

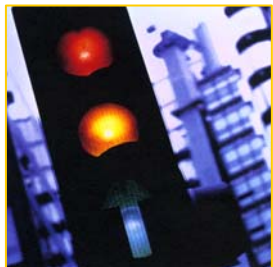


**COACHELLA VALLEY
ASSOCIATION OF GOVERNMENTS**

2004
Origin and Destination
Survey
Summary Report

Prepared by
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in association with
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September 2004



2004 CVAG Origin and Destination Survey

Executive Summary

The Coachella Valley Association of Governments (CVAG) conducted the 2004 Origin and Destination Survey to gather travel data from residents and visitors in the Coachella Valley. The data will be used to update CVAG's travel demand model. The 2004 Origin and Destination Survey included four major components: (1) a household survey, (2) a transit survey, (3) an airport survey, and (4) a casino/visitor survey. A total of 1318 households, 207 transit users, 240 airport passengers, and 518 visitors at area casinos and shopping areas completed the surveys.

Major Findings

- The survey found that 92% of all trips completed by residents of the Coachella Valley were made in cars, SUVs, and pickups. Less than 1% of the trips in the region were completed on public transportation. More than half of all trips completed by residents had a vehicle occupancy of just one person.
- The study also determined that the typical household in the region makes 6.56 trips per day. This means that the 116,904 households in the Coachella Valley area complete approximately 767,000 trips on a typical weekday.
- The overall number of trips by households in the area increased by 19.3% from 1995 to 2004. The significant increase in the household trip rate is probably related to an increase in household size and new development in the region.
- The top two destinations in the region (based on the number of trips that ended in the Census Block Groups where the destination is located) were: (1) the area including Wal-Mart, Lowes, and La Quinta High School in La Quinta and (2) the area with Town Center Mall and the College of the Desert in Palm Desert.
- The typical resident in a retired household spent approximately 48 minutes traveling between destinations each day. The typical resident in a household that was not retired spent 62 minutes traveling between destinations each day. Transit users spent nearly two hours (108 minutes) traveling per day.
- More than half (53%) of the airport survey participants indicated that their primary reason for visiting the Coachella Valley was for vacation; 18% were visiting friends, 11% were attending a convention, 8% were conducting business, and 8% came to play golf or tennis.
- The results of the casino/visitor survey showed that the majority of visitors to casinos and shopping areas in the Coachella Valley travel to the region by car. Once they arrive, the typical visitor stays in the Coachella Valley for 2-4 days and spends the night at a local hotel. The typical visitor makes 7.19 trips per day.

**Communities
Participating in the
2004 CVAG
Origin and
Destination Survey**

Cathedral City

Coachella

Desert Hot Springs

Indian Wells

Indio

La Quinta

Mecca

Palm Desert

Palm Springs

Rancho Mirage

Riverside County

Thermal

Thousand Palms

**Supporting
Organizations**

Agua Caliente BCI

Cabazon BMI

Palm Springs Airport

Cabazon Indian

SCAG

SunLine Transit

Overview of CVAG

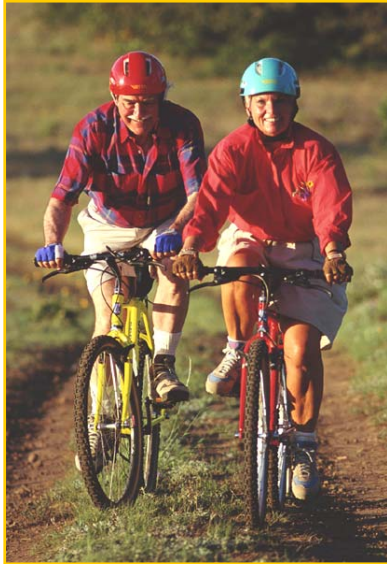
The Coachella Valley Association of Governments (CVAG) is the metropolitan planning organization for local governments in the Coachella Valley. The communities and organizations that participated in this study are listed on the left side of this page. CVAG's Transportation Department is responsible for administering a multi-million dollar transportation program for the region.

Purpose of the Survey

The purpose of the 2004 Origin and Destination Survey was to gather travel data from residents and visitors in the Coachella Valley. The data gathered will be used to update CVAG's travel demand model. The model is used as a tool to plan transportation improvements in the region.

The 2004 Origin and Destination Survey included four major components:

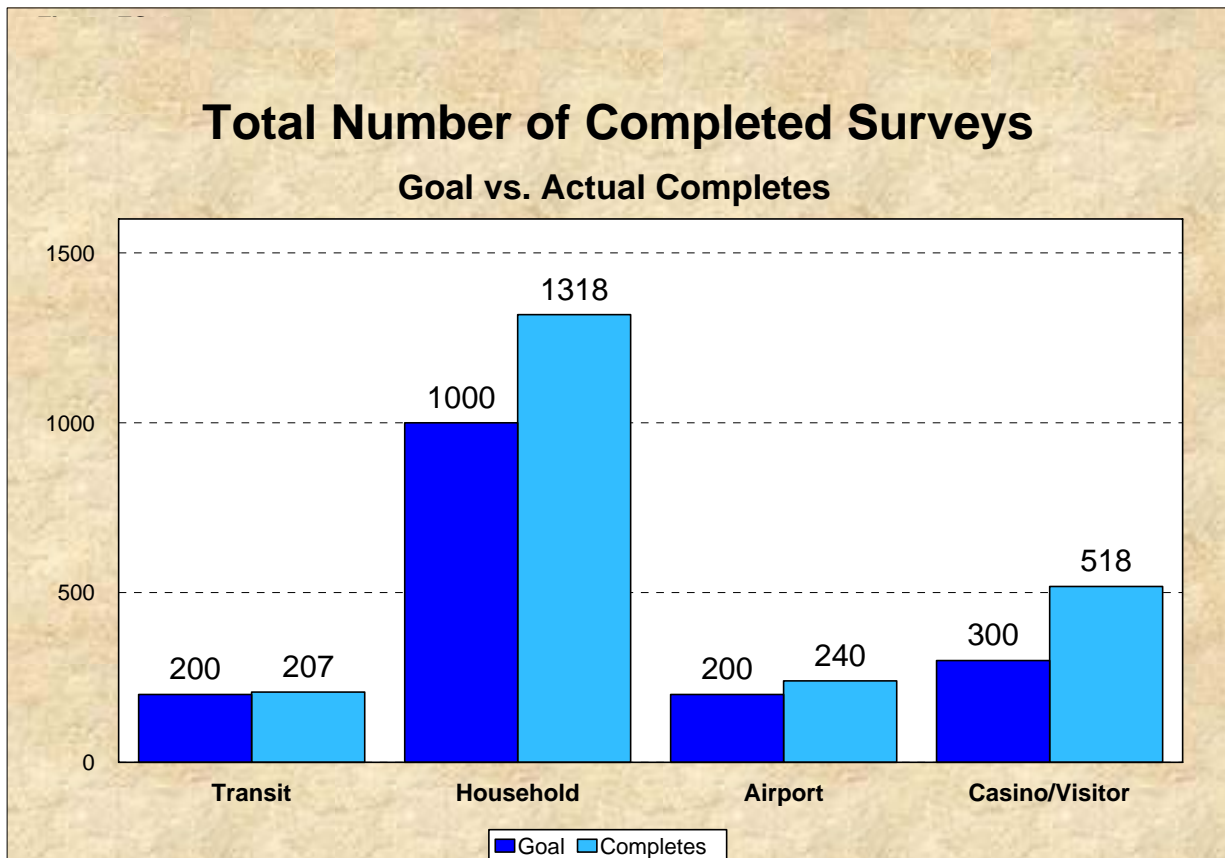
1. **Household Travel Survey.** The purpose of the household travel survey was to gather travel data from residents of CVAG's transportation planning area. The household survey was the most significant component of the study.
2. **Transit Survey.** The purpose of the transit survey was to gather travel data from transit users in the region. Since only a small percentage of the region's population uses public transportation, the transit survey was conducted to ensure that transit use would be adequately represented in the travel demand model.
3. **Airport Survey.** The airport survey was administered to gather demographic and behavioral data from persons who use commercial airline service in the region. The airport survey was conducted to better understand the impact that airport passengers have on the region's transportation system.



4. **Casino/Visitor Survey.** The primary purpose of the casino/visitor survey was to gather travel data from visitors to the Coachella Valley. The secondary purpose was to better understand how residents of the Coachella Valley travel to/from casinos in the region.

The sample size for each survey was established to ensure that the results would be statistically representative of each of the targeted populations. The overall results of the 1,318 completed household surveys have a precision of at least +/- 2.8% at the 95% level of confidence. The results for the 207 completed transit surveys have a precision of at least +/-6.9% at the 95% level of confidence. The results for the 240 airport surveys have a precision of at least +/-6.5% at the 95% level of confidence. The results for the 518 casino/visitor surveys have a precision of at least +/-4.6% at the 95% level of confidence.

The goal and actual number of completed surveys for each of the four components of the 2004 Origin and Destination Survey are shown in the graph below. The goals were exceeded in all areas.



Population and Household Size

The sample for the household survey was selected at random from 16 zip codes in the Coachella Valley area. The population, number of households, and average household size for each of these zip codes is shown in the table below.

According to the 2000 Census, the population of the 16 zip codes included in the study area was 318,693. The study area had 116,904 households, and the average household size was 2.7 persons per household. The average household size for households that participated in the 2004 CVAG Origin and Destination Survey was 2.4 persons per household. The primary reason the household size for the survey was slightly lower than the 2000 Census is that the survey included more than 320 part-time residents. The household size for part-time residents was just 2.0 persons per household.

CVAG Population and Household Size 2000 Census by Zip Code				
Community	Zip Code	Total population	Total households	Avg Household Size
CATHEDRAL CITY	92234	43,129	14,294	3.0
COACHELLA	92236	23,159	4,921	4.7
DESERT HOT SPRINGS	92240	22,779	8,126	2.8
	92241	5,512	2,500	2.2
	subtotal	28,291	10,626	2.7
INDIAN WELLS	92210	3,859	2,004	1.9
INDIO	92201	56,296	16,538	3.4
	92203	2,730	869	3.1
	subtotal	59,026	17,407	3.4
LA QUINTA	92253	23,970	8,538	2.8
PALM DESERT	92211	19,699	9,604	2.1
	92260	29,322	13,899	2.1
	subtotal	49,021	23,503	2.1
PALM SPRINGS	92262	24,906	11,029	2.3
	92264	18,869	9,889	1.9
	subtotal	43,775	20,918	2.1
RANCHO MIRAGE	92270	12,452	6,421	1.9
RIVERSIDE COUNTY				
Thermal	92274	17,009	4,001	4.3
Thousand Palms	92276	6,241	2,471	2.5
Mecca	92254	8,761	1,800	4.9
	subtotal	32,011	8,272	3.9
CVAG REGION TOTAL		318,693	116,904	2.7
Survey Sample: Retired Households Avg Household Size				1.8
Survey Sample: Non-Retired Households Avg Household Size				2.7
Survey Sample: Weighted Avg Household Size for All Households				2.4
Note: The sample for the survey was selected at random from the 16 zip codes listed above. The zip codes have been clustered to represent communities in the region. The data shown above reflect the 2000 Census information for the zip codes listed.				

Who Participated in the HOUSEHOLD Survey

50% were men

50% were women

*15% were children
age 5-19*

*8% were adults
age 80 or older*

*3% were dependent on
others for transportation
because of a disability*

*24% did not speak English as
their primary language*

17% were students

*17% had annual household
incomes under \$25,000*

*15% had annual household
incomes of \$100,000 or more*

8% were self-employed

*76% were year-round
households*

*24% were part-time
households
(less than 10 months/year)*

*62% lived in
single family housing*

*24% lived
in multi-family housing*

*12% lived
in trailer homes*

17% had 3 or more vehicles

3% did not have a vehicle

Administering the Household Survey

Given the confidential nature of the data collected, public awareness was very important to the success of the household survey. In order to raise public awareness about the household survey, press releases were sent to local newspapers, radio stations, and television stations in the region. In addition, information about the study was posted on the Internet with a link to the CVAG website. This allowed residents and the media to verify the legitimacy of the survey and get more information about the survey as needed.

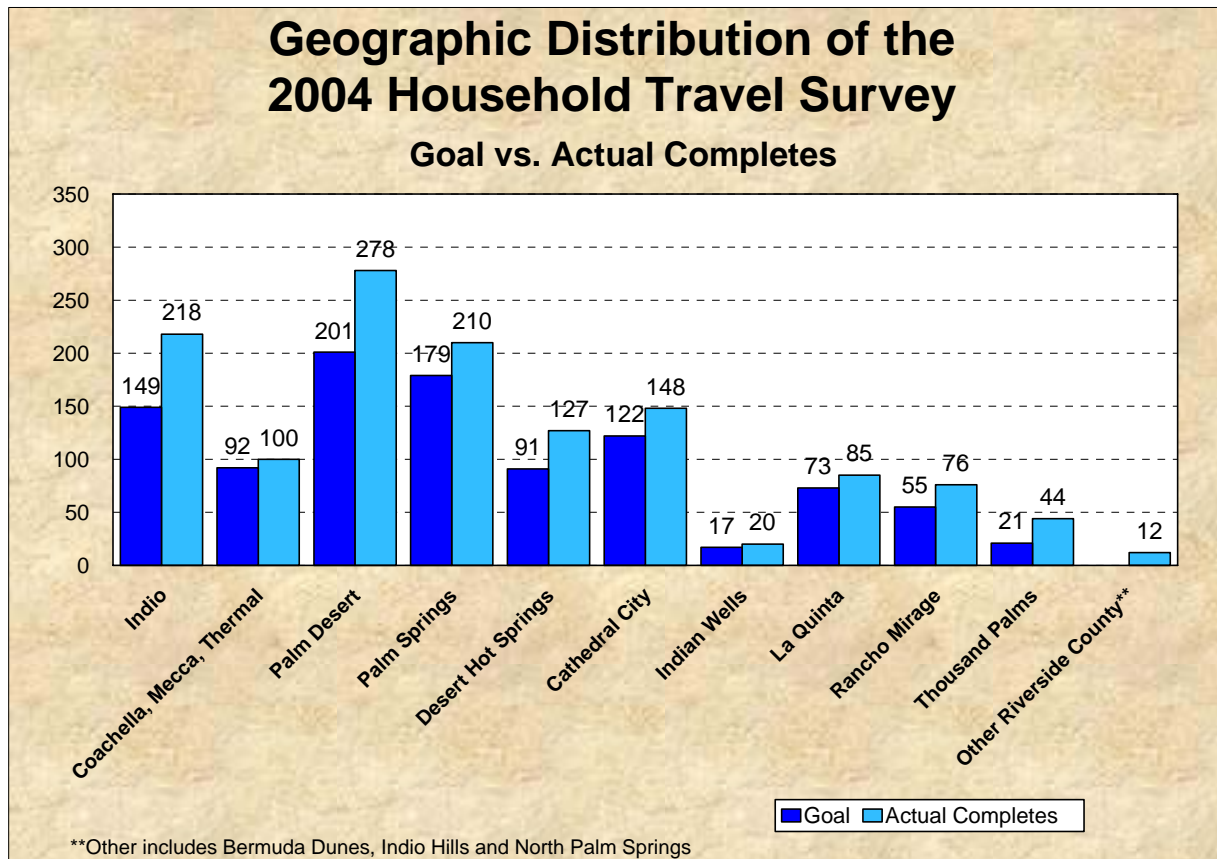
The regional travel demand model for the Coachella Valley uses travel data from two major types of households to forecast future transportation requirements:

- Households with a retired head-of-household
- Households without a retired head-of-household.

