

Valuing participation in transport

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Outline

- Rationale
- Goals
- Research questions
- Methods
- Results
- Implications



- Rationale: there is a dearth of data about people using shared footpaths, generally
- there is next to no data about inclusion in public spaces, or public process, generally
- In transport we understand even less about path users' age profiles, gender, ethnicity, purpose for being there... and how investment in an asset (ie a path) benefits peoples' lives.



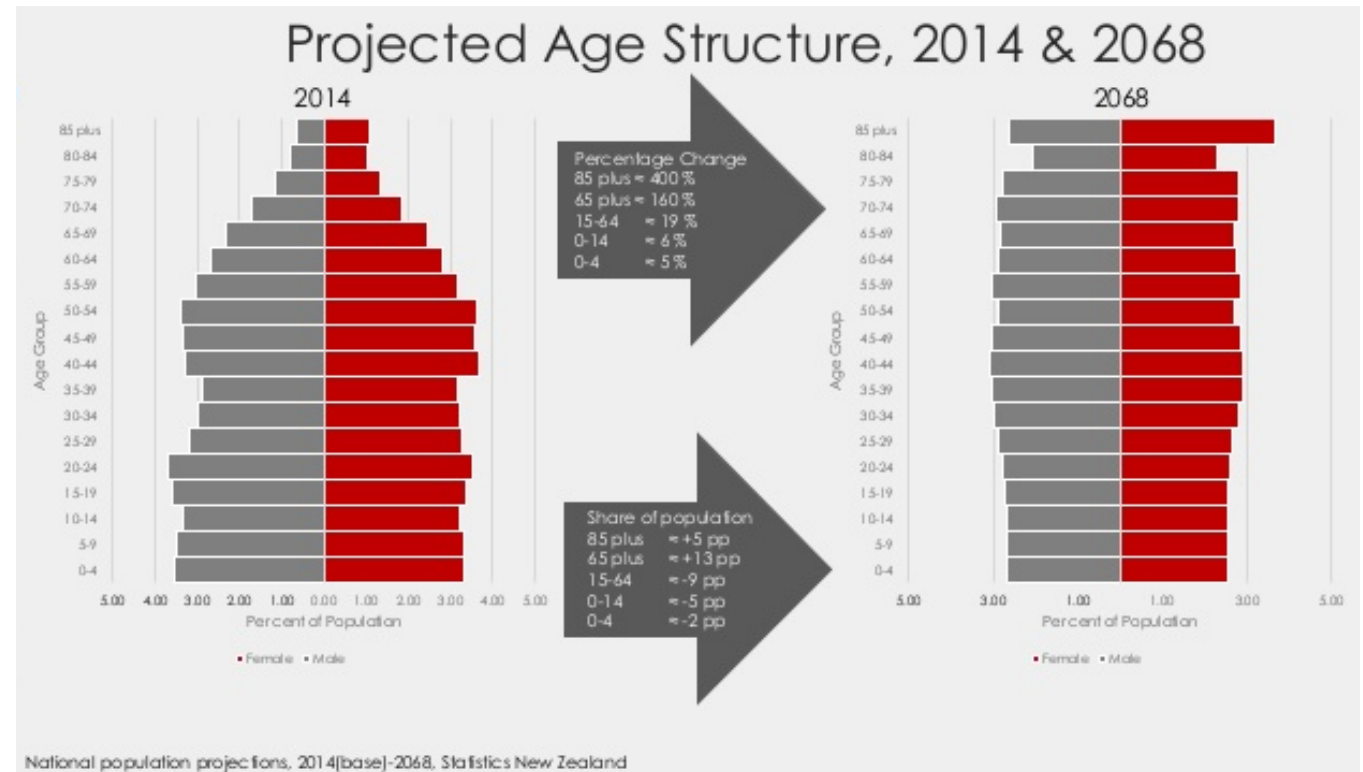
Goals:

- Our ultimate goal is a robust, populated, well-used economic appraisal framework to measure inclusion in transport (and other public investment)



