

Appendix A: Data Collection of Stakeholder Interviews



OmniTrak Group Inc.

The Research-Based Marketing Professionals in the Pacific Rim

September 1, 2009

To: Nicholas Roach, Parsons Brinkerhoff
Maggie Mund, Parsons Brinkerhoff
Pam Murray, Parsons Brinkerhoff

From: Team OmniTrak

SUMMARY: STAKEHOLDER INTERVIEWS

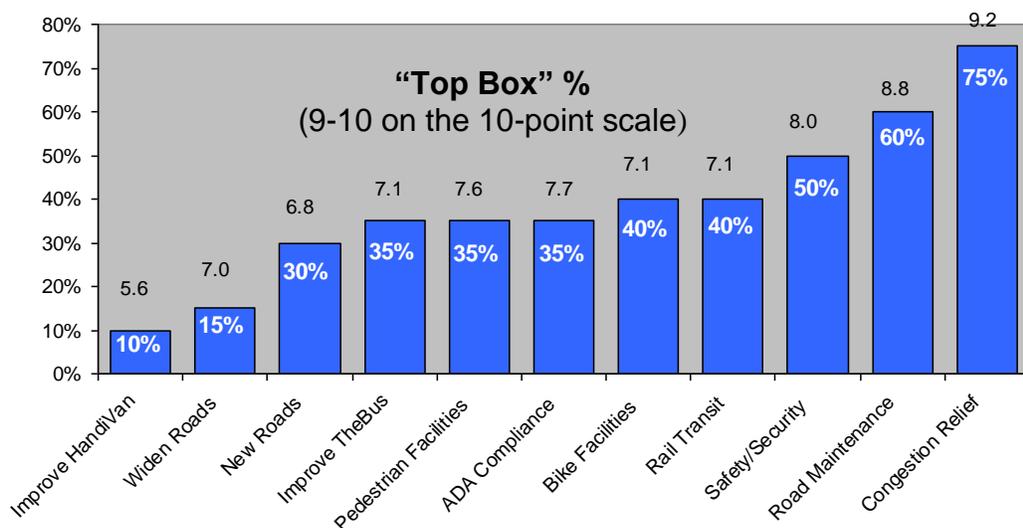
PURPOSE --- The purpose of the interviews was to better understand current transportation issues and needs of key Oahu stakeholders, including citizens-at-large, commercial users, large landowners and developers, business organizations, community and civic groups, colleges and universities and government agencies.

The following summarizes the results of interviews with 20 Oahu stakeholders conducted July 31-August 18, 2009. See Appendix B for a list of participants.

I. KEY PRIORITIES IN TRANSPORTATION

Traffic Congestion the Key Issue --- Stakeholders want to address Oahu traffic congestion and road maintenance first, rating “general congestion relief” and “road maintenance” highest among 11 priorities presented to them (based on “top box” ratings).¹

“I’m going to read a list of potential transportation improvements planned for Oahu. Please tell me how important each is, using a 10-point scale with 10=extremely important and 1=not important at all for Oahu.”



Traffic and maintenance were followed in importance by *safety and security, adding and improving bicycle facilities and rail transit system*, based on ‘top box’ ratings.

¹ The 10-point scale is divided into three “boxes” for analysis: Top (9-10), Mid (6-8) and Bottom (1-5).



Lowest-rated among the 11 priorities were *handi-van improvements, road-widening and construction of new roadways.*

Top Priority. Asked to rank the Top Five priorities in a follow-up question, 7 of 20 chose “*congestion relief*” as their top priority, 5 chose “*road maintenance*” and 4 chose “*rail transit.*” No other option was chosen as the top priority by more than 1 respondent.

“How would you rank your top 5 priorities?”

	<u>No. Rank #1</u>	<u>No. Rank #2</u>
General congestion relief	7	1
Maintaining current roads	5	2
Rail Transit System	4	5
Improve <i>TheBus</i> system	1	4
Improve bicycle facilities	1	3
Improve pedestrian facilities	1	1
Widening existing roads	1	0
Ensure safety & security	0	2
Construction of new roads	0	2
Improve Handivan system	0	0
Ensuring ADA compliance	0	0

Stakeholder verbatim comments:

“Traffic congestion – half the island faces this problem due to not having enough transportation options.”

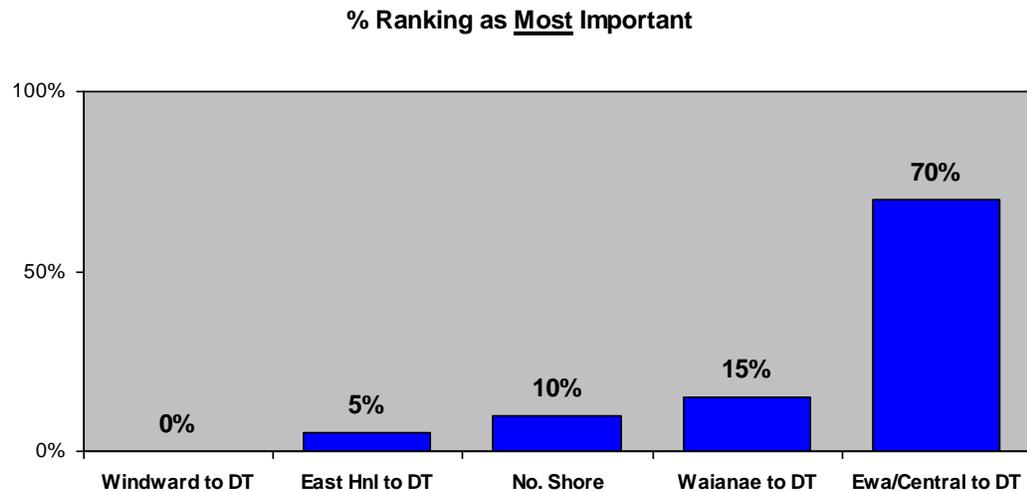
“Traffic congestion, mainly at the Nimitz corridor, Middle Street merge and King Street. There is a lack of integration between city and state on things like timing of traffic lights, controlling the flow of traffic, etc. There is poor coordination of special events planning and too many street closures due to special events and parades.”

“Traffic congestion is getting worse from all points of the island. Traffic is even heavier on weekends and nights – it’s no different from weekday traffic. In addition, there is poor planning of construction and road repair projects.”



II. PRIORITIZING TRANSPORTATION CORRIDORS

Key Corridor: Ewa to Downtown. The Ewa-Downtown corridor is the most important among five corridors considered by stakeholders (see graph). Fourteen of 20 (70%) ranked *Ewa/Central Oahu-to-Downtown* first, with no other corridor coming close in the rankings – though 10 of 20 stakeholders ranked as second the *Waianae-to-Downtown* corridor.



“Traffic congestion coming into downtown, especially from the Ewa side, is very bad. We’ve become over-reliant on motor vehicles and not enough emphasis is put on alternatives like walking and biking.”

“We need alternative routes. In a disaster situation, there will be no quick exit from the affected area. Flooding, tidal waves happen out here on the North Shore. There are no emergency services to assist with natural disasters and it becomes very disorganized in an emergency situation. You can’t get out of here in an orderly fashion.”

III. ASSESSING NEW TRANSPORTATION PROJECTS

New Road Projects Assessed --- Five new projects were tested for (a) stakeholder awareness; and (b) being essential to relieving congestion on Oahu (using the 10-point scale).

- Waianae, second Access – Farrington Highway over the Waianae Mountain Range to Kunia Road
- Central Mauka Road, Second Access – Mililani Mauka to Waiawa
- Roads to better connect the Ewa/Kapolei communities
- Widening the Middle Street Merge on the H1 Freeway
- Tolling (charging tolls) in the morning and afternoon contra-flow lanes between the Waiawa Interchange and Iwilei



Widening the Middle Street Merge led all projects as most essential to relieving congestion, with *Kapolei connector roads* and *Waianae Second Access* coming in second and third, based on ‘top box’ and mean ratings (below). Note that awareness of the *Central Mauka Road* (in Mililani) and of *Contra-Flow Tolling* is low among stakeholders. Only about one-third were aware of these projects, and only 1 rated each highly for congestion relief.

NEW ROAD PROJECTS

	<u>Top Box %</u>	<u>Mean</u>	<u>% Aware</u>
Widen Middle St Merge/H1 Fwy	70%	9.0	65%
Roads to connect Ewa/Kapolei	45%	8.1	90%
Waianae 2 nd Access to Kunia	30%	7.3	65%
Central Mauka Road, 2 nd Access	5%	6.0	30%
Tolling Contra-flow Lanes AM & PM	5%	4.8	35%

“We need to find a solution to the traffic problem on the H1 corridor from Waianae to Hawaii Kai. With limited funds, make sure we address the most important problems. I understand the (Fort Weaver road) widening project. If we don’t improve the corridor, all we end up doing is putting more people on a congested and overburdened freeway and they will be waiting longer due to traffic.”

“Variable tolling works. When traffic is heavier, tolls should be higher. I would support tolling as a way to relieve congestion, but more has to be done, like timing traffic lights better and maintaining roads and highways.”

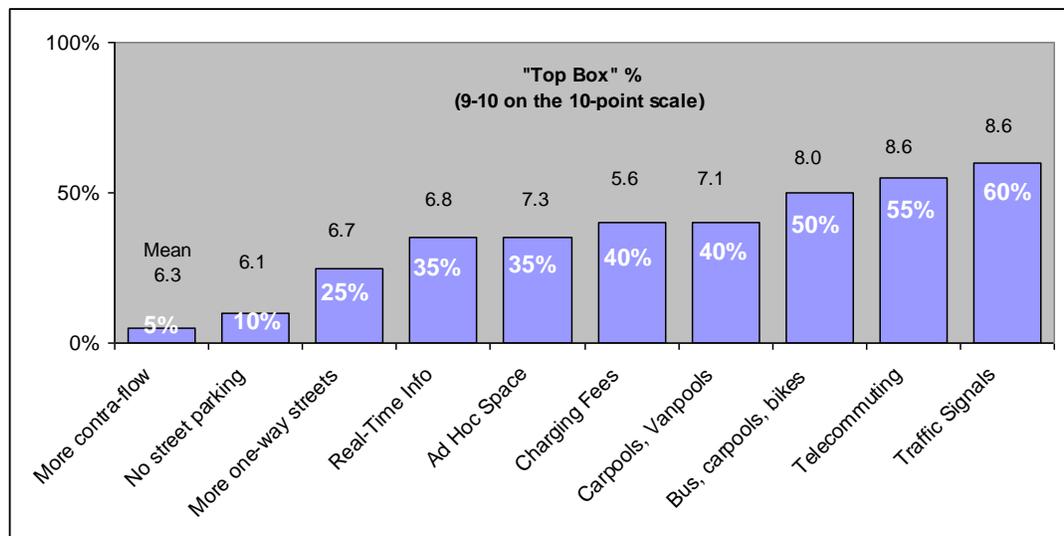
“Congestion is an issue. There is heavy traffic coming from the west side into town because many businesses are located at Campbell (Industrial Park). Time is money for these businesses. They can adjust their start time in the morning but have no control over it in the afternoon when they’re going back because of the traffic.”



IV. ALLEVIATING CONGESTION IN DOWNTOWN HONOLULU

No Big Changes in Downtown, Stakeholders Say. Stakeholders preferred that authorities alleviate downtown traffic by better *coordinating traffic signals*, *supporting telecommuting* and encouraging alternative forms of transportation (such as *TheBus*, *carpools* or *bicycles*).

“Using a 10-point scale where 10=strongly support and 1=strongly oppose, please tell me how much you would support ____ as a way to help alleviate congestion and traffic in downtown Honolulu.”



Stakeholders apparently do not care to make wholesale changes to current usage, as in *removing on-street parking*, and they are divided on the question of *charging fees for drivers to enter downtown*. Additionally, there is no consensus on *providing more carpool and vanpool programs*, *installing more contra-flow lanes* and *converting more streets to one-way operation*. A number of stakeholders (8 of 20) strongly opposed the proposal to *charge fees to drivers to enter downtown*.

“We need to get away from the idea of the automobile as the primary way we design everything. Once you get into that mindset, everything becomes possible – walking, biking, etc.”

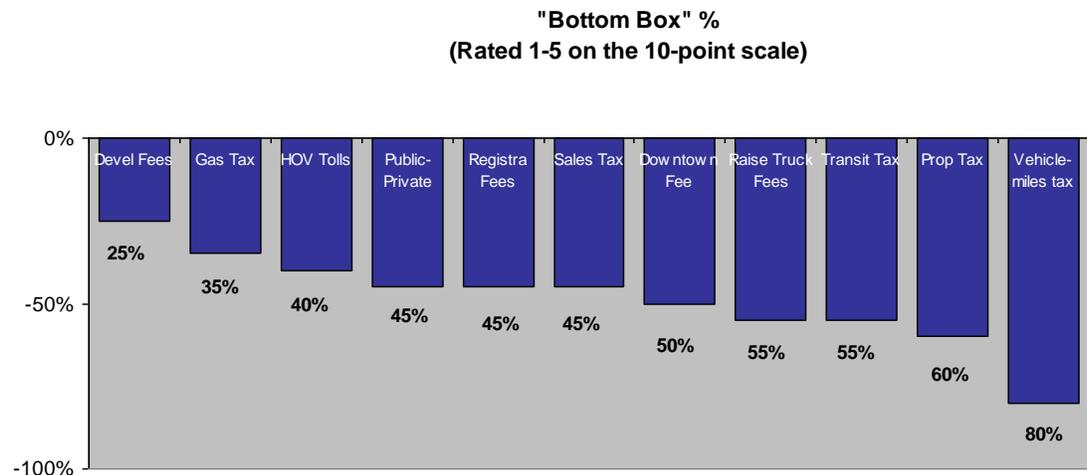
“Manage the traffic flow much better! Analyze the existing conditions that could be modified. For example, switch garbage collection to night time instead of during rush hour. There is too much traffic backing up for stupid reasons. Buses have no turn-off lanes and block the right lanes. Bicycles are taking one whole lane and slowing traffic. Look at the bottlenecks and alleviate them.”



V. TRANSPORTATION FUNDING PROPOSALS

Few Funding Options Favored --- None of the 11 proposals to fund transportation were supported by stakeholders, overall. The highest-rated, “*raising the gasoline tax*” and “*developer fees*,” were each rated in the ‘top box’ by under half of respondents (7 of 19). Four of the five tax-related proposals were voted down by all but a few respondents (shown as a ‘bottom box’ % in the graph below).

“Using a 10-point scale where 10=strongly support and 1=strongly oppose, tell me where you stand on each proposal.”



User fees and tolls were also not popular with stakeholders, generally. Many opposed *charging drivers to enter Downtown Honolulu* (10 of 20) or *charging tolls on some roads or HOV lanes* (8 of 20). The most unpopular option, “*charging a tax for vehicle-miles-traveled*,” was rated in the ‘bottom box’ by 16 of 20 or 80% of stakeholders.

“Find a fair and equitable way to distribute the cost of road improvements based on pro-rating. Use creative financing methods to fund projects. Use bond issues like development bonds or roadway bonds.”

“Large employers should do more to subsidize parking and mass transit options for employees. This could help get cars off the road. The level of taxation on businesses is already high. Tax monies should be spent on the purpose intended and not raided for other uses.”



Top Funding Priority. Consistent with the ratings of funding options, more stakeholders ranked *developer fees* and *raising the gasoline tax* as their top choice than ranked any other option when asked to choose one among the 11 funding options.

“Which of these would be your top choice for a funding option?”

	<u>No. Chosen</u>
Developer Fees	7
Raise gasoline tax	5
Public-Private Partnership	2
Raise the sales tax	2
Charge fee to driving into downtown	1
Raise transit fares	1
Charge tolls on roads / HOV lanes	1
Raise vehicle registration fees	1
Raise property taxes	0
Raise truck fees	0
Charge vehicle miles-traveled tax	0

This concludes discussion of interview results among 20 Oahu stakeholders.

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The next Appendices to this memo provide the following:

- A. Verbatim responses to open-ended questions posed in the interviews; and
- B. List of 20 stakeholders by Interview date.



**APPENDIX A:
VERBATIM RESPONSES BY STAKEHOLDERS**

Q1. In your opinion, what are the top three transportation issue facing this island?

“Traffic congestion and travel time it takes to travel from point a to point b. Means more time away from family. / Cost of fuel (to consumers). Majority of us travel into Honolulu from the No. Shore and fuel costs are hitting us. / Expense of owning a vehicle for example increasing registration fees. It's becoming cost prohibitive and most of us need a car for daily travel line to and from work.”

“Mass transit, specifically rail transit. / Walkability/Bikeability. Non-automobile needs to be an integral part of the transportation plan. / Need to look at the kinds of fuel and methods we use to power automobiles. Need more in the area of "plug-ins"/hybrids.”

“Congestion, mainly at the Nimitz corridor, Middle St. merge and King St. / Lack of integration between city and state on things like timing of traffic lights, controlling flow of traffic, etc. / Poor coordination of special events planning. Street closures due to special events and parades are becoming too frequent.”

“Traffic congestion coming into downtown , especially from the Ewa side. / We've become over-reliant on motor vehicles and not enough emphasis put on other alternatives like pedestrian walking and biking. / Bad moves in mass transit. The bus system should be improved. I'm not sure on rail. Bus system should be subsidized by gas tax.”

“Lack of mass transit. / Cost of mass transit as planned. / Limited plan of mass transit (rail) meaning 20 miles is not enough.”

“Only one way of getting anywhere. No alternative roads on our side (no shore). If there's a pole down, it totally blocks access. / Congestion during high volume times. / Alternative to the bus. It's too slow out here (no shore).”

“Condition of infrastructure..potholes and general poor condition of roads. / Limited access, two lanes vs. 3 lanes. / Lack of adequate/proper sidewalks and medians in our area.”

“Limited infrastructure - zoning, planning, money / A lack of integrated, multimodal transportation system. / Safety education...perception is walking and biking is not safe!”

“Density of cars. / Parking availability in downtown and metropolitan areas. / Travel time to and from work. We now have 200+ employees in Kapolei and for the majority of these people, the now have their lives back because they are not spending so much time on the road.”

“Condition of roads/physical condition. City and state need to work together on this situation. / Congestion - half of the island faces this problem, due to not having enough transportation options. / Getting improvements done quicker. Funding mechanism is too slow and bureaucratic!”

“Too many cars/vehicles. / Maintain infrastructure better. Condition of roads and highways is poor in general. / Cost of fuel to consumer is high.”



Memo to Parsons Brinkerhoff
September 1, 2009
Page 9

"We support accessibility for all residents - rail project, rail stations. / Transit Oriented Development (T.O.D.) - needed for Oahu. / Neighborhood or community involvement in rail station planning. / Increase number of buses in fleet. APA stresses that as bus fleet ages, replace and pay attention to capacity issues."

"Traffic / Mobility, getting from point a to point b. / Safety."

"Traffic problem from West Oahu. It's only getting worse. / Rail system...we need this but the lines are questionable. We need better clarification."

"Congestion. / Mass Transit. / Parking (lack of)."

"Highways. / Mass Transportation. / Rush hour snafus in west Oahu. Need alternatives to highways and need mass transit to reduce load on highway."

"Traffic congestion is getting worse from all points of the island. / Traffic even heavier on weekends and nights. No difference from weekday traffic. / Poor planning of construction and road repair projects."

"Too many cars and congestion. / Not enough roads. / Just overall better management of the transportation system is needed."

Q3.Thinking specifically of your organization, what are the key challenges related to transportation faced by your organization and/or your employees?

"Funding - being able to put our projects on the ORTP and then get them funded. Ability to work with different government agencies to recognize needs. Safety is always first and grabs their attention."

"Congestion on main road. We need alternative routes. In a disaster situation, there will be no quick exit from the affected area. Flooding, tidal waves happen out here. There is no emergency services to assist with natural disasters. It becomes very disorganized in an emergency situation. You just can't get out of here in an orderly fashion."

"Getting people to see the benefit (like health) of walking and biking. There are model cities like out there who have put in designs which encourage alternatives to travel by automobile. Many of these cities have become walking cities because of the way they have been designed. Honolulu would be ideal for this model."

"We must perform on-time. This is our business as transportation providers. This can be challenging with things like traffic, delays due to construction etc."

"Employee commuting - parking and ability to get here from all points of the island on time."

"Maintenance of roads."

"For the bus, we need alternative routes and a system that is more convenient and comfortable. There is an ongoing safety issue on Kamehameha Hwy (No Shore) with speeders and passing. There have been accidents where lives have been lost. There is a need for good bike lanes out here."



Memo to Parsons Brinkerhoff
September 1, 2009
Page 10

“The APA Hawaii Chapter seeks to improve planning, concurrency of infrastructure with new development so new residents do not have difficulty with access to transportation. So ensuring new development includes necessary transportation for new residents. Improving the grid system so access to retail or jobs is not constricted to 1 Or 2 collector roads. Distributing over a wider network of streets e.g., Ewa, more than just Farrington Hwy. Having more connector streets.”

“50% of people who pass through Waimanalo are not our residents. There is space for a bypass road (mauka), but there are issues with the farmers. We live with gridlock and it will continue. I live on the highway and there is already road rage due to drivers who get impatient because of the gridlock. People take chances...riding bikes on roads with no bike lanes. We need better education and safety plans for moped drivers. Safety is a big thing for us out here (Waimanalo). In 1992 we did traffic "calming" (roundabouts and bumps). This was planned, but still no calming. We have no power out here. We have suggestions but no one listens. The focus has been on military transport. Bridges are old. Infrastructure is old. Many areas are not paved or need to be re-paved. We have no voice. 8 communities on Oahu have traffic calming but we don't have anything yet.”

“Safety and enforcement i.e., "roads aren't safe!" Lack of knowledge of rules by bicyclists and drivers. Lack of connected bike system. Lack of integration of bike routes with existing system. i.e. bike routs don't go anywhere.”

“Lower-salaried people look for bus route, get dropped off and look for economical ways to travel to and from work. Wait time for parking in our area averages 8 years. Average length of services is 10 years. We have a problem here.”

“Inadequate, ill-placed transportation. Inefficient and insufficient ways of moving people. Other modes of transportation is needed. We had the boat option, but they cut the line due to ridership. Old adage...they put the cart before the horse...people before the roads. Government failed in coming up with ways, new ways of moving people.”

“Heavy traffic from westside coming into town. Many businesses located at Campbell/(No Suggestions)/Barber's Point and they need to get their goods into downtown Honolulu daily. Time is money for many of these businesses. You can adjust your start time in the morning but have no control in the afternoon when you're going home. Congestion is an issue.”

“Trying to frame our role in "Complete Streets" law passed in July. APA is advisory to DOT. Be active player in rail project, advocating for citizen involvement in planning and design.”

“Balancing transportation issues and projects with beautification projects f the island...e.g. rail project.”

“Traffic. This impacts the driver. The more traffic the less income for the driver since they are dependent on fares. Safety (personal) is also a big issue.”

“Getting to the campus and back.”

“Our workers are fine. As a developer, traffic improvements/roadway improvement needs to be worked on in cooperation among government agencies and the developers. Now, there is no coordination among agencies to landowners, developers. Work together productively.”



Memo to Parsons Brinkerhoff
September 1, 2009
Page 11

"The same as everyone else. So much time has to be spent planning our transportation due to traffic. Sometimes the time we spend on the road for such a short distance is ridiculous."

"Traffic congestion is bad. Getting from one place to another is sometimes bad due to traffic. Most of our meetings and events are in town and there are always traffic issues we must deal with."

Q8. Finally, if you were speaking directly to the heads of the Oahu transportation agencies, what would you say to them?

"Need to find a solution to traffic problem on H1 corridor from Waianae to Hawaii Kai. With limited funds, we need to make sure we addressing the most important problems. I understand the Ewa (Fort Weaver) widening project. If we don't improve the corridor, all we end up doing is putting more people on a congested and over-burdened freeway and they will end up waiting longer due to traffic."

"You have an extremely hard job. The North Shore services 50% of tourists to Oahu. That's a lot of non-local traffic. We are an important area and we sorely need improved infrastructure. Don't forget us out here. We tend to be complacent and don't make a lot of noise, but we do a lot for the state and the visitor economy and we need to be on the list for improvements."

"We need to get away from the idea of the automobile as the primary way we design everything. One you get to that mindset, everything becomes possible (walking, biking etc.)."

"We are behind the times on things like "Fast Pass" or "Express Pass." Variable tolling works. Tolls should vary throughout the day. When traffic is heavier, tolls should be higher. Large employers should do more to subsidize parking and mass transit options for employees. This could help get cars off the road. The level of taxation on businesses is already high. Tax monies should be spent on purpose intended and not raided for other uses. I would support tolling as a way to help relieve congestion, but there has to be more done, like timing of traffic lights and maintain roads and highways better."

