The Office for National Statistics is developing a Corporate Service Price Index (CSPI) for the advertising placement industry. The advertising placement CSPI will monitor the price of advertising space on television and in printed publications. The television advertising CSPI is created using unit prices estimated from audience and revenue figures, weighted together using revenue figures fixed in the base year 2000. A printed media advertising CSPI is created using unit prices estimated from advertising rate card prices, adjusted by audience and discounting factors, weighted together using advertising revenue figures fixed in the base year 2000. It is estimated that the advertising placement CSPI will be published in the CSPI 2006 quarter one results on 12 May 2006.

Introduction
The Corporate Services Price Index (CSPI) branch of the Office for National Statistics (ONS) is currently developing a CSPI for the advertising placement industry. We intend to publish the price index as part of CSPI’s quarter one 2006 results. It also provides details on how the price index is being compiled, what data sources are being used and what the overall coverage of the advertising industry will be.

To see more information about CSPI and to view the latest results, please visit the National Statistics website at: www.statistics.gov.uk/cspi.

Scope
The Advertising industry can be categorised using the following two industrial classifications:

The UK Standard Industrial Classification (SIC) identifies the following:

Advertising (74.40):
- 74.40/1 Sale or leasing activities of advertising space or time
- 74.40/2 Planning, creation and placement of advertising activities
- 74.40/9 Advertising activities not elsewhere classified

The Central Product Classification (CPC) is similar:

Advertising (836):
- 8361 Planning, creating and placement
- 8362 Purchase or sale of space, on commission
- 8369 Other advertising services

As can be seen, expenditure in the advertising industry can be split between the cost of creating an advertisement, the cost of displaying an advertisement and the fees for arranging either or both.

Initially, ONS planned to develop a price index that would have covered the whole advertising industry. Unfortunately, there are many problems to overcome when trying to develop a price index for the creative side of advertising. For example, many of the contracts that advertising agencies take on are unique, making price collection difficult. Weighting items is also problematic because many different elements make up the creative process. A television commercial, for example, involves hiring many specialists such as film directors, actors, cameramen, lighting technicians and catering staff. Also, the cost of hiring a famous actor will be
considerably higher than the cost of hiring an unknown. Such inconsistencies, in the price of elements with the same basic specifications, add to the difficulty of creating accurate weights.

It is also difficult to measure the expenditure split between creation and display because there is a lack of statistical data relating to this matter in the advertising industry. One industry expert consulted estimated that 90 per cent of advertising revenue is generated by placing advertisements. But there was no statistical evidence to support this assumption.

The structure of the advertising placement industry is more apparent thanks to statistical data gathered by the Advertising Association, a trade association.

Taking the above into consideration, ONS has chosen to develop a CSPI for advertising placement. It is hoped that the price index will be expanded at a later date, to cover the creative side of the industry, but this will not happen in the immediate future.

Currently, the CSPI measures the changing cost of advertising, in other words, the changing cost of the space an advertisement takes up, be it air-time on a television station or column inches in a newspaper.

**Industry structure**

Figure 1 is an industry structure diagram showing the various media types that sell advertising space. The numbers on the diagram are the weights for each media's size within the industry, relative to each other. These weights were derived from advertising expenditure figures published in the Advertising Association’s Advertising Statistics Yearbook 2001. The areas highlighted in bold show the current coverage of the advertising placement CSPI.

As can be seen, the CSPI covers two media types, television and printed media which between them account for 75 per cent of the revenue generated by the industry.

**Methodology**

The following section outlines the methodology behind the advertising placement CSPI. The two major components, television and printed media, are discussed separately because they are compiled in different ways.

**Television advertising placement**

Prices for advertising space on television are affected by a number of factors: The time of day and year, the audience size and type and the buying power of the advertisers (by buying lots of space an advertiser can secure large discounts). This makes direct measurement of television advertising prices difficult. To make things simpler, a proxy price index has been created, using a combination of advertising audience figures, revenue data and average Cost Per Thousand (CPT) values. These figures have been supplied to ONS by a third-party company called Nielsen Media Research (NMR). The figures are supplied on a quarterly basis for every television channel broadcasting in the UK.

Audience figures are measured in impacts; each impact represents one adult watching a thirty second commercial. Impacts are most commonly measured in thousands. Revenue figures are defined as the amount of money generated through the sale of advertising space in a given period. Price estimates can be generated by taking the channel’s total advertising revenue figure in a quarter and dividing it by the impact figure for the same period. This gives an estimate of the price for displaying an advert to one thousand people or, as it’s more commonly known in the advertising industry, a Cost Per Thousand (CPT).
To create a television advertising CSPI, channels are separated into different groups. Terrestrial channels are grouped according to the region they broadcast to (for example, West Midlands, East Anglia, South Wales). Satellite channels are grouped according to the type of shows they broadcast (for example, movies, films, documentaries). All the channels in a particular group are assumed to have equal weights. This means a CPT value can be calculated for each group by dividing the total revenue figure for all the channels in the group by the total audience figure. Movements in these group CPTs are used to calculate quarterly price relatives, using the year 2000 as the base period. A weighted average is calculated from these price relatives to give a price index. The weights for group price relatives are calculated from the total revenue generated in the base year 2000 by each channel in the group. In the future, the base period for the advertising placement CSPI will be revised every five years.

In summary, unit prices are estimated from audience and revenue figures and they are weighted together using revenue figures fixed in the base year 2000 to give a price index.

