



# GIS as a Gov 2.0 Transparency, Accountability, and Services Platform

## **Australian Bureau of Statistics**

Kirrin Haynes – Australian Bureau of Statistics

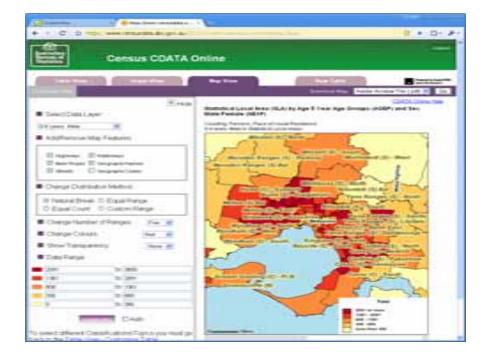
Don McDougall – Space-Time Research

January 21, 2010



## GIS as a Gov 2.0 Transparency, Accountability, and Services Platform

- Australian Bureau of Statistics
- Advanced Government Transparency
- Population Census (Micro) Data
  - Government
  - Government 2.0
  - Transparency
  - Accountability
  - Services
  - GIS Platform





# Census Data Online

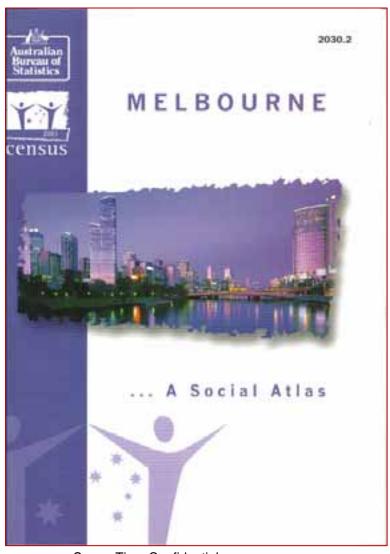


www.abs.gov.au/census

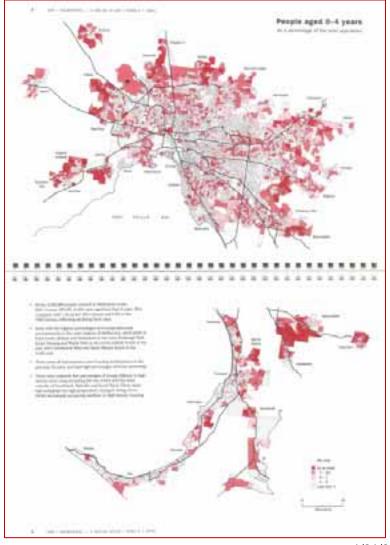
## Social Atlas - 2001

SPACE TIME

- 1 Atlas per capital city
- 25 maps per Atlas



- \$75 per Atlas
- Cost to the ABS and users

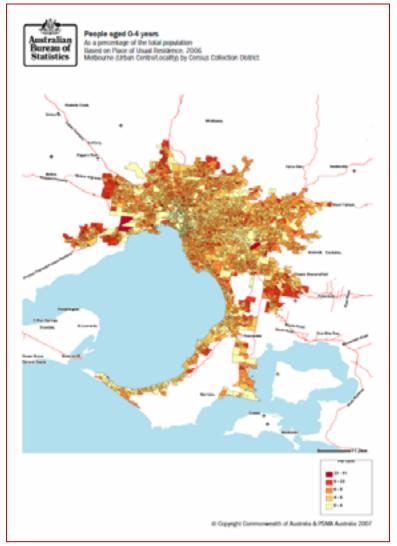


## MapStats - 2006



- Online
- Any area
- Over 90 variables
- High quality output pdf, png
- Free, immediate
- Estimated 35,000 maps created (2006 census cycle)





## CDATA Online - 2009



## 2001

- Only available on CD
- Selected set of data
- \$10,000 to purchase
- Cost to the ABS and users
- Bundled with MapInfo
- Sold 1,000



## 2009

- Online
- Greater range of data
- Free

 Potentially hundreds of thousands of tables/charts/maps will be created
 2006 Census cycle







# 2011 Census Output Objectives

- Provide a range of products
- A broader range of user needs
- Better access to more data
- Changes to delivery not content
- Improve the quantity and quality of metadata.
- More use of maps for navigation and thematic displays



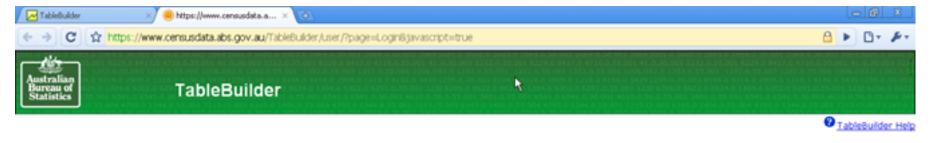
- For step by step assistance view the user manual (accessed using the button at the top of this page).
- For further assistance call the Census Technical Helpline on 1800 676 646 or email census software@abs.gov.au



Feedback - Do you want to help make TableBuilder even better? Your feedback will be used to shape future developments of this innovative.

Census product.

