

Communicating
Research Through
Comics: A Case Study
in Transportation &
Land Use Planning



Kelly J. Clifton

Transportation & Land Development Research

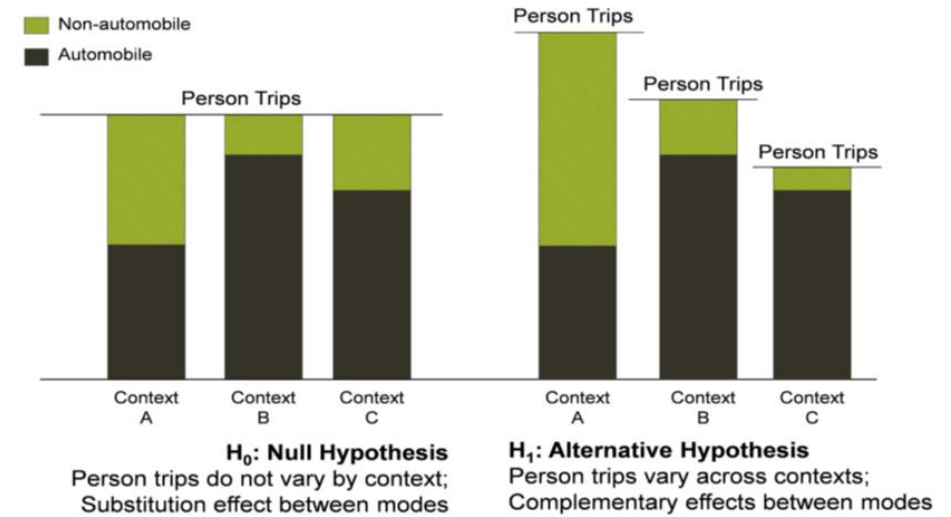
Critique of ITE Trip Generation & Transportation Impact Studies

Importance of social and environmental context

Showed that non-auto users are important to businesses

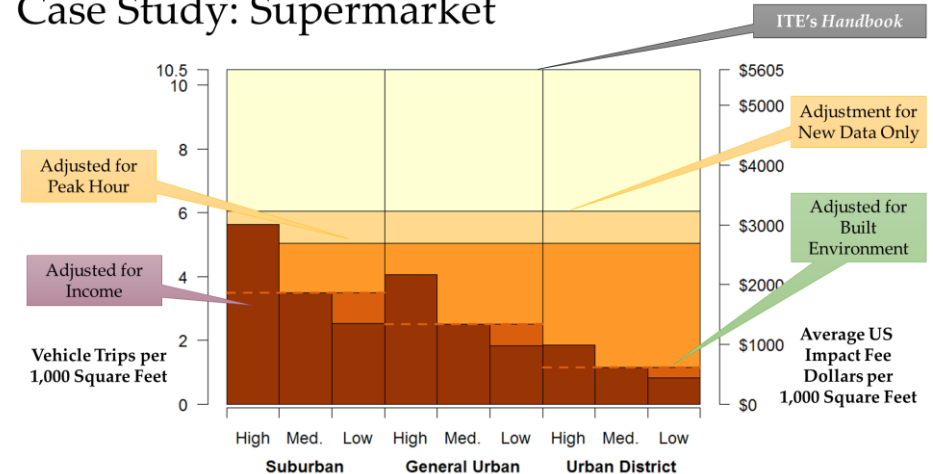
Examined trip generation, parking, & VMT

Developed a Person Trip Approach



Clifton, Kelly J.; Currans, Kristina M.; Muhs, Christopher D. (2015). Adjusting ITE's Trip Generation Handbook for urban context. *Journal of Transport and Land Use*. Volume 8, No. 1, pp 5-29.

