WALK SanDiego

2012
San Diego Regional Walk Scorecard

Sponsored by Sharp Health Plan

Acknowledgements

This report was conceived by WalkSanDiego to elevate the regional dialogue about walkability, its importance to the future growth of our cities, and its role in a fully functioning transportation system. We want to thank the many people who provided input on the Scorecard methodology and *BestWALK* phone application rating system that was integrated into the scores for each city. A special thanks to KTU+A consulting firm who donated a significant portion of their time to assist on report elements and BestWALK.

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Table of Contents

List of Tables

Executive Summary

Like most Americans, San Diegans are increasingly demanding safe and attractive walking conditions, or what we in the livable communities movement call "walkability." Walkability is something we can *feel* more than measure. Yet, increasingly, San Diegans recognize improved walkability as a way to improve health, increase the economic vitality of neighborhoods, and conserve natural resources. New tools are emerging to quantify the walkability of streets, neighborhoods, and cities.

This report measures, for the first time, the extent to which cities in the San Diego region are responding to the call for more walkable neighborhoods. WalkSanDiego created the Regional Walk Scorecard as a customized tool to measure walkability among the 18 cities in the San Diego region, to raise awareness of policies and funding decisions that impact walkability, and to create healthy competition among cities to champion walk-friendly policies and infrastructure. Specifically, the Scorecard rates each city in three major categories, as shown in Table ES-1.

The Best

National City emerged as the top scoring city, for two reasons. First, the city was laid out in the typical pre-war pattern – a dense network of lower volume streets and a mix of destinations and transit stops within walking distance of most residences. Equally as important, National City's recently updated General Plan includes strong policies and plans favoring walking, biking, and transit use. Ironically, National City had the highest rate of pedestrian collisions, but overcame this negative with the high number of residents who either walk or use transit to get to work.

The second leading city, La Mesa, also has a walkable street pattern and detailed policies to become even more so. In addition, La Mesa has aggressively implemented pedestrian improvements in key areas. Solana Beach, the third-ranked city, scored in the middle of the pack on policies and implementation and had the lowest percentage of walk/transit commuters. On the positive side, Solana Beach streets were rated relatively high by *BestWALK* volunteers and had the lowest number of pedestrian collisions in the region, raising its overall score.

The Rest

Cities that scored lowest – Santee, El Cajon, and Lemon Grove – are all East County cities built primarily around the use of automobiles as the main form of transportation. In addition, these cities scored lower on policies and implementation of street improvements that improve walking safety or convenience. This is not to say there are no such policies – indeed, all three have focused on increasing walking, bike safety, traffic calming, and transit use in key areas, such as residential neighborhoods, Main Street corridors, and trolley stations. Due to past planning decisions, however, creating safe and convenient walking conditions will be a long-term effort for these cities.

What it All Means

During the post-war period, the development pattern in the San Diego region – as in most of the United States (U.S.) – has primarily been as car-oriented suburbs. The walkability of older, once highly pedestrian-oriented neighborhoods has been eroded in many cases. As discussed further below, one result is that pedestrian crashes are particularly high in our region. Our past planning priorities help explain why the highest overall score produced for any city was 63, within a framework of 100 possible

points. Most telling are the generally low scores for Policies and Implementation. The highest score in this category was 37 (National City) out of 55 possible points. The report details where there is room for improvement within each of the 12 policy areas that make up the Policy and Implementation category. We recommend that staff and elected officials from each city dig into the details to understand how the Scorecard scores were calculated.

The Scoring Framework

The three scoring categories were derived as follows:

(1) Status of Walking Index – This measure combines two indicators related to how walkable each city is currently: (a) the total percent of residents whose commute mode was either walking or transit in the years 2000 and 2010 according to Census data, and (b) the pedestrian collision rate calculated per population and per miles of street. In general, cities that ranked high in this category tend to be more compact, have a dense network of safe walking routes, and a variety of land uses near residential neighborhoods. Other cities that ranked high have generally fewer people walking and a resulting lower rate of pedestrian vehicle collisions.

(2) Policies and Implementation – For this category, WalkSanDiego completed an analysis of the relative strength of local policies and related data in 12 policy areas we consider critical to enhancing walkability. Policies and implementation were intentionally combined to strike a balance between cities' established big-picture goals and on-the-ground projects, recognizing that written policies are not always implemented and completed projects are not always initiated as a result of a policy.

(3) *BestWalk* Field Data – For this category, WalkSanDiego developed a smart phone application (*BestWALK*) to allow residents across the region to collect and upload ("crowdsource") data regarding the walkability of streets and intersections through the completion of fact-based questions ("Is there a painted crosswalk?") and perceptual questions ("Do you feel safe here?").

Approximately 1,500 intersection and street assessments were completed. Due to this relatively small sample size, and because the *BestWALK* app will be improved over time, the field data accounted for only 10% of the total Scorecard score.

Table ES-1: Regional Walk Scorecard – Total Score

Rank	City	Status of Walking Index	Policies and Implementation	*BestWALK* Field Data	TOTAL
	POSSIBLE POINTS:	**35**	**55**	**10**	**100**
1	**National City**	19.3	37.0	6.7	**63.0**
2	**La Mesa**	16.5	36.6	6.8	**59.9**
3	**Solana Beach**	24.0	29.0	6.8	**59.8**
4	**Imperial Beach**	16.4	34.3	5.6	**56.3**
5	**Carlsbad**	16.1	33.4	6.2	**55.7**
6	**San Diego**	12.2	34.6	8.5	**55.3**
7	**Coronado**	23.6	23.9	6.3	**53.8**
8	**San Marcos**	16.8	29.9	4.8	**51.5**
9	**Oceanside**	17.9	25.8	7.3	**51.0**
10	**Del Mar**	14.6	28.7	7.6	**50.9**
11	**Vista**	13.0	30.7	6.2	**49.9**
12	**Encinitas**	11.9	31.7	5.8	**49.4**
13	**Chula Vista**	11.0	31.0	7.2	**49.3**
14	**Escondido**	11.5	28.6	9.0	**49.1**
15	**Poway**	22.9	18.9	6.5	**48.3**
16	**Lemon Grove**	14.5	21.0	5.7	**41.2**
17	**El Cajon**	12.7	23.1	4.6	**40.4**
18	**Santee**	11.5	20.4	5.2	**37.2**

Lessons Learned

Creating and employing the many complex facets of the Walk Scorecard was a tremendous undertaking, and was not without its flaws. WalkSanDiego intends to work with its partners and vendors to strengthen the scoring criteria and components of the *BestWALK* phone app. The Walk Scorecard highlights the serious and committed efforts by several local jurisdictions to make walking a safe and enjoyable transportation mode. It also underscores the many challenges in implementing pedestrian improvements, particularly in more car-oriented cities.

WalkSanDiego intends to release the Walk Scorecard annually, and we welcome any suggestions for improving the scoring criteria and deploying the *BestWALK* phone app. We also look forward to working with the San Diego Association of Governments (SANDAG) and our many local government partners to make each city a more welcoming place for residents and visitors who want to experience the joy and convenience of transporting themselves by nothing more than their own two feet.

Introduction

There's a lot of talk these days about walking and walkability. Public health officials cite walking as the #1 "intervention" to promote better health and ward off chronic disease. Environmentalists embrace walking as a way to reduce greenhouse gas emissions and air pollution. Planners promote walking as a way to return to a high quality of life in our neighborhoods. And yes, businesses support walking as a way to get more foot traffic in the door and increase sales. Can walking really be good for all these reasons? Yes, it's all true.

