INTRODUCTION

1. The Australian Bureau of Statistics (ABS) has had considerable success in recent years in reducing respondent burden, while at the same time expanding significantly on the range of statistics available. Most of these reductions have been achieved through the use of administrative data and through the use of a broad range of smarter statistical methodologies, including methodologies aimed at improving relationships with respondents. The ABS expects to make still further significant gains in this respect over the coming years as the full potential of recent initiatives becomes realized.

2. Much of the recent focus in Australia in reducing respondent burden has been on business surveys. This is consistent with government policy, the ABS Corporate Plan and the recommendations of the Australian Government’s 1996 Small Business Deregulation Task Force. Since 1995-96, the total amount of time taken by businesses in providing data to the ABS has been substantially reduced (see Figure 1). The average total load on all businesses for the past five years has been around 435,000 hours, or 33% lower than for 1995-96. For small businesses, the average total load over the past five years has been around 187,000 hours, or 42% lower than in 1995-96.
3. These decreases in total load have occurred at the same time as the number of businesses has been increasing, the range of statistical output has been growing and the budget available for business statistics has been decreasing in real terms. Also during this period, a number of initiatives have been implemented to better manage the expectations, concerns and perceptions of businesses which provide data to the ABS, thereby reducing their individual load and increasing the overall level of cooperation by the business community with ABS requests for data.

4. The story in respect of household surveys in Australia is somewhat different. While the ABS does not compile estimates of the total load on households, the load imposed by each survey is carefully planned and monitored to keep it to the minimum necessary to produce quality statistics.

LEGAL AND POLITICAL MANDATES

5. The functions of the ABS as prescribed in section 6 of the Australian Bureau of Statistics Act 1975 include:
   - "ensure coordination of the operations of official bodies in the collection, compilation and dissemination of statistics and related information, with particular regard to the avoidance of duplication in the collection by official bodies of information for statistical purposes"; and
   - "collaborate with bodies, being Departments and authorities of the States, the Administrations and authorities of the external Territories and local governing bodies, in the collection, compilation, analysis and dissemination of statistics, including statistics obtained from the records of those bodies".

6. Recent changes in the legal and political landscape in Australia have provided some significant opportunities to reduce respondent burden. In most of these cases, the ABS has
been very successful in influencing policy and legislation makers to take explicit account of national statistical opportunities and reduce respondent burden.

7. In 1996, the Commonwealth Government established the Small Business Deregulation Task Force to develop recommendations, which would reduce the government reporting burden of businesses, small businesses in particular. The Task Force looked at all types of government 'red tape' and commissioned an independent survey which concluded that the burden imposed by statistical collections amounted to around one percent of the overall burden. Notwithstanding this small proportion, the ABS actively collaborated with the Task Force to develop a range of recommendations that would reduce this load significantly. The most significant of these recommendations included:

• setting a target of a 20% reduction in the burden imposed by ABS collections;
• establishment of a Statistical Clearing House where all statistical collections conducted by Commonwealth agencies would be subject to intensive review in terms of their need, relevance, methodology and respondent burden; and
• the creation of a Business Surveys Charter that set out the rights and obligations of businesses selected in ABS surveys.

8. The Government accepted all the recommendations the Task Force made in respect of statistical collections. As noted above, the ABS has far exceeded the targeted reduction in respondent burden. The Statistical Clearing House has now been operating for eight years and has reviewed 724 surveys (274 ABS, 430 non-ABS) collections. While all of these collections have ultimately been approved by the Statistical Clearing House, many have changed their methodologies as they have gone through the review process with the result often being significantly reduced respondent burden.

9. The Business Surveys Charter has been widely promulgated by the ABS. It is available from the ABS website and a copy of it (in brochure format) has been sent to all businesses included in ABS surveys. An important element of the Charter is the provision for small businesses to seek an exemption from a survey if they have responded to it for three or more years and their exclusion does not jeopardize the quality of results. Over the last five years, the ABS has received around 320 requests for exemption and has granted 90 of these because they satisfy the necessary conditions. Of those requests that have been rejected, the most common reason is the business in question is not small and therefore their exclusion will have a detrimental effect on the quality of results. Nearly all of the rejected applicants have accepted the reasons given and continue to be cooperative respondents. The ABS is also in the process of developing a Household Surveys Charter.

