

# Preserving and Promoting Diverse Transit-Oriented Neighborhoods

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**Center for Transit Oriented Development:**

A collaboration of the Center for Neighborhood Technology,  
Reconnecting America, and Strategic Economics

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# About this Report

## ACKNOWLEDGEMENTS

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The team responsible for authoring this report comes from three organizations: the Center for Neighborhood Technology (CNT), Reconnecting America and Strategic Economics. Together, these three partners comprise the Center for Transit-Oriented Development (CTOD). CTOD was launched in 2003 to help bring transit-oriented development (TOD) to scale as a nationally recognized real estate product. The CTOD is working with transit agencies, developers, investors

## **Center for Neighborhood Technology**

The Center for Neighborhood Technology (CNT) was founded in 1978 to research, adapt and test new community revitalization strategies relevant to urban communities, especially strategies that harnessed the environmental and economic value of more efficient use of natural resources. Over the years, CNT has worked to disclose the hidden assets of the Chicagoland economy and urban areas more broadly, demonstrate the multi-bottom line benefits of more resource-efficient policies and practices and show how that value could be captured to benefit communities and all their residents. CNT's work, especially in the areas of energy, transportation, materials conservation and housing preservation, helped fuel a generation of community development institutions and learning, garnering the organization a reputation as an economic innovator and leader in the field of creative sustainable development.

Today, CNT serves as the umbrella for a number of projects and affiliate organizations, all of which help to fulfill its mission to promote the development of more livable and sustainable urban communities. CNT's transportation work, out of which this report grew, is focused on using transportation assets to serve both the environmental and economic development goals of regions and communities. CNT works to boost demand for clean, efficient and affordable mass transit; increase the supply of traditional and non-traditional mass transit services; disclose the linkages between transportation costs and housing affordability; create model value-capture mechanisms that take advantage of the intersection of efficient transportation networks with community economic development programs; and promote policy initiatives that increase public participation in investment decisions and make more resources available for sustainable investments.

More information about CNT is available at [www.cnt.org](http://www.cnt.org).

## **Reconnecting America**

Reconnecting America is a national non-profit organization formed to link transportation networks and the communities they serve. The organization, which has grown out of the work of the Great American Station Foundation, defines its mission as working toward removing the barriers that prevent different transportation modes — planes, trains, autos and buses, as well as walking and bicycling — from functioning as one convenient interconnected network. Reconnecting America also focuses on reinventing the planning and delivery system for building regions and communities around transit and walking, rather than solely around the automobile. Toward this end, Reconnecting America has undertaken two programs:

- Reconnecting America's Transportation Networks, which seeks to link the nation's separate aviation, rail and intercity bus systems into an integrated network in order to improve economic productivity, enhance consumer choice and value and improve environmental performance and energy efficiency.
- The Center for Transit-Oriented Development, which seeks to use transit investments to spur a new wave of development that improves housing affordability and choice, revitalizes downtowns and urban and suburban neighborhoods and provides value capture and recapture for individuals, communities and transportation agencies.

More information about Reconnecting America is available at

## Foreword

*Paul C. Brophy*

About four years ago, Miguel Garcia at the Ford Foundation assumed leadership of a program aimed at advancing mixed-income, mixed-race housing as a strategy to provide housing for low- and moderate-income people. The premise of the initiative is that if the nation's housing developers can build and successfully operate more mixed-income housing, we can house more low- and moderate-income people in settings where opportunities for upward mobility are greater than they would be in settings of concentrated poverty.

Much has been learned through the Ford Foundation's initiatives. We now know a great deal

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## **Executive Summary**

It was not too long ago that our mass transit systems had become yet another symbol of disinvestment in urban America. As people exited cities for the suburbs, they left in their wake the decaying public amenities and assets that had given rise to cities in the first place —the schools, the infrastructure and the mass transit.

How times have changed. According to the Ameri



occasionally? Or could it become again what it once was, the glue that holds together the multiple facets — the diverse faces — of urban America?

To answer these questions, this report attempts to understand who lives near transit today and who is expected to live there in 25 years. This report also tries to lend a sense of urgency to a dialogue between those who want to ensure high-quality transit service, and those who want to ensure high-quality neighborhoods -- two sets of actors who have much at stake but do not often connect. This dialogue needs to be about how to use the increasingly hot market for housing near transit to serve the interests of many grassroots and community development groups working to build diverse, inclusive, opportunity-rich neighborhoods, and in the process increase support for transit systems around the country.

**The key findings are:**

**Today's transit zones<sup>2</sup> support more race and income diversity than the average neighborhood.** Eighty-six percent of transit zones are either more economically diverse, more racially diverse or more diverse on both points than the average census tract (when the comparison area is either the average of all central city tracts in the region if the given transit zone is in the central city, or the average of all suburban tracts in the region if the given transit zone is in a suburb). This is especially true in regions with extensive transit systems — Boston, Chicago, New York, Philadelphia and San Francisco — but is not limited to these cities. Diverse transit zones are present in all transit regions, including Dallas, Cleveland and Syracuse. Furthermore, 59 percent of residents near transit are people of color.

While this report does not fully explore the causes and circumstances that led to this high rate of diversity near transit, one could surmise that the wide range of amenities that cluster around transit stations, in addition to transit itself, is sufficiently attractive to certain segments of the housing market across all incomes to suggest that mixed income strategies will work on a market basis, not merely as “social engineering”<sup>3</sup>.

**Diversity is found in central city transit zones and suburban (non-central city) transit zones, suggesting that the low transportation costs and the increased accessibility that transit offers supports diversity in both urban and suburban contexts.**

transit infrastructure

percent today). This reflects changes in demographics, changes in household preferences and changes in the way regions are developing and how housing and transportation are planned.

**Recommendations:**

This report contends that creating and preserving diverse transit-oriented neighborhoods is sound public policy that would favorably impact households and regions on multiple fronts, resulting in: a broader range of housing opportunities, greater transportation choice, better environmental outcomes and stronger family and neighborhood economies. There is no single silver bullet for creating and preserving such neighborhoods, however. Promoting and preserving diverse transit oriented neighborhoods requires policies that address housing, land use and transportation, experienced practitioners in several sectors, tools geared to promote TOD and affordability, and flexible financing.

This report calls for the following specific short- and long-term actions:



*“Hidden in Plain Sight: Capturing the Demand for Housing near Transit,” published by the Center for Transit-Oriented Development, found that compared to their regions, transit zones have:*

*Smaller household sizes,  
Lower household incomes,  
Lower homeownership,  
Lower car ownership,  
Higher transit use, and  
Similar age profiles.*

congestion. But these benefits only serve lower-income households when they can afford to live in neighborhoods with access to transit, and when the transit that serves their neighborhoods is frequent, reliable and connects them with jobs. Sprawl, however, threatens this connectivity. As regions continue to spread out, more jobs are dispersed and therefore harder to access than when they are clustered and near transit and affordable housing. As a result, household transportation costs, driven by the costs of car ownership, are much, much higher (by about 15%) than they were in the early part of the twentieth century when transit was booming. Assuring that the benefits of transit accrue to all households, especially those who need it most, poses a challenge for regions in the coming years.

The renaissance of mass transit has coincided with a rebirth of urban communities and neighborhoods that are near transit stations. More and more residents want to not only use transit, but to live near it as well. And this demand shows no sign of abating; if anything, it is likely to increase, given demographic shifts forecasted for the next 25 years. We project that 16 million households will want to live near transit in 2030, compared to the 6 million households that now live near transit (as of 2000). The market is also increasingly acknowledging the value of housing near this public infrastructure.

