



## RT 8 - Public transport use among new parents

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### Transcript

**Laura Aston** [00:00:00] Hello. You're listening to Researching Transit, the Public Transport Research Podcast. I'm your host, Laura Aston. And today I'm speaking with another Laura from Monash University, Dr Laura McCarthy. In today's show, Laura shares insights from her research that sought to understand the drivers and constraints of mobility choices amongst new parents.

**Laura Aston** [00:00:22] Her work tries to understand the behavioural foundations for the decline of public transport use amongst new parents.

**Laura McCarthy** [00:00:34] One of the key findings from this is that they're not a homogeneous group of people these new parents, I guess, they all have very different constraints on their travel choices and by segmenting these parents into these different groups, it helps to unpack some of the constraints that they have to using alternate modes and also some of the ways in which it could help encourage the use of alternate modes.

**Laura Aston** [00:00:53] Researching Transit is brought to you by the Monash University Public Transport Research Group. Our aim is to increase global knowledge about public transport research. If you enjoy the show, please leave us a review wherever you listen to your podcast. We'll get in touch by visiting our Web site, PTRG.Info. That's PTRG.info or on social media. You can follow us on Twitter and Instagram using the handle @transitpodcast.

**Laura Aston** [00:01:23] Welcome, Laura McCarthy.

**Laura McCarthy** [00:01:25] Hi, Laura. Thanks for having me today.

**Laura Aston** [00:01:27] You've recently completed your PhD and that was with the Public Transport Research Group and you're continuing to work at Monash University. Could you tell us a bit about your research these days?

**Laura McCarthy** [00:01:39] Yeah, absolutely. My current research interests sort of stem from my PhD research. One of the projects I'm looking at is how the experiences and exposure to different transport modes as a child influences your travel modes and choices as an adult. And so as we'll sort of touch on later in the show, one of the major findings from my research was that parenthood is typically a time in people's lives when their public transport use declines, and that inevitably has effects on all members of the households, including children. So, my current research interest stemmed from that field. And I'm looking at how that will then have impacts on the next generation of transport users.

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**Laura Aston** [00:02:30] Great. So you're very much looking at how life costs or life events impact people's travel choices. And I think there are a couple of key terms that we might define up front for the listeners. Now, you've you've used the language in your search of life events and also mobility trajectories. Could you help by defining those keywords?

**Laura McCarthy** [00:02:53] Yeah. So my life event, often that tends to be described in the literature by what it is. So when we talk about life events, it's things such as moving house and changing jobs, that because it requires an individual to switch from that automatic to reflective decision making processes it acts to disrupt habitual travel behaviour. So when we talk about life events, it's those moments, sometimes called turning points or transitions, where people's habits, their travel habits, are disrupted and they're forced to reflect on new travel choices. So because of that, it provides a really good opportunity to intervene and potentially influence people and their travel choices. Obviously, when we're talking about habit and routine travel behaviour, the ability to influence people's travel choices is far more limited when compared with those occasions where their travel choices are disrupted and potentially habits become more malleable.

**Laura Aston** [00:04:02] Ok, and a big one is the transition to parenthood, which is really going to be the focus of our discussion today. So what are the changes that occur for adults when they start a family in ways that might affect travel behaviour?

**Laura McCarthy** [00:04:19] So some of the key, I guess, some quite concrete ways in which travel behaviour changes as a result of new parenthood are when you think about accommodating a child's travel needs as well as your own, suddenly travel can become a lot more complex and more destinations and more travel needs to be managed within the same amount of time. So time pressures become a lot more critical, which can prompt people to switch, to begin to prioritise quicker modes over slower modes. So goes I guess that's kind of a key way in which travel can change. It can also influence travel in more abstract ways. So parenthood can bring about a whole new range of social norms about about parenthood and this can also influence the travel modes and choices of new parents. So to use an example, if we think about what is a really strong social norm about keeping a child safe. That's obviously a really important and very, very worthwhile social norm. But in a car dominated context like Australia, that can clash with parents who choose to perhaps use non dominant modes such as cycling or public transport and perception that those modes are less safe. And that can also be sort of most subtle. Social pressures can also influence the mode choices that parents may may choose to take with their children.

**Laura Aston** [00:05:56] Aside from the social norms, is there also that aspect of having another responsibility, a child to care for, that makes the journey less manageable on these non dominant modes?

**Laura McCarthy** [00:06:09] Yeah, absolutely. It does increase the complexity of travelling by cycling or public transport or alternative modes. Even simple things such as navigating a pram on an all public transport or cumbersome. Travelling with a lot of luggage and a lot more equipment when travelling with children can also be a real barrier to using public transport and cycling to a lesser extent.