10. In 2000, the Commonwealth Government introduced wide ranging changes to the Australian taxation system. For many years before this, the ABS had been accessing business taxation unit record data maintained by the Australian Taxation Office (ATO) for a range of specific purposes. These purposes included maintenance of the ABS Business Register and economic statistics used in the compilation of the national accounts. These purposes were specifically allowed for in the main legislation under which the ATO operated, the Income Tax Assessment Act 1964. The ABS therefore had an established legislative and strategic relationship with the ATO when significant changes to the Australian taxation system were introduced in 2000. This relationship meant the ABS was very well placed to take advantage
of the opportunities, presented by these changes, for increasing its use of ATO administrative data in business survey infrastructure and business survey operations.

11. The major elements of the tax system changes were the introduction of; a Goods and Services Tax (GST); an Australian Business Register (ABR); the allocation of an Australian Business Number (ABN) to registered businesses; consolidated Pay As You Go payments by businesses for various tax obligations and the introduction of an associated Business Activity Statement (BAS). Currently the ABS receives the following taxation data on a regular basis; monthly listings of the Australian Business Register (ABR); annual Business Income Tax data (BIT); and monthly Business Activity Statement data (BAS). The ABS currently utilizes taxation data to some extent for the following purposes; benchmarking, supplementation, data substitution, register maintenance, imputation and improved stratification. All of these uses reduce respondent burden to varying degrees. Many of the examples given later in this paper relate to the ABS use of administrative data available from the ATO.

12. In 2001, the Commonwealth Government introduced the *Timesaver* initiative that requires all Commonwealth agencies to regularly report on the time taken by businesses to complete their forms and the steps they are taking to reduce this. This policy initiative is an example of the ongoing pressure in Australia to reduce the government reporting burden imposed on businesses. The ABS was well-placed to comply with this initiative as all its questionnaires already included a 'time taken' question and aggregates had been produced using these data since 1995-96 (see Figure 1).

13. The pressure to reduce respondent burden of households is not as great in Australia as it has been recently for businesses. This is possibly because a significant proportion of social and population statistics is already compiled from administrative data sources. There are, nevertheless, sections of the population where significant steps are being taken to reduce respondent burden, for example, for the Indigenous population.

**STRATEGIC INITIATIVES**

14. In addition to the externally driven opportunities mentioned above, the ABS has initiated a number of internal organizational, methodological and technological changes that have already reduced respondent burden across a broad spectrum of surveys or have increased the potential to do so in the near future. Most notable among these initiatives has been the Business Statistics Innovation Program (BSIP).

15. Implementation of BSIP began in mid-2002 and involves a transitional phase of three years. This is a highly ambitious program with many objectives including extending the ABS statistical leadership capabilities, improving data quality, improving the efficiency of business survey operations and increasing opportunities for ABS staff. It also included the objective of "improving provider relations, improved reporting mechanisms and reduced provider load". As the third year of transition to BSIP draws to a close, significant progress on this and the other objectives of BSIP is already evident, and a platform for future changes has been established. The following paragraphs concentrate on the achievements of BSIP in respect of improved provider management.
16. BSIP involved the most significant organizational change in ABS business statistics areas for over thirty years. The duties of nearly all of the 540 staff involved in business statistics were changed. While many of these changes were complex and required extensive consultation and communication on changed expectations, the fundamental shift was from subject matter based organizational units responsible for all phases of the statistical cycle within that field of subject matter to more functionally specialized units responsible for a particular phase(s) of the cycle across a number of subject matter areas. This saw the establishment of a new unit entitled the Economic Statistics Data Centre (ESDC) that has responsibility for nearly all interactions with providers of business data. Generally speaking, the ESDC is responsible for management of providers in all business-based collections, all business based frames and all functions prior to input editing. The term 'frame' used in this context applies to registers, common frames and survey frames. The mission of the Economic Statistics Data Centre is to be an advocate for providers, and provide quality statistical survey frames and collection management inputs involving: business register functions; large business profiling and key provider management; survey frames creation and maintenance, sample selection and design and data repair functions; administrative data acquisition; forms development, testing and production, including electronic forms; dispatch and collection of all forms, including induction and basic reminders and complaints handling; intensive follow up of non-respondents; and Computer Assisted Telephone Interviewing (CATI) operations.

