# WINDFALL FOR ALL

How Connected, Convenient Neighborhoods Can Protect Our Climate and Safeguard California's Economy

**Report Highlights** 









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Additional case studies and details are available in the full report at TransFormCA.org.

## About the data in this report:

A growing body of research examines the full economic impact of transportation policies. Our report pulls from many sources, but especially from the Housing + Transportation Affordability Index dataset produced by the Center for Neighborhood Technology (CNT).

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## SB 375 Can Make California More Affordable

As global warming becomes the defining issue of our time, California is taking a leadership role. This is more than symbolic: California is the 15th largest producer of greenhouse gas emissions (GHGs) in the world.

Of those emissions, transportation comprises the largest and fastest-growing source. In 2008, California passed a groundbreaking law, SB 375, which will make it easier for residents to drive less by creating more convenient and efficient communities with shorter commutes and more transportation choices. Combined with already-approved approaches to cleaner fuels and efficient vehicles, SB 375 is pivotal for keeping the state on track to meet climate goals.

But in the month the bill was signed, the economic bubble burst, hurtling the country into the Great Recession. Some have said that it will cost too much now to provide more public transportation and change the way we grow. In truth, it is our current pattern of growth — fields of tract homes connected by billion-dollar highways to distant corporate parks and strip malls — that is inefficient and unaffordable. Such growth requires taxpayers to spend too much on infrastructure, developers to spend too much on parking, and, worst of all, households to spend an exorbitant amount of their income to get from place A to place B.

The report finds that the 20 percent of residents in the four largest regions — Southern California, San Francisco Bay Area, San Diego and Sacramento — that have very good access to public transportation spend significantly less on transportation each year. If the other 80% of residents were able to spend the same on transportation, they would be spending \$31 billion less per year on transportation. That would save the average household \$3,850 each year.

Creating more walkable, convenient neighborhoods linked by effective public transportation will also fill a growing consumer craving for more housing choices.

Windfall for All details the tremendous personal cost of driving, and the potential savings of efficient communities. It also highlights what regions, cities, and developers across California have been doing to reduce costs, attract jobs, and revitalize communities, and how these same strategies will reduce greenhouse gas emissions.

SB 375 was passed to help the state meet GHG reduction goals. But as this report shows, it may also be part of the economic salvation that California residents, businesses, and governments so desperately need.



Our economy can no longer afford the high public and private costs of inefficient development.

## **Transportation Is Enormously Expensive**

## Most transportation costs are out-ofpocket

A tremendous amount of money is spent by public agencies to build and operate our roads and public transportation systems. But as can be seen in Figure I, this pales in comparison to the enormous amount spent by residents. Private transportation spending — mostly on owning and operating cars — dwarfs public costs by more than 7 to I.

Figure I: In a single year, the amount spent on transportation by individuals in the Bay Area is 7.4 times more than is spent by all public agencies in the region.

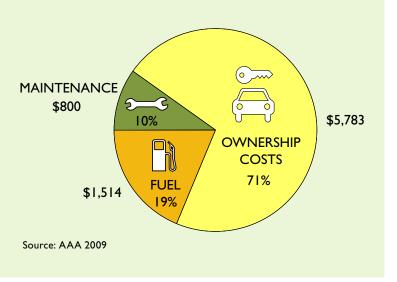


## No Matter the Fuel, Driving Will Always be Expensive

According to AAA (2009), 71 percent of annual vehicle costs are for ownership, such as insurance, registration, and financing. Maintenance adds another 10 percent. Only about 19 percent of the money allocated for cars is spent on fuel.

There is, appropriately, tremendous excitement about the coming generation of cleaner electric and hybrid vehicles. These will help keep our transportation emissions from growing too quickly. However as long as families require two or three of these cleaner vehicles, transportation will remain a tremendous cost burden.

