

# Evolving methods in school travel planning



The Active Living and Environment Symposium  
Dunedin 12 February 2019

John Lieswyn & Fran Rose

# Context: travel to school (NZ)

Figure 9: Travel to school – mode share – ages 5–12

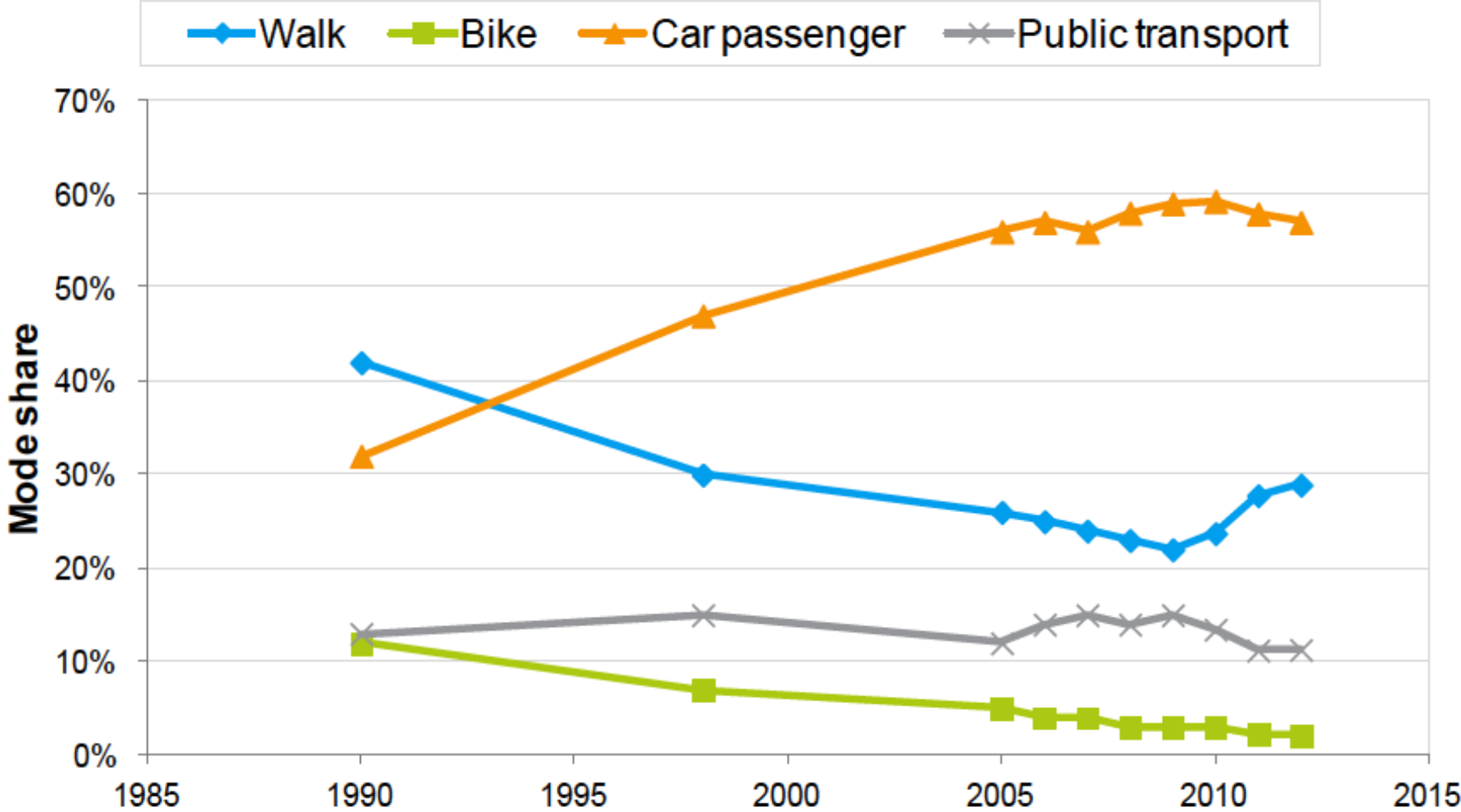




Photo: Axa.co.uk

How children who walk to school see the world [9]