17. The new functionally specialized units that came into existence under BSIP have responsibility for leading the development of new technological and methodological facilities needed to perform their functions. They are very ably assisted in this respect by ABS technological and methodological experts who now have fewer clients to deal with for each stage of the statistical cycle. One of the new methodologies the ESDC has been keen to pursue is Total Approach Management (TAM) in respect of its relationships with providers. ABS methodologists have investigated what this approach might entail in the Australian context, taking account of the experiences of other national statistical agencies. This research has already led to the trial and successful implementation of improved standard correspondence with providers (covering letters, reminders, etc) resulting in more cooperation and hence lower perceived respondent burden by providers of business data.

18. Another methodological improvement that has improved relationships with providers has been the introduction of better targeting of non-respondents during the response chasing phases of collections. This better ensures that the pressure put on non-respondents to comply with ABS requests is more commensurate with their individual statistical significance, e.g. based on their relative contribution to estimates. Similarly, centralizing coordination of the handling of written complaints from business providers has resulted in improved turnaround of these complaints and more consistency in their treatment, all of which are factors impacting on the perception of burden by individual providers.

19. These and other methodological improvements have been greatly facilitated by the introduction of new technologies under BSIP. For example, the Provider Integration Management System (PIMS) enables the tracking of all contacts between the ABS and a business provider, be it a form sent, a form returned, a telephone conversation or some written correspondence. Many business providers have commented that this is what they expect from an organization such as the ABS where previously they had to tell different parts of the
organization the same piece of information (e.g. change of address) many times over. This was a source of irritation that significantly added to the perception of respondent burden.

20. The ABS has also recently installed state-of-the-art call centre telephony to better handle incoming calls from business providers. The ABS makes/receives over 300,000 phone calls a year from business providers. These calls often relate to queries the provider has about completing an ABS form and therefore represent important opportunities for managing respondent burden interactively with the provider. This new technology helps to ensure these opportunities are not missed, e.g. due to busy lines or inadequate staffing.

21. The ABS is developing an Input Data Warehouse (IDW) from which all input data relating to businesses, including administrative data, can be accessed, edited and analyzed by ABS staff. Improved access to all the data available for individual businesses will greatly improve the analyses necessary to make methodological improvements, including extending the use of administrative data, which are likely to reduce respondent burden. A perennial theme for agencies attempting to reduce provider load is to more effectively exploit existing data sources. For the ABS, the two key opportunities are data already provided for another survey and data from administrative data sources. The ABS Input Data Warehouse, together with improved identifiers for business units such as the ABN, is a key enabler for us to achieve this in the next few years. Ultimately, our aim is to use it as the repository for all our business microdata, regardless of source. In the case of data directly collected from survey respondents, it will facilitate the sharing of data across collection boundaries, something we have had limited success with to date. In the case of administrative data, it will provide a single, efficient and safe repository for data that has been traditionally scattered across collection stove pipes in large, sometimes poorly managed, datasets.

22. It is worth noting that the ABS has had in place for many years now a sample rotation methodology for economic surveys utilizing the ABS Business Register, which controls the number of continuous collection periods that a small and medium sized business can be selected in for a particular survey. Also, when surveys are initially set up or redesigned, the overlap of business between collections is also controlled to minimize the number of surveys in which small and medium sized businesses can be selected.

23. The ABS is also developing a new suite of facilities for estimation, called ABS***, which are designed for making greater use of auxiliary information. More specifically, these methodological facilities and the use of administrative data are likely to lead to lower respondent burden because of the smaller sample sizes and or higher quality estimates through a combination of:

- using more up-to-date information from administrative sources for stratification purposes to improve sample designs;
- using administrative data as auxiliary benchmarks in Generalized Regression Estimation;
- using synthetic/indirect estimation methods based on models to generate statistical output for small domains;
- using data collected over time to improve estimation efficiency;
- improving sample efficiency by linking sample design to outcomes to be achieved rather than desired RSE's for key outputs;
- improving sample efficiency through using administrative data to improve frame quality; and
improving efficiency of time series analysis in extracting seasonally adjusted and trend estimates.