Case Study: Supermarket



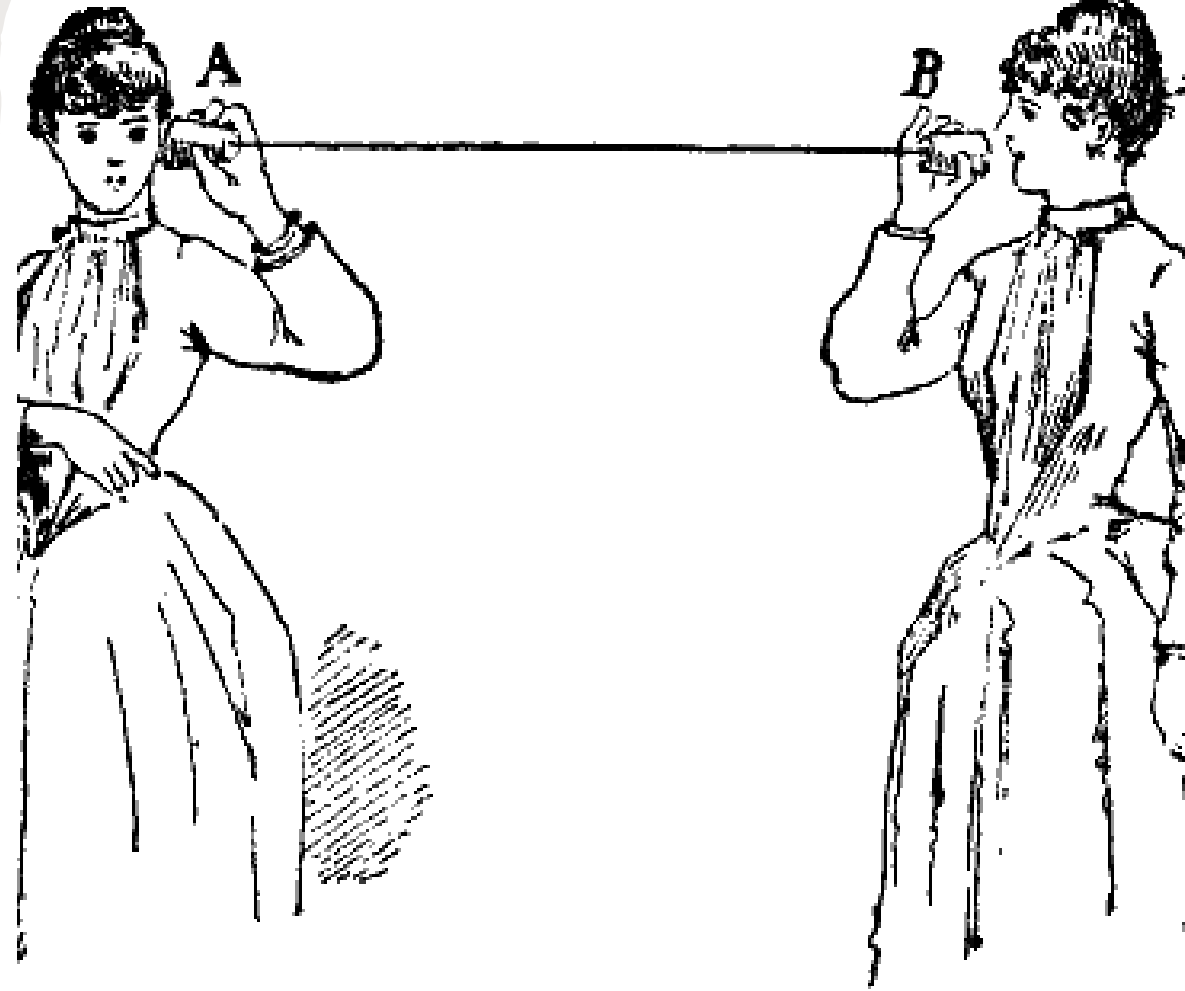
Practice has been slow to change

- Many still use the traditional development review processes that use these data and methods to privilege the automobile.
- NIMBYs (not-in-my-backyards) have blocked development of multifamily and affordable housing, citing increased traffic congestion.
- These claims are often erroneously supported by these antiquated, automobile centric approaches
- The findings from our research and others need to be more widely communicated to broaden understanding of the problem and policy solutions.



Communicating Research

- Current challenges require urgent (and drastic) changes in behavior
- Public is losing faith in universities and experts
- Researchers often only communicate to each other
- Better outcomes require an informed public to participate
- Comics can help!