Figure 2: William (age 7) walks and recalls trees and other buildings

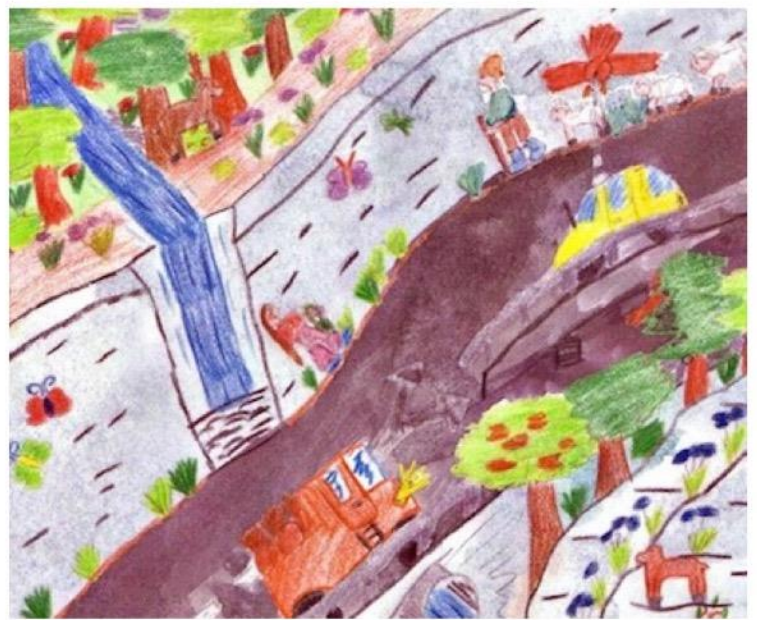


Figure 3: Maria (age 10) walks and recalls trees, flowers, and pets

How children who are driven to school see the world

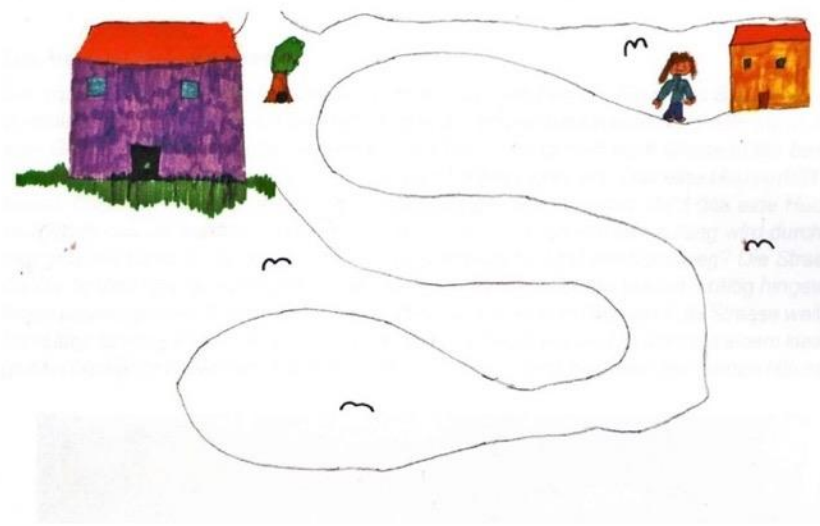


Figure 4: Sandra (age 7) is driven and does not recall her surroundings

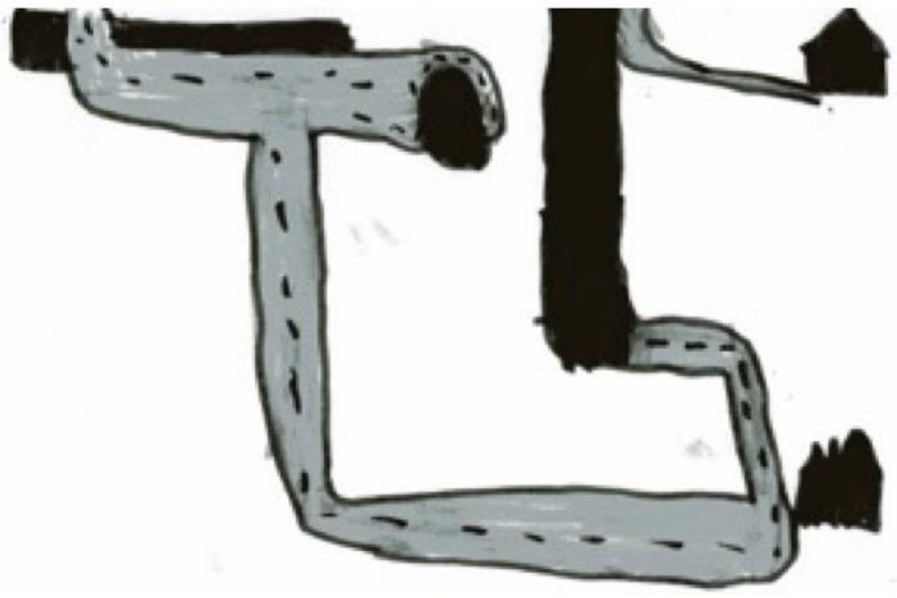


Figure 5: Samuel (age 7) is driven and recalls only the pavement in monotonous

# Benefits of Active Travel



## STUDENTS

- **Health:** active travel leads to better physical fitness and cardiovascular health
- **Safety:** active travel are statistically safe ways to travel [1]. Cycling on the road is far safer than horseback riding, skiing, and rugby [2]. Learning traffic skills and encouraging group travel leads to ‘safety in numbers’ [3]
- **Learning:** active travel is positively related to academic performance [4] and concentration [5]
- **Confidence:** enhanced independence and confidence about getting around in the neighbourhood [6]



## COMMUNITY

- **Safety:** cooperation can halve the number of crashes [7]
- **Cohesion:** parents, teachers and neighbours get involved and put “eyes on the street”



## SCHOOL

- **Fewer discipline problems** as students arrive alert and “ready to learn”
- **Less congestion** at the school gate, freeing up space for those students who cannot use active transport

1. Larouche, R., et al., *Associations between active school transport and physical activity, body composition, and cardiovascular fitness: a systematic review of 68 studies*. J Phys Act Health, 2014. **11**(1): p. 206-27.

2. Ministry of Transport, 2015. Cyclist Crash Facts.

3. Chieng, M., H. Lai, and A. Woodward, *How dangerous is cycling in New Zealand?* Journal of Transport & Health, 2017.

4. Jacobsen, P., D. Ragland, and C. Komanoff, *Safety in Numbers for walkers and bicyclists: exploring the mechanisms*. Injury Prevention, 2015. **21**(4): p. 217-220.