Printed media

The printed media CSPI includes four media types: national newspapers, regional newspapers, consumer magazines and business magazines.

The advertisements that appear in these publications fall between two categories, display and classified.

Display advertisements are usually big, often filling half a page or more and in many cases they are printed in colour to make them as eye catching as possible. They are favoured by companies with products or services they wish to sell or promote.

 Classified advertisements, by contrast, tend to be smaller and in black and white. They are used primarily for advertising jobs, properties and educational courses. They do not need to be as eye catching as display advertisements because people seek them out if they are in the market for the product or service being advertised. For example, someone looking for work will seek out the recruitment section of a newspaper.

 Magazines usually carry more display than classified advertisements because magazines are a more colourful medium. Newspapers normally carry both and the split between them can vary significantly between publications.

To create a printed media CSPI, ONS has adopted a slightly different methodological approach to that of television. A sample frame for printed media was drawn up. The basis for this sample frame was a list of publications and advertising revenue data provided by NMR. Every publication in the sample frame was divided into one of the twelve following strata:

- consumer magazines display
- consumer magazines classified
- national papers display
- national papers classified
- daily regional newspapers display
- daily regional newspapers classified
- free weekly regional newspapers display
- free weekly regional newspapers classified
- paid for weekly display
- paid for weekly classified
- business magazines display
- business magazines classified

Using proportion probability sampling a representative sample of publications were selected from each stratum. Each publication’s total advertising revenue figure in the year 2000 was used as the weighting factor in this selection process.

For every publication in the selected sample we have collected an advertising rate card price. The type of price selected depends on the stratum to which the publication belongs. So, all the prices selected in the National Papers Display stratum will, for instance, be for display advertisements.

Each publication’s rate card price is divided by the publication’s circulation figure. This gives an estimate for the price of displaying the advert to one person.

Both prices and circulation figures are available on each publication’s rate-card. These rate-cards are collated for us by a company called British Rates and Data (BRAD). BRAD produce a monthly book which contains rate-cards for nearly every publication published in the UK. The same rate-card data is also held on their website: www.intellagencia.com

Rate card prices, however, do not always reflect the price actually paid for advertising space. In many cases, advertisers can secure large discounts on the rate card price by buying advertising space in large quantities or at the right time of year. Unfortunately, it is very difficult to measure discounts directly because every advertising campaign is unique and so are the discounts applied to them. Again, ONS has relied on third-party company NMR to supply us with discounting factors. These are available for all the display advertisements in our sample and we have applied these to the price estimates detailed in the previous couple of paragraphs. Discounting factors for classified advertisements are not available, but this is not considered a problem because discounting is much rarer on classified advertisements.

Rate card prices, circulation figures and discount factors are combined to create an estimated price for each of the publications in the sample. This process is repeated on a quarterly basis. The changes in these estimated prices are used to create price relatives for each publication in our sample, using the year 2000 as the base period.

A weighted average of these price relatives is taken to create a price index for each stratum listed above. The weights are derived from total 2000 advertising revenue figures supplied by NMR for each publication. These weights remain fixed in the base year 2000.
The price indices for each stratum are then weighted together using total revenue figures for each stratum in the year 2000 to give a price index for printed media. The weights used are derived from advertising revenue figures published in the Advertising Association’s Advertising Statistical Yearbook 2001. These figures are used instead of the NMR data because they are total UK revenue figures and not just the total revenue figures of the publications in the sample frame.

In summary, advertising rate card prices, adjusted by audience and discounting factors, are used to create price relatives, which are weighted together into a price index using advertising revenue figures fixed in the base year 2000.

Creating a top-level advertising placement CSPI

To create a top-level CSPI we simply combine the two price indices for television and printed media advertising described above. The two sets of price relatives are weighted together using total UK advertising revenue figures for the two media types in the year 2000. These figures are published in the Advertising Statistical Yearbook 2001.

Summary of data sources

Nielsen Media Research (NMR) is a research and analysis company that collects a wide variety of statistics on numerous media types. More information about NMR can be found on their website: www.nielsenmedia.co.uk.

They provide the following data:

- quarterly television advertising audience and revenue figures for all UK channels dating back to Q1 2000
- quarterly discounted and non-discounted advertising revenue figures for printed media dating back to Q1 2000

BRAD (British Rates and Data) Group is a market research company that collates advertising rate-cards for the majority of newspapers and magazines printed in the UK. They publish these rate-cards in monthly directories and on their website: www.intellagencia.com.

They provide the following data:

- quarterly rate-card prices for the sampled publications dating back to Q1 2000
- quarterly circulation figures for the sampled publications dating back to Q1 2000

The Advertising Association (AA) is a trade association for the advertising industry. They produce statistics and reports which they publish in numerous booklets and on their website: www.adassoc.org.uk.

The following data is published in the AA’s Advertising Statistics Yearbook 2001:

- total UK advertising revenue figures for each of the printed media stratum in the year 2000
- total UK advertising revenue figures for each media type operating in the advertising industry in the year 2000

Publication

It is hoped that the advertising placement Corporate Services Price Index will be published as part of the CSPI’s 2006 quarter-one results. These will be available on the National Statistics website on 12 May 2006: www.statistics.gov.uk/cspi. It must be understood, however, that the price index is still under construction, so release dates are subject to change. We would welcome comments from any potential users on this work.

Acknowledgments

CSPI development work is partially funded by the European Commission.