Measuring Walkability

Walkability is something we can *feel* more than measure. Yet, increasingly, cities are quantifying walkability as a way to improve health, increase economic vitality, and conserve natural resources. A rating system called *WalkScore* rates the walkability of communities and cities across the country proclaiming that walkable places make you happier and healthier. The scores have been most heavily used by realtors because price and location are the top two considerations of homebuyers. Another tool, the Pedestrian Environmental Quality Index (PEQI), was developed by public health officials in San Francisco to help prioritize improvements that can get more people walking and improving their health. The national recognition program, *Walk Friendly Communities,* was developed to encourage towns and cities across the U.S. to establish or recommit to supporting safer walking environments.

The Purpose of the Scorecard

The Regional Walk Scorecard is a new tool created to generate more discussion about walkability and to encourage cities to create the walkable places people desire. Data and rankings outlined in the Scorecard are not meant to disparage any city. Rather, the ratings present a snapshot of how cities have been and are addressing walkability today, and are to stimulate sharing of best practices.

The Regional Walk Scorecard differs from other walkability measures in several ways. Walkscore, for example, uses a sophisticated algorithm that considers the distance from a specific location to various amenities such as restaurants, parks, and shopping. The algorithm, however, does not recognize whether there are missing sidewalks, high speed roads, or geographic features, such as canyons, that can impact pedestrian access. PEQI uses field observations to answer specific questions about walking conditions, but it does not consider what government policies are in place to support walking. Nor does it look at the level of implementation of these policies. The Walk Friendly Communities award program involves a comprehensive assessment that requires an extensive and rigorous application process. No city in our region has applied to be rated by Walk Friendly Communities.

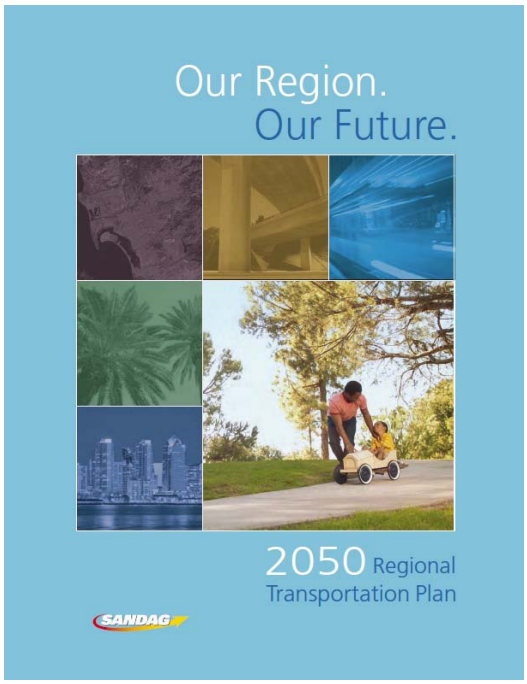
San Diegans want safer, more walkable streets and neighborhoods. They want communities where they can live well and be healthy. WalkSanDiego hopes the Regional Walk Scorecard will raise awareness of policies and funding decisions that impact walkability, and create healthy competition among cities to champion walk friendly policies and infrastructure. The need for improved walking conditions is significant. Pedestrians have the highest risk of all road users because they are the least protected. The San Diego region has one of the highest pedestrian fatality rates in the country, almost double the national average.[1] Whereas walking accounts for 13% of total travel trips in San Diego County, pedestrians represent 36% of traffic fatalities and 3% of transportation funding.[2,3,4]

The Role of Local Governments

Local governments are chiefly responsible for building roads and creating spaces where people feel welcome and safe to walk. Taking actions to create walkable environments can go a long way toward building communities that people enjoy and desire, while moving us away from our dependence on motor vehicles. Local policies are critical in influencing travel choice and demand.

Change is Afoot

In 2011, the San Diego Association of Governments (SANDAG) adopted its 2050 Regional Transportation Plan and Sustainable Communities Strategy (SCS), the first of its kind in the state. The SCS addresses required reductions in vehicle-related greenhouse gases, per Senate Bill (SB) 375 (2008). Since then, three major regional agencies representing nearly two-thirds of California's population have also adopted SCSs. As documented in a recent report from the Natural Resources Defense Council, *A Bold Plan for Sustainable California Communities*, there are many common threads among the plans that demonstrate how planning to accommodate future growth and a healthier environment is changing:[5]



- Less land will be developed to accommodate each new resident
- More public transportation options are being made available
- More people will be given the option to live near transit
- Commutes will get shorter
- Bicycling and walking will be better funded to improve safety and convenience

These changes at the regional level reflect what has started to happen and should continue at the local level, in order to revitalize communities and improve the quality of life while accommodating growth and remaining competitive.

Scorecard Methodology

To create the Scorecard, WalkSanDiego collected data in 35 categories to measure cities' progress toward becoming more walkable. The categories fell under three major headings (Table 1). A description of each category and related findings are detailed in the following pages.

Table 1: Regional Walk Scorecard Framework

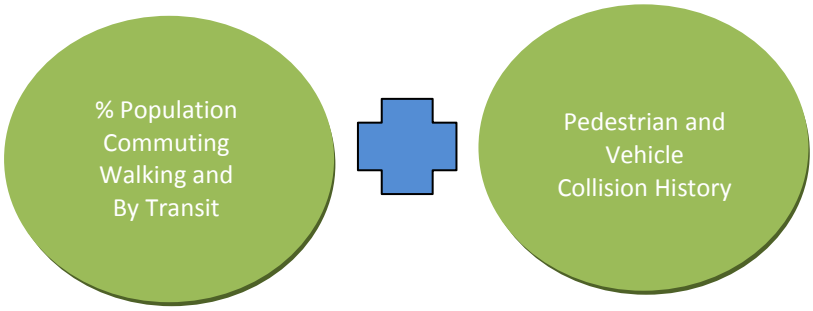
	Category	Percentage Weight
I	**Status of Walking** – How much are people walking in each city and how safe are they?	**35**
II	**Policies and Implementation** – What are cities doing to promote walkable environments?	**55**
III	**Field Data** – What are conditions on the street as crowd-sourced by volunteers across the region using WalkSanDiego's *BestWALK* smart phone application?	**10**
		100 points possible

Table 2: Regional Walk Scorecard – Total Score

Rank	City	Status of Walking Index	Policies and Implementation	*BestWALK* Field Data	TOTAL
	TOTAL POSSIBLE	**35**	**55**	**10**	**100**
1	National City	19.3	37.0	6.7	63.0
2	La Mesa	16.5	36.6	6.8	59.9
3	Solana Beach	24.0	29.0	6.8	59.8
4	Imperial Beach	16.4	34.3	5.6	56.3
5	Carlsbad	16.1	33.4	6.2	55.7
6	San Diego	12.2	34.6	8.5	55.3
7	Coronado	23.6	23.9	6.3	53.8
8	San Marcos	16.8	29.9	4.8	51.5
9	Oceanside	17.9	25.8	7.3	51.0
10	Del Mar	14.6	28.7	7.6	50.9
11	Vista	13.0	30.7	6.2	49.9
12	Encinitas	11.9	31.7	5.8	49.4
13	Chula Vista	11.0	31.0	7.2	49.3
14	Escondido	11.5	28.6	9.0	49.1
15	Poway	22.9	18.9	6.5	48.3
16	Lemon Grove	14.5	21.0	5.7	41.2
17	El Cajon	12.7	23.1	4.6	40.4
18	Santee	11.5	20.4	5.2	37.2

Status of Walking Index

The Status of Walking establishes a baseline for walking in each city in the region. The index reflects how many people walk to work in each city and how safe they are when they walk. Knowledge of walking and transit mode share and the number of pedestrian collisions occurring each year, specifically the locations of these collisions, is critical to planning for a safe walking environment. (Transit share was included because transit riders typically walk at one or both ends of the trip.)