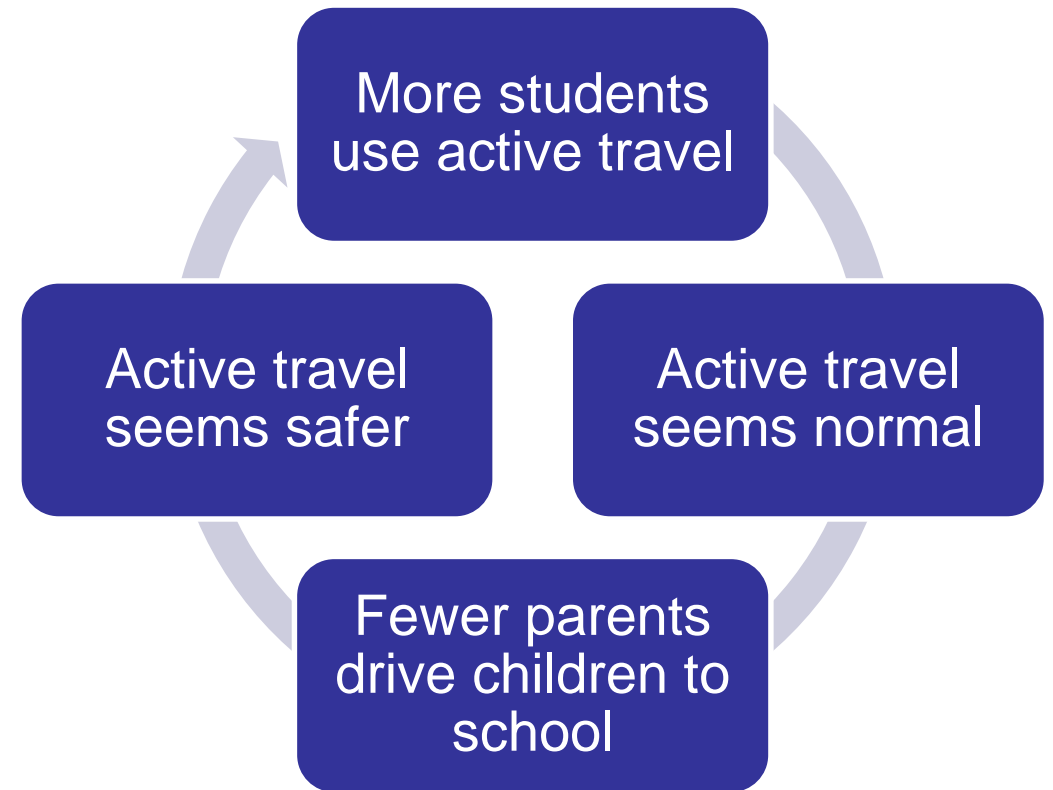
5. Singh, A., et al., *Physical activity and performance at school: a systematic review of the literature including a methodological quality assessment*. Arch Pediatr Adolesc Med, 2012. **166**(1): p. 49-55.

6. Sauter, D., 2011, *Walking the social space*, in *5th World Congress of the Global Network Cities for Mobility*: Stuttgart.

7. Auckland Transport. Safe school travel plans. Available from: <https://at.govt.nz/cycling-walking/school-travel/travelwise-schools/safe-school-travel-plans/>.

# STP objectives

- Collaborate on identifying problems, consequences, and potential solutions regarding:
  - Congestion at the school gate
  - Few students choosing active travel



How do we kickstart the 'virtuous' cycle?

# US practice

- Safe Ways to School coined in Florida in 1997
- SR2S legislated in California in 1999
- Safe Routes to School Partnership formed in 2005



## Cesar Chavez Elementary Improvement Plan **DRAFT**

- 1 School Grounds**
  - Upgrade bike parking to meet current City parking type and spacing standards, provide a minimum of 200 bicycle parking spaces
  - Provide visitor bicycle parking near the office
  - Restripe walkways in the parking lot as high-visibility yellow
  - Stripe a high-visibility crosswalk at driveway and install tactile domes
- 2 Pine Lane**
  - Designate Pine Lane, Villanova Drive to West 8th Street, as an enhanced bikeway with traffic calming treatments
- 3 Pine Lane at Cornell Drive**
  - Conduct a stop sign analysis to determine if all-way stop signs are warranted
  - Install curb ramps on all 4 corners
  - Stencil "STOP" and stripe stop bars at all stop signs
  - Stripe a white high-visibility crosswalk at northern leg
  - Provide wayfinding and directional sharrows for southbound bicyclists
- 4 Access Points to Redwood Park**
  - Restripe crosswalks (2) as high-visibility yellow
  - Install ADA compliant curb ramps at both ends of both crosswalks
  - Update Assembly B signage and install Assembly D signage
  - Linden Ln. expand path at park entrance
  - Cornell Dr. stripe red curb on either end of curb ramps
- 5 Anderson Road at Villanova Drive**
  - Conduct analysis of moving southbound 2-to-1 merge north of Villanova Drive with the outside southbound lane converted to right-turn-only
  - Restripe crosswalks as high-visibility yellow
- 6 Anderson Road at Rutgers Drive**
  - Construct vertical curb on the sidewalk south of the intersection where the school closed a parking lot driveway
  - Construct curb extension along western side of intersection in the parking lane
  - Restripe crosswalks as high-visibility yellow and install tactile domes
  - Construct continuous curbing between sidewalk and parking lot
  - See Rutgers Dr recommendation
- 7 Rutgers Drive**
  - Designate Rutgers Dr as an enhanced bikeway with traffic calming treatments
- 8 Anderson Road**
  - Enhance bike lane with markings and green paint along loading zone
  - Long term consider roadway reconfiguration that may include travel lane width reduction, buffered bike lanes, or other treatments
- 9 Anderson Road at Amherst Drive**
  - Construct curb extensions into parking lane on both ends of crosswalk
  - Expand pathway for direct line of travel to crosswalk
  - Refresh high-visibility yellow crosswalk, stripe yield lines
  - Install Assembly D signage in both directions
  - Install RRFB
  - Stencil "STOP" and stripe stop bar at Amherst