24. The above-mentioned new technologies and methodologies will progressively improve the degree of tailoring and customization of contact we can support in dealing with providers. Based on the data we collect in PIMS and IDW in particular, we should be able to build up an increasingly accurate picture of how to best handle segments of our provider population (e.g. small businesses in emerging industries, farmers, medium businesses, etc) and tailor our approach accordingly. There already exists some distinction in our strategies for large, medium and small businesses, e.g. the role of Large Business Units in profiling large businesses. Moreover, especially for those providers we deal with relatively frequently, increasingly we should be able to tailor our approach to the needs of an individual business - e.g. when we contact the business, special reporting arrangements, what form of data collection to use, and so on.

25. While it has been possible to do some of this for years, under the pre-BSIP model, it has been difficult to get consistent management information across surveys and to harness economies of scale. This has been a major obstacle to introducing electronic data reporting, for example. Ultimately, we hope to be able to capture information about the way providers prefer to communicate with us - e.g., phone, mail, fax, Internet, etc - as a by-product of our initial contact with them, and apply this consistently across survey boundaries.

26. The degree of tailoring that will be supported will almost certainly increase over time, as the benefits to the ABS and providers grow. However, there are many examples that lead us to proceed cautiously. For example, experience in Australia across organizations that have deployed major online data collection systems (e.g. the tax office, banks, administrative agencies) shows that there are significant up front and ongoing costs for each extra channel of communication that needs to be provided, limiting the opportunities to make gains if take up rates are small.

27. Ultimately we would like to be able to support multiple communication channels with providers for all surveys, using whichever communications medium is most appropriate to the task at hand. Traditionally, we have relied most heavily on paper based communication, followed by telephone, fax, electronic, face to face and then a variety of other methods. Although this is hardly a new issue, most of our gains in optimizing our communication channels have yet to be made. While all channels are used to some extent now, no single collection can readily support all of them. Issues such as provider preferences, security, support costs and vehicle bias often militate against applying a comprehensive solution.

28. Our experience so far with take up rates for EDR-type facilities to date has been disappointing given the costs, and we have had to limit our effort on this front until the business case for further investment improves. In particular, we are looking for evidence that provider demand for electronic communication has risen beyond the relatively low and often transient levels revealed by previous trials. Centralizing data collection in the ESDC should help us develop better business cases for introducing more EDR-type facilities.

29. If we are successful in our efforts to introduce a fully functional IDW, then a logical development is to use increasingly sophisticated techniques for modeling, imputing and
estimating the data we need from the data we have, in preference to seeking more information from providers. Better approaches to dealing with partial non-response, late returns, imputation from administrative data, etc, are examples. The Statistics Netherlands notion of a "virtual census" captures much of what we would hope to achieve in this regard, with the goal being that we never collect any data from a provider if it is available from another source or can be safely inferred from one.

**SOME SPECIFIC EXAMPLES OF THE USE OF ADMINISTRATIVE DATA**

**Use of BIT data**

30. BIT data have been used extensively for many years to improve the quality of the National Accounts and the results of industry surveys that provide source data for the National Accounts. Most notably, the annual Economic Activity Survey (EAS) draws heavily on BIT data to significantly supplement its directly collected sample resulting in more reliable and fine level industry estimates for Input Output purposes. Summary results, including a detailed description of the methodology used to combine BIT and directly collected data are contained in the ABS publication *Australian Industry* (cat. no. 8155.0). Experimental estimates of regional small business statistics utilizing BIT data have also been compiled and released in *Experimental Estimates, Regional Small Business Statistics, Australia* (cat. no. 5675.0).

31. Our uses of BIT data have had to take account of some of the shortcomings of that data. For example, BIT data does not allow multi-location businesses to be identified or disaggregated and this implies that many businesses will be coded to their main state of operation only. In addition, the BIT data file generally excludes non-profit institutions, non-trading trusts and funds (including superannuation funds, deposit funds and pooled superannuation trusts). The BIT file for a particular reference year also includes business taxation returns lodged for the financial year rather than a complete picture of all business operating. Because of these shortcomings, the ABS is continuing to investigate ways of improving the quality of estimates from the BIT data source.