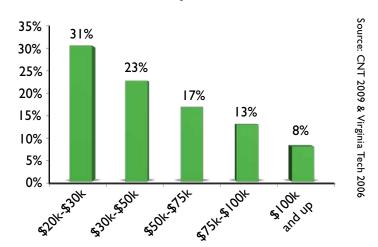
#### Figure 2: Cost of Driving Over One Year



#### Lower-income families are hit hardest

The high cost of driving is placing a particular burden on lower-income families who are already bending under the weight of housing costs. Having to drive greatly reduces the ability of these families to invest in education, home equity, health insurance, and other expenses — let alone save for the future.

Figure 3: Transportation spending as a percentage of household income, by income bracket.



## **Efficient Neighborhoods Save Families Billions**

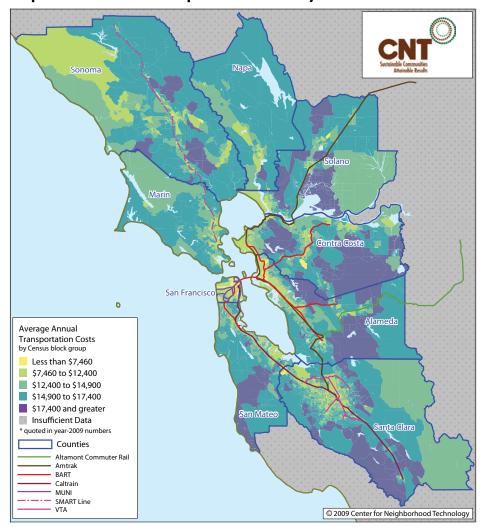
To examine the savings being harnessed by families living in more efficient neighborhoods, TransForm analyzed spending in four major regions of California where data was available — Southern California, San Francisco Bay Area, San Diego and Sacramento.

As is evident on the map of the Bay Area (Map A) — provided as an example — transportation expenses tend to be highest in areas without transit. In contrast, many of the Bay Area's most convenient neighborhoods are the urban and suburban areas designed more than 75 years ago, which:

- put housing, jobs and services closer together;
- provide more compact and walkable areas than newer subdivisions:
- support more public transportation service because of the first two factors.

As indicated by the lighter colors, neighborhoods that have very good access to public transportation spend significantly less on transportation each year. The one-out-of-five Bay Area households that have the best public transportation access have annual transportation costs that are 39 percent lower than other households, on average. If the other communities had the same level of spending, combined, their residents would save a total of \$10.7 billion on transportation each year. That would give the average household \$5,450 more to spend on education, health care, etc.

Map A: Household Transportation Costs by Census Block



The CNT dataset is based on the 2000 census; quoted in 2009 dollars.

Savings for California households if neighborhoods in each region match the 20% that have the best public transportation.

Region	Total Annual Cost Savings (billions)	Cost Savings per household
SF Bay Area	\$10.7	\$5,450
Los Angeles Region	\$15.4	\$3,600
San Diego	\$2.8	\$3,515
Sacramento	\$2.2	\$2,825
TOTAL	\$31.2	\$3,847

The cost analysis is based on Census block groups broken into quintiles based on public transportation access measured by CNT's Transit Connectivity Index.

## **Efficient Neighborhoods Are Also Low-Emission**

Providing strong public transportation options and developing in places and ways that are more efficient will not just help our wallets, but will also help our efforts to combat global warming.

Map B shows how households in areas with fewer transportation choices and longer driving distances emit many more transportation-related GHGs per household in a year.

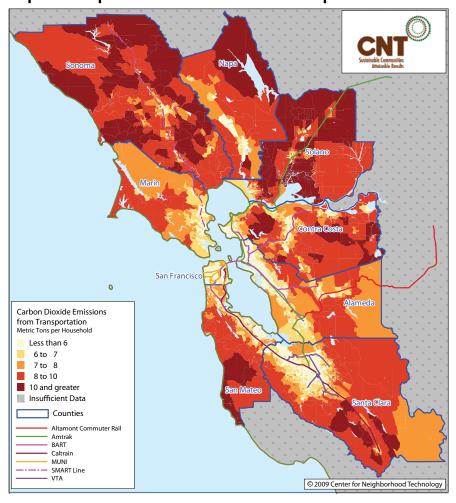
In California's four largest regions, the differences in emissions are huge. Compared to the 20 percent of households with the best public transportation access in each region, all other households emit more CO2 from driving by an average of

- 42 percent in the Bay Area
- 38 percent in the Los Angeles region
- 30 percent in San Diego County, and
- 27 percent in the Sacramento area

## Why the Savings?

Efficient growth patterns reduce costs and emissions by reducing the number of cars each household needs, and by reducing the distances they drive in those cars.