**Laura Aston** [00:06:34] Yeah, great. So just to summarise a few key changes that you've mentioned, there is the complexity of the trip, time pressures and also social norms. I think they're some really important observations. They are about starting a family. So why then is it so important to study travel changes associated with this transition to parenthood?

**Laura McCarthy** [00:06:58] Yeah. There's a lot of research that has shown it's a key point in people's lives where travel behaviour changes quite, quite dramatically. Even in a car-dependent context like Australia, car ownership increases, public transport use and cycling decreases. So it's a really a really key point in people's lives where travel behaviour changes and where use of more sustainable travel modes tends to decline. So while there was a lot of evidence about how travel behaviour changes during this period, there was actually very little research at the time when I started my PhD on why it changes. And I think understanding why is so crucial in order to for us to begin to think about what solutions we could propose to reduce that tendency towards car-dependency following parenthood.

**Laura Aston** [00:07:51] It's a really interesting angle to take, because for all the reasons you mentioned previously there, it seems obvious why people might move away from these modes that are just more difficult, perhaps, to take for parents with young children. But then asking "why?" Is the only way to get to perhaps making it better and more inclusive of those parents that have been switching modes.

**Laura McCarthy** [00:08:17] Yeah, exactly. I mean, I guess a lot of parents who quite quickly tell you the problems that they have travelling by public transport. There's a lot of anecdotal evidence about why it changes during this period, but not a lot in the literature. And so that's that was really the focus of this PhD.

**Laura Aston** [00:08:34] Great. We'll move on to talk about the research that you conducted, Laura. Perhaps you could start by telling us how you went about it, what your methodology was.

**Laura McCarthy** [00:08:46] Yeah. So I used a combination of qualitative and quantitative research methodology. So I started with a series of interviews with new parents here in Melbourne. And I aimed to interview, sort of a broad range of parents from a range of different backgrounds. So interviewed some parents who were car-less both pre and post parenthood, and interviewed some parents who were carless pre-printed and post parenthood. So I aimed to get a broad range of mobility and social demographic backgrounds. And the interviews really aim to understand what was the factors that influence mobility changes during this transition. And that material was then used to form the basis of a survey for new parents.

**Laura Aston** [00:09:37] Laura, you mentioned the factors you wanted to understand, the factors impacting travel behaviour. Could you tell us a bit about what the major factors were that you are impacting the trend, which was absolute I mean, in terms of public transport?

**Laura McCarthy** [00:09:51] The main factors that emerged following the interview - a really clear pattern that emerged was based on private caregiving status. So the public transport use in particular declined quite dramatically for those who were the primary caregiver for their children. And there was a less pronounced change in travel behaviour for the non-primary care primary caregiver. And that typically fell along gender lines. So women were far more likely to be the primary caregiver and men were far more likely to be the secondary or non-primary caregiver. So caregiving status seemed to be quite a crucial factor in terms of determining the extent that public transport in particular declined.

**Laura McCarthy** [00:10:41] With that, another key factor was the pre-parenthood level of mobility. So those parents who owned a car, pre-parenthood, and that was the dominant form of travel pre-

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parenthood, their changes in terms of their travel behaviour post-parenthood, were less obvious. So primarily primary care giving status would be the crucial factor. and looking at their pre-parenthood mobility, whether they were from a car-owning household or not, was also very important.

**Laura Aston** [00:11:21] Well, could you tell us a bit about any of the changes you saw? And I guess this is going to vary depending on the mobility patterns before parenthood. But what were some of the changes that you saw?

**Laura McCarthy** [00:11:36] Absolutely. So in terms of mobility changes, some of the more, yeah as I sort of touched on before, one of most pronounced changes was amongst formerly carless households. So households who didn't own a car pre-parenthood, but purchased a car in anticipation of parenthood, as soon as that car was purchased their car use eventually went up and use of alternative modes went down. So most pronounced among the changes in travel behaviour, most pronounced amongst formerly carless households.

**Laura Aston** [00:12:18] Were there patterns associated with the particular pre-existing mobility patterns? And I think you're going to see trajectories in your research. Could you tell us a bit about those trajectories that you identified?