Cities that rose to the top were those where more people are walking to work and where pedestrian collision rates are low. It is important to recognize that cities with higher percentages of people walking and using transit may see a higher number of pedestrian and vehicle collisions because there are more people walking. It is, however, in these communities where funding and policy decisions to support walking are even more essential.

Cities like Coronado and National City rose to the top even with a slightly higher average number of pedestrian collisions because of their relatively high percentage of residents walking and taking transit to work. Poway also rose to the top because of its low collision rate. This is, however, one of the cities with the smallest percentage of people walking to work (1%), suggesting that residents are “safer” only because they have few opportunities to walk.

The City of Solana Beach had the lowest pedestrian vehicle collision rate of all cities with a total of four collisions during 2005-2009. Del Mar had only seven pedestrian collisions, but this number yielded a collision rate of 0.34 per 1,000 residents per year, placing it seventh in this category.

National City and El Cajon had the highest pedestrian vehicle collision rates of all cities with a total of 144 and 239 collisions and a rate of 0.49 and 0.47 per 1,000 persons per year, respectively. These cities also had the highest collision rates per mile of street with both cities at 0.20. Close behind them are the cities of San Diego and Escondido. All four of these cities have collision rates per 1,000 people greater than 0.40.

Table 3: Status of Walking in the San Diego Region Cities Ranked by Status of Walking Index

Rank	City	Population 2010	Miles of Streets	Total # Ped Collisions	Ped Collision Rate per 1,000 per Year	Ped Collision Rate per Mile of Street per Year	Combined Walk & Transit Trips	Status of Walking Index
1	Coronado	18,912	115	37	0.39	0.06	13%	25.2
2	Solana Beach	12,867	57	4	0.06	0.01	3%	24.6
3	National City	58,582	144	144	0.49	0.20	12%	21.2
4	Poway	47,811	274	32	0.13	0.02	4%	21.2
5	Oceanside	167,086	617	281	0.34	0.09	9%	18.8
6	La Mesa	57,065	178	89	0.31	0.10	8%	17.2
7	Imperial Beach	26,324	73	39	0.30	0.11	8%	17.2
8	San Marcos	83,781	304	71	0.17	0.05	4%	15.9
9	Carlsbad	105,328	467	119	0.23	0.05	5%	15.7
10	Lemon Grove	25,820	77	44	0.35	0.11	7%	15.1
11	Del Mar	4,161	35	7	0.34	0.04	5%	14.4
12	El Cajon	99,478	239	234	0.47	0.20	7%	13.6
13	Vista	93,834	289	133	0.28	0.09	5%	13.1
14	San Diego	1,307,402	3,931	2,760	0.42	0.14	6%	12.8
15	Escondido	143,911	495	286	0.40	0.12	5%	11.7
16	Encinitas	59,518	266	80	0.27	0.06	3%	11.4
17	Chula Vista	243,916	628	349	0.29	0.11	4%	11.0
18	Santee	53,413	189	50	0.19	0.05	2%	10.3

Sources: Population, Census 2000; Miles of Streets, SANDAG; Pedestrian and Vehicle Collisions, Transportation Injury Mapping System, University of California Berkeley

* Pedestrian Vehicle collision rates were normalized per year over a five year period. The rates were determined assuming an even distribution of collisions over the five years.

** Walking and Transit Commute Shares reported by 2000 and 2010 Census data were combined to determine the percent of each city's population walking and taking transit to work in the year 2000 and the percent change to 2010.

*** The Status of Walking Index was tallied by combining (a) Walking and Transit Index, (b) total number of pedestrian and vehicle collisions during 2005-2009 per 1,000 people per year in that city providing a steady rate, and (c) pedestrian and vehicle collisions during a five-year period (2002-2009) per mile of street given the total miles of streets.

Policies and Implementation

Local land use and transportation policies can demonstrate a city's interest in being proactive and comprehensive about creating walkable conditions. *Implementation* of these policies is important to produce conditions that actually encourage more people to get out of their cars and walk.

Our analysis of policies and implementation was informed by best practices around the U.S. in planning and engineering to create walkable environments. Data were collected through a written survey sent to cities in May 2012, telephone interviews, and research of existing local policies and programs. Scoring and data inputs were selected to highlight the importance of both policies and infrastructure improvements that demonstrate a commitment to address issues of pedestrian accessibility, safety, and aesthetics. Neither policies nor implementation can stand alone, especially considering that cities in the San Diego region range in population from 4,000 to more than one million. Each city's population and size of roadway network were weighted to account for these differences. A summary of categories for this section is provided below and in the following pages.

Table 4: Points Allocation and Strategy: Policies and Implementation

Policy Area	Points	Goal/Strategy
Adopted Pedestrian Plan	3	Provide robust inventory of pedestrian needs to make walking safer
Universal Access	3	Plan comprehensively for all types of pedestrians
Complete Streets Policy	5	De-emphasize automobile dominance in transportation policies
Sidewalk Network and Inventory Process	5	Routinely provide complete network of sidewalks
Pedestrian Friendly Infrastructure	12	Implement policies with construction of walk- friendly infrastructure
Safe Vehicle Speeds	6	Improve walkability and livability through traffic-calmed streets
Walkability Incentives and Land Use Mix	7	Diversify land use mix and incentivize walk-friendly development
TOD Policy and Last Mile Infrastructure	4	Prioritize new growth in transit and walk-friendly environments
Parking Policies and Requirements	4	Match parking supply with demand to reduce the inefficiency of large parking lots
TDM Policies and Programs	2	Reduce single occupancy vehicle trips and make walking easier
Safe Routes to School History	2	Prioritize safe streets around schools
Tree Canopy	2	Provide pleasant walking environments and strengthen local retail
	55	**TOTAL POINTS**

Table 5: Policy and Implementation Scores by Jurisdiction

	Total Score	Adopted Ped Plan	ADA Transition Plan	Complete Streets	Sidewalk Network	Ped Friendly Infra	Safe Vehicle Speeds	Incentives and Land Use	TOD Policy	Parking Policies	TDM Policy	Safe Routes to School	Tree Canopy
National City	**37**	0.5	2.5	3.5	4.6	5.5	3.9	6.00	3.2	4.00	1.25	2.0	0.11
La Mesa	**37**	1.5	2.5	0.75	4.2	8.4	5.3	5.41	3.4	1.50	1.25	2.0	0.48
San Diego	**35**	1.5	2.5	0	3.4	5.9	4.3	5.51	3.7	4.00	2.00	1.0	0.72
Imperial Beach	**34**	0	1.5	0	4.7	7.3	4.0	6.43	4.0	2.00	1.50	2.0	0.78
Carlsbad	**33**	1.5	3	2	2.5	4.7	5.9	3.80	3.4	4.00	1.25	0.5	0.93
Encinitas	**32**	0.5	2.5	2.25	2.6	3.7	5.6	3.94	2.3	3.00	2.00	2.0	1.32
Chula Vista	**31**	1.5	2.5	1	3.5	6.2	4.0	2.93	3.7	2.00	1.25	2.0	0.37
Vista	**31**	0.5	1	4	2.7	3.0	5.8	4.89	3.3	1.75	1.50	1.5	0.73
San Marcos	**30**	0.5	1.5	4	2.4	4.2	4.1	3.18	3.7	2.75	1.75	1.0	0.89
Solana Beach	**29**	0.5	1	0.75	3.0	7.8	5.6	2.74	2.9	1.00	1.25	0.5	1.79
Del Mar	**29**	0	1.5	1.25	1.3	7.2	4.3	4.37	2.8	2.00	1.00	1.0	2.00
Escondido	**29**	0.5	1	3	2.7	3.8	3.9	4.31	3.2	2.00	2.00	1.0	1.17
Oceanside	**26**	1.5	0.5	1.5	2.4	3.2	5.3	4.64	2.6	0.50	1.75	1.0	0.90
Coronado	**24**	0	1	0	3.6	6.5	3.3	2.51	2.9	1.50	1.00	1.5	0.06
El Cajon	**23**	0	1.5	0	4.1	3.3	3.1	4.66	2.4	2.00	0.75	1.0	0.31
Lemon Grove	**21**	0	0.5	0	2.2	3.0	3.9	3.43	3.5	2.00	0.50	2.0	0.00
Santee	**20**	0.5	1	0	2.8	4.2	3.0	1.51	3.0	1.75	1.00	1.5	0.17
Poway	**19**	0	1	0	1.6	5.0	4.6	0.86	1.3	0.75	1.50	1.0	1.26