Map B: Transportation-Related CO<sub>2</sub> Emissions per Household

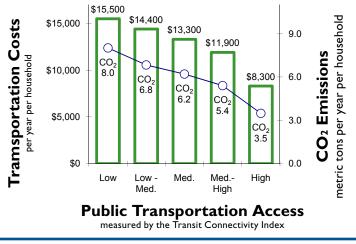


Households in areas with many jobs and high levels of public transit service can own one less car (from 2.1 to 0.9 on average) and drive 11,000 fewer miles each year than households in low-density residential areas with few jobs and little access to public transportation.

## Figure 4: Public Transportation Lowers Costs for Households and Reduces Emissions

The figure at right graphs the correlation between transportation choices and CO2 emissions. Households that have high access to public transportation save money and reduce CO2 emissions.

A household's access to public transportation is measured with the Transit Connectivity Index (TCI), which was developed by CNT based on the number of public transportation lines that are within walking distance of the household.



Authors' calculations using CNT data. VMT and auto ownership are modeled for the median Bay Area household as indicated by income, size, and number of workers.

### What Is Efficient Growth?

Unlike the cookie-cutter approach to building big box stores, office parks, and subdivisions, there is no single formula for creating great, efficient neighborhoods. Still, two critical principles should always guide planning efforts. First, meaningful community involvement from the very beginning is crucial. It should identify what the community most wants to preserve, as well as new amenities that would benefit the neighborhood, whether they be more parks, safer streets, a branch library or affordable homes. Second, policies should be put in place so that existing residents and businesses are not pushed out as an area becomes more attractive.

#### **Growing Efficiently Means:**

#### Efficient Use of Land

- Fill in existing sections of communities before spreading out;
- Build in more compact ways;
- Zone for less parking where transportation choices exist.

#### Mix and Balance of Uses

- Locate housing close to jobs, shops, schools, public transportation, and parks;
- Provide the variety and number of homes needed to meet family, workforce, and senior needs;
- Create vibrant town and neighborhood centers.

## Transportation and Pedestrian choices

- Provide safe, convenient, and attractive routes for pedestrians and bicyclists;
- Provide accessible and affordable public transportation that serves major activity centers;
- Create vibrant plazas and attractive streets, not just thoroughfares.

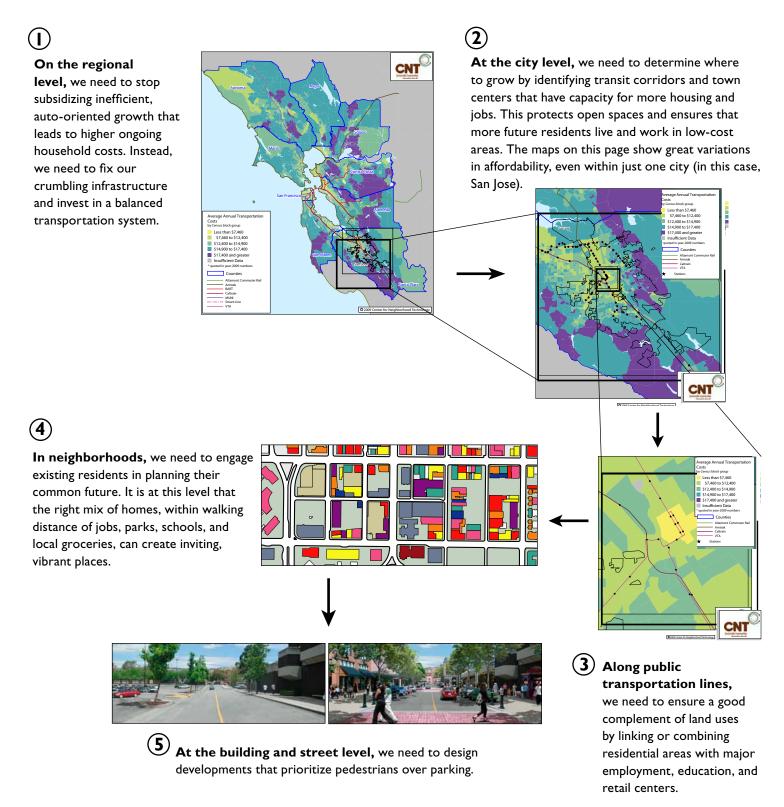
The City of Oakland is doing a community visioning process for International Boulevard (pictured at right and below). Preserving affordable homes and local businesses will be a key focus.





