

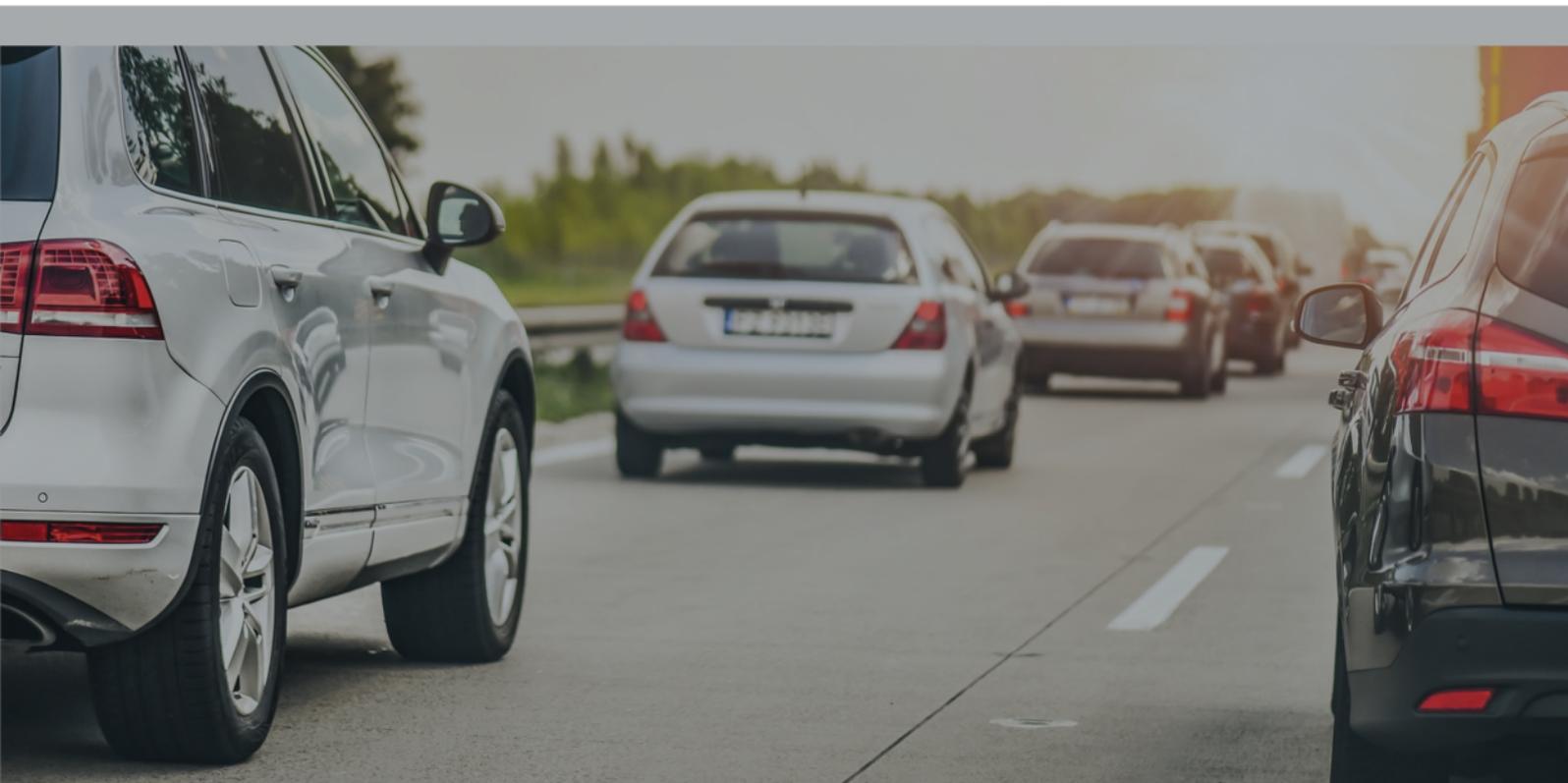


**The Congestion
Question**

Congestion persona research: Insights into how road users might respond to the proposition of a congestion charge being implemented on Auckland roads

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Why did we conduct this research?

Understanding how a congestion charge might impact on the wellbeing of road users is an important input into the consideration and design of any potential congestion charging programme.

The purpose of this research was to introduce the concept of a congestion charge to a diverse sample of road users and to explore and identify their reactions, the likely impacts on their transport choices and the potential for any adverse wellbeing outcomes as a result of congestion charging.

The results are to be used as part of The Congestion Question (TCQ) project's overall social assessment.

Who did we speak with?

Our focus was to explore the possible impacts a congestion charge might have on vulnerable road users. A vulnerable road user was defined as being:

- a person who would be exposed to a congestion charge at least three times a week
- a person who showed some degree of financial vulnerability in that they had either lower income or a low 'financial buffer' or experienced some difficulty paying bills.

A total of 50 people were recruited from five regions across Auckland defined as:

North	Beach Haven, Albany, Glenfield, Takapuna, Northcote etc
West	Waitakere, Henderson, Glen Eden, New Lynn, Titirangi, Helensville etc
Central	Mount Albert, Mount Eden, Mount Roskill, Ellerslie, Glenn Innes, Onehunga etc
East	Pakuranga, Botany, Howick etc
South	Mangere, East Tamaki, Wiri, Manurewa, Papakura etc.

Other considerations in recruiting the participant sample included:

- recruiting people from a range of ethnicities (the sample includes eight Māori, seven Pacific and seven Indian participants)
- a bias towards lower household incomes (34 of the total sample had a household income below \$70k per annum).

How were the interviews conducted?

Interviews were conducted face to face. Participants were asked to describe their weekly peak period travel. A congestion charging model, developed by the TCQ project team, was introduced and participants were supported in calculating their average weekly and monthly congestion charges.

When communicating to participants the nature of the congestion charges, interviewers described both the costs (in terms of actual costs to the road users) and the likely benefits (in terms of the anticipated reduction in time spent in traffic). The likely benefits were described as traffic levels equivalent to those experienced in school holidays.

Was the methodology effective?

The methodology appeared to be effective at eliciting genuine and well considered responses. Participants felt at ease discussing their travel behaviours and as we built rapport through the interview process, all were comfortable to discuss how they might react to congestion charges. Importantly the researchers felt there was good and open discussion about how each participant might be impacted, either by needing to change travel mode or travel time or by needing to pay the described charges.

Summary of findings

This report provides an insight into how a sample of road users has responded to the proposition of a congestion charging model. It highlights that a lack of knowledge, familiarity and trust tends to exacerbate concerns. It also highlights the strongly held belief that any pricing system needs to be fair. In this context fairness speaks to the ability of each road user to adapt their usage or pay a potential charge without incurring unnecessary hardship or inconvenience. Clearly, however, the charge needs to create some level of discomfort in order to achieve its goal of creating a motivation to make changes to travel.

This research illustrates what the limits of that discomfort are. It highlights the fact that discomfort is already being caused by the congestion itself. Many road users who find current levels of congestion intolerable have already made the decision to switch. These road users were not the focus of this study, however. This sample is comprised of low-income road users who drive during peak hours largely because they believe they have no other choice.

Initial reactions to the idea of congestion charging were a largely a function of personal exposure (the size of the charge) and a road user's ability to adapt.

Road users tend to be more exposed to congestion charges if they:

- are multi-car households
- are regular morning and evening commuters
- are households with school children.

Roads user's ability to adapt was an outcome of two components:

- the perceived ease and appeal of public transport options. (Importantly, there is a group of road users who do have the ability to adapt but under current circumstances choose not to. Introducing additional costs and promoting the ease and attractiveness of public transport alternatives is likely to drive change within this group.
- the ability and willingness to shift travel time or mode.

For many road users in this study, the idea of being charged for something they can't avoid feels grossly unfair. Likewise, road users who can adapt or pay are also highly sensitive to the plight of those more vulnerable road users who are either unable to pay or unable to change. It's these vulnerable road users this report has tried to bring to life, and they who will need further consideration and support.

Importantly this research highlighted a set of factors that appeared to influence both the initial emotional response of road users and the degree to which they viewed a congestion charge as acceptable. These will be important factors to consider in future communication and included:

- perceptions of congestion severity and urgency to address this issue for Auckland
- pre-existing knowledge of congestion pricing
- perceptions of the effectiveness of congestion pricing
- trust in government (both local and central)
- perceptions of fairness
- perceptions of freedoms being infringed.

A key purpose of this research was to identify how individual's wellbeing might be impacted on by a potential congestion charge. Road users identified four key areas of impact.

1. **Adverse financial impacts:** The main impact raised by participants was the pressure that additional unavoidable congestion charges would have on household budgets. Participants identified increased debt levels, reduced food budgets and reduced financial resilience as the more severe adverse impacts a congestion charge would have on their households. Less severe impacts were described as reduction in discretionary spending and saving.
2. **Stress impacts:** Participants described a range of stress impacts that could result from a congestion pricing regime being put in place. These stress responses were both as a result of needing to pay the charges, but also stress around the need to plan travel to avoid charges and dealing with the additional administration tasks of making payments. For some, it was just one more thing to worry about.
3. **Impact of trips not taken:** Exposed road users have essentially three options when responding to a congestion charge. They can pay, they can shift mode or

time, or they can choose not to undertake the journey that would expose them to the charge. Participants described two related effects that not taking these trips to avoid congestion charges would have:

- a. **Reduced community / sports / cultural participation:** Several road users indicated they would choose to not take trips that incurred additional charges, especially when these trips already incurred costs (such as paid after-school activities). This raised concerns among many that the congestion charge might limit participation in sports or community or cultural activities.
- b. **Reduced social connection:** To reduce or avoid further congestion charges, discretionary trips like visiting family and friends would be the first to be given up for some participants. These trips, although discretionary, were still described as being important to them. Avoiding these social trips could lead to increased isolation and have negative effects on the wellbeing of individuals, families and the community more broadly.

In discussing the nature and impacts of potential congestion charges, a range of expectations, concerns and suggestions were raised that may have implications for the future design of a congestion pricing model, and for how it is communicated to users. These are summarised below.

1. Access to public transport is expected to be improved to allow road users to easily adapt
2. Road users expect that road user charges/petrol tax would be reduced
3. Road users expect that congestion charge revenue should be put back into the community
4. Road users expect that employers would need to be more flexible to enable employees to shift travel times
5. Schools should be encouraged to shift their start and end times
6. Road users would expect a pay rise where peak hour travel is required as part of their jobs
7. Contractors / workers would pass on the extra costs to employers / clients
8. Incentive to speed might become an unintended consequence
9. Flexible payment plans should be put in place to help people manage budgets
10. Congestion charges should be capped

Finally, the insights identified in this report will have implications for how best to engage with the public in a manner that both recognises the relatively early life stage of the congestion conversation in New Zealand and that addresses some of areas of concern that might impact on greater public acceptance. These implications are outlined below.

Do not assume a shared sense of urgency or shared view of the severity of the problem across people living in Auckland. The congestion problem will need to be framed in a way that's relevant and meaningful for it to be acknowledged as

something that requires significant change. Most road users do see congestion as a significant problem; however, this is mainly from a personal inconvenience perspective (frustration, time away from family). While some of the broader impacts of congestion such as environmental impacts were highlighted by participants, others weren't well understood or didn't come to mind readily (e.g. productivity, economic) when the topic of congestion charging was raised.