As demand for housing near transit grows, how will its benefits be shared among diverse users? Will it give people more or fewer choices? And will those choices be broadly shared? How will the public sector leverage its massive investment in transit to yield an even greater return on investment? What will neighborhoods around transit look like in 25 years and what kinds of housing choices will they offer?

As a way to inform future policy choices, the Center for Transit-Oriented Development (CTOD) began to think about these questions in 2004 by studying the demographic makeup of the 6 million households who lived near transit. These findings were reported in “Hidden in Plain Sight: Capturing the Demand for Housing near Transit.”<sup>5</sup>

This report builds on the work first presented in “Hidden in Plain Sight.” We examine the trends in the coming demand for housing near transit and place them in the context of what the areas around transit stations look like today with respect to race, income and housing characteristics. The results of our inquiry show that neighborhoods around fixed-guideway transit today are substantially more diverse than average neighborhoods (census tracts) in the same area. The

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<sup>5</sup> Center for Transit Oriented Development. “Hidden in Plain Sight: Capturing the Demand for Housing Near Transit”, September 2004, available online at [http://www.reconnectingamerica.org/pdfs/Ctod\\_report.pdf](http://www.reconnectingamerica.org/pdfs/Ctod_report.pdf).

collective diversity of residents in 86 percent of transit zones is more race, income or race *and* income diverse than the diversity of residents in their surrounding communities.<sup>6</sup>

The results also show that transit zones today offer lower-income residents important opportunities for affordable housing. First, neighborhoods near transit contain much more rental housing than average neighborhoods in the same region, 65 percent versus 39 percent overall. Second, the median gross rent in transit zones, at \$591 per month, is also lower than the average rent, \$657, in these regions. These units are, of course, not occupied solely by lower-income households, nor does it imply there is an adequate supply of affordable rentals given the demand. The lower rents, in some cases, may also be a function of smaller housing unit sizes and/or older units; which mean these units actually have higher costs per square foot. While the lower rents near transit have not been fully studied here, it is likely that the economic benefits of rental housing options near transit are compounded by the savings potential of transit access and connectivity. The cost difference between owning and driving a car for most transportation needs versus primarily using transit, walking and/or biking translates into thousands of dollars a year.

This report challenges regions across the country to plan to accommodate the demand for housing near transit that is known to be coming, while preserving the diversity and opportunities that currently exist. It is specifically a challenge to two sets of stakeholders: those who want to ensure high-quality transit service and those who want to ensure high-quality, yet affordable neighborhoods. This report is meant to spur a dialogue about how to use the growing market for housing near transit to serve the interests of community development groups working to build diverse, inclusive, opportunity-rich neighborhoods, and in the process provide increase the ridership and support for tran

## **Report Context and Organization**

This report is the first of several to be released by CTOD in 2006 dealing with issues of transit-oriented development. A second report, *Tools for Mixed-Income TOD*, by Douglas Shoemaker with CTOD, provides a detailed overview of several tools for funding, planning and promoting mixed-income developments near transit and illustrates each tool with a corresponding case study of the tool in practice. A third report, jointly funded by the Federal Transit Administration and the Department of Housing and Urban Development, provides detailed policy and market analysis of different types of transit corridors in five regions in the U.S. to document the specific

## **I. Converging Trends Create Demand for Transit-Oriented Development (TOD) and a Need to Preserve Diversity and Affordability**

The housing market in America is changing dramatically as households get older, smaller and more ethnically diverse. These shifting demographics are fundamentally re-scripting the American Dream. While the single-family home with a two-car garage in the suburbs may have been the ideal for the family with a breadwinner dad, stay-at-home mom and several kids, it works less well for families with two working parents and one child, for empty-nesters or for other households with no children.

Nationally, demand for housing within walking distance of transit (transit-oriented development,



The analysis that follows is of households today and in 2030. It uses the 2000 U.S. Decennial Census to examine the race, income, housing and transportation characteristics of residents in transit zones. These data were compiled into a database, the first ever, of household and housing characteristics near all the transit stations in the U.S. This information was then combined with regional growth projections from Woods and Poole Economics, Inc. to model the coming demand for housing near transit in 2030.<sup>7</sup>

We classify transit systems by system size according to the total number of existing stations (See Table 2). System size, not surprisingly, often has a relationship to current and future demand;





in transit zones nationally are overcrowded — it demonstrates the need to develop diverse housing near transit to meet the needs of ever changing demographics.

**Table 4. Comparison of Household and Housing Characteristics of Los Angeles Transit**



Today, transit zones house a greater percentage of lower-income households than their regions. The average median household income in transit zones is almost \$35,000, while the average regional median is almost \$47,000. Lower household incomes in transit zones are explained in part by smaller household sizes, but households in transit zones are also objectively less well off economically; transit zones have a poverty rate of 18 percent,

versus 11 percent in their regions.

Despite lower average median incomes near transit, however, there are also a significant number of high-income transit zones. Ten percent of transit zones (322) have a majority of households earning more than \$75,000, most of which (281 of 322) are in regions with extensive transit systems (Boston, Chicago, New York, Philadelphia and the San Francisco Bay Area). System size is associated with median household income in transit zones; the larger the system size, the higher the median household income. This higher median income may be because a higher income is needed to afford the housing near transit, or it may be that the larger system simply captures a greater share of households in the region, including households at all income levels.

In transit zones, rates of homeownership are lower than in the transit regions and correlate with income, just as is true nationally. Only 35 percent of households in transit zones are homeowners, versus 61 percent of households in transit regions. The median value of owner-occupied housing is higher in transit zones than in transit regions, and these home values in transit zones positively correlate with transit sy

Home values, of course, are just one indicator of the economic

transit regions. Single-family homes only make up 18 percent of the housing stock in transit zones, compared to 51 percent in transit regions. The following table details these characteristics by system size.

**Table 7. Housing Characteristics in Transit Zones (2000)**

While transit zones had higher home values in 2000 than their regions, median rents actually were lower in transit zones than in the regions by about \$60 per month. This may be due to the greater percentage of units in multi-family buildings in transit zones — as already noted — as well as the proportion of smaller units. Just over half the rental units in transit zones are studios or one-bedroom units, 55 percent, compared to 45 percent in the regions.

The housing stock overall in transit zones, both owner-occupied and rental, is aging, with less new development than in the



### **Household Diversity near Transit Today**

This study's objective has not only been to get a snapshot of the race and income characteristics of transit zones today, but to measure the level of diversity within transit zones. We wanted to know whether within the neighborhoods that comprised transit zones there was a mix of incomes and races, or whether transit zone neighborhoods were segregated by race, income, or race and income like many U.S neighborhoods.<sup>16</sup>

to live in neighborhoods in which their group predominated, respectively.<sup>19</sup> As we will show, neighborhoods near transit are on the leading edge of this trend towards diversity.

We looked at racial and income diversity in two different ways:

- First, we measured the diversity of all the transit zones in a given transit system by aggregating the population of all the zones and comparing it to the diversity of the region as a whole.
- Second, we measured the diversity within each individual transit zone and compared this to the diversity of the average central city or suburban census tract in the transit region. This comparison is an approximation for comparing transit zone neighborhoods with non-transit zone neighborhoods. In this method, central city transit zones were compared to the average of census tracts in the corresponding central city and suburban transit zones were compared to the average census tract in the corresponding suburban communities.