Safe Routes to School

Expert Help

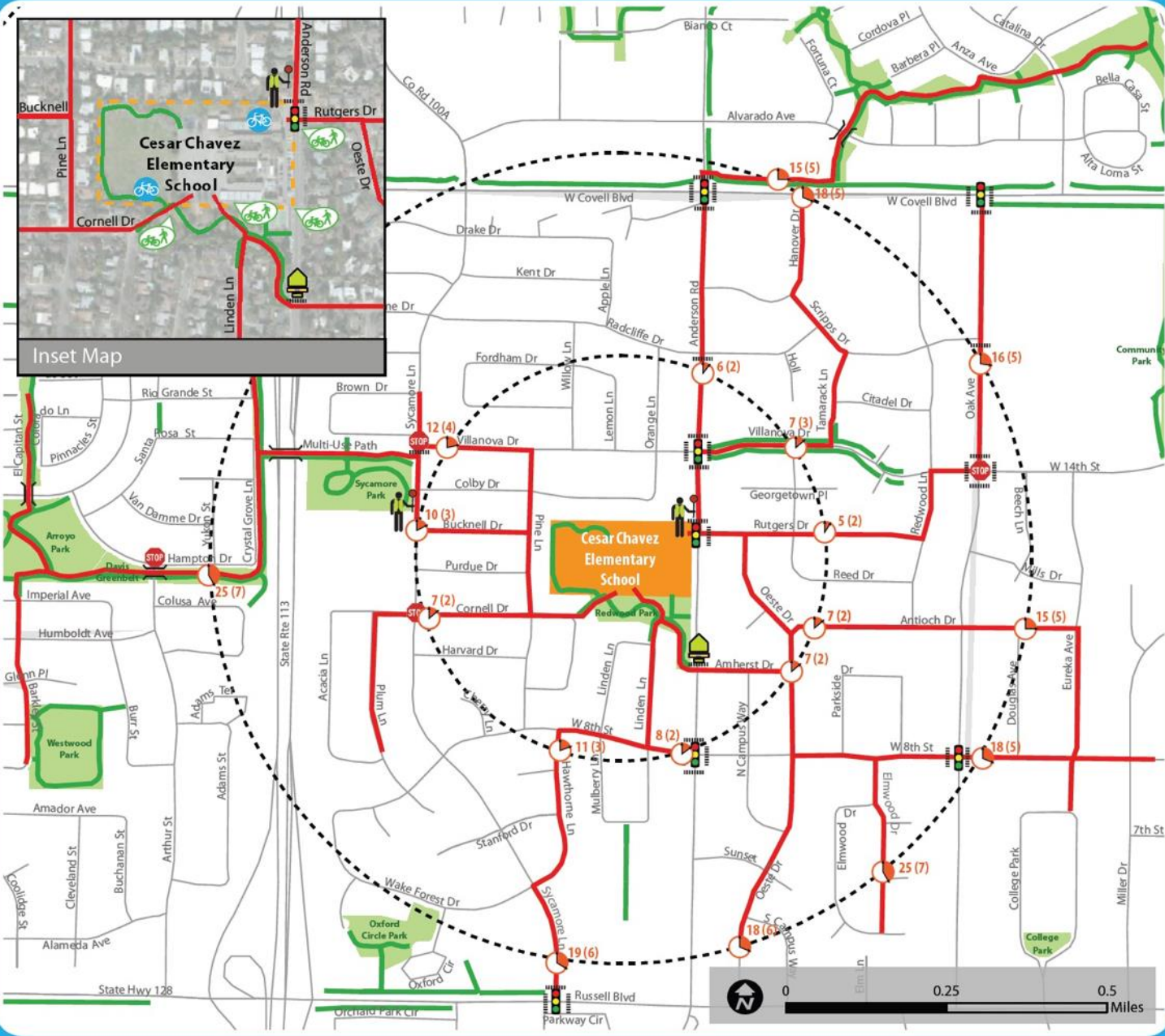


Safe Routes to School  
National Partnership

Healthy Communities

Resources

# Cesar Chavez Elementary: Suggested Walking and Biking Routes



## How to Use This Map

This suggested route to school map is intended to encourage adults and students to consider walking or bicycling to school. Adults are responsible for choosing the most appropriate option based on their knowledge of the different routes and the skill level of their student.

This map includes suggested routes as well as the locations of traffic signals, crosswalks, four-way stops, crossing guards, and off-street paths.

## Drop-Off and Pick-Up Information at Cesar Chavez Elementary

This text is a placeholder for school site-specific drop-off and pick-up info.



## LEGEND

- Suggested Route (Walking and Biking)
- XX (X) Est. Walking Time (Biking Time)
- Crossing Guard Location
- Marked Crosswalk
- Pedestrian and Bicycle Access
- Multi-use Path
- Bicycle Parking
- Traffic Signal
- All-Way Stop
- Enhanced Pedestrian Crossing
- Enrollment Area
- Parks and Open Space
- School



# Activities

**Table 2-1: Program Activities for 2011-2012**

Activity/Event	Elementary/Middle	High School
International Walk and Roll to School Day	●	●
Bike to School Day	●	●
Golden Sneaker Contest	●	
Monthly Walk and Roll to School Day	●	
BikeMobile Visit	●	●
Walking School Bus	●	
Bike Pool	●	●
Puppet Show	●	
Bicycle Education Programming	●	
Skill Drills Bike Rodeos	●	
Educator Training	●	
School Site Assessment Event	●	●
Youth Action Research		●
Environmental Education		●
Campaigns/Letter Writing to Support Active and Shared Transportation		●
Transit Tuesday/Ride Free Wednesdays		●
This is How We Roll Video Contest <sup>4</sup>		●
Leadership Development		●

# Monitoring and reporting is required



San Mateo Office of Education  
La Honda  
Safe Routes to School Report  
December 2012

PREPARED BY:  
Alta Planning + Design

PREPARED FOR:  
San Mateo Office of Education

The cover of the report features a white background with a blue and orange cross design. At the top right, the title "Alameda County Safe Routes to Schools 2011-2012 Year-End Report" is written in green and blue. In the center is the "Safe Routes to Schools Alameda County" logo, which includes silhouettes of a person walking, a person on a bicycle, and a person pushing a stroller. Below the logo is the website "www.alamedacountysr2s.org". On the right side, there is a photograph of four children wearing helmets and backpacks, standing together. Below this photo is the text "Alameda County Transportation Commission". At the bottom left, there is a small inset photo of a young girl working on a bicycle. At the bottom right, there are two logos: the Alameda County Transportation Commission logo and the Metropolitan Transportation Commission logo.

Alameda County Safe Routes to Schools  
2011-2012 Year-End Report



Safe Routes  
to Schools

Alameda County

[www.alamedacountysr2s.org](http://www.alamedacountysr2s.org)

Alameda County Transportation Commission



# So how do we do it in NZ?



**STARTERPACK**

**WHAT IS A TRAVEL PLAN?**

**LET'S GO**

**SCHOOL TRAVEL PLAN**

The New Plymouth District Council as part of the Let's Go Project want to work with organisations, schools and community groups throughout New Plymouth to encourage, support and educate around travel planning.