Build familiarity and understanding early and over time: Raising awareness and starting conversations about how congestion pricing works and the benefits it can provide needs to happen early to avoid the type of emotional and shocked reactions from road users that were identified in this research. These reactions can affect an individual's ability to process and cope with the suggestion that they will need to pay to be on the road at certain times. Those already experiencing stress in their lives will likely be more impacted by this 'new news' than others.

Expect road users to remain skeptical of benefit claims for some time, even in the face of evidence: Providing meaningful and credible evidence of the benefits will be important to build trust. It's likely however that distrust of claims of benefits will linger until road users actually experience freer-flowing peak-period traffic as a result of a congestion charge being implemented.

Address key concerns early: Those leading the development of a congestion programme design will need to address key concerns raised in these interviews, primarily relating to:

- Issues of social justice and mitigating negative impacts on vulnerable road users as outlined in this report.
- Issues relating to sovereignty, security, privacy and governance of the data collected by number plate recognition cameras.

Detailed Findings

Overall responses to the idea of congestion charges

Before exploring the nature of impacts of a potential congestion charge on vulnerable road users and their wellbeing, it's important to note that varying emotional reactions and degrees of acceptability were expressed following the introduction of the concept. While the level of acceptability was likely to be informed by an individual's perception of how congestion charges might impact on them, it was also influenced by a range of other perceptions, including:

- perception of congestion severity and urgency to address this issue for Auckland
- pre-existing knowledge of congestion pricing
- perceptions of the effectiveness of congestion pricing
- trust in government (both local and central)
- perceptions of fairness
- perceptions of freedoms being infringed.

We explore each of these in more detail below.

1. Perceptions of congestion severity and urgency

While all road users were aware of congestion issues in the Auckland area, some were more ambivalent towards it than others. Those who described congestion as a severe were more likely to describe the problem in terms of their own personal experiences and impacts, such as wasted time, time away from family and frustration. Broader social impacts such as environmental impacts were also raised but less frequently.

Ambivalent to congestion: Although they were a minority, there were some road users who acknowledged they had come to accept congestion and it was not an issue they saw as serious or urgent.

I've just got so used to it. We have all learned to chill, you live with it, it is part of the lifestyle, you learn to live with it. Always trying rat runs and try different routes, but it always ends up the same. You get there when you get there. Jody – HHI* \$30-\$70K, Indian, children at home, exposure \$35

I've got used to the congestion. Regardless of when I leave earlier or later, I still get to work at the same time. Jade – HHI \$70-\$100K, NZ European, children at home, exposure \$35

Congestion, I have learned to live with it. You get used to it – it has gone on for so long. Now I get in the car and I chill. There is no use getting upset. I just plan a bit

* HHI = household income

better, if it takes two hours, it takes two hours. You can't let it get to you. Fanua – HHI \$30-\$70K, Pacific Island, children at home, exposure \$35

Agitated by congestion: Overall however, most described the congestion in Auckland as a problem that needed to be fixed. Congestion was something they disliked and tried hard to avoid. This may seem an obvious response; however, it is important because it points to the fact that most have indicated they would:

- a) not drive during peak hours if possible, or
- b) switch to efficient and reliable public transport options if they were available.

This suggests there is already significant motivation to avoid peak-hour travel and that removing barriers (inflexibility and a lack of efficient/reliable transport) would result in more road users choosing to avoid peak-hour driving.

The following quotes provide road-user insights into perceptions about Auckland congestion:

It is bad, you need to leave an hour early to beat the traffic. But everyone does, so you leave early but are on the road for ages, you and everyone else is waiting. Always stuck in it. Even if you go through suburbs, then there is the roadworks. If I could have more time with my family as I'm hardly ever home as it is. Patrick – HHI \$70-\$100K, Māori, children at home, exposure \$40

Congestion on the motorway is bumper to bumper. It is miserable. It takes ages to get home. Yvette – HHI \$30-\$70K, NZ European, single, exposure \$30

Congestion changes your lifestyle. Makes you wake up earlier and go to work earlier. Less time with family. Less time doing the things you want to be doing. Andre – HHI \$30-\$70K, NZ European, children at home, exposure \$35

I already try to do things outside peak hour, but sometimes it is hard to avoid. I returned from Brisbane two years ago, and in that two years I've noticed a big change in congestion. Even within the suburbs. You need to always plan and schedule as smartly as possible. I use Google to pick the best routes and allow heaps of time to travel. Olivia – HHI \$30-\$70K, Pacific Chinese, children at home, exposure \$12

I try and avoid rush hour traffic at all costs. I get anxious and stressed if I need to travel. It is a big deal moving around. I try and keep travelling locally in the North Shore, places that I know. Reluctant to travel during peak hour, I only do it if I have to fetch somebody. Helen – HHI Less than \$30K, NZ European, single, exposure \$3

Congestion is stressful and a waste of time. It causes pollution, extra frustration. I need to be well planned for ad-hoc trips. It requires planning, but also creates extra

stress. I can't move somewhere else. Rob – HHI Less than \$30K, NZ European, single, exposure \$35

2. Familiarity with congestion pricing

Participants' familiarity with congestion pricing was typically low. Despite some media coverage of congestion pricing at the time of the interviews, most were unfamiliar with the concept and relied on the description provided in the interview to understand how it worked and the potential benefits.

Encouragingly, the description provided was effective and all participants were able to understand how vehicles would be detected, how the charges were designed and calculated and ultimately how those potential charges might affect their travel decision-making, as well as their household budgets.

It's important to note that this lack of prior knowledge and familiarity tended to result in responses that could be described as surprised or shocked. These reactions were largely driven by the realisation that a driver could be detected and identified on any road at any time – and most importantly, that they would be charged for '*simply being on the road*'.

This is crazy! It is bizarre that you are thinking of charging us to use the roads to go to work. I don't think we should be charged to use the road. We're trying to get to work to make a living, to pay that extra bit is too much. I don't think it is fair for us.

Jade – HHI \$70-\$100K, NZ European, children at home, exposure \$35

This is a critical insight because stakeholders engaged in promoting public conversation, who are themselves highly familiar with the concept, risk overestimating the level of public familiarity and understanding.

3. Perceived effectiveness

Participants were given the following description of the hypothetical benefits of introducing congestion pricing.

A congestion charge aims to encourage a driver to reconsider driving in peak hour. The benefit being faster and more reliable trips. A good example of reduced congestion might be what it is like to drive on the road in peak hour during school holidays.

Most participants believed that the level of reduced congestion described (school holiday levels) would make a noticeable and positive difference. However, some described school holiday traffic as still being highly congested.

Even school holiday traffic is still a lot of traffic. Fanua – HHI \$30-\$70K, Pacific Island, children at home, exposure \$35

Additionally, some participants were skeptical about the congestion charge being effective at getting people out of their cars at all. Their view was that the examples provided of jurisdictions where congestion charges had been effective (London and Singapore) were not comparable and the benefits of congestion pricing in Auckland would not be as high, largely due to a perceived lack of effective public transport options.

I'd like to think it could in some way benefit travelers that pay the cost. In reality I don't think it would happen. I think that Auckland roads are super congested because people don't see any alternative, and realistically I don't think there is an alternative. Bill – HHI \$30-\$70K, NZ Pacific Island, no children at home, exposure \$35

If they are trying to shift cars off the road, it is not going to happen. Junior – HHI \$30-\$70K, Pacific Island, children at home, exposure \$24.50

We don't know that there would be savings, it is only in theory, there is no guarantee. Rob – HHI Less than \$30K, NZ European, single, exposure \$35

I think it's poorly thought out, that the impact on families would be huge, but what you gain would be very small, the idea of faster traffic would be minimal... I think there are much better ways to help ease congestion... I would be voting against it. The cost of administering it would be horrendous. Linda – HHI \$30-\$70K, NZ European, no children at home, exposure \$22

Like the fuel tax we've got now, we're paying through the nose for fuel, but I don't see a big difference in traffic. I don't think it's going to make a huge difference to congestion to be honest, people will have to use their vehicles. If they're going to levy the motorists in that fashion, what they should do then is take that cost and subsidise public transport, make the trains cheaper, make the buses cheaper, and you get people off the road that way. The services aren't that bad, but they're under-utilised. Stanley – HHI \$70-\$100K, South African, no children at home, exposure \$35

A minority were pleased that congestion pricing was being considered and saw it as a way to encourage people out of cars and towards greater usage of (and investment in) public transport.

It is good they are talking about it and talking to real people. Sonia – HHI \$30-\$70K, Māori, children at home, exposure \$41.50

I welcome the congestion charge. We are locked into being a car culture. This charge might be what we need to move out of our cars. Janet – HHI \$70-\$100K, NZ European, children at home, exposure 415

Yes, this is worthwhile, if it causes less congestion. But what if you are caught in a crash and the roadblocks? Dean – HHI \$30-\$70K, Māori, no children at home, exposure \$35

Feel like I deserve to pay if I'm on the roads. I don't drink coffee so happy to pay. Feel like \$26 per week is expensive for doing a bit of running around. But I like the idea. I like staying out of peak traffic. I like the idea of the benefit. This will create an awareness of public transport and spreading the load and encouraging people to consider options and get off the road. Hayley – HHI \$70-\$100K, NZ European, children at home, exposure \$26.50

We need to stop using cars, we need to stop burning fossil fuels, so this is a good idea. But there are bigger impacts than car use. The alternatives are not there, we don't have tubes or reliable bus service. Already precarious lifestyle so this is a bit scary. Yvette – HHI \$30-\$70K, NZ European, single, exposure \$30

4. Trust in government

Although not widespread and not a key focus in the interview conversation, several participants raised concerns about privacy, the use of data and the extent to which government agencies could be trusted.

Questions were raised relating to data sovereignty, security and governance including:

- Who keeps the data on my travel journeys and how is it used?
- Where is it stored and in what formats?
- Will a driver have access to their data?
- How long is that data kept on record?
- Will cameras be turned off outside peak hours?

Some also expressed a lack of trust in both the efficacy of congestion pricing and the ability of agencies to respond in a way that would protect vulnerable road users.

We don't know that there would be savings, it is great in theory, but there is no guarantee. I would want to see compensation for the low-income earners that would be hurt. Example is the fuel tax 12 cent tax. The council has a poor record in responding to that. There is no allowances or rebates for low income earners. We are horrified. Rob – HHI Less than \$30K, NZ European, single, exposure \$35

5. Perceptions of fairness and justice

Participants reacted most strongly in relation to the extent to which they believed congestion pricing was fair. This was expressed in two ways:

- The belief that it was unfair because road users were limited in their ability to adapt due to fixed travel requirements and/or a lack of feasible public transport or alternative transport options.
- The belief that it was unfair because low-income households and families would be unfairly or disproportionately affected.

*This is terrible! I can't get to where I want to go without my car. I would be so **angry** about it. I am working hard, and someone comes along and takes this money away from me. Brent – HHI \$30-\$70K, NZ European, no children at home, exposure \$21*

*Wow! That is a bit much. This is **not a fair** system. Our costs are already so high and one of the most expensive cities in the world – so an extra expense is a no-go. There must be other ways. Eddie – HHI \$30-\$70K, Indian, children at home, exposure \$30*

There was a strong sense of the need for social justice to be a priority in the design of a future congestion pricing model. Congestion charges were seen to adversely affect those on low incomes and the elderly.