Please email your comments to census coftware@abs.gov.au



#### About TableBuilder

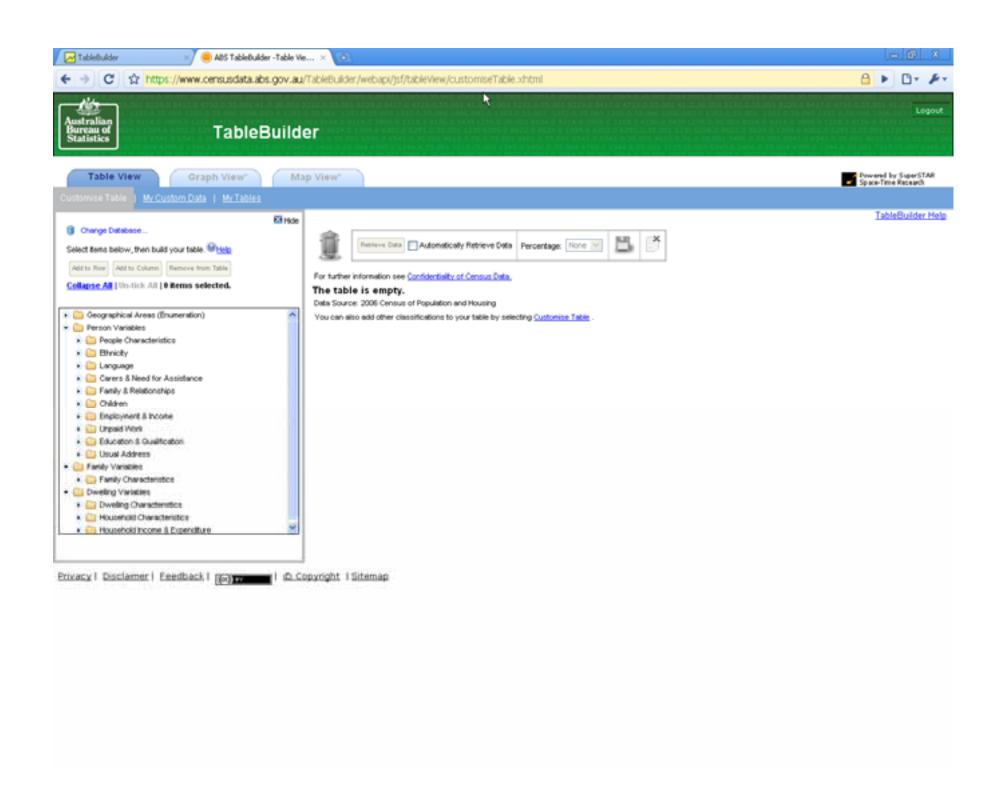
TableBuilder is a charged subscription service, access is only available to registered users.

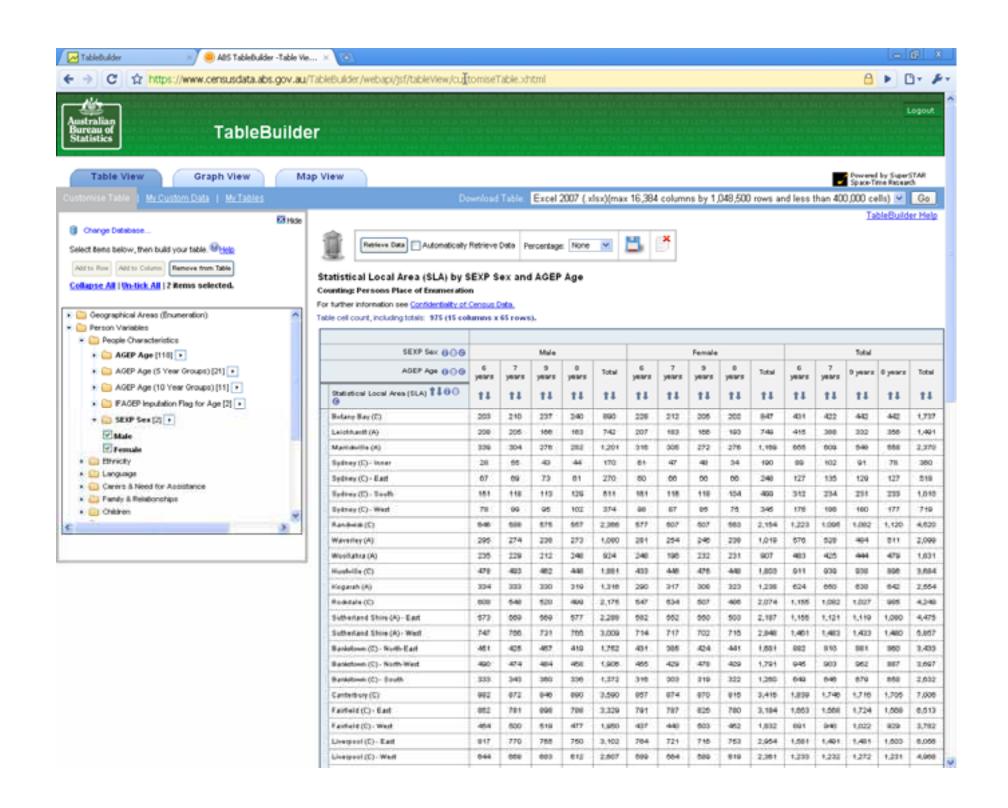
To learn more about TableBuilder or to find out about registering, please close this window and use the buttons on the TableBuilder entry page.