Adopted Pedestrian Plan

Why it Matters

This is really where it starts. Communities can address walkability issues using a variety of plan types, such as general plans, corridor studies, specific plans, and capital improvement plans. Dedicated pedestrian plans, however, indicate a commitment to pedestrian safety by establishing baseline data on collision history and a prioritization scheme to fund improvements. Trails Master Plans are also important to encourage more designated walking routes, to create a comprehensive network, and to attract funding. Unlike a Pedestrian Master Plan, the primary focus of a Trails Master Plan is not necessarily to improve pedestrian safety, but rather to encourage walking.

What We Measured: Cities with Pedestrian Master Plans received the highest score in this category. Cities that have received funding to create a Comprehensive Active Transportation Strategy (CATS) or combined Bicycle and Pedestrian Plan and cities with Trails Master Plans received partial credit. We also allocated points to cities that established a target mode share for walking to track progress toward increasing walking rates.

Points Allocation – Adopted Pedestrian Plan	3
- Adopted Pedestrian Master Plan	1.5
- Adopted Trails Plan	0.5
- Target mode share for walking	1

What We Found: Five cities in the region have dedicated Pedestrian Master Plans; three additional cities have received funding to implement a CATS or a combined Bicycle and Pedestrian Plan; and four cities have some sort of trails plan. No city in the region has yet established a target mode share for walking.

Bright Spot

In WalkSanDiego's report *Safe for All,* we recommended that cities begin combining pedestrian and bicycle planning into one document to better plan for all modes. One city – La Mesa[6] – has created such a combined plan and several others have received funding to do so.

Room for Improvement

The success of a Pedestrian Master Plan lies in its implementation. Whereas most of the region's Pedestrian Master Plans identify and prioritize numerous projects, funding strategies or implementation goals were not included. Best practices around the country indicate that goal setting—such as establishing a target mode share or implementation benchmarks—and annual reporting on progress help cities stay accountable to implementing pedestrian plans.

Universal Access

Why it Matters

The Americans with Disabilities Act (ADA) of 1990 requires public agencies with more than 50 employees to develop and implement an ADA Transition Plan. The purpose of this plan is to make the city's facilities and programs universally accessible, or designed in a way that enables all people to reach every destination served by a public street, transit, and pathway system.[7] A universal access policy emphasizes a city's ongoing dedication to providing these facilities.

What We Measured: Cities with the highest score had ADA Transition Plans in place and a universal access policy. The plans included prioritization of certain areas for implementation, an inventory of existing infrastructure needs, a wide variety of implementation tools (control signals and sidewalks in addition to curb ramps), funding methodology, and/or an annual update on progress.

Points Allocation - Universal Access	3
- ADA Transition Plan	2
- Universal Access Policy	1

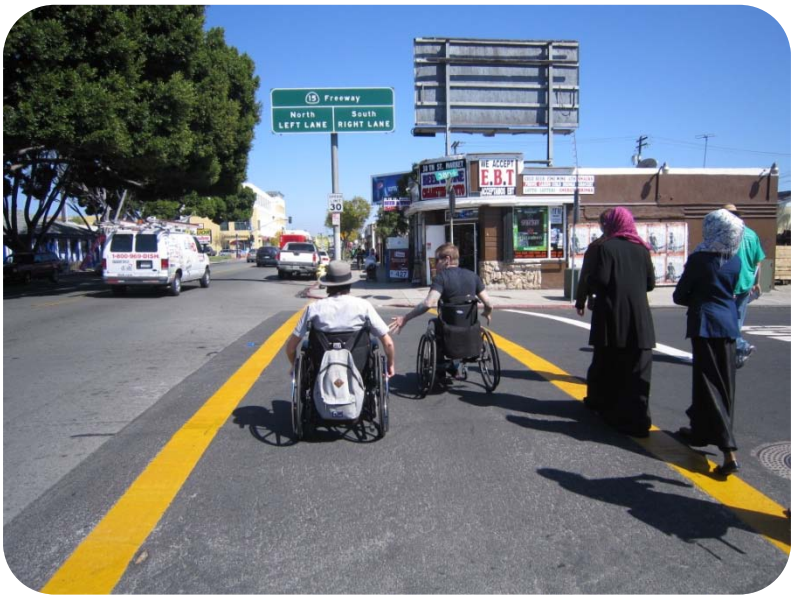
What We Found: Four cities – Carlsbad, San Marcos, Encinitas, and Del Mar – are currently updating their ADA Transition Plan and as a result, establishing best practices for other cities in our region to emulate. Many cities have a list of curb ramp and sidewalk needs, but their ADA Transition Plan has not been updated in some time.

Bright Spot

Carlsbad had the most progressive plan. It included a prioritization process of certain areas for implementation, a robust inventory of existing infrastructure needs, a wide variety of implementation tools, such as the latest control signal technologies, sidewalks, and curb ramps, and a funding methodology.

Room for Improvement

Despite the federal law requiring them, not all cities have ADA Transition Plans and very few have universal access policies. Some cities replied they weren't sure whether they had a Transition Plan or not, and many had not updated plans to reflect recent changes in federal ADA design standards.



Complete Streets Policy

Why it Matters

Complete Streets are simply streets designed for all users including pedestrians, cyclists, motorists, and transit users, regardless of age or ability. Complete Streets policies formalize a city's intent to plan, design, operate, and maintain streets that are safe for users of all ages and abilities.[8] Even if a city has existing policies emphasizing the need for pedestrian safety, adoption of a Complete Streets policy demonstrates a city's renewed commitment to consistently design and construct the right-of-way for all users. These policies recognize the broad shifts in transportation policy that break with past traditions historically geared towards the automobile.

What We Measured: Cities that rose to the top in this category had adopted Complete Streets policies and also flexible Level of Service (LOS) thresholds, the standard measure of vehicle delay. (Strict adherence to LOS standards inevitably leads to wider roads, faster speeds, and dangerous conditions for pedestrians and cyclists.) We also allocated points to cities that had demonstrated an interest in metrics for multiple modes, such as Multi-Modal LOS. Cities with drafted Complete Streets policies, not yet officially adopted, were provided partial credit.

Points Allocation - Complete Streets policy	5
- Complete Streets policy	1.5
- Provides general LOS flexibility	2
- Provides LOS flexibility in specified area	1
- Considers metrics for multiple modes	0.5

What We Found: The eight cities in our region that have adopted new general plans (required by state law), or are in the process of doing so, had Complete Streets policies. Five cities include policies with some sort of flexible LOS threshold, either generally or within specified areas like downtowns, acknowledging that these areas see greater walking activity.

Bright Spot

Cities with newly adopted Complete Streets policies are going above and beyond a standard walk-bike policy by integrating into their plans such innovative tools as LOS flexibility, Multi-Modal LOS strategies, and street typologies.[9]

Room for Improvement

Cities with Complete Streets policies are limited to those that have updated general plans. In addition, some Complete Street policies are stronger than others. WalkSanDiego urges all cities to adopt effective Complete Streets policies or ordinances to create multi-modal streets and advance the update of other auto-centric policies and practices.