## **Efficient Growth Requires Integrated Planning**

Growing more efficiently will not just save households money, but will also reduce the costs of transportation infrastructure, generate city revenues, and possibly even reduce the cost of new homes. But, as with all things that sound too good to be true, there's a catch: If we want to reap the full benefits, we must change how we plan at five essential levels.



## SB 375 Sets the Stage for Efficiency and Savings

SB 375 is the most ambitious attempt by any state in the country to forge a closer link between transportation investments and land-use decisions. SB 375 aims to integrate planning through seven key steps:

- 1. Creating greenhouse gas emissions reduction targets from cars and light trucks for 2020 and 2035 in California's 18 largest regions.
- 2. Requiring each regional agency to create an integrated transportation and land use plan to meet the targets, known as the Sustainable Communities Strategy. This strategy will be created every four or five years as part of the existing Regional Transportation Plan process, and must be fiscally constrained and use "realistic planning assumptions". The investments in the Regional Transportation Plan must be consistent with the Sustainable Communities Strategy.
- 3. Requiring each regional agency to also prepare an Alternative Planning Strategy if the Sustainable Communities Strategy does not meet the targets. This Alternative Planning Strategy would show what investments, policies or changes in land use would be needed to meet the targets. Both the Sustainable Communities Strategy and Alternative Planning Strategy must be approved by the California Air Resources Board.
- 4. Distributing the anticipated amount of housing needed to match future job growth to cities, according to the land-use plan in the Sustainable Communities Strategy.
- 5. Requiring cities to change the "Housing Elements" in their general plan to show how they will meet their housing allocation for different income levels.
- 6. Exempting developments consistent with a Sustainable Communities Strategy from certain forms of environmental review.

## Mitigating Wasteful Growth

Experience shows that when links in planning break down, costs can be high. For instance, the Bay Area spent \$1.5 billion for a BART extension to the San Francisco Airport, which opened in 2003. But this regional investment was not initially matched by compact housing or office space that would support the transit service. South San Francisco, for example, allowed a Costco and its parking lot (pictured) to be built near their new station. If medium-density housing had been built on that lot, the residents would have generated \$27 million more in fare revenue for BART over the expected life of the Costco (details in the



WindFall for All full report). Instead, low BART ridership has resulted in service cuts and fare hikes both on BART and on the county's bus system. Families and other households lost out on the chance to live in an area with low transportation costs, while more commuters were forced to pack the roads. These expenses could have been minimized if local land use decisions and regional transportation planning had been integrated.

## **Efficient Growth Works: Case Studies**

The smarter planning framework of SB 375 will help focus future growth on low-emission, low-transportation-cost areas. As shown in the following six case studies, such planning also can have environmental and financial benefits at the regional, city, and neighborhood levels.

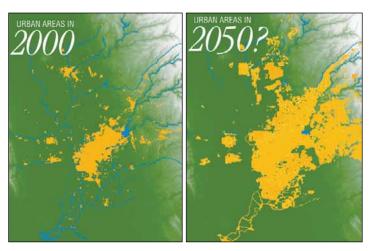
(More case studies can be found in the full report, at TransFormCA.org.)

## **Efficient Regions Protect Land and Save Money**

Since the early 2000s, regions across California have been envisioning more efficient ways to grow. These blueprint planning exercises have illustrated the potential to save open space and farmland, reduce traffic congestion, and improve air quality.

