Implementing the Australian Statistical Geography Standard (ASGS)
This presentation

• Overview of ASGS
• ASGS Implementation
  • Issues
  • Strategies
• The ASGS into the future
Why change?

• Unstable
• Inconsistent units
• Often not meaningful
  • Administrative rather than functional
• Not optimised for data output
• Need to incorporate Mesh Blocks
• Not a complete framework
Why change now?

- Technological and data developments
  - Wide adoption of GIS
  - G-NAF
  - Address coding
  - Imagery availability
- Mesh Blocks
- Census year
What does the ASGS bring?

- Stability over time
  - No change to ABS structures between Censuses (5-yearly)
  - Areas designed for minimum change at all levels
- Reflects real settlement patterns and relationships
- Optimised at all levels for data release
Mesh Blocks

- Smallest region defined
- 347,627 MBs
- Building block
- Reflect land use
- If populated: generally 30 – 60 dwellings
- Limited data availability
Mesh Blocks: Palmerston
SA1s

- Census output
- 54,805 SA1s
- Average population 400
- Optimal range 200 - 800
- Similar characteristics
- Internally connected
- Reflect wherever possible localities and suburbs
SA1s: Monash
SA1s: Emerald
SA2s

- Optimised for demographic data (ERP)
- Non-Census data available
- 2,214 SA2s
- Functional area in regional Aust.
- Based on gazetted suburb/locality
- Average population 10,000
- Optimal range 3,000 - 25,000
SA2s: Perth
SA2s: Traralgon Area
SA3s

• Mid-level geography
• Reflect “local regionality”
• 351 SA3s
• Optimal pop range 30,000 – 130,000
SA4s

- Optimised for Labour Force data
- Other Survey data, 106 SA4s
- Optimal Range 100,000 – 500,000
  - Minimise relative standard errors
- Designed to reflect labour markets
  - Local labour catchments in large cities
  - Regional labour markets outside
  - Based on Journey to Work analysis
- Major city influence removed from regional data
SA4s and SA3s: Melbourne
SA4s and SA3s: NSW
GCCSAs

- Built from whole SA4s
- Define socio-economic extent of cities (JTW analysis)
- Includes regional commuter zone
- Allows comparison with Survey data (also SA4-based)
- More current reflection of Capital Cities than Capital City SDs
GCCSA: Greater Melbourne
Greater Melbourne: Changes
SD to GCCSA
scale of population change

<table>
<thead>
<tr>
<th>Capital City</th>
<th>Population increase 2001 (pers)</th>
<th>Population increase 2010 (pers)</th>
<th>Population increase 2010 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sydney</td>
<td>80</td>
<td>80</td>
<td>0.0</td>
</tr>
<tr>
<td>Melbourne</td>
<td>50,300</td>
<td>60,700</td>
<td>1.4</td>
</tr>
<tr>
<td>Brisbane</td>
<td>51,200</td>
<td>65,300</td>
<td>3.2</td>
</tr>
<tr>
<td>Adelaide</td>
<td>46,800</td>
<td>58,200</td>
<td>4.8</td>
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<tr>
<td>Perth</td>
<td>59,100</td>
<td>85,100</td>
<td>5.0</td>
</tr>
<tr>
<td>Hobart</td>
<td>1,000</td>
<td>1,100</td>
<td>0.5</td>
</tr>
<tr>
<td>Darwin</td>
<td>0</td>
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</tr>
<tr>
<td>Canberra</td>
<td>380</td>
<td>350</td>
<td>0.1</td>
</tr>
</tbody>
</table>
Indigenous Structure

• Integral part of ASGS
• Significant design factor at SA1 level
• Better represents discrete Indigenous communities (SA1s)
  • Addresses some previous issues
• Defines communities of 90+
• Reflect collector workloads
• Published September 2011
Oak Valley, SA – 2011
34kms south . . . .
Urban Centres and Localities

- SOS and UC/L combined
- New coding structure
- Conceptually similar to the past
- Based on whole SA1s
- Will result in some change
- More UCL’s identified in design process
- Rules applied more rigorously
Remoteness

• Conceptually the same
• Based on SA1s
• Some change expected
Remote Areas:
Sources of change

- Real change
  - changes in urban centres and localities
  - improvements in road network
- Methodological change
  - move to SA1s
ASGS
Implementation
Issues

• What data will be available?
• When?
• What geographies?
• How will time series be managed for ABS data
• Legacy Systems
• Legislation
Strategies

• ABS is finalising comprehensive implementation plan
• SMAs responsible for advising clients of changes
• ABS will publish a summary document
Time series strategies

- Data release on parallel geographies (SLA and SA2 for 2011)
- Continued release of data at LGA level
- Re-casting data
  - Re-coding preferable to using correspondences if addresses known
  - Correspondences
Some key collections

<table>
<thead>
<tr>
<th>Collection</th>
<th>First ASGS data</th>
<th>Last ASGC data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building Approvals</td>
<td>July 2011 (August 2011)</td>
<td>June 2012 (July 2012)</td>
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<tr>
<td>Census</td>
<td>2011 (June 2012)</td>
<td>2011 (June 2012)</td>
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<tr>
<td>Tourist Accommodation</td>
<td>Mar Qtr 2012 (June 2012)</td>
<td>Dec Qtr 2011 (March 2011)</td>
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<tr>
<td>Demography – Regional Pop Growth</td>
<td>2010-11 (July 2012)</td>
<td>2010-11 (July 2012)</td>
</tr>
<tr>
<td>Births and Deaths</td>
<td>2011 (Nov 2012)</td>
<td>2011 (Nov 2012)</td>
</tr>
</tbody>
</table>

**Note:** Publication release dates in brackets
Correspondences

• New method for building correspondences based on Mesh Blocks
• More accurate method that better identifies where the population is
• ABS will provide to support ASGS implementation
• Publish information paper late this year
Some correspondences - Census

• SA1 and SA2 to all ASGS-supported geographies
• SLA to ASGS 2011
• POA (&or postcode?) to ASGS:
• Suburb and Locality to:
  • SA2, SLA
Census

- SLA and ASGS for 2011
- Comparability tables for CD to SA1
- Census Information Paper
  - Census of Population and Housing: Outcomes from the 2011 Census Output Geography Discussion Paper (2911.0.55.003)
Demography
Regional Population Growth (3218.0)

• 2010/11 data on SLA/LGA/SA2 – SA2 and LGA thereafter
• Recast SA2/LGA ERP to 2001
• Recast GCCSA ERP to 1981
• Additional data at SA1 level by request
Legacy systems

- ASGS main structure hierarchy same as ASGC
  - incl 9 and 5 digit SA2 codes
  - incl fully hierarchical and 7 digit SA1 codes

<table>
<thead>
<tr>
<th>S/T</th>
<th>SA4 (2 dig)</th>
<th>SA3 (2 dig)</th>
<th>SA2 (4 dig)</th>
<th>SA1 (2 dig)</th>
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<tbody>
<tr>
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Legislation

• ASGC referenced in legislation and regulation
• Letters sent to Attorneys General in each State
Future of the ASGS

• Reviewed every 5 years
• Monitoring changes in settlement patterns
• Designed for minimum change:
  • allowance for growth
  • splits
  • amalgamations
• New Non-ABS structures on a case by case basis
Resources

- www.abs.gov.au/geography
- geography@abs.gov.au
- Publication
  - Manual
  - Boundaries (GIS and PDF)
- Correspondences (in progress)
- Fact Sheets (in progress)
- SMA Information papers
  - Census (2911.0.55.003)
  - Demography (in progress – Aug 2011)
Questions?