In order to ensure that the data requirements for both types of households were met, the sample was stratified so that approximately one-half of participants were recruited from each group. The sample for each group was selected at random from all zip codes in the CVAG planning area to ensure that residents who lived in both incorporated and unincorporated areas of the region were proportionately represented.

Since the region's travel demand model also considers the impact that housing type (multi-family vs. single family) and residency status have on regional transportation requirements, at least 300 surveys were completed with each of the following types of households: single family households, multi-family households, year-round residents (live in the region at least 10 months per year), and part-time residents (live in the region less than 10 months per year).

Altogether, a total of 1,600 households were recruited at random to participate in the survey. Of the 1,600 recruited households, 1,318 completed the household travel survey for an 82% response rate. The chart at the top of the following page shows the total number of surveys that were completed in each community.



Definition of a “Trip”

For the purposes of this study, a trip was defined as movement from one physical address to another with no intermediate stops. Participants in the survey completed a travel diary where they recorded all of the trips they completed on one day. The “trip” information provided on the survey will be used by CVAG to forecast travel patterns in the region.

The household survey was designed as a **24-hour travel diary** that was kept by all members of the household who were age five and older. The household travel survey gathered the following types of information:

- Physical address of the participating households
- Number of household occupants
- Ages of household occupants
- Gender of household occupants
- Annual household income
- Physical disabilities
- Type of employment for each member of the household
- Number of vehicles available to the household
- Mode of travel for each trip completed on the household’s travel day
- Origin and destination of each trip
- Starting and arrival times of each trip
- Purpose/reason for each trip
- Vehicle occupancy for each trip
- Number of miles driven

Characteristics of On-Board TRANSIT Survey Participants

Transit survey participants were 11 times more likely NOT to have a vehicle available to their household than participants in the household survey

55% had an annual household income of less than \$25,000

Only 1% had an annual household income of at least \$100,000

23% were dependent on others for transportation due to a disability compared to just 3% of the household travel survey participants

57% spoke a language other than English as the primary language in their home

45% lived in a single family home

44% lived in multi-family housing

50% were men

50% were women

8% were age 80 or older

15% were under age 20

64% were Hispanic

30% were White/Caucasian

34% were students

46% were employed

Administering the Transit Survey

The sampling plan for the transit survey was designed to complement the household survey to improve the statistical validity and reliability of the overall set of data that was collected for CVAG’s travel demand model.

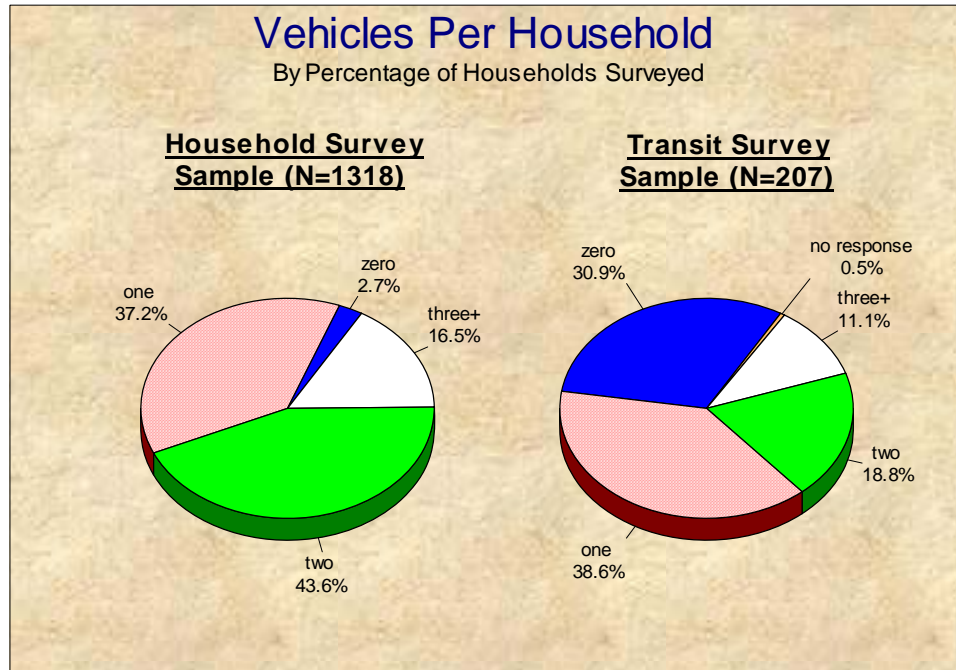


CVAG used a stratified random sample to ensure that the data would be representative of transit users from the western, central, and eastern portions of the study area. Since transit ridership was highest in the eastern portion of the valley, approximately 50% of the surveys were administered at the Sunline Transit’s main transit center in Indio. Twenty-five percent (25%) of the surveys were administered at the transit center in downtown Palm Springs, and 25% were administered at the transit center at Town Center Mall in Palm Desert.

Surveyors distributed the transit survey to passengers as they waited for buses. Those who agreed to complete the survey were given an individual travel diary packet that was similar to the travel diary used by persons completing the household travel survey. Transit riders were asked to complete the travel diary at home and return their diary to ETC Institute in a postage-paid envelope.

Those who returned the survey were given a free bus pass as an incentive for participating. The survey was administered from March 21-24, 2004.

Finding: Many transit users were using public transit because they did not have other transportation alternatives. The chart on the top of the following page shows that nearly one-third (30.9%) of the transit survey participants did not have a vehicle available to their household compared to just 2.7% of the household survey sample.



Administering the Airport and Visitor Surveys

Airport Survey Sample. The airport survey was administered to a random sample of 240 airline passengers on 21 departing flights at Palm Springs Airport. The survey was administered on a weekend (Sunday, March 21, 2004) and a weekday (Tuesday, March 23, 2004). Of the 240 persons that completed the survey, 46 were residents of the Coachella Valley and 194 were visitors to the region. The survey was administered in both English and Spanish. The majority of the surveys were completed in departing passenger waiting areas.

Casino/Visitor Survey Sample. The Casino/Visitor survey was administered to visitors at three area casinos, fifteen hotels, and six shopping areas from March 20-24, 2004. The goal was to administer the survey to at least 300 persons. Approximately 100 of the surveys were to be administered in each of three geographic areas: (1) western valley, (2) central valley, and (3) eastern valley. The actual number of complete surveys was 518. Of these, 359 were administered to visitors and 159 were administered to residents. The goal of 100 surveys from each area was met. The survey was administered in both English and Spanish.

Differences Between Casino/Visitor and Airport Survey Participants

15% of Casino/Visitor Survey respondents had annual household incomes of \$150,000 or more compared to 39% of Airport Survey respondents.

40% of Casino/Visitor Survey respondents stayed in the Coachella Valley more than 3 nights compared to 63% of Airport Survey respondents.

Types of Places Visited by Residents

More than 8,000 trips were recorded by the 2,947 residents who completed a 24-hour household travel diary. The total amount of time that was volunteered by residents of the Coachella Valley who agreed to participate in the household survey is estimated at more than 6,000 hours.

The results of the household survey confirmed that households with a retired head-of-household have significantly different travel patterns than non-retired households. This finding was important because CVAG’s travel demand model and the data collection methodology for the household survey were partially based on the hypothesis that differences exist between retired and non-retired households. Some of the most notable differences between these two types of households are described below.

- **Shopping Trips.** Trips to stores and retail areas accounted for more than one-fourth (26%) of all trips completed by retired households compared to just 10% of trips completed by non-retired households.
- **Medical Trips.** Trips to hospitals and doctors’ offices accounted for more than 4% of all trips completed by retired households compared to just 2% of trips completed by non-retired households.
- **School Trips.** Non-retired households were significantly more likely to make trips to school than retired households. Nearly one of out every seven trips completed by non-retired households ended at a school or daycare facility compared to less than 2% of all trips completed by retired households.
- **Work Trips.** As expected, non-retired households were significantly more likely to make trips to work than retired households. Nearly one of out every seven (14%) trips completed by non-retired households ended at a person’s workplace compared to just 2% of all trips completed by retired households.

The charts below show the top seven types of destinations visited by Retired and Non-Retired Households in the Coachella Valley.

Percentage of All Trips That End At Various Types of Destinations
Households with a NON-RETIRED Head-of-Household

Type of Destination	Percent of All Trips
The Resident's Home	38.5%
School/Daycare	13.9%
A Person's Workplace	13.6%
A Store/Retail Area	10.1%
Another Person's Home	5.7%
Recreation Place	4.1%
A Restaurant	3.6%

Percentage of All Trips That End At Various Types of Destinations
Households with a RETIRED Head-of-Household

Type of Destination	Percent of All Trips
The Resident's Home	38.1%
A Store/Retail Area	26.6%
Recreation Place	9.2%
A Restaurant	7.5%
A Doctor's Office/Hospital	4.3%
Bank/Other Office	4%
Another Person's Home	3.8%

Did You Know?

97% of all trips between a resident's home and their workplace were completed in a car, pickup, or SUV

Compared to year-round residents, part-time residents were twice as likely to ride a bike to go shopping

Residents in multi-family housing were twice as likely as residents in single-family housing to use public transportation

Residents with an annual household income under \$10,000 were 5 times more likely to walk to their destination than residents with an annual household income of \$100,000 or more

Non-Retired households were 4 times more likely to walk to their destination than Retired households

Retired households were slightly more likely to use a car/pickup to get to their destination than Non-Retired households (95% Retired vs. 89% Non-Retired)

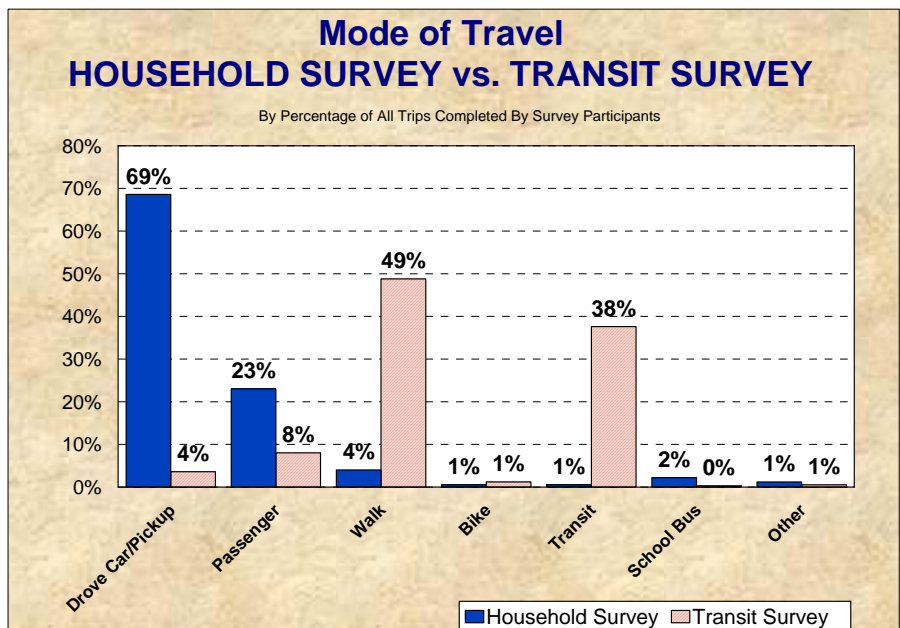
Methods of Travel Used by Residents

The typical resident of the Coachella Valley uses a car, pickup, or sports utility vehicle (SUV) to complete most of his/her trips. Among all trips completed by **household survey** participants, 92% were completed in private vehicles (cars, SUVs, pickups).

- 69% of all household trips were completed by people who drove a private vehicle to their destination
- 23% of all household trips were completed by people who were passengers in a private vehicle.

Although the typical household in the Coachella Valley relies on cars and pickups for transportation, **transit users** in the region rely on walking and public transit services to get to their destinations. Walking accounted for nearly half (49%) of all trips completed by transit users; public transit accounted for more than one-third (38%) of their trips.

The chart below compares the percentage of all trips that were completed by household and transit survey participants for various modes of travel.

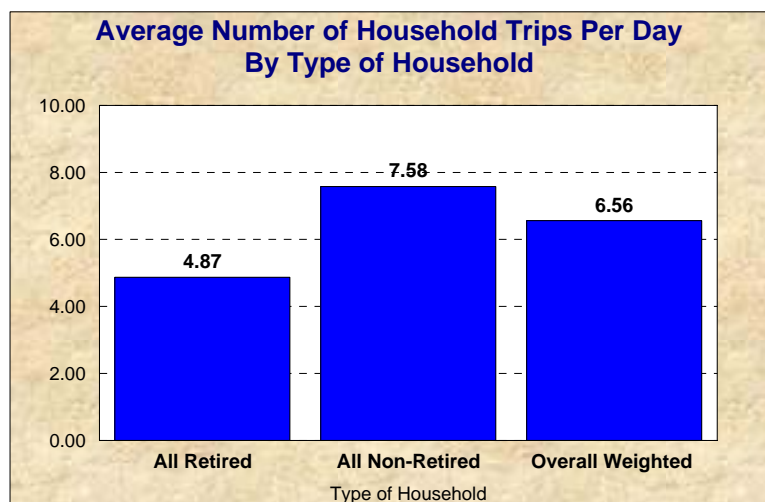


Frequency of Travel by Residents

One of the most important types of data that was gathered from the 2004 Origin and Destination Survey is call a “**household trip rate.**” The household trip rate reflects the average number of trips that were completed by all people age 5 and older living in the households that participated in the household survey. For the purposes of this study, two basic sets of household trip rate categories were developed: one for “retired households” (those with a retired head-of-household) and one for “non-retired households (those without a retired head-of-household). Since the sample for each of these two types of households was selected at random from the entire region, the trip rate for “retired” and “non-retired” households can be expanded to the actual number of households in each category to estimate the total number of trips that are completed by residents of the Coachella Valley on a typical weekday.

According to the 2000 Census, there were 116,904 households in the 16 zip codes that were included in the study area for the survey. Of these, 43,499 households had a retired head-of-household (37%) and 73,286 households did not have a retired head of household (63%).

- Total trips by Retired Households.** Using an average trip rate of 4.87 trips per day for retired households, CVAG estimates that the region’s 43,499 “retired” households complete approximately 211,840 trips per day.