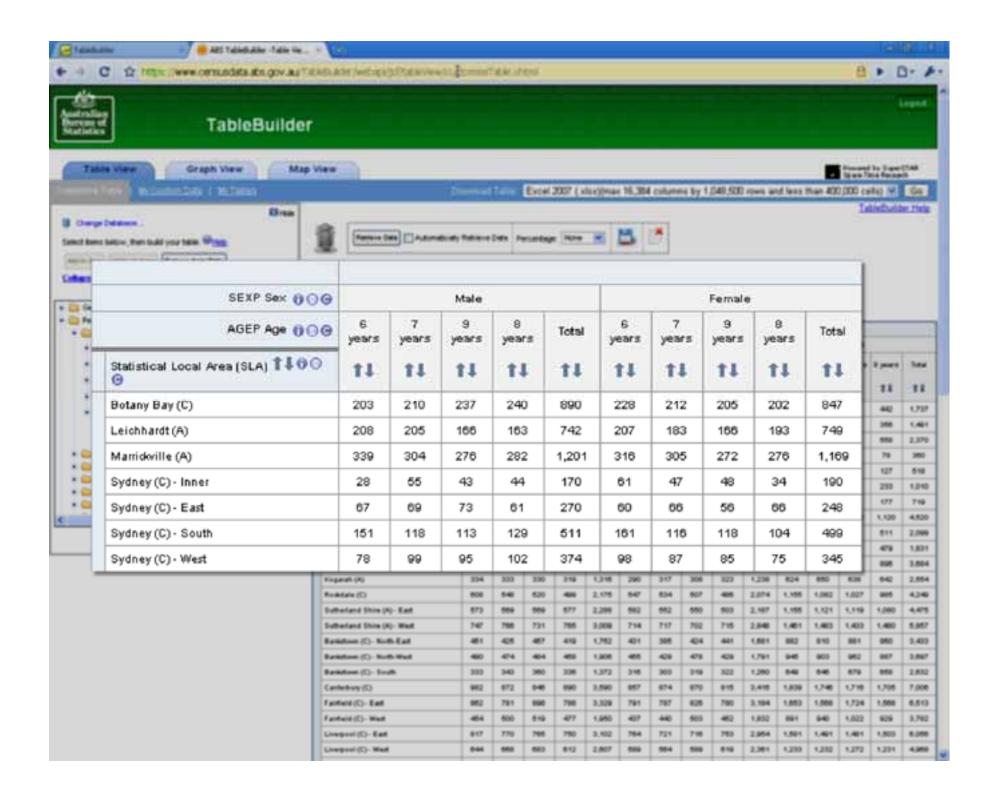
#### Registered Users

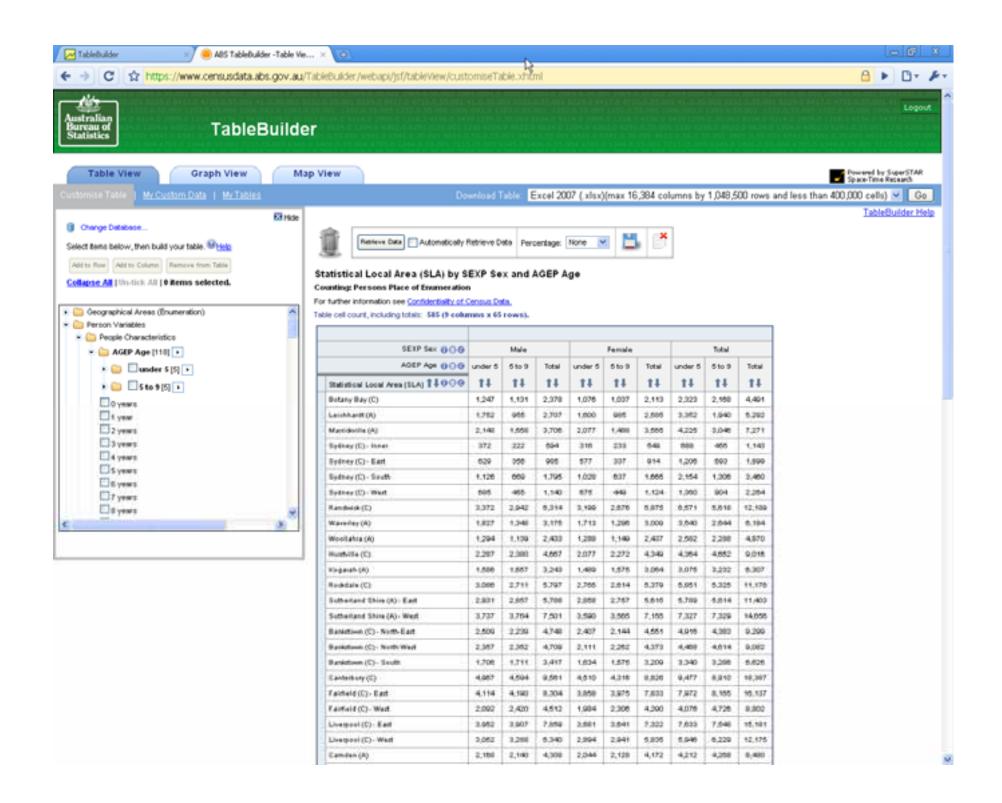
For users that have already registered for TableBuilder