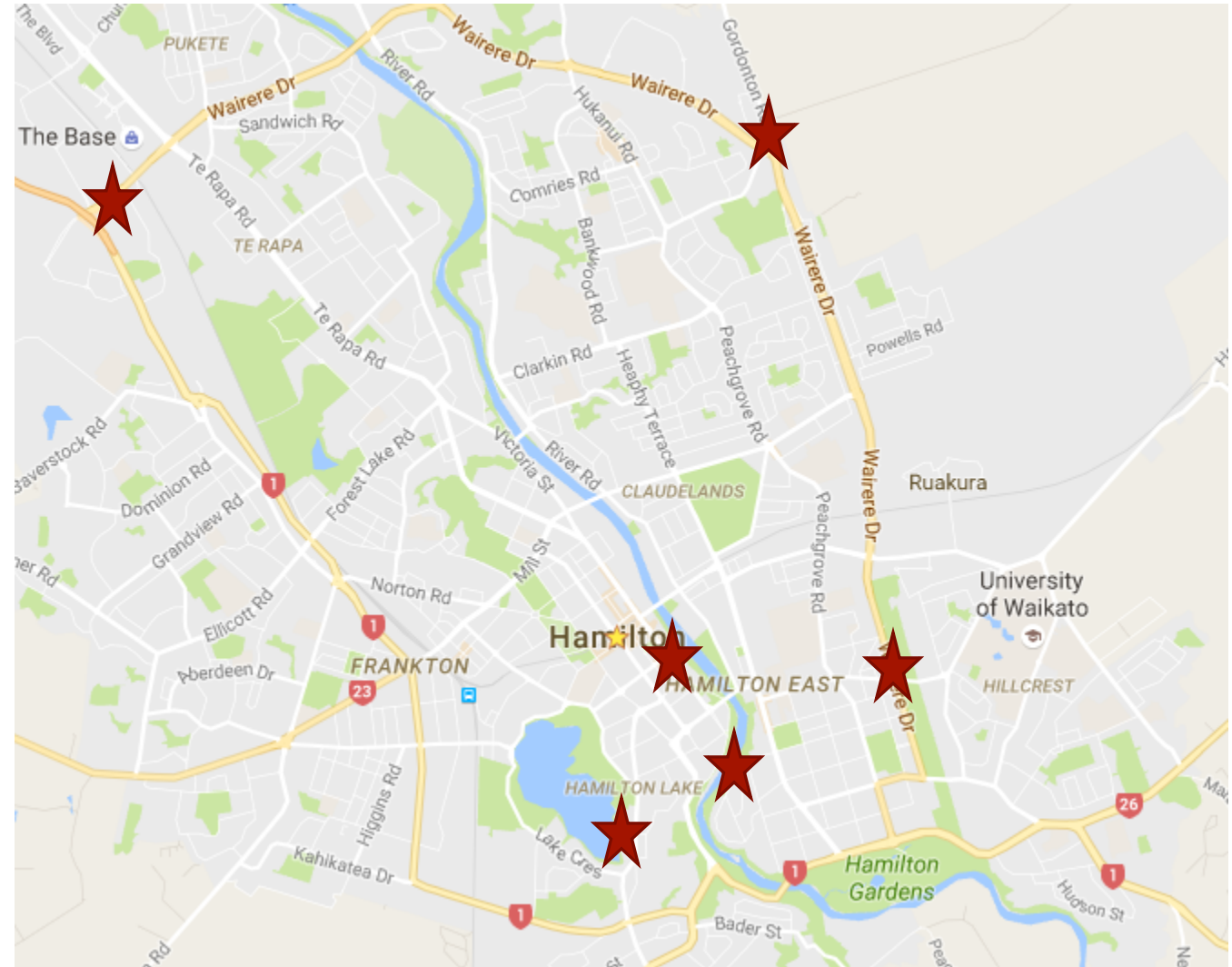
Methods: existing tools

- Accessibility audits
- Counting people to prioritise investment
- Using existing data (age, relative ability, ethnicity, access to a motor vehicle)



