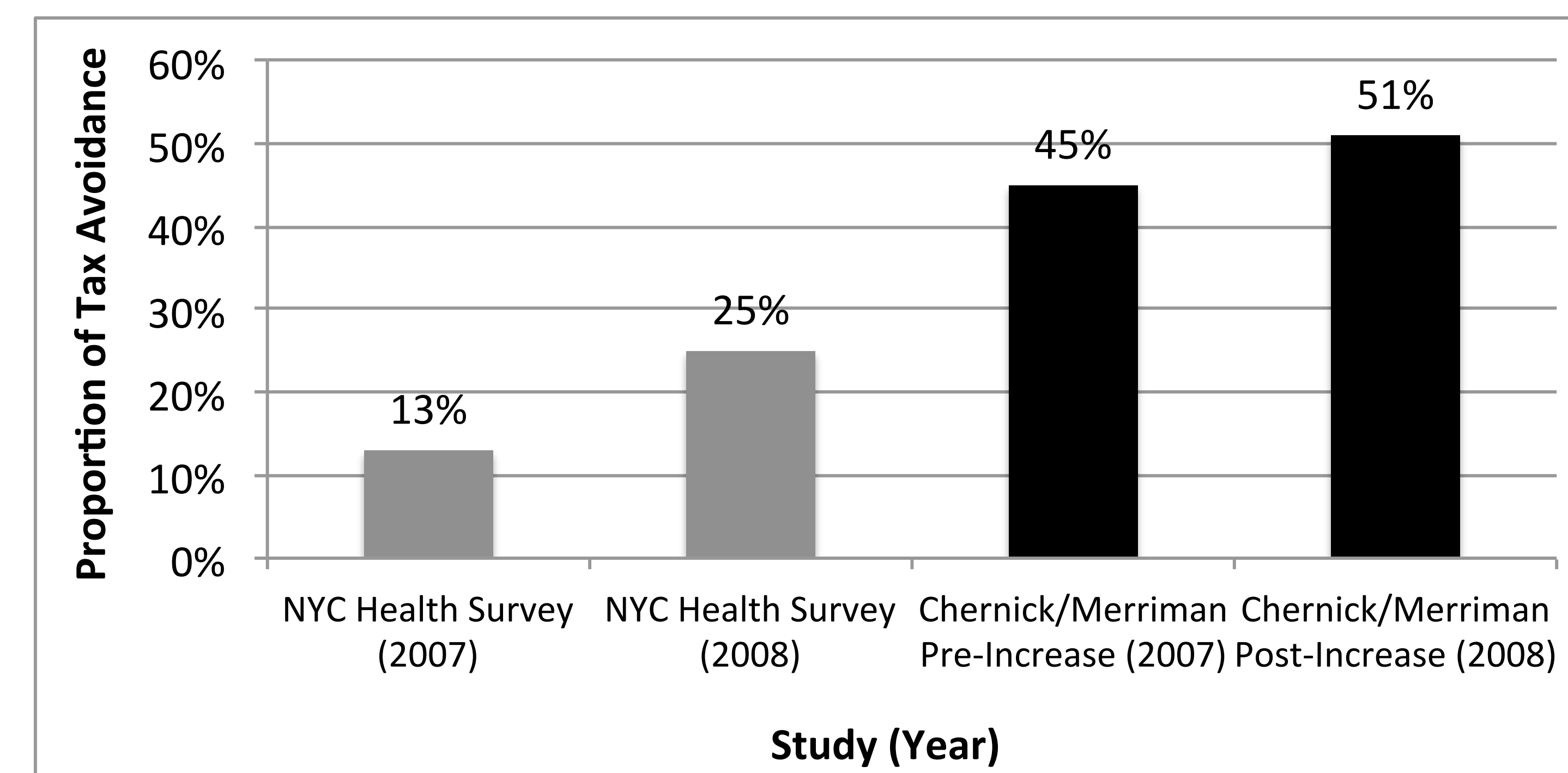
Similar to surveys, efforts to estimate avoidance exist at the local level. Chernick and Merriman (2013), used physical pack collection in conjunction with a June 2008 cigarette tax increase in New York State (NYS) to study tax avoidance in New York City (NYC).

### RESULTS – SURVEYS IN GREY, PHYSICAL PACKS IN BLACK

#### National Avoidance Estimates



#### New York Avoidance Estimates



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### SUMMARY OF FINDINGS

A clear distinction exists between survey methods and physical pack collection methods that use a national sample. As shown above, estimates of tax avoidance using physical pack collection methods is consistently three to four times as high as estimates using survey methods. The difference between surveys and physical pack methods is also evident in local estimates. A number of potential explanations exist for this difference, ranging from the way in which survey respondents answer questions to the type of smokers reached by the two methods of data collection. Further research will be useful for interpreting and potentially reconciling these differing estimates.