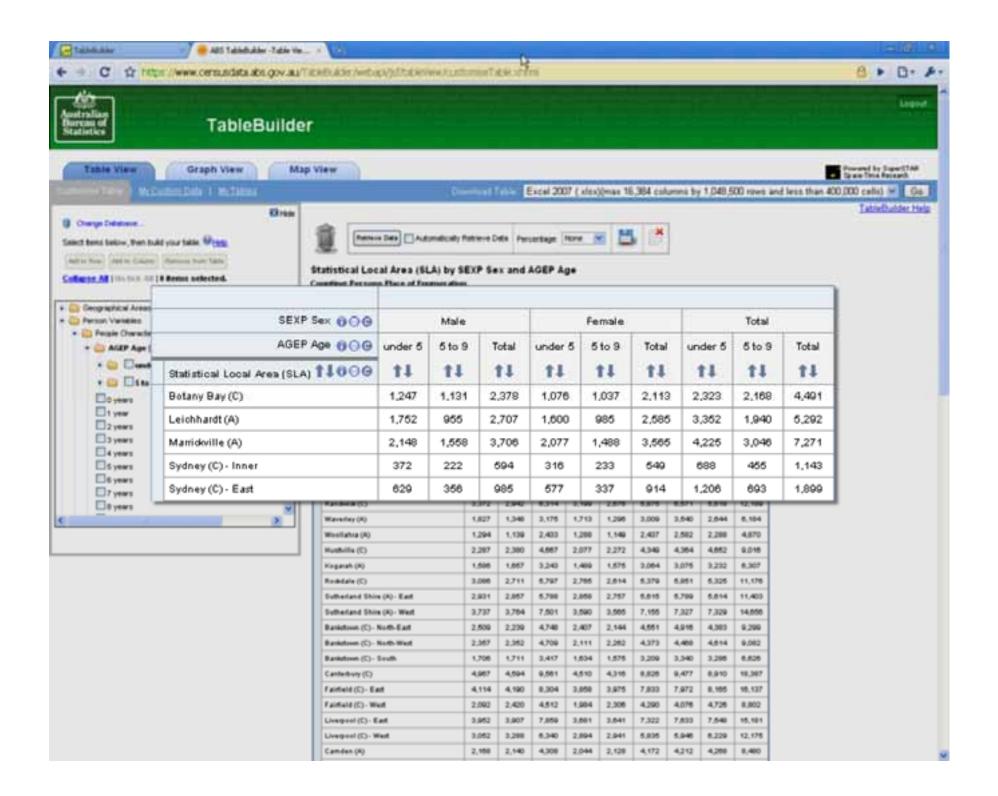
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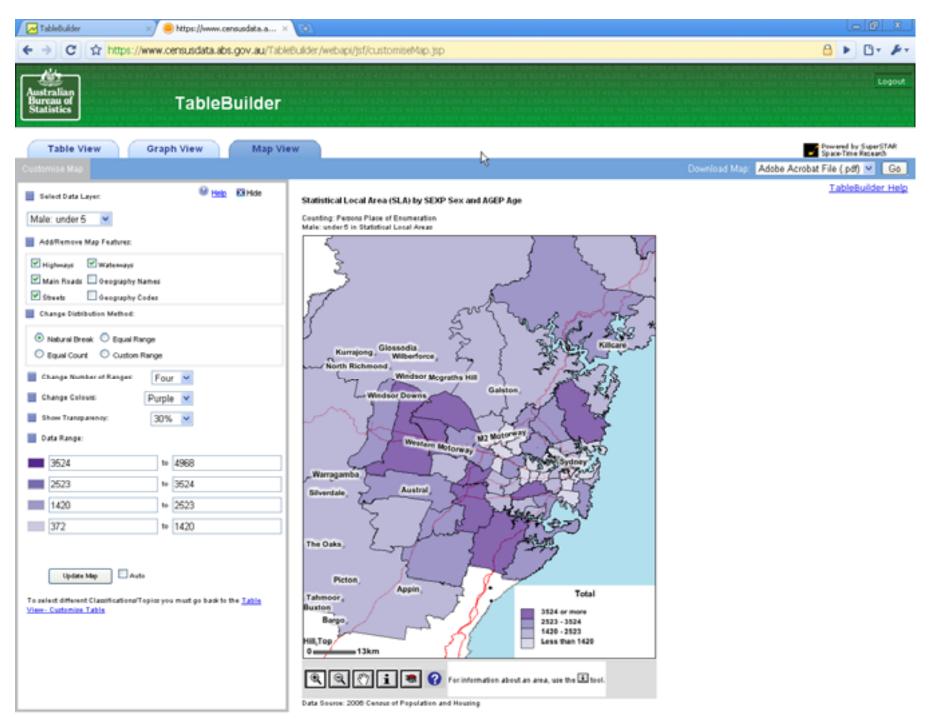














#### Data as a Service

• Data Service Providers (DSPs) provide data for free or for a fee, online or hardcopy, original or repackaged, and in raw data and visualised forms. Government DSPs have the obligations of Openness (OECD 1), Transparent Reuse (OECD 2), and accessibility through asset lists (OECD 3). DSPs can be interested in fulfilling a government-stated mission, generating revenue, providing useful information or simply ensuring a return on investment on a valuable data asset. Population census information gained at considerable public expense is, for example, a very valuable data asset. (and creates a service culture).

## Data Integrity

Data integrity includes (near) perfect data quality (OECD 4), which means accuracy and completeness including relevant data and metadata. Integrity also means preservation (OECD 6) and protection from unintended modification (OECD 5), confidentiality and privacy protection, and duty of care to protect the user from misuse of the data.

## Responsiveness

There should be no reason to make a trade-off between timeliness and data quality.
Census data must be right and must be on time. Software-based production systems and employees committed to 'getting it right' make this happen.



#### Communities and Collaboration

Sharing government data is not only about providing the general public with information, it is about providing communities of users with information for group decision making. A new generation of Web 2.0 users expects to bypass the press to get their data. These users form ad hoc communities (my neighborhood) or are served by collaborative communities or interest groups (environmentalists). It is these communities that DSPs must consider as their audience. The community of users can go beyond national borders (OECD 12) and involve public/private partnerships (OECD 11).

### Relevance of the Brand

Government organizations, have a valuable brand to protect. Protecting a brand includes items such as Copyright protection (OECD 7), (and watermarks) ensuring honest competition (OECD 9), access to redress errors (OECD 10), and demonstrating best practices (OECD 13). For Data Service Providers a brand can be enhanced or diminished by the quality of the DATA EXPERIENCE. A good data experience requires robust metadata and compelling visualization. (and creates a brand aware culture).

## Efficiency and Cost

Providing better, more complete data to the public can be cost effective or a cost burden. Organizations that spend valuable expert time answering public queries can substantially reduce costs by making more SELF-SERVICE data available or can increase costs by piquing more interest and more INTERESTING questions directly to the experts.