**Use of BAS data**

32. BAS data have been used primarily to improve the efficiency of ABS surveys (most recently to improve stratification and estimation benchmarks for the Monthly Retail Business Survey); we plan to expand use in this regard as we learn more about the data and improve on its quality. For example, the ABS is currently investigating the most appropriate use of BAS data in the Quarterly Business Indicators Survey, one of our flagship quarterly collections. The expansion of the use of BAS data will not only reduce reporting demands on businesses, but should enable ABS to provide a range of new statistical information in future, including expanded state data. This is likely to improve quality and reduce provider load for existing collections, rather than provide a data source in its own right for users to access. Like BIT data, there are some fundamental constraints regarding the comprehensiveness and timeliness of BAS data which make it impractical to use as a primary source for direct statistical output.
However, these constraints should not preclude its use in more sophisticated ways (as described in para 23).

Use of ABR data

33. The ABS published counts of businesses from the ABR in October 2000 and June 2001, in cat. no. 1369.0.55.001. A release of business counts is planned for the first half of 2005. It is not possible to accurately reflect the states in which multi-state businesses operate. However, an estimate of the number of locations is derived using the information provided at the time of ABR registration. This estimate will under-estimate the total number of locations belonging to multi-state businesses, as only one location is assumed in each state in which each such business operates. The ABS may, in future, consider developing an alternative methodology for identifying and allocating as appropriate, the operations of multi-state businesses to relevant states.

34. A further limitation of the ABR data is that the address information provided is not necessarily the location address of the business. In many cases it is the address of an accountant/tax agent or an alternative business address as nominated by the person registering the business. This complicates the derivation of estimates below State/territory level. Estimates of the number of businesses by postcode will be available in the next release but, in addition to the problem with the ABR address information described above, postcode can be a very coarse indicator of location. Business counts classified by ANZSIC Division are currently available at the postcode level through cat. no. 8136.0.55.001. At the state level, business counts classified by ANZSIC Class are available through cat. no. 8138.0.55.001.

35. The first output from the Business Entries and Exits Survey (BEES) is planned for August 2005. This survey is being produced using Australian Business Register (ABR) registration data received by the ABS on a monthly basis. The initial publication will contain numbers of business entries and exits by state and by ANZSIC Division, for the years 2001-02, 2002-03 and 2003-04.

36. Work has also commenced on the development of a Business Longitudinal Database (BLD) using the ABR as the population frame, and a combination of administrative and ABS survey data. It is proposed that the first production version of the BLD will be available in March 2006, containing a combination of ABS survey and administrative data. An integrated business characteristics collection vehicle is currently being investigated to assist in populating the BLD dataset. This initiative will assist in linking data within the ABS and blending both activity and financial information to ensure providers are not unnecessarily burdened with duplicative requests for data.

Personal Income Administrative Data

37. All the above examples relate to the use of administrative data about businesses. The ABS also makes extensive use of administrative data relating to individuals in an effort to reduce the burden that would otherwise be imposed. Most recently, the ABS has released experimental estimates of personal income for small geographic regions in Australia (at the local government area (LGA) and statistical local area (SLA) levels). The publication, Experimental Estimates of Personal Income For Small Areas (cat. no. 6524.0), will also
include documentation describing the source of the statistics and their quality. These statistics were compiled from a combination of personal income tax data, obtained from the ATO, and income support payments, by the Department of Family and Community Services. An important distinction between this personal data and the business data referred to above is that the personal data is only available from these agencies in aggregated form, because of privacy considerations, whereas the business data referred to above is made available to the ABS as unit record (microdata) files. In Australia, there is far more sensitivity attached to the sharing of personal data than there is for business data.

**SUMMARY OF ISSUES ASSOCIATED WITH USING ADMINISTRATIVE DATA**

38. The brief descriptions in the previous section of the ABS use of some administrative datasets illustrate some of the major issues encountered. This section elaborates on these and outlines the broad strategies the ABS is employing to address them.

39. When considering the use of administrative data within statistical processes, the ABS has undertaken a comprehensive risk assessment for each of the individual strategies and developed contingency plans accordingly. For example, one of the key mitigation strategies for the use of taxation data within ABS is the maintenance of a strong working relationship between the two agencies. Over a considerable period of time, the ABS and ATO have expended considerable effort in developing and maintaining a close working relationship. This is supported by a number of forums ranging from senior management level through to a series of working groups attended by operational staff. This close working relationship has enabled the ABS the opportunity to better understand the relevant data items and even to influence the range of data items collected by the ATO and their supporting quality maintenance strategies. The statistical impacts of any revised methodologies introduced as the result of use of administrative data have been monitored and managed through a process of closely measuring the impacts, backcasting/bridging affected series, bridging of series and conducting parallel survey estimation. Strategies implemented by the ABS will continue to be reviewed and assessed on an ongoing basis in response to the continued volatility of data quality, and the potential for changes to priorities and processes within the ATO.