Methods: pilot study for RCA Forum

- We counted people on paths

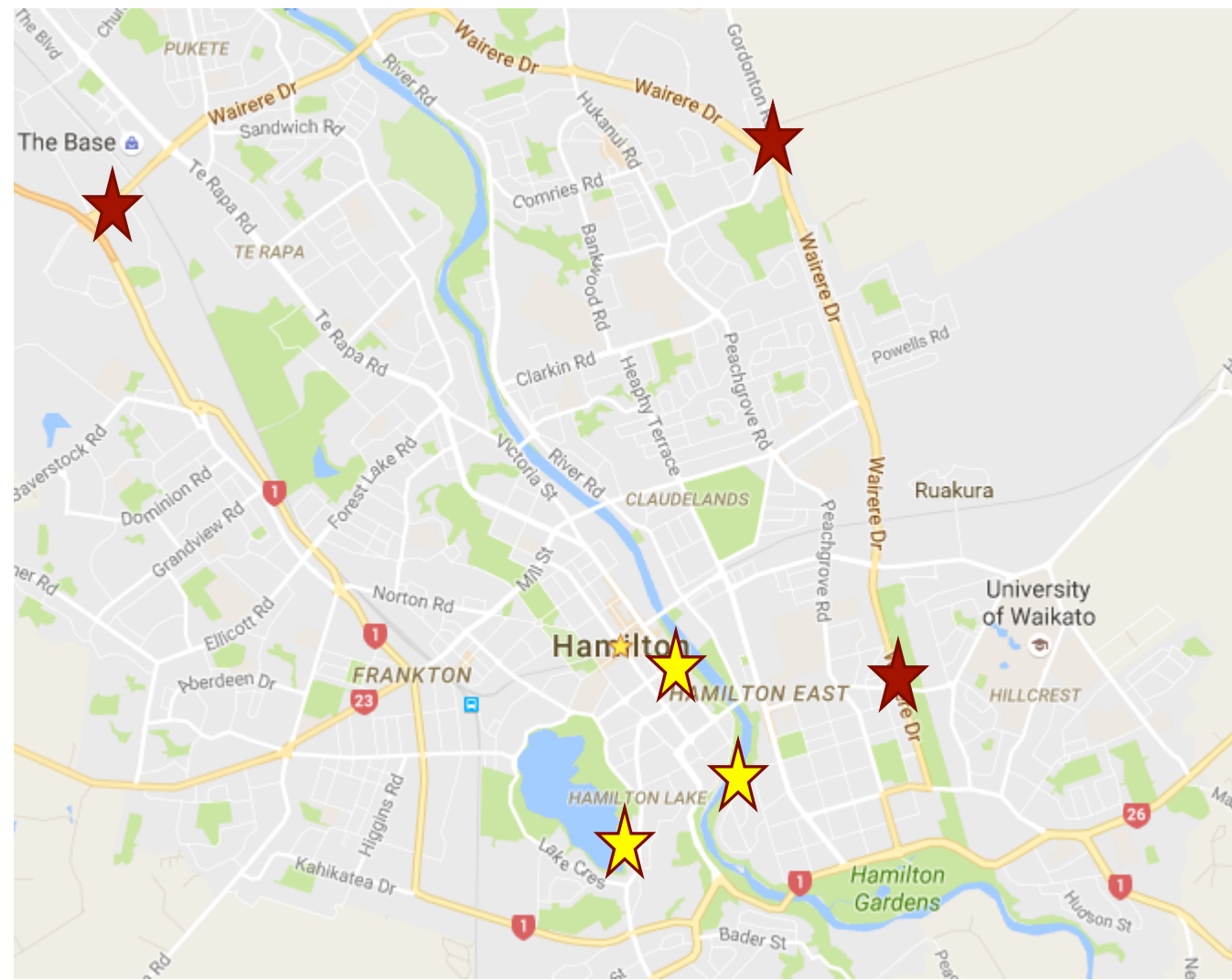


Methods: pilot study for RCA Forum

- We counted people on paths
- These paths show a mix of uses

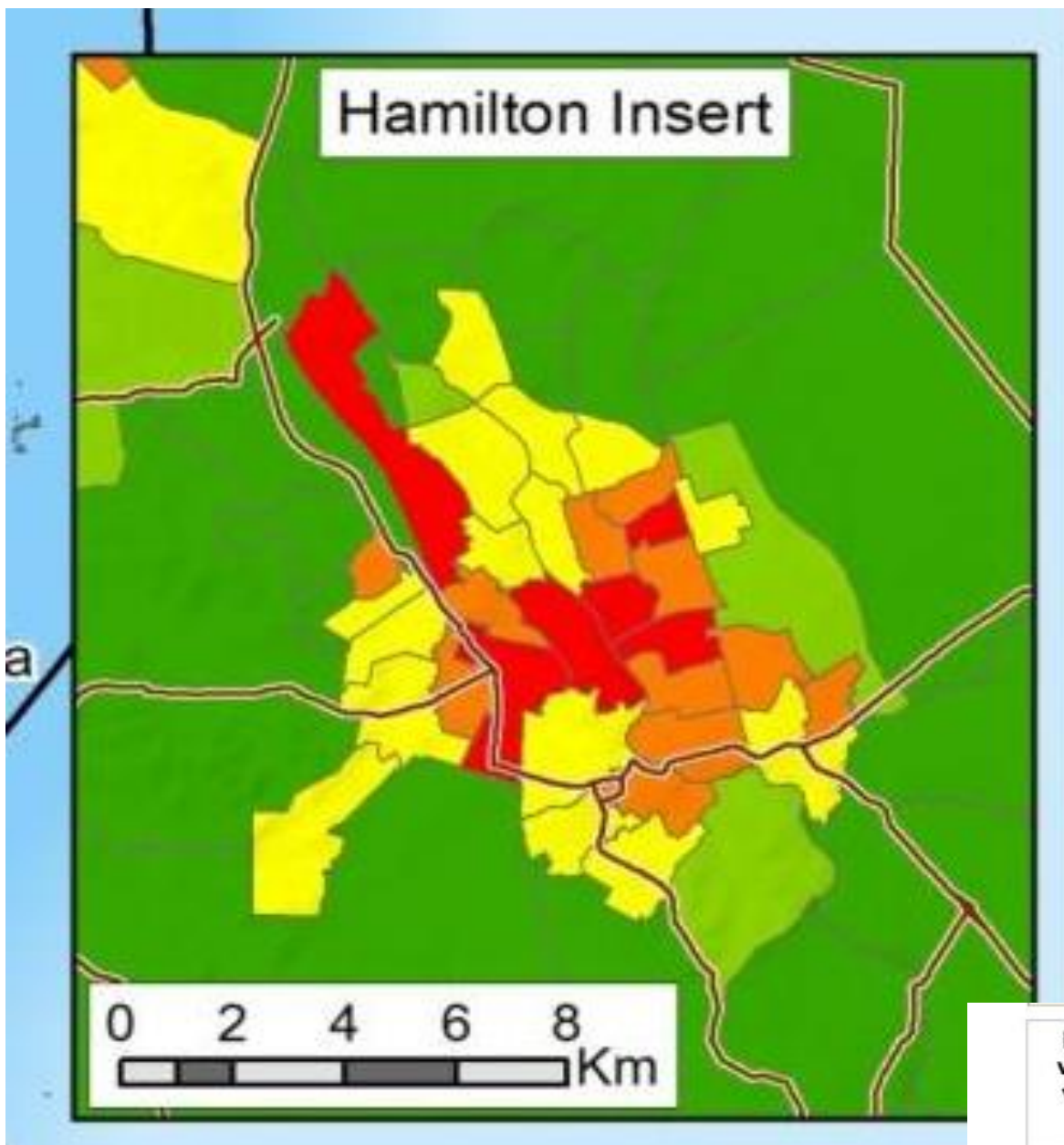
Lower than 'expected' ★
(8/3002 across 34 hours)

Higher than 'expected' ★
(34/364 using mobility aids across 13 hours)



Methods: pilot study for RCA Forum

- We counted people on paths
- These paths show a mix of uses
- These paths are within communities with measurable characteristics...



Legend

Proportion of households with NO access to a motor vehicle



Waikato regional boundary

State highways

Proportion of households with NO access to a motor vehicle by area unit in the Waikato region (2013)

Created by: A Jeffries
Projection: NZTM
Date: 15/01/2016

Version: 1
Job No.: 31532
File Name: 31532_WR_Household_Access_to_Motor_Vehic...

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- Digital Boundary Data sourced from Statistics New Zealand

A4



Implications: more questions than answers!

- 1) Mobility aid use is close to 'expected' on Wairere Drive*
- 2) Mobility aid use is much less than 'expected' on recreational paths:
River paths and Hamilton Lake*
- 3) Where mobility aid proportion is very high, it is due to added mobility
scooters (Wairere: Te Rapa and Clyde)*
- 4) Need more data to make any inferences about variation by time of
day/week*
- 5) Note: ZERO manual wheelchairs, walking frames, white canes seen
on any of these paths in 74 hours of survey*



Bridget Burdett

@Bridget_Burdett

- How do we measure inclusion?
- Ethnicity, age, ability
- Is this Hamilton?...

Love this kids' bike park near Hamilton. But you really need a car and bike rack to go.
Result: White middle class.



Our data: So what?

- 1) how much data is 'enough'?
- 2) why do some places show much higher pedestrian numbers than others?
- 3) why do some show much higher mobility aid proportions than others?
- 4) why do we invest in footpaths at all: recreation, commuter transport, social, tourism, other?

Inclusive measures

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Measuring benefits and costs?