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## Government 2.0 –Accountability



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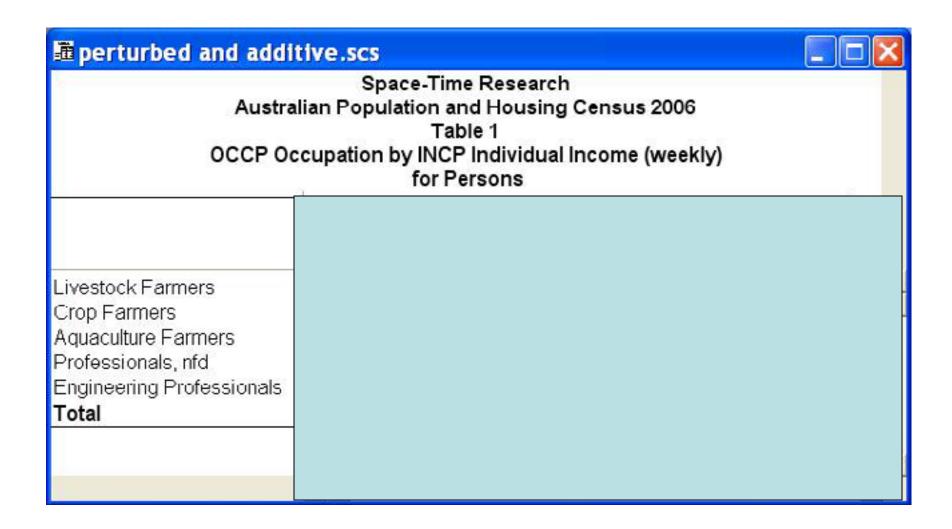
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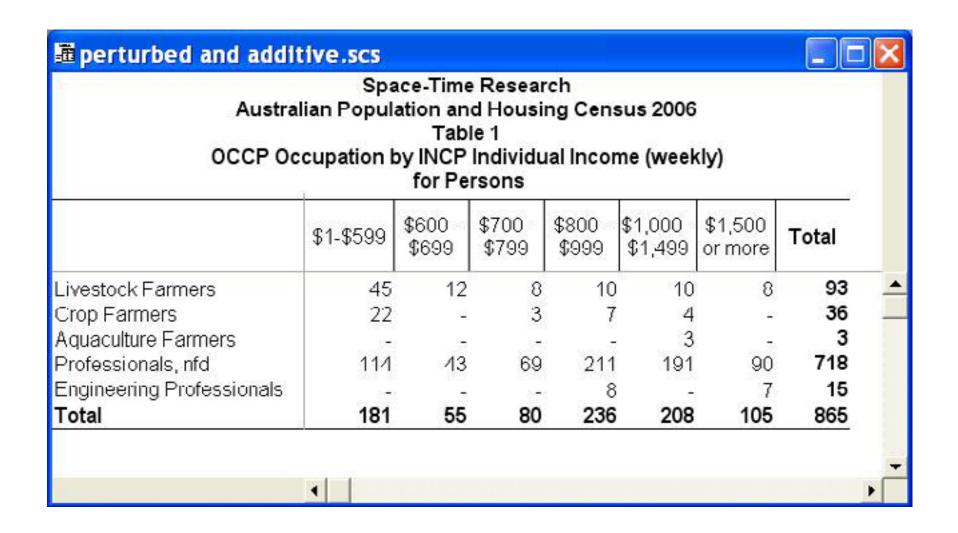
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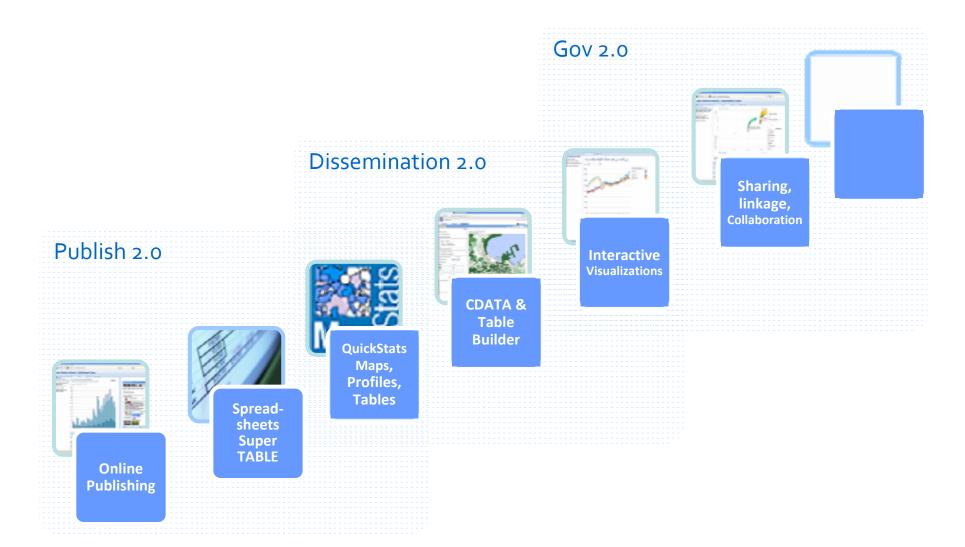