"We've become too auto centric. More bike and walking paths would minimize improvement costs. Look at driving behavior. Those who drive should pay for it. Make it almost like a penalty. Our city is well set-up for bike, pedestrians and bus traffic like places like Portland and Eugene."

"Create a mass transit system that is very affordable and very safe. They're not achieving any of that at present time and with their future plans."

"Look at the safety of the highways out here (no shore) and regular maintenance. Also, you need to explore alternative routes to Kamehameha Hwy."

"Rather than focusing on reducing congestion by increasing road miles, put more effort in increasing CHOICE by focusing a) transit projects that increase choice thru transit to conversion of existing roads to "complete streets" by narrowing lanes, widening sidewalks and adding bike lanes."



Memo to Parsons Brinkerhoff
September 1, 2009
Page 12

“There are cheaper alternatives to rail. Politicians don't care or listen to the people. Spending is out of control and not planned for properly. When (Governor) Lingle started, there was a \$450m surplus and now there is a \$700m deficit.”

“Give dependence on gasoline to rising health costs, we need to look at multi-model options such as a) increase bus system capacity, b) more bike options, c) safer access for pedestrians, d) encouraging car pools and bus rides thru incentives. E) employer incentives for encouraging biking, walking and telecommuting.”

Fix the traffic tie-ups during major hours. Create bike and walking routes in communities. Increase effort in pedestrian education of traffic issues. Keep us informed.”

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**APPENDIX B:
 LIST RESPONDENTS PARTICIPATING IN
 STAKEHOLDER INTERVIEWS**

DATE / TIME	METHOD	NAME	OGANIZATION	STAKEHOLDER CATEGORY
7/31 – 4:00 p.m.	In-Person	Dean Hazama	NB 35, Mililani Mauka	Citizens-At-Large
8/3 – 8:30 a.m.	Telephone	Michael Lyons	NB 27, No. Shore	Citizens-At-Large
8/3 – 9:00 a.m.	Telephone	Randy Ching	Sierra Club of Hawaii	Comm/Civic/Bus Groups
8/3 – 1:00 p.m.	Telephone	Marc Rubenstein	Royal Starr Motorcoach	Comm Users/Large Employers
8/3 – 2:00 p.m.	Telephone	David Smith	U.S. Fish & Wildlife Service	Govt Agencies
8/6 – 2:30 p.m.	Telephone	Lloyd Unebasami	Hawaii Tourism Authority	Comm/Civic/Bus Groups
8/4 – 8:30 a.m.	Telephone	Bill Neal	BYU – Hawaii	Colleges/Universities
8/4 – 9:30 a.m.	Telephone	Mary Alice Evans	APA – Hawaii Chapter	Comm/Civic/Bus Groups
8/4 – 11:00 a.m.	In-Person	Wilson Kekoa-Ho	NB 32, Waimanalo	Citizens-At-Large
8/4 – 11:30 a.m.	Telephone	Mitchell Nakagawa	Hawaii Bicycling League	Comm/Civic/Bus Groups
8/4 – 3:00 p.m.	Telephone	Gwen Miyasato	HMSA	Comm Users/ Large Employers
8/5 – 10:00 a.m.	In-Person	Maeda Timson	NB 34, Makakilo-Honokai Hale	Comm/Civic/Bus Groups
8/5 – 5:30 p.m.	Telephone	John Valera	APA – Hawaii Chaper	Comm/Civic/Bus Group
8/6 – 9:30 a.m.	Telephone	Mary Steiner	The Outdoor Circle	
8/6 – 1:30 p.m.	Telephone	Darwin Abenoja	The Cab	Comm Users/Large Employers
8/6 – 3:30 p.m.	Telephone	Daniel Gilmore	Chaminade University	Colleges/Universities
8/7 – 9:00 a.m.	Telephone	Richard Riegels	Stanford Carr Development	Landowner/Developers
8/14 – 5:30 p.m.	Telephone	Janice Tahiro	Japanese Women’s Society	Comm/Civic/Bus Groups
8/18 – 8:00 p.m.	Telephone	Cy Feng	Chinese Chamber of Commerce	Comm/Civic/Bus Groups

Appendix B: Data Collection of Focus Groups



OmniTrak Group Inc.

The Research-Based Marketing Professionals in the Pacific Rim

September 4, 2009

To: Nicholas Roach
Maggie Mund
Pam Murray

From: Team OmniTrak

I. SUMMARY: FOCUS GROUP WITH FIRST RESPONDERS

The following summarizes one focus group among eight Oahu all-hazards first responders, including medical, fire and police members, held on August 20, 2009.

PURPOSE --- The purpose of focus groups was to assess initial issues and gather information to create a list of potential needs for planned improvements.

Two distinct viewpoints were heard in this focus group, those of: (a) uniformed rescue or emergency personnel (firemen, police, etc.); and (b) management personnel from public agencies charged with emergency planning, among other things.

Management Priority: Disaster Planning.

First responders, generally speaking, do not perceive Oahu transportation in terms of *capital priorities* (road construction vs. road widening) or specific projects (e.g., Waianae 2nd Access Road). Responder managers see the larger priority as improving the *traffic control infrastructure* on Oahu – providing alternative routes, controlling traffic flow, improving the disaster warning system. They are concerned with the “bigger picture” of moving people in and out of communities efficiently in the event of a disaster scenario. Thus, their responses to transportation options introduced in the group were largely driven by their overall planning needs, with day-to-day traffic issues considered secondary.

“If we’re going to look at the overall picture, I believe that infrastructure, route corridors, maintaining the roads and a lot of those things fall under ‘traffic control’. They all belong together because they are all very critical.”

“The biggest key for us is moving people out of harm’s way or getting first responders to an incident. That’s number one. So from our standpoint, it’s the main routes to and from the hospital, getting responders to where they need to go, evacuation routes, corridors for evacuations, extensions to roads to help ingress/egress from areas. All of those things.”

Uniformed Responder Priority: Clear the Bottlenecks.

Uniformed personnel, by contrast, are tactically focused on avoiding traffic “bottlenecks” that slow them down on the way to or from the scene of accidents. On this point, their ability to maneuver through traffic is getting worse, they said, because shoulder lanes once available for cars to pull over are now in routine use.



Memo to Parsons Brinckerhoff
September 4, 2009
Page 2

“From a uniformed standpoint, we’re going backwards. They’re taking away shoulder space to add lanes for cars so in case something happens, they can’t move out of the way. Traffic-wise, it’s an improvement. For responders, it’s not.”

“The classic case is on the H1 [Freeway] Aiea cutoff going towards the airport. That shoulder lane has been opened for official use. The problem is that if somebody has an accident, they have nowhere to move. That shoulder lane become so plugged up that there’s no way to go around it.”

Other factors impeding free passage for responders are **driver behavior** and **road closures**. Drivers create bottlenecks by not clearing a path for emergency vehicles, and by “rubber-necking” *i.e.*, slowing down near the scene of accidents. Road construction and maintenance work presents challenges by causing lane closures during emergencies.

“We can never put a timeline on exactly when an emergency is going to occur. Construction is happening and if they close off one or two lanes that we need to get through, it’s definitely going to hamper our response time.”

“I think it goes back to the driver behind the wheel. Some people want to get as far as they can because they don’t want to be inconvenienced by having to pull over to the side [to make room for emergency vehicles].”

Uniformed responders favor measures that effectively clear lanes for their vehicles, whether through road-widening, adding more lanes or adding dedicated lanes for emergency use only.

“Number one [potential improvement] would be ‘construction of new roadways.’ Number two would be widening and extensions to existing roads’ and allowing for traffic to pull over [during an emergency].”

West Oahu Transportation Corridors.

The main problem, in the view of responder managers, is the **lack of adequate corridors** and alternate routes connecting West Oahu with Honolulu. The Waianae Coast is the top-of-mind example because of its dependence on a single route (Farrington Highway) – but managers agreed that the entire *Leeward/Ewa-to-Honolulu* corridor lacked adequate road capacity, a problem likely to be compounded by the planned residential growth in Ewa/Kapolei.

“Farrington Highway from Nanakuli to Waianae. Whenever there’s an accident or downed utility pole, the traffic gets backed up and causes a huge problem. Part of our solution is to try and get a bypass road built, but even a bypass road must go through housing.”

“Whether the traffic is coming from Central or the Leeward side or even Waianae, there’s only two corridors currently available, the H1- H2 corridor and Kamehameha Highway. Invariably, if something happens on the freeway, everyone jumps onto Kam Highway which only has three lanes or so.”



Key Road Projects: Waianae vs. H1/Middle Street Merge

Asked to select one of five projects most essential to relieving road congestion, responders were divided between the (a) managers, who favored a **Waianae 2nd Access** road as an alternate route in the event of a disaster, and (b) uniformed responders, who wanted to address the **H1/Middle Street** “choke point” in order to clear lanes for emergency vehicles en route to medical centers. Even when discussing specifically the H1/Middle Street project, no consensus was reached on exactly what to do at this location. Some responders proposed adding a new off-ramp after the H1 merge point, while others favored widening or increasing current capacity from five to six lanes on this stretch of freeway.

“I’d pick Waianae Second Access because let’s say there a tsunami or an earthquake and we need to evacuate the coast but there’s only one way out. If there’s a big wave that takes out the road, how are these people getting in and out? It’s key for us to get access to the community that might be cut off.”

“Coming through Middle Street, you’re heading towards the trauma center at Queen’s [Medical Center] and as you ‘bottleneck’ there, you’re increasing that ‘golden hour.’¹ So it’s a very important point that needs to be addressed, whether you widen it, put in off-ramps, make an elevated roadway, whatever.”

“There’s not one solution that fits all. So the question is which [project] will affect the day-to-day problems the most, I’d say it’s probably Middle Street. But which would be the most beneficial in terms of emergency readiness is debatable.”

Tolling Considered.

Several of the managers felt that a toll road in the most congested urban areas would help to relieve congestion based on their experiences with mainland toll roads. They felt that, far from being “Lexus Lanes” used only by the wealthy, toll roads may be adopted by Oahu drivers once they realize the time saved in commuting and sitting in traffic.

“I didn’t have an expensive car but I used a lane like this in California and it was well worth my \$1.50 to do so.”

“I went to Houston and to get to the airport, it was worth the \$2.50 to \$5.00 to take the toll road because it saved hours.”

Telecommuting Suggested.

Telecommuting came up unaided in the group (without prompting) as a way to lessen the volume of road traffic. With a likely shortfall in capital funding for project work, some suggested instead increasing telecommuting among government employees. Others disagreed, saying that local governments would be hard-pressed to make the investment needed to enable employee telecommuting. This issue, interestingly, highlighted differences between Federal (FEMA) and local agency responders in the group.

“We got to do one of two things – either build more roadways or get less people on the roadways.”

¹ “Golden Hour” refers to the one hour travel time that physicians recommend as a maximum from the point of injury to the point of medical care, apparently used as a standard in emergency transport.



“The less people on the road, the less impact you’re going to have [on the transportation system.] If you build more roads, you have more people on the roads. Less people traveling makes everything easier.”

“From an operational and administrative standpoint, telecommuting would create a nightmare because of the expectation that government buys the computers and puts in the lines for employees, sets up the work agendas and a supervisory protocol. You have to hire a lot of people to do that.”

“From a Federal viewpoint, it really is doable. On our side, we are all portable with our laptops and air cards. I can do my work at home on my laptop and use my cell phone or my Blackberry to keep in touch.”

Downtown Work Not a High Priority.

Responders felt that downtown road conditions were “better than average” and that most of the improvements proposed by the moderator (coordinating traffic signals, installing contra-flow lanes, providing real-time traffic information) were already being implemented, they said. It was just a question of doing them better, as in, for example, better coordination of downtown traffic signals. Another responder cautioned that in downtown, it was important to minimize disruptions to downtown users and businesses.

“The purpose is to enhance the things you’re already doing, in other words, you’re just doing those things better.”

“All these things are easy and doable. You’re not impacting people by having to displace citizens to make it happen. You’re using current infrastructure in a different way. The one thing you need really is more real-time traffic information, which may cost money to put signs and displays up.”

“Downtown Chinatown is historic. Do we have carte blanche to tear down buildings there? The answer is no because it would mean a significant displacement of businesses and people. One of the reasons that the current alignment was chosen for rail transit was to try to minimize the impacts on traffic and the existing businesses from the normal day-to-day construction.”

This concludes discussion of first responders. The next pages discuss the results from the focus group of EJ/T6 service providers.



II. SUMMARY: FOCUS GROUP WITH T6/EJ SERVICE PROVIDERS

The following summarizes one focus group held on August 7, 2009 among service providers designated as representing the Oahu Title VI/Environmental Justice² (“T6/EJ”) populations of Oahu.

PURPOSE --- The purpose of focus groups was to assess transportation-related issues facing the T6/EJ populations and ways to better serve their transportation needs.

T6/EJ Population Dependent on Transit.

Simply put, Oahu’s transit system is not adequately serving EJ residents, many of whom are critically dependent on mass transit for getting to and from jobs, school and clinics. Much of this population lives in outlying communities in Ewa, the Waianae Coast or Ko’olauloa. For these residents, the unpredictable timing, scheduling, access to and overall safety concerns of mass transit present daily challenges. Bus routes, for example, do not reach many of the valley communities, and those that do require long trips and multiple transfers to reach work or school locations.

“Transportation from the Windward side is a concern because there are no direct lines to Pearl City or Aiea. You have to transfer, the job shifts are at different times and not as accessible by bus. Early in the morning or late at night, the availability of buses is very limited.”

“We have a problem with the bus schedule in Kalaeloa [in Ewa]. There are several [homeless] shelters there and there’s only one bus in the morning and one in the afternoon. If you have anything scheduled outside of that, you’re out of luck.”

“The issue of travel time is not unique to the bus. It’s an issue with any mode of transportation that our clients use. The amount of time they spend traveling makes work and anything beyond work very difficult, and so our clients start to look for alternatives to working in downtown Honolulu.”

Bus Scheduling a Serious Issue. Many EJ residents are immigrants, minorities or disabled residents who are typically employed as *shift workers* in restaurants or plants. Providers estimated that 80% of their employed clients work late evening shifts that require them to commute to and from jobs at odd hours of the night. Bus and paratransit services, however, are not frequent enough or sufficiently available to provide reliable transportation back home – a situation that discourages EJ residents from holding down shift work`.

“From the Windward side, the job shifts are at different times and not as accessible by bus. Early in the morning or late at night, the availability of The Bus is very limited.”

² Oahu Title VI/Environmental Justice populations are defined as underserved populations (low or moderate income, linguistically isolated or low literacy, elderly or physically challenged). Focus group participants were recruited from lists of organizations deemed to be representative of T6/EJ populations by Oahu MPO. See Appendices for roster of focus group participants by organization.



“Most of our clients are entry level workers, night shift workers in the restaurants. Their way home is by bus, and if they miss the bus, that’s it. They have no way to get home. The bus schedule doesn’t fit their needs.”

“Adults with developmental disabilities can work, but if they’re off work at 11 pm, they’re not going to make the last bus or the paratransit service. If they miss it, then they have to rely on a care home or family member to come and get them. That’s a tremendous disincentive for them to continue working.”

Safety Concerns at Bus Stops.

Many bus stops suffer from poor maintenance which discourages disabled and female EJ residents from using mass transit. Providers complained of graffiti and inadequate or broken lighting marring some bus shelters. Safety is an issue - bus stops can be dark and dangerous places prone to criminal activity. Additionally, crosswalks are sometimes not situated close to bus stops, prompting riders to cross streets illegally to get to their stops.

“There are so many disincentives. The bus stops themselves tend to be more an issue than the buses. Some of our people are blind or they’re in wheelchairs and they leave really early in the morning. The light above the bus stop will be out and it will be really dark. There are no sidewalks or only partial sidewalks for people and access is insufficient.”

“In Kalihi, the husbands don’t want their wives to work night shift duties. There are not enough street lights in the Kalihi area so they don’t want to let their wives ride the bus to work at night.”

“The planners understand their obligations to create an accessible system. It’s just that it is inconsistently applied and haphazard. For example, on the North Shore there are no shelters for the bus stops, no curb cuts that connect the bus stops of our communities. And there doesn’t seem to be any plan to fix that.”

T6/EJ Priority: Improve Transit Infrastructure, Scheduling.

The transit system, then, could do more to accommodate the needs of the EJ population, such as increasing the frequency and predictability of service, implementing more *express* service to reduce transit time, and maintaining well-lit bus stops. Better coordination of vanpool and Handivan services would help the disabled and elderly populations as well. The cost of bus service is also an issue since many EJ residents earn only minimum wage, providers noted. Altogether, these shortfalls in the transit system create serious barriers to EJ participation in the work force.

“They don’t consider the shift workers. Many of my clients work in the big hotels and restaurants on the weekends and holidays, and during those days the buses are slower. They think that just because schools and shops are not open, you don’t need the buses, but the people working different shifts still need the service.”

“You may have a disabled person totally able to work, but the roadway, bus stops and lighting are insufficient. Suddenly, it’s not worth it for him to work any more.”



Island-Wide Priority: Traffic Congestion.

Like others in the research, EJ service providers named rush hour traffic congestion to be the major issue on Oahu. The frequent bottlenecks on the H1 freeway in Ewa and the lack of alternative routes to the EJ communities represent real challenges no matter what the mode of transportation. Several providers were critical of transit authorities' failure to manage traffic flow on the H1 Ewa-to-Honolulu corridor, allowing commercial vehicles to take up multiple lanes and cause slowdowns in vehicle traffic.

"The heavy traffic from the west side [of Oahu] is so frustrating. For people living there, it takes hours, it's terrible going home."

"Coming into town on the H1 from Makakilo, there are cement trucks in every lane holding up cars all the way back. The rule of slower traffic staying to the right is ignored. It would be better if trucks were limited to certain times of the day, or creating HOV or designated lanes for trucks so that everyone else can most faster."

"We need toll lanes or some kind of mechanism to help the existing infrastructure. It's all down to [transportation] planning."

Service providers favor construction of **new roadways** if they are designed as alternative routes to the more isolated communities. These areas need bypass roads to relieve congestion and allow for alternatives in the event the main highways become gridlocked. Like other respondents, providers were critical of road maintenance work, saying that it tends to disrupt traffic flow in already constricted zones in West Oahu.

"Road construction creates additional traffic issues if not done appropriately. The scheduling of the work is not good."

"They have got to figure out other ways for us to get around the road work if they're going to shut down a highway, like Farrington Highway. We need other ways around the construction."

"They need to find ways to get around traffic accidents. It doesn't have to be a new road but a new bypass road around those areas that frequently tie up the whole system, including the buses getting paralyzed when accidents happen."

As a secondary priority, participants supported **improvements to pedestrian facilities** such as sidewalks, crosswalks, pedestrian bridges, which they felt to be sorely needed in communities with substantial EJ populations. Also important were Handivan and paratransit services, and ADA-related improvements, not surprisingly.

"Waianae is not a safe walking community. Sidewalks are poor, lighting is poor, you don't have wheelchair access on some sidewalks so people aren't encouraged to walk short distances. It's the same with Kalaeloa [in Ewa]."

"Some bus stops are very dark, it's common to have lamps that are vandalized. The small benches are difficult for the disabled to use."



Memo to Parsons Brinckerhoff
September 4, 2009
Page 8

Finally, service providers preferred that authorities focus on a **few key initiatives** rather than spreading limited funds across multiple priorities. They identified their top priorities to be: (1) improving the transit system; (2) relieving traffic congestion; and (3) improving pedestrian facilities.

This concludes discussion of the focus group among T6/EJ service providers.

#



APPENDIX A: ROSTER OF FOCUS GROUP PARTICIPANTS

FIRST RESPONDERS

NAME	TITLE	ORGANIZATION
Melvin Kaku	Director	City Department of Emergency Management
Faye Chambers	Administrative Specialist	City Department of Emergency Management
Alan Young	Support Services Coordinator	City Department of Emergency Management
Larry Dove	PAO Logistics Specialist	DHS-FEMA Region IX Pacific Area Office
William Donnelly	Captain	Honolulu Fire Department
Evan Ching	Captain	Honolulu Police Department Traffic Division
Vic Gustafson	Chief, Plans and Operations Branch	State Department of Civil Defense
Jimmy Lagunero	Assistant Emergency Management Coordinator	University of Hawaii at Manoa

T6/EJ SERVICE PROVIDERS

NAME	ORGANIZATION	USERS
Darin Olson	HCAP – Honolulu Community Action Program	Low income, seniors
Charlotte Townsend	Disability and Community Access Board	Disabled, low income
Than Aye	Pacific Gateway Center	Immigrants, refugees
Melba Bantay	Catholic Charities Hawaii	Immigrants
Rebecca Soon	Office of Hawaiian Affairs (PGC)	Immigrants, refugees
Jan Harada	Palama Settlement	Low income, immigrants
Phyllis Waterhouse	Waianae Coast Christian Women's Job Corps	Homeless, abused, single mothers
Joseph Lapilio	Waianae Coast Coalition	Homeless, underserved, small business



APPENDIX B: DISCUSSION GUIDE

OAHU **FIRST RESPONDERS**

FOCUS GROUP SCHEDULE		
GROUP	August 20, 2009	OAHU FIRST RESPONDERS

INTRODUCTION [8-10 Minutes]

Hello. My name is Pat, and I'll be your moderator today. We'll be here for about one hour and the purpose of today's group is to talk about transportation issues in Hawaii. The purpose is to provide input into the Oahu Regional Transportation Plan or "ORTP" for short. ORTP is a planning document put together by the local government agencies charged with managing transportation on Oahu. As first responders, your feedback is essential to the planning process.

OmniTrak is an independent market research firm hired by the Oahu Metropolitan Planning Organization to gain feedback from the public. We really value your opinion and results will be confidential.

A. GROUND RULES

- To allow the conversation to flow more smoothly, here are some ground rules so we will all be moving in the same direction.
 - **Only one person talking at a time please**
 - **Please speak up**
 - **Feel free to express whatever you feel – no right or wrong answers**
- Explain one way mirror and taping
- Invite them to eat

B. SELF-INTRODUCTION

Please tell us about yourself and your agency:

- Your first name
- What agency you represent
- Your specific service area
- How you interact with the transportation system in providing services



I. OAHU TRANSPORTATION ISSUES

Let's focus on Oahu transportation in general. **(PROBE)**

First, from a general island perspective, what would you say are Oahu's top three transportation priorities? Why do you say that? **(PROBE. LISTEN FOR ISSUES BELOW. ASK IF NOT MENTIONED)** How do you feel about?

- Construction of new roadways
- Widening or extensions to existing roadways
- Improvements to the transit system (i.e., bus and paratransit services)
- Adding improvements to the transit system
- Adding and improving bicycle facilities (such as bike lanes, bike paths, shower facilities for bicycle riders, etc.)
- Adding and improving pedestrian facilities (such as new or wider sidewalks, adding pedestrian bridges)
- Maintaining the roads we have

Please rank these priorities from top to bottom.

Which of these priorities would have the most impact on your department in terms of its performance? **(PROBE)**

II. DEPARTMENTAL PRIORITIES IN TRANSPORTATION

Let's keep the focus on your specific duties as first responders. What factors relating to transportation are critical for you to achieve your service objectives?

(IF NECESSARY, ADD:) For example, some people might say travel time to incidents, or safety en-route to incidents, incident scene control, etc. **(PROBE)**

How do you address these priorities? What do you or what does your department do to improve on_____? **(PROBE)**

Now tell me the three most pressing transportation-related issues affecting you or your staff's daily activities. What three improvements in the transportation system would most impact your day-to-day duties? **(PROBE)**

If you could make a change anywhere in the system, what or where would it be? **(PROBE)**



Are there any others that you haven't mentioned about the transportation system? **(PROBE)**

III. ROAD CONGESTION ON OAHU

Thinking about daily traffic and congestion in general, which road corridors have the most congestion? Which areas need the most congestion relief? Where else needs relief? **(IF NOT MENTIONED, ASK SPECIFICALLY...)** How about....?

- Ewa/Central Oahu to downtown
- Waianae Coast to downtown
- Windward to downtown
- East Honolulu to downtown
- North Shore to downtown

And what causes this congestion? **(IF NECESSARY, ASK:)** Is it from daily rush hour traffic, from roadwork, traffic accidents, or something else?

Which corridor impacts your service objectives the most?

