Commute Trip Reduction Vehicles Removed from Roadway Calculation 1993-2016

City of Bellevue 24 March 2017

Survey Cycle	Employees '93-'06 # surveys Processed '07 onward Expanded Surveys Returned	Weekly DA Trips + 1-Motorcycles (=people=vehicles)	Weekly Carpool Trips (=people)	Carpool Occupancy	Weekly Carpool Vehicles	Weekly Vanpool Trips (=people)	Vanpool Occupancy	Weekly Vanpool Vehicles
	Citywide Commute Trip Reduction (CTR)							
1993/1994	6,444	23,140	4,746	2.13	2,230	351	6.02	58
1995/1996	10,372	37,170	7,397	2.08	3,550	543	6.32	86
1997/1998	10,111	35,455	7,330	2.09	3,510	738	6.10	121
1999/2000	11,232	38,230	8,999	2.09	4,297	735	5.87	125
2001/2002	11,332	38,246	8,466	2.10	4,041	891	5.72	156
2003/2004	11,071	37,277	7,282	2.10	3,461	1,042	6.06	172
2005/2006	12,267	39,009	7,899	2.08	3,791	1,929	6.03	320
2007/2008	14,340	44,261	8,521	2.10	4,064	1,583	6.21	255
2009/2010	17,331	45,371	8,510	2.06	4,131	1,594	5.20	307
2011/2012	18,379	56,538	9,422	2.10	4,487	2,137	6.60	324
2013/2014	18,148	54,187	8,914	2.09	4,265	2,010	5.74	350
2015/2016	19,137	56,611	8,519	2.10	4,048	1,912	5.16	370

DA	6,444	23,140	
	19,137	X	
		X=	68,721
	wouldhavebeen	was	
Reduction =	68,721	56,611	12,110

Carpool	6,444	2,230	
	19,137	X	
		X=	6,623
	wouldhavebeen	was	
Reduction =	6,623	4,048	2,575

Vanpool	6,444	58	
	19,137	X	
		X=	173
	wouldhavebeen	was	
Reduction =	173	370	-197

Weekly reduction in vehicles from 1993 to 2015/2016 =	14,488	
Daily reduction in vehicles from 1993 to 2015/2016 =	2,898	Note: daily reduction estimates assume that all workers commute 5 days/wk, every week.

Notes: - Occupancy is calculated by dividing the sum of carpool or vanpool trips by the number of carpool or vanpool vehicles.
- Number of vehicles is determined by summing the result of dividing 2-pools by 2, 3-pools by 3, 4-pools by 4, and so on. (A 2-pool counts as half a car, a 3-pool as one third.)
- Estimates for occupancy from 1993 to 2007 are the average workplace occupancy (from tab 2) weighted by number of weekly carpool trips.
- Occupancy figures after 2007 are provided by the state, as the trip counts for each level of occupancy (necessary to calculate occupancy on our own) are no longer included in the aggregate reports
- Occupancy figures for 2007/2008 through 2011/2012 are statewide because the database containing Bellevue data contains errors -- retrieving these data would require help from Washington State Department of Transportation (WSDOT).
- Only the first and last measurements are used for the vehicle reduction calculation; intervening cycles are greyed out

Note on 15/16 occupancy:
WSDOT's estimate for 2015/2016 carpool occupancy was initially 1.89. The values used here were created by adjusting carpools with a reported occupancy of 1 to have an occupancy of 2, giving a more realistic estimate.

	Average carpool occupancy (new method -- avg. occupancy weighted by # carpools)	average worksite's carpool occupancy (old method -- doesn't weight for number of carpools)	From WSDOT (in use for 2009-2013)	Basis for WSDOT figures		Average vanpool occupancy (new method -- weighted)	average worksite's vanpool occupancy (old method -- doesn't weight for number of carpools)	From WSDOT (in use for 2009-2013)	Basis for WSDOT figures
1993/1994	2.13	2.07			1993/1994	6.02	5.99		
1995/1996	2.08	2.06			1995/1996	6.32	6.58		
1997/1998	2.09	2.06			1997/1998	6.10	6.14		
1999/2000	2.09	2.07			1999/2000	5.87	5.80		
2001/2002	2.10	2.08			2001/2002	5.72	5.83		
2003/2004	2.10	2.09			2003/2004	6.06	6.01		
2005/2006	2.08	2.08			2005/2006	6.03	5.95		
2007/2008	2.10	2.09	**2.02**	statewide	2007/2008	6.21	6.23	**5.19**	statewide
2009/2010			**2.06**	statewide	2009/2010			**5.20**	statewide
2011/2012			**2.10**	statewide	2011/2012			**6.60**	statewide
2013/2014			**2.09**	citywide	2013/2014			**5.74**	citywide
2015/2016			**2.10**	citywide	2015/2016			**5.16**	citywide