*User pays targets poor people as much as wealthy people, but it takes no account of the difference between a parent taking kids to school and a businessperson travelling to a meeting. Yes, user charging but where is the **justice**? This is going to make child poverty worse. It is already a big problem and this charge targets those parents who are just trying their best. Andre – HHI \$30-\$70K, NZ European, children at home, exposure \$35*

*I am kind of split. I can see how it might change my habits and there are so many cars and unnecessary journeys. And I think it is fair for people working in the city that can catch a train or bus. But for those without the option, it is **unfair**, especially when they are already paying for it in petrol tax. Lower-income people seem to foot the bill and they are the ones that don't have the disposable income. Can understand the thinking behind it, but this is just another hit to those who can least afford it. With petrol the way it is, it is already starting to make a hit on the weekly income. I feel like it is the same people getting hit. Derek – HHI \$70-\$100K, NZ European, children at home, exposure \$7.50*

***Elderly people** that are trying to live on the pension with no ability to earn more or keep driving. Rents are so expensive, so people are needing to move out of Auckland and move way out. People are trying to find ways to remain here with minimum wage jobs. Now they will have an impact of losing quite a substantial chunk of their wages just to get to their jobs. Yvette – HHI \$30-\$70K, NZ European, single, exposure \$30*

*This model **affects lower income people more**. Those without flexibility and with lower wages. I think about my staff and them travelling in peak hour. I feel bad that they would pay this, I would feel like I need to pay more. Maybe companies need to change or improve the living wage to help the working poor pay for this. Hayley – HHI \$70-\$100K, NZ European, children at home, exposure \$26.50*

*The families I work with, when that bill comes through, they won't pay. People will start sharing cars and that will cause problems, and it will create paperwork that is unnecessary. They won't pay them, they don't pay rent, so they won't pay this. They will find ways around it, taking dad's car to work, they will find ways to fraud the system. Then you start getting Baycorp or Ministry of Justice involved. They will **struggle and get penalised**. Sonia – HHI \$30-\$70K, Māori, children at home, exposure \$41.50*

The congestion charge was frequently referred to as a tax, because it was something that could not be avoided.

*I am not happy, not happy about paying, I'm just not. I understand people using roads should pay but we already get charged a lot for petrol. Would petrol cost come down? No it always goes up! I understand why this is being looked at, our roads have too many cars on them, so the money has to come from somewhere to pay for public transport. But I can't rely on public transport. The bus does not go to where I need to get to. It is **basically another tax**. It is money I don't have that I now need to pay. Olivia – HHI \$30-\$70K, Pacific Chinese, children at home, exposure \$12*

*I'm opposed to a congestion charge. \$35 is a **tax on my necessary transport movements**. Central government created this problem. It has now dumped on the city to solve the problem. Rob – HHI Less than \$30K, NZ European, single, exposure \$35*

*Overall, I can see a reason for it. Lots of congestion when I drive, I can see why and I can see it having a good environmental impact. I see this as an **increase in tax**, I'm not sure people can get out of their car. People living on the minimum wage would be hurt. Especially areas with poor public transport. Abhajt – HHI \$30-\$70K, Indian, single, exposure \$35*

6. Infringed freedoms

Several participants considered a congestion charge to be a personal imposition on their freedom of movement. They described feeling penalised or restricted in terms of when they drive or even where they can afford to live.

*This feels like a **curfew** and a lock down! It feels like it **restricts** what time you shop. It is infringing my rights! If I am going into town then fine, but the last mile into commercial or industrial areas is not possible. I'm not travelling into the city, but out*

to a range of workplaces, I will feel it! I feel this is unfair. It is punishing the blue-collar worker. Reuben – HHI \$30-\$70K, NZ Japanese, no children at home, exposure \$28

*I feel we are being **penalised** for doing normal and necessary things in life. We are being penalised for what the council has not dealt with. Too many migrants, displacing people out of jobs and creating pressure on the road. This is **punitive**. What about incentives for people to travel outside rush hour? Free public transport but only outside peak hour. Ineke – HHI Less than \$30K, NZ European, single, exposure \$12*

*Most people find it hard already. This is just too much of an **imposition**. People are already on stretched finances. It is as if they want people to move out of Auckland altogether and go and live elsewhere. Helen – HHI Less than \$30K, NZ European, single, exposure \$3*

*After all this, I am not against a charge being in the CBD, lots of people with only one person in the car. I understand something has to be done, but I could not live with a charge. It is quite **punitive** for being on the road. Kevin – HHI \$30-\$70K, NZ European, no children at home, exposure \$30*

It's nice to think it would cut the congestion down, but not nice to have to pay for all this. I think we pay enough for rates to cover this sort of stuff, my parents have paid for it too, there's several generations of Kiwis in my family and I just think it seems wrong to be penalised for travelling on the road. It doesn't seem right. Donna – HHI \$30-\$70K, NZ European, children at home, exposure \$24.50

Participants also had concerns about the potential for number plate detection cameras to be used for other purposes, such as identifying unlicensed or unwarranted vehicles.

Will it be used to identify cars with no rego or warrants? Sonia – HHI \$30-\$70K, Māori, children at home, exposure \$41.50

How people might respond to a congestion charge

A key purpose of this research was to identify personas to bring to life the experiences of real people and how they might respond to or be affected by a potential congestion charge. Personas are essentially constructed by identifying and understanding the different dimensions or ways people might respond to a congestion charge.

The following dimensions describe the different ways road users responded to or were affected by a hypothetical congestion charge being applied to their regular peak-hour journeys.

1. Exposure to congestion charges

Exposure is a key dimension that describes the extent to which a road user might be affected by a congestion charge. Exposure is a function of the frequency and duration of the peak-period road trips a road user undertakes each week. Exposure was calculated using the following charging model as provided by the TCQ project team:

Morning charges (Monday to Friday)

<i>Shoulder</i>	<i>6:30-6:59</i>	<i>\$1.50</i>
<i>Peak/shoulder</i>	<i>7:00-7:29</i>	<i>\$2.50</i>
<i>Peak</i>	<i>7:30 to 8:29</i>	<i>\$3.50</i>
<i>Peak/shoulder</i>	<i>8:30-8:59</i>	<i>\$2.50</i>
<i>Shoulder</i>	<i>9:00-9:29</i>	<i>\$1.50</i>

Afternoon charges (Monday to Friday)

<i>Shoulder</i>	<i>16:00-16:29</i>	<i>\$1.50</i>
<i>Peak/shoulder</i>	<i>16:30-16:59</i>	<i>\$2.50</i>
<i>Peak</i>	<i>17:00 to 17:59</i>	<i>\$3.50</i>
<i>Peak/shoulder</i>	<i>18:00-18:29</i>	<i>\$2.50</i>
<i>Shoulder</i>	<i>18:30-18:59</i>	<i>\$1.50</i>

During each interview, participants were asked to write down their regular peak-period journeys across a typical week onto a template. Guided by the interviewer, the participant's overall exposure was then used to calculate their total hypothetical charge. Charges were not capped.

While the research sample was not intended to be representative of the distribution of road user behaviours, most participants were regular commuters who drove during peak-hour periods five days a week in both the morning and afternoon.

It's important to note that conversations relating to the impacts of congestion charges were based on the individual's regular peak-hour travel. This cost was calculated and used to guide the conversation in terms of exploring their adaptive capacity (ability to change behaviour e.g. take public transport, change mode or time).

Where more than one person in the household would incur congestion charges, these additional charges were not included in the discussions about individual reactions or likely changes in behaviours (e.g. mode choice). They were however included as total household costs when discussing the overall impacts of charges on the household's budget and wellbeing.

Adaptive capacity was generally low across the sample and the potential for reductions in charges tended to be marginal.

What increases exposure?

Exposure increases as a direct result of the following:

- The number of times a driver travels in a peak period per week.
- The driver's exposure to peak periods as opposed to shoulder periods that are charged at a lower rate.

Households tend to be more exposed to congestion charges if they:

- are multi-car households
- are regular morning and evening commuters
- are households with school children.

Parents of school-age children are often driving during afternoon peak hour with few options to shift time or mode. The following quote highlights the dilemma of after-school activities increasing exposure to congestion charges.

We do a lot of after-school things. They need picking up and dropping off, but I don't like them walking on their own. This will also hit my kid playing school sports, I'd be paying fees plus the extra \$5 dollars. Andre – HHI \$30-\$70K, NZ European, children at home, exposure \$35

The national volleyball tournament is on over the next week: four days, with no bus, no trains to get to Titirangi. It is 53km there and 53 km back. So that is \$28 for just four days tournament, plus petrol, plus tournament fees that makes that tournament pretty expensive all of a sudden. Looking across all the teams and all the kids that are driving themselves to sport, how will this impact on them? How are they going to

pay? My son is committed and is going to two practices a week, so it all adds up. This creates a lot of uncertainty and concern over how we would deal with this.

Kim – HHI \$30-\$70K, NZ European, children at home, exposure \$54

Total exposure (including multiple-vehicle households) was categorised as being either high, moderate or low, with the average exposure at \$30 per week:

High exposure is over \$35 and up to \$73.50 per week: Hanna’s exposure is unusually high but she is an example of a highly exposed road user due to having a multi-vehicle household and children who need to be taken to multiple activities over a greater than two-hour period in the afternoon.



Hanna – daily, multi-stop / multi-car

Stay at home mum to 4 children. Travel includes dropping children to school or pre school activities, and in the evening afterschool activities for her children. Her husband would also incur charges travelling to and from work.

Hanna’s exposure - \$38.50 per week

Total household exposure - \$73.50 per week

“It makes me want to cry if I actually have to find \$73 a week.”

School/ Kindy drop off		3 days + 2 days \$10.50 + \$3.00
To after school activities		5 days \$25.00

Moderate exposure is between \$20 and \$35 per week: Carl is an example of a moderately exposed road user due to his regular daily commute.



Carl – daily, single stop, single car

Carl is a university student completing his Masters, who lives at home with his parents. He works part-time and drives to university five days a week.

Carl’s exposure - \$35 per week

“It won’t impact me too much, it will mean I don’t go out as much, it’s not a massive thing.”

To university	●	●	→	5 days
	6.45am	7.45am		\$17.50
	Leave home	Arrive at uni		
Return from university	●	●	→	5 days
	5.30pm	6.45pm		\$17.50
	Leave uni	Arrive home		

Low exposure (less than \$20 per week): Nicola is an example of a relatively low exposure due to her part-time commuting and higher proportion of off-peak travel.



Nicola – part week, single stop

Nicola is a single mum with two children. She works part-time and drives to work three days a week. One of her return trips is off-peak.

Nicola’s exposure - \$16.50 per week

“I would have to change, I would have to find a way, it’s forcing me, it’s the whole single parenting, it’s only me, I would have to do it.”

To work	●	●	→	2 days + 1 day
	8.15am	8.45am		\$7.00 + \$2.50
	Leave home	Arrive at work		
Return from work	●	●	→	2 days
	4.50pm	5.45pm		\$7.00
	Leave work	Arrive home		

2. Adaptive capacity

Once a driver is exposed to a congestion charge by a regular peak-hour journey, it is their adaptive capacity – that is, their ability and opportunity to adapt to avoid or reduce the charge – that will determine the impact on their wellbeing.

Adaptive capacity is both the ability and the willingness of a road user to change how, when or if they travel.

Adaptive capacity was explored and discussed with each participant in the context of the total charges that they might be exposed to. This ensured that the total cost as well as the perceived benefit of a congestion charge was considered when the individual was evaluating their willingness to adapt to avoid the charge.

Ultimately adaptive capacity was a function of two components:

- a. the perceived ease and appeal of public transport options
- b. the ability and willingness to shift travel time or mode.

a. Public transport ease and appeal

A person's ability to adapt to a potential congestion charge by choosing to use public transport is based on two factors:

- It needs to be 'easy'.
- It needs to be 'attractive' relative to driving and incurring a congestion charge.