**Table 8. Count and Percent of Transit Zones in Central Cities by System Size**

Existing Transit Zones and Percent Central City by System Size						
System Size	Extensive (201 or more stations)	Large (70-200 stations)	Medium (25-69 stations)	Small (24 or fewer stations)	Small Built After 2000	Total
Count of Transit Zones	2,300	348	492	112	97	3,349
Percent of						

### *Diversity of Households by Transit System*

Overall, when we compare all households living near transit in 2000 with all households living in transit regions, we find the population living near transit to have greater racial diversity and nearly equal income diversity (see Table 8).

When we study transit systems region by region, we find slightly different diversity results. Just over a quarter of transit regions (7 of 25) have more income diversity in transit zones than their respective regions (see Table 9).<sup>21</sup> This is because households near transit tend to have lower incomes than households in the given region overall and therefore less income diversity. These lower incomes are, in part, a result of smaller household sizes and higher rates of poverty, both mentioned previously.<sup>22</sup> Transit zones in regions with extensive transit systems are most likely to be income-diverse as compared to their regions. This correlates with higher median incomes, lower poverty rates and larger households that characterize extensive systems, as compared with smaller transit systems.

Transit zones are more racially diverse than their regions in 22 of the 25 regions with transit in 2000, i.e., the zones have a greater and more equal mix of households of various races than their metro areas. The 3 transit systems that are less racially *diverse* than their regions actually have higher minority populations than their regions: Los Angeles, Miami and New Orleans. Just 18 percent of households in Los Angeles transit zones are white non-Hispanic, compared to 38 percent of households in the Los Angeles region. Similarly, Miami's transit zones are 23 percent white non-Hispanic, while the Miami region is 44 percent white non-Hispanic.<sup>23</sup> It is somewhat counter-intuitive to many people's standard understanding of racial diversity to call a more non-white area less diverse, especially when compared to the U.S. population as a whole, these places are very diverse. When measured against their regions, however, these transit zones are more racially homogeneous.

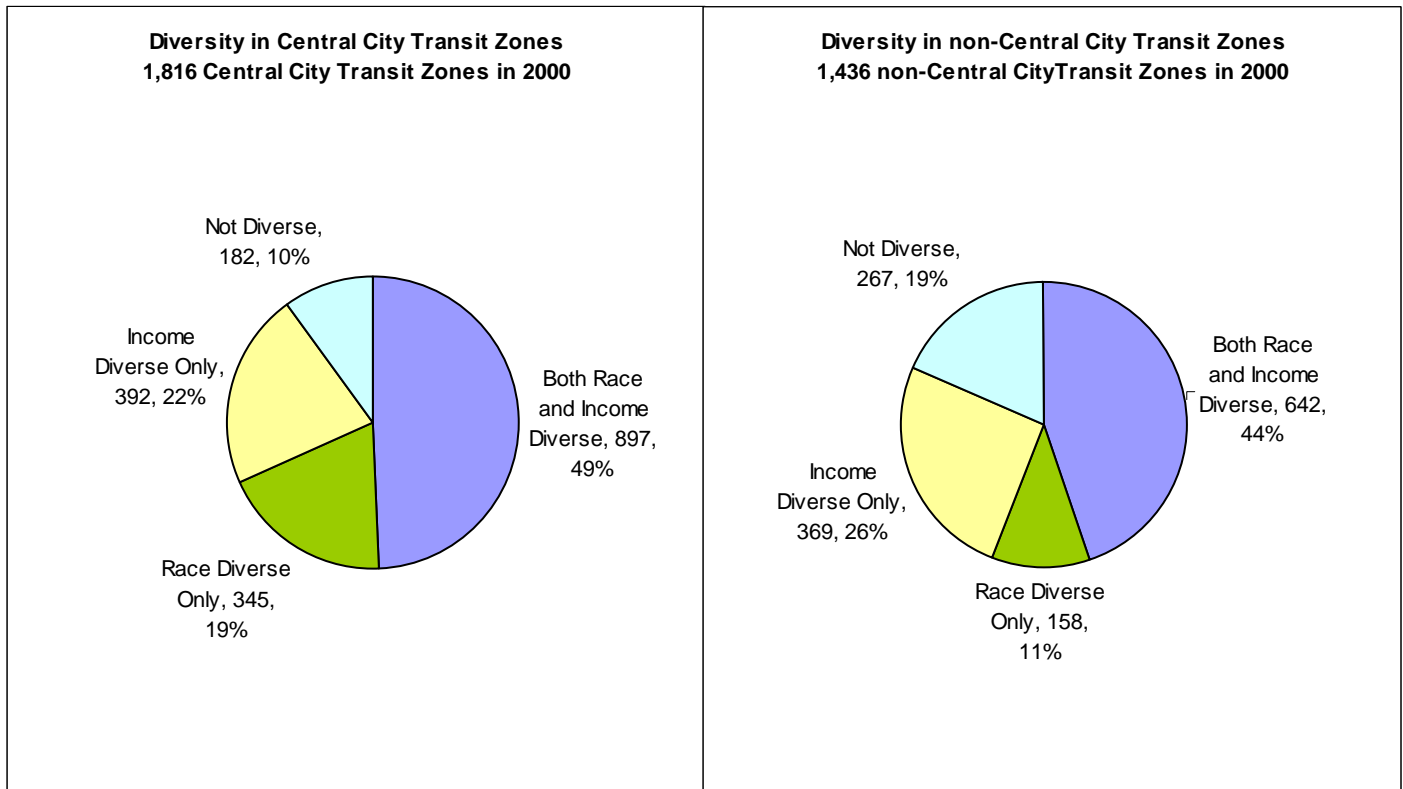
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<sup>21</sup> Transit systems that were built after the 2000 U.S. Census are not studi



racially diverse than an average central city census tract, while a greater proportion of suburban transit zones are more income diverse than an average suburban census tract (see Figure 4).

**Figure 4. Comparison of Race and Income Diversity of Central City and Suburban Transit Zones to Central City and Suburban Census Tracts**



Diverse transit zones are found not only in both cities and suburbs, but also in all transit systems to varying degrees. (See Table 10) Among the small systems of Buffalo, Denver, Memphis, New Orleans and Syracuse, all transit zones have some diversity, whether race, income or both. Not surprisingly, non-diverse transit zones tend to be those at the extremes — very low income or very high income, very white or very non-white. In nearly half (201) of the 449 transit zones that are not diverse by our measure, a majority of the residents are white and a majority of the households earn \$75,000 or more. Most (172 of 201) of these non-diverse transit zones are in the suburbs. A smaller portion of the 449 non-diverse transit zones are majority non-white (74). Nearly all of these are in central cities (71) with the majority of households earning less than \$20,000.