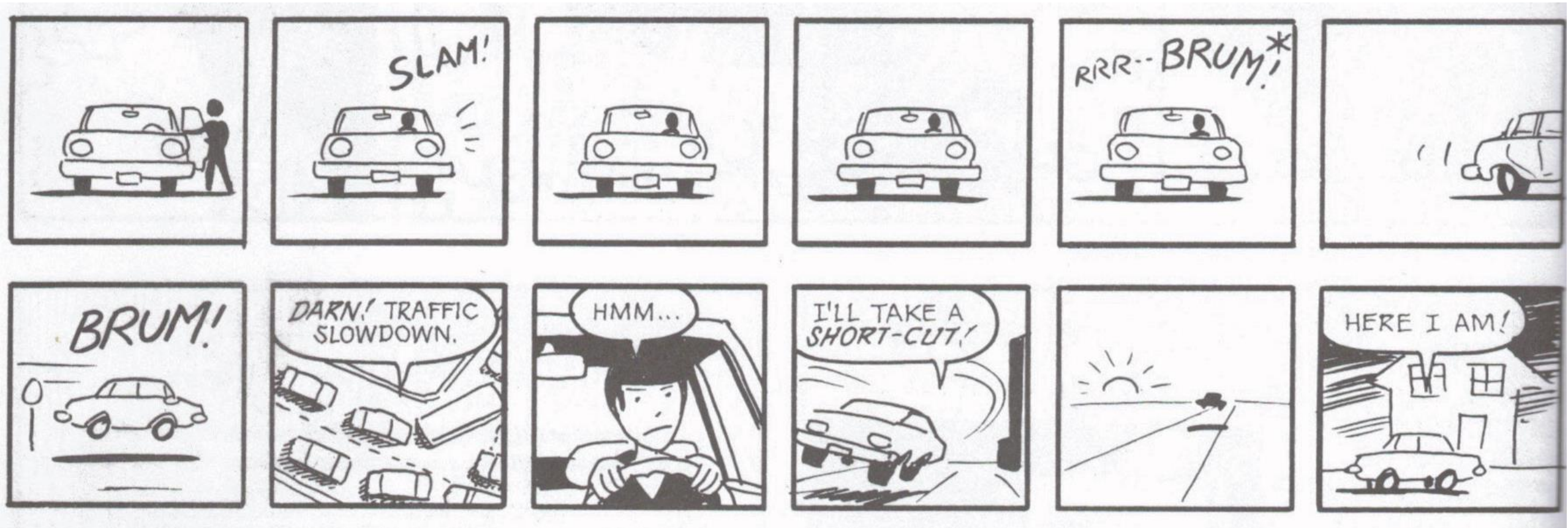




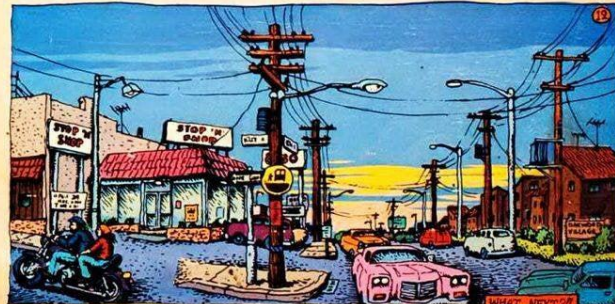
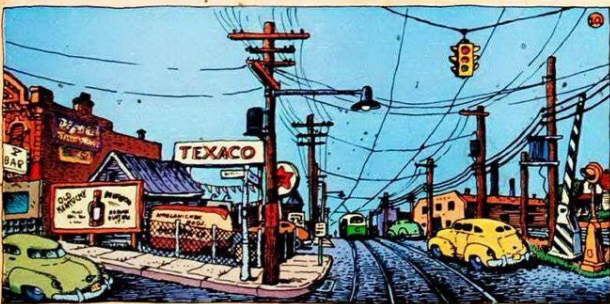
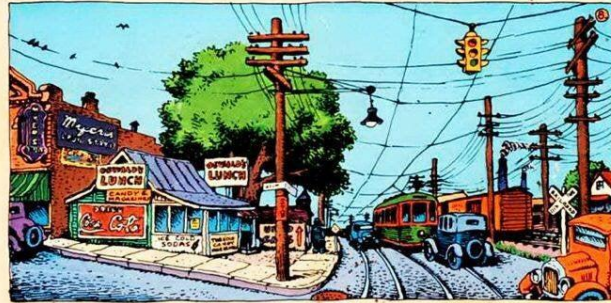
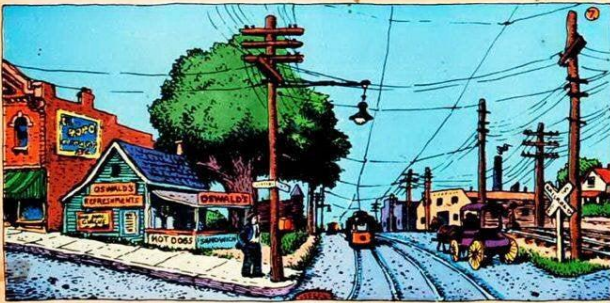
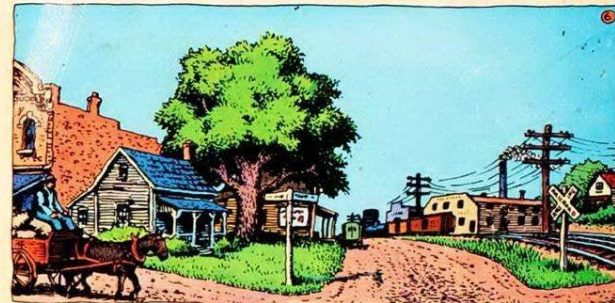
Images Can Help Explain Complex Ideas