Which would result in the most improvement to your department's performance if congestion was relieved there? Why do you say that? **(PROBE)**

IV. IMPACT OF OAHU ROAD CONSTRUCTION

I'm sure you're aware that road construction and maintenance are a daily factor in transportation around the island. How easy or difficult is it for you, as emergency service providers, get through these construction sites? **(PROBE)**

(IF DIFFICULT) Why is it difficult to get through these sites?

Do the work zone management systems, for example, signage and ramp meters, help you in getting through construction, or could they do a better job? Why do you say that? **(PROBE)**

(IF NOT HELPFUL) How can the systems be improved?

Are the agencies (DOT & DTS) doing a good job in communicating to you about these construction sites? Why or why not? **(PROBE)**



V. FUTURE OAHU ROAD PROJECTS

I'll mention some future road projects and tell me if you are aware of them. These are projects either currently being done or are in the planning stages.

- Waianae, Second Access – Farrington Highway to Kunia Road
- Central Mauka Road, Second Access – Mililani Mauka to Waiawa
- Roads to better connect the Ewa/Kapolei communities
- Widening the Middle Street merge on H-1 Freeway

For each (above), how necessary do you think the project is for relieving congestion in the local area? Which should take priority over others? Why do you say that? **(PROBE)**

In your view as first responders, which one would be most critical for your daily activities and priorities? Why do you say that? **(PROBE)**

VI. DOWNTOWN TRAFFIC IMPROVEMENTS

Let's talk more specifically about downtown Honolulu. Some people say that there are many obstacles to driving in downtown. Without adding more roads, what do you think would most alleviate downtown congestion? **(PROBE)**

(IF NOT MENTIONED) What about **(READ LIST)**? What impact would it have on downtown traffic and congestion? Is it a feasible or realistic solution?

- Converting more streets to one-way operation
- Installing more reversible or contra-flow lanes
- Coordinating traffic signals
- Providing the public with real-time traveler information
- Removing on-street parking
- Encouraging more people to ride TheBus, use carpools or use alternatives like bicycles or walking
- Supporting third-party business centers that provide *ad hoc* office space for telecommuters
- Supporting telecommuting (that enables people to work)



Memo to Parsons Brinckerhoff
September 4, 2009
Page 14

- Providing more carpool / vanpool programs

Tell me for each (above), how necessary do you think they are to congestion relief? Why do you say that? **(PROBE)**

In your view as first responders, which one would be most critical for your daily activities in downtown? Why do you say that? **(PROBE)**

VII. FINAL SUGGESTIONS

Last question: if you were speaking directly to the heads of the Oahu transportation agencies, is there anything you would say specifically to them? **(PROBE)**

**WRAP UP
THANK.
EXPLAIN GRATUITY.
EXPLAIN PARKING.
END.**



APPENDIX B: DISCUSSION GUIDE

T6/EJ SERVICE PROVIDERS

FOCUS GROUP SCHEDULE		
GROUP	August 7, 2009	OAHU EJ/T6 AGENCIES

INTRODUCTION [8-10 Minutes]

Hello. My name is Pat, and I'll be your moderator today. We'll be here for about one hour and the purpose of today's group is to talk about transportation issues in Hawaii. The purpose is to provide input into the Oahu Regional Transportation Plan or "ORTP" for short. ORTP is a planning document put together by the local government agencies charged with managing transportation on Oahu. Your feedback is essential to the planning process.

OmniTrak is an independent market research firm hired by the Oahu Metropolitan Planning Organization to gain feedback from the public. We really value your opinion and results will be confidential.

C. GROUND RULES

- To allow the conversation to flow more smoothly, here are some ground rules so we will all be moving in the same direction.
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 - **Please speak up**
 - **Feel free to express whatever you feel – no right or wrong answers**
- Explain one way mirror and taping
- Invite them to eat

D. SELF-INTRODUCTION

Please tell us about yourself and your agency:

- Your first name
- Your agency and what services it provides
- Who your clients are



I. CONSTITUENTS' TRANSPORTATION ISSUES

First, how do your clients get around? What kind of transportation is predominantly used by your clients? **(LISTEN FOR BUS, OWN VEHICLE, CARPOOL, VANPOOL, HANDIVAN, etc.)**

What are their common complaints (if any) about the transportation system? What kinds of difficulties do they typically encounter in getting around? **(PROBE, DO NOT READ, LISTEN FOR...)**

As a service provider, what concerns you the most about Oahu's transportation system? **(PROBE, LISTEN FOR ISSUES RELATED TO...)**

- Mobility – the difficulty of clients to get to destinations due to lack of services
- Overall lack of funding for needed transportation services
- Increased congestion and greater time spent getting around

II. ISLAND-WIDE TRANSPORTATION PRIORITIES

Let's focus on Oahu transportation in general. Thinking of Oahu as a whole (not only your clients), what are the top three transportation-related issues facing residents here? Why do you say that? **(PROBE)**

How would you address these issues? What are the solutions to ____? **(PROBE)**

(IF NOT MENTIONED) Now I'm going to mention some priorities that people have mentioned, and please tell how much of a priority it should be for Oahu? Should it be a TOP priority or a secondary one? **(PROBE)**

- New roadways to provide more access in and out of communities **(FOR EXAMPLE...)**
- Increasing maintenance work on existing roads
- Widening existing roadways
- Improving the transit system, including fixed route buses and paratransit services
- Adding and improving bicycle facilities (such as bikepaths, bike racks etc.)



- Adding and improving pedestrian facilities, such as new or wider sidewalks, adding pedestrian bridges
- Maintaining Safety and security of the system
- Ensuring that all transportation facilities and services address the needs of the disabled

Now take a look at these priorities again and I want you to rank them in order of importance. Which should be first priority, second, etc.? **(PROBE)**

Are there other priorities that we haven't mentioned? **(PROBE)**

Which of these priorities would have the biggest benefit to your clients? Why is that? **(PROBE)**

III. IMPROVEMENT TO THE TRANSPORTATION SYSTEM

How can Oahu's system best be improved for someone who is *transit-dependent*, that is, someone who depends on public transportation to get around? Are there any 'gaps' in the system for transit-dependent residents? **(PROBE)**

How can the system best be improved for someone *coping with a disability*? Is there a different prescription for the disabled? If so, what are they? **(PROBE)**

Same question: how can the system best be improved for those *on a fixed income*? **(PROBE)** Is there a different solution?

Are there other transportation obstacles your clients encounter? **(IF YES)** What are they? **(PROBE)**

Let's think about the *timeframe* of the various options. Which solutions or improvements do you consider long-term solutions, and which do you consider short-term solutions? **(CLARIFY: Consider 1-7 years a short-term solution, and 10+ years a long-term solution.)** **(PROBE)**

IV. TRANSPORTATION BUDGETING

No doubt that you are all aware that in these economic times, governments are having a hard time balancing their budgets and finding dollars to pay for the services they provide.

Given that funds may not be available for all transportation issues, should we focus our transportation funding on one or a few



Memo to Parsons Brinckerhoff
September 4, 2009
Page 18

priorities, like, for example, repairing our streets and roads, OR should we spread the funds across more priorities, perhaps doing a limited amount in each? Why is that? **(PROBE)**

(IF ONE OR FEW PRIORITIES) What priority(s) should we focus on?

V. FINAL SUGGESTIONS

Last question: if you were speaking directly to the heads of the Oahu transportation agencies, is there anything you would say specifically to them? **(PROBE)**

**WRAP UP
THANK.
EXPLAIN GRATUITY & PARKING
END.**

***Appendix C: Data Collection of Islandwide
Telephone Survey***

Resident Opinion Survey On Oahu Transportation

Prepared for:

**The Oahu Metropolitan Planning Organization
and
Parsons Brinckerhoff**

December 2009

Project #4804C



OmniTrak Group Inc.

Davies Pacific Center 1250, 841 Bishop Street, Honolulu, Hawaii 96813
Telephone: 1-808-528-4050; Fax: 1-808-538-6227
E-mail: omnitrak@omnitrakgroup.com

Research Objectives

- The Oahu Metropolitan Planning Organization (OahuMPO), the Federally designated metropolitan planning organization for Oahu, is conducting an update of the OahuMPO Regional Transportation Plan (ORTP) to year 2035. The ORTP identifies short- and long-range strategies and actions that will lead to the development of an integrated, intermodal transportation system.
- The ORTP Public Outreach Plan's goal is to obtain feedback from interested communities and the public on ORTP goals. This supports the planning process so that the ORTP will reflect the needs and concerns of the public. As part of this outreach process, the OahuMPO commissioned this telephone survey among Oahu residents, with the primary objectives being:
 1. To assess initial issues and gather information about potential areas of concern regarding the Oahu transportation system.
 2. To obtain feedback on the most appropriate methods to fund needed improvements to the transportation system.

Sample (1 of 2)

- The universe of respondents consisted of island-wide Oahu residents reached through random digit dialing (RDD).
- The telephone calls were placed **October 9 through October 25, 2009.**
- OmniTrak then weighted the Oahu sample proportionate to the age and ethnic distribution of the population.
- Random sampling produced a total of n=601 Oahu respondents.
- The resulting sample of residents was weighted by:
 - Ethnicity proportionate to Oahu Census data to reflect an accurate distribution of respondents by ethnic background
 - Age proportionate to the Oahu Census, thereby providing representative segments of younger adults who were less likely than older adults to have landline phones.

Sample (2 of 2)

The survey sample was distributed as follows:

SAMPLING	West Oahu	Central Oahu	Metro Honolulu	East Honolulu	Windward No. Shore	TOTAL	Sampling Error
Oahu Random	174	64	141	116	106	601	+/- 4.0%
Weighted Sample	205	57	130	103	105	601	+/- 4.0%

The Oahu areas were defined as follows:

- **West Oahu:** Waianae, Kapolei, Ewa, Waipahu, Pearl City, Aiea.
 - **Central Oahu:** Mililani, Mililani Mauka, Wahiawa.
 - **Metro Honolulu:** Kalihi, Downtown, Makiki, Waikiki, Ala Moana, Kaimuki.
 - **East Honolulu:** Kahala, Aina Haina, Niu Valley, Hawai'i Kai.
 - **Windward:** Kaneohe, Kailua, Waimanalo
 - **North Shore:** Ko'olauloa, Haleiwa, Pupukea.
- **Statistical Analysis Sample Differences** – In the following analysis, within the tables and charts, a shaded or boxed area signifies a statistically significant difference across columns or rows at the 95% level of confidence.

EXECUTIVE SUMMARY

Executive Summary (1 of 3)

1. PRIORITIES IN TRANSPORTATION PROJECTS AND CORRIDORS

- Oahu residents' priorities clearly reflect usage of the H-1 freeway as the primary east-west transportation artery linking the island's key residential and job centers. Residents' top priority in transportation projects – *improving the H-1 corridor between Leeward and Downtown* – was supported by 56% over 3 alternative projects serving much smaller regions (i.e., Kapolei surface roads, second access for Waianae, and a bypass road in Mililani Mauka). The *Waianae 2nd access road* emerged as a second priority due to strong support in West Oahu (which includes Waianae).
- Similarly, the top priority in transportation corridors is the *Leeward to Downtown corridor*, representing the main commuting route between the most populous residential zone (Leeward Oahu) and the key job center (Urban Honolulu). Residents chose the Leeward-Downtown corridor by a 3-to-1 margin over the next highest priority, the Central Oahu-to-Downtown corridor.

2. CHALLENGES TO TRANSPORTATION: CONGESTION

- Easing traffic congestion is generally seen as the transportation challenge facing residents. Asked to rate the importance of six transportation challenges facing Oahu (below), 55% of residents gave top ratings to "*traffic congestion on existing roadways*," followed by "*unsafe driver behavior*," rated highly by 47% of residents. Other challenges - the lack of alternative routes, the high cost of parking, and dangerous roadways – ranked well behind congestion as important challenges.
- Easing traffic congestion is particularly important to residents in West Oahu and Windward Oahu, where residents have long commutes to the urban area. The second highest-rated issue, "*unsafe or inappropriate driver behavior*," ranked highest only in Central Oahu.

Executive Summary (2 of 3)

3. SOLUTIONS TO TRANSPORTATION: ROAD MAINTENANCE

- While traffic congestion is a key issue in transportation, road maintenance emerged as the most immediate priority for residents. Of six solutions rated for perceived effectiveness, “*better maintenance of existing roads*” garnered high ratings from 57%, far more than any other solution tested. Well under 50% of residents rated “*improving pedestrian facilities*,” “*widening or extending existing roads...*,” and “*Improvements to... TheBus system*” highly for effectiveness in addressing transportation issues.
- As a solution, “*better road maintenance*” topped the list in all Oahu regions but especially so in West Oahu, Central Oahu and Metro Honolulu. This is consistent with the fact that residents are dependent on their vehicles for daily commuting, with 80% of Oahu workers and students driving themselves to work or school vs. only 9% taking *TheBus*.

4. SATISFACTION WITH OAHU ROADS

- Data on satisfaction reinforces the finding that road maintenance is an immediate concern. Asked to rate their satisfaction with the road system, residents indicated low satisfaction, overall, with over half rating in the bottom half of a 10-point scale. In none of the individual areas were the roads rated higher than 5.7 of 10, on average (6.0 or below is considered low by Hawai'i standards).
- Asked why they gave low ratings, 87% of dissatisfied residents complained of road conditions, citing “*pot holes, uneven surfaces, poor repair and maintenance.*” Some even complained that the public agencies’ “quick fix repairs” to road surfaces seemed to make the problems worse, not better.

Executive Summary (3 of 3)

5. TRANSPORTATION FUNDING OPTIONS

- Finally, the survey tested 10 proposed options to fund transportation. Consistent with prior research,* none of the ten options received substantial support from residents – though “*charging fees to developers*” and imposing a “*commercial vehicle tax*” were relatively less opposed, with both proposals supported by about 1 in 5 residents.
- But residents were overwhelmingly opposed to tax increases and new fees on driving. Three-quarters or more indicated opposition to *raising the excise tax, charging a vehicle-miles-traveled tax, raising the gasoline tax*, and, especially, *charging a fee for driving into Downtown* and *raising property taxes*. Ninety percent were opposed to *raising County property taxes* as a means of funding transportation.
- Lower-income (<\$35K income) residents overwhelmingly opposed *raising the tax on gasoline* and *charging a toll on HOV lanes*.

(More detail on the above findings are provided starting on page 9.)

* The survey of transportation stakeholders, conducted in August 2009, revealed similar opposition to most funding proposals tested in the survey.

Narrowing the List of Transportation Projects

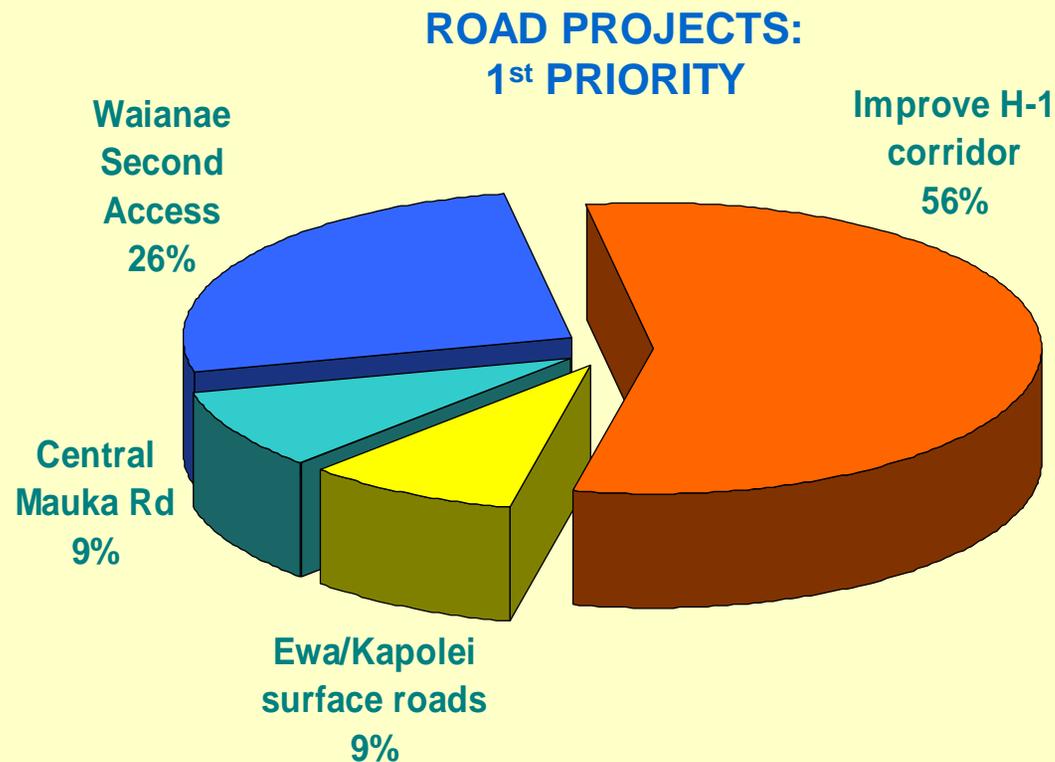
Transportation Projects: 2009 Priorities

- *“I’m going to name a few transportation projects planned to help relieve congestion on Oahu. Please rank these in order of priority, with ‘1’ meaning your top priority, ‘2’ meaning your 2nd priority, ‘3’ meaning your 3rd priority, and so on.”*
- *A second access road into and out of the Waianae Coast*
 - *Central Mauka Road, which is a bypass from Mililani Mauka to Pearl City*
 - *Surface roads to connect the Ewa and Kapolei communities*
 - *Improving the H-1 corridor between Leeward Oahu and Downtown*
[clarification: the H-1 Freeway and adjacent road system between Leeward Oahu and Downtown Honolulu]

Transportation Projects: First Priority

Of the four proposed projects, Oahu residents' top priority is “*improving the H-1 corridor between Leeward Oahu and Downtown,*” chosen by 56% of residents as the first among four priorities.

“Please rank these in order of priority, with ‘1’ meaning your top priority...”



No other project came close to the H-1 project as residents' top priority.

One in four residents chose the *Waianae Second Access road* as the first priority.

Base: 601 Oahu residents.

Q12. Shifting topics, I'm going to name a few transportation projects planned to help relive congestion on Oahu. Once again, please rank these in order of priority, with "1" meaning your top priority, "2" meaning your 2nd priority, "3" meaning your 3rd priority, as so on [READ LIST]

First Priority Project: By Oahu Area

Majorities in Metro Honolulu, Windward and East Honolulu supported *Improving the H-1 corridor between Leeward and Downtown* as Oahu’s top priority transportation project.

Residents in West Oahu – encompassing Ewa, Kapolei and Waianae – were divided between *Improving the H1 corridor* and a *Waianae Second Access Road*.

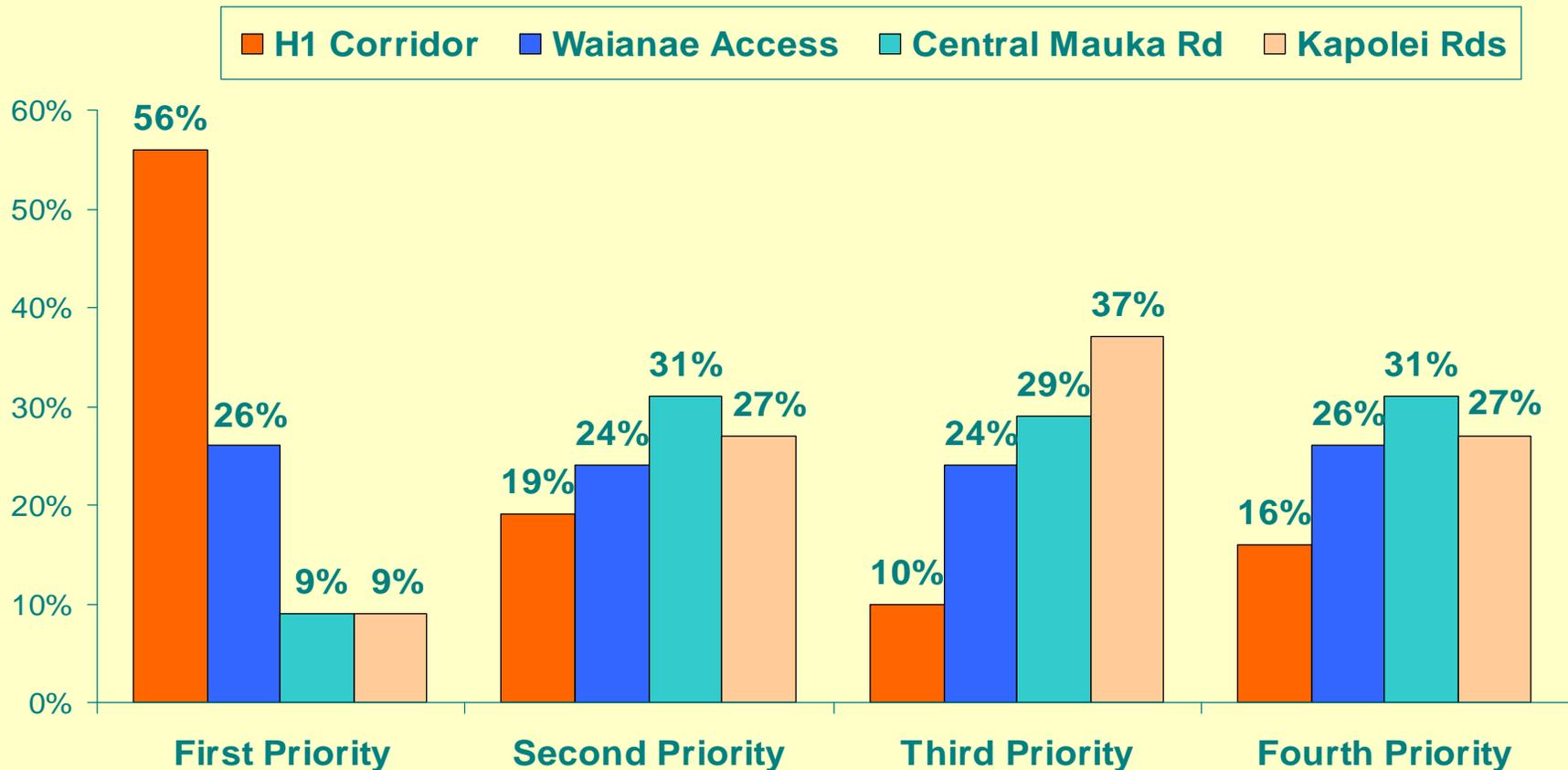
<i>“What is your 1st priority to help relieve congestion on Oahu...?”</i>	WEST OAHU	CENTRAL OAHU	METRO HONOLULU	WINDWARD	EAST HONOLULU
BASE	205	57	130	105	103
Improving the H-1 corridor between Leeward and downtown	49%	41%	64%	65%	63%
Second Access road into & out of Waianae	32%	22%	24%	24%	20%
Central Mauka Road, a bypass from Mililani to Pearl City	5%	30%	6%	6%	11%
Surface roads to connect Ewa & Kapolei	14%	6%	6%	5%	6%

Q12. Shifting topics, I’m going to name a few transportation projects planned to help relive congestion on Oahu. Once again, please rank these in order of priority, with “1” meaning your top priority, “2” meaning your 2nd priority, “3” meaning your 3rd priority, as so on [READ LIST]

First to Fourth Priorities: Oahu Residents

While the H-1 Corridor is clearly Oahu's project of choice, there is no consensus on the second and third priorities, and residents are divided between the Waianae Second Access, Central Mauka Roads and Kapolei surface road projects.