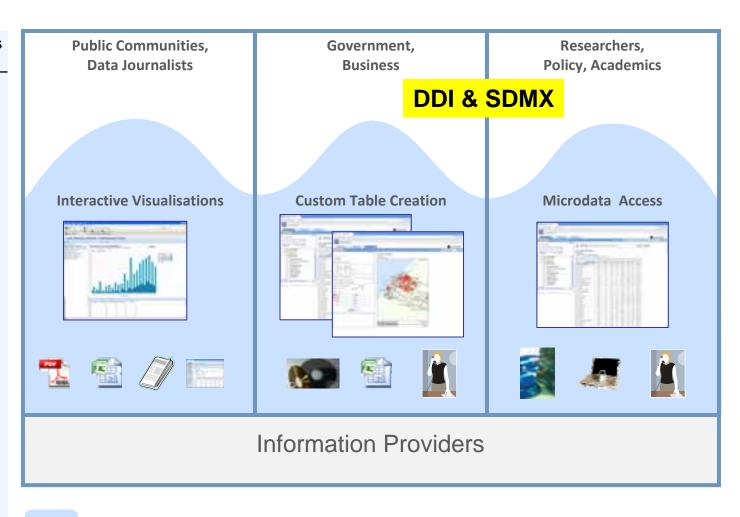








Country	phas e
Statistics Lao	1
Statistics Bangladesh Statistics Sri Lanka -	1
DCS	1
Statistics Afghanistan	1
Statistics Philippines	2
Statistics Cambodia	2
Statistics Vietnam	2
Statistics Pakistan	2
Statistics Thailand	2
Statistics Malaysia	2
Statistics Indonesia - BPS	2
Statistics Japan	2
Statistics China - NBS	2
Statistics Hong Kong	2
Statistics India	2
Statistics Singapore	3
Statistics Korea Statistics New	3
Zealand	3
Statistics Australia	4

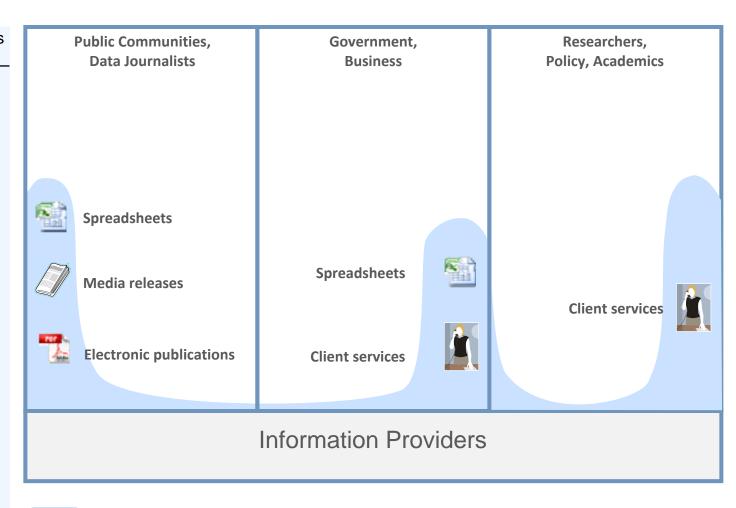


Area = customer need satisfied

# Dissemination – stage 2



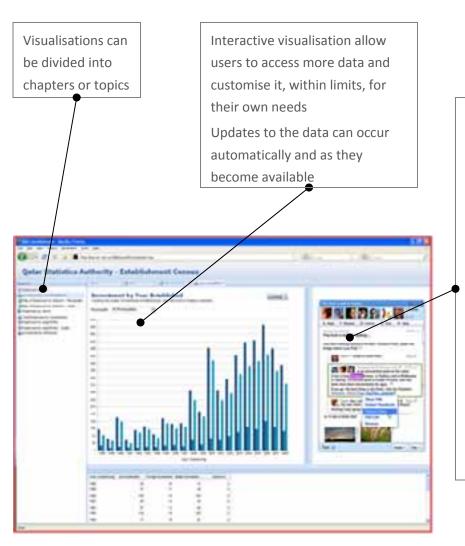
Country	phas
04-4-41	<u>e</u>
Statistics Lao	1
Statistics Bangladesh Statistics Sri Lanka - DCS	1
Statistics Afghanistan Statistics	1
Philippines	2
Statistics Cambodia	2
Statistics Vietnam	2
Statistics Pakistan	2
Statistics Thailand	2
Statistics Malaysia	2
Statistics Indonesia - BPS	2
Statistics Japan	2
Statistics China - NBS	2
Statistics Hong Kong	2
Statistics India	2
Statistics Singapore	3
Statistics Korea Statistics New	3
Zealand	3
Statistics Australia	4



Area = customer need satisfied

## Gov 2.0 – Data and Social Engagement





**Government 2.0** 

Official commentary frequently as the day of the day of

 Users can create the share analysis

The technology could

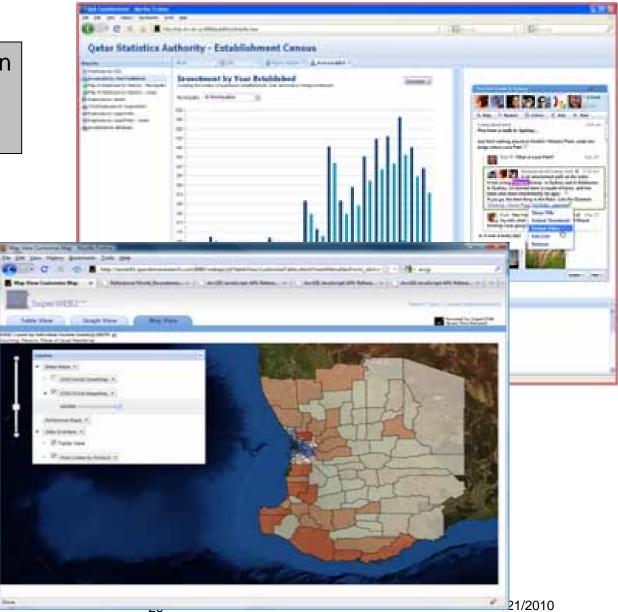
- Fast Growing
  All Segments of Government
- A wave is equal pail can communicate and work together with richly formatted text, photos, videos, maps, and more.
- A wave is shared. Any participant can reply anywhere in the message, edit the content and add participants at any point in the process. Then playback lets anyone rewind the wave to see who said what and when.
- A wave is live. With live transmission as you type, participants on a wave can have faster conversations, see edits and interact with extensions in real-time