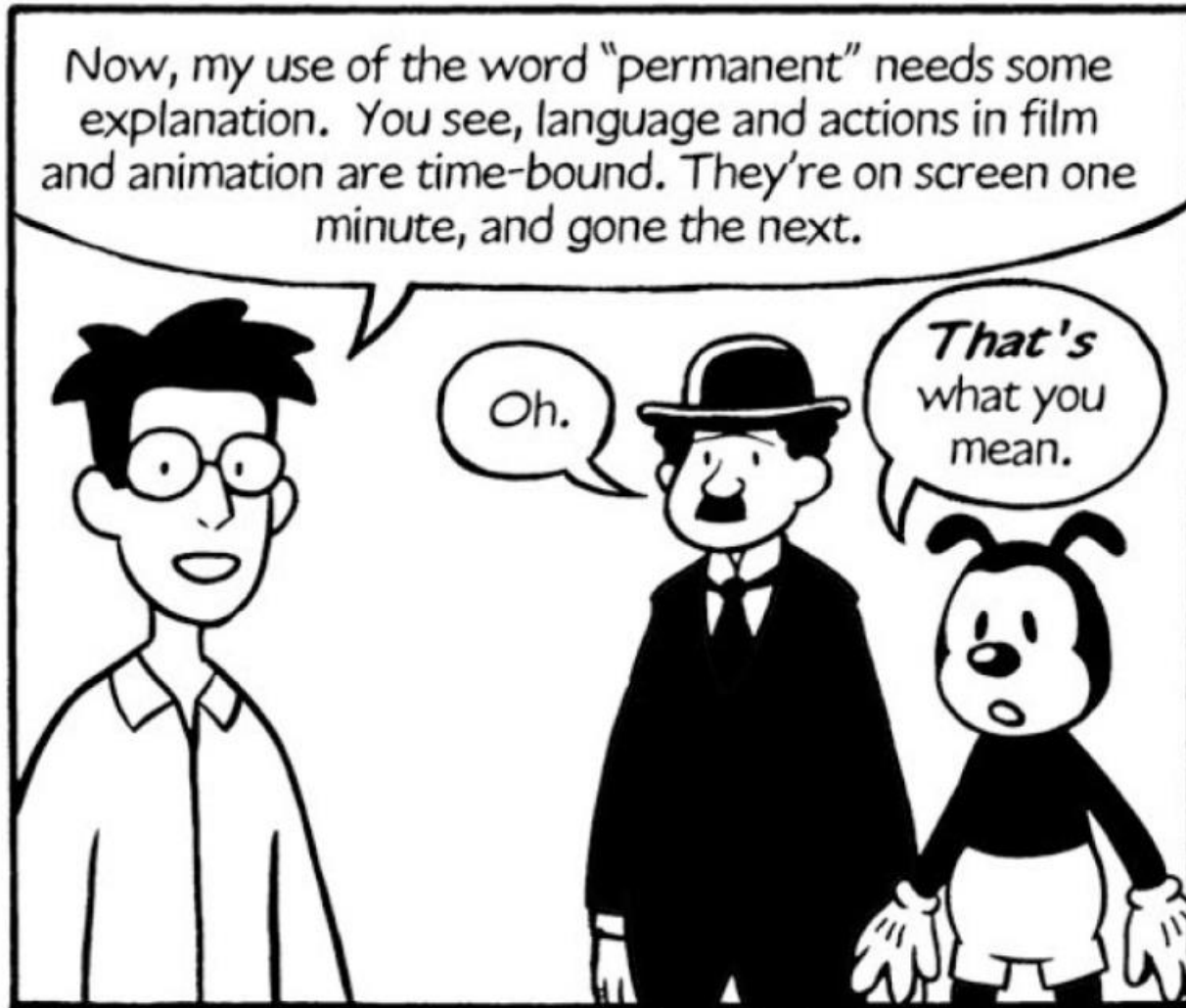


Sequencing Promotes Understanding



A SHORT HISTORY OF AMERICA
— by R. CRUMB





From: Gene Yang. 2008. Graphic Novels in the Classroom, an Essay in Panels. *Language Arts*, Jan 2008; 185-192.

Comics are Permanent

- The pace of information transfer is determined by the reader
- Unlike classroom lectures or film, where the medium dictates the speed of viewing
- Books are also permanent (but without the visual)

Looking for ways to make these goals a reality? Check out the MetroCommon 2050 recommendations at <https://metrocommon.mapc.org/> for actionable steps!

Let's shape our region together!



MetroCommon is Greater Boston's new policy and land use plan. For more information, please visit MetroCommon.mapc.org. For information about the Metropolitan Area Planning Council, please visit MAPC.org.

A Mechanism for Promoting Diversity & Inclusion

- Can have better representation of people
- Demonstrate people engaging in activities or using various modes of transportation
- Visualize different environments or contexts
- More easily translate to other languages



*Kelly Clifton, Prof.
Civil & Env. Engineer.
Portland State U.*



*Kristina Currans, Assist. Prof.
Planning
U. of Arizona*

We've been researching transportation and land use for a *long* time. We've got a lot to say, but where do we start?

Here to help! I have collaborated with lots of researchers to help communicate their work with nonfiction comics.

As a storyteller, I'm all about the narrative. How can we make this compelling and understandable to a wide audience?

Hi, I'm going to bring these ideas to life with great illustrations!