Sacramento is one region whose blueprint has also shown that growing more efficiently can save billions of taxpayer dollars on infrastructure and on individual transportation spending. Spearheaded by the Sacramento Area Council of Governments (SACOG), the "visioning" process engaged thousands of planners, elected officials, civic leaders, and citizens from the six-county region. The blueprint produced inspiring results (Figure 5). Its objectives are increasingly being incorporated into local government land-use plans and guiding long-range regional transportation investments.

Sacramento's blueprint is an important model for how to implement SB 375. It demonstrates why the law successfully united fiscal conservatives, environmentalists, city and county leaders, and public health officials.



Outreach materials for the Sacramento Regional Blueprint process showed the sprawl that the region was facing under development-as-usual.

## Figure 5: Sacramento is expected to save big by implementing the smart growth blueprint:

- \$9.4 billion less for public infrastructure costs (e.g. transportation, water supply, utilities);
- 14% fewer carbon dioxide emissions;
- \$655 million less for residents' annual fuel costs;
- \$8.4 billion less for land purchases to mitigate the environmental harm of development;
- 300% increase in public transit use;
- 6% to 13% growth in number of residents who walk or bike.

Source: SACOG Preferred Blueprint Alternative Special Report 2005.

## **Efficient Cities Attract Workers and Revenues**

## San Jose: Building for the Future

The City of San Jose is facing major population growth. It anticipates 400,000 new residents over the next 25 years, with a big increase in the proportion of young adults and seniors. To meet this need, city leaders are developing plans to build on under-used land along transit corridors and create vibrant, mixed-use environments where there are currently parking lots and strip malls.

This planning approach is a four-way financial win for the city: it creates room for additional jobs and therefore a larger tax base; it attracts creative, skilled workers who do not want long commutes; it supports underused public transportation lines with more riders and fares; and it reduces the cost of infrastructure. On top of that, it lowers costs for residents. San Jose households living in locations with the most access to public transportation spend \$13,000 less per year on transportation than the most auto-oriented parts of the city — a greater differential than in any other city in the Bay Area.

Santa Clara County's transportation agency, VTA, is also developing ways to extend the reach of fast, efficient public transportation as their budget tightens. VTA is planning more than 30 miles of Bus Rapid Transit service that will emulate the best features of rail — station areas with prepaid boarding, fewer stops, and dedicated lanes in some areas — but at a much lower price.

## Windsor, California: A Transit-Oriented Small Town Success

The small town of Windsor in Sonoma County is already benefitting from preparing to be a walkable public transportation center, even though SMART trains won't arrive until 2014.

The downtown's sales tax revenue increased tenfold over an eight-year period after the city created an accessible core of civic services, greenspace, and compact housing options for all incomes. Vacancy rates remain low in the downtown, despite the national economic downturn.



Sprawling office parks in North San Jose have huge redevelopment potential.



Santa Clara County is designing a flexible, efficient Bus Rapid Transit system that will be 10% the cost of lightrail.



Windsor's Town Green is well-used. The new buildings enhance the town's charm, and create an all-day clientele for the local shops.

## Efficient Neighborhoods Can Be Vibrant and Affordable

If done right, planning for great walkable places will not just decrease costs for infrastructure and generate revenue, but will make these places more affordable for new homes and businesses. Meaningful, ongoing participation of local residents is crucial to this type of planning.

When the City of San Leandro developed a Downtown Plan, they learned that the community wanted safer streets, affordable places for families to live, a vibrant downtown, and a childcare center near their BART station.

These amenities would not have been possible if zoning codes in San Leandro continued to require more than two parking spaces for each new home. By cutting that requirement in half and allowing slightly taller buildings in this transit-oriented area, the city was able to bring forward a plan that generated tremendous community support.

The plan makes room for more than 3,400 new homes, about seven times what the old zoning would have allowed.

The first development approved under the new plan, called The Alameda, includes 100 units of affordable housing and space for the childcare center.





This photo-illustration shows how San Leandro's 2008 Downtown Transit-Oriented Development Strategy will make street life more lively, safe and attractive.