We identified three 'personas' in relation to public transport perceptions: the Restricted, the Rejecters and the Considerers.

The Restricted – public transport is not seen as an easy or feasible option: The Restricted do not believe that public transport is accessible or an easy option. They have evaluated public transport as an alternative to peak-hour driving and have determined that it's not a feasible option for them. This belief may be based on personal experience, research, media reporting or word-of-mouth from others.

Issues affecting perceptions of ease include:

- Additional time taken to travel by public transport compared to car trips.
- The need to walk significant distances to terminals/stops/stations.
- The need to change buses or trains.
- The risk of missing connections.
- Services not being reliable.
- The need to transport equipment (e.g. sporting gear or tools).
- The need to drop young children off at school or childcare.
- Bus stops being relocated to become less accessible.

Derek is an example of a public transport Restricted:



Derek – a regular commuter who would need to double his travel time if he took the bus

Derek commutes four days per week and is exposed to a congestion charge in his afternoon travel. He would take public transport if it was a feasible option. Derek does not believe it is.

“Yes it is an incentive to look at your travel hours and get off the road. I have looked into catching the bus, but I am looking at two hours compared to 40 mins by car.”

The following quotes highlight some barriers to choosing public transport over private vehicles during peak-hour travel:

Public transport in outlying areas takes an hour where it might take eight minutes in a car. There is no public transport option that allows me to switch effectively.

Andre – HHI \$30-\$70K, NZ European, children at home, exposure \$35

It is not easy for me to take public transport. It would take a whole lot longer. I'd need a bit of a walk and to change trains. If work was nearer to the train station, it might be feasible, but it is not.

Janet – HHI \$70-\$100K, NZ European, children at home, exposure \$15

As a tradie I have no option on public transport, I can't get on a train or bus if I am dirty with muddy boots and hauling tools.

Reuben – HHI \$30-\$70K, NZ Japanese, no children at home, exposure \$28

Difficult to bus to sport venues with all the gear the kids have to carry.

Kim – HHI \$30-\$70K, NZ European, children at home, exposure \$54

Catching public transport would not be viable for me. I don't live near a train station. I would need to catch a train to the city then another train, it is just not viable. I'd estimate an hour and half then a 20 min walk. At peak hour it takes me an hour.

Public transport feels longer and more expensive. You get to do more in the car. It is not reliable anyway. My wife tells me it is not reliable.

Eddie – HHI \$30-\$70K, Indian, children at home, exposure \$30

They have taken the bus off my street – now to catch a bus I need to walk 15 minutes to go somewhere and it now entails multiple changes. Ineke – HHI Less than \$30K, NZ European, single, exposure \$12

We live at the top of a hill at the end of a windy road. We can't walk to the train station, there are no footpaths. Kevin – HHI \$30-\$70K, NZ European, children at home, exposure \$30

Public transport sucks – they are either delayed or don't show up and are not reliable. Even if you go an hour earlier, you are still late. Patrick – HHI \$70-\$100K, Māori, children at home, exposure \$40

I can't do anything to avoid it. I have to start at 8:30am. I have to drop off my kids. My kids are six and three. Their school is out of zone, so it is not feasible to walk. Public transport I would need to catch two buses, so 4 buses a day, no way. Jade – HHI \$70-\$100K, NZ European, children at home, exposure \$35

It makes me want to vomit, it's literally almost 2 hours from my house to get to uni, it would take 3 buses, and \$5.85 one way, so actually it would be cheaper to drive, but I guess you're paying for petrol, WOF, registration etcetera... I guess you could argue that it would be a bit more, but in terms of convenience, it's just more convenient to drive in. Carl – HHI \$70-\$100K, NZ Indian, single, exposure \$35

The Rejector – public transport is not seen as attractive relative to driving: The Rejector acknowledges that public transport is a feasible option in that it's accessible and would be easy to switch to; however, they don't find it sufficiently attractive to replace driving. Issues affecting perceptions of the appeal of public transport include:

- No time advantage when buses are also stuck in traffic.
- No cost advantage over driving.
- Perceptions of not being safe, especially for young children.
- The lack of privacy on public transport.
- Driving a car is more enjoyable.
- Driving a car is more comfortable.

Taupō is an example of a public transport Rejector:



Taupō – a mum that needs the flexibility

Taupō is a full-time working mum with four children. She drives directly to work in the morning, but collects her daughter from a family member on the way home. She is unable to change the time she travels due to her inflexible work hours.

Taupō is reluctant to use public transport. Using public transport with children poses challenges, due to the reduced flexibility in reaching her children if they need her.

“I would not want to use public transport with my kids, if they play up, waiting at the bus stop, if it rains, if they need to go toilet, if you’re late, you never know what’s going to happen.”

“I’d prefer to have my car on me in case I have to leave early for something to do with the kids which happens more than it should.”

The following quotes highlight some of the mindsets acting as barriers to choosing public transport over private vehicles during peak-hour travel:

*I do take public transport when I can, but I like using the car. Congestion is about equal to taking a bus anyway but I’m better off in the car. **I have privacy, I can play my music.** Maybe if they had dedicated bus lanes, I might be more likely to get there on time. That might take me more towards the bus. Rob – HHI Less than \$30K, NZ European, single, exposure \$35*

*The cost of public transport is **too high**. I can pay as much as an Uber. Because I live in Westmere, it is just better to get an Uber into the city than a bus. So I don't use the buses because they are too expensive. I pay \$4.50 for a bus but \$7 for an Uber, that is just stupid. Yvette – HHI \$30-\$70K, NZ European, single, exposure \$30*

A perceived lack of safety was a key barrier to using public transport:

*My daughter could use public transport but going to uni she has heavy bags and she is only tiny. She has heavy books and a computer, so I feel sorry for her. And she is already anxious, so she doesn't need **extra anxiety travelling on the bus**. It is better for her **safety** that I take her. So cost of public transport, \$35 the same as the charge, so no difference. Extra fuel yes, but she gets the **comfort and safety**. Jody – HHI \$30-\$70K, Indian, children at home, exposure \$35*

*I would not put my young one on the bus. I would be **concerned about her safety** and all the weirdos out there. I’d feel more comfortable dropping her off and her not*

waiting for a bus that has not shown up. Lily – HHI \$30-\$70K, NZ Niuean, children at home, exposure \$32

*I would need lots of buses to drive across town, but **safety is a big concern for me.** There are some scary areas I just would not wait around in. Brent – HHI \$30-\$70K, NZ European, no children at home, exposure \$21*

I have tried her a bit walking [granddaughter to school], it's a bit scary though, I tried a couple of times and I followed her, because there have been a few odd bods around, so it's more of a safety concern. Donna – HHI \$30-\$70K, NZ European, children at home, exposure \$24.50

The Considerer – open to switching to public transport: Considerers see public transport as an easy and attractive option and are open to replacing car trips with public transport. They are often already users of public transport so would be happy to further replace peak-hour car travel if they were facing an additional charge. Many described the additional cost of a congestion charge as a 'tipping point' that would make them reconsider their use of a private vehicle during peak periods.

Vankata is an example of a Considerer:



Vankata – is willing and able to adapt

Vankata lives on his own, his wife and one-year-old child live in India. He works five days a week in a contact centre and also works delivering Uber Eats after hours.

Vankata cannot travel at a different time but is willing to take public transport to avoid the congestion charge of \$28 a week, as this is also on top of his petrol and parking costs. He already takes public transport occasionally for one-off journeys, so is comfortable using it. He has a 50 minute drive to work. Public transport would take 1 hr 15 mins, and cost around \$12.60 a day.

"Public transport is a better option, with fuel costs around \$10 a day, plus these charges and parking, it would be around \$25 a day."

In the long term Vankata would look for work closer to home.

The following quotes illustrate how other Considerers were open to using public transport.

I would probably use the train if this came into effect. \$35 would push me over the edge. I might sell my car and remove the extra costs. Train from Britomart is \$3 per trip or \$30 per week with my HOP card. So I could save \$5 using public transport.

Dean – HHI \$30-\$70K, Māori, no children at home, exposure \$35

Take bus into the city. Would not have a significant impact. Helen – HHI Less than \$30K, NZ European, single, exposure \$3

It could be an option for the kids, they could catch the bus home after school.

Sonia – HHI \$30-\$70K, Māori, children at home, exposure \$41.50

b. Ability to shift travel time or mode

The second key determinant of adaptive capacity is the ability to shift travel time to outside peak periods to avoid congestion charges, or to combine trips to reduce time on the road. We identified essentially two ‘shift’ personas: those who have flexibility and those who are fixed.

Fixed schedules – no ability to shift travel time: Most participants indicated that they could not shift their travel times. This was typically due to work or school commitments.

Patrick is an example of a road user that has no ability to shift his travel times.



Patrick – regular commuter who needs to travel to a range of worksites.

Patrick is married and a father of three. He is on a higher income but believes he does not have the option to avoid a congestion charge, due to his fixed travel times and lack of public transport options.

“I am always on the road to work from site to site. I can’t shift any trips as I am going to a work site.”

“Public transport sucks – they are either delayed or don’t show up and they are not reliable – even if you go an hour earlier, you are still late.”

The following quotes illustrate other road users that can not shift travel times.

I have an autistic boy and I can't shift my travel times for school. There are specific times that the children get welcomed. At a certain time period the children are prepared for school. Olivia – HHI \$30-\$70K, Pacific Chinese, children at home, exposure \$12

I have no option to shift the time I start work. Fanua – HHI \$30-\$70K, Pacific Island, children at home, exposure \$35

I can't drop the kids off any earlier than 8:30, so no flexibility. Lily – HHI \$30-\$70K, NZ Niuean, children at home, exposure \$32

I have no flexibility, my contract is from 6am to 6pm. There is no chance I could shift. I am hired under those terms. Junior – HHI \$30-\$70K, Pacific Island, children at home, exposure \$24.50

I am always on the road to work from site to site. I can't shift any trips as I am going to a work site. Patrick – HHI \$70-\$100K, Māori, children at home, exposure \$40

Flexible schedules – some ability to time shift: Andre is an example of having flexibility, both to avoid peak-hour driving and also to plan more efficient trips.



Andre – a stay at home dad motivated to shift travel times

Andre is a stay-at-home dad with four children. Every day he drives his wife to work and his kids to school. Andre does not see public transport as a viable option given his children's busy after-school activity schedule. He does however have the ability to shift travel times and to combine trips to reduce his exposure to congestion charges.

“Even if it was only ten bucks per week I would change my behaviour, but at the margins, leave a bit later for the kids in the morning and leaving later picking my wife up from work.

Maybe setting up trips better so that we could make basketball and water polo or library trips work better. So would definitely be looking at pooling trips. I'd need to become more efficient with trip planning.”

Janet is also an example of having flexibility to both avoid peak-hour driving for work and also to change the timing of her shopping trips.

I have my regular hours and some hours that I can change. I'd just go shopping earlier in the day. In a way this charge would make me more systematic about when I do my shopping. It would be quite good to make a better habit out of when I do my shopping. I could even do it at night when it is not so busy. Janet – HHI \$70-\$100K, NZ European, children at home, exposure \$15

Dean takes flexibility to a new level and would rethink where he lives to better access public transport.