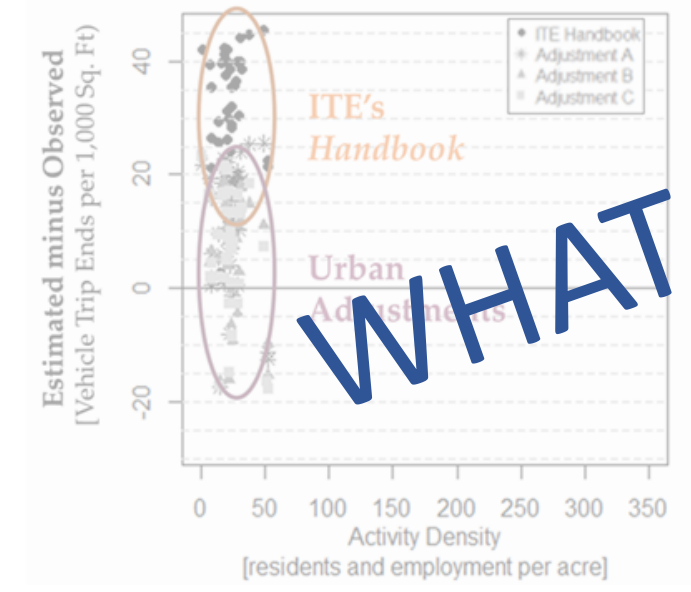
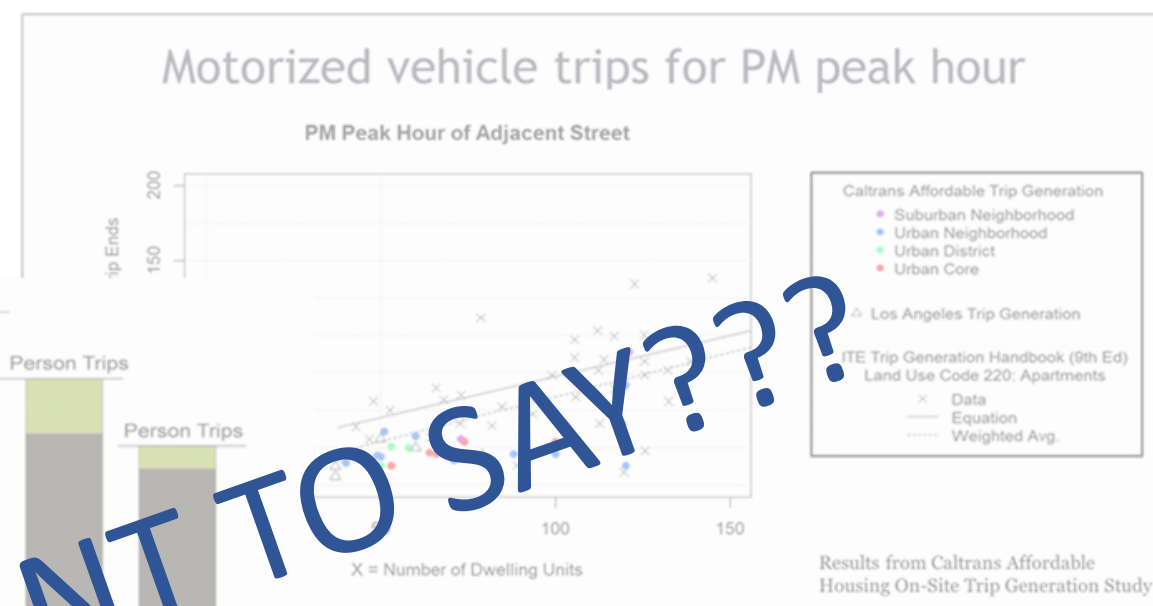
*Susan Kirtley, Prof.
Dir. Of Comic Studies
Portland State U.*



*Ryan Alexander-Tanner, Comic Artist/Illustrator
<https://www.ohyesverynice.com/>*



*Joaquin Golez, Grad. Student
Art 11
Portland State U.*

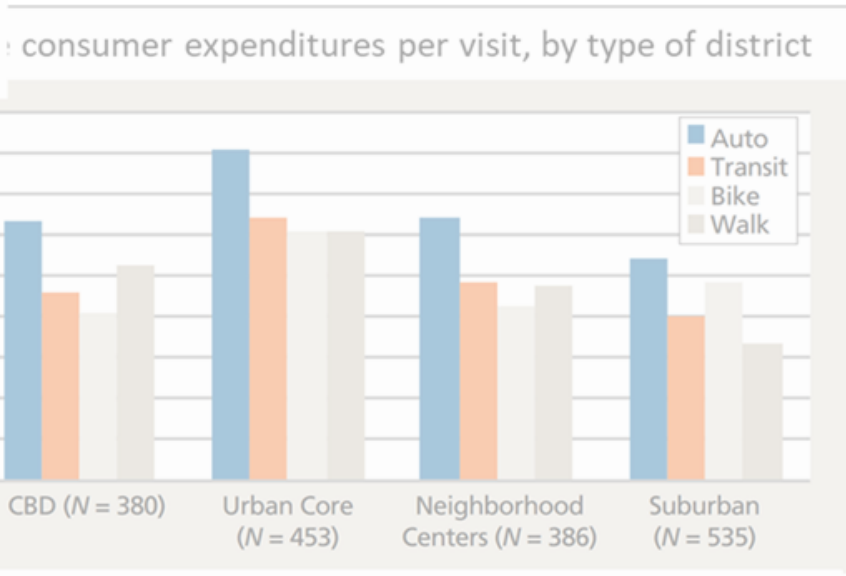
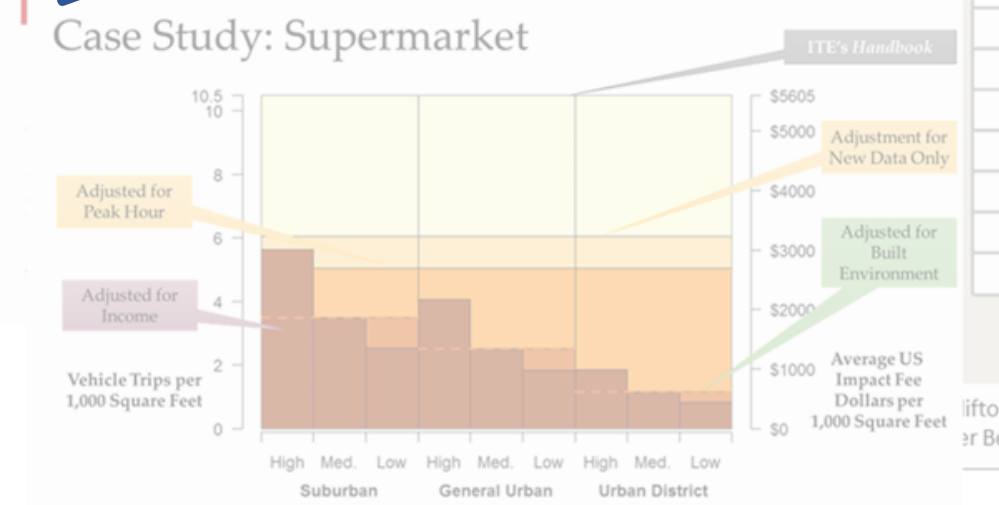