**Table 11. Transit Zones compared to Neighborhood Race and Income Diversity by Transit System Size and Region**

System Size	Region	Total Transit Zones	Race Diverse Zones	Income Diverse Zones	Both Race and Income Diverse	Not Diverse	Percent of Transit Zones with Race and/or Income Diversity
Extensive	Boston	288	42	81	120	45	84%

## II. Combining Forces: The Benefits of Diversity and Transit-Oriented Orientation

To date, the practices of stakeholders committed to transit-oriented neighborhoods and those working for diverse neighborhoods have been on parallel tracks, each with considerable expertise. Indeed, those working primarily on TOD come from transit, land use planning and market-rate development perspectives, while those working on neighborhood diversity mostly have deep roots in community development and affordable housing.<sup>24</sup> This report is an attempt to make the case that both sets of actors have a shared interest in the development of diverse transit-oriented neighborhoods. Although the challenges described in the following chapter regarding future household demand and the need to preserve existing diverse neighborhoods seems daunting, the significant potential benefits to households, developers, neighborhoods and regions are worth the additional effort.

### THE BENEFITS OF TOD

Transit-oriented development in and of itself — to say nothing of mixed-income or mixed-race TOD — has the potential to provide many benefits to regions, to local governments and to households and individuals. With careful planning, TOD can support local businesses and retail, capture the increases in land value that result from the public investment in new rail lines and replace the large amounts of surface parking lots and auto-related infrastructure with uses that provide more revenue to local governments and more desirable neighborhoods for residents in which to live and work. But while local benefits are very real, the most dramatic effect is at the regional level, where the synergy of uses in TOD and the resulting convenience of walking, biking and transit use can provide for much more sustainable travel behavior and development patterns.

At the regional level, TOD can help to focus growth into targeted areas and diminish pressure for growth at the edge of regions; create housing options that more closely match demographic trends and market demand; promote healthy lifestyles; and minimize traffic congestion. Numerous studies have established the linkages between the density, mix, pattern and design of local land uses and transit ridership. In essence, these studies show that mixed-use places that allow for some daily trips to be made on foot or bike are good complements to transit and, if designed properly, can ensure a sustainable base of transit riders who arrive at stations from both the immediate and the surrounding areas. Ensuring riders from the immediate area within walking distance is one additional benefit of TOD since it provides low-cost riders, i.e., riders who do not drive to the station and therefore do not need a parking space—a major expense for transit agencies.

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<sup>24</sup> While there are examples of TODs that are about community development, e.g. Bethel New Life's Transit Center in Chicago, IL and the Fruitvale Transit Center in Oakland, CA, these are the exception and not the rule and each of these took more than ten years to develop.

## **THE BENEFITS OF DIVERSE NEIGHBORHOODS**

Much of the rationale behind mixed-income housing — which often results in mixed-race by proxy, as race and income are closely bound together in the U.S. — as a strategy for addressing issues of urban poverty and community development is based on the increasing consensus among policymakers that high concentrations of poor households in a neighborhood or housing development lead to negative social and economic outcomes.<sup>25</sup> Supporters of mixed-income housing generally argue for the strategy for two separate but related reasons. First, mixed-income neighborhoods are better physical places to live in: they offer better quality housing, better schools, better public services, greater safety and more amenities. Second, mixed-income neighborhoods offer the potential for a higher quality of life: they offer access to better job networks, exposure to additional role models, the means for greater economic success and access to healthier social and civic networks.<sup>26</sup>

## **THE POWER OF COMBINING EFFORTS FOR DIVERSE NEIGHBORHOODS AND TRANSIT-ORIENTATION**

Combining diverse neighborhoods and TOD offers several additional benefits. Consider a



## **Figure 7. Combining the Benefits of Diverse Neighborhoods with Transit Orientation**

### **Benefits to Households: Diverse Transit-Oriented Neighborhoods Provide Greater Affordability and Wealth Creation Opportunities**

Few households are aware that the amount they spend annually on car payments, insurance, gas, parking and car repairs is almost equal to their rent or mortgage payment. Many people moving to distant suburbs for cheap housing may not in the end save money or build as much wealth as expected because of the high transportation costs of living a long way from essential amenities like schools and grocery stores, to say nothing of jobs. For lower-income households this is a particular paradox. Not only are housing prices beyond the reach of many lower-income households, this population also bears a higher burden in transportation costs, which have a bigger impact on smaller household budgets.<sup>28</sup>

TOD can and does lower household transportation costs. Until recently, a household's transportation patterns were thought to be driven mostly by household income and size, i.e., larger and wealthier households tending to own more vehicles and drive more miles. But research undertaken by CNT, Surface Transportation Policy Project and Natural Resources Defense Council in the "Location Efficiency Study (1994-2000)", and furthered by CNT and CTOD in the Affordability Index Project (2005-2006) shows that the land use and transportation characteristics of a neighborhood — density, walkability, the availability and quality of transit and the accessibility of jobs and amenities such as grocery stores, dry cleaners, daycare and movie theaters — are actually more highly correlated to transportation expenditures than just income and household size.<sup>29</sup> Characteristics of place influence travel demand, helping



**Table 15. Comparison of Workers Commuting by Transit, Walking and Biking by Race in Transit Zones and Regions with Transit**

<b>Percent of Workers over 16 Walking, Biking or Taking Transit to Work by Race</b>						
	<b>All</b>	<b>White</b>	<b>African American</b>	<b>Asian Pacific Islander</b>	<b>Hispanic/Latino</b>	<b>Other Race</b>

get in the way of attracting talented workers at affordable wages. Housing that is affordable to typical wage earners is located further and further from job centers, reducing the available labor pool and limiting the employability of workers since how workers get to and from jobs has serious impacts on business.

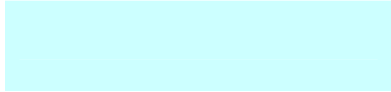
The high cost of auto commuting limits the available labor pool to those who can afford to pay the price in time and/or money. AAA estimates that the average cost of driving a new passenger car in 2004 was 56.2 cents per mile, or \$8,431 per year, up from 29.9 cents per mile in 1999.<sup>33</sup> Furthermore, the average yearly work commute time is now equivalent to between four and eight full work weeks, leading to home versus work conflicts and limiting the amount of time available for community activities. Robert Putnam, in his book *Bowling Alone*,

right balance of market factors, construction technique

### **III. Future Demand for Diverse Housing and Development Near Transit (2030)**

The previous two chapters presented the current picture of transit zones—the diversity of those that live there and the benefits derived from preserving and expanding these types of