This would make me think more about moving out west. I'd move closer to work so it would be easier to take the train. Dean – HHI \$30-\$70K, Māori, no children at home, exposure \$35

Yes, this is an incentive to look at your travel hours and get off the road. I'd look at the option of delaying my trip after work by half an hour to avoid that higher cost. Though the morning peak is starting to change to an earlier time, already 5:30am traffic feels like the 6:00am traffic this year, it is creeping earlier and earlier. Derek – HHI \$70-\$100K, NZ European, children at home, exposure \$7.50

My husband could do all the drop-offs to allow me to avoid paying any morning to-work costs. I can arrive at work outside peak hour. I would be motivated to change. It is easy for me to make changes to avoid this. I am lucky to have flexibility. Same with shopping, I'm not going to be running off to get milk when I run out. I'll be getting smarter with my grocery shopping. Hayley – HHI \$70-\$100K, NZ European, children at home, exposure \$26.50

A comment on morning vs afternoon flexibility: There were no clear patterns across road users in terms of whether flexibility was greater in the morning or the afternoon. Road users differed based on the flexibility of their work or education schedules. Households with children tended to have the least flexibility overall due to school starting times and after-school activity schedules.

Changes in the morning would not affect me, work and school are all close by. Would make kids walk to school, so could remove five x \$2.50. Would also walk to work. I could also zip off to check the post box. But in the afternoon, I have no flexibility. All my sons' sports are fixed. Kim – HHI \$30-\$70K, NZ European, children at home, exposure \$54

I could shift the morning drive and leave at 5:30am but I can't shift the afternoon ones. Mostly I'm working around the client, maybe I could try to get to the clients earlier. Clients have a structure that they need to follow. It is difficult to work with

other staff to coordinate or find efficiencies. My company does not take into account peak-hour travel or time on the road. Kahu – HHI \$30-\$70K, Māori, single, exposure \$42.50

Morning time won't shift, Little Miss likes to go at the time she likes to go, she won't leave earlier to go to uni. She can't move classes. But in the afternoon, I could pick her up at 6pm or 6:30, but she won't be happy! I could delay having coffee with friends and delay evening drinks till after 7pm. Jody – HHI \$30-\$70K, Indian, children at home, exposure \$35

The impact of parking availability: The availability of parking was a determinant of flexibility for some road users. Some drivers believe they're prevented from delaying their travel until later in the morning because they'd miss out on parking spaces.

But there is no parking at work so if I get there later, I won't get parking. If I leave later, I would need to pay for parking. If I leave early, I can park on the street and get free parking. But if I leave later, I have to pay for parking. Early bird is \$14 per day but later than that is \$25 per day, if I get a spot at all. Jade – HHI \$70-\$100K, NZ European, children at home, exposure \$35

Flexibility to shift travel mode: Road users can also avoid congestion charges by choosing to cycle or walk. Very few participants identified mode shift as a feasible alternative to their regular peak-hour travel.

I used to cycle all over the place. I really enjoyed it but now it's very dangerous and too many buses, it is not a safe option for me. Yvette – HHI \$30-\$70K, NZ European, single, exposure \$30

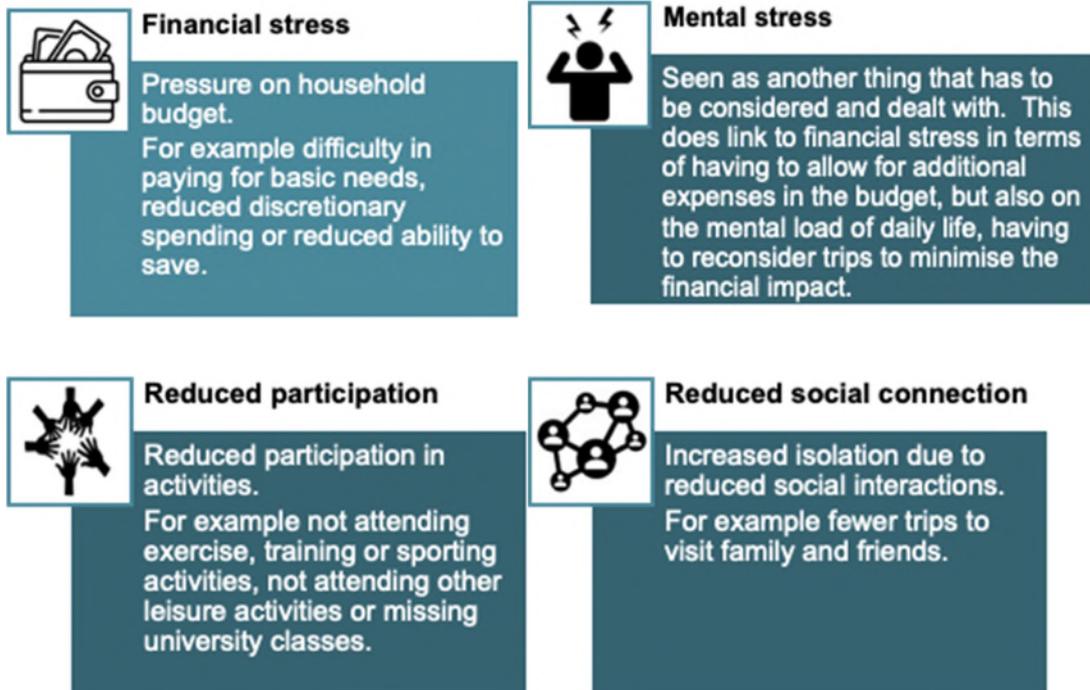
The kids could walk or ride to school, but there is always one running late so I end up taking them every day. Then when it rains you can't ask your kid to walk 3km in rain. Andre – HHI \$30-\$70K, NZ European, children at home, exposure \$35

Possible impacts of a potential congestion charge

The interaction between total household exposure, adaptive capacity and income levels logically contributed to participants' consideration of how a congestion charge might impact on their household's budget and wellbeing.

The following impacts were identified, primarily by lower-income households. Most participants were from households with incomes of between \$30,000 and \$70,000 per year. (Note that the average New Zealand household income is just under \$100,000 per year). As a result, those road users who were either moderately or highly exposed and had a low capacity to adapt were more likely to be vulnerable to negative wellbeing impacts.

The range of impacts described by participants included the following:



1. Adverse financial impacts

The main impact raised by participants was the pressure that additional unavoidable congestion charges would have on household budgets. Participants identified increased debt levels, reduced food budgets and reduced financial resilience as the more severe adverse impacts a congestion charge would have on their households. Less severe impacts were described as reduction in discretionary spending and saving. The following provide details of these impacts.

a) Impact on discretionary spending

Higher-income households, single-person households and those without children at home were more likely to identify reduced discretionary spending as the main likely impact of the addition of congestion charges.

These road users would absorb the extra costs by reducing spending on things like eating out, streaming subscriptions and other entertainment.

Sophie is an example of someone who would respond to the additional charge by looking for opportunities to spend less. It is unlikely Sophie would experience any hardship as a result of these additional charges.



Sophie – Impact on spending

Sophie is a university student who lives at home with her parents, she works part-time. Her potential cost is \$21. Sophie is willing to consider walking to work when the weather allows and it's light enough to help reduce her cost. Saving is important to her, so would still want to offset this smaller cost by reducing spending elsewhere, most likely going out a little less.

"I'm quite a saver, I don't like spending money, I'd be conscious of it, so I'd go out a little bit less. But I don't really like missing out, I'd rather be going out than spending on these charges."

The following quotes highlight other road users' concerns about the impact congestion charges might have on their discretionary spending.

Does not sound a lot but paying the extra plus petrol and then food prices going up... My wages have not gone up in four years. These extra costs eat into disposable income. Derek – HHI \$70-\$100K, NZ European, children at home, exposure \$7.50

I could live with the extra charges, it would not stop me driving my core trips. I would just go with it, although I would be cannier about popping down to the shops. Janet – HHI \$70-\$100K, NZ European, children at home, exposure \$15

No biggie (\$26.50 per week), it is just one less Uber meal a week. Hayley – HHI \$70-\$100K, NZ European, children at home, exposure \$26.50

I could afford it but would not want to pay for it. I pay enough taxes to drive a motor vehicle, but I do understand the idea. It is what it is. Kahu – HHI \$30-\$70K, Māori, single, exposure \$42.50

b) Impact on savings

Low household savings was a recruitment criterion for this research; however several participants indicated they had savings plans, with many of these saving for a home deposit.

Janifa is an example of how the addition of a congestion charge would impact on a household's ability to save. It's unlikely the additional costs would lead to hardship for Janifa; however she is considering reducing her children's after-school activities to maintain her financial plan.



Janifa – Impact on savings

Janifa is a mum of 4 17yrs, 15 yrs, 9yrs and 8 yrs, who studies social work full time and works part time. Her husband is the main income earner. Janifa's potential cost is \$28.50 per week, household potential cost would be \$41 per week.

For Janifa congestion charges could impact on their ability to save to buy property. The cost cannot be absorbed into their budget, something would have to give, she'd explore different work options closer to home or that paid better, she's reluctant to reduce the children's after school activities because they love them.

"We are looking at buying property, any penny we get we put it aside, here's another thing we have to budget for."

"There would be something that we would have to change. It could be the kids after school activities, or find a better paying job. I am the budgeter in my family, I know the finances, even though it's only \$40 a week, that adds up over the year."

The following quotes highlight other road users' concerns about the impact congestion charges might have on their ability to save.

*The extra cost (\$28 per week) will have a big impact. I am on 80% of the minimum wage. But I already pay \$18 a day for the car, parking, tax and fuel. And it adds up over 52 weeks! \$1,500 per year. That will **come out of my savings**. Reuben – HHI \$30-\$70K, NZ Japanese, no children at home, exposure \$28*

*We don't spend money on coffee or buy lunch, we watch our budget and we are careful about what we spend. So, \$120 per month, an extra \$1,500 per year, is a bit much. We are **saving for a house** and it would come out of that. Eddie – HHI \$30-\$70K, Indian, children at home, exposure \$30*

*Impact of \$35 per week is quite a lot. I already pay before-school programme, daycare, petrol and rent. The impact on my spending would be ok but not having that extra \$35 would be missed. I'd probably defer spending on the kids' clothing. I tend to buy clothing at the change of seasons, so I would reduce spending on kids' clothing. We also have pets. But we'd be ok. We like to save as well. **It would impact on the amount we can save**. Jade – HHI \$70-\$100K, NZ European, children at home, exposure \$35*

c) Impact on household food and grocery budgets

For those low-income vulnerable households (high exposure, low adaptive capacity) with low discretionary spend, any additional costs would probably result in reduced spending on essentials, namely food and other groceries.

Olivia is an example of a vulnerable road user who would need to adjust her spending on food or find other ways to reduce spending, such as reducing school activities.



Olivia – A single mum on a tight budget

Olivia is a Pacific Chinese, single mother to a 10-year-old autistic boy. She works part-time in admin and earns below \$70k. Olivia is only exposed to congestion charges in the morning when she drops her boy to school; however the additional \$12 per week will have a big impact on her grocery budget.

“Even though it is not a huge amount (\$12 per week), I am a single mum and part time worker, I’m on an extremely tight budget. That extra cost would come out of my food budget and I’m not happy about this. It is hard enough as it is. My son has other issues that need things to pay for and it would impact on things like school sports.”

“it is already hugely stressful to get my son into school. It is basically another tax. It is money I don’t have that I now need to pay.”

The following quotes highlight other road users concerns about the impact that congestion charges might have on their ability to pay for food and other groceries.