- Total trips by Non-Retired Households.** When the average trip rate for all “non-retired” households in the region of 7.58 trips per day is applied to the 73,286 non-retired households in the Coachella Valley, CVAG estimates that there are approximately 555,508 trips being completed per day by non-retired households.

- Total Trips by ALL Households and the Weighted Overall Household Trip Rate.** The estimated total number of all trips in the region reflects the sum of the retired household trip estimate and the non-retired trip estimate, which is a total of 767,328 trips per day. The weighted overall household trip rate for the region of 6.56 trips was determined by dividing the total number of trips per day (767,329 trips) by the total number of households in the region (116,904 households).

The table at the top of the following page shows the estimated number of trips that are completed by residents of the Coachella Valley on a typically weekday to various types of destinations in the region.

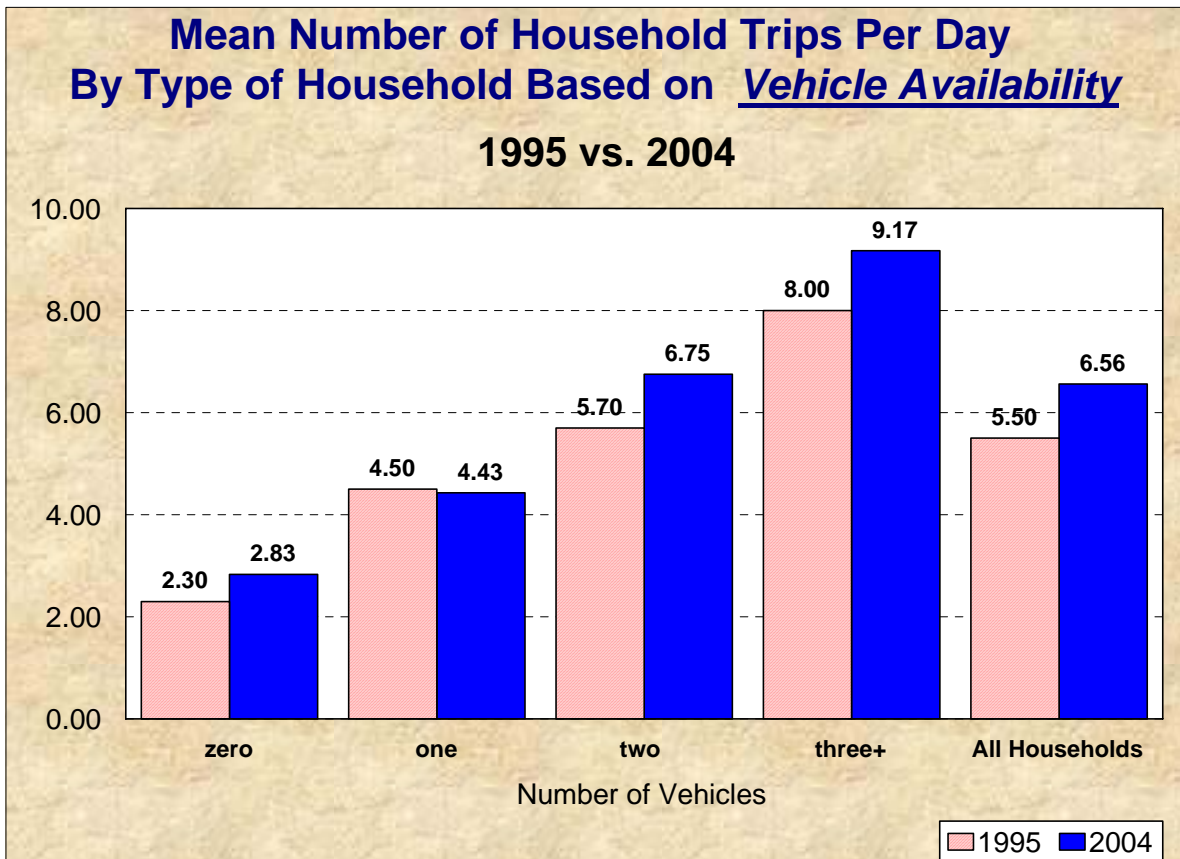
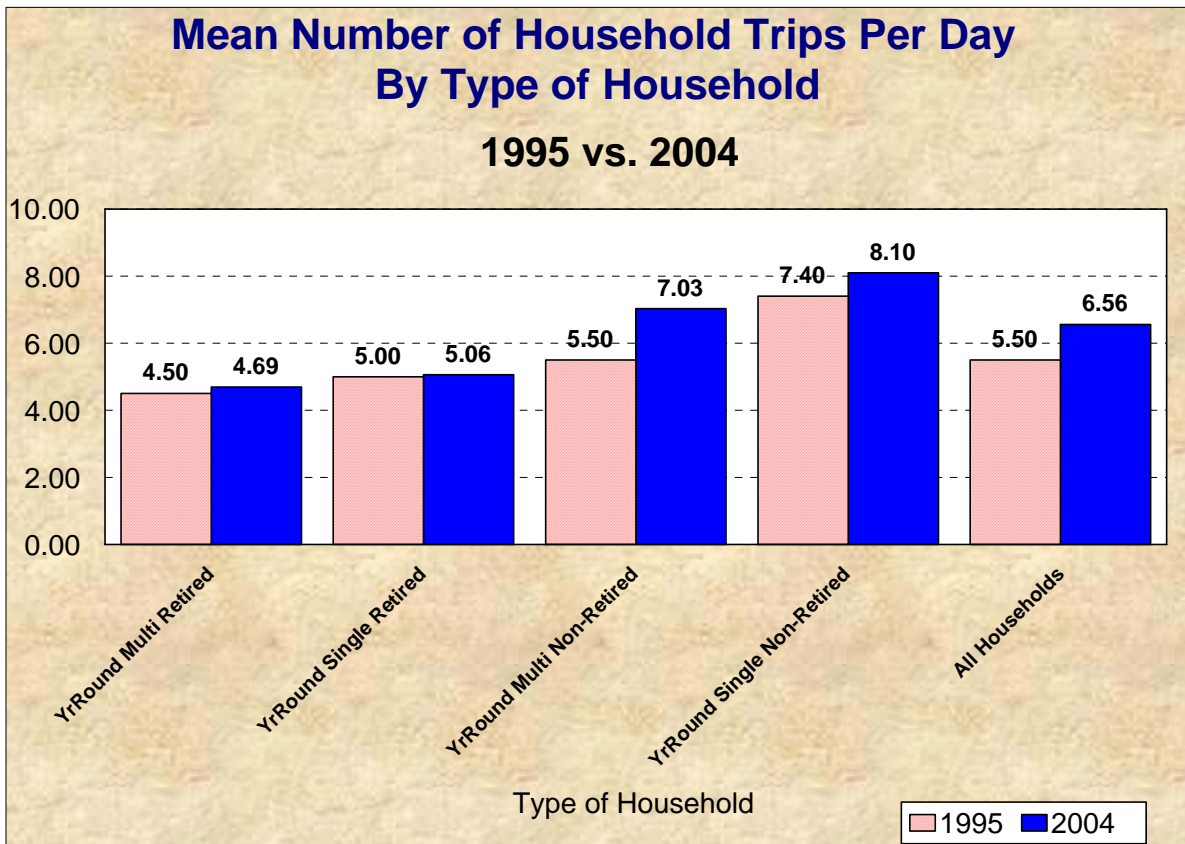
Estimated Number of Trips Per Day by Coachella Valley Residents			
Type of Destination	Trips by Retired Households	Trips by Non-Retired Households	Total Trips in Region
Return trips to a person's home	213,871	80,711	294,582
Trips to stores/retail areas	56,106	56,349	112,456
Trips to schools/daycare facilities	77,216	3,389	80,605
Trips to the work place	75,549	4,237	79,786
Trips to recreation places	22,776	19,489	42,265
Trips to another person's home	31,664	7,626	39,290
Trips to restaurants/eating places	19,998	15,888	35,886
Trips to banks/offices (non-work)	16,110	8,474	24,583
Trips to hospitals/doctor's office	12,221	9,109	21,330

Trip Rates Are Increasing

A key finding from the 2004 Origin and Destination Survey was that households are making more trips today than they were just nine years ago. The charts on the following page show the average trip rates for households in the Coachella Valley based on household size and the number of vehicles available. In most cases, the trip rate increased significantly between 1995 and 2004.

The overall trip rate increased by 19.3% from 5.50 trips per household in 1995 to 6.56 trips per household in 2004. This means that even if the total number of households in the Coachella Valley had remained the same, the total number of trips being completed by residents of the region would have increased because households were making more trips per day in 2004 than in 1995. The significant increase in the household trip rate is probably related to the following factors.

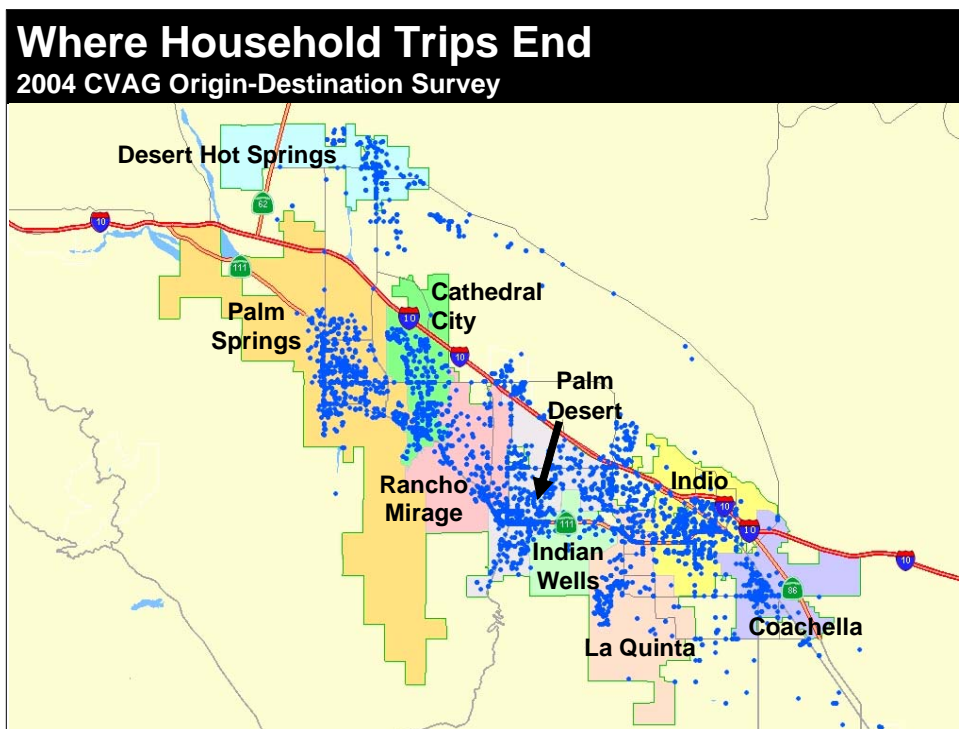
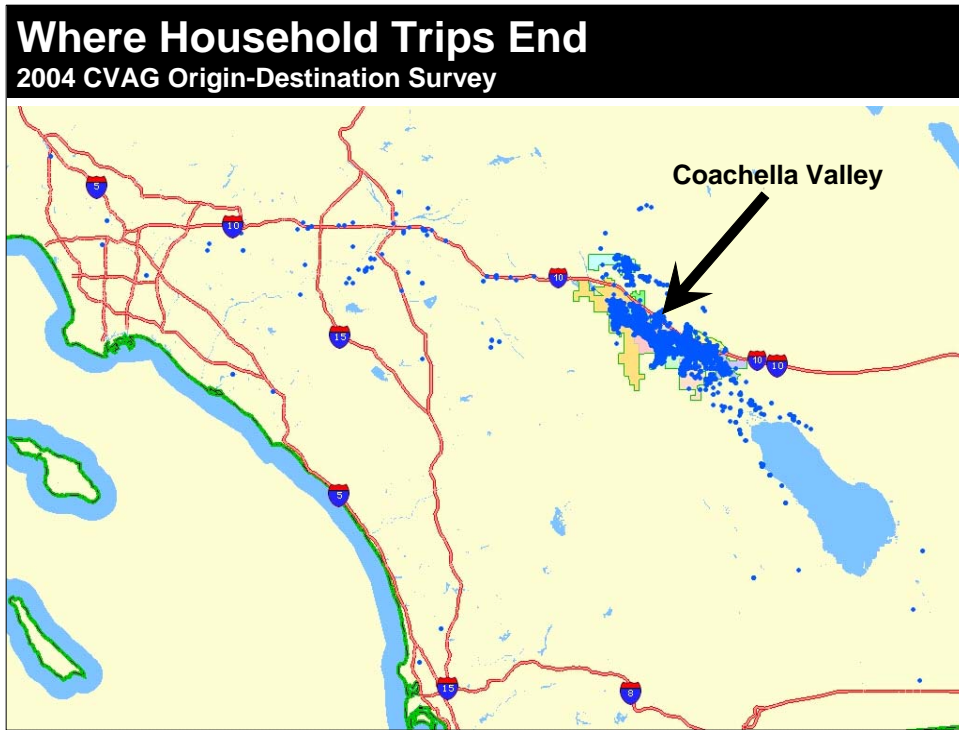
- First, the number of large households in the sample was significantly higher in 2004 than 1995. In 1995, 10.2% of the households surveyed had four or more occupants. In 2004, 16.7% of the households had four or more occupants. Since larger households typically make more trips than smaller households, the increase in the household trip rate is partially related to the increased portion of larger households in the sample.
- Second, there has been a significant amount of new development in the Coachella Valley since 1995. The new development provides increased opportunities for trip making in the region. For example, residents are making more trips to shops and restaurants that have opened near their home during the past decade. The increase in the number of retail attractions in the region has generated an increase in the number of trips being completed by residents of the region to these attractions.



Note: Households with zero vehicles completed trips by using public transit, getting rides with friends, biking, and/or walking.