## Web 2.0 Data Visualization and GIS Platform



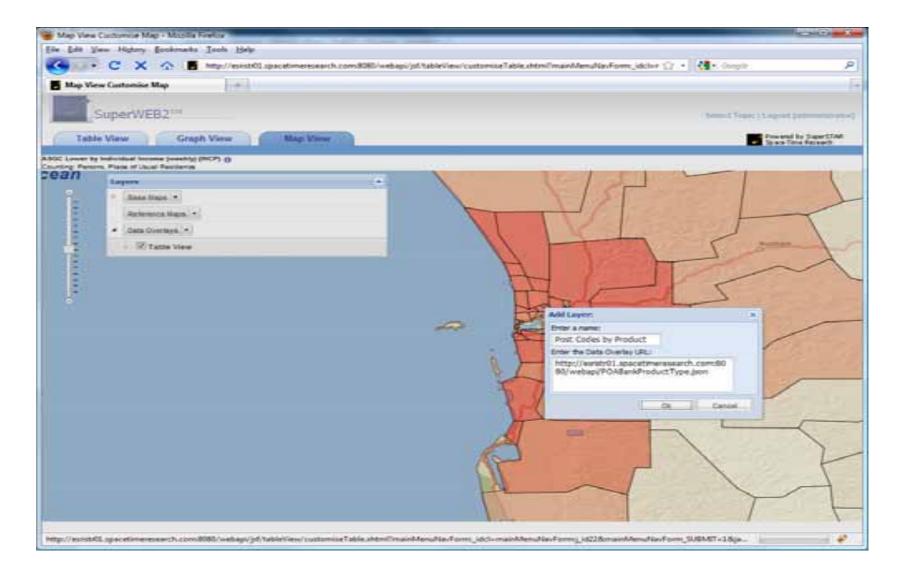
Interactive data visualization
Data mashups
Data collaboration

Communities of Interest



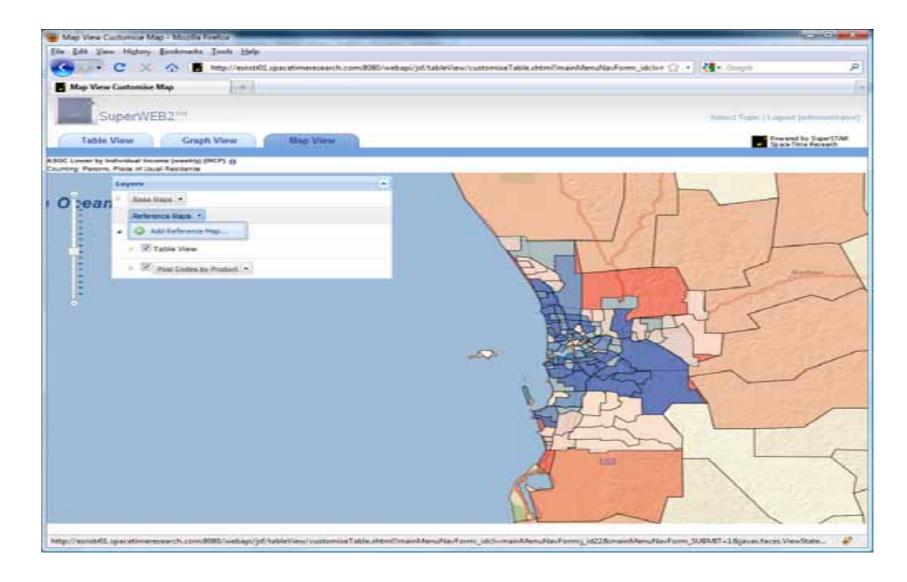
# Base Map adding Data Layer from Web Services





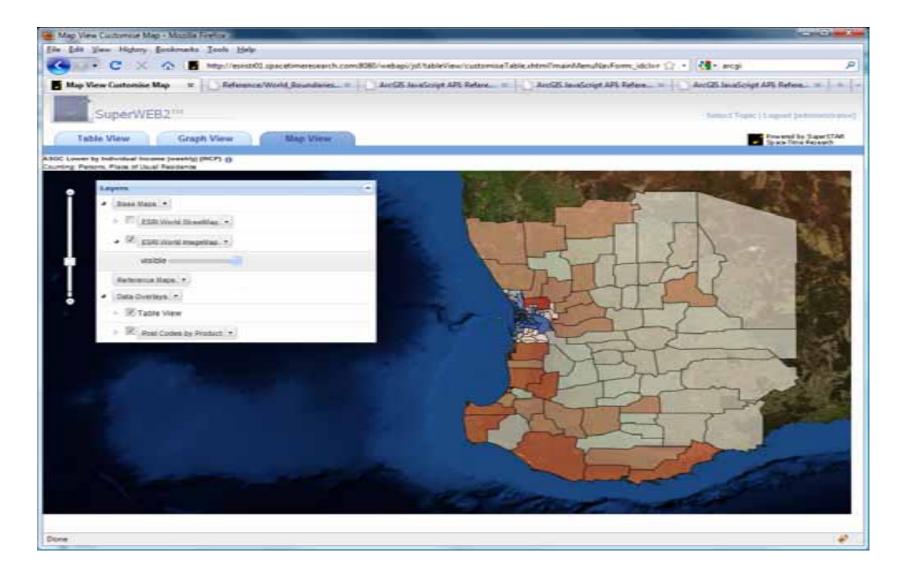
# Mash-up of Base Map and Data from Web Services





## Add Incremental Web Services Map Layer





# **ArcGIS Map Integration**



- Ad hoc manipulation of tabular data
- Integrated into SuperVIEW and SuperWEB
- SuperWEB publishes JSON Dynamic Data Overlays
- Map component consumes Dynamic Data Overlays
- Utilizes the ArcGIS JavaScript API
- Retrieves geographic tabulated data
- Overlays data on the map (MapDataOverlays)
- JSON format
  - Contains
    - ArcGIS RESTful layer end point URL.
    - Table Joining information.
    - Table data.