Oahu Transportation Projects: First, Second, Third and Fourth Priorities

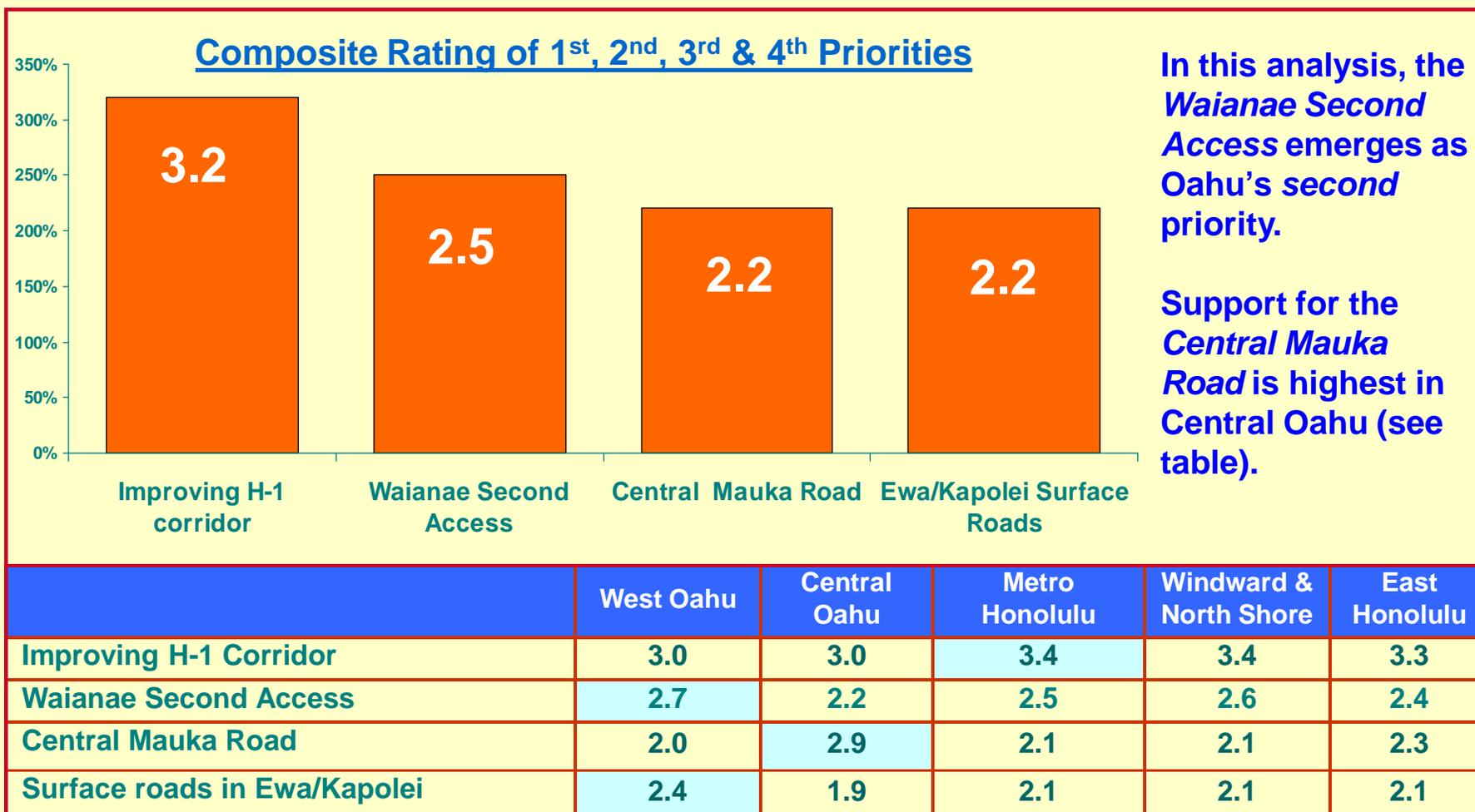


Bases: 601 Oahu residents.

Q12. I'm going to name a few transportation projects planned to help relieve congestion on Oahu. Once again, please rank these in order of priority, with "1" meaning your top priority, "2" meaning your 2nd priority, "3" meaning your 3rd priority, as so on [READ LIST].

Composite Rating of Project Priorities

The graph below depicts the composite rating of all four priority rankings (1st, 2nd, 3rd & 4th). Not surprisingly, *Improving the H-1 corridor* leads all other choices based on based on the composite mean (maximum score: 4.0).



Base: 601 Oahu residents in 2009.

* Composite rating is the average of rankings across all four priority questions.

Q12: I'm going to name a few transportation projects planned to help relieve congestion on Oahu. Once again, please rank these in order of priority, with "1" meaning your top priority, "2" meaning your 2nd priority, "3" meaning your 3rd priority, as so on.

Transportation Corridors: Oahu Priorities

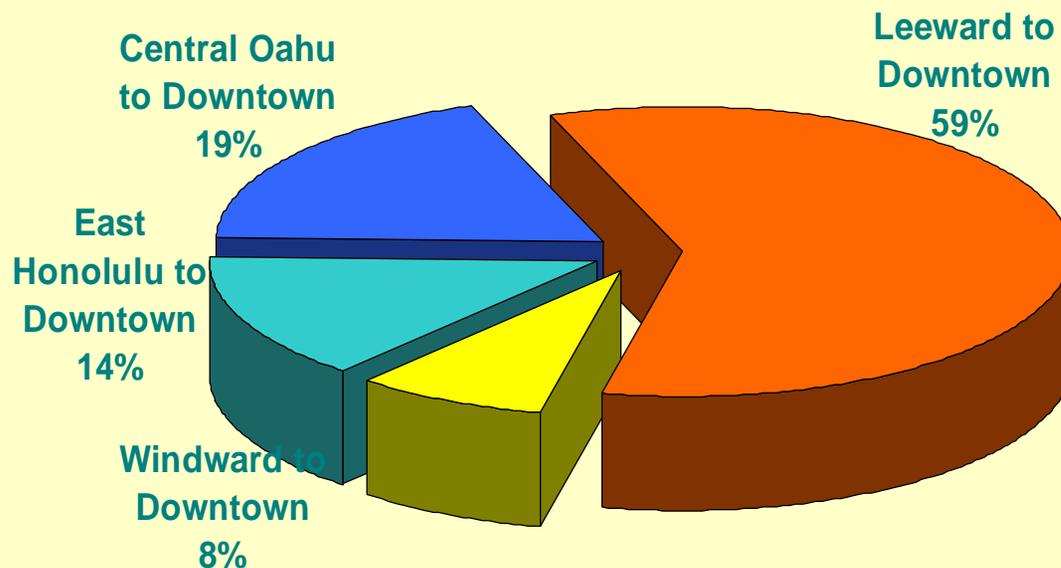
Transportation Corridor: 2009 Priorities

- *“I’m going to read you a list of major traffic corridors. I’d like you to rank these in order of priority to relieve traffic congestion, with ‘1’ meaning your top priority, ‘2’ meaning your 2nd priority, ‘3’ meaning your 3rd priority, and so on.”*
- *Leeward Oahu to Downtown*
 - *Central Oahu to Downtown*
 - *Windward/North Shore to Downtown*
 - *East Honolulu to Downtown*

Transportation Corridors: First Priority

The clear priority among transportation corridors is the *Leeward to Downtown* corridor, chosen by almost 3 in 5 residents, with none of the other 3 corridors enjoying comparable support across Oahu.

“Please rank these in order of priority, with ‘1’ meaning your top priority...”



Corridor choice is largely determined by area of residence.

Support for the Leeward-to-Downtown corridor comes primarily from West Oahu, while the Central-to-Downtown corridor is supported by Central Oahu residents (see table below).

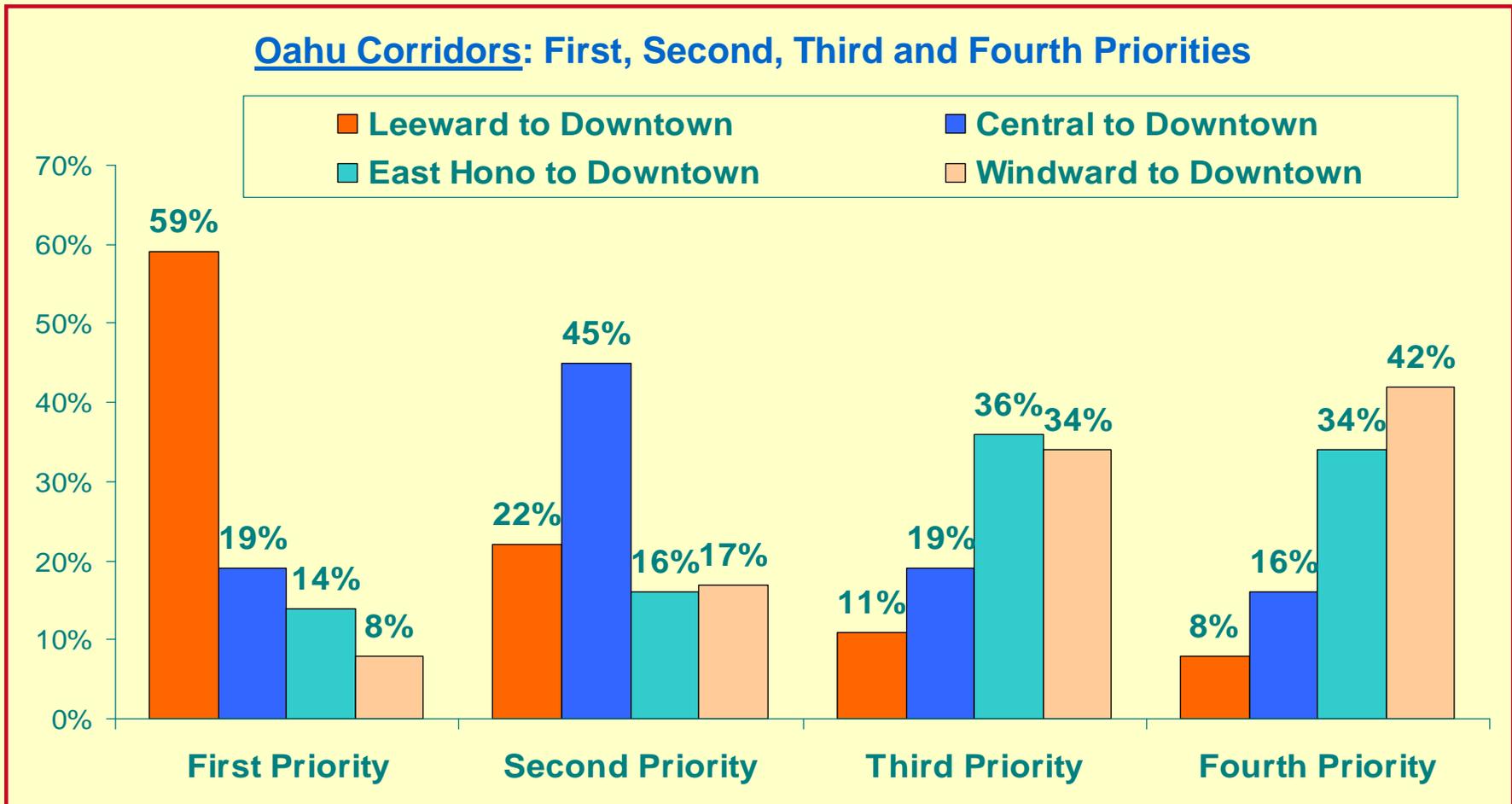
	West Oahu	Central Oahu	Metro Honolulu	Windward & North Shore	East Honolulu
Leeward Oahu to downtown	79%	38%	54%	47%	48%
Central Oahu to downtown	14%	56%	24%	11%	14%
East Honolulu to downtown	5%	0%	16%	14%	37%
Windward/North Shore to downtown	2%	6%	7%	28%	1%

Base: 601 Oahu residents.

Q11. I'm, going to read you a list of major traffic corridors. I'd like you to rank these in order of priority, with "1" meaning your top priority, "2" meaning your 2nd priority, "3" meaning your 3rd priority, and so on."

Oahu Corridors: First to Fourth Priorities

After the Leeward corridor, Oahu's next priority for easing traffic congestion is the Central Oahu corridor, chosen by 45% of Oahu residents as the *second priority*.

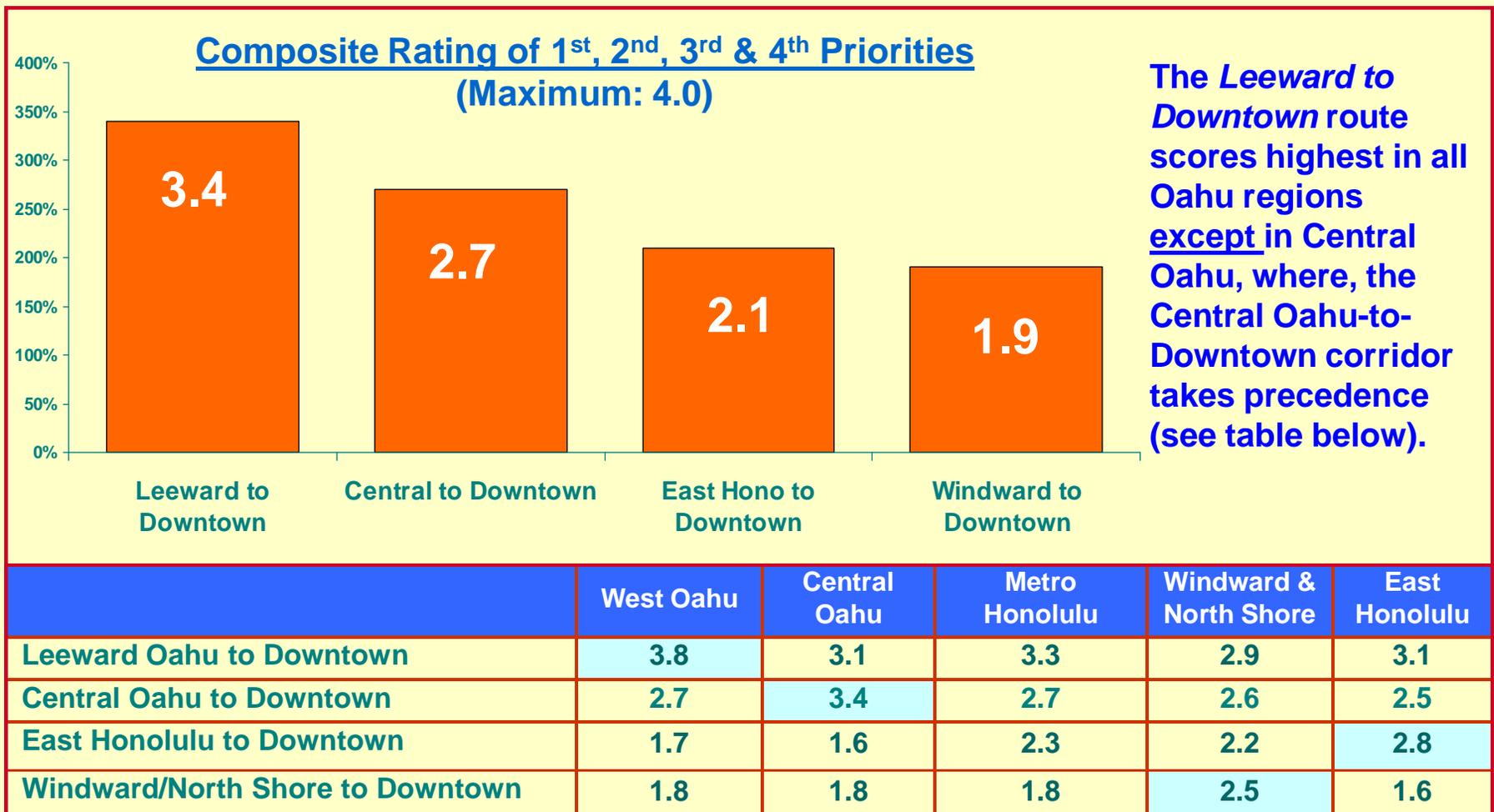


Bases: 601 Oahu residents.

Q11. I'm going to read you a list of major traffic corridors. I'd like you to rank these in order of priority to relieve traffic congestion, with "1" meaning your top priority, "2" meaning your 2nd priority, "3" meaning your 3rd priority, as so on [READ LIST]

Composite Rating of Corridors

The composite analysis confirms the Leeward- and Central Oahu-to-downtown corridors to be the first and second priorities, respectively. The Windward/North Shore route to Downtown is clearly the lowest priority for the island as a whole.



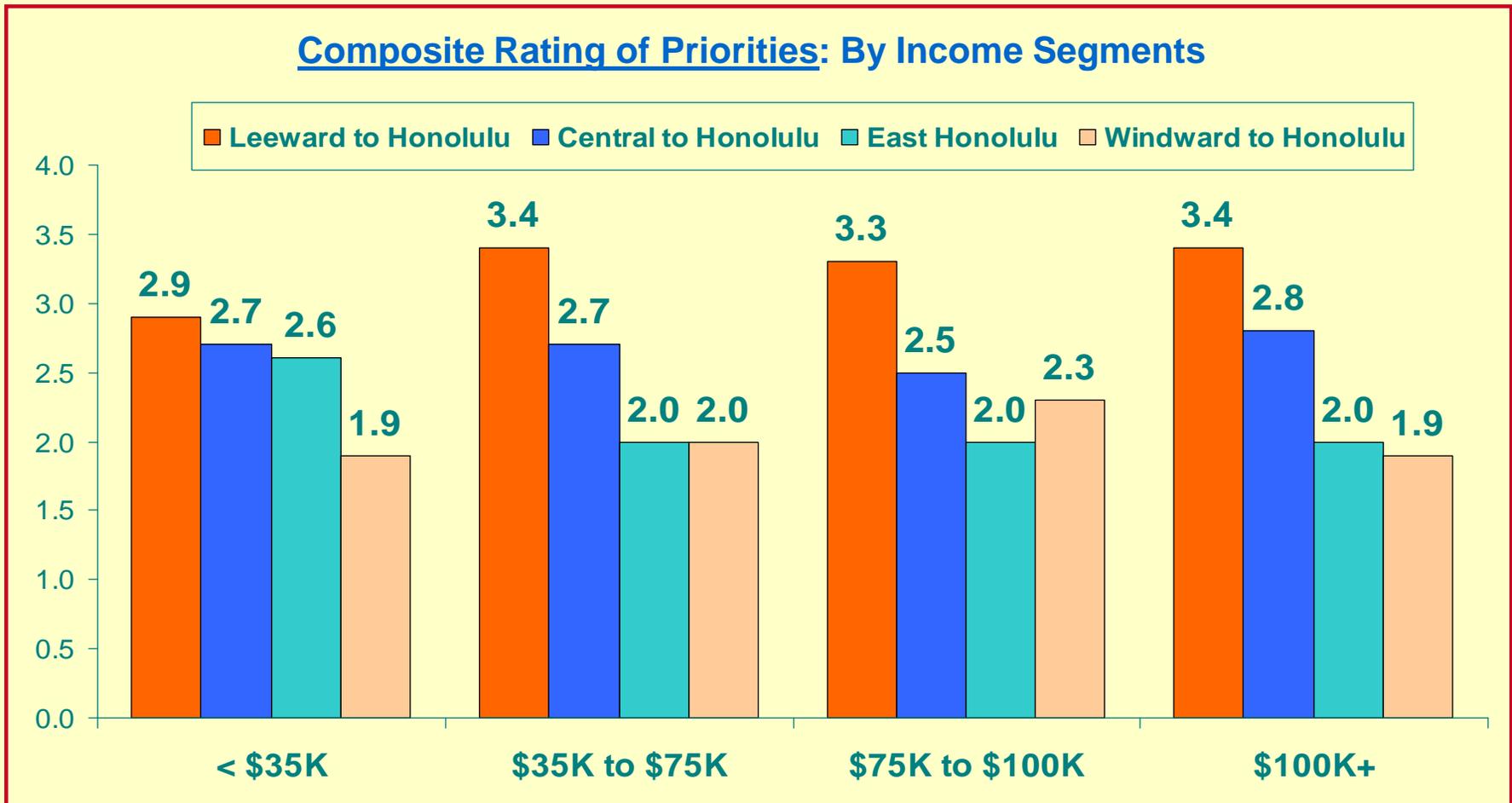
Base: 601 Oahu residents in 2009.

* Composite rating is the average of rankings across all four priority questions.

Q11: I'm going to read you a list of major traffic corridors. I'd like you to rank these in order of priority to relieve traffic congestion, with "1" meaning your top priority, "2" meaning your 2nd priority, "3" meaning your 3rd priority, as so on.

Composite Rating: By Income Segments

Oahu's upper- (\$100K+) and middle-income (\$35-\$100K) households support the choice of the Leeward-to-Downtown corridor more than lower-income households (<\$35K).



Bases: 62, 125 and 181 residents earning annual incomes under \$35,000, \$35,000 but less than \$75,000, and \$75,000 or more, respectively.
 Q11. I'm going to read you a list of major traffic corridors. I'd like you to rank these in order of priority to relieve traffic congestion, with "1" meaning your top priority, "2" meaning your 2nd priority, "3" meaning your 3rd priority, as so on [READ LIST].

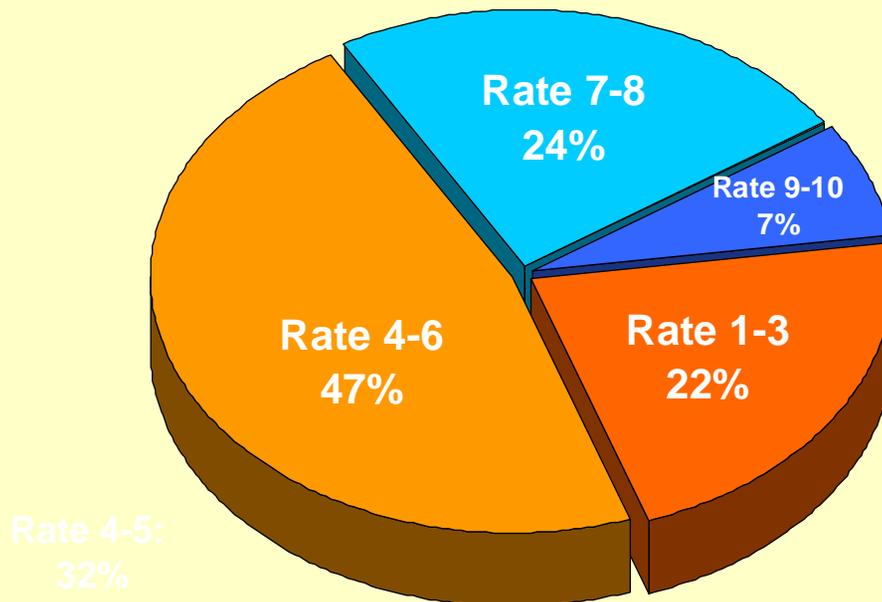
Satisfaction with Oahu's Road System

Satisfaction with Oahu's road system: 2009

- *“Generally speaking, how would you rate your satisfaction with Oahu's road system, including its surface roads, highways and freeways? Please use a 10-point scale with 10 meaning extremely satisfied and 1 meaning not satisfied at all?” (If rated 1-5) “Why did you rate the road system ___ out of 10?”*

Satisfaction with Oahu Road System:

Using 10-point scale with 10=extremely satisfied and 1=not at all satisfied



Resident satisfaction, overall, leans negative on the road system.

A 69% majority rate their satisfaction '6' or lower on the 10-point scale.

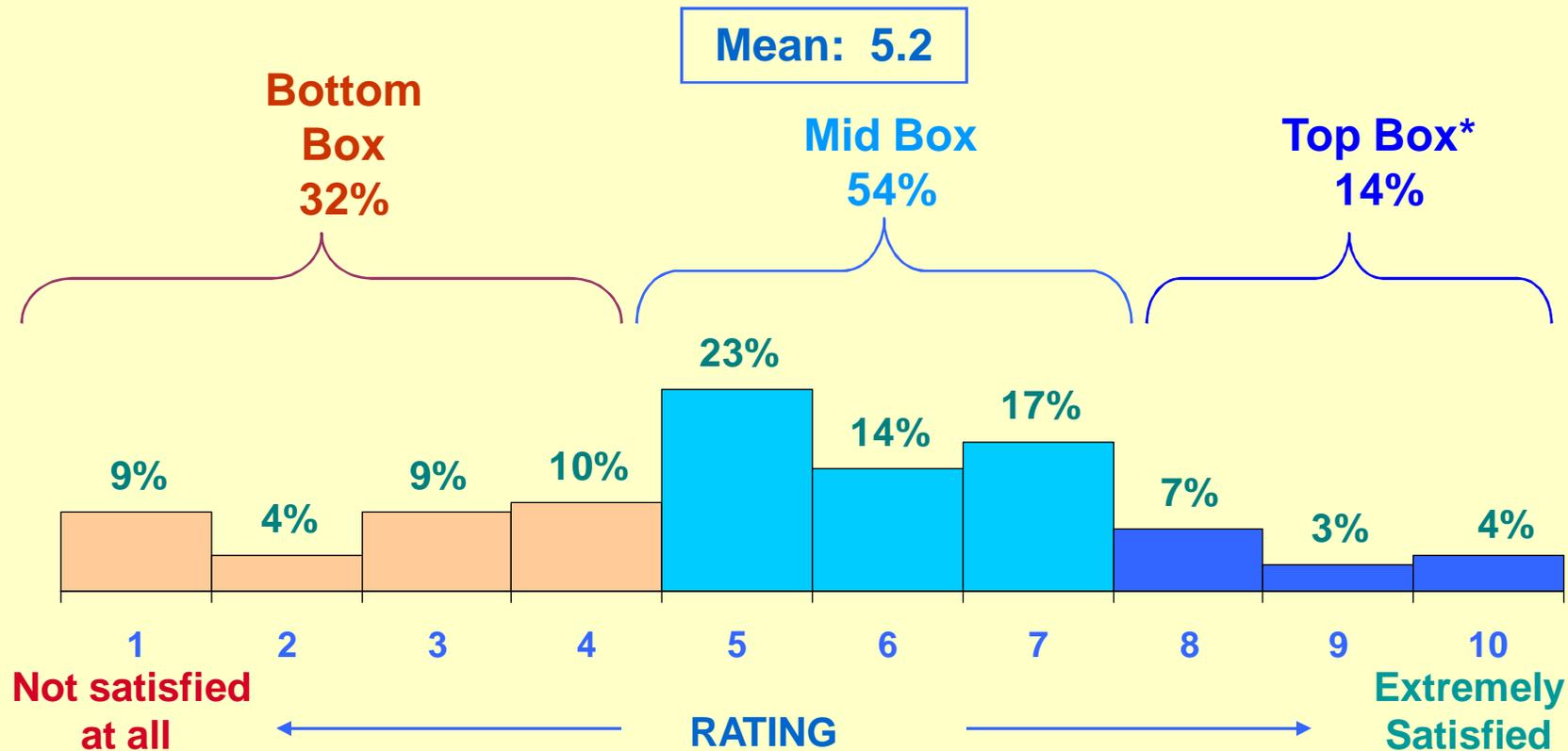
Relatively few (7%) give the road system highest ratings of 9-10.