*This (\$27 per week) would have to come **out of the grocery money**, my budget is tight, and we are always over the budget. Cost of petrol on top of this would hurt, but I need my car to get to these places. Kim – HHI \$30-\$70K, NZ European, children at home, exposure \$54*

*The extra cost (\$21 per week) would be a dilemma, we would have to go without. I can’t think off-hand, but that amount is significant. In the school holidays we won’t be able to go and do school holiday fun or recreational things. I’ll need to drive around on bald tyres. Extra costs usually come out of our food budget. It would mean **less meat and less cheese and dairy**, all the things that are expensive. I don’t overeat but this cost would take these items out of the pantry. Cecilia – HHI Less than \$30K, NZ European, children at home, exposure \$21*

d) Impact on debt levels

Vulnerable road users (those with high exposure and low adaptive capacity) who were on lower incomes and already under financial strain were concerned that additional charges would put them into debt.

Lily is an example of a road user who is highly exposed to charges and unable to make changes to avoid them.



Lily – At the limit and afraid of more debt

Lily is a Niuean-born mother of three with one on the way. She works part-time and does the daily run to and from school along with other unexpected trips during the peak hour period. Lily's household earns between \$30 and \$70k and would be exposed to a \$32 per week charge.

Lily is not comfortable putting her kids onto busses, with one daughter playing the cello after school, and she can't change the time of her travel. Lily is very concerned she may go into more debt as a result of the additional charge.

"I am from a big family, we pool our money, but we still find it very hard. When you can't cut back from already cut budget. Just have to do it. We have no wifi, no extras, there is a school disco we need to pay for but we might short cut things for the kids. Would mean going into debt and getting behind in the bills. Could try and dial up my hours at work, but can't do much more because of the kids."

The following quotes highlight other road users' concerns about the impact congestion charges might have on their ability to pay down or stay out of debt.

*I am already **maxed out with debt**. My credit cards are already maxed out. I won't go to the bank, so this will need to come out of spending. We don't have bargaining power to add this to wages. I can't earn more from overtime. I do fixed sessions and earn a fixed fee. We are contract employees, there is no allowance for extra costs. So, this would impact on my budget. I would need to find \$35. Rob – HHI Less than \$30K, NZ European, single, exposure \$35*

*But this \$35 extra would come straight out of the food budget and be just another mounting bill. **I can see us being unable to pay for this** maybe one or two times per year. Then I'd get hit with debt collection costs, so add \$200 on for debt collection. Once I get stuck in that loop, I have to ask myself 'do I pay a smaller \$50*

bill now or default and pay \$400 over time?'. Andre – HHI \$30-\$70K, NZ European, children at home, exposure \$35

e) Impact on financial resilience

The additional cost from congestion charges raised concerns amongst some vulnerable households that they would be less able to cope with unexpected financial shocks or increased costs.

Kevin is an example of a road user who would become increasingly vulnerable as his exposure to congestion costs increased over time.



Kevin – Health issues will increase costs

Kevin has health issues that require frequent travel. He does not have a disability card so would incur a congestion charge of \$30 per week. His wife does a couple of hours a week cleaning. Kevin's health is in decline and he is concerned that as his condition worsens his travel may need to increase and the additional congestion charges will put them in a precarious financial position.

This is a big chunk of our budget. After paying power and rent we have \$110 to live on before fuel. I am allowed to earn \$80 but I am too sick to work, my wife does a couple of hours cleaning. So if I had to pay this it would be hard. I don't want to sound whiny, but when it adds up at the end of the month, that is over \$100. I just don't have it. I don't have a disability card, you have to be disabled, this does not include people like me with liver cancer, you need a no leg or hand adapted car. I don't know what to do really, as I get worse we are going to have more trouble."

The following quotes highlight other road users' concerns about the impact congestion charges might have on their ability to respond to financial shocks or unexpected increases in living costs.

*\$35 is a struggle. We don't do luxuries; it is just the basics. Our only variable cost is petrol and food, everything is fixed, so this would need to come out of our food budget. There is no entertainment money to deal with. I have no savings, so **unexpected costs have a big impact**, additional costs would go on the credit card.*
Fanua – HHI \$30-\$70K, Pacific Island, children at home, exposure \$35

The cost (\$35 per week) would be a big impact for me. I am the sole earner in the household. It would mean less entertainment. I could survive but it makes it hard

when something pops up **like an emergency**. I guess I could drink less! Dean – HHI
\$30-\$70K, Māori, no children at home, exposure \$35

2. Stress impacts

Participants described a range of stress impacts that could result from a congestion pricing regime being put in place. These stress responses were both as a result of needing to pay the charges, but also stress around the need to plan travel to avoid charges and dealing with the additional administration tasks of making payments. For some, it was just one more thing to worry about.

Tina is an example of a vulnerable road user who already struggles with mental health issues. Dealing with the idea that she may need to limit travel or be charged for her travel concerns her greatly.



Tina – Already struggling

Tina is a single mother with a 10 yr old child. She is currently receiving a benefit due to her mental health. Meeting her current bill and credit commitments is a constant struggle. Tina's potential cost is \$20 per week.

Tina drops her daughter to school each morning which is just down the road, and then continues on to visit her friend each day. Visiting her friend is an important part of her daily mental health plan and she did not have flexibility in doing this at a different time of day due to other commitments.

"I can't even live week to week now, but mental health say I have to get out of the house ... I wouldn't be able to afford to travel... but those trips are my sanity, that's why I'm off work"

"I'd go insane, either way it's no win, if I stay at home my mental health suffers, if I go out, I financially suffer and my mental health suffers."

The following quotes highlight other road users' concerns about the impact congestion charges might have on their mental health and stress levels.

*This is **another stress**. I struggle paying bills, I struggle to hold a bit aside to do maintenance on my home. I am really disciplined with finances. I live on the smell of an oily rag. I grow my own veges. I don't see my family. This would create a lot more stress. This is a huge other stress to have to deal with. Ineke – HHI less than \$30K, NZ European, single, exposure \$12*

*This looks scary, it is just more things on top of other things. It would have an impact if I needed to pay \$40 extra. My kids eat like crazy. I would cut back, but it is pretty hard already. I would cut Netflix and Sky. But it is just **the stress and that has a big impact**. We have less than \$1 per week after all the bills. Patrick – HHI \$70-\$100K, Māori, children at home, exposure \$40*

*I think it's more the wellbeing that changes, it's more pressure on me, I've got to come up with the finance because I value the children doing those activities, so it's **more stress on me**, my patience would go. Nicola – HHI \$30-\$70K, NZ European, children at home, exposure \$16.50*

*It's not easy dropping your kids off at school and going to work on a bus, mentally it's not right, it's **a lot of stress**. Janifa – HHI \$70-\$100K, Maori/Fijian Indian, children at home, exposure \$41*

3. Impact of trips not taken

Exposed road users have essentially three options when responding to a congestion charge. They can pay, they can shift mode or time, or they can choose not to undertake the journey that would expose them to the charge. Participants described the effect that not taking these trips to avoid congestion charges would have.

a) Reduced community / sports / cultural participation

Several road users indicated they would choose to not take trips that incurred additional charges, especially when these trips already incurred costs (such as paid after-school activities). This raised concerns among many that the congestion charge might limit participation in sports or community or cultural activities. Māori participants were asked to consider the impact of congestion pricing on their involvement in cultural activities. The Māori participants involved in this study indicated they were not involved in cultural activities that required peak-hour travel. It was more likely that these families would be affected by not being able to afford to travel to sporting sessions, especially where there was more than one child involved in separate playing or training sessions on weekday afternoons.

Participants also described needing to rethink participation in personal fitness activities (gym) or leisure activities like music or drama classes; this applied to both adults and their children.

Participation in volunteer work could also be reduced as participants indicated they were already giving their time and often incurred small incidental costs as a result; the addition of congestion charges would tip the balance and make them reconsider their involvement.

Hanna is an example of a parent who would reluctantly reconsider her children's after-school activities to ensure she could pay for other additional charges that she would not be able to avoid.



Hanna –impact on afterschool activities

Hanna is a stay at home mum to 4 children. Her travel includes dropping children to school or pre school activities, and in the evening afterschool activities for her children.

Hanna feels that afterschool activities are really important not just for her children, for all children, as an opportunity to learn and have positive influences.

She would need to reduce her children afterschool activities to reduce her congestion charges and offset the cost of trips that she isn't able to change.

"After school activities need to be a foundation for all our children, especially where I live, they experience so much from it ... it's a good gang for them to be in, if they don't they go into the wrong ones."

"We'd have to say no to our kids, it's horrifying"

Princeton might skip classes to ensure he has enough money to cover costs incurred in completing his degree.



Princeton – might skip classes

Princeton is a university student from South Auckland who lives with his parents. He works part-time.

The costs associated with his architecture degree are high (printing work, models etc), so missing class to avoid congestion charges is one way he could ensure he's still able to afford to produce his university work.

"Because I only work part-time it would impact on how I budget things. I would probably be emailing my lecturer to say I can't make it to class today. I have a lot of friends in my class that are closer to uni, so I could always ask them 'what did I miss?' and catch up that way. Being an architecture student you spend a lot on printing, so you wouldn't sacrifice your grades just getting to class [and paying congestion charges], because then you might not be able to afford to build a model or print some work."

The following quotes highlight other road users' concerns about the impact congestion charges might have on their ability to take their children to sporting events.

*I'm a single mum and rent in Botany is huge, \$750. Schooling is expensive. We run a tight budget, don't eat out. My whole life is for the kids. I want to give them the best, but will need to cut costs, **might drop swimming lessons**, might put kids with other parents to share costs. Might change swim classes, they could bus after school, maybe put swimming lessons on the weekend. Sonia – HHI \$30-\$70K, Māori, children at home, exposure \$41.50*

***This (the charge) will stop kids going to sport.** I can understand the main route traffic, but this is too extreme when being hit in the suburbs. Derek – HHI \$70-\$100K, NZ European, children at home, exposure \$7.50*

*We are taking the kids to sports events. **That all stops.** This could change people's lifestyles. Training twice a week Tuesday and Thursday and then Monday and Wednesday. Families with lots of kids could be up for \$40 per week. It will hurt them. The struggle is real. They struggle to make the week, but to incur more! The families will end up paying the cost that they can't afford. If they do this, it will be tragic. Junior – HHI \$30-\$70K, Pacific Island, children at home, exposure \$24.50*

b) Reduced social connection

Some participants feared losing a sense of social connection as a result of having to adapt to congestion charges.

To reduce or avoid further congestion charges, discretionary trips like visiting family and friends would be the first to be given up for some participants. These trips, although discretionary, were still described as being important to them. Avoiding these social trips could lead to increased isolation and have negative effects on the wellbeing of individuals, families and the community more broadly.

Taupō is also an example of a road user who would adapt to congestion charges by reducing time with whānau.



Taupō – will impact on time with family

Taupō is a full-time working mum with four children.

For Taupō, congestion charges could impact on her family's contact with her wider family. She would consider eliminating their regular evening visits to her in-laws as it would incur an extra charge (her partner takes the other children and meets her there – a second car on the road).

"We see my in-laws a lot, like every second day ... We'd look at cutting it to weekends, I wouldn't want to risk getting charged extra, any later than 7pm and we're not home for kids' bedtimes."

Renee is an example of a road user who would reduce her social interactions.



Renee – will impact on time with friends

Renee works full-time as a gardener and lives with her partner.

Renee's only opportunity to visit her friends is in the evening after work, but she would reconsider these visits. She already has to contend with long travel times as her friends don't live close by, but the addition of a congestion charge would be enough to stop her from making the trip as often.

"I'd be thinking twice about visiting my friends, they are about half an hour away already, I'd do it less often I guess, which would be good for the roads but dumb for me."