Where Trips End

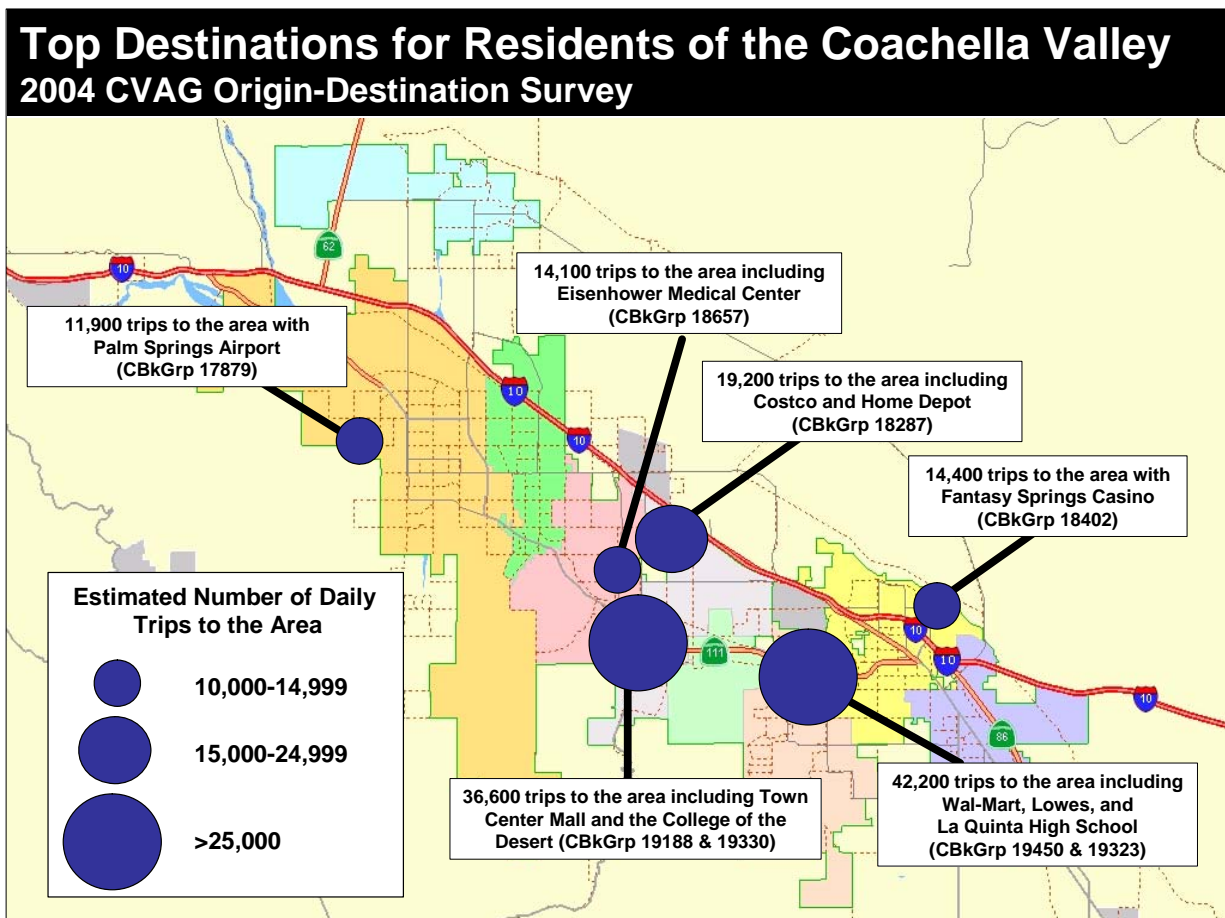
The dots on the two maps below identify the destinations for household travel survey participants. More than 8,000 destinations are shown. Most of the destinations are concentrated in the Coachella Valley. The map at the top of the page shows the distribution of trips in Southern California. The map at the bottom of the page shows the distribution of trips within the Coachella Valley.



Top Destinations in the Region

When the data from the household survey was fully expanded, each trip completed by the participating households represented approximately **94.2 trips** for the region. This was determined by dividing the estimated total number of trips completed by all residents of the region (767,329) by the total number of trips completed by household survey participants (8,146).

The map below shows some of the top destinations for households in the Coachella Valley based on the expanded number of trips that ended in the Census Block Group(s) where the attraction listed is located. The top two destinations in the region were (1) the area with Town Center Mall and the College of the Desert in Palm Desert and (2) the area with Wal-Mart, Lowes, and La Quinta High School in La Quinta.



Regional Travel Patterns

An important objective of this study was to provide a better understanding of regional travel patterns. One method for assessing regional travel patterns involves identifying which communities in the region are **importers** of specific types of trips and which communities are **exporters** of trips. A community that is a net importer of trips attracts more trips than its portion of the household survey sample. A community that is a net exporter of trips attracts fewer trips than its portion of the sample. By understanding which communities are attracting trips and where these trips are originating, regional transportation planners can do a better job of planning improvements to the region’s transportation system.

- Work Trip Flows.** A community with high concentrations of employment may import employment trips from surrounding communities while a community that does not have a large employment base may export employment trips to the city where jobs are located. A community that imports employment trips is often referred to as an “employment center,” while the community that exports employment trips may be referred to as a “bedroom community.” The table below shows the percentage of household surveys that were completed in each city along with the percentage of all work trips that ended in the community. For example, Rancho Mirage only accounts for 5.8% of the households in the household survey sample, but 7.6% of all work trips completed by household survey participants ended in Rancho Mirage. This means that Rancho Mirage is an importer of work trips because the city is attracting more work trips than would have been expected given its portion of the overall sample. Similarly, Desert Hot Springs is a net exporter of work trips. Desert Hot Springs accounts for 9.6% of the households in the household survey, but only 1.9% of the work trips from the sample end in Desert Hot Springs.

Regional Travel Flow: Work Place Trips

City	% of Household Sample Represented by This City	% of All Household Survey Work Trips Ending in This City	Ratio of % Work Trips to % of Sample	Status
Coachella	3.4%	6.9%	2.0	Importer
Rancho Mirage	5.8%	7.6%	1.3	Importer
Indian Wells	1.5%	1.9%	1.3	Importer
*Other Riverside Cnty	8.6%	9.2%	1.1	Neutral
Palm Desert	21.1%	23.1%	1.1	Neutral
La Quinta	6.4%	6.3%	1.0	Neutral
Palm Springs	15.9%	15.6%	1.0	Neutral
Indio	16.5%	13.8%	0.8	Neutral
Cathedral City	11.2%	8.3%	0.7	Exporter
Desert Hot Springs	9.6%	1.9%	0.2	Exporter

*Other Riverside County Includes: Mecca, Bermuda Dunes, Thousand Palms, Thermal and other unincorporated areas

Notes: Given the margin of error in the survey, communities that had a ratio of 1.25 or more were identified as importers. Communities that had a ratio of less than .75 were identified as exporters.

- Shopping Trip Flows.** A community with high concentrations of retail areas, such as a mall, may import shopping trips from surrounding communities while a community that does not have a large retail base may export these trips to a city where retail areas are located. The table below shows the percentage of household surveys that were completed in each city along with the percentage of all shopping trips that ended in each community. The three net importers of shopping trips in the region were: La Quinta, Palm Desert, and Cathedral City. Although Palm Springs accounts for 13.6% of all shopping trips in the region (the second highest total), the City was classified as “neutral” because it accounts for about the same percentage of shopping trips as its portion of the overall sample.

Regional Travel Flows for: Shopping Trips

City	% of Household Sample Represented by This City	% of All Household Survey Shopping Trips Ending in This City	Ratio of % Work Trips to % of Sample	Status
La Quinta	6.4%	12.3%	1.9	Importer
Palm Desert	21.1%	35.4%	1.7	Importer
Cathedral City	11.2%	12.8%	1.1	Neutral
Rancho Mirage	5.8%	6.0%	1.0	Neutral
Palm Springs	15.9%	13.6%	0.9	Neutral
Coachella	3.4%	2.1%	0.6	Exporter
Indio	16.5%	9.2%	0.6	Exporter
Desert Hot Springs	9.6%	5.3%	0.6	Exporter
Indian Wells	1.5%	0.6%	0.4	Exporter
Other Riverside Cnty	8.6%	1.8%	0.2	Exporter

*Other Riverside County Includes: Mecca, Bermuda Dunes, Thousand Palms, Thermal and other unincorporated areas

Notes: Given the margin of error in the survey, communities that had a ratio of 1.25 or more were identified as importers. Communities that had a ratio of less than .75 were identified as exporters.

- Recreation Trip Flows.** A community with high concentrations of recreational activity areas may import recreation trips from surrounding communities while a community that does not have many recreation areas may export these trips to a city where recreational areas are located. The table at the top of the following page shows the percentage of household surveys that were completed in each city along with the percentage of recreation trips that ended in each community. The net importers of recreation trips in the region were: Indian Wells, Rancho Mirage, Palm Desert, Coachella, and Palm Springs. Although Indio accounts for 9.4% of all recreation trips in the region, the City is classified as a net exporter of recreation trips because it accounts for a smaller percentage of recreation trips than its portion of the overall sample.

Regional Travel Flows for: Recreation Trips

City	% of Household Sample Represented by This City	% of All Household Survey Recreation Trips Ending in This City	Ratio of % Work Trips to % of Sample	Status
Indian Wells	1.5%	3.8%	2.5	Importer
Rancho Mirage	5.8%	12.2%	2.1	Importer
Palm Desert	21.1%	26.3%	1.2	Neutral
Coachella	3.4%	4.2%	1.2	Neutral
Palm Springs	15.9%	19.6%	1.2	Neutral
Cathedral City	11.2%	10.8%	1.0	Neutral
La Quinta	6.4%	5.4%	0.8	Neutral
Indio	16.5%	9.4%	0.6	Exporter
Desert Hot Springs	9.6%	3.0%	0.3	Exporter
Other Riverside Cnty	8.6%	2.4%	0.3	Exporter

*Other Riverside County Includes: Mecca, Bermuda Dunes, Thousand Palms, Thermal and other unincorporated areas

Notes: Given the margin of error in the survey, communities that had a ratio of 1.25 or more were identified as importers. Communities that had a ratio of less than .75 were identified as exporters.

- Medical Trip Flows.** A community with high concentrations of doctor’s offices and/or a major hospital may import medical trips from surrounding communities while a community that does not have a major hospital may export these trips to a city where a hospital is located. The table below shows the percentage of household surveys that were completed in each city along with the percentage of medical trips that ended in each community. There were only two net importers of medical trips in the region: Rancho Mirage and Palm Springs.

Regional Travel Flows for: Medical Trips

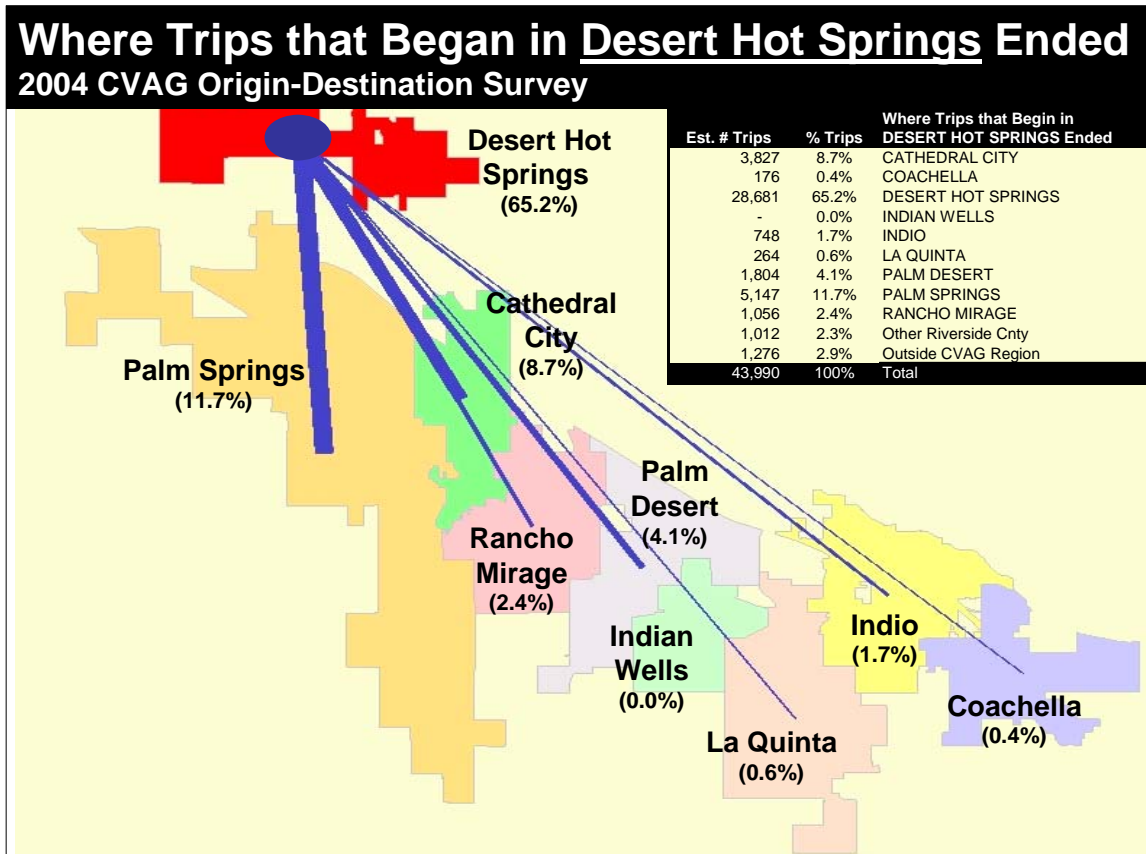
City	% of Household Sample Represented by This City	% of All Household Survey Medical Trips Ending in This City	Ratio of % Work Trips to % of Sample	Status
Rancho Mirage	5.8%	31.9%	5.5	Importer
Palm Springs	15.9%	31.0%	1.9	Importer
Palm Desert	21.1%	16.5%	0.8	Neutral
Indio	16.5%	6.9%	0.4	Exporter
Indian Wells	1.5%	0.4%	0.3	Exporter
La Quinta	6.4%	1.6%	0.3	Exporter
Coachella	3.4%	0.8%	0.2	Exporter
Cathedral City	11.2%	1.2%	0.1	Exporter
Desert Hot Springs	9.6%	0.8%	0.1	Exporter
Other Riverside Cnty	8.6%	1.2%	0.1	Exporter