**Table 12. Households near Transit by Region and System Size in 2000 and 2030**

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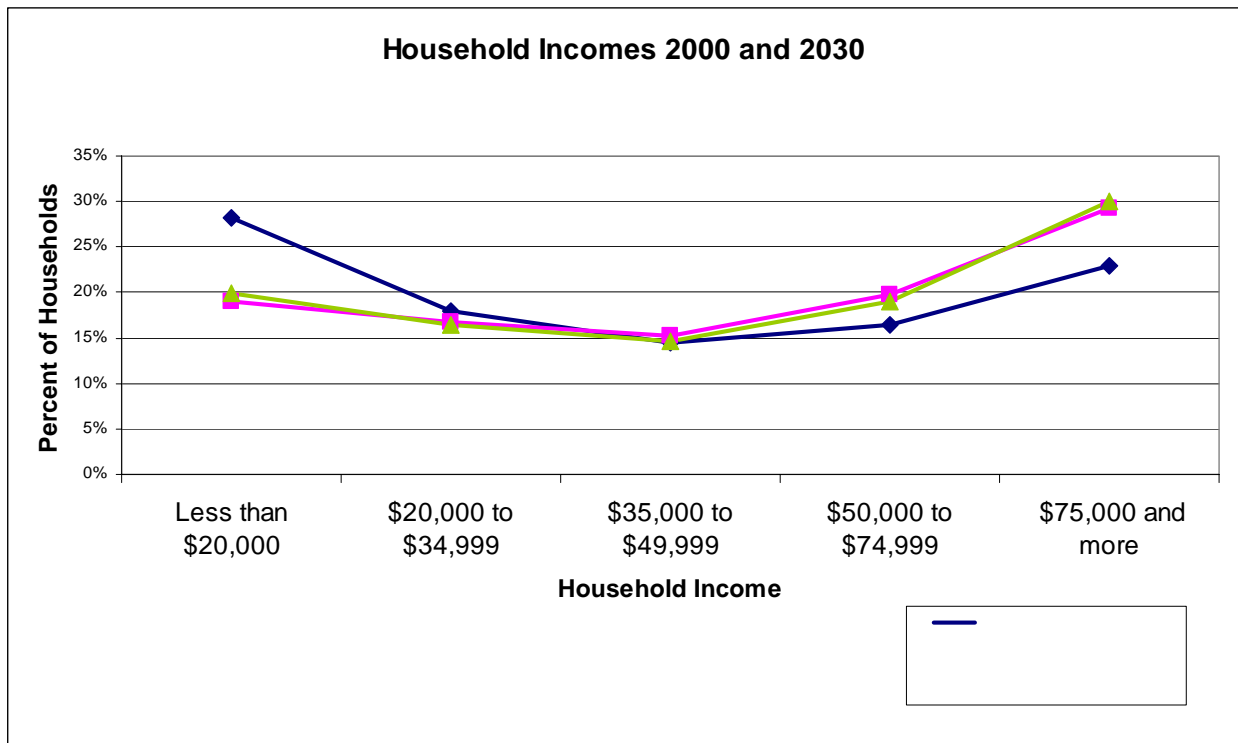




households in transit zones earning less than \$20,000 could fall from 28 percent in 2000 to 20 percent in 2030. The percentage of “working family”<sup>35</sup> households, those earning roughly \$20,000 to \$50,000 will remain at 31 percent in the regions and transit zones (see Figure 6). This means that fifty percent of the demand will come from households earning less than \$50,000.

While the income profile of transit zones may change, the demand for housing near transit coming from lower-income households will remain significant. More than 3 million households — 19 percent of those earning less than \$20,000 — could demand housing near transit in 2030. Transit regions today are not building new affordable housing to meet that demand and are not actively preserving the existing affordable housing for the 1.8 million households earning less than \$20,000 that live near transit today.

**Figure 6. Distribution of Household Incomes by Transit Zones and Regions in 2000 and 2030**



long-term viability of the project, since the economically diverse developments — their financing, rent structures and use — would have more ability to adapt to changing market conditions than if they were all high end.

To accommodate future demand, development plans for transit zones must include affordable housing, with the level of affordability defined according to the needs of the community. Without affordability, the neighborhood in general and the performance of the transit station specifically may not achieve their full potential. High performing TOD has high transit ridership, supports diverse uses and accommodates households of different types. TOD without affordability may not have the same levels of ridership, or adequate numbers of households to support a diversity of uses both in terms of workers and consumers.

The regions we expect to have the greatest percentage growth in demand for housing near transit will be those that have substantial transit expansion plans. Regions like Denver, Minneapolis-St. Paul and Charlotte can expect to see the demand for housing near transit grow by five times today's levels or more. New York, on the other hand, will have the greatest total additional demand, with the potential for more than two million additional households looking for housing near transit in 2030. Los Angeles will have the next largest demand increase after New York — by 1.6 million new households — as its transit system expands and its population increases. The following two tables show the demand by transit region by household type and income.

Predicting demand is both an art and a science. These projections can be influenced by the development policies and the practices today and in coming years. The successful efforts of planners, transit and smart growth advocates, community developers and others to improve convenience and connectivity in transit-oriented communities may lead to an even greater increase in both supply and demand for housing in transit zones beyond our estimates and among

**Table 13. Household Demand for Housing near Transit by Income Category and Transit Region in 2000 and 2030**

			2030 Demand for Housing Near Transit. Count of Households by Income	2000 Households Near Transit by Income
Region	Current System Size	2030 Anticipated System Size		

**Table 13 Continued**

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## IV. Meeting the Demand: Additional Considerations and Challenges

There are significant implications of the findings described so far about who lives near transit today and who is expected to want to live near transit in 2030. Transit zones today support a great deal of diversity that should be preserved and enhanced as regions work to meet the coming demand. By and large, future demand for housing near transit will far outstrip supply unless there is a concerted effort at multiple levels of government. And it will be especially important to ensure that the benefits of living in transit zones are shared broadly, and do not become the purview of any one income group or household type.

Transit zones, therefore, must continue to accommodate households of all sizes, especially families, who, if current development patterns are any indication, are at-risk of being displaced. To the extent that Latinos will make up a growing share of the population, both in general and in transit zones, their larger household sizes and multi-generational living arrangements should also be taken into consideration. Single parents with children — also a growing share of households — will need not only larger units, but also affordability, since they have just one income to support multiple household members. Without adequate family housing near transit, more families will seek affordable larger units on the peripheries of regions, adding both to their household transportation and energy costs and to regional traffic congestion. However, households without children will make up the majority of new demand and therefore, public services should reflect this new reality. For example, parks and open space serve residents with and without children while new schools in transit zones serve only families with children.

Transit zones must also accommodate households at all income levels, especially lower-income. As Chapter Three showed, more than one-half of the demand for housing near transit, is likely to come from households that have annual incomes below the area median, or roughly \$50,000 in 2000 dollars. Twenty percent of all households with a potential demand for housing near transit will make less than \$20,000 a year. Increased job connectivity and other supports will be necessary to help these households increase their earnings, while keeping their expenses down. The economic benefits of transit for these households is particularly critical. As repeatedly mentioned, very low-income households using transit spend roughly \$400 a year on transportation, while very low-income households without transit spend close to \$2,800 per year.<sup>36</sup> A difference of \$2,400 for a household making less than \$20,000 represents a host of opportunities. Planning for families and for low-income households may not need to be accomplished at each and every transit zone, but should be promoted and tracked at the transit zone, corridor and system-wide scales.

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<sup>36</sup> Analysis of 1999-2001 Consumer Expenditure Survey micro data for California by Lorie Rice in “Transportation Spending by Low-Income California Households: Lessons for the San Francisco Bay Area”, PPIC, 2004.

## **Demand for Diverse Housing Types**

Both owners and renters are today exhibiting different priorities than they did in the past: in smaller homes, or homes designed to accommodate multiple generations, or homes that offer a more convenient lifestyle, with jobs, shopping, entertainment, culture, sidewalk cafes, public services and parks all within walking distance. Contemporary

households also want more housing choices — including lofts, live-work spaces, townhomes, row houses, courtyard housing and other housing types suitable for walkable, higher-density urban neighborhoods. The demand for diverse housing types will only increase as the population shifts in age, race, income and household makeup.

If the many constituencies working to create desirable transit-oriented neighborhoods with strong connectivity to jobs succeed, demand for living near transit could grow beyond the projections outlined here. As already noted, most housing in transit zones is multi-family rental, and a greater share are smaller units. Maintaining this mix of rental units might not be right for every transit zone or every region based on the transit system size, demographics and immigration patterns. In some regions, like Los Angeles, there may be a need for units with more bedrooms. In all regions, there's a need for more affordable homeownership opportunities that do not substantially replace the affordable existing rental housing stock. Rental housing will also need to be upgraded and increased in many places.

