Title: The role of transport in how we choose where to live: A qualitative investigation of residential location choice in the Phoenix, AZ region

Principal Investigator: Deborah Salon, Assistant Professor, School of Geographical Sciences and Urban Planning, Arizona State University

1. Introduction/Problem Statement
There is an enormous literature on how people make daily travel choices – where to go and why, which transport mode to use, when to make their trips, and which route to take. One finding from this literature is that travel choices depend – at least in part – on where people live (Ewing & Cervero, 2010; Salon et al., 2012).

In fact, travel options are critically constrained by where people live. If a person lives in a rural setting, the only useful option to access stores and services is likely to be a private vehicle of some kind – public transit is likely not available, and walking and biking are too slow. If a person lives in a city center, on the other hand, they can access most things without a private vehicle. Understanding how people make their choices about home location, therefore, is critical for understanding how they travel.

There is a large literature on the role of neighborhood “self selection” in models of transport choices (e.g. Ettema & Nieuwenhuis, 2017; Gehrke, Currans, & Clifton, 2018; Salon, 2009; Schwanen & Mokhtarian, 2005). Scholars here generally simplify the home choice to be only a choice of neighborhood – or even the choice of a type of neighborhood – and focus on the question of the extent to which people’s transport preferences play a role in their choice of where to live. Survey data-based quantitative models of neighborhood choice – often joint with transport choices – dominate this literature. A consensus of sorts has been reached which points to some degree of neighborhood “self-selection”, but which also suggests that a sizable fraction of households end up choosing to live in neighborhoods that are not “consonant” with their transport preferences.

We posit that understanding why this might be true requires taking a qualitative approach, delving into the complete home choice stories of recent homebuyers. The homebuyer’s choice is an especially complex one made in diverse ways by different households, and this diversity is difficult to capture in a quantitative modeling context. This literature includes relatively few studies of the home choice process that use in-depth interviews as evidence (two examples are Chatman, 2009; Senior et al., 2004). Thus, this project will contribute to the literature with a qualitative, interview-based study of how home buyers choose their homes, and the role of transportation factors in that choice.

2. Project Objectives
The main objective of this project is to improve our understanding about how people choose where to live by asking households directly about how they made their choices. We are interested in how the overall choice of home is made, but especially interested in the role that transportation preferences play in that
choice. The objective is open-ended because there have been surprisingly few qualitative, interview-based studies on this topic.

3. Proposed Methodology and Data
The methodology to be used in this project is in-depth household interviews, which will be recorded and transcribed, and then analyzed to identify key patterns and insights. These transcripts, together with other information that the research team will put together about each interviewee’s home and neighborhood context (e.g. home price, square footage, neighborhood walkscore, local school quality index), will form the data to be analyzed.

The interviews will be conducted in participants’ homes using a semi-structured format, where a series of questions is created to be used consistently in all interviews, but the actual conversation is purposely meant to feel as natural as possible, and follow-up questions may differ between households depending on what each interviewee actually says. We will focus on recent homebuyers because these households will have spent a sizable amount of time and mental energy making their decisions, and will easily be able to recall and explain them.

Because this project is mainly formulated as an undergraduate honors thesis (relatively little TOMNET funding is actually allocated to this project), we will obtain our sample of households to interview through an initial convenience sample of people that we know who have recently purchased homes. Then, we will use a snowball sampling and informal advertising approach to (hopefully) reach recent homebuyers who are not direct contacts of the research team.

To analyze and report on the interview data, we will use a combination of qualitative coding for key questions, and pulling out key insights using direct quotes from interviewees to illustrate findings.

4. Work Plan (Project Tasks)
Task 1: Interview questionnaire preparation and IRB review
Because this work involves human subjects, the first step in the research will be to obtain approval for the interviews from ASU’s Institutional Review Board. To obtain this approval, we will write a human subjects protocol document, attach a draft of our semi-structured questionnaire, and draft participant consent language. This was completed in early 2018, before the timeline for this TOMNET project began.

Task 2: Interviews
The interviews themselves will each last about an hour, and it will take some time to identify participants and find a convenient time to hold the interviews. The research team will travel to the participants’ homes to conduct the interviews in person, and they will be audio-recorded to allow for subsequent transcription.

Task 3: Interview transcription
After the interviews are complete, we will use the online automatic transcription service Trint to do a first cut at transcribing the audio recordings. Trint is specifically programmed to identify when different people are talking, and break up the automatic transcription by speaker. This is important when transcribing interviews, which is why we chose this service. The research team will also manually fix errors in the Trint transcriptions.

Task 4: Collect supplementary data
As described above, we will add supplementary data about the homes and neighborhoods where the research participants chose to buy. These data will be drawn from a combination of real estate websites such as Zillow, the US Census, and additional sources of neighborhood data such as Great Schools and WalkScore.

Task 5: Data interpretation and analysis
The data to be collected in this project is largely qualitative interview data, and the sample size is not
expected to be large (our plan is to conduct approximately 15 interviews). We plan to interpret these data using qualitative interview coding techniques.

**Task 6: Write report**
We will write a complete report detailing our project research and findings, with the plan to submit the research for peer-reviewed publication.