**NZ TRANSPORT AGENCY**  
WAKA KOTAHI

**Safe school travel plan**  
*coordinator's guide*

**SAFER JOURNEYS**  
for children

[VISIT education.nzta.govt.nz](http://education.nzta.govt.nz)

[New Zealand Government](http://www.govt.nz)

# Example 1: iWay & MoveIt



- [Move It Interschool Competition](#)
- [Our Story](#)
- [Why iWay?](#)
- [Routes & Maps](#)
- [News](#)
- [Progress](#)
- [Events](#)
- [Kids](#)
- [Hawke's Bay Bike Style](#)
- [Get Involved](#)
- [Contact](#)



## iWay Kids

Want to get on your bike, skateboard or scooter, or test out your new trainers?

iWay has heaps of on and off road paths around Hastings, Havelock North and Napier that let you cycle, walk, scoot or skate safely to school, or just for fun.

### Kids & Families

### Schools

**School Travel Plans & Suggested Routes to School**

**Walking School Bus**

### Why not get your mates and school involved too?



# iWay pamphlets

## Walk Smart!



**Look before you cross.** Look right, left, and right again before crossing a street. Look over your shoulder for turning cars at intersections.



**Make eye contact.** Don't assume that drivers see you. Make eye contact before you cross the street.



**Use crossings.** Cross at zebra or kea crossings if one is nearby (within 20 meters).



**Follow the rules.** Follow directions from kea crossing patrol members.



**Be visible.** Walk where cars and bikes can see you. Wear a bright rain jacket or vest over your school uniform, and use a flashlight when it is dark outside.

## Bike Smart!



**Riding age.** Students under the age of 10 should be accompanied by an adult when riding on-road. Parents should make the decision based on the maturity and skill of their children.



**Ride with traffic.** Ride on the left in the same direction as other traffic.



**At busy intersections...** at signals, try the 'hook turn' (see the cyclist road code). For roundabouts, ride in the centre of the lane or use shared paths.



**Share the path.** Pass walkers carefully; ring your bell or say 'on your right' before passing.



**Be alert.** Watch for opening car doors and cars turning across your path.



**Be predictable.** Ride in a straight line and always signal your moves to others.



**Remember ABC-Quick:** Air in your tyres is up to pressure indicated on sidewall, Brakes are connected and working, Chain is tight (single speeds) and not rusty, Quick release hubs are in closed and tight position.



**Wear a helmet.** Helmets should fit snugly, sit level

## Suggested Routes to School

The iWay walking and cycling network, mostly flat roads and great weather makes our community a great place to walk and ride.

Walking, scooting, skating, and cycling to school starts a habit that can last a lifetime:

- Daily activity helps hold a healthy body weight
- Arriving at school attentive and ready to learn
- Improved test scores
- Lower rates of depression and anxiety
- Getting to school is more FUN!

## Get involved!

Here are some ways you can help:

- Plan your travel routes with your student
- Form or join a walking school bus or cycle train, where groups of students (with or without parent supervision) travel to school together for safety in numbers (plus it is fun!)
- Lead by example – students learn from watching what adults do, so adhere to the road code (there is one for drivers and one for cyclists) and be courteous.
- Volunteer to help at one of many events. Contact the school front desk and/or Sport Hawkes Bay to learn more.

## Resources

### Helmet fitting guidelines

[www.nzta.govt.nz/resources/roadcode/cyclist-code/aboutequipment/cycle-helmets/](http://www.nzta.govt.nz/resources/roadcode/cyclist-code/aboutequipment/cycle-helmets/)

### iWay and Movelt programmes

[www.iway.org.nz/](http://www.iway.org.nz/)

### Cyclist road code

[www.nzta.govt.nz/resources/roadcode/cyclist-code/](http://www.nzta.govt.nz/resources/roadcode/cyclist-code/)