**Laura McCarthy** [00:12:35] Yeah. Yeah. So we identified five different groups of transport users, so-called trajectories, that would group survey respondents by their pre- and post-parenthood travel mode use. The largest group that emerged following that analysis was the "transit leavers". This was quite an interesting group that was the largest. The typical characteristics were that they were most likely to be the primary caregiver, female, employed part time. So though obviously a lot of constraints on their travel behaviour due to caregiving responsibilities and likely to have particularly complex travel and travel routines due to accommodating part time work alongside caring responsibilities. This group showed very high levels of car reliance. So we had some questions in the survey about the extent that they were reliant on the car for travel. And this group emerged as very car reliant. Some interesting things, though, about this group is that although they experienced a dramatic decline in their transport use -their public transport use - they actually had very positive attitudes towards transit. So there was a real disconnect there between the declining public transport use and their very favourable attitudes towards transit. So compared to some of the other groups who had less favourable attitudes towards public transport, it's quite an interesting contrast.

**Laura McCarthy** [00:14:07] The other interesting group to talk about is the "devoted cyclists". So both the transit leavers and the devoted cyclists had quite a dramatic change in their transport mode use following parenthood. The devoted cyclists were an interesting group. They were the smallest group, most likely to be male, employed full time and the non primary caregiver. They're also more likely to live in urban areas. And as the name suggests, they had quite high levels of cycling, both pre- and following parenthood. But one of the key features about this group, which is likely to have contributed to their significant mode use changes, is that they went from a formerly carless household to having at least one vehicle within their household. And so that's likely to have quite a significant influence on the overall travel behaviour. Despite that, though, they showed relatively consistent rates of cycling, which is interesting. So hence the "devoted cyclists".

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**Laura Aston** [00:15:12] And so overall, it seems that the move is towards car usage. And there were there were other groups, as well, that you identified, perhaps not as distinguished as the two that you've just mentioned. But was the overall pattern one of increased car usage?

**Laura McCarthy** [00:15:34] Yeah, absolutely. When we look at the overall data. There was a marked decline in public transport use and a marked increase in car use.

**Laura Aston** [00:15:43] What were the key factors that distinguish the groups from each other and perhaps which influenced those trajectories? Was it attitudes or was it - I think you've mentioned - caregiving. So what were the key ones that distinguish them?

**Laura McCarthy** [00:15:57] Yeah. So in terms of the key characteristics that influence the travel behaviour some of the key drivers were attitudinal. One of the groups who I haven't mentioned, the "transit faithfuls", who were sort of in many ways a mirror image to the "transit leavers", had very little change in their transport behaviour following parenthood. But some of the characteristics that they displayed kind of give an indication of why their driving behaviour didn't change. They were employed full time, primary caregivers. So although they've experienced this quite significant life change, in terms of their travel behaviour, it hasn't actually had that significant an impact. And that's likely, as I said before, the caregiving status and employment status are likely to be two key factors which have influenced the extent of the decline in public transport use and change in travel behaviour.

**Laura Aston** [00:16:59] Laura, you also mentioned attitudes. How did that impact the different groups, how did the attitudes of the different groups vary?

**Laura McCarthy** [00:17:09] Yeah, it's an interesting question. So with devoted cyclists, one of the key characteristics of this group is that they had very strong pro-environmental attitudes. Of all the groups they had scored most favourably on pro-environmental attitudes. And that's likely to be a major driver of their travel mode choices in comparison to some of the other groups who show very high car reliant attitudes. So, for example, we have one group called the "Consistent Drivers", and this group had very little change in their travel behaviour pre- and post-parenthood. They tended to live in outer urban areas, tended to be of low to middle income and have very, very high rates of car ownership. So I think part of the picture here is that the level of availability of the alternatives available to some of these groups.

**Laura Aston** [00:18:10] So you've painted a very complex and nuanced picture. But there was some very interesting trajectories in there. As you mentioned, those that persisted in their use of the bike, but also the public transport leavers who still had a positive attitude towards transit, but for whatever reason it seemed not to fit with their mobility needs. I'm wondering if there were any overall takeaways as to opportunities that this might present, that you might have uncovered, for reducing automobile-oriented mobility amongst youth parents?

**Laura McCarthy** [00:18:47] Yeah, that's a really good question. I think one of the main, one of the key findings from this is that they're not a homogenous group of people these new parents, I guess they all have very different constraints on their travel choices and and by segmenting these new parents into these different groups, it helps to unpack some of the constraints that they have to using alternate modes and also some of the ways in which it could help and encourage the use of alternate modes. So I think one of the main takeaways from this is just thinking, not thinking about new parents as a group of homogeneous transport users.

**Laura Aston** [00:19:23] Yeah, definitely.

**Laura McCarthy** [00:19:26] And I think reflecting on that each group is likely to have a range of different policy interventions which will be effective and will take into account the unique groups or their unique situation and constraints on their travel. I think some of the main ones, in terms of focussing resources, obviously it's travel behaviour. There's only a finite amount of resources in which to focus your activities. And so one of the takeaways from this survey was that actually thinking about which which of the groups are you likely to experience that behaviour change from? And so one aspect of the analysis categorised the groups of transport users and group them into it, their likelihood of switching to an alternate mode.