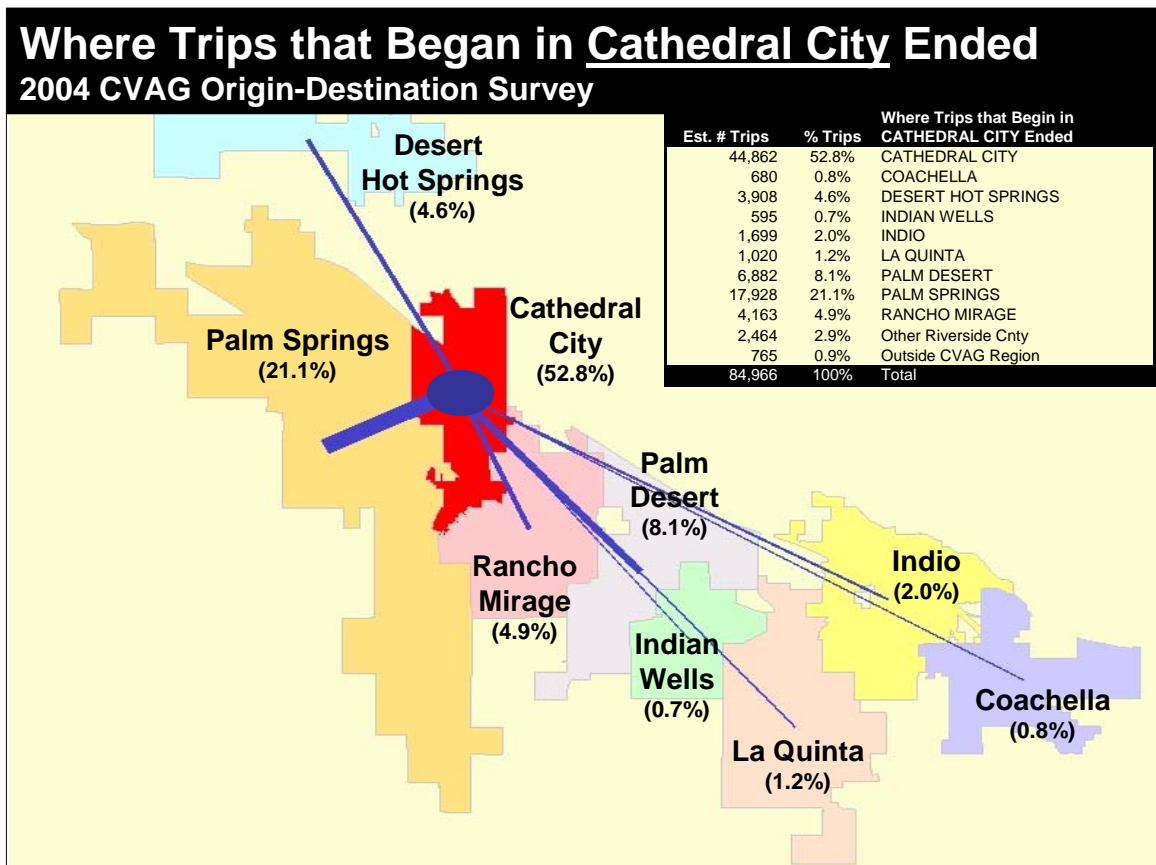
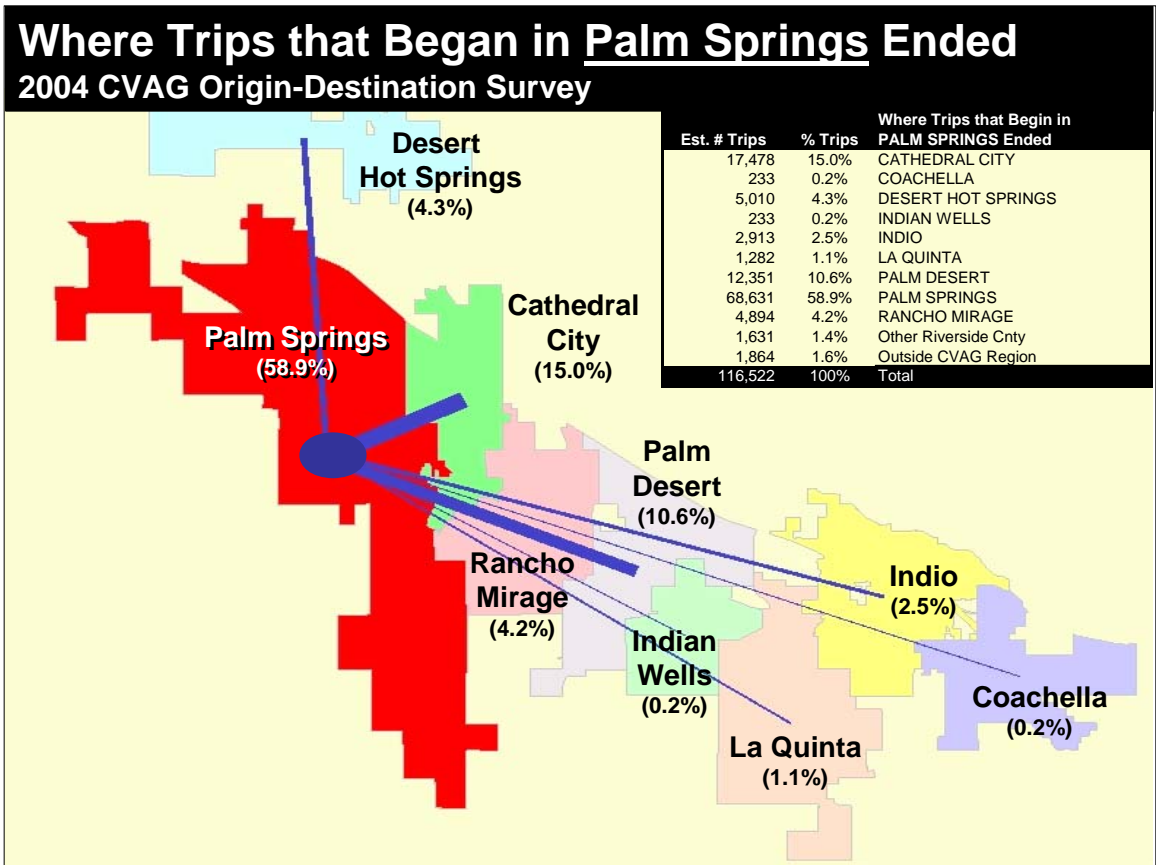
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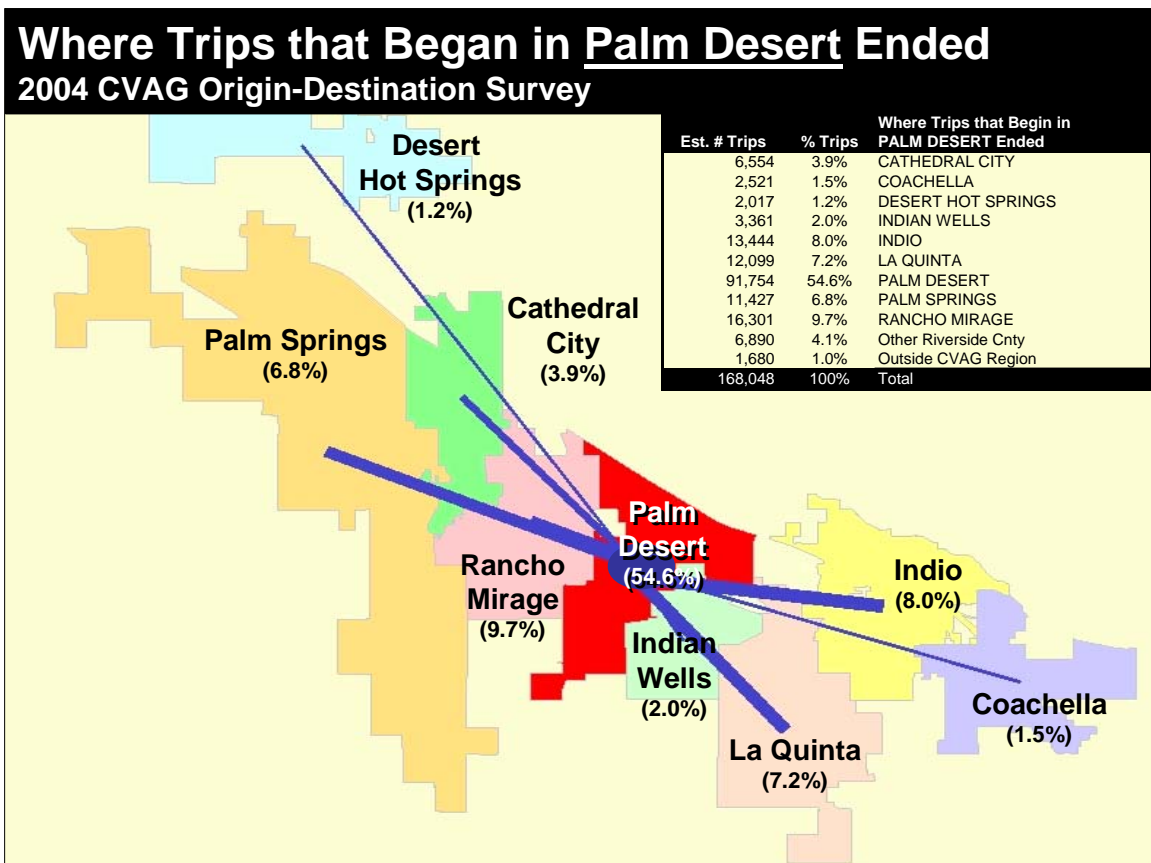
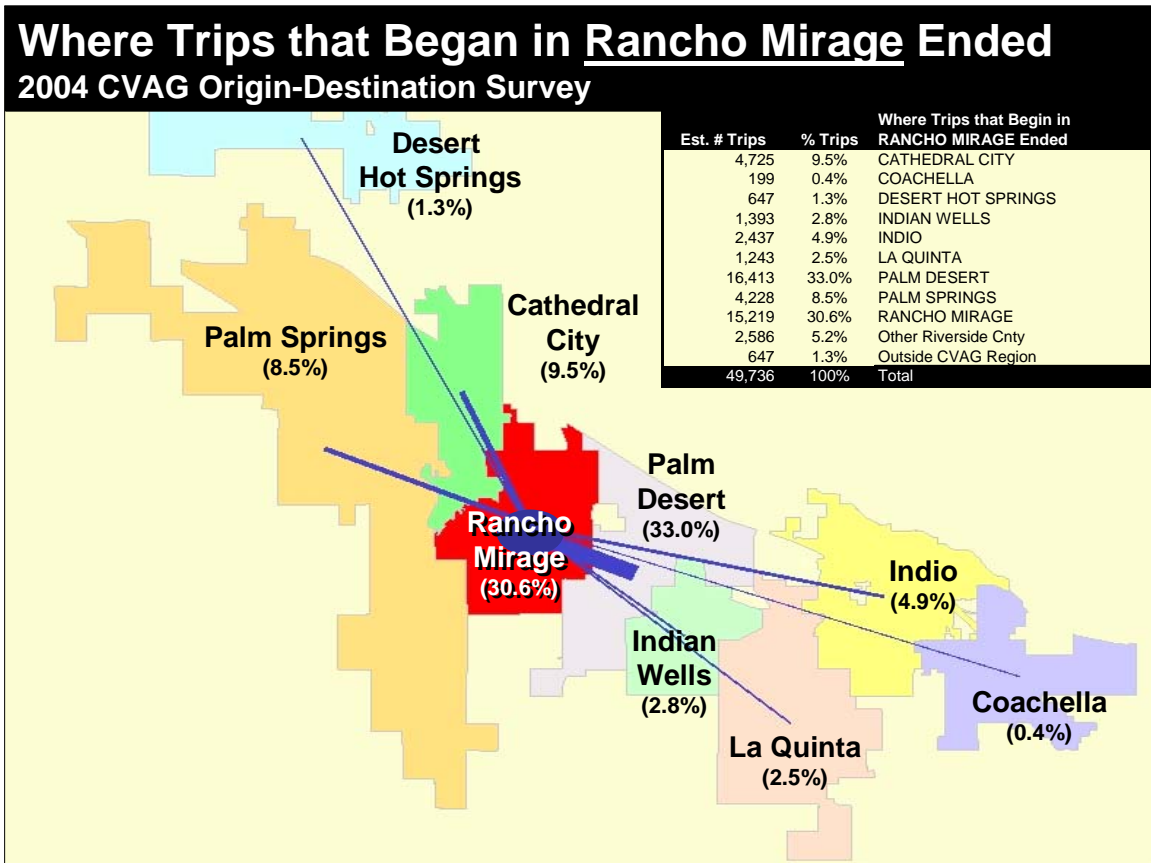
Notes: Given the margin of error in the survey, communities that had a ratio of 1.25 or more were identified as importers. Communities that had a ratio of less than .75 were identified as exporters.

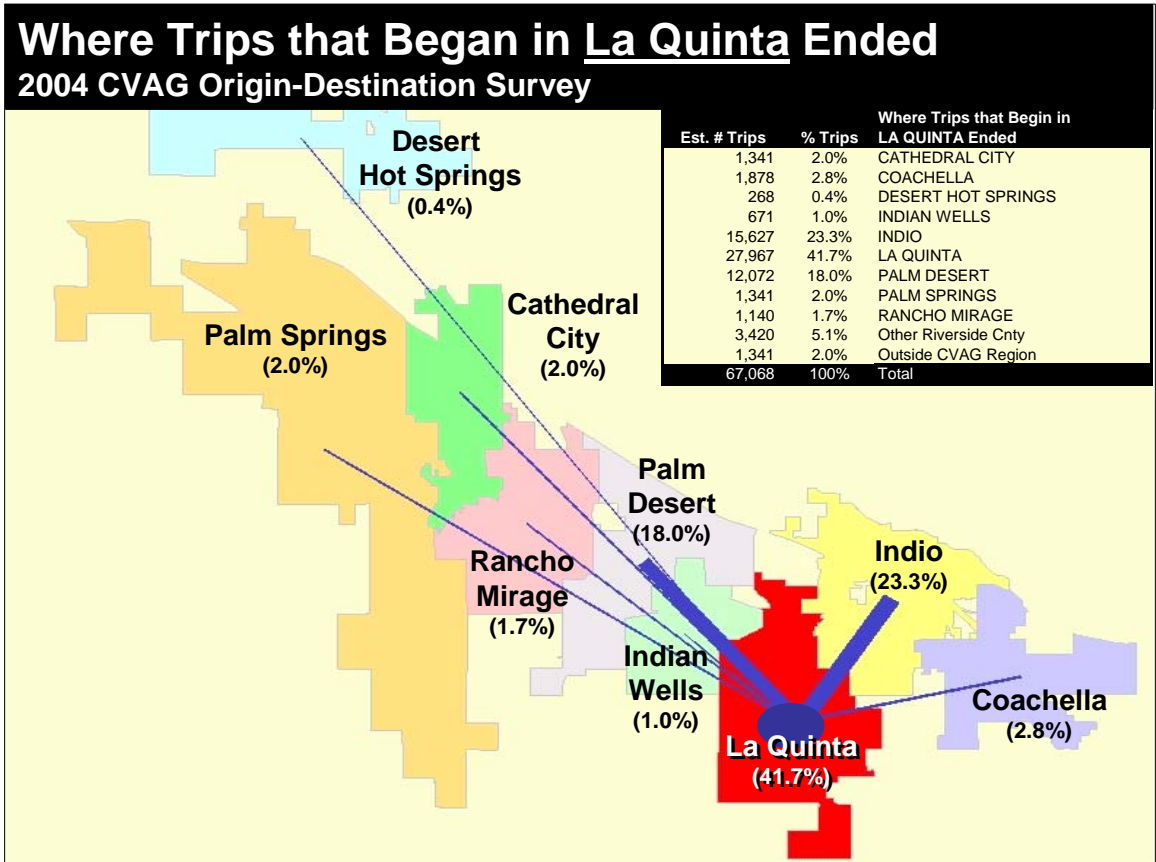
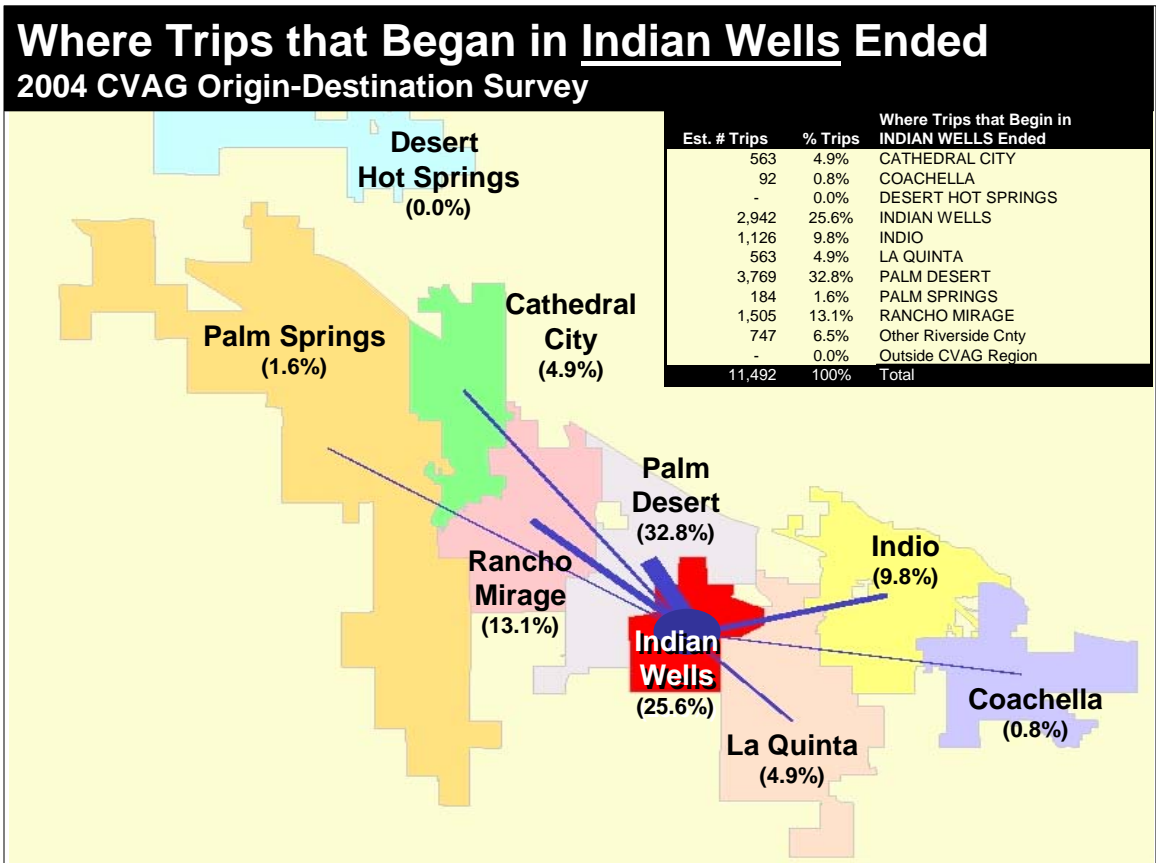
Travel Patterns in the Coachella Valley