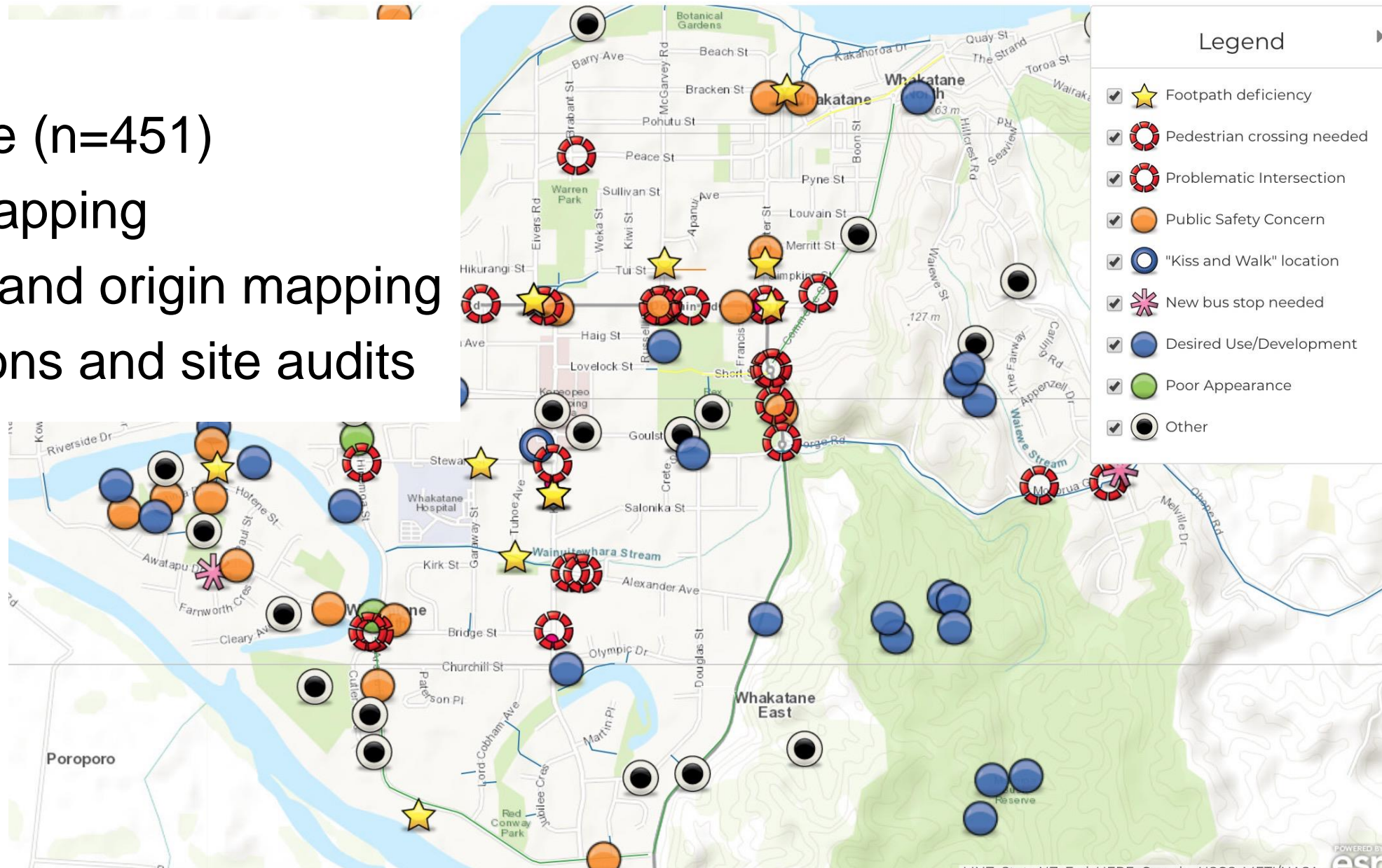
Hastings  
Central School

# SUGGESTED ROUTES TO SCHOOL



# Example 2: Whakatāne

- 7 schools
- Questionnaire (n=451)
- Interactive mapping
- Travel mode and origin mapping
- School environs and site audits



# Whakatāne audit recommendations

School	Council actions	School actions
ALL	Public awareness campaign	Bike parking upgrades
Trident	Red Conway Park paths	Encouragement activities
Whakatāne High	Goulstone Rd crossing, footpath renewals, Rex Morpeth Park barriers	Remark carparks, east campus pathway
St Joseph's	Salonika footpath, King parking T's	Salonika access path, church carpark access policy, Bikes in Schools track
Allandale	Alexande & King St shared path; King / Bridge St safety & access options	Replace bollards with more conspicuous type, mark kerb edges, radius driveway
Whakatāne Int.	James St shared path, road markings, parking & bus stop review, Hinemoa St shared paths & crossing operation review, Lagoon path	Staff travel plan / parking guidance, connection & gate to Lagoon Path
James St		Student safety video, longer patrol coverage, staff travel plan / parking guidance, Warren Cole access, Henderson access
Apanui	McAlister crossing marking, Apanui Av bus stop review, McGarvey Rd driveway upgrade, Hikurangi//Tui greenway	Carpark lines, perpendicular carparks at main entrance, parent parking education

# Audit recommendations – all schools

- Better bike parking
- Rain = rust
- UV = rubber failure
- FixIt events





# Activity recommendations

Primary	Intermediate	High School
Establish teacher, parent & student group to champion change and come up with their own solutions		
Supporting policies including driving rules (high school) and uniforms		
Walk n Roll to School Day(s) Walk & scoot safety training	Walk n Roll to School Day(s)	Pedometer challenge
Bikes in Schools & Junior Road Safety Park	Bike Ready – skills for riding in traffic	Negotiate deals on stylish but practical adult bikes Seminar with celebrity role models
Fix-A-Bike day each term Partnerships with Road Safety / Blue Light / Sport EBOP		

# Example 3: New Plymouth



*New Plymouth*



**23**

Schools travel planning  
(including high schools and kindergartens)

**20**

Workplaces travel planning  
(including WITT and Netball Taranaki)

**14,500**

Total people travel planning

**44%**

Decrease in cars at schools

**78%**

Increase in activity at schools (this is based on results from eight schools and 2,042 students only)