In sum, a delicate balance must be struck in a fluctuating housing market. As market opportunities arise, higher-density rental housing in transit zones will likely be converted to market-rate ownership housing, thus reducing the availability of affordable and rental housing. In situations of short supply, the cost of rental housing will rise significantly, reducing affordability and income diversity in transit zones. These situations call for market intervention by local governments and affordable housing providers.

## **Demand for Transportation Choices**

In concert with the rising demand for housing near transit is an increased demand for more transportation options. This is likely to accelerate if gasoline prices rise in coming years, congestion continues at the current pace, and awareness of the high total cost of car ownership continues to increase.

To date, only some of the household demand for more transportation options is being met. Although the U.S. is in the midst of a transit building boom, with numerous metropolitan regions planning, building or expanding some form of urban rail, busway, streetcar or enhanced bus systems, the competition for federal funding is intense. As a result, some regions, like Denver, are not waiting for the federal government and have passed ballot measures to fund transit locally; the recent \$4.9 billion FasTracks initiative



of cost savings for households and a precondition for continued economic growth — not just a way to decrease future congestion.

### **Market Interest in Urban Areas and TOD**

The marketplace has not been blind to this tremendous need and demand for more housing near transit, and it is beginning to respond. In 2005, *Emerging Trends in Real Estate*, now in its 27<sup>th</sup> year, rated “transit adjacency” as its **top** location criterion for real estate investments.<sup>37</sup> This follows a decade of rating “transit adjacency,” “urban infill” and “24-hour character” among the top five criteria. The report reflects an annual survey of investment fund managers representing the \$300 billion U.S. annual equity capital from institutional investment sources. National retail chains are increasingly seeking both density and transit accessibility, and even big-box retailers, ranging from Target to Home Depot to Of

Yet, while land is very scarce in many of today's transit zones, forty-four percent of the transit zones have less than 4.5 households per residential acre on average. This density is quite low and likely represents significant development opportunities. Estimates indicate about 30 percent of national growth in households can be accommodated within one-half mile of transit station locations, with growth in the number of transit stations and systems, paired with infill strategies around the existing lines and stations. Several objections are raised regarding this estimate. First, to many observers, it seems that transit-oriented developments are exclusively aimed at upscale markets, so they would have difficulty addressing growth coming from all types of households. This observation is mostly based on recent TOD projects, not historical development of entire neighborhoods near transit, which is where the majority of the 6 million transit zone households currently live.

Another response to these objections is to look beyond the one-half mile distance, to, for example, within three-fourths of a mile from the transit station. Though transit station areas are typically analyzed at the one-half mile zone because early and repeated analyses have found the one-half mile is a reasonable area within which to assume that people are willing to walk, expanding the distance increases the potential for directing even more development within transit-friendly neighborhoods. A distance of three-fourths of a mile is still within walking distance for many, or a short connecting bus or bike ride for others. In most cities with extensive and large systems, rail service is supplemented by a dense network of bus lines. Studies show that people are generally willing to ride up to 20 minutes to connect to a rail stop, suggesting that the ridership catchments area for a particular transit stop is up to 2.5 miles in radius, which dramatically increases the land available for development "near" transit.<sup>38</sup> Therefore, even households outside the one-half mile area could be living in a transit-oriented community and reducing their reliance on auto. Of course, not every acre is available for development within the one-half mile buffer and streets, parks, alleys, schools, businesses and other such uses already consume much of the land. Nonetheless, clearly all TOD opportunities does not disappear at the one half mile limit, especially if connecting bus service is available.

### **Gentrification and Transit-Oriented Neighborhoods**

Because development costs are high and land is scarce, there is significant potential that new development near transit will be homogeneous, targeted to a narrow high income market and unaffordable to lower-income households.<sup>39</sup> There is also significant potential for mixed-income neighborhoods that are now diverse to transition rapidly, making it difficult for original residents to continue to afford to live there. Gentrification with significant displacement can easily occur.

In regions with hot housing markets and where transit is being planned or is already operating, one can see several common results from gentrification:

- Low-income householders are being pushed to neighborhoods with low-quality housing stock and higher transportation costs;
- Renters are being pushed out as absentee owners sell, as rental units are converted to ownership units, and as areas in general become more attractive;

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<sup>38</sup> The available land increases as the square of the distance, so while a half mile radius yields 504 acres, a ¾ mile radius yields 1,131 acres, a 1 mile radius yields 2,011, a 2 mile radius 8,042, and a 2.5 mile radius 12,566 acres, respectively.

<sup>39</sup> Households at 50% of median income or below

- Market-rate developers are often not building to address a range of income diversity;
- Very low-income renters, who are the most transit dependent, are most at risk, as their housing often requires the greatest subsidies, many of which are increasingly being cut; and
- Transit-orientation and convenience is causing price escalation in many neighborhoods

While some neighborhood groups argue that “a little gentrification” is desired — since it brings with it neighborhood services and amenities typical

single group, it is not necessarily a result of segregation; it can be caused by “the gravitation of immigrants to communities of common interest.”<sup>41</sup>

Promoting or designing a neighborhood for racial diversity may be even more challenging than promoting income diversity; landlords and developers cannot legally target prospective tenants by race and there are fewer tools to promote racial diversity in neighborhoods than there are for creating mixed-income housing, for which financial and support services exist. Even discussing race is still difficult for most communities and individuals. In fact, this has led some groups to argue that the more effective strategy for promoting equal or equitable opportunities for all races is to frame policies in race-neutral terms, e.g., don’t mention race in advocacy campaigns at all. This is based on the belief that bringing up race will immediately shut down the discussion. It has not been proven, however, that race-neutral tactics are more effective; many would argue they are slowing the progress toward racial justice.<sup>42</sup>

Some tools and methods for promoting racial diversity do exist, however. Fair housing laws help to ensure that realtors and landlords do not discriminate on the basis of race. Making sure these laws are adequately monitored and enforced will help to promote racial diversity in specific developments. Helping minority entrepreneurs — who may open businesses and restaurants that reflect their ethnicity or culture — with financing and marketing can also help to attract and retain a diverse population and to diversify the business community. More informal ways to retain and attract households of various racial backgrounds include neighborhood dialogues about race, writing about and celebrating the neighborhood’s cultural, ethnic and racial diversity through newsletters or local newspapers, posting signs and banners, and holding festivals.<sup>43</sup> Realtors and developers can also hire a diverse staff for marketing and sales and use brochures that show a variety of potential residents — in terms of age, race, ethnicity and family size. They can also tailor their housing product types to provide multiple sizes, prices and tenure types — both rental and owner. These more informal, e.g., non-regulated, strategies deliver the message that the neighborhood is open to and supportive of other races and different household structures. Henry Cisneros, in an effort to help developers and communities respond to the growing Latino housing market has recently published a book through the national home builders association, *Casa y Comunidad*, that covers a number of strategies and tactics for accommodating Latino households, from ensuring gas cooking is available to designing floor plans and room sizes.<sup>44</sup>

While existing communities around transit face many challenges, many new transit lines are being built through industrial zones and do not have existing residents or communities to displace. This might be occurring to reduce costs or to avoid the race question. It’s a complicated problem: Is it more egalitarian for the new transit investment to avoid the mixed-race neighborhood, or to run the new transit line right through it, with the associated demolition of housing or from widening a commercial street? Other transit lines are extending to new

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<sup>41</sup> David Fasenfest, Jason Booza, and Kurt Metzger. “Living Together: A New Look at Racial and Ethnic Integration in Metropolitan Neighborhoods, 1990–2000.” The Brookings Institution. April 2004. [http://www.brookings.edu/urban/pubs/20040428\\_fasenfest.pdf](http://www.brookings.edu/urban/pubs/20040428_fasenfest.pdf).