**Laura Aston** [00:20:19] Very pragmatic of you. That's seems like a great step to take. And you've pre-empted my last question to you, Laura, which was going to be what planners and policymakers can do to address the barriers, perhaps, to all the reasons for moving towards automobile-oriented mobility. So please continue on that line of thought.

**Laura McCarthy** [00:20:46] Yeah. I mean. Yeah. So I think they would need to be targeted to reflect the different constraints that different parents are going to have on their travel choices. In terms of where to focus resources, if you have two potential transport users and one has favourable attitudes towards public transport, then it's going to be considerably easier to convert them to public transport, use than someone who has unfavourable attitudes to public transport. So the transit leavers, the largest group actually, who because, likely because of their caregiving responsibilities and different constraints on their travel that parenthood has created, they nevertheless have these really strong, positive attitudes towards public transport. So focussing on that group.

**Laura Aston** [00:21:39] So it becomes it becomes an exercise in retaining users of the public transport system, which seems entirely pragmatic. And have you any ideas what an intervention might look like? That makes it easier for a new parent to continue to use public transport.

**Laura McCarthy** [00:21:57] Yes. In terms of policy interventions for public transport. I think some of the key ones are increasing of peak service frequency, reflecting that a lot of travel happens during the off peak with family, amongst families, with children. And getting back to the sort of theoretical framework that underpins the my PhD is the mobility biography's approach. And a key part of this is thinking about habit formation and how habits become disrupted during a period of changed and then go through a process of being reformed following that change. So we see parenthood can have a, you know, quite a significant impact on people's lives and their livelihoods in the way that they live their lifestyles. So it's a period of a lot of change. And so thinking about potential behaviour, interventions during that period can present, it can present opportunities in the sense that habits are likely to be weaker and so people may be more susceptible to thinking about behaviour change interventions. And so even providing information about alternatives to conventional car use and ownership when travelling with children.

**Laura Aston** [00:23:12] It sounds like you've identified an area to explore in more depth what kind of interventions might in fact create that kind of travel change or habit formation for new parents. Is that something that you're continuing to look at, Laura, with your ongoing research?

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**Laura McCarthy** [00:23:33] Yeah. Yeah, absolutely, I mean. So one of the other aspects that I'm looking at is habit formation and this is a really lively field.

**Laura Aston** [00:23:46] ...as we're sitting here conducting this interview remotely because of COVID-19, we have quite the the life event or the disruption to our habits, which probably plays into this theoretical framework. Is that correct?

**Laura McCarthy** [00:24:01] Exactly. Exactly. Yeah. Very much so. So a lot of work in this field has focussed on sort of more small scale events, moving house, changing jobs, new parenthood. But yeah thinking about those major disruptive events like COVID-19 and the massive disruption that has on people's travel and their livelihoods is really interesting and important area of research.

**Laura McCarthy** [00:24:34] Yes. So I think, obviously, that there's been examples of this type of change in the effect that it has on people's lives. So within the mobility biographies approach, as I said, the focus has been on those small scale events, and thinking about how such a disruptive event will impact people's lives, social practises, attitudes... The mobility biographies framework provides a really useful framework for thinking about those broader changes that will happen, that, in turn, will influence people's travel behaviour.

**Laura Aston** [00:25:12] OK, well, you've summed up nicely just how nuanced, it is, that as you say, new parents are not a homogenous group. And you've talked about factors such as their attitudes and their individual circumstances and constraints and how that plays into the direction that their travel choices go when their life is disrupted by parenthood. Or as, as you say, extrapolating that to what's going on at the moment, COVID-19, which has caused many people to be working from home. So I wish you all the all the best in exploring the interventions that might change people's behaviour and understanding what those, those nuances are.

**Laura Aston** [00:25:58] But thank you for sharing with us today, Laura. Really appreciate it.

**Laura McCarthy** [00:26:03] Thank you, Laura. Thanks for having me.

**Laura Aston** [00:26:12] You've been listening to Researching Transit, the public transport research podcast, researching transit was brought to you by the Monash University Public Transport Research Group. PTRG also run the World Transit Research Clearinghouse, a free database of all quality published research in the field. This can be accessed at [www.worldtransitresearch.info](http://www.worldtransitresearch.info). If you're enjoying our show, please leave us a review in whichever channel you listen to the show. We'd love to hear from you. Get in touch and stay up to date via Twitter or Instagram using the handle @transitpodcast. Thanks for listening.