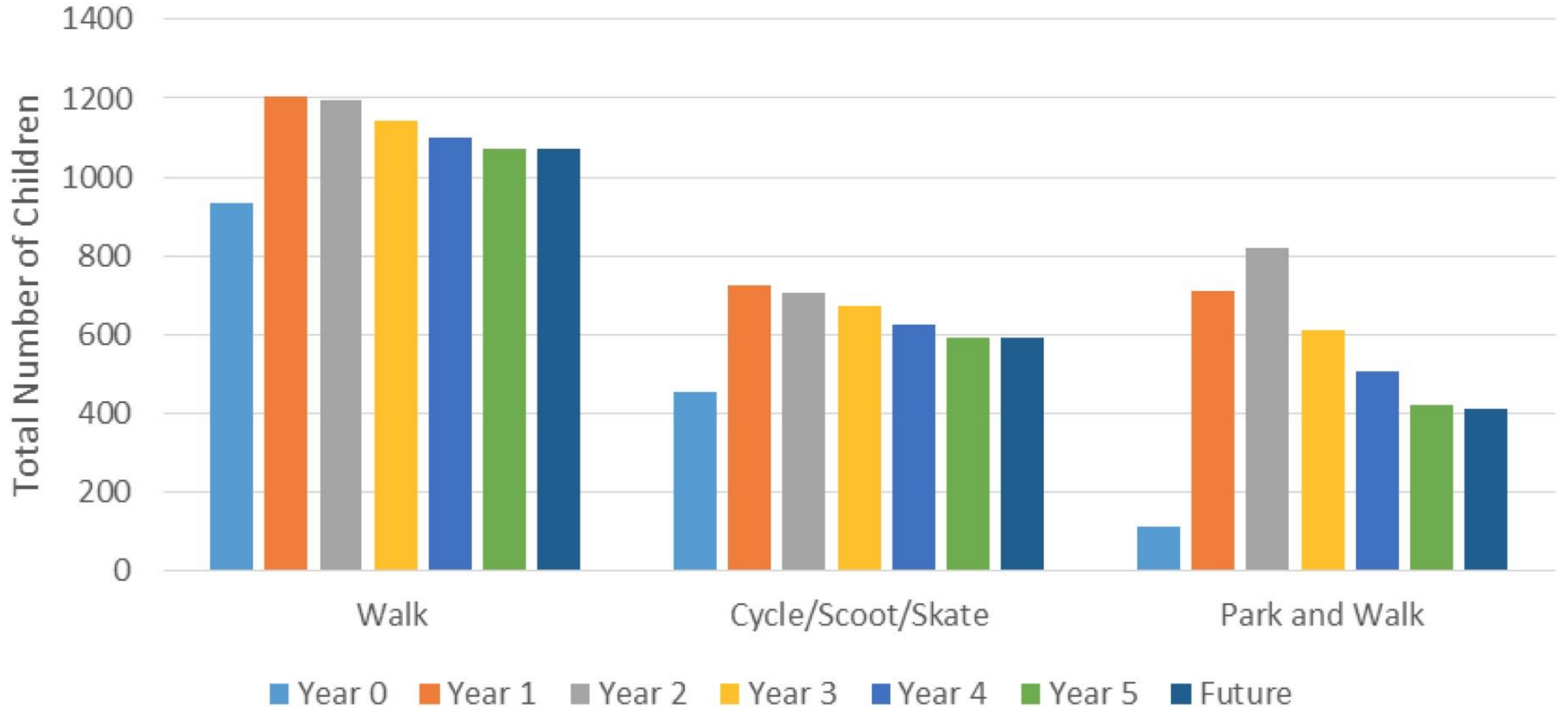
**12%**

Decrease in cars at workplaces

**16%**

Increase in activity at workplaces  
(this is based on results from seven workplaces only)

# Let's Go results



\$7.5 : 1



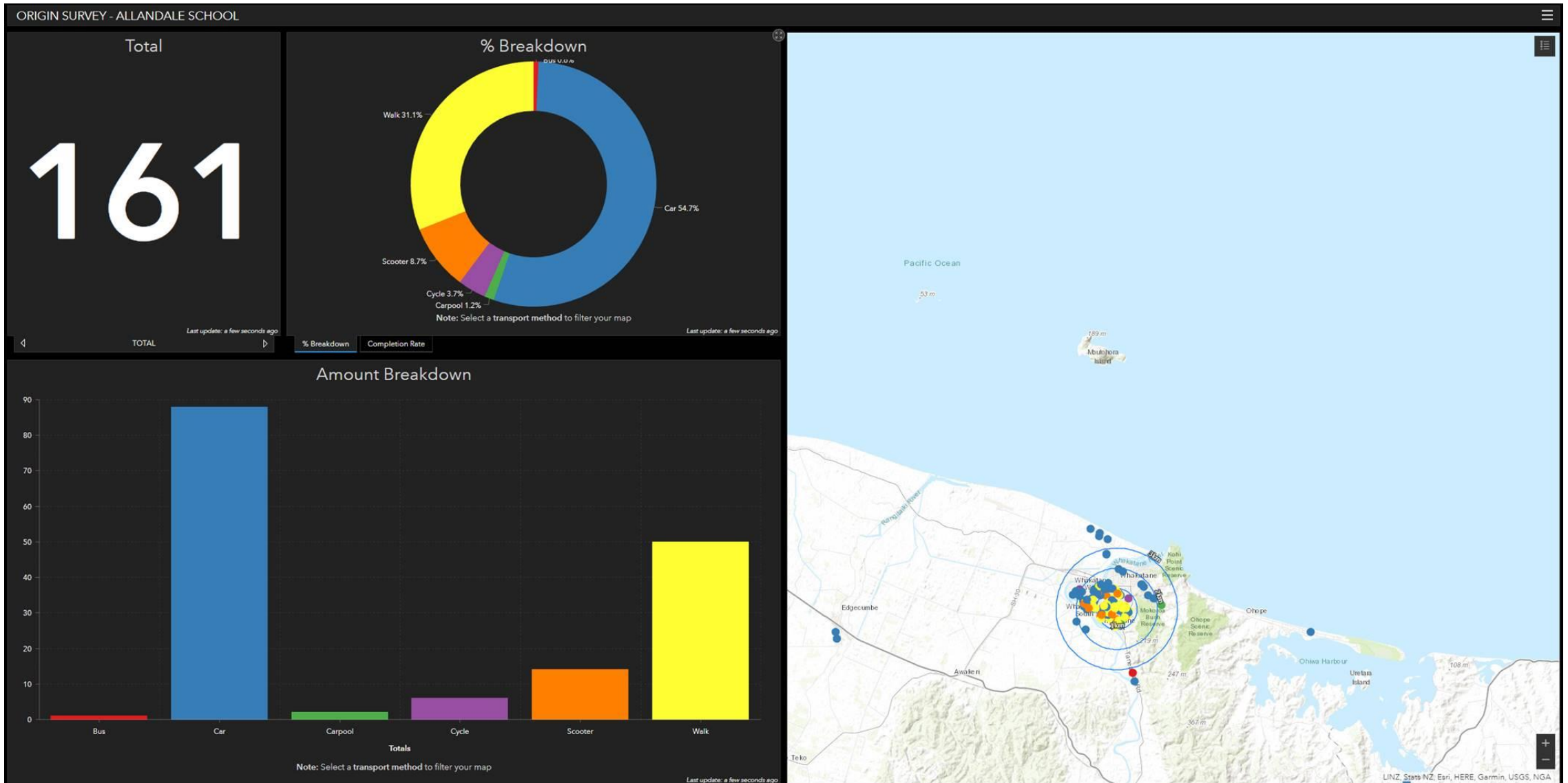
Photo: WDC

# Example 4: Dunedin Schools Cluster

- Road safety & infrastructure focus
- Phase 1 is lighter quicker cheaper – paint 'n posts
- Phase 2 includes more permanent measures



# Monitoring tools



# Resources – NZTA Education Portal

- Integrates with curriculum
- Can leverage access to NZTA funding

**NZ TRANSPORT AGENCY** Education Portal

What are you looking for?

