



Caltrans Division of Research,  
Innovation and System Information

# Research

# Notes

Planning, Policy  
and  
Programming

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Project Title:  
Transit Oriented Development and  
Commercial Gentrification: Exploring  
the Linkages

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## Transit Oriented Development and Commercial Gentrification

Examining the impacts of TOD investments on commercial  
gentrification, transit ridership and pedestrian/cyclist accidents

### WHAT IS THE NEED?

Rather than accomplishing the goal of reducing auto trips and corresponding greenhouse gas (GHG) emissions, affordable housing advocates argue that the gentrification and displacement associated with transit oriented development (TOD) investments could in fact result in more automobile trips, longer distances, and greater emissions of GHG. Commercial districts play a key role not only in the attainment of walkability and livability goals of TODs, but also in the State's quest to reduce automobile trips and GHG emissions. However, research is emerging that highlights the links between residential gentrification and the decline in some areas of small, ethnically-owned businesses, as the rising land values and subsequent rents associated with TOD could drive out locally serving enterprises.

Additionally, the economic development associated with commercial TOD districts could have significant consequences on pedestrian and cyclist safety. Gentrifying commercial districts may attract automobiles, which are heavily utilized for shopping trips, and a large percentage of automobile-pedestrian collisions occur in areas of higher residential and employment density, as increased foot traffic means increased exposure to automobile traffic.

### WHAT ARE WE DOING?

This research aims to fill some of the research gaps by investigating the following questions:

- Where is commercial gentrification occurring in relation to rail TODs?
- What are the social-demographic, land use, and urban form characteristics of rail TODs associated with commercial gentrification?



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- Is commercial gentrification associated with TOD investments resulting in more or less reliance on rail transit?
- Is commercial gentrification resulting in more or less pedestrian-/cyclist-automobile crashes in rail TOD neighborhoods?

This project will extend the researchers' understanding of gentrification and displacement into the commercial realm by conducting both a macro- and a micro-analysis. The macro-analysis will extend on their existing multi-level databases for the Bay Area and Los Angeles County that include parcel- and neighborhood-level data on commercial establishments, real estate transactions, demographics, housing affordability, rail transit stations, joint development, and other indicators, with a new, more detailed analysis of retail change including business dynamics such as relocation and closure. They will then link this information to rail transit ridership data to access the corresponding impact of commercial change on transit trips. Additional data on pedestrian and bicycle crashes will be analyzed to understand the links between commercial gentrification and pedestrian/cyclist safety. From these analyses, the researchers will identify four case study TOD neighborhoods to conduct quantitative and qualitative research on commercial change and its impact on travel patterns, economic development, and pedestrian/cyclist crashes to better understand these relationships.

### WHAT IS OUR GOAL?

Through quantitative and qualitative analysis, the researchers expect to acquire a better understanding of the factors that may lead to commercial gentrification in some TOD areas, and how this change impacts existing businesses, as well as neighborhood travel patterns and traffic safety. The modeling and case studies will shed light on these relationships, revealing where TOD investments and associated commercial change may lead to increased or decreased transit use and non-motorized travel. The analysis will aid policymakers, transportation planners and urban designers to better understand these relationships and promote design and policy interventions to address the negative effects of TODs.

### WHAT IS THE BENEFIT?

This research will help to address the growing interest from local planners and policymakers about these issues, as TODs are hoped to not only contribute to the next iteration of each region's Sustainable Community Strategies, but also to their local economic development and neighborhood revitalization. The researchers plan to present their results to local and regional governments and transportation agencies in the Bay Area and Los Angeles, as well as to staff and decision-makers in the California state government, such as in webinar or workshop format, including training on the use of the early warning toolkit for commercial gentrification developed through this project.

### WHAT IS THE PROGRESS TO DATE?

This Task Order was given Notice to Proceed on May 3, 2016, and has thus just recently begun. In the first task of this study, the research team will conduct a literature review and develop quantitative indicators of commercial gentrification using a mix of types of businesses in an area (local vs. regional businesses; service and retail vs. other businesses), ownership patterns (minority-owned businesses, woman-owned businesses, etc.), and number of employees at individual business establishments. This task will also focus on developing ways to analyze the number of businesses that move, go out of business, and are 'born' in certain areas.

The next steps for the project include modeling the relationship between TODs and commercial gentrification to analyze the effects that rail and TODs have on retail areas; analyzing the travel impacts of commercial gentrification by looking at ridership numbers for transit and other transportation modes around TODs; analyzing the safety impacts of commercial gentrification by looking at bicycle, pedestrian, and automobile collisions around TODs; and conducting four in-depth case studies (two in the Bay Area and two in Los Angeles) involving site visits, traffic counts, and urban observation.