(see next slide)

Satisfaction with Oahu Roads: Distribution of Ratings

Oahu's road system earns a mean rating of 5.2, considered a low score for Hawai'i institutional systems. In this market, a moderately favorable ratings distribution produces mean scores between 6.0 and 8.0. A lower mean usually signifies widespread dissatisfaction in that a large number give ratings of 5 or lower on the 10-point scale.

"Please use a 10-point scale with 10=extremely satisfied and 1-not satisfied at all."



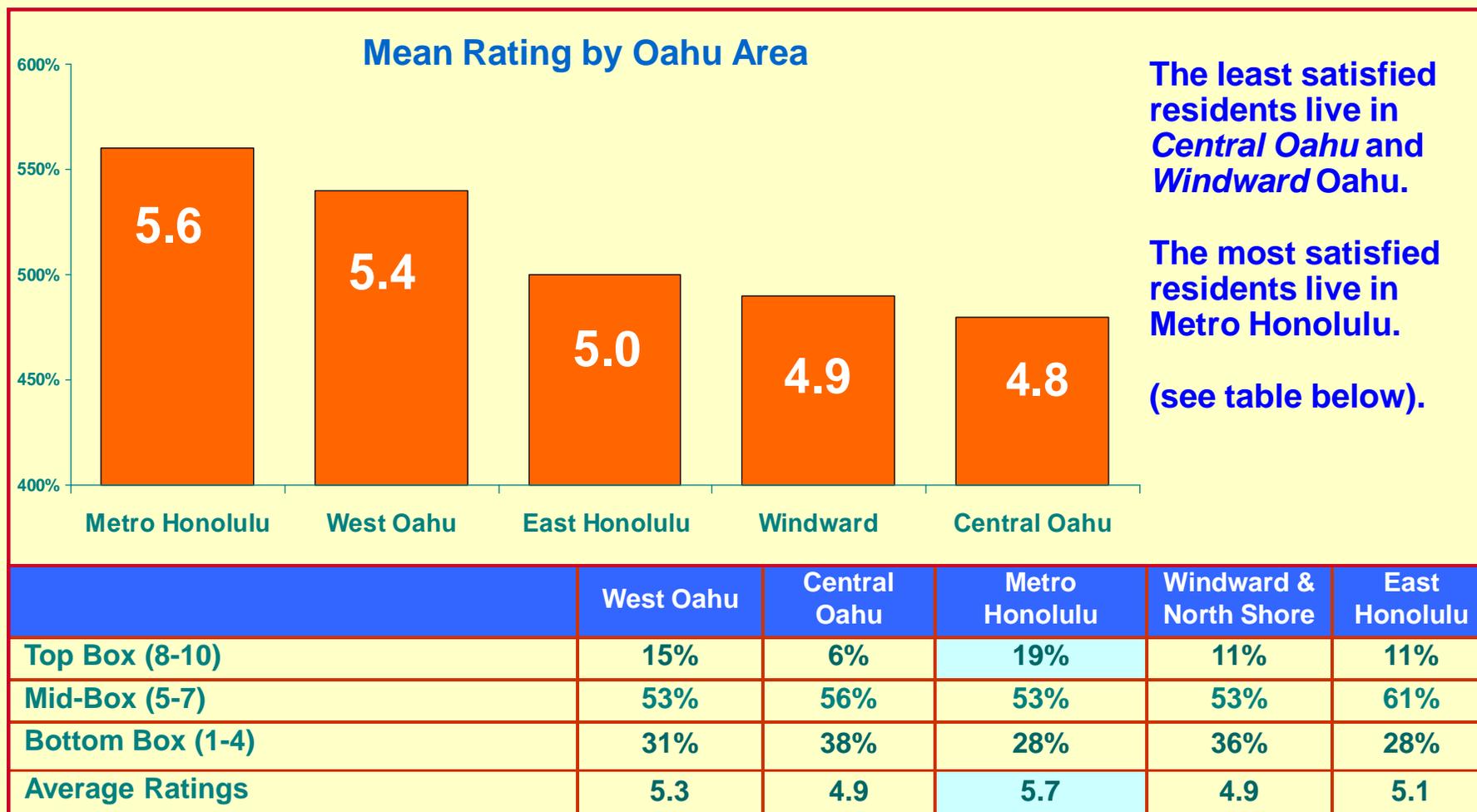
Base: 601 Oahu residents in 2009.

* OmnitTrak usually includes only 9-10 ratings into the "top box" and 6-8 into the "mid-box" categories. However, since few responses fell into the "top box," OmnitTrak expanded it to 8-10 ratings in order to reach close to a 15% "top box" cohort.

Q8a: How would you rate your satisfaction with Oahu's road system, including the surface roads, highways and freeways? Please use a 10-point scale with 10 meaning extremely satisfied and 1 means not satisfied at all.

Satisfaction: By Area of Residence

While low satisfaction is characteristic of all Oahu regions, differences in degree are generally correlated with the distance from the urban center i.e., the farther one lives from Urban Honolulu, the lower the satisfaction with Oahu roads.

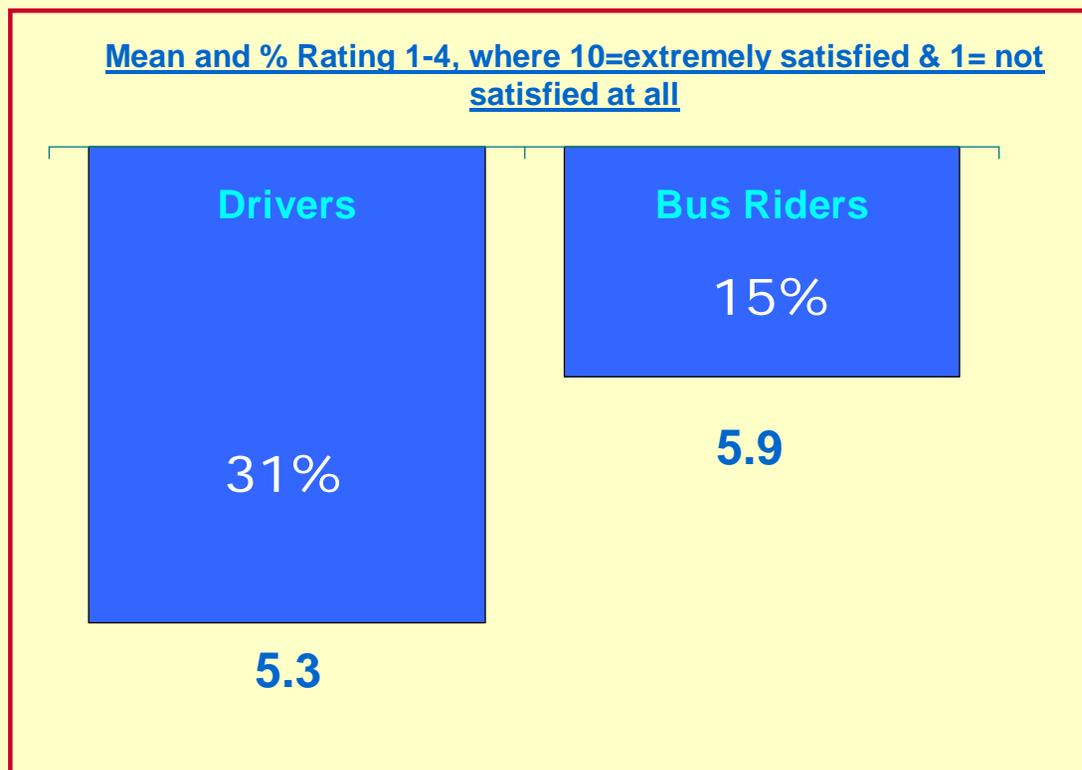


Base: 601 Oahu residents in 2009

Q8a: How would you rate your satisfaction with Oahu's road system, including the surface roads, highways and freeways? Please use a 10-point scale with 10 meaning extremely satisfied and 1 means not satisfied at all.

'Bottom Box' Dissatisfaction: Drivers vs. Bus Riders

'Bottom box' ratings (1-4) reveal that dissatisfaction is higher among vehicle drivers – who make up the overwhelming majority of residents -- than among bus riders.



About 9 in 10 residents either drive to work or school in a car, van or truck, carpool with others or use a motorcycle or moped.

Nine percent take the bus.

(See next page for profiles of drivers vs. bus riders)

Bases: 415 automobile drivers and 43 bus riders on Oahu. Almost all of the rest of the sample – 143 respondents – were households with no one either employed or full-time students, so were not asked about the mode of transportation to work or school.

Q8a. Generally speaking, how would you rate your satisfaction with Oahu's road system, including its surface roads, highways and freeways? Please use a 10-point scale where 10 means extremely satisfied and 1 means not satisfied at all.

Profile: Drivers vs. Bus Riders

The key difference between drivers and bus riders is in income levels: Proportionately more bus riders than vehicle drivers come from lower-income (<\$35,000) households, while proportionately more drivers than bus riders are in affluent (\$100,000+) households.

		Drivers	Bus Riders
BASE	601	415	43
AGE			
18-34	31%	35%	46%
35-54	35%	42%	35%
55+	34%	23%	19%
Average (years)	46.2 years	42.5 years	40.2 years
INCOME			
Less than \$35K	18%	11%	29%
\$35K to \$75K	33%	30%	28%
\$75K to \$100K	21%	25%	28%
\$100K+	28%	34%	15%
ETHNIC			
Caucasian	17%	16%	12%
Hawaiian	24%	25%	29%
Japanese	21%	15%	23%
Filipino	12%	13%	24%
Other	26%	27%	13%
AREA OF RESIDENCE			
Metro Honolulu	22%	19%	39%
East Honolulu	17%	16%	9%
West Oahu	34%	35%	38%
Central Oahu	10%	11%	0%
Windward/North Shore	18%	19%	14%

Profile: Top vs. Bottom Box Satisfaction

Key differences between those most and least satisfied with Oahu's roads: Filipino residents are overrepresented in the former (i.e., most satisfied), while older (55+) residents and Caucasian residents characterize the latter (least satisfied).

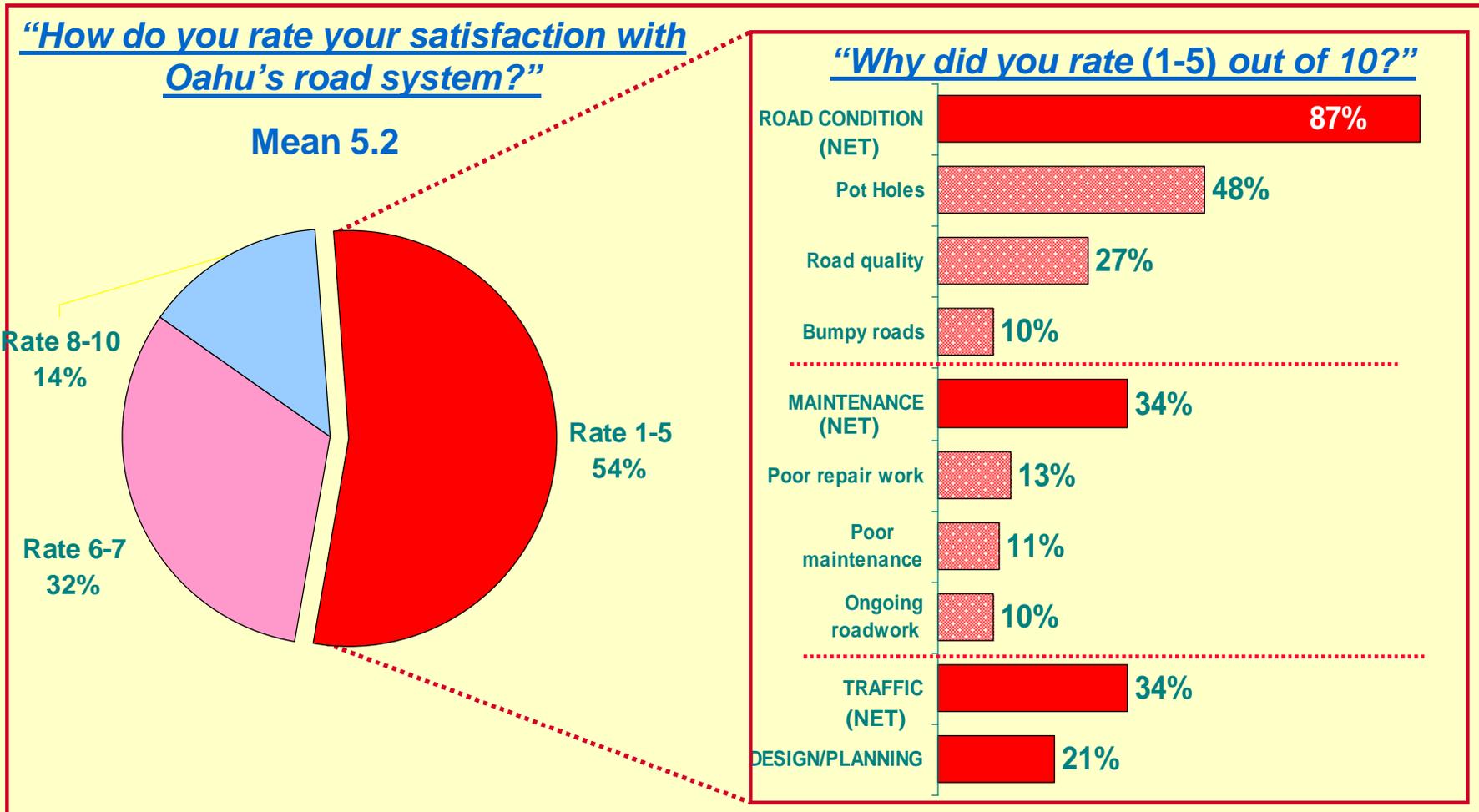
	TOTAL	SATISFACTION RATING		
		Top Box	Mid Box	Bottom Box
BASE	601	89	329	189
AGE				
18-34	31%	31%	34%	26%
35-54	35%	35%	38%	30%
55+	34%	34%	28%	44%
Average (years)	46.2 years	48.8 years	44.5 years	49.8 years
INCOME				
Less than \$35K	18%	26%	16%	20%
\$35K to \$75K	33%	33%	27%	31%
\$75K to \$100K	21%	24%	23%	19%
\$100K+	28%	17%	33%	30%
ETHNIC				
Caucasian	17%	16%	13%	23%
Hawaiian	24%	25%	21%	28%
Japanese	21%	14%	24%	19%
Filipino	12%	23%	14%	6%
Other	26%	22%	28%	24%
MODE OF TRANSPORT				
Drive	88%	89%	86%	92%
Bus	9%	10%	11%	4%
Other	3%	1%	3%	4%

Base: 601 Oahu residents in 2009.

Rationale Underlying Low Satisfaction with The Oahu Road System

Low Ratings of Satisfaction with Road System

The perceived poor condition and neglected maintenance of Oahu's roads are the primary reasons for dissatisfaction with the system.



Base: 329 residents who rated Oahu's road system 1-5 on the 10-point scale.
 Q8b. Why did you rate the road system ____ out of 10? Any other reasons?

Respondent Comments*

“Why did you rate the road system [1-5] out of 10?”

- *“The quality of the roads is bad. There are pot holes, uneven surfaces, poor repair and maintenance and also bumpy roads. Whenever I drive, I feel like I am living in a Third World country because of the poor quality of the roads.”*
- *“Elevated freeway in Pearl City is done with cheap concrete which is why it is full of potholes, and then the potholes are cheaply repaired. Roadways in general are not in good repair.”*
- *“Roads are all torn up, poorly done, not enough room for bicycles, roads are in poor condition, poorly designed freeways with dangerous on and off ramps.”*
- *“Because in Mililani Town, if there is any traffic accident, it increases travel time from 30 minutes to 2 hours. There is not an alternate road. The leeward side is continually growing in population, but they are not improving the roads.”*
- *“The roads are not keeping up with the number of vehicles on the road.”*
- *“Some of the roads are fairly nice but if you are going in any of the town areas on Windward side or on North Shore, there are bumps, lumps and potholes and also manhole covers are recessed deep into the streets. Repairs are ‘quick fix’ repairs making the problem worse.”*
- *“Certain roads are getting ripped up constantly. Kapiolani Boulevard, for example, is always being dug up over and over again.”*

* These comments were selected at random and do not reflect a proportionate distribution of residents either by area or any demographic criteria .

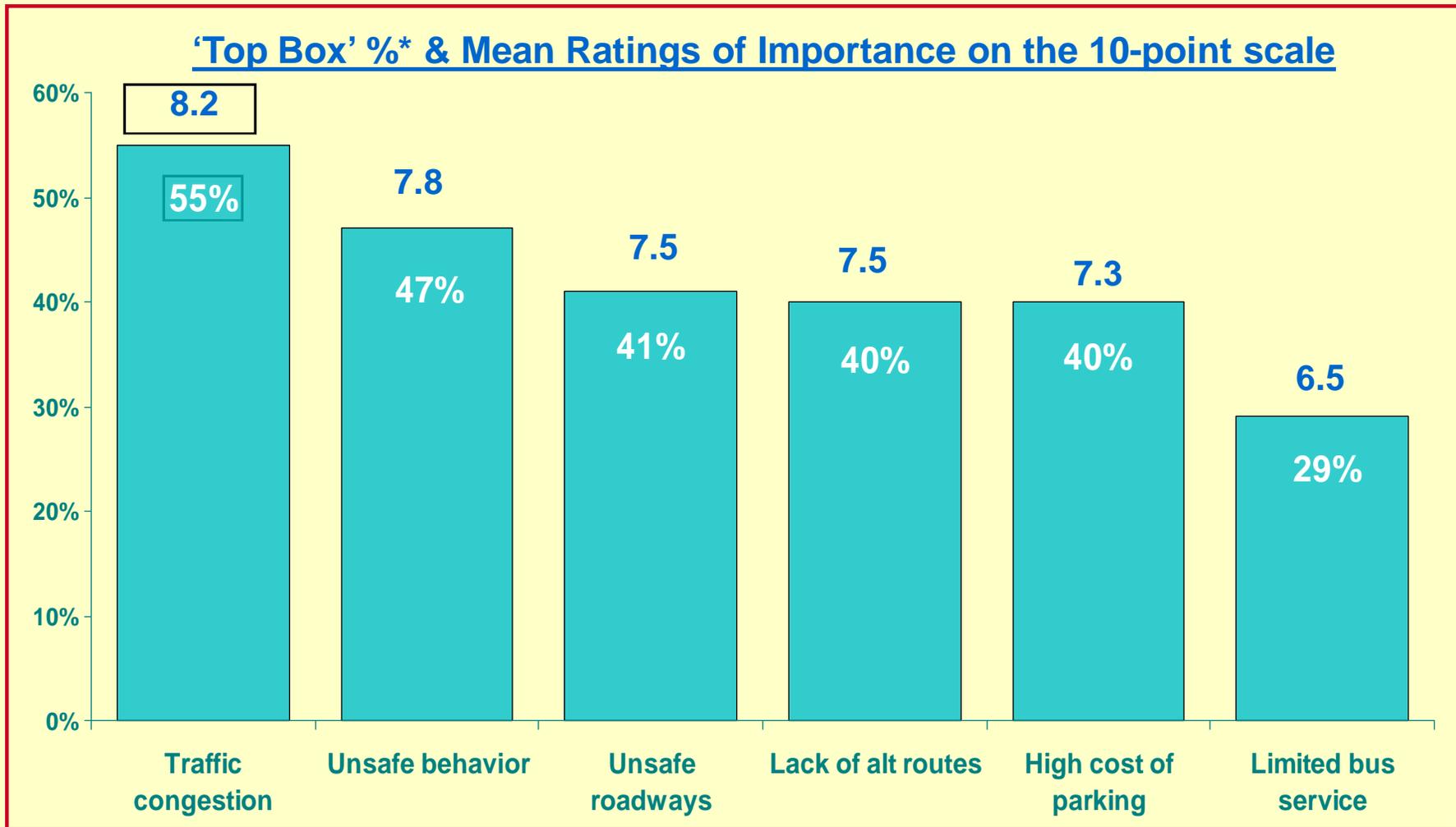
Oahu Transportation Challenges: Importance for Oahu Residents

Transportation Challenges: Ratings of Importance

- “I’m going to name what some people believe are transportation challenges facing Oahu. Please tell me how important you think each is, using a 10-point scale with 10 being extremely important and 1 being not important at all for Oahu.” [READ LIST]
 - *Lack of alternative routes to and from large communities*
 - *Traffic congestion on existing roadways*
 - *Inappropriate or unsafe driver behavior*
 - *Unsafe or dangerous roadways*
 - *Limited or insufficient bus service*
 - *High cost of parking in urban areas*

Most Important Transportation Challenges

The key transportation challenge is clearly *easing traffic congestion*, rated in the “top box”* (9-10) of importance by over half of Oahu residents. Curbing unsafe driver behavior comes next, rated in the “top box” by almost half of residents.



Base: 601 Oahu residents

* In OmniTrak's analysis, Top Box=9-10, Mid-Box=6-8, Bottom Box=1-5.

Q9. I'm going to name what some people believe are transportation challenges facing Oahu. Please tell me how important you think each is, using a 10-point scale where 10 means extremely important and 1 means not important at all for Oahu.

“Top box” Importance: By Area of Residence

Statistically significant differences were seen between Oahu areas. Relative to the island as a whole: 1) easing *Traffic congestion* is especially important in West Oahu and Windward Oahu; 2) *unsafe driver behavior* is a bigger issue in Central Oahu than in other areas; and 3) the *lack of alternate routes into communities* is a bigger challenge to West Oahu and Windward Oahu (including the North shore) residents.