Sidewalk Network and Inventory Process

Why it Matters

Studies show residents are 65% more likely to walk in a neighborhood with sidewalks.[10] Further, a recent safety review by the Federal Highway Administration found the provision of sidewalks reduces pedestrian crashes by **88%**, a reduction higher than any other measure.[11]

WalkSanDiego recognizes that construction of sidewalks in some communities can be very challenging given the built-out nature of the properties. In some neighborhoods with low volume, slow-moving traffic, sidewalks are not a high priority. Sidewalks, however, are an essential component for improving walkability, and cities should consistently fund sidewalk improvements—especially in areas with a high propensity for walking and/or high vehicular speeds. Having an ongoing sidewalk inventory process in place demonstrates a city's commitment to cover existing gaps.

What We Measured: Cities were scored by the ratio of sidewalk mileage to street mileage for the existing road network. This was combined with a score for the presence of sidewalks on streets in areas identified with a high or moderate propensity for walking. Identification of roads in the latter category is based on a Pedestrian Priority Model commonly used in pedestrian master plans to help identify where improvements should be targeted.[12] Cities that rose to the top scored well on the presence of sidewalks and reported having a sidewalk inventory system in place.

Points Allocation - Sidewalk Network and Inventory Process	5
- Ratio of sidewalk miles to street miles	1.5
- Percent sidewalks on streets with high propensity for walking	2.5
- Sidewalk inventory in place	1

What We Found: Cities with a high ratio of sidewalks to streets (Table 6) were not the same cities with a high percentage of sidewalks on streets marked with a high propensity for walking (Table 7). The cities at the top of these categories were Chula Vista and Imperial Beach, respectively.

Bright Spot

The cities that rose to the top provide more sidewalks in areas identified as having a high propensity for walking. This demonstrates a model approach to creating more walkable streets and neighborhoods.

Room for Improvement

Fewer than half of the cities have a ratio of sidewalks to streets greater than one. This indicates there is still a great need for sidewalk construction throughout the region. WalkSanDiego recognizes that construction of sidewalks in some communities can be very challenging given the built-out nature of the properties, and because some communities prefer a "rural" look without sidewalks. Sidewalks, however, are an essential component for improving walkability, especially for seniors, children, and people with disabilities. Cities should work to consistently fund sidewalk improvements—especially in areas with a high propensity for walking.

Table 6: Ratio of Sidewalk Miles to Streets Miles

	Miles of Sidewalk	Miles of Streets	Ratio of Sidewalks to Streets
Chula Vista	845	628	1.35
National City	175	144	1.22
El Cajon	287	239	1.20
San Diego	4,557	3,931	1.16
Carlsbad	534	467	1.14
Imperial Beach	80	73	1.10
Oceanside	672	617	1.09
Santee	205	189	1.08
San Marcos	290	304	0.95
La Mesa	165	178	0.93
Escondido	408	495	0.82
Solana Beach	44	57	0.77
Coronado	85	115	0.74
Encinitas	186	266	0.70
Vista	199	289	0.69
Lemon Grove	53	77	0.69
Poway	168	274	0.61
Del Mar	8	35	0.23

Table 7: Prevalence of Sidewalks Available on Streets Identified as Having High, Moderate, and Low Propensity for Walking

	High	Moderate	Low
Imperial Beach	54%	43%	3%
National City	48%	38%	11%
Coronado	32%	33%	19%
La Mesa	25%	48%	22%
San Diego	18%	29%	28%
El Cajon	17%	40%	26%
Lemon Grove	14%	32%	45%
Del Mar	12%	1%	41%
Chula Vista	11%	23%	40%
Escondido	8%	18%	22%
Solana Beach	7%	30%	37%
Vista	7%	23%	41%
Encinitas	6%	19%	42%
Oceanside	5%	17%	44%
San Marcos	4%	13%	38%
Carlsbad	3%	5%	28%
Santee	1%	16%	58%
Poway	1%	12%	43%

Pedestrian Friendly Infrastructure

Why it Matters

Cities have a wide variety of tools to improve walking conditions. For purposes of this Scorecard, WalkSanDiego selected relatively basic tools that are proven to reduce pedestrian collisions yet have seen limited implementation throughout the region. By including them in this analysis, we hope to encourage greater use of the selected tools.

What We Measured: A review of crosswalk policies and their implementation was combined with cities' curb radius standard, and the number of road diets and curb extensions completed in the last three years, weighted by the mileage of streets. These techniques are described below.

Points Allocation - Pedestrian Friendly Infrastructure	12
- Crosswalk policy	2
- Consistency in marking crosswalks	2
- Midblock policy or practice	2
-Curb radius standard	2
-Road diets implemented in last 3 years	2
-Curb extensions constructed in last 3 years	2

What We Found:

Crosswalk Policy

Marked crosswalks are an essential tool for helping pedestrians move safely, conveniently and predictably across roadways. They alert drivers to expect crossing pedestrians and help guide pedestrians to cross at safer locations. Research clearly shows that determining where and how to apply crosswalks requires a context-sensitive approach that considers location, amount of vehicular and pedestrian traffic, and typical behaviors of drivers and pedestrians. Crosswalk policies formalize a city's commitment to striping basic crosswalks—preferably including mid-block crosswalks—in specified locations and guide decisions about where additional treatments, such as ladder stripes and flashing in-pavement lights, should be used.

We reviewed whether cities have a crosswalk policy, how consistently cities paint crosswalks at major intersections,[*] and the extent to which cities have demonstrated a willingness to paint mid-block crossings. We recognize that smaller cities are not as likely to have written crosswalk policies. We feel, however, these policies are absolutely essential to formalizing a city's desire and consistency to appropriately providing crosswalks throughout the city.

> *Good crosswalk policies will include the purpose of painted crosswalks, a decision tree for the style of crosswalk treatment, and criteria for using special treatments such as high visibility striping, raised crosswalks, flashing lights, and pedestrian controlled traffic signals.*

[*] As viewed through Google Maps. Important to note the presence of stop bars do not count as crosswalks.

Additional Design Measures

Other design measures rated for the Scorecard were the policy or practice of curb radius standards, implementation of road diets, and construction of curb extensions.

Curb Design

The radius of a corner curb describes how far into the street the corner extends. Large radii allow vehicles to make right turns without significantly reducing speed. For this reason, reduced curb radii and curb extensions are recognized traffic calming tools to slow vehicles turning at intersections and to reduce the crossing distance for pedestrians. Curb radii recommended in SANDAG's *Planning and Design for Pedestrians* (30' radius in general and 15-20' radius for minor streets) were used as a baseline to compare and rate city standards for curb radius design.[13]

Road Diets

Road diets, streets where the number or width of travel lanes has been reduced, constitute an especially effective tool to promote walkability and Complete Streets. Implementation of road diets has been shown to reduce pedestrian crashes by 29% and allow for new or wider bicycle lanes and/or sidewalks within the *existing right of way.*[14] Studies show that road diets to create one lane each direction on streets serving up to 23,000 vehicles per day substantially improve safety without significantly reducing roadway capacity. Most road diet projects result in the same or greater traffic volumes, but at a slower speed.[15]

Quick Stats: Benefits of a Road Diet

- 34% reduction in pedestrian crashes
- 68% reduction in pedestrian injury rates
- Average of 10 mph decrease in vehicle speeds
- 23% increase in pedestrian volumes
- 30% increase in bicycle volumes

Source: Local Government Commission, Presentation on Roundabouts and Road Diets, 2004

Bright Spot

Cities that are installing mid-block crosswalks and constructing curb extensions are often the ones that are also completing road diets. This layered approach of carefully selecting and applying treatments is a model for creating safe, walkable streets. The safety benefits extend to drivers as well, reducing costs for crash victims and liability costs for cities.