## Lower parking requirements pay huge dividends for downtown revitalization

By reducing the parking requirement to one instead of two spaces per unit, the first development in the San Leandro downtown plan:

- Saved \$3.9 million by eliminating a floor of parking and an elevator;
- Produced 30 more affordable units;
- Provided a pedestrian-friendly groundfloor with walk-up units and a childcare center, instead of a garage.

Sources: Interviews with City of San Leandro and BRIDGE Housing.

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## When Workers Can Afford Nearby Housing, Everyone Wins

Convenient, walkable neighborhoods can cut transportation costs and long-distance commuting, but only if people can afford to live near their work.

The impact of a "jobs-housing mismatch" can be seen in Marin County, the most expensive housing market in the Bay Area. Although county policies promote environmental stewardship, constraints on development, combined with community opposition, have prevented the development of enough affordable homes.

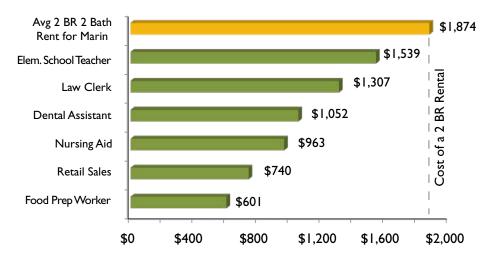
From 1990 to 2000, housing prices in Marin County jumped so high that very few people with low and moderate incomes — teachers, retail workers, and others — could afford to buy or rent in the county they serve (see Figure 6).

Over that period, the number of workers commuting into Marin from Solano and Contra Costa counties skyrocketed by more than 100 percent. (see Figure 8).

A recent study indicates that the limited number of dedicated affordable homes is already helping: these residents spend less on transportation, own fewer vehicles, and have shorter commutes than most county residents (see Figure 7).

Recognizing this trend, Marin County and the Marin Community Foundation are now prioritizing development of more diverse housing options. Matching housing with jobs will be a critical way to meet SB 375 targets and reduce transportation expenses.

Figure 6: Many workers can't afford rent in Marin County.



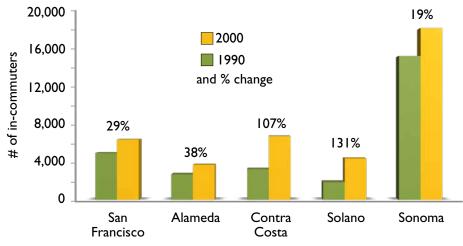
Sources: CA Employment Development Department June 2009 and RealFacts IQ, Marin County Inventory Analysis, via EAH Housing.

### Figure 7: Residents of Marin County's Affordable Homes

- Have shorter commutes. Fully 91% stay in Marin County for work, vs. 62% county-wide.
- Save big on transportation. Only 7% own more than one car, vs. 60% county-wide.

Source: Marin County Community Development Agency

Figure 8: Commutes into Marin County are growing



Number of In-Commuters to Marin County, by County of Residence

Source: Metropolitan Transportation Commission via the Marin County Community Development Agency

## **Cost Savings Can Shift Behavior**

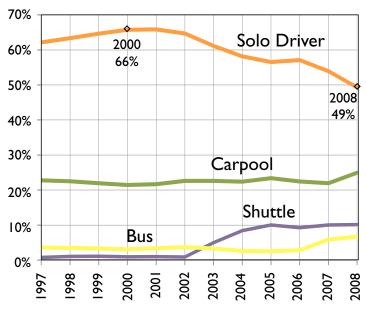
Various interests have expressed concern that policies to meet emission targets in SB 375 will cost "a lot of money and pose huge economic risks to our economy" (Los Angeles County Economic Development Corporation, 2009). But when even a limited analysis is conducted — not including broader health, environmental and other benefits — efficient growth and transportation alternatives are often much less expensive. The University of California at San Diego provides an excellent example.