DO WE WANT TO SAY???

H₀: Null Hypothesis
Person trips do not vary by context; Substitution effect between modes

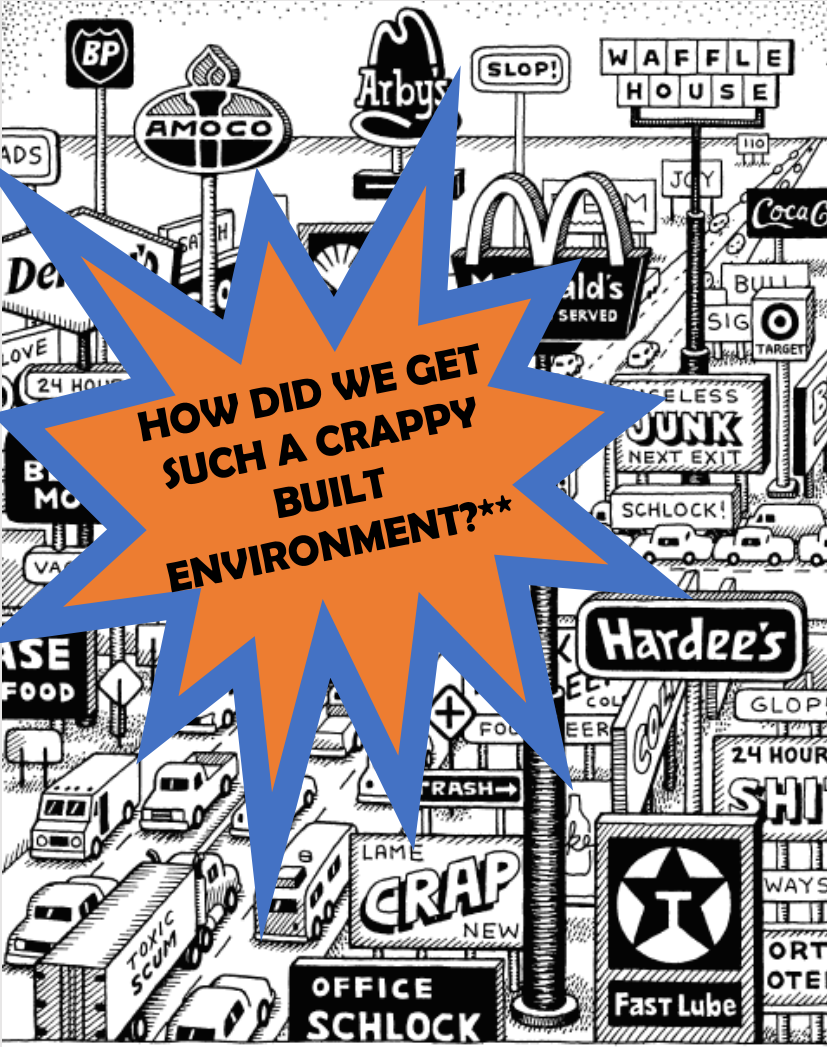
H₁: Alternative Hypothesis
Person trips vary across contexts; Complementary effects between modes

Curran, Kristina M.; Muhs, Christopher D. (2015). Adjusting ITE's Trip Generation



Clifton, Sara Morrissey and Chloe Ritter. "Exploring the Relationship Between Behavior and Mode Choice" TR NEWS 280 May-June 2012, p. 29.

IT'S ALL ABOUT
THE CAR
A HISTORY



**Title subject to change



**HOW DO WE GET
THERE FROM
HERE?**
TRANSPORTATION
STORIES

IT'S ALL ABOUT THE CAR

- p1: Invention of the car, establish what the landscape looks like at that time
- p2: Roughly 1900-WWII era, how car impacts land development
- p3: Methods to plan for automobility developed, including ITE's Trip Generation and TIAs
- p4: Site planning with tools
- p5: Expose the flaws in this process. What isn't working and why?
- p6: What can we do to fix this?

HOW DID WE GET SUCH A CRAPPY BUILT ENVIRONMENT?

