The Advantages of Using Administrative Sources

2.1 Introduction

The previous chapter defined the nature and scope of administrative sources, but did not really consider why these sources are of interest to statisticians. This chapter considers the many potential benefits of using administrative sources in official statistics, either to complement or replace statistical sources. Of course, it is not all good news, along with the benefits there are also usually a range of problems to be overcome. These problems, and how they might be solved, are dealt with in Chapter 4.

2.2 Cost

Statistical surveys are an expensive way of collecting data. Questionnaires have to be developed, samples have to be designed (which may even require the creation of a specific sampling frame), respondents have to be contacted, and possibly re-contacted to encourage them to reply, responses have to be processed and verified, and results have to be calculated. Although computers can take much of the processing burden, the whole approach is still rather labour intensive, particularly the response chasing stage, which can probably never be fully automated.

Traditional censuses are even worse because they are conducted on a much larger scale. National statistical organisations that still conduct traditional censuses of people, businesses, farms etc., often require special funding for such exercises, as they are too costly to be covered within their regular budget. This makes traditional censuses highly visible to politicians and therefore vulnerable to changes in political priorities.

Although the set-up costs of using administrative sources to produce statistical outputs can easily be as high as the set-up costs for a statistical survey, the running costs are usually significantly lower. Table 2.1 and Figure 2.1 below show the costs of conducting population censuses in 2000-2001, in European Union countries. The huge differences in the cost per head of population between Finland, where the census was totally based on administrative sources, and other countries such as the United Kingdom and Austria, where traditional paper questionnaires were used, is perhaps the strongest argument available for greater use of administrative data.

<table>
<thead>
<tr>
<th>Country</th>
<th>Total cost (millions of Euro)</th>
<th>Cost per person (Euro)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgium</td>
<td>24</td>
<td>2.3</td>
</tr>
<tr>
<td>Greece</td>
<td>50</td>
<td>4.5</td>
</tr>
<tr>
<td>Spain</td>
<td>167</td>
<td>4.1</td>
</tr>
<tr>
<td>France</td>
<td>248</td>
<td>4.1</td>
</tr>
<tr>
<td>Ireland</td>
<td>44</td>
<td>11.2</td>
</tr>
<tr>
<td>Italy</td>
<td>298</td>
<td>5.3</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>5</td>
<td>10.6</td>
</tr>
<tr>
<td>Austria</td>
<td>56</td>
<td>6.9</td>
</tr>
<tr>
<td>Portugal</td>
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<td>4.5</td>
</tr>
<tr>
<td>Finland</td>
<td>0.8</td>
<td>0.2</td>
</tr>
<tr>
<td>United Kingdom</td>
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<td>6.2</td>
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<tr>
<td>Norway</td>
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<tr>
<td>Czech Republic</td>
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<tr>
<td>Estonia</td>
<td>10</td>
<td>7.4</td>
</tr>
<tr>
<td>Hungary</td>
<td>40</td>
<td>3.9</td>
</tr>
</tbody>
</table>

Figure 2.1 - Comparative population census costs per person
Access to administrative sources is often free of charge, particularly if the data originate from the public sector. Even if there is a charge, for example to cover data extraction or transmission costs from a public source, or to buy data from a private source, it is often still cheaper to use administrative data than to collect the same information via a survey.

Where statistical surveys are still used, an efficient and accurate sampling frame is needed. The statistical registers used to produce those sampling frames are often so large and complex that it is very difficult and expensive to satisfactorily populate and maintain them using survey or census data. Therefore even if administrative data do not replace statistical surveys, they can still be used to populate and maintain statistical registers, and thus help to reduce overall costs.

2.3 Response Burden

Using data from administrative sources helps to reduce the response burden on data suppliers. This is a strong political consideration in many countries, particularly if the respondents are businesses. Policies to encourage business development and growth often include reducing regulatory burdens. In these circumstances, statistical surveys are often seen as an easy target for cuts.

From their side, businesses usually understand the reasons for supplying data for registration and taxation purposes, even if they do not like doing so. They often, however, see statistical data requests as an extra, less necessary, burden. If they have already provided details to other government departments, they may become annoyed at receiving similar requests from the national statistical organisation. Thus, if policy makers and respondents are united in calling for reductions in the statistical response burden, it is extremely difficult for national statistical organisations to resist this pressure, and the re-use of data collected by others is the logical solution.

2.4 Frequency

Related to the reductions in cost and response burden, a further advantage of the use of administrative sources is that they may in some cases allow statistics to be produced more frequently, with no extra response burden, and little extra cost. This is the case in Finland, where it is possible to produce population census data from administrative sources on an annual basis, whereas countries using more traditional methods can only afford to produce these data every five or ten years.

The main constraint to the frequency of statistics produced from administrative data is usually the frequency with which the administrative source is updated. Thus it would be difficult to produce monthly statistics from administrative data updated once per year, unless those data were updated on a rolling basis with no seasonal bias (or at least sufficient information to remove any seasonal biases).

Administrative sources that are not based on any particular time period, such as those that record events (e.g. birth, death, granting of planning permission), however, offer considerable flexibility. This is because, as long as the date of the event is recorded accurately, they allow statistics to be produced for any given period or periodically down to daily.
2.5 Coverage

Administrative sources often give complete, or almost complete, coverage of their target population, whereas sample surveys can often only directly cover a relatively small proportion directly. The use of administrative sources therefore eliminates survey errors, removes (or significantly reduces) non-response, and provides more accurate and detailed estimates for various sub-populations, e.g. respondents in small geographic areas, or with other specific characteristics.

2.6 Timeliness

The use of administrative sources may increase the timeliness of statistical outputs by allowing access to more up to date information concerning certain variables. This is because statistical surveys generally take time to plan, to design and pilot forms, to analyse the population and optimise the sample etc.. This is particularly the case for annual or ad-hoc data collections. Therefore access to a suitable administrative source can be a more efficient solution. It should be noted, however, that there are also likely to be cases where the use of administrative sources leads to a reduction in timeliness, particularly regarding short-term indicators.

One area where administrative sources can have a particularly positive impact on timeliness is in the management of statistical registers and survey frames. Administrative information on changes to the target population (e.g. births and deaths of people or businesses) is often much more up to date than survey information could ever be, simply because of the coverage benefits mentioned above.

2.7 Public Image

Public opinion relating to the sharing of data, particularly between different government departments, varies considerably from country to country. Where public opinion generally accepts, or is in favour of data sharing, the increased use of existing data sources can help to enhance the prestige of a national statistical institution by making it more efficient and cost-effective.

Although there is often a general unease amongst the public about data sharing, there are also contradictory pressures to improve the efficiency of government, particularly if this results in lower taxes or more funding for voter-popular areas such as health or education. Political slogans such as “joined-up government” are often appealing to the public, and can help to counter fears of loss of privacy. Thus the extent to which improvements to public image can be seen as an advantage of using administrative sources depends heavily on how that use is presented to and perceived by the public.