Road user expectations and feedback

In discussing the nature and impacts of potential congestion charges, a range of issues, concerns and suggestions emerged that may have implications for the future design of a congestion pricing model, and for how it is communicated to users. These are summarised below.

11. Need for improved public transport: Almost all participants identified the need for improved access to affordable and reliable public transport. There was also an expectation that the revenue generated from congestion charges should be used to invest in public transport infrastructure.

I would expect that you would need to have better bus options for this to work. You need to increase the train network; it needs to be more efficient and quicker. Need more options and more frequently. Yvette – HHI \$30-\$70K, NZ European, single, exposure \$30

[To reconsider public transport] I'd think about how cohesive it is, in terms of arrival and departure times, also the amount of buses [to minimise wait times] ... the pricing of it, it's not that much more expensive to pay the congestion fee than it is to take public transport. Carl – HHI \$70-\$100K, NZ Indian, single, exposure \$35

12. Expectation that road user charges/petrol tax would be reduced: Road user charges were raised often in the interviews: both as an example of increasing travel costs and as a cost that participants expected would be reduced should a congestion charge come into play.

Getting charged just to drive home. I would expect road user charges to reduce. Patrick – HHI \$70-\$100K, Māori, children at home, exposure \$40

13. Revenue should be put back into the community: Some felt the money should go into creating more public benefits for the whole community.

I would hope the money goes into parks and schools and is put back into the community. If it is working in London then great, if you see the benefits of this here, then great. Hayley – HHI \$70-\$100K, NZ European, children at home, exposure \$26.50

14. Employers would need to be more flexible: The idea that employers had a role to play in creating more opportunities for workers to avoid peak-hour periods was another common theme. Many road users lacked adaptive capacity due to the barrier of inflexible working hours. Some also believed workers should be incentivised by employers to travel during off-peak hours.

Employers need to make this more flexible. Sonia – HHI \$30-\$70K, Māori, children at home, exposure \$41.50

Instead of penalising workers, what about incentivising employers to make a change. Change the working day pattern, spread out the load. Why don't we incentivise people and not punish people. I am not sure penalising is the right way of doing it. Derek – HHI \$70-\$100K, NZ European, children at home, exposure \$7.50

15. Encourage schools to shift their start and end times: Given the high levels of exposure for families with young children, many raised the idea that schools might play a role in reducing exposure by adjusting their start and end times.

Can you change the time of schools? It feels like it is targeting school pick-ups and drop-offs. Patrick – HHI \$70-\$100K, Māori, children at home, exposure \$40

16. Expectation of a pay rise where travel is required: Many employed road users who are required to commute or travel for work believed the additional congestion cost should be reflected in an increased salary or wages.

I am always on the road to work from site to site. Can't shift any trips as I am going to a work site. I would expect a pay rise. Patrick – HHI \$70-\$100K, Māori, children at home, exposure \$40

17. Contractors would pass on the extra costs: Those road users with the ability to pass costs on to their customers or employers indicated they would do so if a charge was put in place. For example, Kahu indicated that this might prompt him to opt into using a company car to avoid incurring charges personally, though this came with its own set of inconveniences and potentially more time on the road.

At the end of the day I have to pay and I would pass it on to my employer. I would stop using my personal vehicle and use a company vehicle. A lot more drama and hassle, would need to drive to pick the work vehicle up and then drive to drop it off. Which means I would need to be on the road more. Kahu – HHI \$30-\$70K, Māori, single, exposure \$42.50

18. Incentive to speed: Some believed drivers might be motivated to speed to avoid being on the road during higher charge periods.

End result would be that you would try and get to destinations before the specific times – speeding. Kahu – HHI \$30-\$70K, Māori, single, exposure \$42.50

19. Flexible payment plans to help people manage budgets: The idea was raised that payment of charges could be made easier to reduce potential negative impacts on household budgets and cash flow. Some felt pre-payment plans could make costs more manageable for households needing to tightly manage their budgets.

Maybe they pay for fixed work plans or flexible prepaid plans like Telecom. Sonia – HHI \$30-\$70K, Māori, children at home, exposure \$41.50

20. Charges should be capped: Several indicated their preference for charges to be capped so as not to create unfair pressure on families or those who might incur very high charges. However, there was an acknowledgement that this would likely remove the incentive to avoid peak-hour traffic that the congestion charge is aimed at.

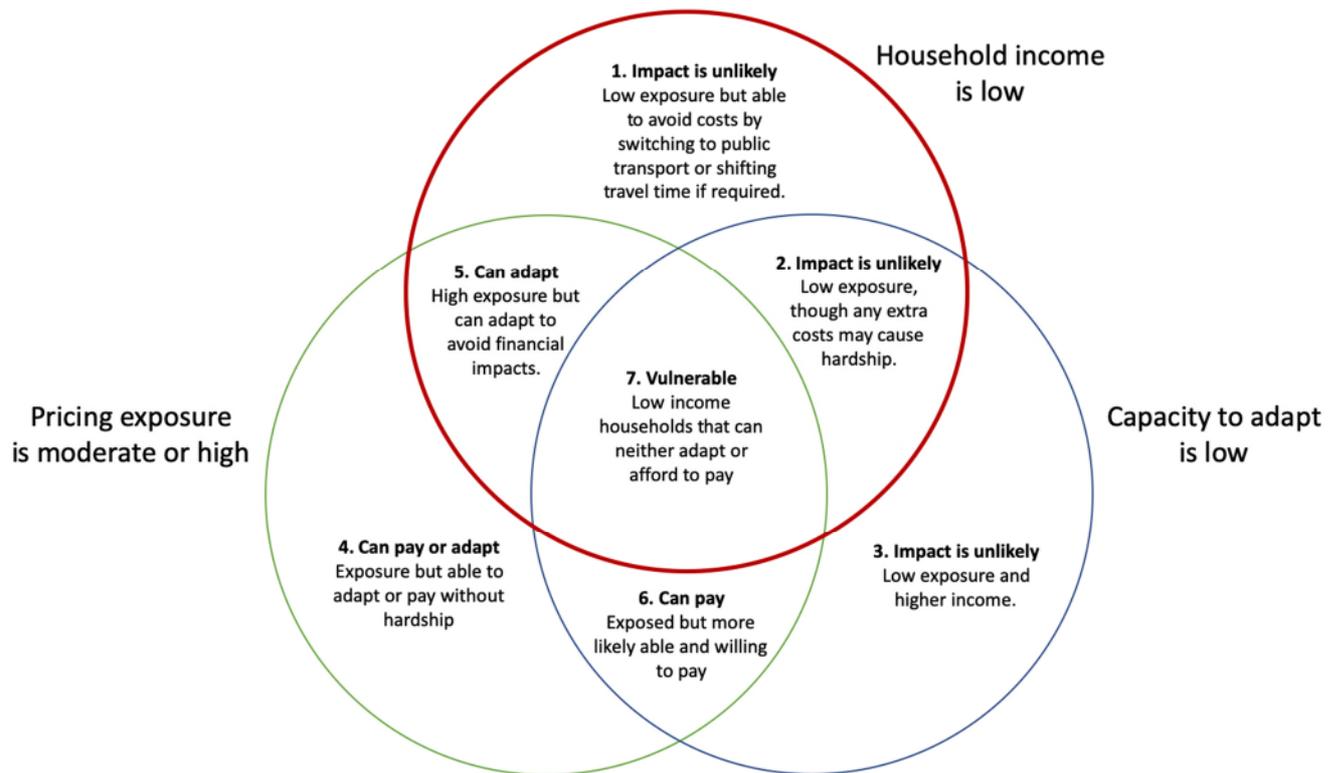
Better if it was capped. Would be better than having to watch the clock and worried about getting pinged. It is more stress and then I end up racing around trying to beat the clock. Better if this is capped so I can manage and expect the charges. Reuben – HHI \$30-\$70K, NZ Japanese, no children at home, exposure \$28

Almost need to have a cap, one family can only be charged a certain amount of money. Or does this take away the incentive? Derek – HHI \$70-\$100K, NZ European, children at home, exposure \$7.50

Summary of key personas

This research focused on a sample of low-income road users, most of whom would be exposed to at least moderate levels of congestion charges (most paying \$30 per week or more).

The diagram below highlights the interaction between exposure and capacity to adapt. Those with low incomes who can't pay or adapt (Segment 7) are the most likely to be vulnerable to adverse wellbeing outcomes.



Segments 1, 2 and 3 are less likely to be impacted due to low exposure to congestion pricing.

- Derek (page 20) is example of a road user with low exposure.

Segments 4 and 5 are exposed but are able to adapt to avoid charges, with Segment 4 also able to pay without hardship.

- Venkata (page 23) is an example of a road user with high adaptive capacity.

Segment 6 are exposed but able to pay without hardship due to their higher incomes and lower living costs.

- Carl (page 18) is an example of road user able to pay.

Segment 7 are exposed and unable to pay or adapt and so are more vulnerable to adverse wellbeing outcomes.

- Tina (page 34) and Lily (appendix) are examples of financial debt impacts

- Kevin (appendix) and Fanua (appendix) are examples of financial resilience impacts
- Taupō (appendix) and Hanna (appendix) are examples of stress impacts.

Fanua – a regular work commuter with high exposure and low ability to adapt. Vulnerable to financial stress.



Meet Fanua

- Fanua is a single mother to two boys and works full-time in Devonport in administration.
- Fanua lives in West Harbour and commutes five days a week.
- Her household income is \$30-70k. She has less than one month's salary in savings, struggles from time to time to meet her bill and credit commitments, but knows exactly how much money she has available for day-to-day spending.

Fanua's exposure is high

"That is a lot of money – considering my wages don't reflect that."

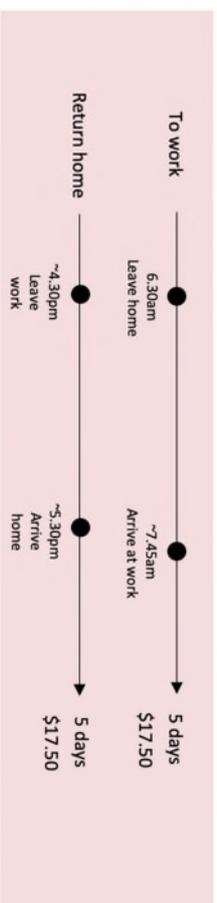
Fanua lives in West Harbour and drives her car five days a week to work in Devonport, leaving home around 6.50am and arrives around 7.30am. Returning home from work she leaves around 4.30pm and arrives home around 5:30 or 6pm if she stops for shopping.

Fanua's potential cost - \$35 per week

Fanua's capacity to adapt is low

"I have no option to shift the time I start work. Public transport, I would need to leave earlier, an hour trip would take me an hour and a half so I would rather drive. If public transport was good I would use it. I would be happy to get onto public transport now my kids are older but it's not good enough for me to do it. If it was better, like the North Shore, and if I lived close to the bus, it goes very 10-15 minutes. I would have to walk for 5 mins to the bus station. Then catch bus to Hobsonville Point, add 20 minutes, then another bus to Constellation Drive, then hop onto a bus to Takapuna, then another bus to Devonport, then a 30-minute walk to my workplace. I could catch the ferry but that is a 30-minute walk to the ferry terminal and the first ferry is at 7am. But if I missed any connection I would be in trouble. Then another half-hour walk to work. I would spend all that time stressed and flustered and wet and cold. If it was a straight run I would, if it was two buses then no problem, but not four buses and the risk of missing a connection."