“Top Box” %:* Importance	West Oahu	Central Oahu	Metro Honolulu	Windward	East Honolulu
BASE	205	57	139	105	103
<i>Traffic congestion on existing roadways</i>	63%	56%	52%	61%	39%
<i>Inappropriate or unsafe driver behavior</i>	47%	59%	50%	45%	38%
<i>Unsafe or dangerous roadways</i>	42%	41%	45%	39%	37%
<i>Lack of alternative routes to and from large communities</i>	47%	39%	36%	43%	26%
<i>High cost of parking in urban areas</i>	43%	38%	36%	40%	38%
<i>Limited or insufficient bus service</i>	32%	22%	28%	29%	27%

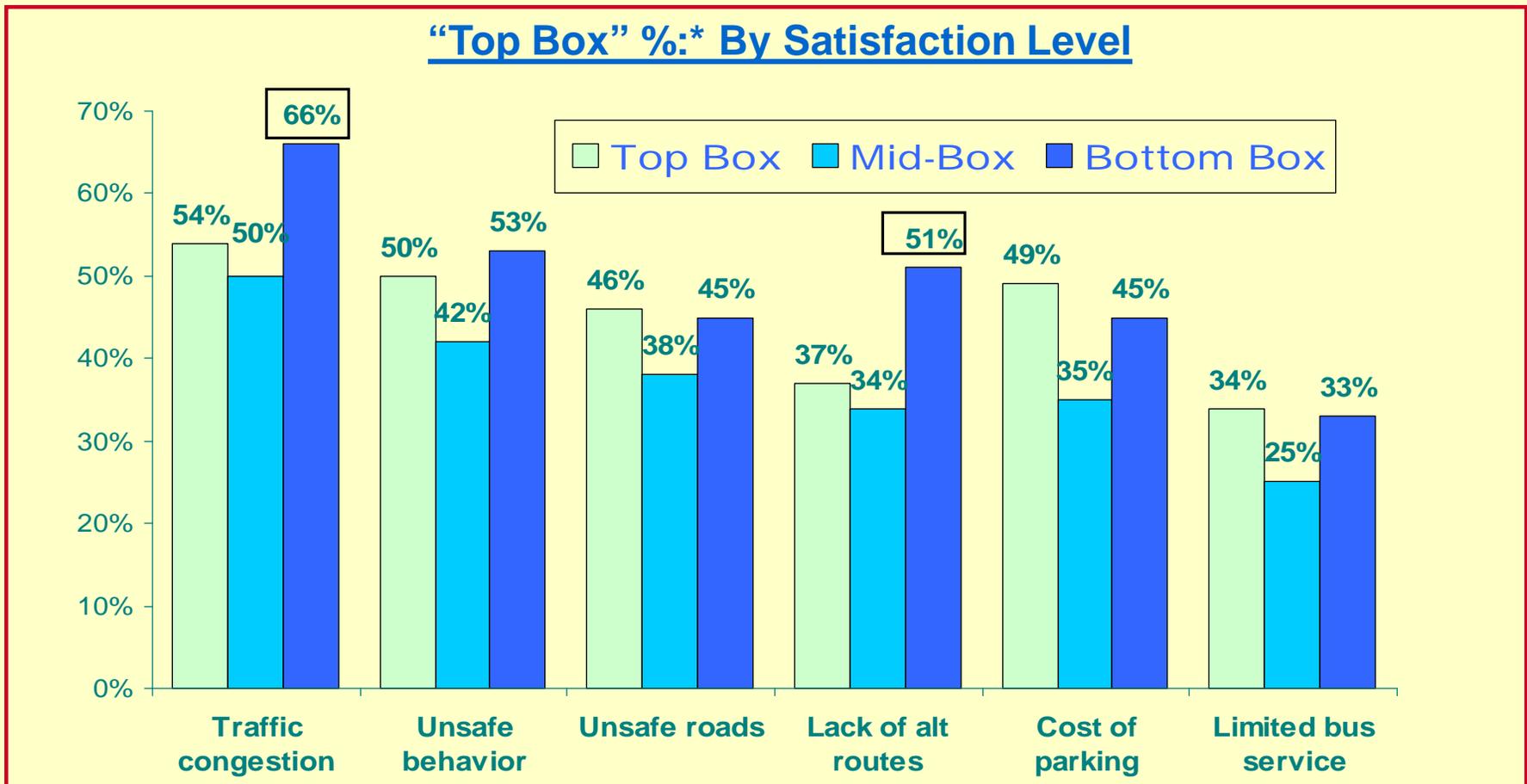
Bases: 205, 57, 130, 105 and 103 residents, respectively

* In OmniTrak's analysis, Top Box=9-10; Mid-Box=6-8; Bottom Box=1-5.

Q9. I'm going to name what some people believe are transportation challenges facing Oahu. Please tell me how important you think each is, using a 10-point scale where 10 means extremely important and 1 means not important at all for Oahu.

Key Challenges: By Satisfaction Level

The key difference between those who are *most* and *least* satisfied with Oahu roads (rating in the “top” and “bottom box”): dissatisfied residents are more concerned with *traffic congestion* and *the lack of alternate routes* than are satisfied residents.



Bases: 82, 329 and 189 residents who rated challenges in the top box, mid-box and bottom box for importance, respectively.

* In the analysis of satisfaction, Top Box=8-10; Mid-Box=5-7; Bottom Box=1-4.

Q9. Please tell me how important you think each is, using a 10-point scale with 10 being extremely important and 1 being not important at all.

Profile: Importance of Traffic Congestion

Key differences between those rating *traffic congestion* high and low in importance: Native Hawaiian residents are over-represented in the former (i.e., high importance), while lower-income residents are over-represented in the latter (low importance).

	TOTAL	RATING "Traffic Congestion of Existing Roadways"		
		Top Box*	Mid Box*	Bottom Box*
BASE	601	330	180	85
AGE				
18-34	31%	33%	26%	33%
35-54	35%	36%	40%	23%
55+	34%	31%	34%	44%
Average (years)	46.2 years	45.3 years	47.4 years	49.8 years
INCOME				
Less than \$35K	18%	18%	12%	35%
\$35K to \$75K	33%	33%	37%	22%
\$75K to \$100K	21%	24%	16%	20%
\$100K+	28%	25%	34%	22%
ETHNIC				
Caucasian	17%	14%	18%	26%
Hawaiian	24%	31%	20%	8%
Japanese	21%	17%	27%	21%
Filipino	12%	14%	10%	12%
Other	26%	24%	25%	33%
MODE OF TRANSPORT				
Drive	88%	90%	87%	77%
Bus	9%	8%	11%	13%
Other	3%	2%	2%	10%

Base: 601 Oahu residents in 2009

* In OmniTrak's analysis, Top Box=9-10; Mid-Box=6-8; Bottom Box=1-5.

Profile: Importance of “Lack of Alternative Routes”

Those who rate *lack of alternative routes* high in importance include proportionately more younger (18-34) adults and more Native Hawaiian residents than do those rating this challenge low in importance.

	TOTAL	“Lack of alternative routes to & from large communities”		
		Top Box*	Mid Box*	Bottom Box*
BASE	601	330	180	85
AGE				
18-34	31%	35%	36%	17%
35-54	35%	34%	35%	38%
55+	34%	31%	29%	45%
Average (years)	46.2 years	45.5 years	44.5 years	51.9 years
INCOME				
Less than \$35K	18%	19%	16%	22%
\$35K to \$75K	33%	28%	41%	31%
\$75K to \$100K	21%	20%	19%	21%
\$100K+	28%	32%	24%	26%
ETHNIC				
Caucasian	17%	17%	15%	20%
Hawaiian	24%	30%	21%	18%
Japanese	21%	17%	27%	21%
Filipino	12%	15%	12%	8%
Other	26%	22%	25%	34%
MODE OF TRANSPORT				
Drive	88%	84%	94%	99%
Bus	9%	13%	6%	5%
Other	3%	3%	1%	8%

* In OmniTrak's analysis, Top Box=9-10; Mid-Box=6-8; Bottom Box=1-5.

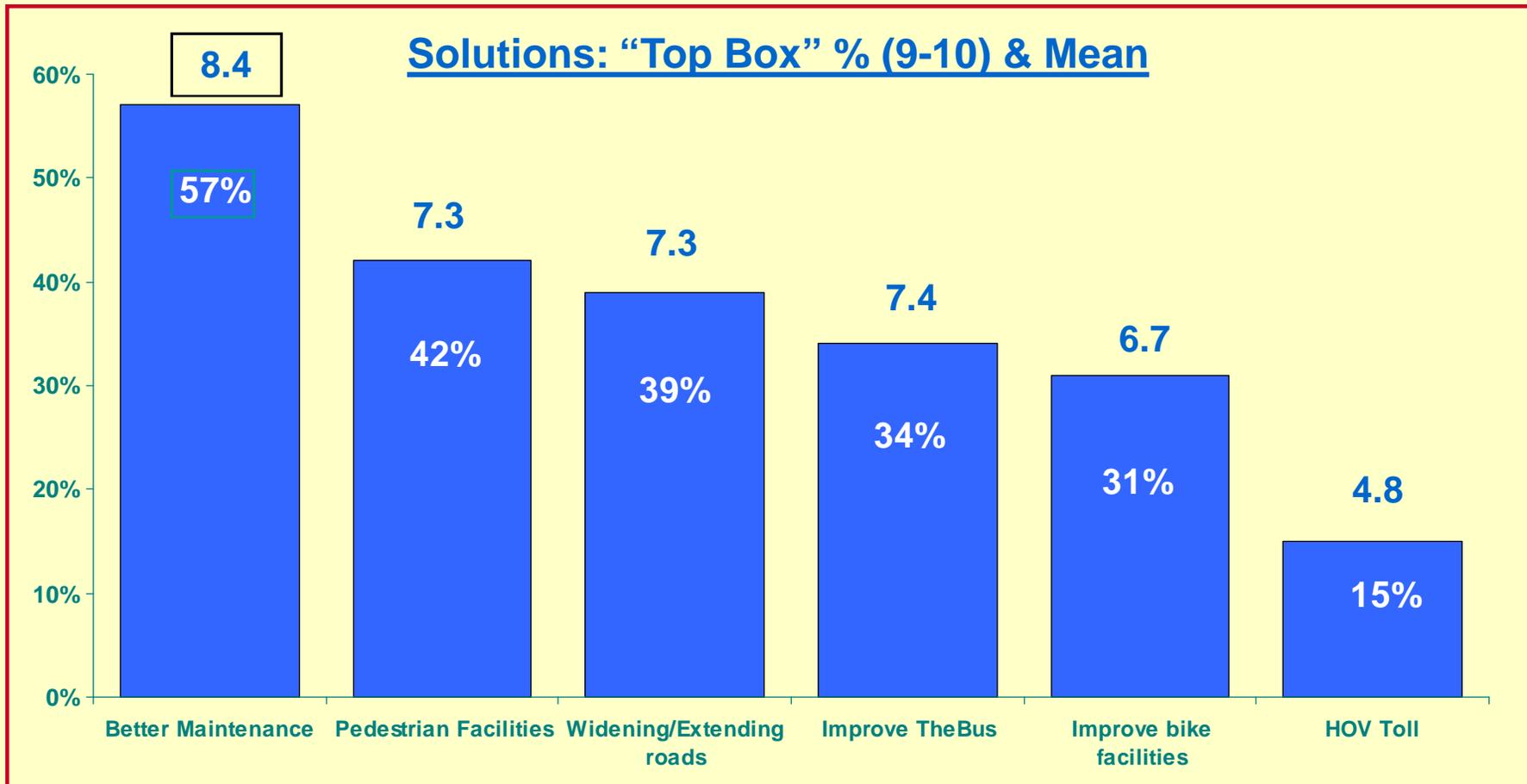
Oahu Transportation Solutions: Effectiveness

Solutions to Transportation Challenges

- “Now I’ll read possible ways to address these issues, and you tell me how effective each would be using a 10-point scale with 10 being extremely effective and 1 being not effective at all for Oahu.”
 - *Widening or extending existing roads or building new roads*
 - *Improvements to and expansion of TheBus system*
 - *Adding and improving bicycle facilities*
 - *Better maintenance of existing roads*
 - *Charging a fee to use high-occupancy or contra-flow lanes in congested zones*
 - *Adding and improving pedestrian facilities such as sidewalks and crosswalks*

Effectiveness of Six Solutions

Residents, overall, believe the most effective solution is *better maintenance of existing roads*. No other solution tested in the survey garnered a majority who rated it in the “top box” for effectiveness.



Base: 601 Oahu residents.

* In OmniTrak’s analysis, Top Box=9-10; Mid-Box=6-8; Bottom Box=1-5.

Q10. You tell me how effective each would be in meeting the challenges using a 10-point scale with 10 being extremely effective and 1 being not effective at all for Oahu.

“Top Box” Effectiveness: By Area of Residence

No statistically significant differences were seen relative to *better maintenance of existing roads*, with a majority in all areas rating it in the “top box.”

Statistically significant differences were seen in ratings of: 1) *widening or extending existing roads or building new roads*, rated higher by West and Central Oahu residents than by other residents; and 2) *adding and improving pedestrian facilities*, rated higher in West Oahu than in other areas.

“Top Box” %*: Effectiveness	West Oahu	Central Oahu	Metro Honolulu	Windward	East Honolulu
BASE	205	57	139	105	103
<i>Better maintenance of existing roads</i>	58%	56%	60%	54%	53%
<i>Adding or improving pedestrian facilities</i>	53%	34%	36%	46%	27%
<i>Widening/extending roads or building new roads</i>	46%	48%	31%	36%	29%
<i>Improvement to and expansion of TheBus system</i>	32%	31%	27%	43%	39%
<i>Adding and improving bicycle facilities</i>	34%	19%	29%	28%	38%
<i>Charging a fee to use HOV or contra-flow lanes</i>	14%	10%	16%	16%	15%

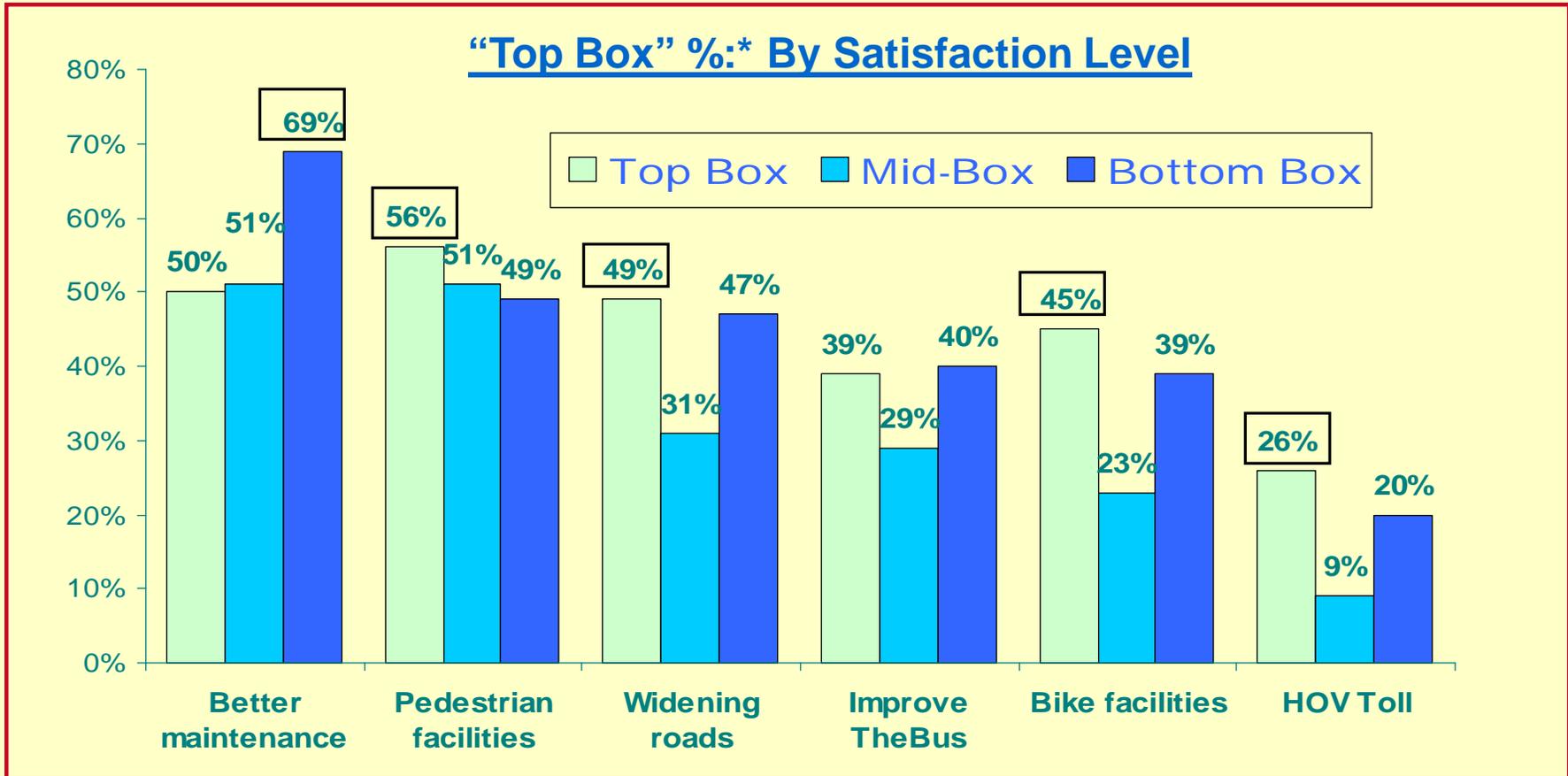
Bases: 205, 57, 139, 105 and 103 residents, respectively

* In OmniTrak's analysis, Top Box=9-10; Mid-Box=6-8; Bottom Box=1-5.

Q10. You tell me how effective each would be in meeting the challenges using a 10-point scale with 10 being extremely effective and 1 being not effective at all for Oahu.

Effectiveness: By Satisfaction Level

The key difference between those most and least satisfied with Oahu roads: those least satisfied indicate *better road maintenance* as the most effective solution compared to those who indicated more satisfaction with the roads.



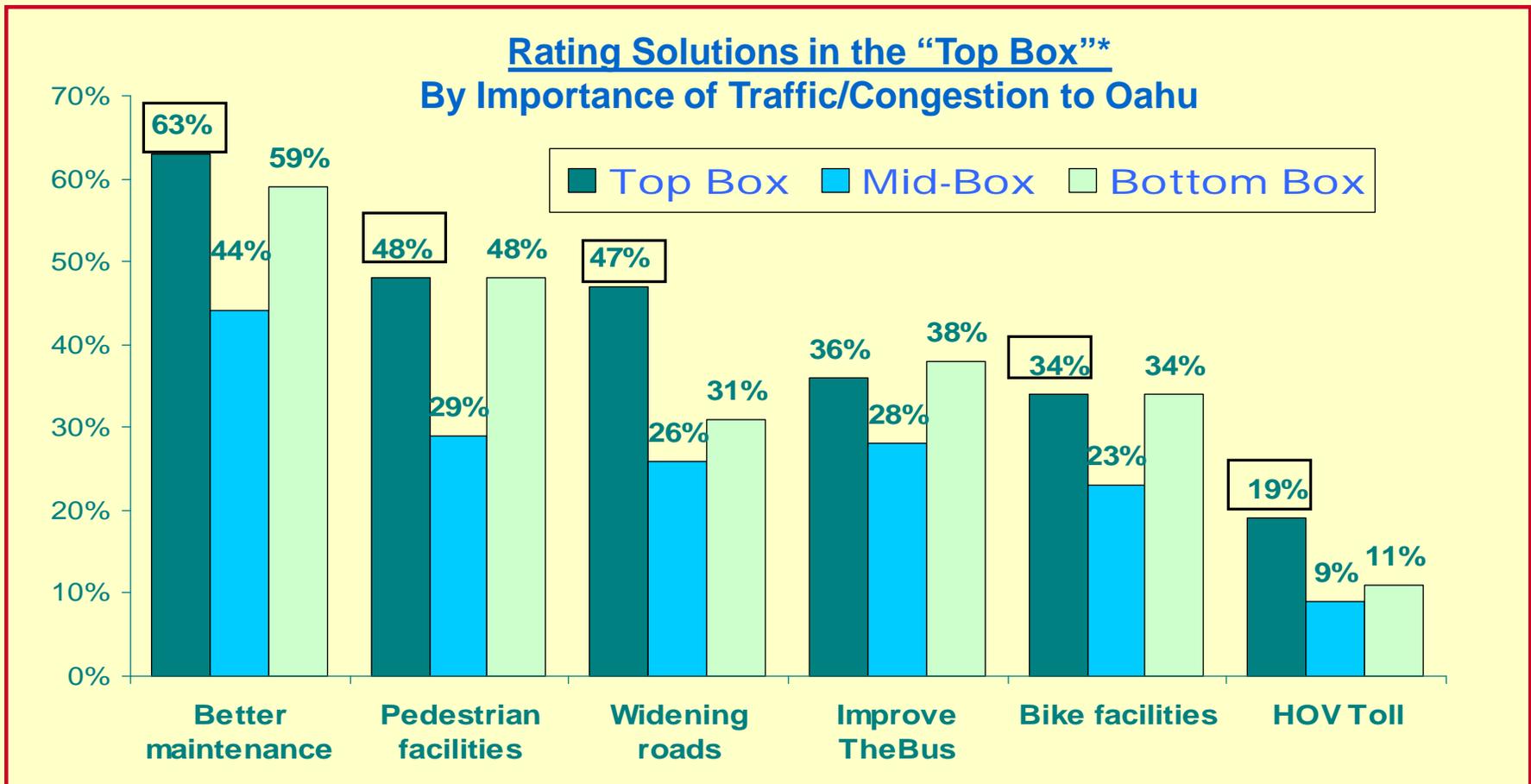
Bases: 82, 329 and 189 residents who rated solutions in the top box, mid-box and bottom box, respectively.

* In OmniTrak's analysis, Top Box=9-10; Mid-Box=6-8; Bottom Box=1-5.

Q10. You tell me how effective each would be in meeting the challenges using a 10-point scale with 10 being extremely effective and 1 being not effective at all for Oahu.

Effectiveness: By Importance of “Traffic/Congestion”

The graph below depicts differences in responses based on perceived importance of “traffic congestion” (see previous section). While those who deemed congestion to be very important also rated “widening/extending roads” higher for effectiveness, this group – like other residents – most supported “better maintenance” over all other proposed solutions.



Bases: 330, 180 and 85 residents who rated the importance of “traffic congestion on existing roadways in the ‘top box’ (9-10), ‘mid box’ (6-8) or ‘bottom box’ (1-5), respectively.

Q10. You tell me how effective each would be in meeting the challenges using a 10-point scale with 10 being extremely effective and 1 being not effective at all for Oahu.

Profile: By Rating of *Better Maintenance of Roads*

The only difference between residents who support *better maintenance of existing roads* and those who do not is that the former group includes more middle- and lower-income residents (< \$75K) while the latter group includes more affluent residents (\$100K+).

	TOTAL	Rating "Better Maintenance of Roads"*		
		Top Box*	Mid Box*	Bottom Box*
BASE	601	338	184	76
AGE				
18-34	31%	32%	27%	38%
35-54	35%	32%	43%	28%
55+	34%	36%	30%	35%
Average (years)	46.2 years	47.1 years	46.5 years	45.7 years
INCOME				
Less than \$35K	18%	20%	17%	14%
\$35K to \$75K	33%	34%	37%	19%
\$75K to \$100K	21%	23%	17%	17%
\$100K+	28%	23%	29%	50%
ETHNIC				
Caucasian	17%	15%	21%	14%
Hawaiian	24%	26%	18%	30%
Japanese	21%	20%	21%	26%
Filipino	12%	14%	10%	11%
Other	26%	25%	30%	19%
MODE OF TRANSPORT				
Drive	88%	87%	90%	86%
Bus	9%	9%	9%	7%
Other	3%	4%	1%	7%

Total Base: 601 Oahu residents in 2009

* In OmniTrak's analysis, Top Box=8-10; Mid-Box=5-7; Bottom Box=1-4.