- p1: At the site level, many aspects are not amenable to walking, cycling, or taking transit
- p2: Critique of automobile-oriented development
- P3-4: Discuss the planning processes (TIAs), requirements/policies, and methods/data (Trip Gen, LOS) that contribute to this
- P5-6: Present alternative ways of thinking that focus on people first

HOW DO WE GET THERE FROM HERE?

- p1: Introduce 4 perspectives on a new multifamily housing building
- p2: Present various features of this building that are attempts to address automobile dependency, equity, and environment
- P3-4: The 4 people talk about what they like and what works, but where it still falls short of meeting its goals
- p5: Changes are a move in the right direction but will take time. What to do in the meantime?
- p6: How can people become more involved in the process, advocating for what they want but also opening to other points of view?

How do we tell this story? What is the point of each panel?

Page 1, Panel 1

Question—Who is speaking? Is this from Kelly or Kristi's point of view or an unnamed narrator? Who is this I? Or do we go with third person? It feels a bit weird to me to have an "I" that isn't a character we identify. If we maintain final sequence on page 7 as a conversation between Kelly and Kristi, I think we need to introduce them somehow.

Possible narrative text:

I've been stranded at this intersection for what feels like forever with no safe or easy way to cross. Cars honk and move in all directions, a constant stream of dangerous chaos. I wait, lost and invisible, wondering...What happened to **people**? Why is it **all about cars**?

(This could easily be rewritten in third person, such as "The lone pedestrian waits, stranded at the intersection..." or even "Kelly waits, stranded..."

Page 1, Panel 2

Narrative text: Cars, invented in 1886, were initially playthings for the rich. In 1900, there were only 8,000 operating in the entire US.

Page 2, Panel 3

Narrative text: Launched in 1908, the Model T made cars more affordable for the average American.

Page 2, Panel 4

Narrative text: Cars quickly skyrocketed in popularity and by 1920 there were 8 million cars on the roads. Traffic overwhelmed the streets.



ARTICLE # / PAGE #



Testing and Validation: Technical Advisory Committee

Faculty and Practitioners

Compensated with a print comic

Questions:

- Are we technically accurate?
- Are we communicating the essentials?
- Is it clear and easy to understand?
- Did they enjoy it?

Testing and Validation: Community Advisory Committee

Portland, OR and Tucson, AZ
Compensated for their time

Questions:

- Does it make sense?
- Is the language (English & Spanish) free of jargon & easy to understand?
- Do they see themselves in the story?
- Did they enjoy it?