Shift mode: Fanua isn't able to avoid peak hours; her work hours are fixed. Fanua believes public transport is not a feasible option due to the extra time it would take her to travel to work.



How vulnerable is Fanua?



\$35 is a struggle. We don't do luxuries; it is just the basics. Our only variable cost is petrol and food, everything is fixed, so this would need to come out of our food budget. There is no entertainment money to deal with. I have no savings, so unexpected costs have a big impact, additional costs would go on the credit card.

High financial stress: Fanua is already very careful with her budget. She is concerned that the additional costs with her already-tight budget would reduce her ability to cope with any financial shocks. She is also concerned about going into debt and her overall financial resilience.

Appendix:

Lily – a low-income, busy mum driving her children to school and after-school activities, with little flexibility to shift mode.



Meet Lily

- Lily is a 39-year-old Niuean New Zealander and a mother of three with another child on the way. Lily works casually and her household earns less than \$70k per year.
- Lily is not sure of her savings but does struggle to pay bills from time to time. Lily knows exactly what she spends from day to day.

Lily's exposure is high

"It is tight as it is. I'll just have to squash the extra cost in."

Lily lives in Blockhouse Bay and drives her children to both primary and high school in Kelston. It is these daily trips to and from school that exposes Lily to a congestion charge. On Tuesday and Friday she also needs to drive her daughter to cello lessons.

Lily's potential cost – \$37 per week

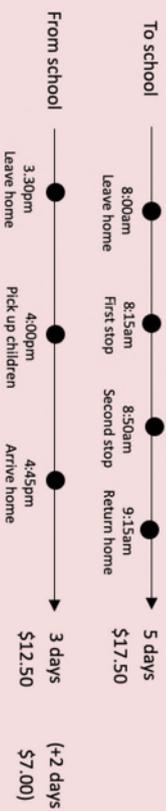
Lily's capacity to adapt is low

"I can't drop the kids off earlier than 8:30 so no flexibility."

"I would not put the young one on the bus. I would be concerned about her safety and all the weirdos out there. I'd feel more comfortable dropping her off and her not waiting for a bus that has not shown."

Shift time: Lily cannot shift the time of her travel due to the fixed nature of the school schedule.

Shift mode: Lily is not comfortable having her children take public transport due to her concerns about safety and reliability.



How vulnerable is Lily?



"I am from a big family, we pool our money, but we still find it very hard. When you can't cut back from an already cut budget. Just have to do it. We have no wife, no extras, there is a school disco we need to pay for but we might short cut things for the kids. Would mean going into debt and getting behind in the bills. I could try and dial up my hours at work, but I can't do much more because of the kids."

High financial stress: Lily is concerned she may go into more debt as a result of the additional charge.

Hanna - is a multi-purpose traveler with high exposure and a low ability to adapt. Vulnerable to financial stress.



Meet Hanna

- Hanna is a stay at home mum with 4 children, 8yrs, 6yrs, 4yrs and 9 months, her husband is a primary school teacher.
- She lives in Weymouth and travels along Great South Road to reach Manurewa.
- The household income is \$70-100k.
- Hanna has 1-3 months income in savings, she knows approximately how much money she has available for day to day spending.

Hanna's exposure is high

"I understand what they're doing, but there's no way I could get there without getting in my car ... I'm not going to make my children late every day."

Hanna is a Weymouth resident who drives her car 3 days a week to Manurewa to drop children at school leaving home at 7:50am and returning home at 9:30am. On the other 2 days she takes her younger children to pre school activities. Her afternoon to journey to collect the school children is outside peak hours. Hanna drives her children to after school activities 5 days per week, she is driving between 4-10 and 4-45 and again between 6:00 and 6:30.

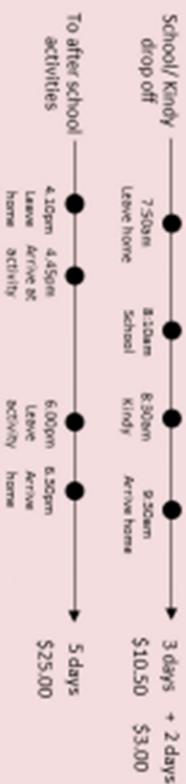
Hanna's potential cost - \$38.50 per week Partner's potential cost - \$35 per week
Total Household potential cost - \$73.50 per week

Hanna's capacity to adapt is low

"Public Transport would take over 2 hours to get there from my house. I don't feel they can tax you for using the road when they can't provide another service, that actually works for people"

Shift time: Hanna's peak hour travel is non-discretionary due to fixed school and afterschool activity timing.

Shift mode: Public transport is not a viable option given the additional travel time with young children (2 hours to bus to after school activities) and the cost for herself and 4 children.



How vulnerable is Hanna?



"It makes me want to cry if I actually have to find \$73 a week"

High financial stress: Hanna is not able to absorb this additional cost into her household budget. Something would have to be given up to cover these costs. She would choose to reduce after school activities as they are also incurring some of the cost.



"After school activities need to be a foundation for all our children, especially where I live, they experience so much from it -- it's a good thing for them to be in, if they don't they go into the wrong ones"

Unfairness: Hanna feels being charged would be unfair as she is not leaving the South Auckland area, compared with others who are commuting into central city and have the option to use buses or trains. She feels that afterschool activities are really important, not just for her children, for all children, as an opportunity to learn and have positive influences.



"We'd have to say no to our kids, it's horrifying"

Reduced participation: Hanna would need to reduce after school activities. These activities are important to Hanna given everything her children gain from these. The children are already limited on what activities they do, so it would be hard on them to further reduce. It may actually reduce stress levels for the family as they'd have less commitments, but it takes their children away from their passions.

Kevin – a vulnerable road user with health issues that puts him on the road during peak hours.



Meet Kevin

- Kevin is 62, married with one child. Kevin has ongoing health issues requiring regular trips to chemists and hospitals.
- Kevin is not on a disability allowance and earns less than \$70k. Kevin has very little in the way of savings and struggles to pay bills from time to time.

Kevin's exposure is high

"It's already hard enough financially, for me personally, I'd be gutted if it was added onto my weekly bills."

Kevin drives to a chemist in Mt Roskill three mornings a week and then picks up his daughter in the CBD each afternoon. Kevin also needs to make trips into Auckland Hospital for blood tests and treatments. These appointments tend to be in the morning.

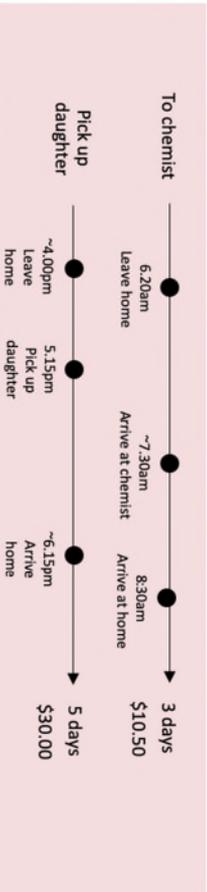
Kevin's potential cost – \$40.50 per week

Kevin's capacity to adapt is low

"We live at the top of a hill at the end of a windy road. We can't walk to the train station, there are no footpaths."

Shift time: Kevin needs to attend chemist and hospital appointments at fixed times. His daughter needs support to travel and needs to be picked up from work at a fixed time.

Shift mode: His daughter also has health issues and does not have a driver's license; as such she is reliant on Kevin. Public transport is not accessible for Kevin as he lives at the top of a steep hill with no footpaths.



How vulnerable is Kevin?



"After all this, I am not against a charge being in the CBD, lots of people with only one person in the car. I understand something has to be done, but I could not live with a charge. It is quite punitive for being on the road.."

"This (\$30 per week) is a big chunk of our budget. After paying power and rent we have \$110 to live on before fuel. I am allowed to earn \$80 but I am too sick to work, my wife does a couple of hours cleaning. So if I had to pay this it would be hard. Don't want to sound whiney, but when it adds up at the end of the month, added up over 4 weeks, that is over \$100. I just don't have it. I don't have a disability card, you have to be disabled, this does not include people like me with liver cancer, you need a no-leg or hand adapted car. I don't know what to do really, as I get worse we are going to have more trouble."

High financial stress: Kevin's health is in decline and he is concerned that as his condition worsens his travel may need to increase and the additional congestion charges will put them in a precarious financial position.

Taupō – a regular work commuter with high exposure and low ability to adapt. Vulnerable to reduced family connections.



Meet Taupō

- Taupō is a full-time working mum with four children aged 7, 6, 4 and 1. Her partner cares for their children, two of whom have hearing disabilities and require regular medical appointments.
- Her household income is \$30-70k. She has less than one month's salary in savings, struggles from time to time to meet her bill and credit commitments, and knows approximately how much money she has available for day-to-day spending.

Taupō's exposure is high

"It's already hard enough financially, for me personally, I'd be gutted if it was added onto my weekly bills."

Taupō lives in Manurewa, she drives her car 5 days a week to work along the Manukau Motorway in Otahuhu, leaving home around 6.50am and arriving around 7.45am. Returning home from work she leaves around 4.30pm and collects her daughter from a family member in Māngere, and they continue home, arriving around 6.15pm.

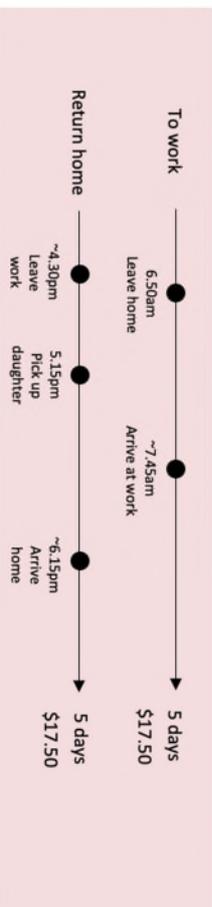
Taupō's potential cost – \$35 per week **Partner's potential cost** – \$17.50 per week
Total household potential cost – \$52.50 per week

Taupō's capacity to adapt is low

"I would not want to use public transport with my kids, if they play up, waiting at the bus stop, if it rains, if they need to go toilet, if you're late, you never know what's going to happen."

Shift time: Taupō isn't able to avoid peak hours, she cannot leave any earlier for work as she needs to get her toddler ready before her kindy taxi collection, and in the afternoon she is constrained by her work hours and time she collects her daughter.

Shift mode: Taupō has some barriers to using public transport. The additional time taken to travel, the difficulty of travelling with children, and a reduced ability to get to her children quickly if they needed her.



How vulnerable is Taupō?



"More bills, I'd have to find a way to pay it off, it's not easy, we would have to put it into our budget and just find a way to do it... if it happened right now, it would be stress for me... if my partner was able to get into work we would be able to handle it."

High financial stress: For Taupō this additional cost would be stressful in their current situation; she'd need to rework their budget to see how they could cover this cost. The additional cost could prompt them to consider her partner returning to work.



"We see my in-laws a lot, like every second day ... We'd look at cutting it to weekends, I wouldn't want to risk getting changed extra, any later than 7pm and we're not home for kids' bedtimes."

Fewer family interactions: For Taupō, congestion charges could impact on her contact with her wider whānau. She would consider eliminating their regular evening visits as it would incur an extra charge.



"I'd still do it (after-school activities), we're needing to get our kids into something, they need to learn to do other things outside of school."

Reduced participation: Taupō is looking into after-school activities for her children. Congestion charges would make her reconsider which activities they could do, it could limit them to activities that are within walking distance, or at a minimum would need to be factored into the cost of the activity when looking at options.