Room for Improvement

Five cities reported having an adopted crosswalk policy, although some were more than 20 years old. In reviewing consistency of painting crosswalks, it was noted several cities are in the practice of painting only stop bars at intersections and very few cities use high visibility crosswalks on a regular basis, outside of school zones. Best practices in providing pedestrian crossings around the U.S. start with the integration of crossing policies into Pedestrian Action Plans. These plans outline how the city will mark crosswalks and combine these with medians, beacons, and other practices that make crossings safer.

Safe Vehicle Speeds

Why it Matters

Excessive speeds have a dramatic impact on pedestrian safety, increasing both the number and seriousness of crashes. Eighty-five percent of pedestrians struck by a car going 40 miles per hour (mph) will die; at 30 mph the likelihood of death is 45 percent. At 20 mph, the fatality rate drops to just 5 percent.[16] Ironically, studies show that more traffic can be moved at 30 mph than any other speed, all else being equal.[17] Traffic calming is an effective way to encourage drivers to reduce their speed and make roads safer for all users.

What We Measured: We rated cities by the presence and quality of a traffic calming program and combined this analysis with the percentage of roads in the city's overall street network with posted speed limits of 35 miles per hour or less. This threshold was selected because pedestrian fatalities and severity of injuries dramatically increase at speeds higher than 35 mph. Finally, cities were also rated by the presence of a traffic commission and the degree to which the cities communicate the process of reporting resident traffic concerns on their websites.

Points Allocation - Safe Vehicle Speeds	6
- % roads with posted speed limits ≤ 35 mph	3
- Traffic calming program instituted	3

What We Found: Traffic calming has come a long way in San Diego in the last 15 years. In 2003, WalkSanDiego published *Slow Down! Taming Neighborhood Traffic*, which was the first regional resource on traffic calming in the region. Since then, nine cities in the region have initiated a neighborhood traffic calming program. These programs not only offer a toolkit of traffic calming measures, but also provide a community reporting process that guides residents' requests and encourages reporting traffic concerns. These programs provide an excellent model for other cities to emulate.

Impact Speed (mph)	*Pedestrian's Chance of Survival*
20	95%
30	55%
40	15%

Bright Spot

Nine cities in the region have adopted some type of neighborhood traffic calming program. Most cities had less than five percent of roads posted with speeds higher than 35 mph.

Room for Improvement

Cities with traffic calming programs do not always have adequate funding set aside to implement the programs well. Most traffic calming programs focus on neighborhood streets, yet these tools have great value on streets with higher traffic volumes, too, to help improve safety for all roadway users.

Walkability Incentives and Land Use Mix

Why it Matters

Land use policies and zoning are the driving forces that can create vibrant neighborhoods where people are more likely to walk. Compact, mixed-use development is fundamental to making communities walkable because more origins and destinations can be sited within walking distance of one another.[18] Measures of land use diversity, proximity of destinations, and intersection density are the elements most strongly related to walking.[19]

What We Measured: Policies selected for this analysis focused on pedestrian connectivity and development incentives offered to gain more progressive approaches to building walkable communities. This information was combined with a Walkability Index, recently devised for SANDAG's *Regional Health Atlas,* that measures the relative walkability of cities based on retail floor area ratio (FAR), intersection density, net residential density, and land use mix.[20]

Points Allocation - Walkability Incentives and Land Use Mix	7
- Connectivity policy	1
- Incentives offered for pedestrian friendly development	2
- Utilitarian Walkability Index	4

What We Found: Cities that rose to the top achieved high scores on the Walkability Index and had instituted policies and incentives to promote a walk-friendly environment. Incentive examples included density bonuses, height increases, and reduced parking requirements in exchange for ground floor commercial uses, "active" retail storefront design, an expanded dedication of Right of Way, lot consolidation with other land owners, and underground parking.

Bright Spot

Most cities have policies and goals to provide a complete, connected pedestrian network through the presence of sidewalks and key roadway connections. A limited number of cities have measures or goals to incentivize pedestrian-friendly development, mostly in association with downtown areas and/or transit corridors/areas.

Room for Improvement

Approximately half of the cities received less than half of the points available for the Walkability Index, indicating that these cities have less of a walkable land use mix, intersection density, and residential design. Cities with higher Walkability Index scores were more compactly developed.

Transit Oriented Development Policy and Last Mile Infrastructure

Why it Matters

The basic definition of Transit Oriented Development (TOD) is the concentration of higher-density mixed-use development within walking distance – or a half mile – of transit stations. As the need for TOD has grown in cities in recent years, cities have expressly utilized TOD as a strategy to diversify housing options near transit to boost transit ridership, generate revenue for the public and private sectors, and create a sense of place for residents.

The average American family spends 19% of its household budget on transportation. Households in auto-dependent neighborhoods spend 25%,[21] while those in walkable neighborhoods with good transit access and a mix of housing, jobs and shops, spend an average of **9**%.[22] Households in the San Diego region[†] spend approximately 55% on housing and transportation costs combined.[23] With an estimated 97% of new housing in the region to be constructed in transit friendly or smart growth opportunity areas, TOD is critical to helping families save money and access more opportunity.[24] Getting people safely from their homes to transit stations and from transit stations to workplaces will depend largely on cities' success in designing streets that safely provide access between transit stops and the final destination. This segment of the trip is often referred to as the "last mile."

What We Measured: We reviewed whether cities had adopted a TOD policy and combined this with data from a Transportation Infrastructure Support measurement tool produced for SANDAG.[25] Transportation infrastructure was a composite measurement based on the percentage of households within 0.6 mile of a transit station, sidewalk completeness, and access to non-motorized trails.[26]

Points Allocation - TOD Policy and Last Mile Infrastructure	4
- TOD policy adopted	2
- Transportation Infrastructure Support	2

What We Found: Our analysis showed that all but four cities in the region have some sort of policy promoting higher density development near transit, what we considered to be a Transit Oriented Development policy. The range of scores for Transportation Infrastructure Support did not vary widely, from 1.3 to 2.00 with Lemon Grove at the top of the list.

Bright Spot

In addition to outlining a TOD policy, cities with recently updated specific plans (focused on a specific area) or general plans emphasize TOD as a means to creating better quality of life and reducing vehicular trips.

Room for Improvement

Outside of reduced parking requirements, we found no other incentives to implement TOD developments. Best practices around the country include a multitude of additional tools, including funding incentives, greenspace planning, and various transportation enhancements.[27]

[†] Households earning the Area Median Income

Parking Policies and Requirements

Why it Matters

The design, price, and amount of parking in a community greatly affect its walkability. Traditional parking policies have been a one-size-fits-all approach regardless of parking demand and over time have created a saturation of parking. The problem with this oversupply is that buildings are forced to locate away from one another, creating unwalkable distances between destinations and dead spaces that discourage walking. Policies that allow for shared parking (multiple uses whose activities are not normally conducted at the same hours) or reductions in specified areas are model policies that recognize parking supply and demand can be more closely matched than with traditional parking requirements. Progressive models in other U.S. cities include maximum parking standards, in-lieu fees, and "unbundled" parking fees that allow those not using cars to pay less for rents, mortgages, or goods.[28]

What We Measured: We rated cities on whether they have a shared parking policy, the extent to which parking requirements are reduced in transit areas or affordable housing, and the adoption of more progressive parking policies as cited above.

Points Allocation - Parking Policies and Requirements	4
- Shared parking policy adopted	1
- Parking reductions allowed	1
- Progressive parking policies, e.g. maximum limits	2

Bright Spot

All 18 cities have adopted policies to allow for shared parking and parking reductions of some kind. Most cities have policies that allow for reduced parking either for affordable housing or areas well-served by transit.

