6th International Conference on Big Data - Session 4

Achieving the SDGs in a time of COVID-19

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Stats NZ
IANZ: Indicators Aotearoa New Zealand

A strong commitment to Wellbeing Statistics

Wellbeing data for New Zealanders

<table>
<thead>
<tr>
<th>Category</th>
<th>Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social capability</td>
<td>Empowerment and enablement, Governance, equality, autonomy</td>
</tr>
<tr>
<td>Cultural, relationships, leisure</td>
<td>Human resource potential, Health, safety, education</td>
</tr>
<tr>
<td>Economic self-determination</td>
<td>Environmental sustainability, Land, water, air, waste</td>
</tr>
<tr>
<td>Work, income and wealth, housing</td>
<td>Te ao Māori, Partnering with Māori to reflect values, beliefs, and customs</td>
</tr>
<tr>
<td>All context indicators</td>
<td>All wellbeing indicators</td>
</tr>
</tbody>
</table>

wellbeingindicators.stats.govt.nz
COVID-19
- Challenge
- Opportunity
- Trade-offs
A new small set of statistics rose to prominence
Most Immediate area of Interest : Economic

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Frequency</th>
<th>Timeliness</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI</td>
<td>Quarterly</td>
<td>16 days</td>
</tr>
<tr>
<td>LFS</td>
<td>Quarterly</td>
<td>35 days</td>
</tr>
<tr>
<td>Turnover</td>
<td>Quarterly</td>
<td>55-65 days</td>
</tr>
<tr>
<td>GDP</td>
<td>Quarterly</td>
<td>77 days</td>
</tr>
</tbody>
</table>

- Traditional Key economic indicators were:
  - Too infrequent
  - Too slow to be published
- Not real-time!
### Other near-real-time Indicators

**Most not by Stats NZ**

<table>
<thead>
<tr>
<th>Source/series (monthly)</th>
<th>Timeliness</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANZ activity outlook</td>
<td>~ 3 days</td>
</tr>
<tr>
<td>MSD jobseeker numbers (work ready)</td>
<td>~ 7 days</td>
</tr>
<tr>
<td>ANZ truckometer – light traffic</td>
<td>~ 11 days</td>
</tr>
<tr>
<td>ANZ truckometer – heavy traffic</td>
<td>~ 11 days</td>
</tr>
<tr>
<td>SNZ electronic card transactions (ECT)</td>
<td>~ 12 days</td>
</tr>
<tr>
<td>EA electricity generation (hydro + thermal)</td>
<td>~ 14 days</td>
</tr>
<tr>
<td>SEEK new job listings</td>
<td>~ 14 days</td>
</tr>
<tr>
<td>BNZ/BusinessNZ Performance of Manufacturing Index (PMI)</td>
<td>~ 14 days</td>
</tr>
</tbody>
</table>
Rethinking quality:
*Most of our data products*

- Accuracy
- Coherence
- Timeliness
- Frequency
- Accessibility
- Detail
Accessibility: The COVID-19 Data Portal
Watching the crisis unfold in near-real-time

Example #1: Weekly Economic Sentiment

Economic  Health  Social

Select category  Confidence

Select an indicator  Economic sentiment

Select a series  Weekly economic sentiment

Weekly economic sentiment

Index

Feb-15  Nov-15  Jul-16  Apr-17  Dec-17  Aug-18  Apr-19  Jan-20

Weekly economic sentiment

Select date range

Last updated: 25 August 2020
Source: gdeltproject & C. Ball
Example #2: Daily Border Crossings

Select category: Travel
Select an indicator: Daily border crossings - arrivals
Select a series: Total

Customs daily border crossings – arrivals

Last updated: 27 August 2020
Source: New Zealand Customs Service

Select date range: 2016-01-01 to 2020-08-26
This was what we had achieved

What about coherence?
The race to near real-time created new complexity
And what about that complexity?

...Tracks GDP reasonably well

The New Zealand Activity Index...
The COVID-19 Data Portal’s latest addition...
... provides coherence through synthesis
The NZAC provides some coherence
POPULATION DENSITY

Find out where people live, work and play.

Combining Stats NZ expertise with our partners at major telecommunication companies, we have developed a new look at population.

Understand the population of Aotearoa at suburb level, broken down by international/domestic/local population at an hourly estimate.

SPEND DENSITY

Find out how people live, spend and pay.

Combining Stats NZ expertise with our partners at major payment processing companies, we have developed a new look at electronic card spend.

Understand the spend of Aotearoa at council level, broken down by industry, international/domestic total spend and number of transactions at a daily frequency.
These efforts have created more balance
Can the other pillars of wellbeing be expanded? *Why not?*
What’s Next?

• Expand the NZAC (regional? Weekly?)
• NLP for topic analysis
• Making COVID Portal more “wellbeing like”
• Review Wellbeing frameworks?
Conclusion

• Trade-offs between COVID Health and other dimensions of wellbeing must be made visible if we are to properly support our colleagues in the policy departments

• Much exciting work ahead!
Thank you - Questions