<sup>42</sup> Applied Research Center workshop on race advocacy, Chicago, IL, May 2006.

<sup>43</sup> The Manchester neighborhood in Pittsburgh, PA has been successful in celebrating its mix of races through its newsletter and community organization, “Manchester NEWS: We Live in Manchester”, Manchester Citizens Corporation, Summer 2005. Group

growth areas, with few or no existing residents. All of these types of sites are large enough to support major new development that can include income and housing unit diversity at the outset. However gentrification and displacement and therefore further racial segregation could be an unintended result.

### **Getting a Mix of Uses in Diverse Transit-Oriented Neighborhoods**

Ensuring that there is a mix of services, retail opportunities and other uses presents another layer of complexity. But to achieve the benefits of diverse neighborhoods near transit, the mix of uses is as important as the mix of housing. Residents need to be able to meet many of their needs locally or in neighboring areas accessible by transit. If a substantial number of non-work trips cannot be met by foot or on transit, each household will have to have multiple autos – and parking for them – which limits potential affordability and higher densities.<sup>45</sup>

Most new commercial development, due to the costs of opening a business, is often mainstream and dictated purely by the major retailers.<sup>46</sup> Defining and attracting a more diverse commercial mix has to involve community residents, willing lenders and city planners, in addition to national retailers and their site selection firms, such as local and regional chambers of commerce and other business-oriented or economic development-focused community-based organizations. Larger entities can also help to develop and fund local entrepreneurs, such as the federal Small Business Administration, or local loan funds set up by community banks.<sup>47</sup> In some instances, local or specialized chambers, like the Chicagoland Hispanic Chamber, might help to connect a community with local minority entrepreneurs. In other cases, however, local chambers looking for upscale development might not want low-priced restaurants or discount stores and may prefer higher-end or nationally recognized chains. It is important to have a compromise. Too many high-end shops in an area will not adequately support all residents' shopping needs and can also drive up rents so that unique, niche stores, or

## **SUMMARY**

To date many of the most successful examples of developments near transit are the result of “clever exceptionalism,” having required persistent advocacy and extraordinary public attention. As a result, there are still not enough good examples of new TOD to showcase. Developers and planners with expertise in TOD are too few, as are elected officials and advocates to champion exemplary projects and push for TOD supportive policy changes—much less TOD projects that are mixed-income, mixed-race, and have a sufficient blend of uses. Thus, while there have been promising developments in the market, without further action, focused attention and strengthened political will, the market demand for TOD will not be met. New policies are needed to support the creation of not just more TOD, but more diverse TOD. These are discussed in the following chapter.







businesses to locate near transit by offering an increase in the incentives available for employers.<sup>50</sup>

Government should also help to monitor and enforce fair housing, equal employment and other civil rights laws, as well as work across agencies on all issues that affect both place and people. Any policies to promote housing and transit together should also provide funding to help households to relocate, transition, find jobs, adjust to new schools and obtain health care. These types of supportive transition policies need state and federal policies and funds to work together. For instance, some states have coordinated federal and state welfare and housing programs so welfare recipients get help with their housing while they are receiving welfare assistance.<sup>51</sup> The next step would be to tie housing and welfare funding and supports to energy, transportation

funding incentives to encourage local governments to include affordable housing and support compact mixed-use and walkable environments near transit.<sup>53</sup>

Regional agencies also need to coordinate efforts that improve local cooperation, beyond regional plans, through a combination of local government incentives and commitments, since transit corridors often span several jurisdictions. Addressing how to serve workers where they currently live and work with transit, as well as determining the best places for future households and jobs, needs to be decided above the municipal level. A growing share of households do not work in the same place in which they live.

This type of planning by regional agencies and local governments should incorporate diversity indicators like mixed-income, mixed-age, mixed household size and type, mixed-race and mixed-use into existing goals and policies in comprehensive plans and regional frameworks that relate to TOD, such as jobs-housing balance, smart growth, affordable housing goals, and historic preservation.

### **Target affordable housing and mixed-income developments to transit zones and to the corridors between these zones**

Affordable housing programs funded by the federal government and administered by states and local governments, such as the Section 8 and Low Income Housing Tax Credit (LIHTC), should require or provide additional incentives for transit proximity. Recognizing the advantage of having transit near affordable housing and the problems associated with affordable housing that doesn't have proximity to jobs or transportation alternatives, 28 states already require or give incentives for LIHTC project applications near transit.<sup>54</sup>

Commission's Housing Incentive Program (HIP) in the Bay Area; using pre-paid transit passes by employers located near transit as equity toward a development; screening transportation plans for end-user impacts so that public money spent on transportation is not only evaluated for environmental and traffic impacts, but also on how it might lower household transportation costs. The latter may result in a diversion of funds to transit allowing increased levels of transit service through extended hours, greater frequencies and better connections — between rail and rail and rail and bus and/or through the provision of unconventional services for connecting the “last mile,” such as jobs access and car-sharing.

The federal government has a very specific influence on TOD diversity, as it is the largest single funder of transit in the U.S. There are several ways the Federal Transit Administration (FTA) could promote more diverse TODs through its rulemaking, regulations, funding applications and policies, such as the joint development policy. For instance, in the New Starts funding application for new transit projects, the FTA could ask transit agencies to explain and provide concrete plans for how it intends to support or provide for diversity. The Policy on Joint Development could also be altered to emphasize diversity. Currently, the policy states that ground rents of transit-owned land for nearby development must be set at the “highest and best use” or at the “highest and best *transit* use.” If a transit agency judges a proposed development only by the first requirement, the resulting development may not serve the goals of the transit users and the neighborhood because it will seek the highest value for the land in terms of real estate.<sup>55</sup> While a transit agency might prefer to foster mixed-income development and be willing to at least accept a lower ground lease, they may be influenced by a lac, S



enough to allow for variations in buildings, allowing for creativity, originality, affordability, and different cultural and ethnic influences. Guidelines that are overly prescriptive may be cost prohibitive, thereby stalling development.<sup>57</sup>

Incentive-based zoning and planning can also be used to help financially support diverse TOD. Public agencies should consider

up to the seriousness of the energy crisis and are looking to reduce energy consumption and lower household and business costs. To date, however, only the traditional transit activists have called for an increase in transit as a primary strategy. In speeches on strategies to lower the national “addiction to oil,” the president and others frequently mention new technologies, more drilling and alternative fuels, but do not mention transit. While the other strategies often mentioned will take time to develop, perfect and realize transit is a known technology that dramatically reduces household energy consumption and is in increasing demand. Unfortunately, transit lacks adequate funding to provide the service levels and land area coverage that would be necessary for all households seeking to live near transit to use it, for both their commute and for other daily activities.