5. **Project Schedule**

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<th>Task</th>
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6. **Relevance to the Center Theme/Mission**
This project is directly relevant to the TOMNET Center mission. We will be looking specifically at the attitudes and preferences that determine home location choices, which is an important determinant of the transportation options that people have to choose from for their daily travel.

7. **Anticipated Outcomes and Deliverables**
We anticipate that this research will produce new qualitative insights regarding the complexities and diversity in how people make residential location choices. We hope that these insights can be used to improve future quantitative models of travel behavior that incorporate home location choice in a meaningful way.

Our main deliverables will be written accounts of our work and results, as well as public presentations of the work.

8. **Research Team and Management Plan**
The research team for this project will include Elyse Kats and Deborah Salon. Kats is in the last year of her undergraduate studies at ASU, and will be doing this work as her Honors thesis project. Salon is both a faculty member in the School and Associate Director of TOMNET.

Salon and Kats will meet regularly to ensure timely delivery of the project.
9. Technology Transfer Plan
We expect this project will result in at least one peer-reviewed journal article. If funds permit, this article will be published as open access and/or deposited into the ASU Digital Repository (https://repository.asu.edu) to facilitate application and reuse outside of the academic realm.

In addition, Kats will present the work in an ASU Honors thesis poster session, and together Kats and Salon will present results at both national conferences and in a TOMNET webinar that will be open to the public.

10. Workforce Development and Outreach Plan
One of the main team members on this project will be Kats, who is an undergraduate student and will (hopefully) learn and grow tremendously from this research experience.

We will present findings at major transportation and geography conferences, as well as through a public TOMNET webinar (as specified above).

11. References


12. Budget Including Non-Federal Matching Funds

**Institution:** Arizona State University

**Project Title:** The impact of non-transportation attitudes, preferences, and personality characteristics on residential location and travel choices
## Principal Investigator: Deborah Salon

**Budget Period: 8/1/2018 - 07/31/2019**

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DEBORAH SALON, Ph.D.
Assistant Professor, School of Geographical Sciences and Urban Planning,
Arizona State University, Tempe, AZ 85287-3005. Ph: (480) 965-7475; Email:
deborah.salon@asu.edu

EDUCATION
- University of California at Davis, Davis, CA, USA
  - Ph.D., Agricultural and Resource Economics, May 2006
- Carleton College, Northfield, MN
  - B.A., Physics, June 1994

PROFESSIONAL EXPERIENCE
- Arizona State University
  - Assistant Professor, School of Geographical Sciences and Urban Planning, 2014-present
  - Graduate Faculty, School of Sustainability, 2016-present
  - Senior Sustainability Scientist, Global Institute of Sustainability, 2014-present
- University of California, Davis, Institute of Transportation Studies
  - Professional Researcher, 2008-2014
- The Earth Institute at Columbia University
  - Post-Doctoral Fellow, 2006-2008

RELEVANT REFEREED PUBLICATIONS (Total: 21 Refereed Publications)

RELEVANT RESEARCH PROJECTS (Total Sponsored Research: ~ $700,000)
- A Spatial Analysis of Housing and Transportation Affordability in Los Angeles County, University of California Transportation Center, 2012-2015
- Quantifying the effect of local government actions on VMT, California Air Resources Board, 2010-2014

JOURNAL EDITORIAL ACTIVITIES
- Co-Editor of Special Issue, Research in Transportation Economics (Elsevier), 2015
- Editorial Board, Journal of Transportation Geography (Elsevier), 2016-present
- Editorial Board, Transportation Research Part D (Elsevier), 2017-present

EDUCATION AND STUDENT ADVISING
- Thesis/Dissertation Major Advisor/Chair: 1 PhD student in progress; 4 MS (Thesis) students completed
- Thesis/Dissertation Committee Member: 3 PhD students completed, 2 PhD students in progress; 5 MS (Thesis) students completed
## Exhibit F

<table>
<thead>
<tr>
<th>UTC Project Information</th>
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<tbody>
<tr>
<td><strong>Project Title</strong></td>
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<td><strong>University</strong></td>
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<td><strong>Principal Investigator</strong></td>
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<td><strong>PI Contact Information</strong></td>
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| **Funding Source(s) and Amounts Provided (by each agency or organization)** | TOMNET: $3,140  
ASU, SGSUP: $16,920  |
| **Total Project Cost**                                      | $20,060                                                    |
| **Agency ID or Contract Number**                            |                                                            |
| **Start and End Dates**                                     | 8/1/2018-7/31/2019                                         |
| **Brief Description of Research Project**                   | In the literature on the relationship between transportation and land use, one of the key questions is that of residential self selection. How much does the transportation environment affect households’ choices about where to live? This research is an interview-based project that focuses on the household choice of where to live, with the goal to gain a more complete understanding of the role of transport in this choice. |
| **Describe Implementation of Research Outcomes (or why not implemented)** | TBD                                                        |
| **Impacts/Benefits of Implementation (actual, not anticipated)** | TBD                                                        |
| **Web Links**                                               |                                                            |
| • Reports                                                   |                                                            |
| • Project Website                                           |                                                            |