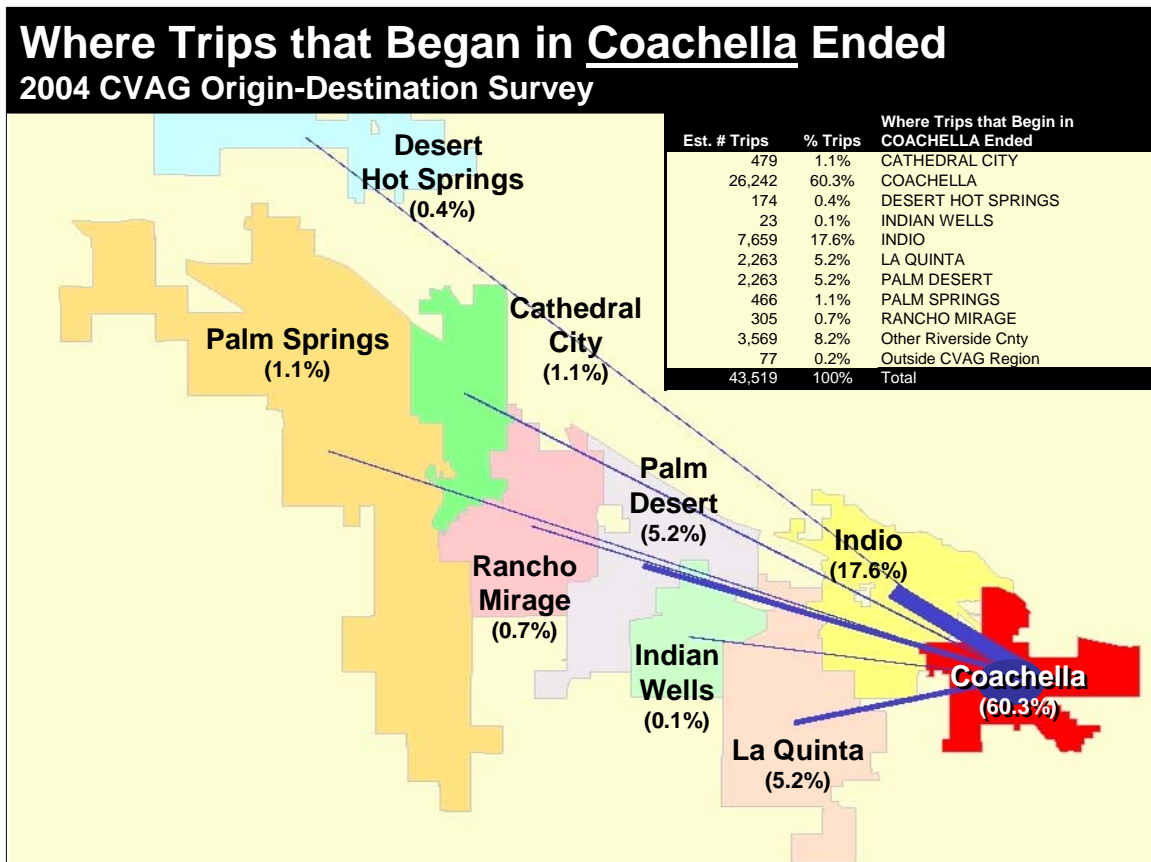
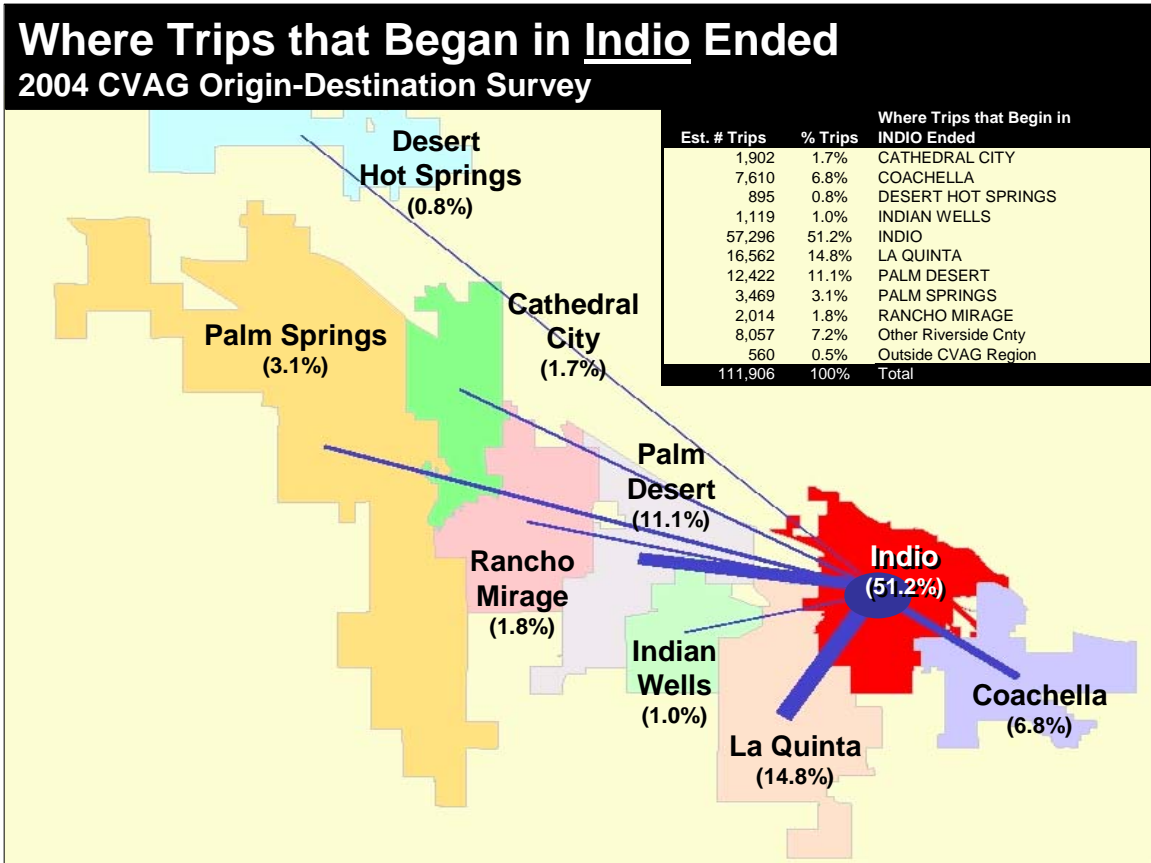
The maps on the following pages show where residents are traveling in the region based on the city where their trip began.







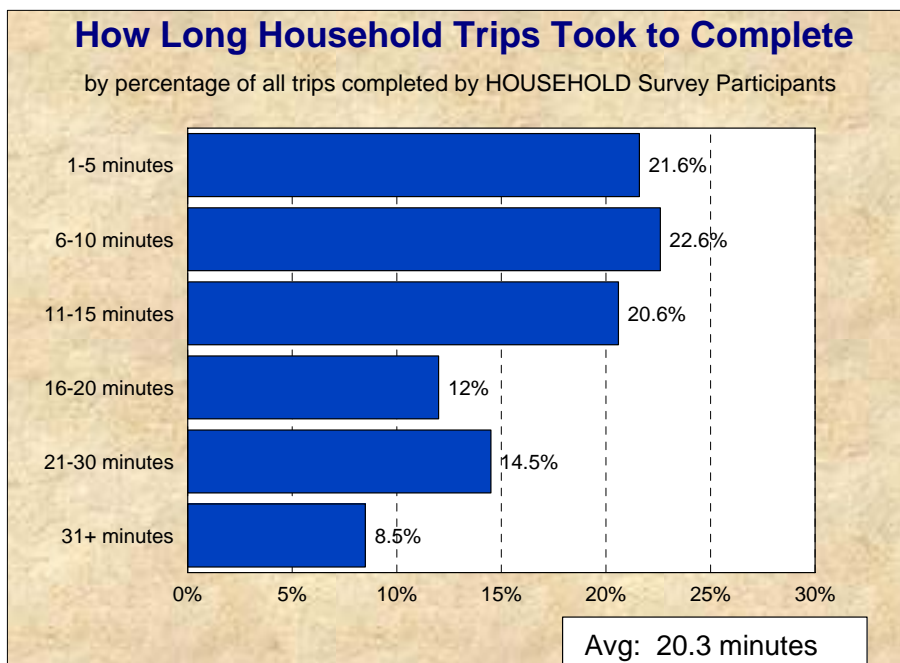




How Much Time Residents Spend Traveling On a Typical Weekday

The average trip length for all residents of the Coachella Valley was 20.3 minutes per trip (see chart below). The total amount of time that residents spent traveling on a typical weekday was estimated by multiplying the average length of each trip by the total number of trips completed by each person. Since there were an average of 2.4 persons per household in the households that participated in the survey and these households completed an average of 6.56 trips per day, the typical resident of the region completed 2.77 trips on their assigned travel day and spent nearly an hour (about 56 minutes) traveling between destinations.

- Retired Households.** The average trip length for households with a retired head of household was 18.08 minutes. Since there were an average of 1.84 persons per household in the “retired” household sample and these households completed an average of 4.87 trips per day, the typical resident in a “retired” household completed 2.65 trips on their assigned travel day and spent nearly 48 minutes traveling between destinations.
- Non-Retired Households.** The average trip length for households without a retired head of household was 21.68 minutes. Since there were an average of 2.66 persons per household in the “non-retired” household sample and these households completed an average of 7.58 trips per day, the typical resident in a “non-retired” household completed 2.85 trips on their assigned travel day and spent more than one hour (62 minutes) traveling between destinations.
- Transit Users.** The average trip length for transit users was 21.07 minutes. Since transit users made an average of 5.12 trips per day, the typical transit user spent nearly two hours (108 minutes) traveling between destinations. Transit users typically reported more trips than household survey participants because each bus transfer was counted as a separate trip, meaning that transit users typically required more trips to get to the same number of destinations as persons who did not use public transit.



The Challenge for Transit Users

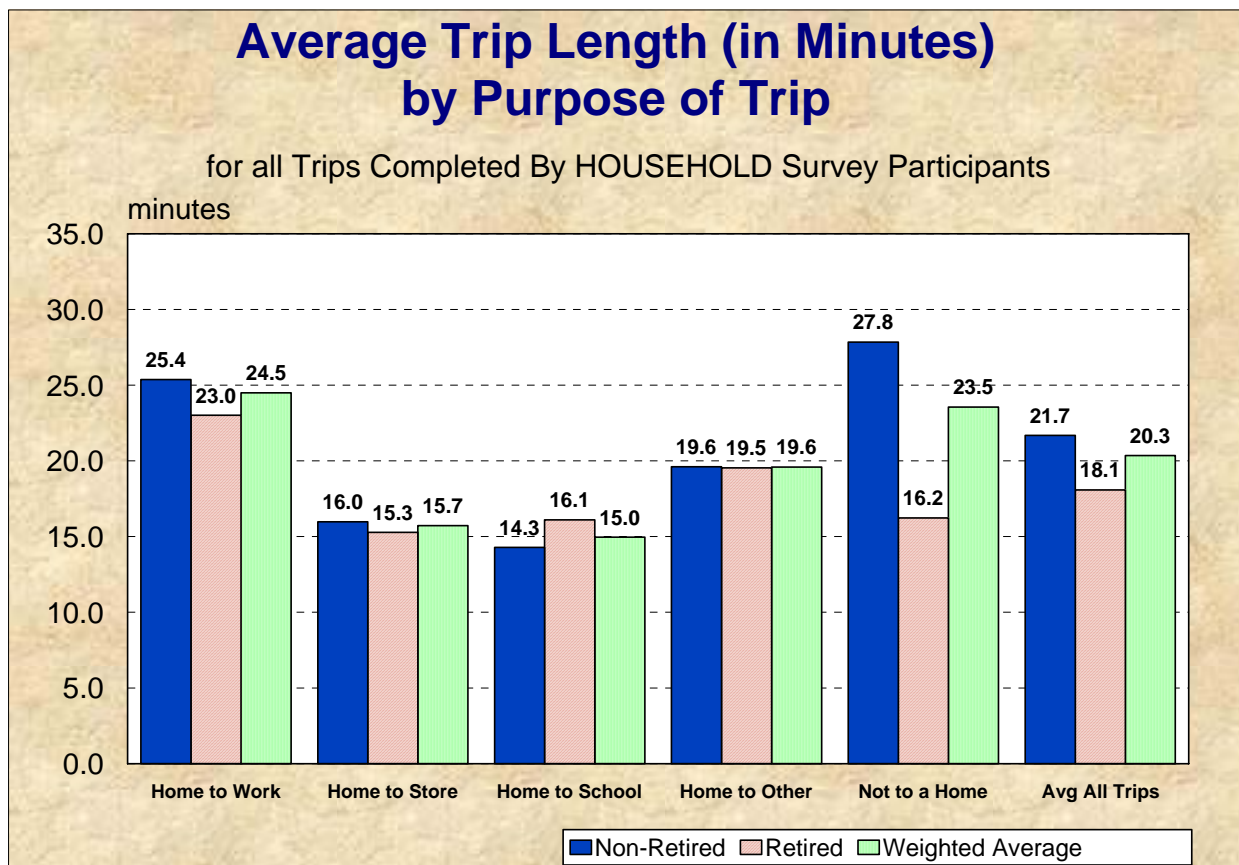
The typical transit user in the Coachella Valley spends almost two hours per day traveling from one destination to another.