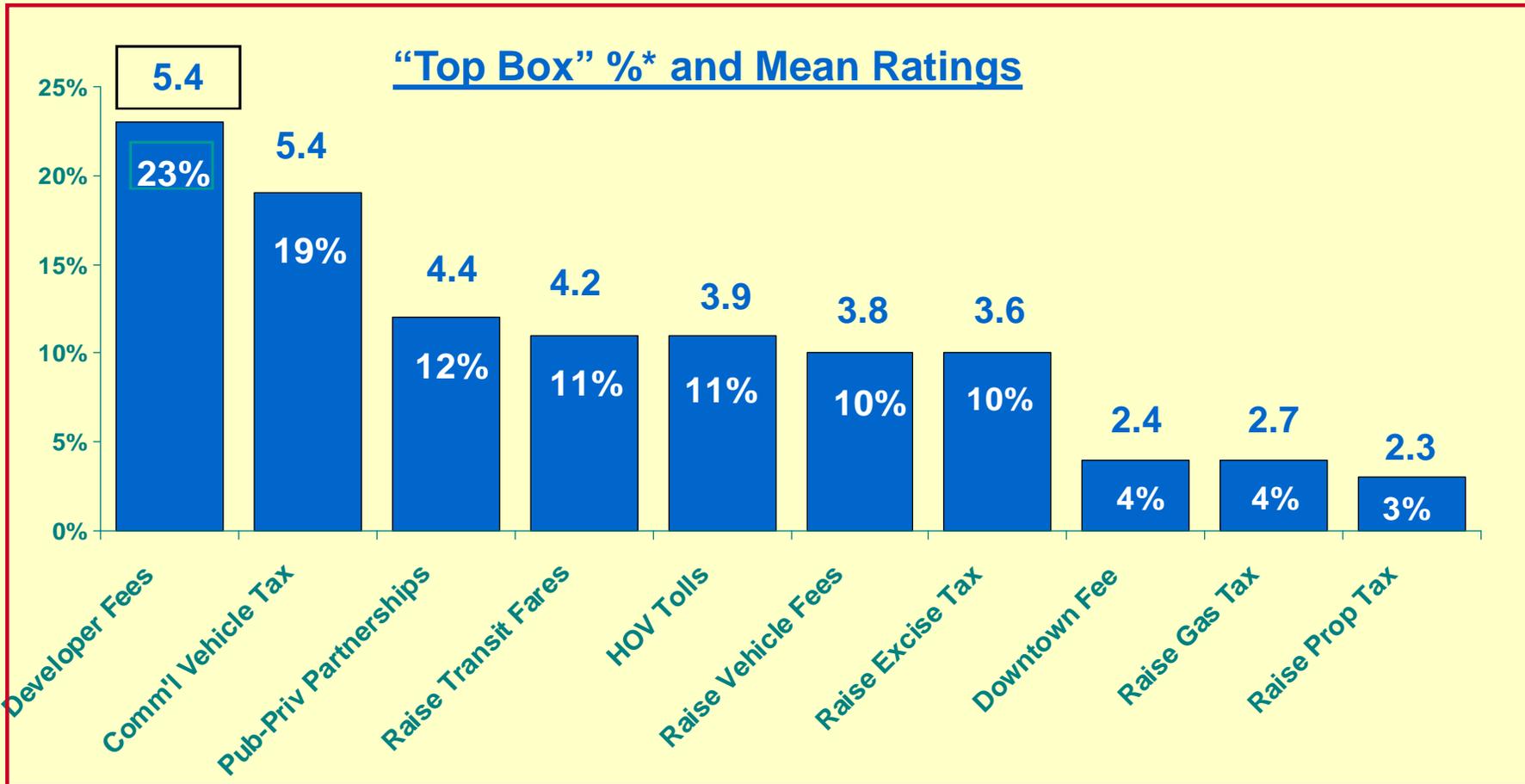
Transportation Funding Methods

Transportation Funding Proposals: Ratings of Support

- “Now let’s discuss transportation funding. I’ll read some proposed funding options and using a 10-point scale where 10 means you strongly support it and 1 means you strongly oppose, please tell me where you stand on each proposal. The first is...”
- *Raising the excise or sales tax*
 - *Raising property tax rates*
 - *Raising the gasoline tax*
 - *Raising public transit fares*
 - *Adding toll charges to some roads or HOV lanes*
 - *Charging a tax for vehicle-miles traveled*
 - *Charging a fee for driving into Downtown*
 - *Permitting private entities to partner with the State or County to build more roads and to pay for them by charging tolls or fees for use*
 - *Charging fees to developers that offset the costs of infrastructure, but which may impact the price of homes in the development.*
 - *Commercial vehicle tax*

“Top Box” Support for Funding Proposals

Of the 10 proposals tested, none garnered substantial support from residents. The least-opposed proposals were *charging fees to developers* and *imposing taxes on commercial vehicles*, both of which received ‘top box’ support from about 1 in 4 residents, respectively.



Base: 601 Oahu residents.

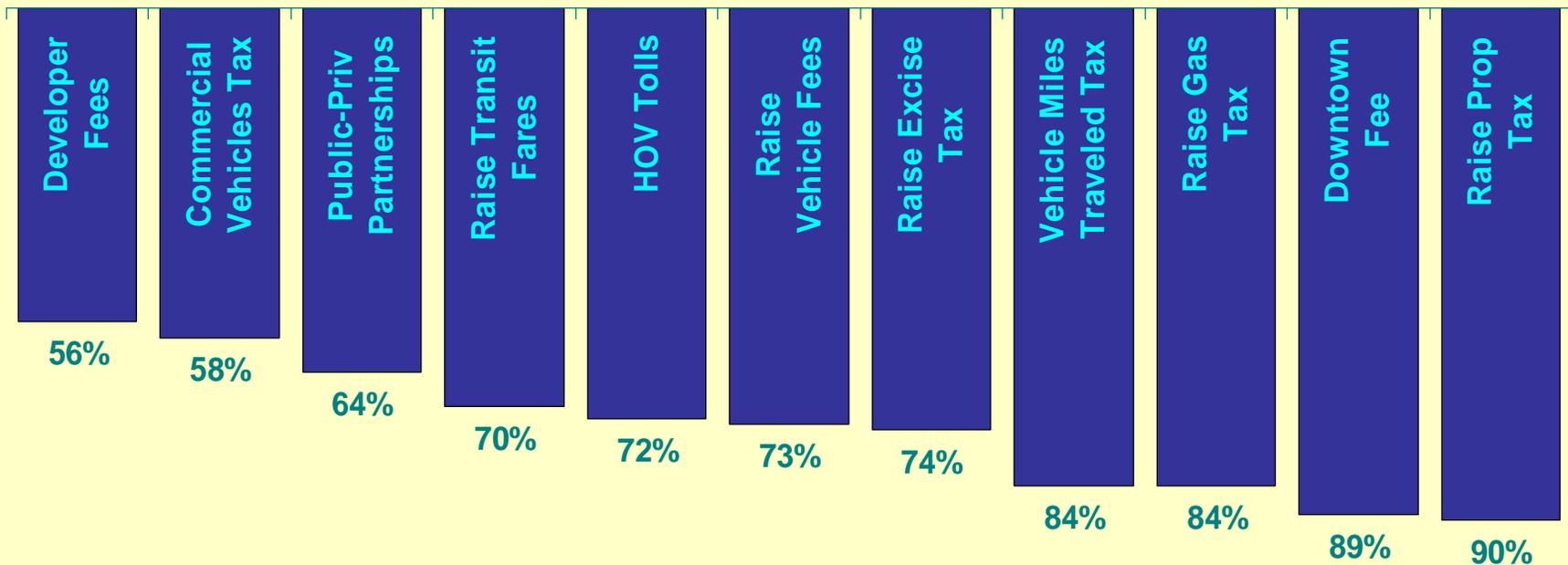
* In OmniTrak’s analysis, Top Box=9-10; Mid-Box=6-8; Bottom Box=1-5.

Q13. I’ll read some proposed funding options and using a 10-point scale with 10 means you strongly support it and 1 means you strongly oppose, please tell me where you stand on each proposal.

'Bottom Box' Opposition to Proposals

'Bottom box'* ratings (1-5) reveal overwhelming opposition to proposals to increase taxes for residents, particularly *raising property taxes, raising the gas tax, and initiating taxes for vehicle miles traveled and a fee for driving into Downtown Honolulu.*

% Rating 1-5, where 10=strongly support & 1=strongly oppose



Base: 601 Oahu residents.

* In OmniTrak's analysis, Top Box=9-10; Mid-Box=6-8; Bottom Box=1-5.

Q13. I'll read some proposed funding options and using a 10-point scale with 10 means you strongly support it and 1 means you strongly oppose, please tell me where you stand on each proposal.

'Bottom Box' Opposition: By Area of Residence

On the whole, little variation was found across Oahu as far as opposing higher taxes, the only significant difference being slightly more opposition in West Oahu and in Windward/North Shore areas to 1) *public-private partnerships*; 2) *raising vehicle registration fees*; and 3) *charging a fee for driving into Downtown*.

"Bottom Box" %*: Opposition	West Oahu	Central Oahu	Metro Honolulu	Windward	East Honolulu
<i>BASE</i>	205	57	139	105	103
<i>Charging fees to developers that offset the costs of infrastructure</i>	56%	39%	57%	55%	64%
<i>Commercial vehicle tax</i>	53%	57%	54%	66%	65%
<i>Permitting private entities to partner with the State or County to build roads and to pay for them by charging tolls or fees for use</i>	72%	58%	64%	62%	55%
<i>Raising public transit fares</i>	74%	62%	71%	63%	69%
<i>Adding toll charges to some roads or HOV lanes</i>	76%	65%	72%	67%	71%
<i>Raising vehicle registration fees</i>	77%	76%	71%	75%	63%
<i>Raising the excise or sales tax</i>	76%	71%	71%	78%	72%
<i>Charging a tax for vehicle-miles-traveled</i>	89%	79%	82%	85%	79%
<i>Raising the gasoline tax</i>	89%	86%	78%	90%	77%
<i>Charging a fee for driving into Downtown</i>	93%	79%	86%	94%	88%
<i>Raising property tax rates</i>	90%	84%	92%	89%	93%

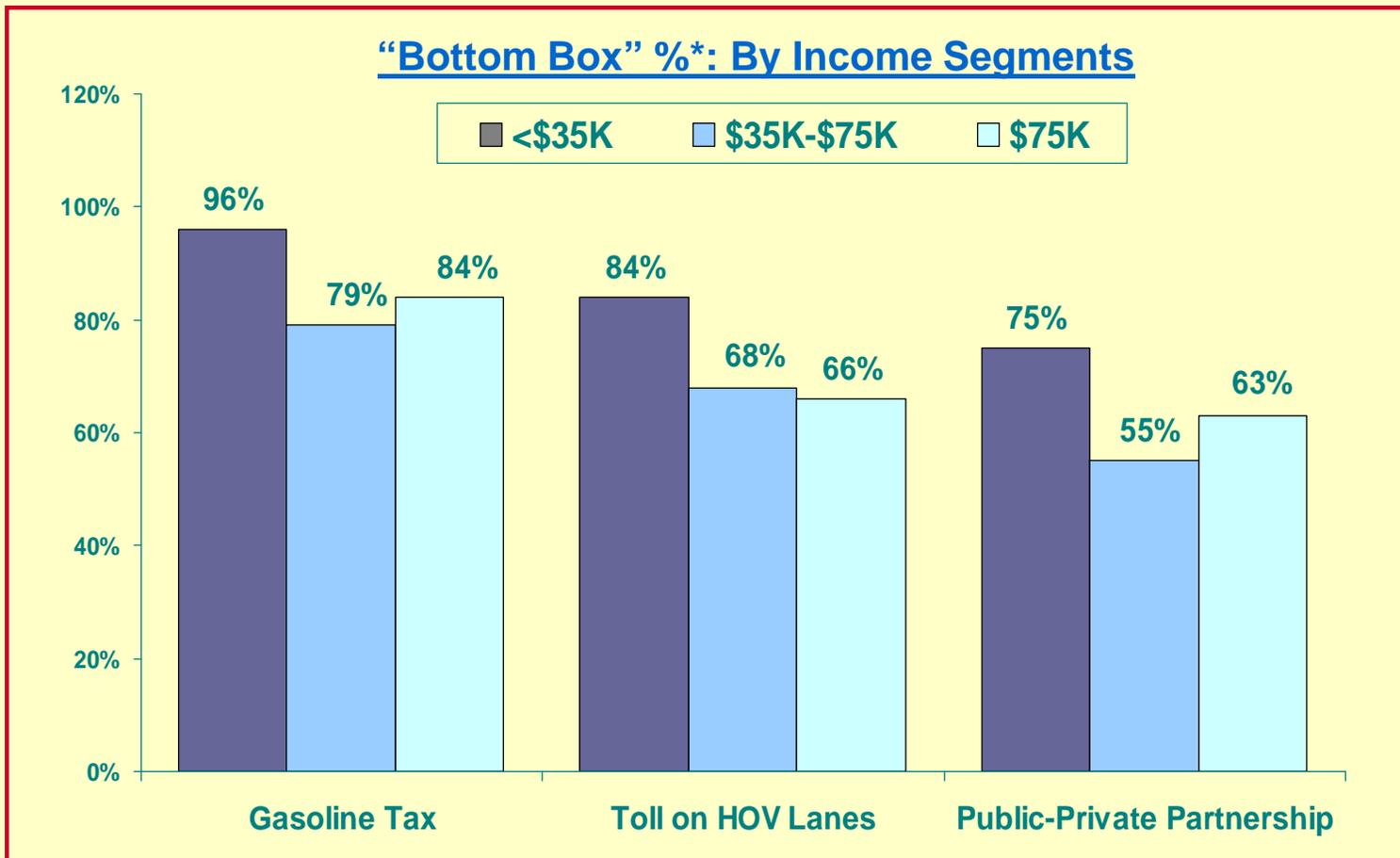
Base: 601 Oahu residents.

* In OmniTrak's analysis, Top Box=9-10; Mid-Box=6-8; Bottom Box=1-5.

Q13. I'll read some proposed funding options and using a 10-point scale with 10 means you strongly support it and 1 means you strongly oppose, please tell me where you stand on each proposal.

Opposition to Funding Proposals: By Income Level

More opposition came from lower-income residents (earning less than \$35,000 annually) to 1) *raising the gasoline tax*; 2) *adding toll charges to some roads or HOV lanes*; and 3) *permitting private entities to partner with the State or county to build more roads and to pay for them by charging tolls or fees.*



Bases: 71, 131 and 190 Oahu residents reporting incomes in the ranges of less than \$35K, \$35K to \$75K, and \$75K or more, respectively.

* In OmniTrak’s analysis, Top Box=9-10, Mid-Box=6-8 and Bottom Box=1-5.

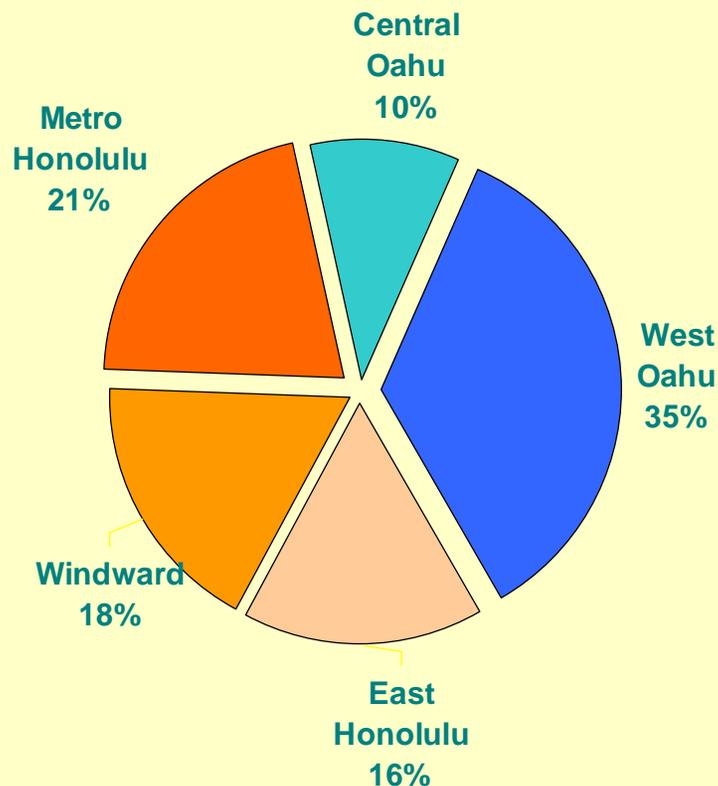
Q13. I’ll read some proposed funding options and using a 10-point scale with 10 means you strongly support it and 1 means you strongly oppose, please tell me where you stand on each proposal.

Patterns of Transportation

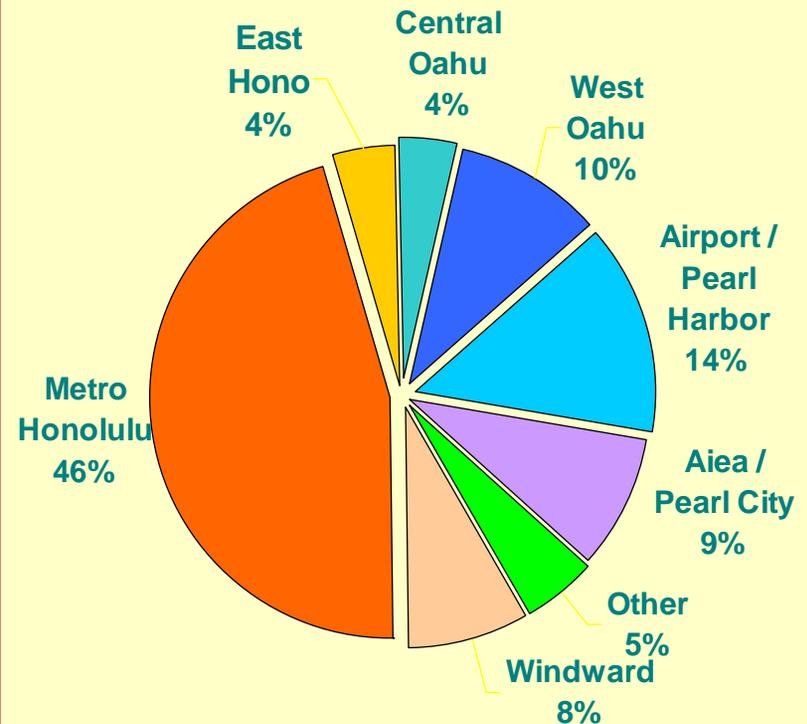
Oahu Employed: Residence vs. Work Location

Eighty percent of residents are employed or full-time students, and their need to commute is clear: the greatest proportion of residents live in West and Central Oahu, while the biggest concentration of jobs is in Metro and East Honolulu.

“In what area do you live?”



“In what area do you or the oldest employed work or go to school?”



Base: 481 residents with someone in the household who is employed or a full-time student.

Q1. In what area do you live?

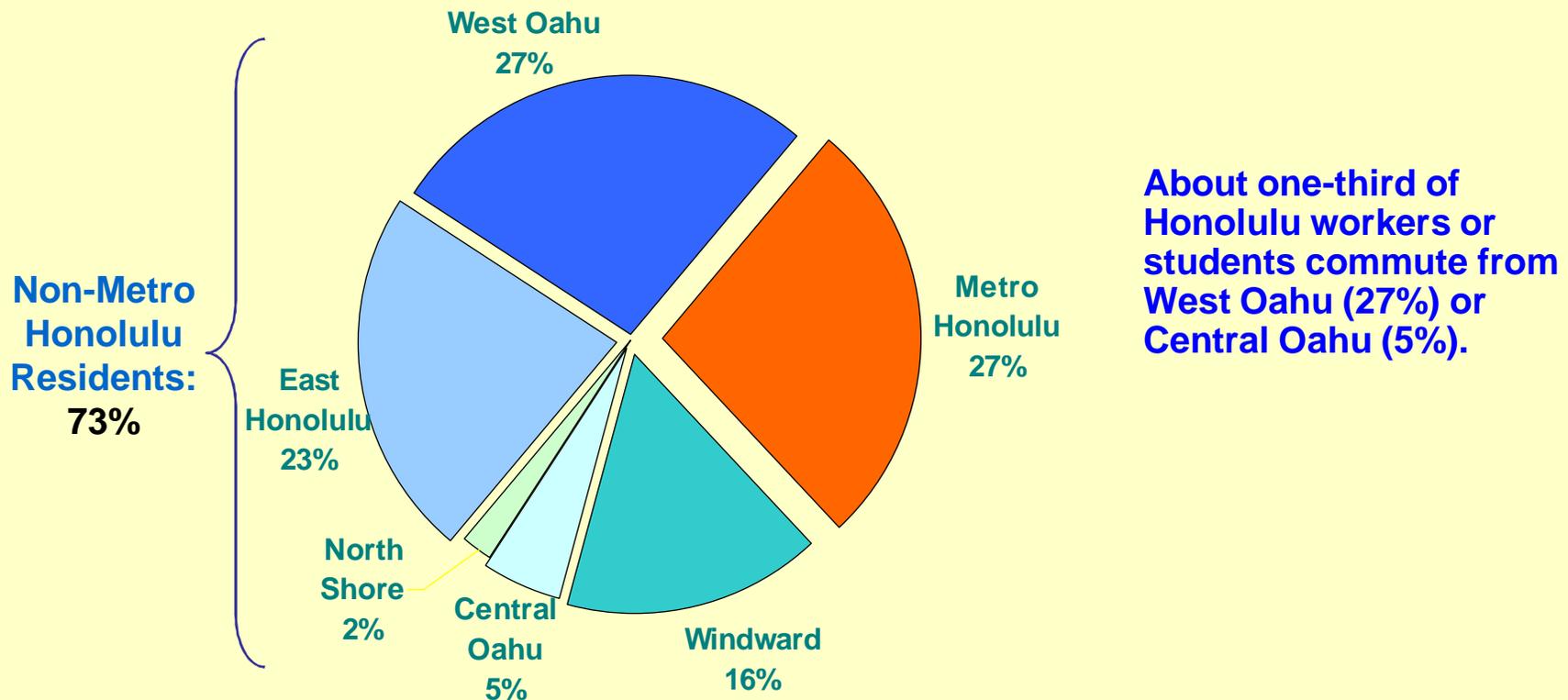
Q5. In what area do you or does the oldest employed in the household work or go to school?

Honolulu Employees: By Area of Residence

Almost three-quarters of residents who work or study in Metro Honolulu live outside Metro Honolulu. Excluding East Honolulu residents – who have a shorter commute – 50% of Honolulu employees or students live well outside the city.

HONOLULU EMPLOYEES/STUDENTS:

“In what area do you live?”



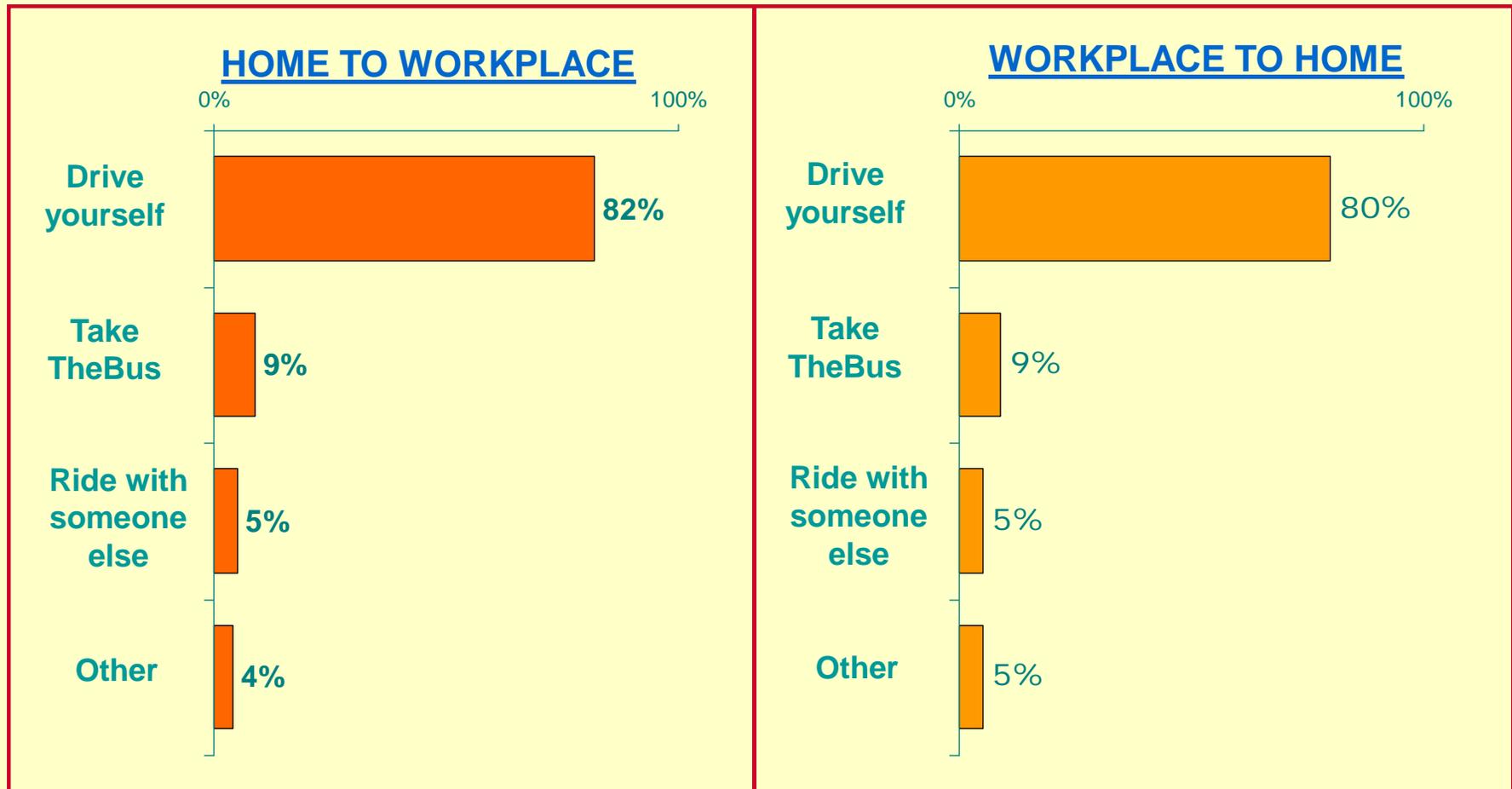
Base: 481 residents with someone in the household who is employed or a full-time student.