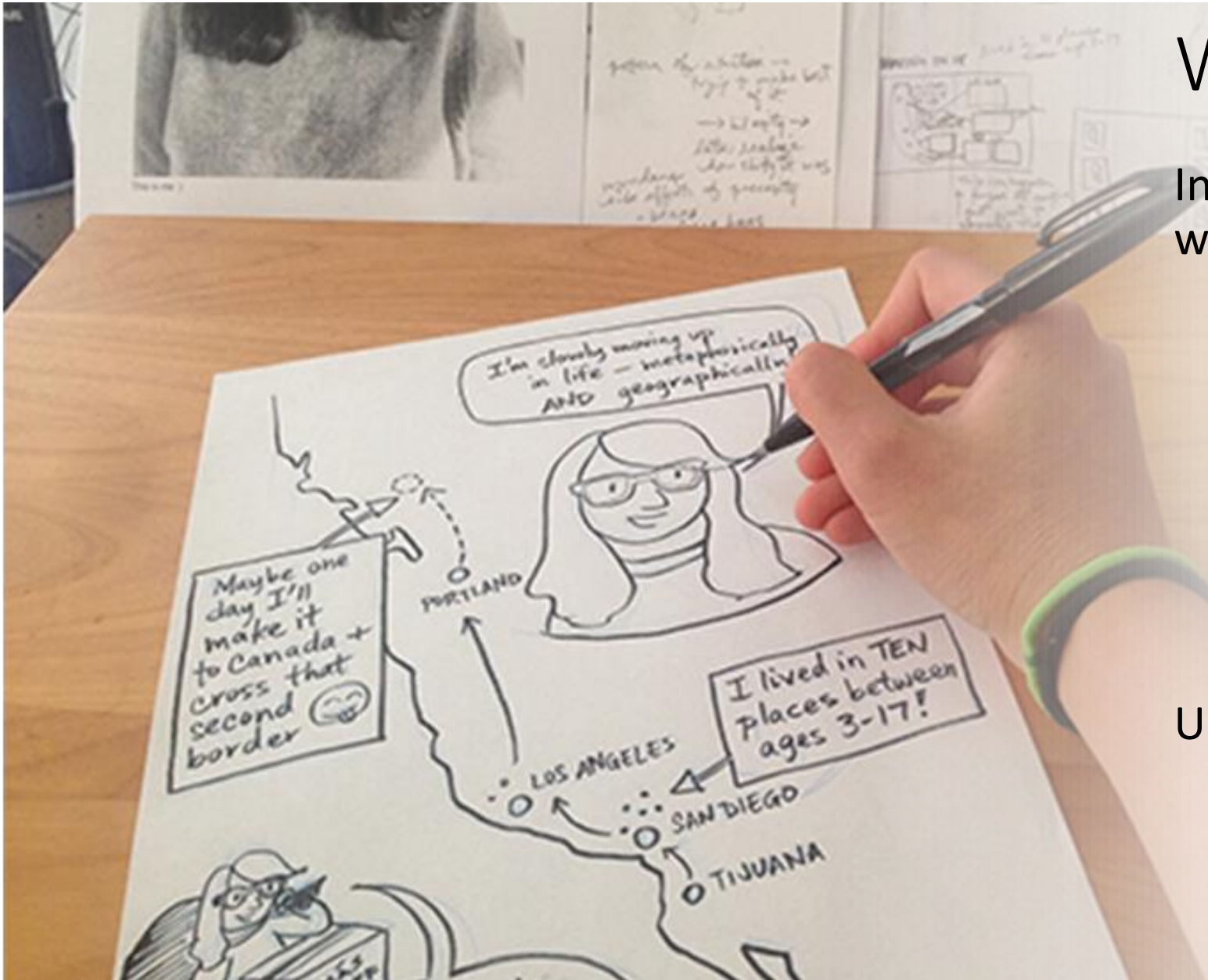
Workshop and Course

In Fall 2022, we will host a one-day workshop

- Involve students and faculty
- Comics as a communication & engagement tool
- “Changing the Narrative Around Student Homelessness through Collaborative Comics”, Kacy McKinney

Undergraduate and graduate course

- Interdisciplinary
- Comic studies + Urban studies & Planning



Some Things I Have Learned

We academics communicate with nuance, complexity, caveats, and....confusion!

I know what you are thinking... "you are just learning this now???"



Distilling our research into a few points is hard.

But, storytelling makes our work more compelling.

And, images and dialogue are a way to have nuance, complexity, caveats.



Some Things I Have Learned

Interdisciplinary work is
challenging....

....but rewarding

This couldn't be completed if any
member of the team was not
included.



Some Things I Have Learned

I'm hooked!

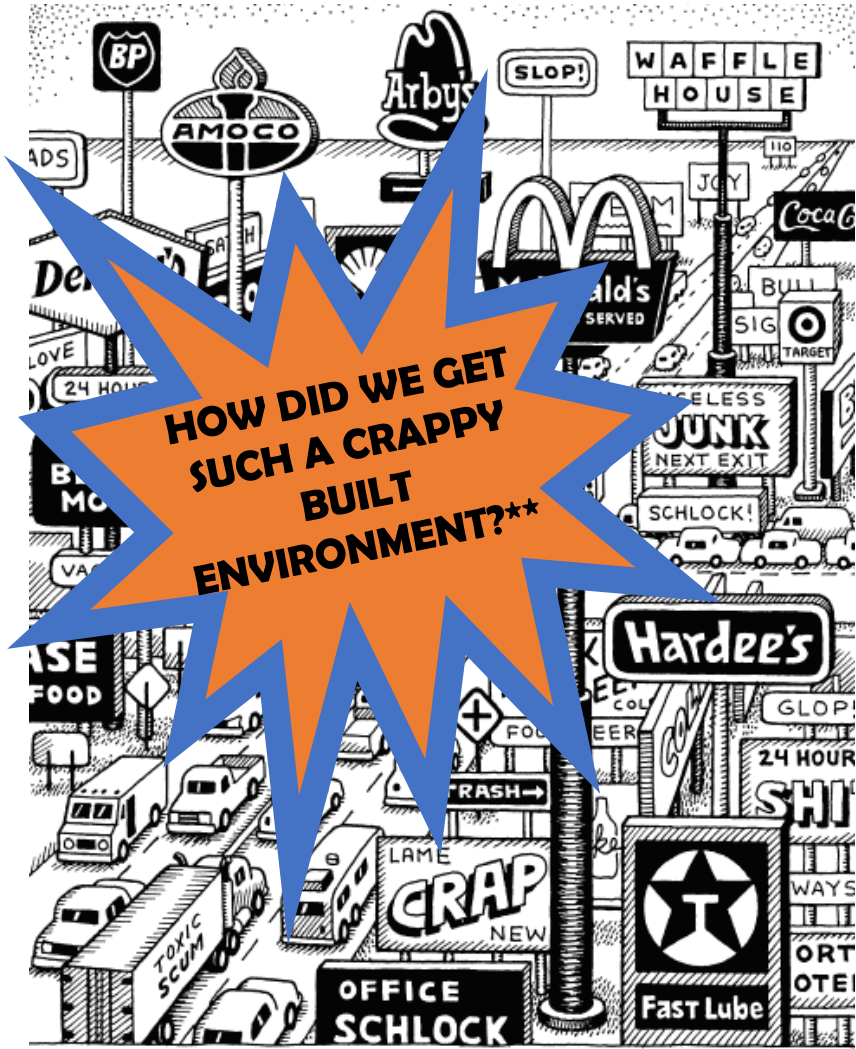
Let's Collaborate!



IT'S ALL ABOUT
THE CAR
A HISTORY



COMING FALL 2022



**Title subject to change



**HOW DO WE GET
THERE FROM
HERE?**
TRANSPORTATION
STORIES