The two professions mentioned at the beginning of this report, the TOD practitioners and the community development practitioners, could achieve some real synergies and work together to address both affordability and energy issues in the context of the upcoming 2009 transportation reauthorization. Groups such as Enterprise Foundation, Natural Resources Defense Council and U.S. Green Building Council, through their LEED Neighborhood Development (ND) and Green Communities initiatives, are already promoting green affordable housing in “smart locations” that make use of efficient designs that conserve land, reduce home energy consumption, reduce auto transportation, and allow for more affordable housing.

Community leaders can also help to build effective demand for affordable housing near transit and for more and better transit. The U.S. has a very limited set of mechanisms for planning housing. The consolidated plans developed by Community Development Block Grant (CDBG)-eligible jurisdictions for HUD is as close as it comes, but there is no element of these plans that require either consideration of mixed-income or mixed-race housing or transportation and energy costs in any meaningful way. While current policy requires jurisdictions to develop 10-year plans to end homelessness, the focus is on reducing service delivery costs and not on increasing the supply of housing. External and internal advocacy is needed to promote a change to the way the nation plans for housing, transportation and energy at the local, state and federal levels.

### **Educate consumers on the cost of transportation and its effects to households government, and employers.**

A variety of agencies have the opportunity to provide direct education to consumers on the costs associated with auto transportation and the savings provided by transit through their existing programs, such as those that help households find jobs and housing; provide life skills counseling; and teach financial literacy. There is already a foundation in place for this to happen. For example, immigrant organizations often recommend transit-served locations when assisting new arrivals with housing searches, since these areas will not require auto ownership. Schools, from elementary to high schools, GED providers, and university extension offices offer financial literacy and budgeting classes that could incorporate more specifics on the range of transportation costs associated with different locations. The Federal Reserve has an ongoing financial literacy program that could include a clear message about savings from transit, with local guidance on using it.

Transit agencies, by participating vigorously in efforts to disclose the real cost of driving and the real net benefits of transit orientation, would become smarter and more effective marketers, which could ultimately result in higher transit ridership and greater transit revenues. In the long









level of government will need to deploy a wide range of tools and policies layered on top of each other. Government actors and elected officials at all levels will have to place a greater focus on and prioritization of diversity goals to help challenge and provide incentives to the private market. The non-profit sector and advocates should also join forces to push for these changes and to participate in the design, construction and ongoing development of these transit-oriented



The Entropy Index ranges from 0 to 1, where a value of 0 is homogeneous and value of 1 is completely heterogeneous.<sup>65</sup> Complete heterogeneity means that all categories measured are equally represented; a neighborhood that is 20 percent white, 20 percent African American, 20 percent Hispanic, 20 percent Asian Pacific Islander and 20 percent other race would have a Race Entropy Index score of 1.

We recognize that heterogeneity is not the same thing as diversity when discussing race or income, and that diversity is somewhat relative. Therefore, rather than using the Entropy Index as an absolute measure of diversity, we measure diversity relative to the local area. Transit system Entropy Index scores are compared to Entropy Index scores in the corresponding region. A transit system is labeled “diverse” if it has an Entropy Index equal to or greater than that of its region. Transit zone diversity scores are compared to the average census tract in the area. Central city transit zones are compared to the average census tract in their corresponding city, non-central city transit zones are compared to the average census tract in the non-central city portion of the corresponding region. As with the transit systems, transit zones are labeled diverse when they have an Entropy Index that is equal to or greater than the Entropy Index of its corresponding census tract.

The effect of using a relative measure of diversity is double-sided. On the one hand, “diverse” transit zones in less diverse regions may actually be quite homogeneous. For example, residents in the average census tract in suburban Pittsburgh are 92 percent white non-Hispanic (Race Entropy Index 0.162), so while the “diverse” transit zones in the Pittsburgh suburbs are 85 percent white non-Hispanic or more — fairly homogenous communities by many standards — they are still more diverse than the average neighborhood in the area. On the other hand, some transit zones that seem very diverse do not meet the guidelines. For example, transit zones in San Francisco that seem very heterogeneous do not qualify as diverse relative to the average San Francisco census tract, which is just 37 percent white non-Hispanic (Race Entropy Index 0.671).

<b><u>Race Categories</u></b>	<b><u>Income Categories</u></b>
White Non-Hispanic	Less than \$20,000
Black Non-Hispanic	\$20,000 to \$34,999
Asian Pacific Islander Non-Hispanic	\$35,000 to \$49,999
Other Race Non-Hispanic <sup>66</sup>	\$50,000 to \$74,999
Hispanic or Latino of All Races	\$75,000 and more

The advantage of the Entropy Index is that it allows one to measure diversity among as many categories of race or income as one chooses to measure. We used five categories each for both race and income (see box). We chose the race categories because they represent the largest race and ethnic populations in the U.S. We chose the income categories because they represent, roughly, quintiles of national household incomes — i.e., each category contains nearly 20 percent

of U.S. households. In addition, the average median household income in the regions studied is

<sup>65</sup> As often used, the Entropy Index ranges from a value of 0 to  $\ln(n)$  where  $n$  is the number of categories studied. We normalized our index to allow a range of 0 to 1 for clarity. The equation we have used is the following: Entropy Index =  $-1 * \sum (p_i * \ln(p_i)) / (\ln(n))$  Where  $p_i$  is the percentage of population in each category and  $n$  is the number of categories.

<sup>66</sup> The Other Race Non-Hispanic category is made up of the U.S. Census race categories of American Indian and Alaska Native Non-Hispanic, Some Other Race Non-Hispanic, and Two or More Races Non-Hispanic.



## Appendix B. Detailed Tables

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Percent of Households Under the Poverty Threshold in Transit Zones and Regions			
		Transit Zones	Regions
System Size	Region	Percent in Poverty	Percent in Poverty
Extensive	Boston	15%	10%
Extensive	Chicago	16%	10%
Extensive	New York	19%	12%
Extensive	Philadelphia	19%	11%
Extensive	San Francisco Bay Area	11%	8%
Large	Los Angeles	25%	13%
Large	Portland	16%	9%
Large	Washington	13%	7%
Medium	Atlanta	20%	9%
Medium	Baltimore	25%	10%
Medium	Cleveland	24%	11%
Medium	Dallas	15%	10%
Medium	Miami	27%	13%
Medium	Pittsburgh	10%	11%
Medium	Sacramento	17%	10%
Medium	San Diego	17%	10%
Medium	Seattle	20%	8%
Medium	St. Louis	26%	10%
Small	Buffalo	26%	12%
Small	Denver	22%	8%
Small	Galveston	28%	13%
Small	Jacksonville	32%	10%
Small	Memphis	37%	14%
Small	New Orleans	23%	17%
Small	Syracuse	40%	12%
System Built After 2000	Charlotte	21%	9%
System Built After 2000	Houston	15%	12%
System Built After 2000	Las Vegas	17%	10%
System Built After 2000	Little Rock	33%	12%
System Built After 2000	Minneapolis--St. Paul	20%	6%
System Built After 2000	Salt Lake City	17%	7%
System Built After 2000	Tampa Bay Area	30%	10%





Overcrowding <sup>67</sup> In Transit Zones and Regions by Tenure					
System Size	Region	Overcrowded Homes in Transit Zones		Overcrowded Homes in Regions	
		Own	Rent	Own	Rent
Extensive	Boston	2%	8%	2%	11%
Extensive	Chicago	5%	11%	4%	11%

Non-Auto Means of Transportation to Work by Workers 16 and Older by Race in Transit Zones and Regions				
		Transit Zones		Regions
System Size	Region	All	White	