Teacher resources Case studies Guidelines and research News Competition Virtual trips

Helping young people learn deeply about safer journeys and our transport system

**TEACHER RESOURCES**  
Curriculum resources: primary to secondary. Support for school patrol, information for

**CASE STUDIES**  
Stories, videos of NZ teachers and students. Safe road use as authentic curriculum context.

**Latest news**

- [Movin' March: Wellington region schools can sign up now](#)  
20 Nov 2018
- [Secondary students code AutonoMate model cars](#)  
13 Nov 2018
- [Students talk about virtual field trip appearance](#)  
5 Nov 2018

[More updates →](#)

<https://education.nzta.govt.nz>



nztravelplanners

# NZ Travel Planners

Sharing knowledge about school and workplace travel plans, travel behaviour change initiatives, and general travel demand management information.

Site management by John Lieswyn, Principal Transport Planner at ViaStrada Ltd. [Email John](#)

## Discussion group

*Here's how to join - you don't even need a Google account.*

*If you have an account, you can also [link your work email address](#) to it.*

## Key Contacts List

*This is a list of relevant people in the industry plus those working in the [NCES](#). Email John if you want to be added or removed: [john@viastrada.nz](mailto:john@viastrada.nz).*

## Resources Library

*Click to open in new window.*

TITLE	LAST MODIFIED
Auckland Travelwise	6/27/16 John Lieswyn
Bikes in Schools materials	7/31/16 John Lieswyn
Cycle Trains	7/20/16 John Lieswyn
EECA School Travel Planning	7/20/16 John Lieswyn
Encouraging cycling among minorities	12/28/16 John Lieswyn
Events in schools	7/10/18 John Lieswyn





# Conclusions

1. Be flexible and be personable
2. Engage kids and parents
3. Measure and report



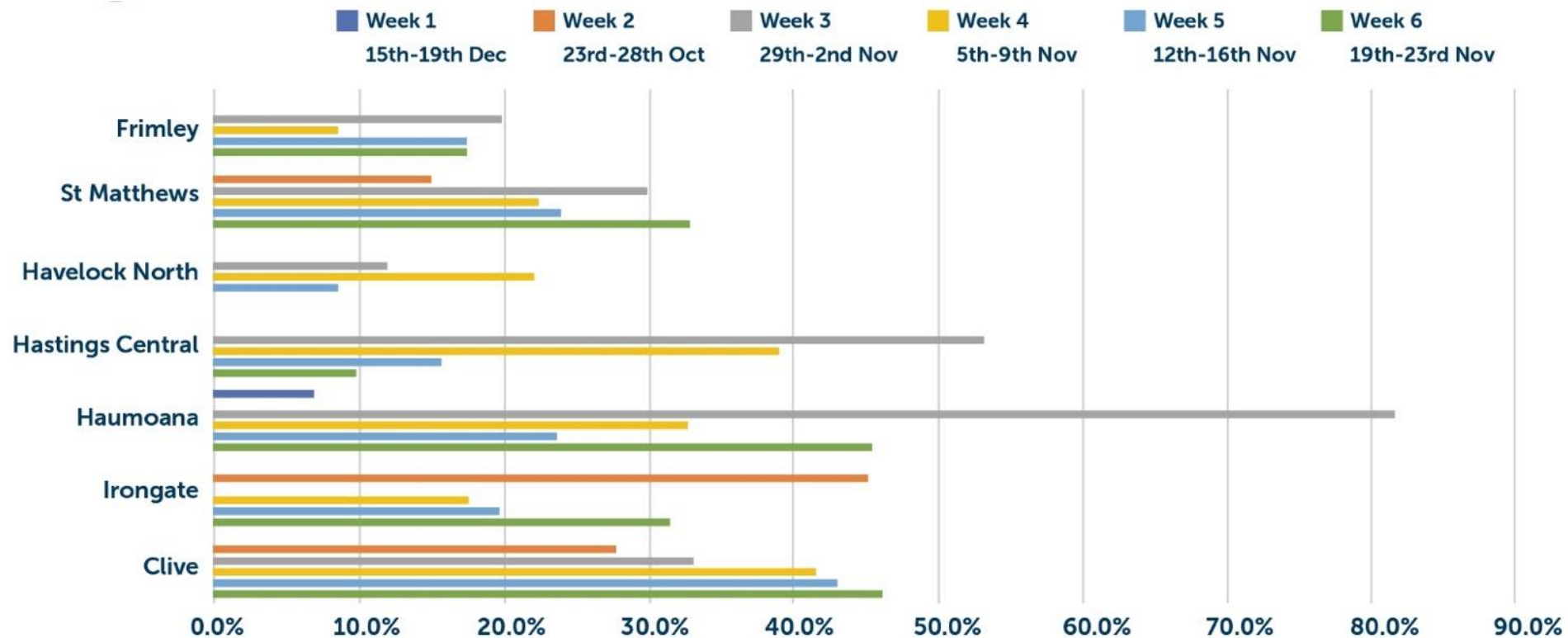
**iway**  
walk it, bike it, love it



# INTER SCHOOL COMPETITION







### Move It Totals

School	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Average	Final Place
	15th - 19th Oct	23rd - 26th Oct	29th - 2nd Nov	5th - 9th Nov	12th - 16th Nov	19th - 23rd Nov		
Clive	0.00%	27.70%	33.10%	41.50%	43.10%	46.20%	31.9	1st
Haumoana	6.90%	0.00%	81.60%	32.80%	23.60%	45.40%	31.7	2nd
St Matthews	0.00%	14.90%	29.90%	22.40%	23.90%	32.80%	20.6	3rd
Hastings Central	0.00%	0.00%	53.20%	39.00%	15.60%	9.80%	19.6	4th
Irongate	0.00%	45.20%	0.00%	17.60%	19.70%	31.50%	19	5th
Frimley	0.00%	0.00%	19.80%	8.40%	17.40%	15.30%	10.2	6th
Havelock North	0.00%	0.00%	12.00%	22.10%	8.60%	0.00%	7.1	7th
<b>TOTALS</b>							<b>20.0</b>	





**WINNERS**