Room for Improvement

Some of the shared parking policies require the same number of spaces for complementary uses, only in the same lot. A far superior approach is to allow for a reduction in spaces based on complementary hours of operation or mixed land uses. Across the country, cities are exploring parking management techniques to better match parking demand with supply and move away from the one-size-fits-all approach. This approach cuts development costs, incentivizes higher density in walkable/transit friendly areas, and promotes greater transit use and multiple transportation modes.

Transportation Demand Strategies (TDM)

Why it Matters

TDM refers to a variety of strategies cities can employ to help change travel behavior—the *how*, *when,* and *where* people travel—thereby decreasing the number of single-occupant vehicles on the road. TDM policies and strategies have typically been considered only for commute trips, but cities across the U.S. are increasingly using strategies for *all* trips. Whereas TDM practices have typically focused on carpooling and "alternative modes of transportation," such as bicycling and walking, cities around the U.S. are establishing best practices that extend far beyond these traditional methods.[29]

What We Measured: We rated cities by the presence and quality of a TDM policy, the degree of incentives offered to city employees to encourage use of alternative commute modes, and participation in SANDAG's ridesharing program, "iCommute." (Reduced parking requirements is a familiar TDM strategy accounted for under Parking Policies and Requirements.)

Points Allocation - TDM Policies and Programs	2
- TDM policy adopted	2

What We Found: Approximately 15 cities have TDM policies – not surprising since the concept has long been a staple of regional transportation management programs. Since initiation of SANDAG's iCommute program, several cities have participated in promotional activities such as Bike to Work Day, Rideshare Week, Walk Ride & Roll, and most recently, SANDAG's Energy Roadmap Program.[‡]

Bright Spot

The City of San Diego's program is the gold standard for TDM in the region. It has successfully implemented a car sharing program and initiated discussions on a bike sharing program. In addition, the City recently adopted reduced parking requirements for affordable housing based on progressive Walking and Transit Indices.

Room for Improvement

TDM innovations. TDM may be the area in which transportation practice will change most dramatically in the near term as roads become increasingly congested and the built-out nature of our cities and lean budgets limit the widening of roads and other traditional solutions. Cities across the U.S. have demonstrated a high level of innovation to reduce vehicle miles traveled and effectively integrate TDM policies and strategies into a broad array of transportation tools. Awareness of these tools in the San Diego region appears to be very limited.

[‡] Provides technical assistance to volunteer cities to identify ways to save energy in government operations and in the community and includes a TDM component.

Safe Routes to School Program

Why it Matters

Safe Routes to School is a program designed to increase children's physical activity and create safer streets for walking and biking to school. Initial efforts to promote walking to school in the U.S. emerged in the 1990s.[30] In 2000, the National Highway Traffic Safety Administration sponsored two pilot programs to test the effectiveness of Safe Routes to School programs in Marin County, California and Arlington, Massachusetts. These pilot programs utilized a comprehensive "5E" model that included education, encouragement, engineering, enforcement, and evaluation. The strong success of these pilot programs helped to establish a federal Safe Routes to School program in 2005.

What We Measured: Cities were rated by their history of implementing a Safe Routes to School program or project, specifically through the number of state and federal grants solicited and received. Cities that rose to the top had not only completed infrastructure improvements but also initiated some type of complementary education program.

Points Allocation - Safe Routes to School Program History	2
- Safe Routes to School grant solicitation and education program	2

What We Found: Safe Routes to School efforts have been growing steadily in the San Diego region since 2008. Since then, all but three cities in the region (not counting Del Mar which does not have schools within its city limits) have received funding for Safe Routes to School infrastructure and/or education at the state and/or federal level. The majority of this funding has been for infrastructure projects. A handful of cities have won federal funding and incorporated a robust education program into the overall strategy.

Bright Spot

The Safe Routes to School projects being implemented in the San Diego region are largely traffic calming projects, such as the construction of roundabouts and curb extensions, and basic infrastructure improvements, such as curb ramps and crosswalks. These projects, especially the traffic calming projects, provide effective models for other cities to emulate.

Room for Improvement

The vast majority of Safe Routes to School projects have been focused on infrastructure without a complementary education component. Research has shown that education is a critical component as it helps to educate families about the health benefits of walking, is a proven method to change behavior, and often includes encouragement elements to make walking or biking to school a fun family activity.

Tree Canopy

Why it Matters

We all enjoy walking where there is a nice canopy of trees. The presence of trees offers shade, reduces radiant heat, helps to slow vehicle speeds, and may increase property values up to 15%. Shade trees also reduce the demand for heating and air conditioning when planted near buildings and reduce noise from nearby roadways. Trees in Main Street corridors have been found to increase retail sales. Further, the presence of a tree on the street near a home can increase its monthly rent up to $21.[31]

What We Measured: We ranked cities (Table 8) by the percent of land covered by tree canopy as reported in a 2010 U.S. Department of Agriculture report.[32]

Points Allocation – Tree Canopy	2
- Percent of land covered by tree canopy	2

What We Found: There is a nine percent range of tree canopy coverage among the region's cities, a relatively low variance.

Bright Spot

The Urban Greening Grant Program offered through the State's Strategic Growth Council provides competitive funding each year for California cities to improve their urban areas through the development of greener public spaces. Cities like San Diego have successfully applied for this grant funding to develop urban greening plans for specified communities. Even without this funding, other cities, like Encinitas, are being proactive to prioritize the planting of shade trees in their business districts.

Room for Improvement

The city with the most coverage according to this data is Del Mar at 9.4%. There is room for improvement for all cities in the region to plant more trees along street corridors, especially in business districts as a strategy to increase sales and walkability.

Table 8: Tree Canopy Rankings

Ranking	City	% Tree Cover	Tree Canopy Points
1	Del Mar	9.4%	2.00
2	Solana Beach	8.4%	1.79
3	Encinitas	6.2%	1.32
4	Poway	5.9%	1.26
5	Escondido	5.5%	1.17
6	Carlsbad	4.4%	0.93
7	Oceanside	4.2%	0.90
8	San Marcos	4.2%	0.89
9	Imperial Beach	3.7%	0.78
10	Vista	3.4%	0.73
11	San Diego	3.4%	0.72
12	Lemon Grove	3.0%	0.64
13	La Mesa	2.3%	0.48
14	Chula Vista	1.7%	0.37
15	El Cajon	1.5%	0.31
16	Santee	0.8%	0.17
17	National City	0.5%	0.11
18	Coronado	0.3%	0.06

BestWALK Street Ratings

The final component of the Scorecard rating system involved "ground-truthing" each city's walkability. To collect field data for this exercise, WalkSanDiego developed a smart phone application, *BestWALK,* which allowed residents to collect and upload ("crowd-source") data about their neighborhood streets. By definition, crowd-sourcing does not relate to any particular focus group or limited number of people. Instead, it allows any willing volunteer to input data, in this case by answering questions posed through *BestWALK.*

How it Works

Residents around the San Diego region were asked to walk streets in their city or neighborhood in September and October 2012 and answer questions posed through *BestWALK*. Data were collected separately for (a) individual street segments and (b) intersections. *BestWALK* asked fact-based questions (e.g., Is there a sidewalk present?) as well as perceptual questions (Does the street feel safe for walking?).

Most questions were answered on a four-point Likert scale which allows users to provide some nuance to their answers. Sample evidence-based questions included: Is there a sidewalk? Is the sidewalk continuous? Is there a crosswalk? Sample perceptual questions included: Do you feel safe walking here? Do you feel safe crossing here? Are the surrounding buildings and landscaping attractive? Is there shopping and dining nearby? One of four answers to these questions was made available: Strongly Agree, Agree, Disagree, Strongly Disagree. A full list of questions can be viewed in Appendix A, *BestWALK* Rating Sheet.

