

**Table 18.19-- ROADWAY CONGESTION FOR THE HONOLULU
URBANIZED AREA: 2002 TO 2005**

Subject	2002	2003	2004	2005
Population (1,000)	700	700	700	705
Urban area (square miles)	140	140	140	140
Population density (persons/square mile)	5,000	5,000	5,000	5,036
Peak travelers (1,000)	372	376	378	383
Daily vehicle-miles of travel (1,000)				
Freeway	5,775	5,930	6,000	6,015
Arterial streets	3,155	3,175	3,200	3,250
Cost components				
Value of time (\$/hour)	13.45	13.75	14.10	14.60
Commercial cost (\$/hour)	71.05	72.65	74.60	77.10
Fuel cost (\$/gallon)	1.72	2.03	2.38	2.63
Congested system (percent of lane-miles)	46	46	46	48
Number of daily rush hours 1/	6.4	6.6	6.8	6.8
Annual excess fuel consumed 2/				
Total (1,000 gallons)	4,930	5,466	5,680	6,255
Per peak traveler (gallons)	13	15	15	16
Annual delay (person-hours) 3/				
Total (1,000)	7,252	8,110	8,496	9,342
Per peak traveler 4/	20	22	22	24
Congestion cost 5/				
Total (\$ million)	116	134	145	166
Per peak traveler (\$)	313	355	383	434

1/ Time when system might have congestion.

2/ Increased fuel consumption due to travel in congested conditions rather than free-flow conditions.

3/ Travel time above that needed to complete a trip at free-flow speeds (60 mph on freeways and 35 mph on arterials).

4/ Extra time required to travel in the peak period divided by the number of travelers who begin a trip during the peak period (6 to 9 a.m. and 4 to 7 p.m.).

5/ Value of travel delay for 2005 (estimated at \$14.60 per hour of person travel and \$77.10 per hour of truck time) and excess fuel consumption (estimated using state average cost per gallon).

Source: Texas Transportation Institute, *2007 Annual Urban Mobility Report*
<http://mobility.tamu.edu/ums/congestion_data/west_map.stm> accessed May 20, 2008.