# Space-Time Research



Statistiska centralbyrån Statistics Sweden

- Space-Time Research provides analytics and visualization for organizations that deliver data services to their users and customers.
- SuperSTAR applications provide high speed selfservice analytics and visualization of extremely large amounts of data.
- •SuperWEB is world leading web-based tabulation and dissemination of sensitive **microdata** with assured **privacy protection and confidentiality.**
- SuperVIEW is the **FIRST cloud-based** Web 2.0 platform for highly interactive **Government 2.0** data transparency and collaboration for Public Intelligence.





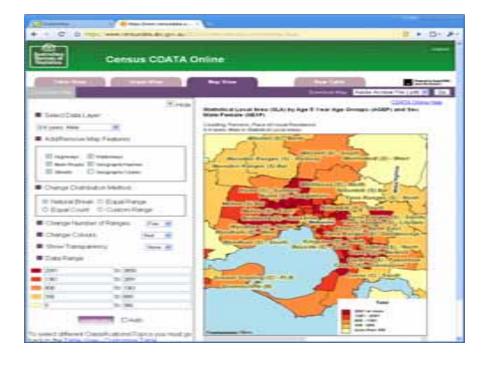
- "Process, analyze and disseminate census, surveys and register data to support INFORMED DECISION MAKING"
  - CIO Au: Statistics South Africa

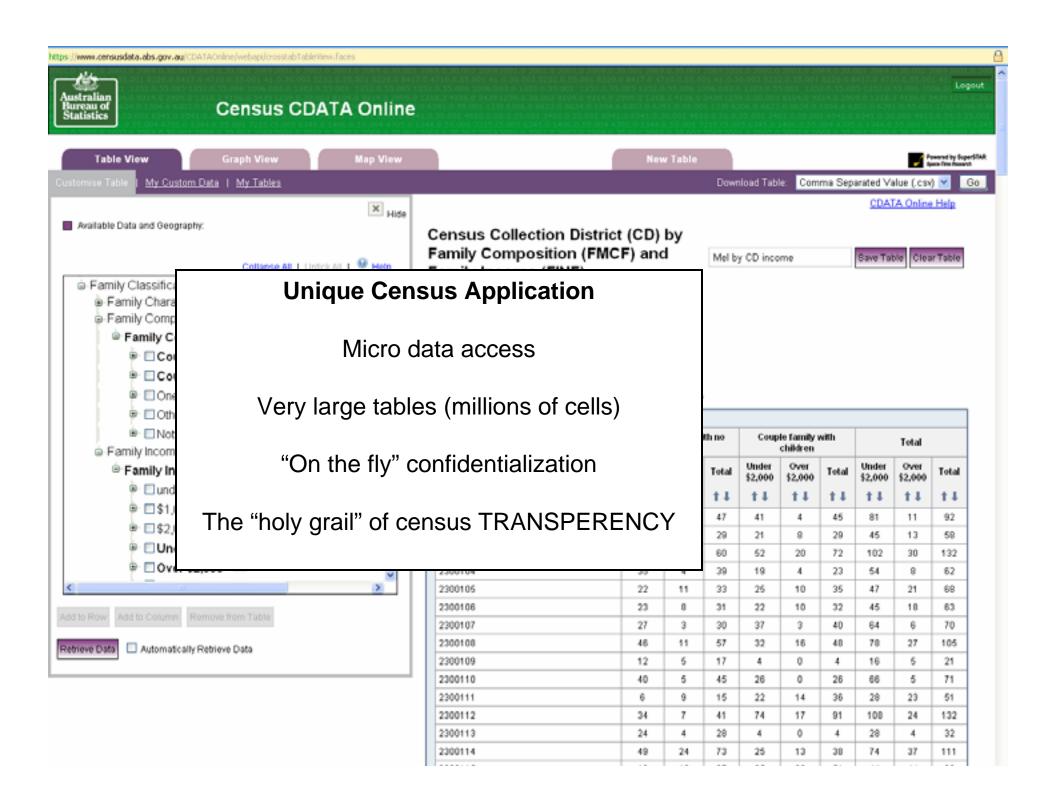
# U.S. Census Bureau



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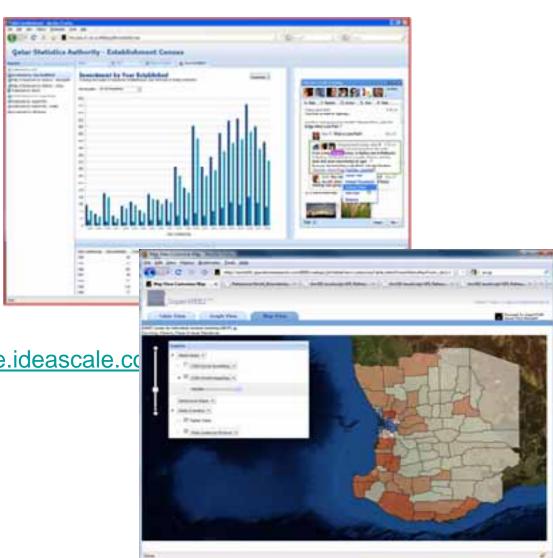




## Conclusion



- Government 2.0
- Transparency
- Accountability
- Services
  - http://gov2taskforce.ideascale.co
- GIS Platform







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