#### **UCSD Saves Millions with Alternatives**

Anticipating tremendous growth at its La Jolla campus, UCSD planned for 13 new parking facilities. Between 2001 and 2007 they built the first three garages. At the same time, parking fees paid for more shuttles and expanded routes, free and discount fares on public transportation, three courtesy rides home per year for non-driving commuters, and incentives for cycling and walking. They also provided incentives and matchmaking systems for carpoolers, and placed car-sharing pods on campus with free promotional memberships, including a limited number of free uses per year.

Parking use remained flat even as the campus population surged, because students and staff shifted to these more attractive alternatives (Figure 9).

Figure 9: Commuter behavior shifting at UCSD



Source: UCSD (Sam Corbett)

In 2007, UCSD did a "business case analysis" to identify the true long-term costs of new parking facilities including permitting, security, repaving, etc. Because the cost of transportation alternatives was cheaper than adding \$30+ million garages, the school put all future garages on hold.

UCSD's approach was so successful that the University of California system now requires a business case analysis any time a campus looks for solutions to it parking needs. If expaneded, a business case analysis could account for even broader savings, like those in Figure 11.

Figure 10: UCSD Costs per commuter by mode



Source: UCSD (Sam Corbett) and Sundstrom

Figure II: On top of reducing UCSD's costs by millions per year, promoting alternative transportation over building more garages created a cascade of benefits.

- UCSD commuters saved money. This
  was cited as the primary factor for using
  alternatives, with many students choosing
  not to own a vehicle at all.
- Local public transportation benefitted from higher ridership and more fare-box revenue.
- Local residents, pedestrians and bicycle commuters benefited from less traffic congestion — with no increase in vehicle use as campus population surged.
- Local governments benefitted from the need for fewer expensive road-widenings near campus.
- The campus climate action goal to have just 38 percent of commuters driving solo is now within reach.

#### The Time to Act Is Now

Across California we are starting to see a shift in how transportation and growth issues are approached. Cities, developers, and private institutions are experimenting, innovating, and changing the way planning has worked for the past 50 years. But we all recognize that growing more efficiently in just a few neighborhoods is not enough to confront our most pressing issues, such as global warming, traffic congestion, high personal transportation costs and disappearing farmland. These concerns are what inspired regional blueprints and the passage of Senate Bill 375.

SB 375 is a great start in aligning local and regional planning. But to fully realize the environmental and economic benefits of SB 375 identified in *Windfall for All*, we need to shift policies and investments to support this new planning paradigm. Critical recommendations include:

- Integrate full economic analysis into planning. The huge dividends from efficient land use become evident once personal costs, not just public budgets, are considered. Without such analysis, we will continue to promote plans and policies that cost too much for families, businesses, and local governments.
- Provide cities and counties with an infusion of funds to engage the community in planning. The state should make funds available for updating zoning codes and parking policies to make more efficient use of land and resources. Identifying strategies to maintain and expand the number of affordable homes is also critical.
- Fund cost-effective public transportation. The state needs to provide leadership and restore funds for public transit, as well as make it easier for regions to raise new revenues with climate-impact fees. Economic analysis could determine whether such fees spent in ways that promote more efficient communities can reduce our overall costs.
- Innovate, evaluate and replicate. There are dozens of innovative strategies whether an individual program such as car-sharing, or a comprehensive rewards approach such as UC San Diego's. MTC, the Bay Area's transportation agency, will soon launch the first "Transportation Climate Action Program." This program will seed, evaluate and replicate innovative programs. Other regions should follow suit.
- New development should minimize pollution from new residents or pay to mitigate it. The San Joaquin Valley is encouraging efficient development from the start. New developments that don't provide walkable communities with convenient transportation choices must mitigate the costs of the air pollution that will be generated by future residents. The state and regional air districts should encourage this same system for mitigating the costs of greenhouse gases.

Other states and federal agencies are closely watching SB 375 implementation. Together we can create a paradigm shift toward more efficient communities that meet environmental, social and economic goals, while creating a model for other states to follow.

**TransForm** works to create world-class public transportation and walkable communities in the Bay Area and beyond. We build diverse coalitions, influence policy, and develop innovative programs to improve the lives of all people and protect the environment.

For the full report, please visit our website at TransFormCA.org

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