About BestWALK

BestWALK is available on both the iPhone and Android platforms in English and Spanish. It was created by Axiom xCell, a San Diego-based mobile application developer that specializes in transportation-related products. WalkSanDiego worked with a local consulting firm, KTU+A, to upload a priority street network into the application by which users could rate the walkability of individual streets and intersections. A segment is defined as a linear walkway edge found between intersections or alleyways. Though the conditions of walkways can change abruptly, a segment of roadway within a single block (or half block in the case of alleyways) are typically consistent in their walking conditions.

Recognizing that limited funding is available for street improvements, a prioritization process was warranted. The Pedestrian Priority Model was therefore used to identify streets where people are more likely to walk given the types of destinations available (such as parks and activity centers), yet are negatively impacted by features that could impede people from walking (such as high vehicle speeds or a history of pedestrian collisions). The model identified 30,000 street segments meeting the criteria for inclusion in the *BestWALK* database. This prioritization criteria took into account a variety of street conditions, including traffic volumes, speeds, roadway geometry, and collision data, as well as demographic information and land use polygons that help to identify the locations of the greatest number of existing or potential pedestrians.

Pedestrian Priority Model

(a) Pedestrian Attractors - land uses likely to attract pedestrians such as schools, parks and recreation facilities, and transit stations,

(b) Pedestrian Generators - demographic data indicating a higher volume of pedestrians living or working in the area, and

(c) Pedestrian Detractors - features likely to discourage people from walking, such as higher posted speed limits, high volumes of traffic, and areas with a pedestrian/vehicular collision history.

BestWALK Rating Results

Approximately 1,500 street segments and intersections were rated by volunteers across the region during the months of September and October 2012 to determine the rankings in Table 9.

Each street segment and intersection within the *BestWALK* network was available for rating by one individual. Once it was rated, it was taken off the visible network on the phone application. We felt this was a necessary step in this initial phase of *BestWALK* in order to increase the number of streets rated. In the future, we intend to allow for multiple inputs on each network street or intersection to offer more depth and variety in ratings.

It is interesting to note that many of the cities that rose to the top or fell to the bottom in the other analyses maintain a similar position in the *BestWALK* ratings. For example, Solana Beach, La Mesa, and National City are in the top ten highest rankings and scored high in other analyses as well. On the other hand, Santee, San Marcos, and El Cajon received lower ratings via *BestWALK*, and similarly lower scores in most of the other analyses.

Table 9: Field Data *BestWALK Ratings*

Rank	City	Average Score
1	Escondido	9.0
2	San Diego	8.5
3	Del Mar	7.6
4	Oceanside	7.3
5	Chula Vista	7.2
6	Solana Beach	6.8
7	La Mesa	6.8
8	National City	6.7
9	Poway	6.5
10	Coronado	6.3
11	Carlsbad	6.2
12	Vista	6.2
13	Encinitas	5.8
14	Lemon Grove	5.7
15	Imperial Beach	5.6
16	Santee	5.2
17	San Marcos	4.8
18	El Cajon	4.6

What's Next

The *BestWALK* scores represent an average for each city. We recognize that cities have a great variety of neighborhood environments. Thus, over time, WalkSanDiego anticipates collecting and analyzing the *BestWALK* data at the neighborhood or finer level. In addition, we hope to analyze the results of individual questions in greater detail. For example, it may be appropriate to ask how did sidewalk condition vary between cities or between neighborhoods? Or, how did the presence of a sidewalk or the speeds of vehicles impact the user's rating of "I felt safe walking on this street?"

Our intent in collecting the data is three-fold:

1. Tell a story about walking and the safety of walking in the region on a broad scale,
2. Analyze details to help determine patterns and where improvements should be made, and
3. Either provide the data to cities for their own analysis or work with cities to determine how this data might be used for making decisions regarding the funding of improvements.

Data Limitations –

I. **Status of Walking:** Ideally, the number of people walking would be measured as a percentage of all trips, as work trips represent a relatively small percentage of all trips (15% in San Diego region). Those data, however, are not yet available.

II. **Policies and Implementation:** There are many data points that could be combined to measure walkability. The policies and implementation metrics selected and described previously represent what we believe are best practices in transportation and land use planning currently in practice around the U.S.

We married policies and implementation to create a balance of big-picture goals cities establish with on-the-ground projects, recognizing that written policies are not always implemented and completed projects are not always initiated as a result of a policy.

III. **Field Work:** Approximately 1,500 street segments and intersections were rated in the region using the *BestWALK* phone app. With a total of 30,000 streets selected for inclusion in the network, this represents a small percentage assessed. To account for this, we reduced the percent of total score for this category to 10% and normalized the data for street ratings as a percentage of the total street network in each city.

Conclusion

The Regional Walk Scorecard is an initial attempt at a comprehensive model to assess a number of land use and transportation factors that promote walkability. There are many ways to measure walkability, and the Scorecard emphasizes two of these: current walking conditions and policies and plans to improve walkability in the future.

National City emerged as the top scoring city, for two reasons. First, the city was laid out in the typical pre-war pattern – a dense network of lower volume streets and a mix of destinations and transit stops within walking distance of most residences. Equally as important, National City's recently updated General Plan includes strong policies and plans favoring walking, biking, and transit use. Ironically, National City had the highest rate of pedestrian collisions but overcame this negative with the high number of residents who either walk or use transit to get to work.

The second leading city, La Mesa, also has a walkable street pattern and detailed policies to become even more so. In addition, La Mesa has aggressively implemented pedestrian improvements in key areas. Solana Beach, the third-ranked city, scored in the middle of the pack on policies and implementation and had the lowest percentage of walk/transit commuters. On the positive side, Solana Beach streets were rated relatively high by *BestWALK* volunteers and had the lowest number of pedestrian collisions in the region, raising its overall score.

Cities that scored lowest – Santee, El Cajon, and Lemon Grove – are all East County cities built primarily around the use of automobiles as the main form of transportation. In addition, these cities scored lower on policies and implementation of street improvements that improve walking safety or convenience. This is not to say there are no such policies – indeed, all three have focused on increasing walking, bike safety, traffic calming, and transit use in key areas, such as residential neighborhoods, Main Street corridors, and trolley stations. Due to past planning decisions, however, creating safe and convenient walking conditions will be a long-term effort for these cities.

What it All Means

Cities that rose to the top of the Scorecard illustrate how a multi-layered approach to creating walkable communities provides the greatest positive impact. In addition, these cities are updating a variety of policies and planning and constructing communities in a way that breaks from auto-centric traditions of the past and better aligns with today's values. These updated policies were critical to rank higher in the Scorecard. Even so, the highest overall score produced for any city was 63, within a framework of 100 possible points. The report details where there is room for improvement within each of the 12 policy areas that make up the Policy and Implementation category. We recommend that staff and elected officials from each city dig into the details to understand how the Scorecard was calculated and how they might score higher next year.

People's demands are changing, yet cities have an opportunity to be the solution to this change. With a higher need for infill development, rising gas prices, an aging population, more demand for transit and quality public spaces, and more people picking a place to live based on quality of life *before* looking for a job, cities can't afford not to change. Planning for improved walkability is at the center of this conversation and at the heart of the solution. Creating more walkable communities has been proven to

contribute to public safety and serve as an integral component to promote economic vitality, public health, and quality of life. Among a growing number of people across our cities, region, and country, a neighborhood is only livable if it is walkable.

> *Cities must understand, anticipate, and harness changes to remain competitive and provide solutions.*
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> - Kim Walesh, Chief Strategist, City of San Jose, California in a speech made at Partners for New Growth conference hosted in San Diego, February 2012.

Endnotes

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