Q1. In what area do you live?

Q5. In what area do you or does the oldest employed in the household work or go to school?

Primary Transportation Mode

Driving is the primary mode to getting to/from work or school on Oahu. Eight in ten residents drive themselves to work/school in a car, truck, motorcycle or moped. About 1 in 10 take the bus, and 1 in 20 carpool with others.



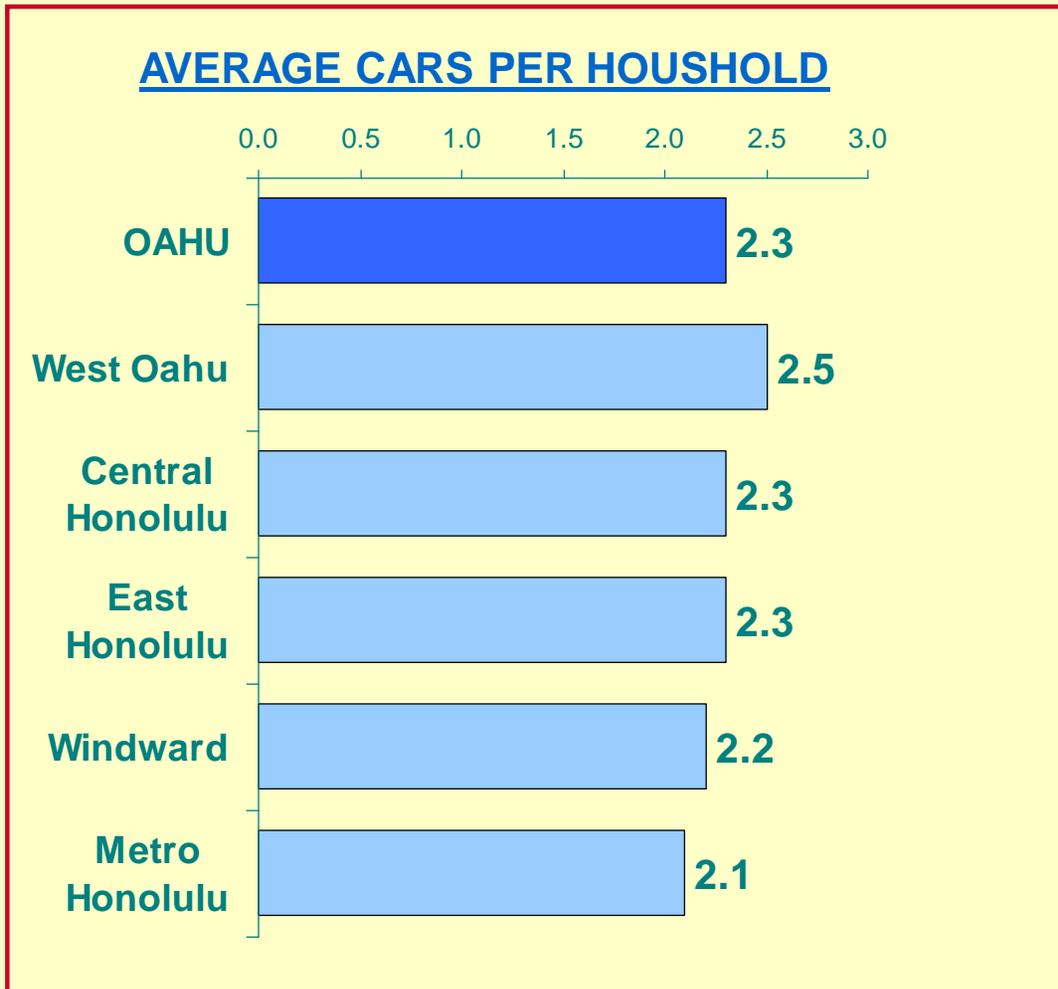
Base: 481 Oahu residents who are employed or are full-time students.

Q7a. [ASK FOR RESPONDENT IF EMPLOYED. IF RESPONDENT IS NOT EMPLOYED, ASK FOR OLDEST EMPLOYED MEMBER OF HOUSEHOLD] What is your/their primary means of transportation from home to work? Do you/they...[READ LIST]

Q7b. What is your/their primary means of transportation from work to home? Do you/they...[READ LIST]

Number of Cars Per Household

On average, Oahu households have slightly more than two cars or light trucks (mean 2.3) available to them for driving.



More cars are available to West Oahu households, and fewer to those in Metro Honolulu, on average.

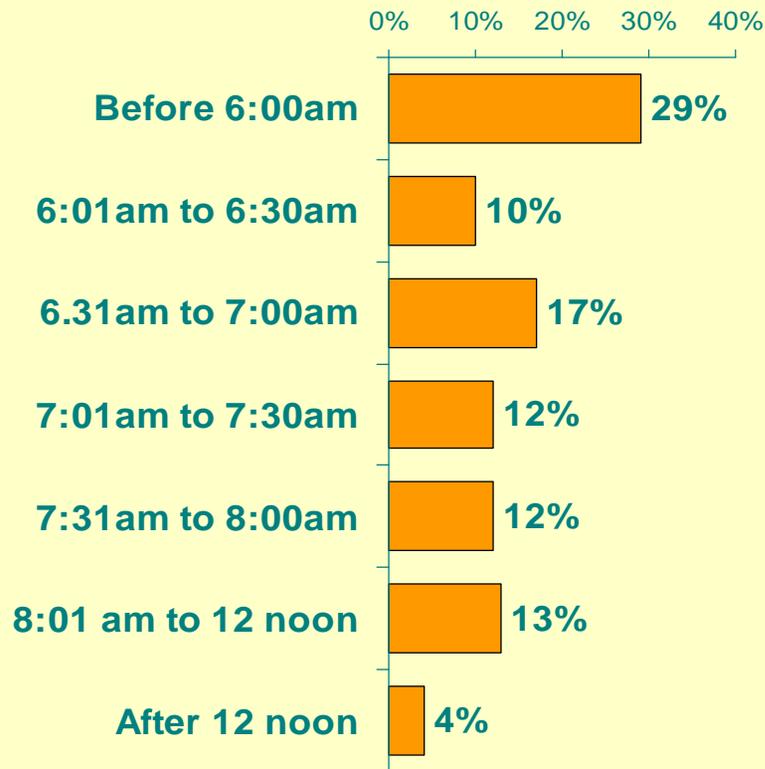
Base: 601 Oahu residents.

Q6. How many cars or light trucks are available to your household?

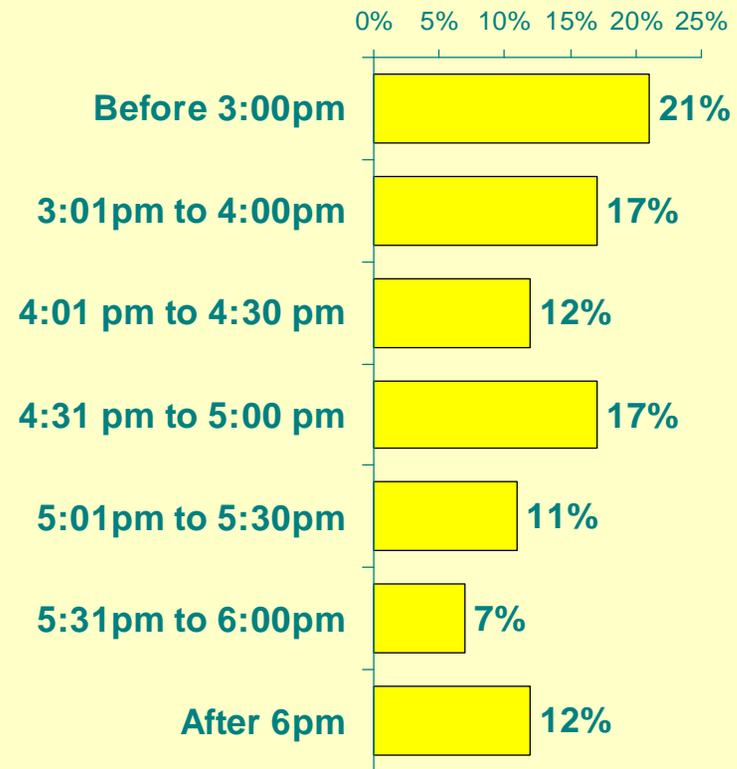
Departure Time Among Oahu Residents

In the morning, peak traffic times start before 6 am. In the afternoon, rush hour starts before 3 pm and apparently lasts through 6 pm.

TIME LEAVING HOME TO WORK



TIME LEAVING WORK TO HOME



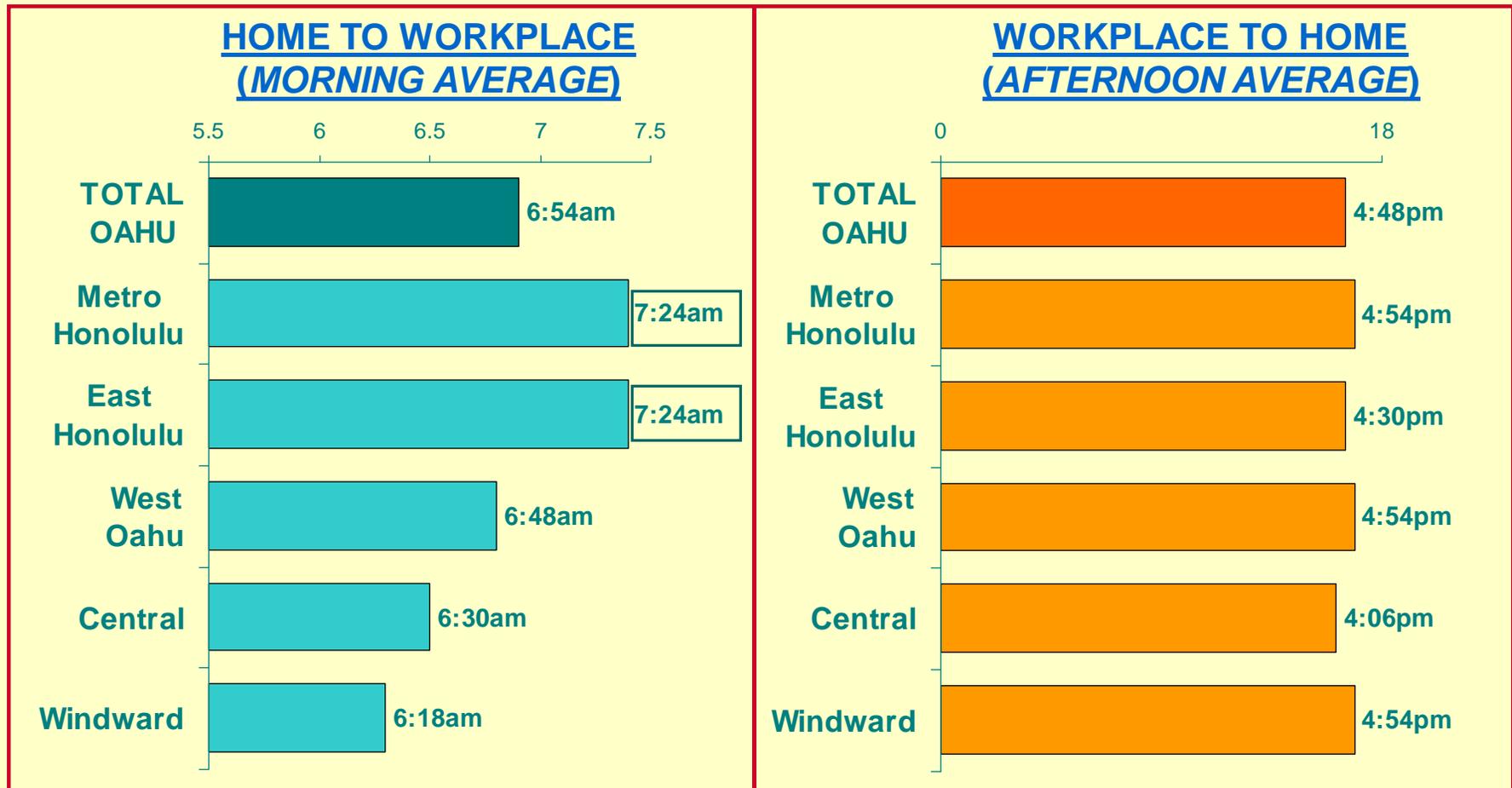
Note: Morning Average calculates the average time of those who leave home to work in the morning.
 Afternoon Average calculates the average time of those who leave work to home in the afternoon.

Base: 481 residents who are employed or full-time students.

Q6. [ASK FOR RESPONDENT IF EMPLOYED. IF RESPONDENT IS NOT EMPLOYED, ASK FOR OLDEST EMPLOYED MEMBER OF HOUSEHOLD] Given your or the oldest working member of the household working hours, at what time do you generally leave...?

Departure Time: By Area of Residence

Morning traffic from West Oahu peaks earlier than traffic from Metro Honolulu. On average, West Oahu, Central Oahu and Windward residents leave for work well before 7 a.m. By comparison, Metro and East Honolulu residents leave well after 7 a.m.



Note: Morning Average calculates the average time of those who leave home to work in the morning.
 Afternoon Average calculates the average time of those who leave work to home in the afternoon.

Base: Varies

Q6. [ASK FOR RESPONDENT IF EMPLOYED. IF RESPONDENT IS NOT EMPLOYED, ASK FOR OLDEST EMPLOYED MEMBER OF HOUSEHOLD] Given your or the oldest working member of the household working hours, at what time do you generally leave...

Demographic Profile

Profile of Respondents

	TOTAL OAHU	WEST OAHU	CENTRAL OAHU	METRO HONOLULU	WINDWARD /N. SHORE	EAST HONOLULU
BASE	601	205	57	130	105	103
GENDER						
Male	36%	39%	36%	37%	34%	32%
Female	64%	61%	64%	63%	67%	68%
AGE						
18-34	31%	40%	25%	27%	30%	21%
35-54	35%	36%	43%	34%	34%	33%
55+	34%	25%	32%	40%	36%	47%
Average	46.8	42.2	47.9	49.4	47.2	52.0
INCOME						
Less than \$35,000	18%	17%	15%	19%	22%	15%
\$35,000 but less than \$50,000	10%	10%	7%	13%	7%	14%
\$50,000 but less than \$75,000	23%	26%	27%	20%	21%	23%
\$75,000 but less than \$100,000	21%	24%	20%	20%	22%	14%
\$100,000 and over	28%	23%	31%	28%	27%	35%

Profile of Respondents

	TOTAL OAHU	WEST OAHU	CENTRAL OAHU	METRO HONOLULU	WINDWARD/ N. SHORE	EAST HONOLULU
BASE	601	205	57	130	105	103
HOUSEHOLD SIZE						
1-2	39%	36%	39%	51%	30%	40%
3-4	35%	38%	33%	26%	36%	41%
5 or more	26%	26%	28%	23%	34%	19%
Average	3.6	3.9	3.5	3.1	3.8	3.3
ETHNIC BACKGROUND						
Caucasian	17%	9%	25%	21%	20%	19%
Hawaiian/part-Hawaiian	24%	30%	13%	16%	39%	13%
Japanese	21%	15%	33%	23%	20%	26%
Filipino	12%	20%	12%	15%	5%	3%
Other *	26%	27%	17%	25%	16%	39%*

*"Other" encompasses anyone reporting an ethnic background not in the four major categories. On Oahu, this includes the smaller ethnic populations such as Chinese, Southeast Asians, African American, Samoans and Micronesians, to name a few, plus residents reporting themselves as "mixed-race."

Survey Questions

Good afternoon/evening, I'm ___ from OmniTrak Group, Inc., a professional research company in Honolulu. We're calling this afternoon/evening to conduct a brief survey on transportation matters, and I'd like to ask you a few questions if I may. First...

Are you 18 years of age or older?

Yes 1 – [CONTINUE]

No 2 – [ASK FOR PERSON IN HOUSEHOLD 18 YEARS OR OLDER AND REPEAT INTRODUCTION. IF NONE, THANK, TERMINATE & TALLY]

B. Are you a resident of the State of Hawaii for more than 6 months a year?

Yes 1 – [CONTINUE]

No 2 – [THANK, TERMINATE & TALLY]

C. Do you or does anyone in your household work for a ____ [READ LIST]?

a. Research company [THANK & TERMINATE]

b. State of Hawaii, Dept. of Transportation [THANK & TERMINATE]

c. County of Honolulu, Dept. of Transportation Services [THANK & TERMINATE]

d. Civil engineering or urban planning firms specifically for transportation services [THANK & TERMINATE]

e. Media/Advertising/Public Relations [THANK & TERMINATE]

f. Other [CONTINUE]

Q1. In what area do you live? That is, where is your home or main place of residence? [DO NOT READ]

1. Leeward Oahu (Pearl City/Pearl Ridge/Waipahu/Waikele)

2. Kapolei (Villages of Kapolei/Ko Olina/ Makakilo/ Honokai Hale/ Barber's Point/Kalaeloa/ Campbell Industrial)

3. Ewa/ Ewa Beach (West Loch/Ewa Gentry/ Fort Weaver side of Ewa)

4. Waianae Coast (Nanakuli / Maili / Waianae/ Makaha)

5. Downtown Honolulu

6. Waikiki/Kapahulu

7. Kapiolani Corridor

8. East Honolulu (Kaimuki to Hawai'i Kai)

9. UH-McCully-Moiliili

10. Pearl Harbor

11. Airport / Iwilei

12. Windward

13. North Shore

14. Central Oahu (Mililani/Wahiawa)

50=Other (Please Specify)_____

- Q2. How many cars or light trucks are available to your household?
- Q3. Are you currently employed or a full-time student?
- Q4. How many people in your household are employed or are full-time students
- Q5. **[IF RESPONDENT IS NOT EMPLOYED OR NOT A FULL-TIME STUDENT, ASK FOR THE OLDEST EMPLOYED OR ENROLLED HOUSEHOLD MEMBER]** In what area do/does the **[INSERT]** work or go to school?

AREA CODELIST

1. Leeward Oahu (Pearl City/Pearl Ridge/Waipahu/Waikele)
 2. Kapolei (Villages of Kapolei/Ko Olina/ Makakilo/ Honokai Hale/ Barber's Point/Kalaeloa/ Campbell Industrial)
 3. Ewa/ Ewa Beach (West Loch/Ewa Gentry/ Fort Weaver side of Ewa)
 4. Waianae Coast (Nanakuli / Maili / Waianae/ Makaha)
 5. Downtown Honolulu
 6. Waikiki/Kapahulu
 7. Kapiolani Corridor
 8. East Honolulu (Kaimuki to Hawai'i Kai)
 9. UH-McCully-Moiliili
 10. Pearl Harbor
 11. Airport/Iwilei
 12. Windward
 13. North Shore
 14. Central Oahu (Mililani/Wahiawa)
- 50=Other (**Please Specify**)_____

- Q6. At what time **[INSERT]** generally leave... ___You ___Oldest Person in Household
 Home for work or school: : 1=a.m. 2=p.m.
 Workplace or school for home:: 1=a.m. 2=p.m.

Q7a. What is your/their primary means of transportation from home to work? Do you/they... **[READ LIST]**

Q7b. What is your/their primary means of transportation from work to home? Do you/they... **[READ LIST]**

1. Drive yourself in your car, van or truck
2. Ride with someone else in car, van or truck
3. Take TheBus
4. Ride vanpool or other subscription service4
5. Ride HandiVan
6. Ride motorcycle/moped
7. Bike or walk
8. Other, please specify: _____

- Q8a. Generally speaking, how would you rate your satisfaction with Oahu's road system, including its surface roads, highways, and freeways? Please use a 10-point scale with 10 meaning extremely satisfied and 1 meaning not satisfied at all.
- Q8b. [IF RATED ROADS '5' OR LOWER, ASK:] Why did you rate the road system **[INSERT RATING]** out of 10? Any other reason?
- Q9. I'm going to name what some people believe are transportation challenges facing Oahu. Please tell me how important you think each is, using a 10-point scale with 10 being Extremely Important to address, and 1 being not Important At All for Oahu. **[READ LIST]**
- a. Lack of alternative routes to and from large communities
 - b. Traffic congestion on existing roadways
 - c. Inappropriate or unsafe driver behavior
 - d. Unsafe or dangerous roadways
 - e. Limited or insufficient bus service
 - f. High cost of parking in urban areas
- Q10. Now I'll read possible ways to address these issues, and you tell me how effective each would be in meeting the challenges, using a 10-point scale with 10 being extremely effective, and 1 being not effective at all for Oahu. **[READ LIST]**
- a. Widening or extending existing roads or building new roads
 - b. Improvements to and expansion of the *TheBus* system
 - c. Adding and improving bicycle facilities
 - d. Adding and improving pedestrian facilities such as sidewalks and crosswalks
 - e. Better maintenance of existing roads
 - f. Charging a fee to use high-occupancy or contra-flow lanes in congested zones **[IF RESP ASKS ABOUT TOLL ROADS, CONFIRM.]**
- Q11. I'm going to read you a list of major traffic corridors. I'd like you to rank these in order of priority to relieve traffic congestion, with "1" meaning your top priority, "2" meaning your 2nd priority, "3" meaning your 3rd priority, as so on. **[READ LIST]**
- a. Leeward Oahu to downtown Honolulu
 - b. Central Oahu to downtown
 - c. Windward/North Shore to downtown
 - d. East Honolulu to downtown
- Q12. Shifting topics, I'm going to name a few transportation projects planned to help relieve congestion on Oahu. Once again, please rank these in order of priority, with "1" meaning your top priority, "2" meaning your 2nd priority, "3" meaning your 3rd priority, as so on. **[READ LIST]**
- a. A second access road into and out of the Waianae Coast
 - b. Central Mauka Road, which is a bypass from Mililani Mauka to Pearl City
 - c. Surface roads to connect the Ewa and Kapolei communities
 - d. Improving the H-1 corridor between Leeward Oahu and downtown **[CLARIFY IF NECESSARY: By corridor, I mean the H-1 Freeway and adjacent road system between Leeward Oahu and downtown.]**

- Q13. Now let's discuss transportation funding. I'll read some proposed funding options and using 10-point scale where 10 means you strongly support it and 1 means you strongly oppose, please tell me where you stand on each proposal. The first is.... **[READ LIST]**
- a. Raising the excise or sales tax
 - b. Raising property tax rates
 - c. Raising the gasoline tax
 - d. Raising public transit fares
 - e. Adding toll charges to some roads or HOV lanes
 - f. Charging a tax for vehicle-miles-traveled
 - g. Charging a fee for driving into downtown
 - h. Permitting private entities to partner with the State or County to build more roads and to pay for them by charging tolls or fees for use
 - i. Charging fees to developers that offset the costs of infrastructure, but which may impact the price of homes in the development
 - j. Commercial vehicle tax
 - k. Raising vehicle registration fees

Now, I have a few last questions for classification purposes only. .

- D1. What was your age on your last birthday?
- D2. What is your ethnic background? **[IF MORE THAN ONE:]** With which do you identify the most?
1. Caucasian
 2. Chinese
 3. Filipino
 4. Hawaiian/part Hawaiian
 5. Japanese
 6. African-American
 7. Mixed
 8. Other Asian
 9. Hispanic
 10. Other Polynesian
 11. Samoan
 12. Korean
 13. Portuguese
 14. Native American
 15. Other

D3. How many people, including children, live in your household?

D4. What is your marital status?

1=Single, never married

2=Married

3=Divorced, separated, widowed

9=[REFUSED]

D5. What is the last grade in school you completed?

1=Less than High School

2=High School Graduate

3=Business/Trade School

4=Some College

5=College Graduate/Post Graduate

8=[DON'T KNOW]

9=[REFUSED]

[IF EMPLOYED FROM Q2]

D6. In what industry do you work?

1=Chairman/President/CEO/Executive

2=Management

3=Partner/owner/proprietor

4=Professional

5=Technical

6=Sales

7=Service for hotel/restaurant, etc.

8=Administrative/clerical

9=Not employed

20=retired

50=Other (Specify) _____

D7. Which of the following categories includes your household's total annual income from all sources before taxes for 2008? **[READ LIST]**

1=Less than \$15,000

2=\$15,000 but less than \$25,000

3=\$25,000 but less than \$35,000

4=\$35,000 but less than \$50,000

5=\$50,000 but less than \$75,000

6=\$75,000 but less than \$100,000

7=\$100,000 and over

D8. How many years have you lived in Hawaii?

1=Less than one year

2=One to four years

3=Five to nine years

4=10 to 19 years

5=20 years or more

6=Born here

D9. **[RECORD, DO NOT ASK]** Gender of respondent?

1=Male

2=Female

These are all the questions I have for you. Thank you and have a nice day.