40. When administrative data sets are obtained from the ABS by users there is often a perception that the ABS has assumed an ownership role, including a responsibility to ensure the quality of the data. Some users assume the ABS closely monitors administrative data quality before it is disseminated by using detailed output editing techniques, despite the caveats we publish regarding quality of the dataset. The ABS does issue caveats to users that explain all data quality issues associated with any data set, but this often does not overcome the perception that the data is "pure" just because the ABS has delivered it.

41. Another ABS initiative, the National Statistical Service (NSS) promotes increasing use of administrative data sets for the expansion of the national statistical infrastructure in preference to extra statistical collections. Data users can request information about the quality of data that would be released, including documentation required from agencies about the quality of data sets they may make available under the NSS.

42. The ABS is committed to providing users of our data with sufficient documentation to make appropriate use of our outputs. In addition, the ABS has developed Memoranda of
Understanding (MOU) with agencies that provide data to the ABS from administrative processes. These MOUs often articulate long and short term directions for improving the quality of the data.

43. The ABS is committed to fully utilizing administrative data sets to supplement and improve the quality of existing surveys. Where we achieve this, we can deliver improvements to the level of detail available in ABS publications or reductions in the load placed on our providers.

44. ABS policy requires that metadata about data which have been sourced from another agency and published by the ABS should be documented, and that the documentation should be released to the users of the data. This information is generally available through the technical notes at the back of publications and via the ABS web site.

45. For example, overseas arrivals and departures (OAD) data are derived from information available to the Department of Immigration and Multicultural and Indigenous Affairs (DIMIA). These data are published by the ABS in Short-term Visitor Arrival Estimates, Australia (cat. no. 3401.0.55.001) and Overseas Arrivals and Departures, Australia (cat. no. 3401). Comprehensive information on the quality and source of these statistics is set out in the respective Notes and Explanatory Notes. This information includes updates on issues affecting data quality, changes and improvements to the data, scope, estimation methods, corrections and imputations, and seasonal adjustment and trend processes.

46. The ABS is committed to improving the coherence of this documentation and is currently working on several projects to develop frameworks to assess quality of administrative datasets through all stages of the statistical process. However, implementation of these frameworks will be gradual, introduced on a case by case basis. For example, the ABS will be commencing a project in 2005 to develop and apply a quality framework for the administrative data sets relating to Births, Deaths, Marriages and Divorces obtained from Registrars’ General in each State and Territory and the Family Court of Australia for use in producing vitals statistics and population estimates. The first phase of this project will focus on births and deaths data for Aboriginal and Torres Strait Islander persons. This work will then be expanded to non-Indigenous births and deaths data.

47. Finally, the ABS is currently taking the lead in developing a framework for describing data for use in the National Data Network (NDN). The NDN is a cross government initiative to facilitate acquiring, sharing and integrating of data (for further information, please see <http://www.nationaldatanetwork.org>). The framework for describing data will further provide greater consistency in the documentation of quality both in government statistics.

FEEDBACK TO RESPONDENTS

48. Perceived respondent burden is affected by respondent’s views of the usefulness of the statistics to which they contribute. We try to inform them of the usefulness of the statistics in many ways. Given that most find out about official statistics through the media, the most effective activity is our close and open relationship with the media. This helps ensures our statistics get publicity with ABS attribution. Consequently, the ABS has high recognition among the business community. We also take opportunities to speak to the business community
at conferences etc. In terms of feeding back statistics to small and medium sized businesses, focus group studies show that regional profiles were clearly the most popular.

CONCLUSION

49. Over the past decade or so, the ABS has taken many steps to reduce respondent burden, reflecting opportunities both internally and externally driven. These initiatives have addressed both actual and perceived burden, the latter often seen as the more strategically important. The ABS will continue to place a high priority reducing respondent burden, by use of smarter methodologies and increased use of administrative data, notwithstanding the issues and challenges these changes present. The investment the ABS has made in these strategies to date has already paid substantial dividends and this is expected to be the case into the future.

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