Residents Are Making Many Short Trips

The results of the household survey showed that almost half (44.2%) of the trips completed by household survey participants took 10 minutes or less. A very high percentage of these short trips involved travel between a person’s home and a nearby school or store.

Nearly one-fifth of the trips completed by household survey participants in non-retired households were 25 minutes or more. Trips between a person’s home and their work place accounted for a high percentage of these longer trips.

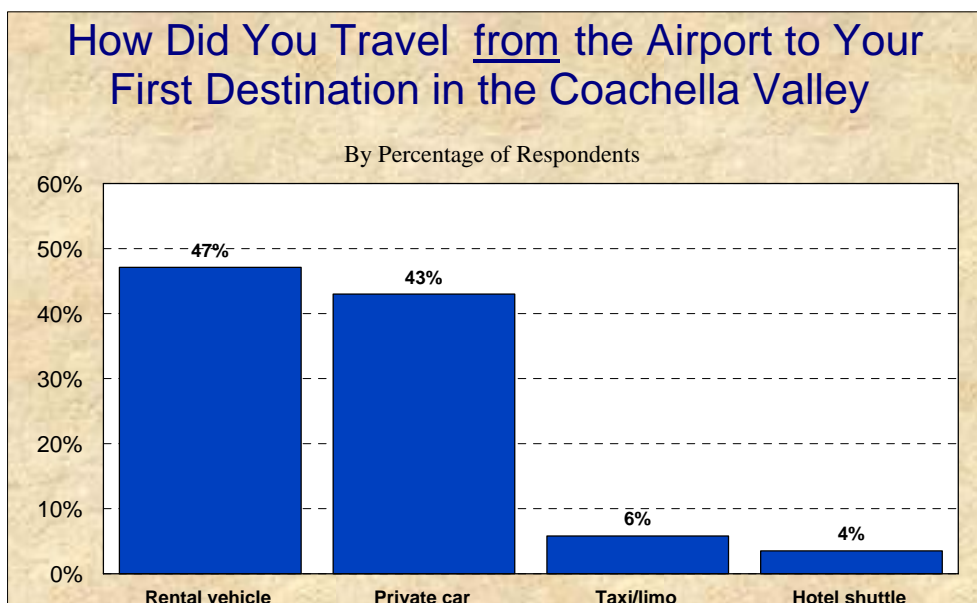
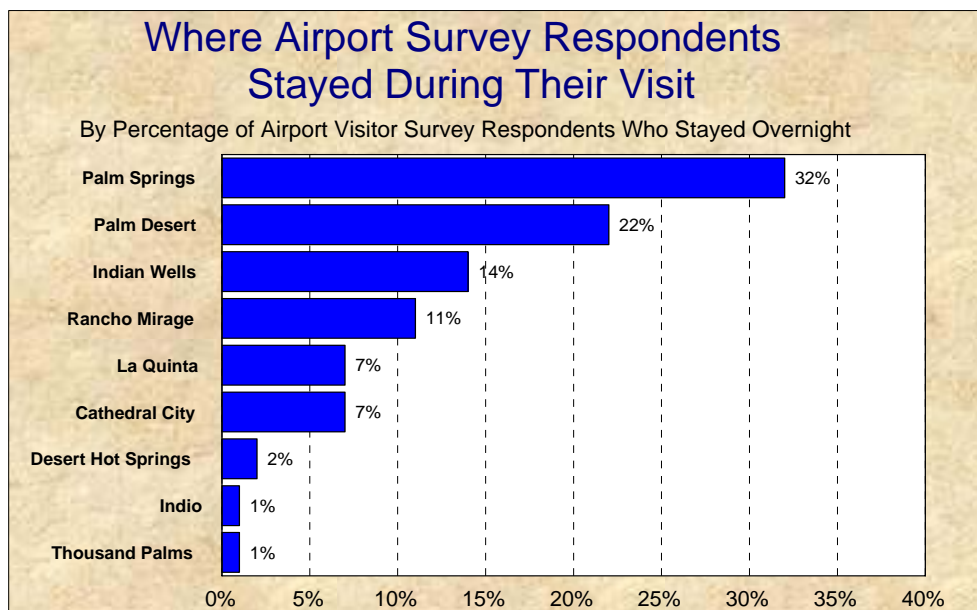
The average time (in minutes) that it took household travel survey participants to complete various types of trips is shown in the chart below.



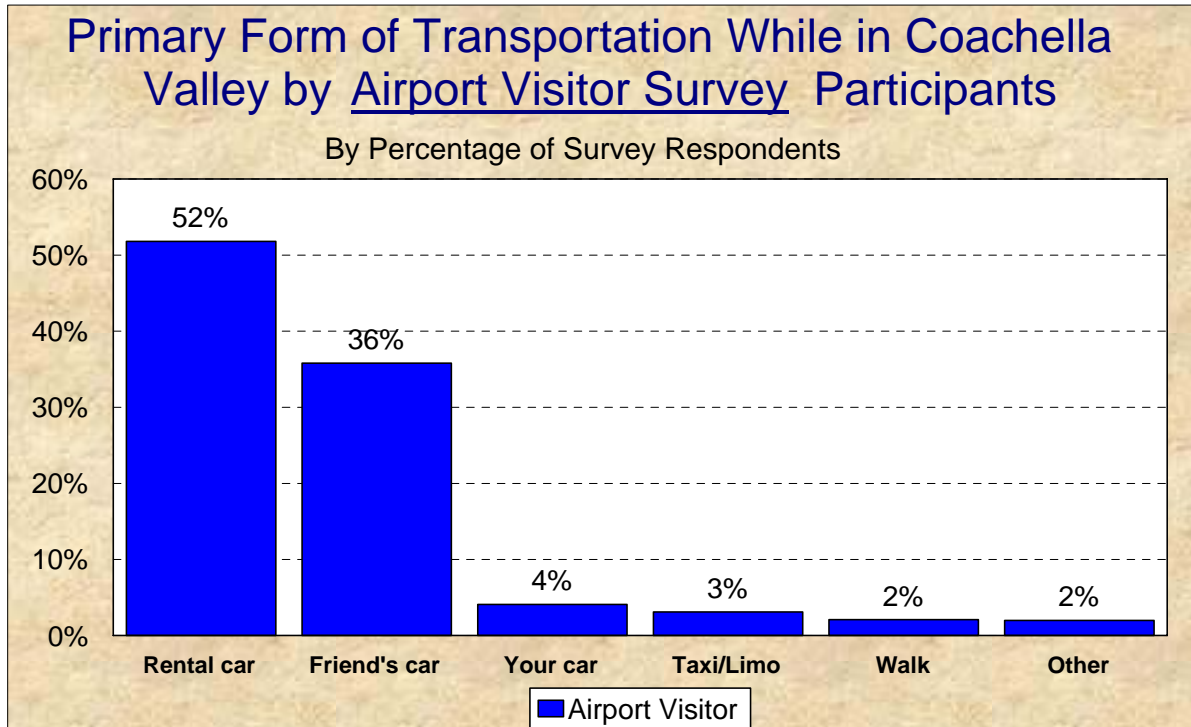
Travel Characteristics of Airport Survey Participants

Eighty-nine percent (89%) of the airport survey participants originally arrived in the Coachella Valley by flying into Palm Springs Airport; 11% flew into another airport and/or drove to the area. More than half (53%) of the airport survey participants indicated that their primary reason for visiting the Coachella Valley was for vacation; 18% were visiting friends, and 11% were attending a convention, 8% were conducting business, and 8% came to play golf or tennis.

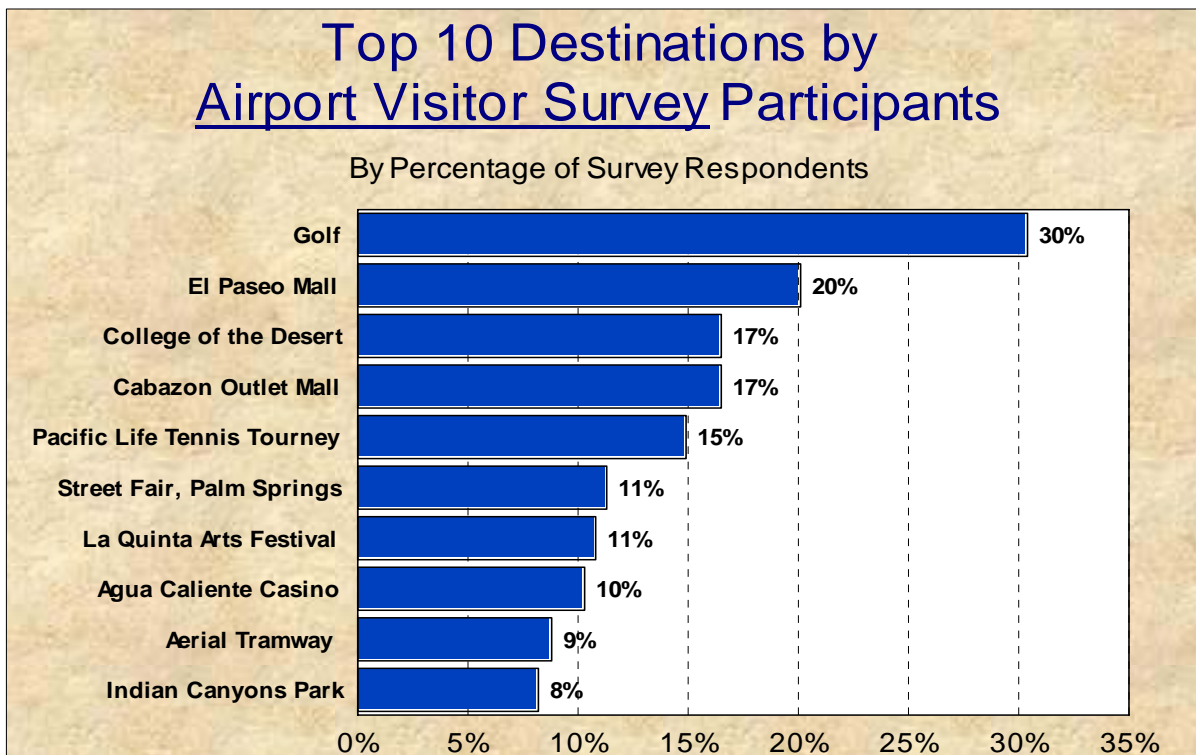
Almost all (99%) of the airport visitors surveyed spent the night in the Coachella Valley. Of those who spent the night, 44% stayed with a friend and 43% stayed at a hotel. The top three cities where airport visitors stayed were: Palm Springs, Palm Desert, and Indian Wells. More than half of the airport visitors surveyed used a rental car as their primary form of transportation in the area. Only 10% used a hotel shuttle or taxi to get to their first destination in the area. Ninety percent (90%) used a car to get to their first destination.



Primary Form of Transportation for Airport Visitors While They Were in Coachella Valley



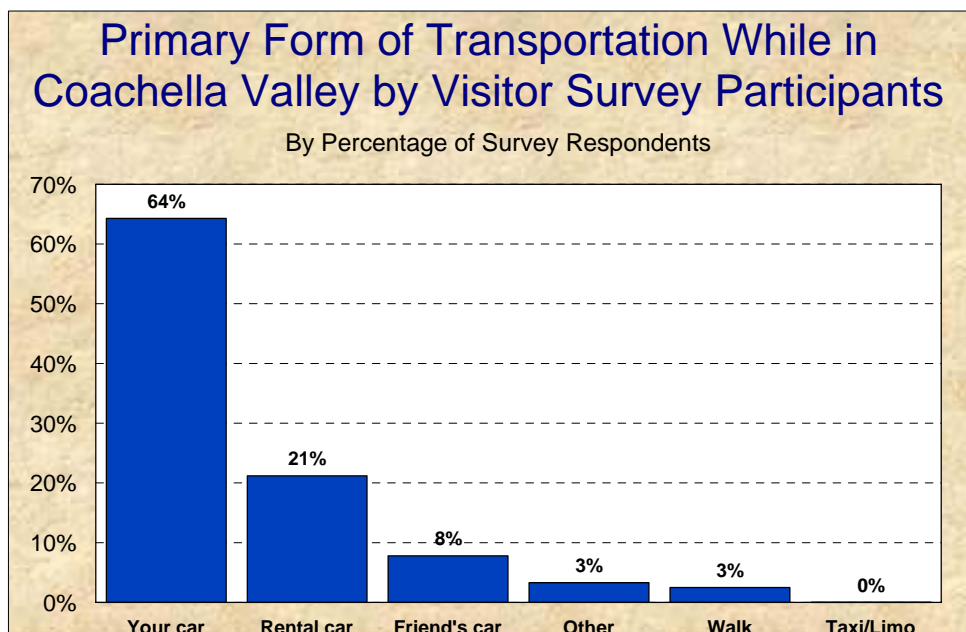
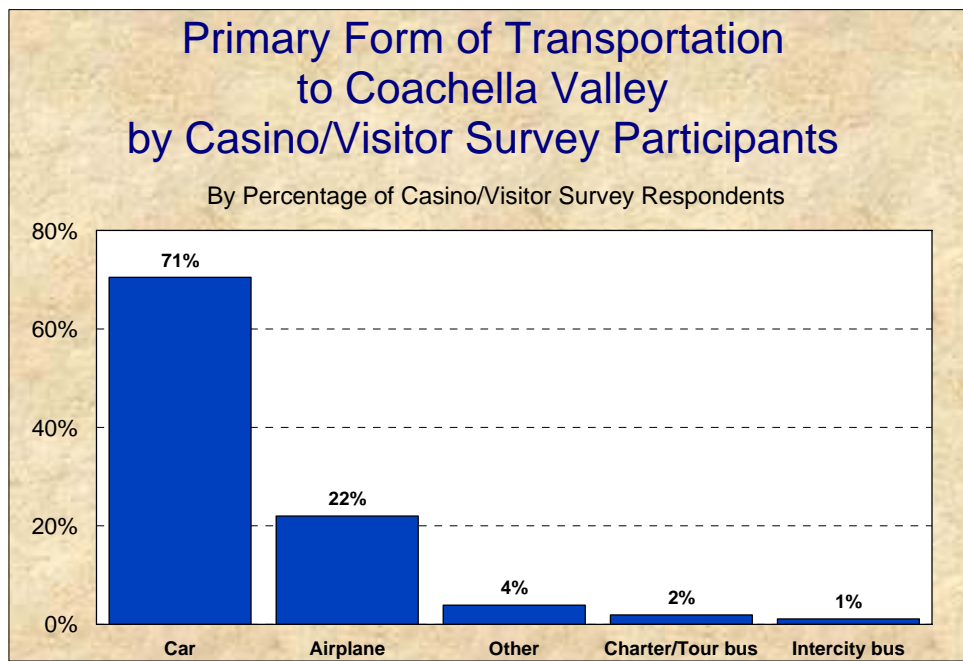
Top Destinations in the Region for Airport Visitors



