Auckland 25 Years Later: What has Changed?

Chris Vallyon (Beca)

Background
- Inspiration from dusty floppy disks
- Sponsor: Auckland Transport
- Content
  - Context: NZ and Auckland Growth Trends
  - What Auckland Might Have Looked Like
  - Analysis
  - Findings
  - +25 Years: Will we have regrets?
  - The Difficulties of Time Travel

New Zealand Demographic Trends

NZ Population Trends

<table>
<thead>
<tr>
<th>Region</th>
<th>Population 1986</th>
<th>Population 2011</th>
<th>Change</th>
<th>% Change</th>
<th>Av change per year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auckland region</td>
<td>871,200</td>
<td>1,486,000</td>
<td>614,800</td>
<td>71%</td>
<td>24,600</td>
</tr>
<tr>
<td>Waikato region</td>
<td>319,500</td>
<td>413,000</td>
<td>93,500</td>
<td>30%</td>
<td>3,750</td>
</tr>
<tr>
<td>Bay of Plenty</td>
<td>186,200</td>
<td>277,100</td>
<td>87,900</td>
<td>47%</td>
<td>3,500</td>
</tr>
<tr>
<td>Wellington region</td>
<td>390,830</td>
<td>487,700</td>
<td>96,900</td>
<td>25%</td>
<td>3,900</td>
</tr>
<tr>
<td>Canterbury region</td>
<td>425,300</td>
<td>560,700</td>
<td>135,400</td>
<td>32%</td>
<td>5,400</td>
</tr>
<tr>
<td>Otago region</td>
<td>177,600</td>
<td>209,900</td>
<td>32,300</td>
<td>18%</td>
<td>1,300</td>
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<tr>
<td>New Zealand</td>
<td>3,263,300</td>
<td>4,405,300</td>
<td>1,142,000</td>
<td>35%</td>
<td>45,700</td>
</tr>
</tbody>
</table>

New Zealand KVT Trends

Auckland

As it might have been
How has Car-Oriented-Design changed Auckland?

Auckland's Quest for Rail funding

How Old is the PT/Car Debate?
Decision Time: Road or Rail?

Auckland 1986

Population and Patronage Growth (1925-2009)

Auckland 2012

Analysis Approach

- Floating vehicle surveys
- Nine Routes to the city (a sample of Auckland trips)
- Comparison of travel times/speeds 1986 and 2012
- Assess increase in delay per km traveled
- Aggregate to approximate change since 1986

Analysis

- Average increase in delay of 0.93min/km since 1986
- 2012 average trip length of 11km (strategic model)
- Average increase of 0.93 minutes x 11km = 10.23 minutes additional delay per vehicle (1986 times relative to 2012)
- 75,722 private vehicles travel into the Isthmus during AM peak (2006 observed) x 10.23 minutes = 774,636 minutes additional delay per AM peak
- The 1986 Report uses 267 commuter work days. 774,636 minutes x 267 AM peak periods = 206,827,828 minutes, or 3,447,130 hours additional delay per year compared to 1986

Key Findings

- All routes had an increase in travel delay
- Average of 60% increase in travel times
- Biggest increase = arterial interpeak delay
  - Peak spread, intensification, etc. (greatest opportunity for improvement?)
- 3.5 million additional hours delay per year
  - Includes AM commute to the central city only
  - Does not include increase in delay for trips to other employment centers
Is this the worst of all possible worlds?

The Next 25 years: What do we need to plan for?

<table>
<thead>
<tr>
<th>Region</th>
<th>Population 1986</th>
<th>Population 2006</th>
<th>Estimate 2031</th>
<th>Estimate Growth</th>
<th>% of NZ Growth</th>
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</thead>
<tbody>
<tr>
<td>Auckland region</td>
<td>871,200</td>
<td>1,373,000</td>
<td>1,944,700</td>
<td>+573,000</td>
<td>57%</td>
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<tr>
<td>Waikato region</td>
<td>319,500</td>
<td>395,100</td>
<td>468,200</td>
<td>+73,100</td>
<td>9%</td>
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<tr>
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<td>186,200</td>
<td>265,300</td>
<td>323,400</td>
<td>+58,100</td>
<td>8%</td>
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<tr>
<td>Wellington region</td>
<td>390,800</td>
<td>466,300</td>
<td>541,200</td>
<td>+75,000</td>
<td>9%</td>
</tr>
<tr>
<td>Otago region</td>
<td>177,600</td>
<td>199,800</td>
<td>225,900</td>
<td>+26,100</td>
<td>3%</td>
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NZ Population Trends (major centers)