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- **BENEFIT-COST ANALYSIS**

- Monetary-equivalent value
- Qualitative Specificity -- only as much determinacy as actually available

- **CAPABILITY APPROACH**

- Freedom to achieve well-being of primary moral importance
- Freedom to achieve well-being understood in terms of people's real opportunities to do and be what they have reason to value
- Human development metrics

USE-VALUE, PEOPLE WITH DISABILITIES



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CLASS OF BENEFIT	TYPE OF BENEFIT	BENEFICIARY	DESCRIPTION	QUANTIFICATION	MONETIZATION
USE	SAFETY	PEOPLE WITH DISABILITIES	REDUCED FATALITIES, INJURIES, PROPERTY DAMAGE	DEMAND AND INCIDENCE ANALYSIS	WILLINGNESS- TO-PAY BASED STATISTICAL VALUE OF LIFE, LIMB, SUFFERING, PROPERTY

USE-VALUE, PEOPLE WITHOUT DISABILITIES



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CLASS OF BENEFIT	TYPE OF BENEFIT	BENEFICIARY	DESCRIPTION	QUANTIFICATION	MONETIZATION
USE	MOBILITY	PEOPLE WITHOUT DISABILITIES	WIDER ACCESS TO DESIRED DESTINATIONS, GENERATED TRIPS.	DEMAND ANALYSIS; GEOGRAPHIC INFORMATION SYSTEMS; GRAVITY AND ISOCHRONIC INDICES	WILLINGNESS TO PAY/ACCEPT; VALUE OF QUALITY-ADJUSTED LIFE YEARS.
USE	MOBILITY	PEOPLE WITHOUT DISABILITIES	TIME SAVINGS	DEMAND ANALYSIS	VALUE OF TIME
USE	MOBILITY	PEOPLE WITHOUT DISABILITIES	INCREASED COMFORT	DEMAND ANALYSIS	WILLINGNESS TO PAY PREMIUMS
USE	MOBILITY	PEOPLE WITHOUT DISABILITIES	INCREASED CONVENIENCE	DEMAND ANALYSIS	WILLINGNESS TO PAY PREMIUMS
USE	SAFETY	PEOPLE WITHOUT DISABILITIES	REDUCED FATALITIES, INJURIES, PROPERTY DAMAGE	DEMAND AND INCIDENCE ANALYSIS	STATISTICAL VALUE OF LIFE, LIMB, SUFFERING, PROPERTY
USE	MACRO-ECONOMIC IMPACTS	SOCIETY-AT-LARGE	INCOME GAINS THROUGH HIGHER LABOUR MARKET PARTICIPATION AND EDUCATIONAL ATTAINMENT	INPUT-OUTPUT ANALYSIS	DIRECT, INDIRECT AND INDUCED GDP; RETURN ON DISABILITY

NON-USE VALUE



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CLASS OF BENEFIT	TYPE OF BENEFIT	BENEFICIARY	DESCRIPTION	QUANTIFICATION	MONETIZATION
NON- USE	CROSS- SECTOR	SOCIETY AT- LARGE	SOCIAL SERVICE AGENCY RESOURCES	DEMAND AND BUDGET ANALYSIS	BUDGETARY RESOURCE SAVINGS
NON- USE	OPTION VALUE	SOCIETY AT LARGE	INSURANCE	DEMOGRAPHIC ANALYSIS; STATED PREFERENCE ANALYSIS	WILLINGNESS TO PAY/ CONTINGE NT VALUATION ANALYSIS
NON- USE	EXISTEN CE VALUE	SOCIETY AT- LARGE	CIVIC SOCIETY	STATED PREFERENCE	CONTINGENT VALUATION

CAPABILITY



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CLASS OF BENEFIT	TYPE OF BENEFIT	BENEFICIARY	DESCRIPTION	QUANTIFICATION	INDEXING
CAPABILITY		PEOPLE WITH DISABILITIES	ACCESS TO FREEDOMS THROUGH DUE PROCESS; POLITICAL PROCESS; JUDICIAL PROCESS	PERIODIC RANDOMIZED SAMPLE SURVEY	INDEX OF PARTICIPATION IN DAILY LIFE
CAPABILITY		PEOPLE WITH DISABILITIES	INCREASED LIFE- OPPORTUNITIES THROUGH ACCESS TO HEALTH, EMPLOYMENT, EDUCATION, SOCIAL OUTLETS ...	PERIODIC RANDOMIZED SAMPLE SURVEY	INDEX OF HEALTH, EDUCATION, AND WELLNESS
CAPABILITY		PEOPLE WITH DISABILITIES	INCREASED SUBJECTIVE WELL-BEING	PERIODIC RANDOMIZED SURVEY	INDEX OF SUBJECTIVE WELL-BEING

**Can't get to town to pay my rates
– oh bug...**



Not much fun in a car wash



Very tentative results like the Veranda point to more questions:
how do we trade off competing objectives?

Lake (very few older / disabled people) vs
Westfield (very high proportion of older / disabled people)...

We need more explicit goals around
Aged, health, mobility, social
exchange – conversation and play,
grandparents and grandchildren

..and we have tools and methods
ready to address these emergent
questions.