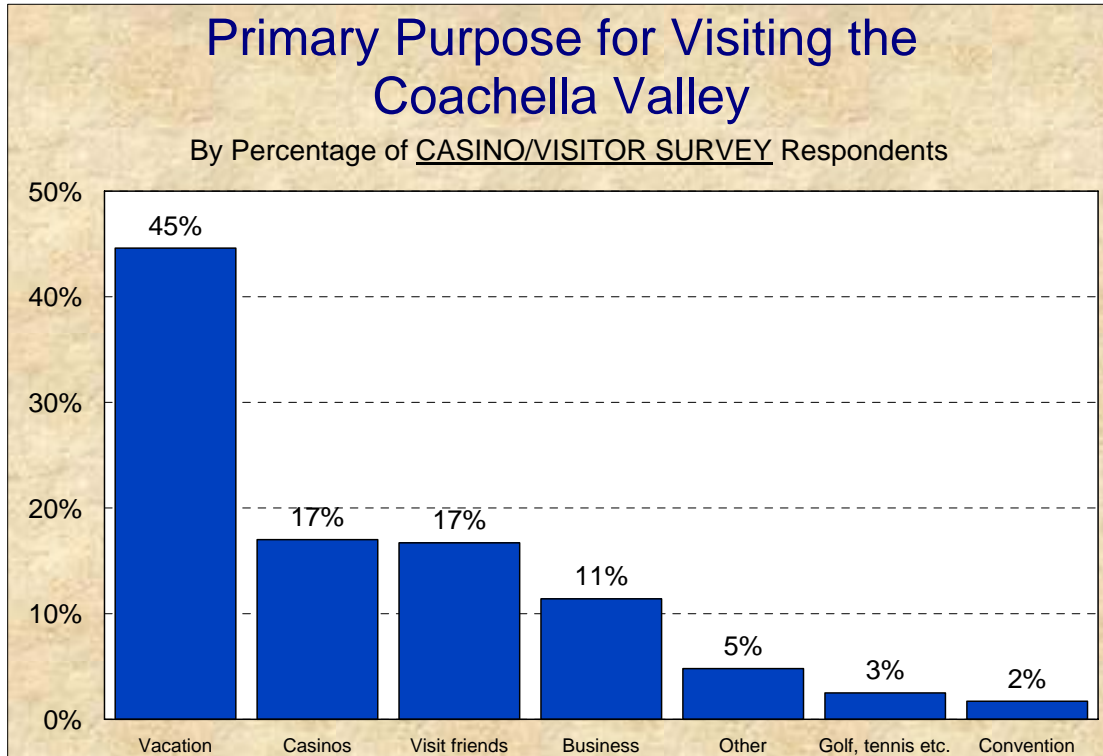
Travel Characteristics of Casino/Visitor Survey Participants

The results of the casino/visitor survey showed that the majority of visitors to casinos and shopping areas in the Coachella Valley travel to the region by car. Once they arrive, the typical visitor stays in the Coachella Valley for 2-4 days and spends the night at a local hotel. Nearly two-thirds of the respondents to the casino/visitor survey indicated that they use their own car for transportation during their visit; about one-fourth indicated they use a rental car.

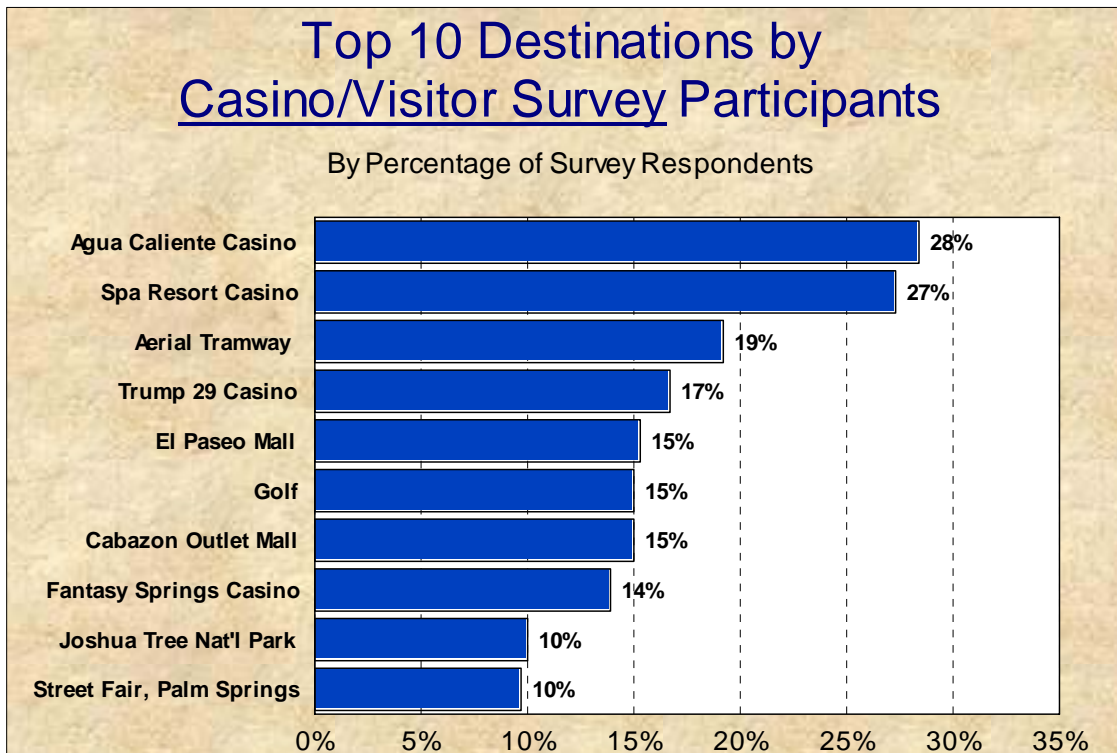
Visitor Trip Rate. The typical respondent to the casino/visitor survey made 7.19 trips per day, including 1.60 trips to shopping areas, 1.82 trips to restaurants, 0.40 trips to a golf course, 0.56 trips to a casino, 0.41 trips to a tourist attraction, 1.80 return trips to the place he/she stayed, and 0.60 trips to various other locations in the area.



Reasons Casino/Visitor Survey Participants Were Visiting the Coachella Valley



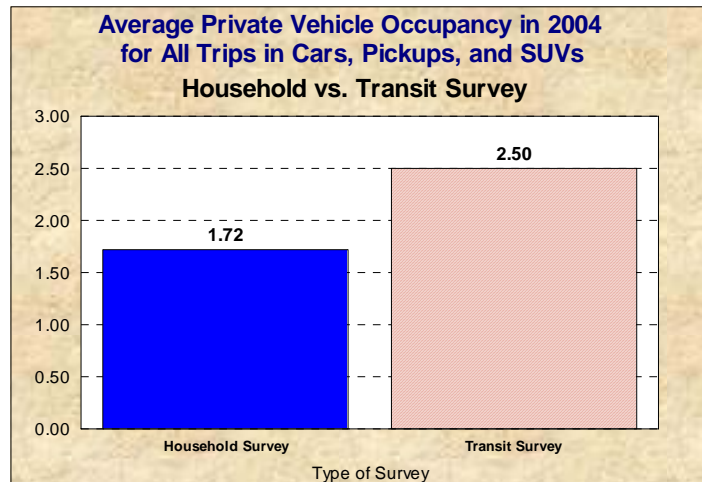
Top Destinations for Casino/Visitor Survey Participants



Transit Users Are More Likely to Carpool than Non-Users

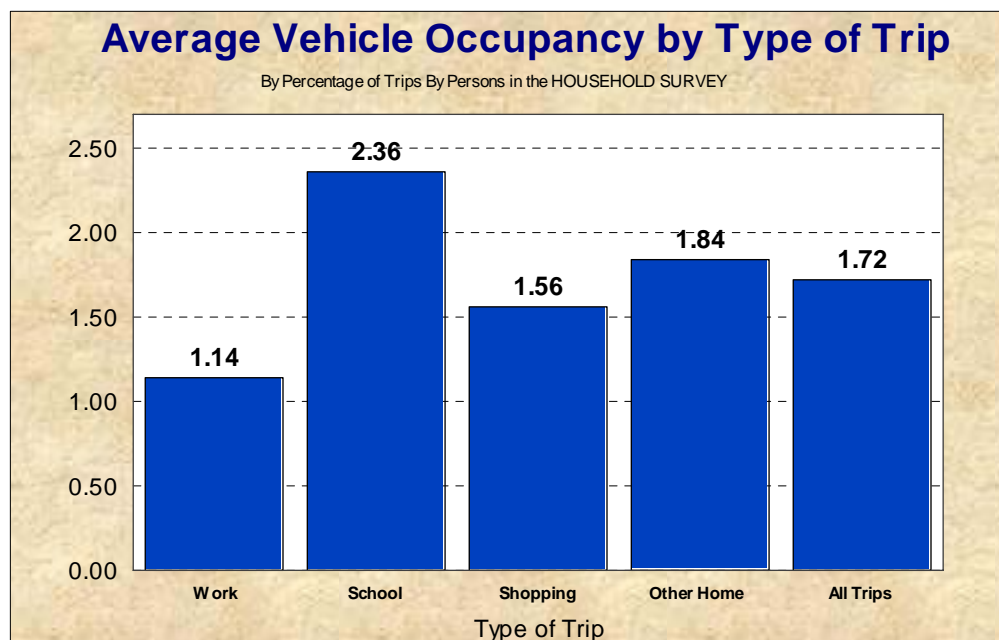
Household Survey. More than half (51.8%) of all trips completed by household travel survey participants had a vehicle occupancy of just one person. The average vehicle occupancy for all trips completed by household travel survey participants was 1.72 persons per trip.

Transit Survey. The average private vehicle occupancy for all trips completed by transit survey participants was 2.50 persons per trip. Only 18% of all trips by transit users had a vehicle occupancy of just one person.



How Trip Purpose Affects Vehicle Occupancy

The results of the household survey show that the purpose of a trip has a significant affect on vehicle occupancy. Eighty-nine percent (89%) of the household survey participants traveled between home and work alone. The chart below shows that the average vehicle occupancy for trips between person’s home and their workplace was just 1.14 persons. The average vehicle occupancy for trips between a person’s home and school was 2.96 persons.



Supporting Documentation and Databases

This summary was prepared to provide a basic overview of the methodology and major findings from the 2004 Origin and Destination Survey. Trip tables, survey instruments, and other technical materials have been published as a separate appendix.

The data from each of the four surveys has been consolidated into five databases as follows:

- Household travel survey database
- Transit survey database
- Casino/visitor survey database
- Airport visitor survey database
- Airport resident survey database

The data from the airport survey was split into two files because residents and visitors at the airport were asked a different set of questions.

Each of the databases was saved as an Excel file. A data dictionary for each database is provided in Section 4 of the appendix. The address information in each database for (1) home addresses, (2) employment addresses, (3) trip origins, and (4) trip destinations were geocoded to latitude and longitude coordinates.

A detailed trip table is provided on the following page.

CVAG Region - TRIP RATES SUMMARY TABLE

Trip Purpose	FYR/SF			FYR/MF			FYN/SF			FYN/MF			PY/SF			PY/MF			VIS	HOA
	H1A	H2A	H3A	H1A	H2A	H3A	H1A	H2A	H3A	H1A	H2A	H3A	H1A	H2A	H3A	H1A	H2A	H3A		
HBW	0.19	0.25	0.38	0.07	0.13	0.13	1.12	1.78	2.21	0.96	1.56	1.87	0.11	0.13	0.13	0.05	0.05	0.06		0.31
HBShop	1.19	1.52	2.36	1.06	1.87	1.87	0.50	0.80	0.99	0.41	0.66	0.79	1.37	1.69	1.69	1.40	1.55	1.66		0.55
HSchool	0.18	0.22	0.35	0.06	0.11	0.11	1.06	1.69	2.10	1.03	1.68	2.01	0.11	0.13	0.13	0.04	0.04	0.05		0.28
HBO (soc/rec)	1.56	1.99	3.10	1.55	2.72	2.72	1.21	1.92	2.38	1.39	2.26	2.70	1.76	2.18	2.18	1.99	2.19	2.35		0.94
NHB	1.06	1.36	2.11	1.26	2.21	2.21	1.22	1.94	2.41	1.35	2.20	2.63	0.89	1.10	1.10	0.76	0.83	0.90		0.78
TOTAL	4.19	5.33	8.30	4.00	7.03	7.03	5.12	8.13	10.08	5.14	8.36	10.00	4.23	5.23	5.23	4.23	4.66	5.01		2.83

KEY:

- FYR - Households with retired household heads present in the Valley for at least 10 months.
- FYN - Households with non-retired household heads present in the Valley for at least 10 months.
- PY - Households present in the Valley for more than 1 (one) months but less than 10 months.
- VIS - Short-term visitors (persons) who stay in the Valley for less than 1 (one) month.
- Visitor rate based on mean number of trips reported by respondents to the visitor survey. The mean rate of 7.19 trips includes:
 - 1.6 shopping, 0.56 casinos, 0.4 golf, 1.82 eating, 0.41 tourist attractions, 1.8 return to place of stay, and 0.6 other
- SF - Single family residences.
- MF - Multiple family residences.
- H0A - Households with zero vehicles.
- H1A - Households with one vehicle.
- H2A - Households with two vehicles.
- H3A - Households with three or more vehicles.