

Appendix D: Transit Model



APPENDIX D

Transit Model

INTRODUCTION

This appendix presents the models that were used in the development of the non-program trips/ridership for each of the three alternatives in Chapter X.

The following models/tables are based on the rural transit demand model and methodology presented in Chapter V.

Alternative Model Results

The following tables present the results of the non-program trips for each alternative. These tables are based on the service area and operations of the transit alternatives from Chapter X.

**Table D-1
Alternative I - Estimated Non-Program Transit Demand using the TCRP Method**

County	Census Tract	Census Block Group	Transit Analysis Zones	Area Description	Estimated Annual Passenger-Trip Demand					Estimated Daily Transit Demand		Daily Demand Density (Trips per Sq. Mile per Day)
					Elderly	Mobility Limited	Elderly + Mobility Limited	General Public	Total Annual Demand	#	%	
Yellowstone											0.0%	0.0
Big Horn	9405	2	2	Pryor	150	40	190	530	720	3	8.3%	0.1
											0.0%	0.0
											0.0%	0.0
	9405	3	6	Saint Xavier	30	20	50	40	90	0	0.0%	0.0
											1.0%	0.1
											0.0%	0.0
	9406	1	8	Crow Agency	440	250	690	1,970	2,660	10	30.7%	3.3
											24.0%	0.1
9406	2	10	Benteen	10	0	10	40	50	0	0.6%	0.1	
9407	1	12	Spear	60	30	90	220	310	1	3.6%	0.0	
				80	40	120	290	410	2	4.7%	0.2	
												0.0%
9407	2	15	Lodge Grass	320	210	530	1,810	2,340	9	27.0%	1.7	
											0.0%	0.0
Totals					1,430	790	2,220	6,440	8,660	34	100%	

Source: LSC, 2007, 2000 US Census, Montana Census and Economic Center, Department of Commerce, 2006.

Table D-2
2005 Estimated Non-Program Transit Demand using the TCRP Method

County	Census Tract	Census Block Group	Transit Analysis Zones	Area Description	Estimated Annual Passenger-Trip Demand					Estimated Daily Transit Demand		Daily Demand Density (Trips per Sq. Mile per Day)
					Elderly	Mobility Limited	Elderly + Mobility Limited	General Public	Total Annual Demand	#	%	
					Yellowstone	9405	1	1	NW Corner of Crow Reservation, Soda Springs	130	30	
Big Horn	9405	2	2	Pryor	110	30	140	390	530	2	5.3%	0.1
			3	North of Big Canyon National Recreation Area	80	30	110	300	410	2	4.1%	0.0
			4	North Fort Smith	0	0	0	0	0	0	0.0%	0.0
	9405	3	5	South Fort Smith	60	40	100	90	190	1	1.9%	0.4
			6	Saint Xavier	20	10	30	30	60	0	0.6%	0.0
			7	East of Big Canyon National Recreation Area	210	140	350	290	640	3	6.4%	0.0
	9406	1	8	Crow Agency	310	200	510	1,430	1,940	8	19.3%	2.4
			9	Dunmore	250	150	400	1,130	1,530	6	15.2%	0.1
	9406	2	10	Benteen	10	0	10	30	40	0	0.4%	0.1
			11	NW Corner of Crow Reservation, E of I-90	120	30	150	450	600	2	6.0%	0.0
9407	1	12	Spear	40	20	60	160	220	1	2.2%	0.0	
		13	Wyola	60	30	90	210	300	1	3.0%	0.2	
		14	W of I-90, Aberdeen	230	110	340	870	1,210	5	12.0%	0.0	
9407	2	15	Lodge Grass	230	160	390	1,330	1,720	7	17.1%	1.3	
9407	3	16	SE Corner of Crow Reservation, E of I-90	60	0	60	280	340	1	3.4%	0.0	
Totals					1,920	980	2,900	7,150	10,050	39	100%	

Source: LSC, 2007, 2000 US Census, Montana Census and Economic Center, Department of Commerce, 2006.

**Table D-3
2005 Estimated Non-Program Transit Demand using the TCRP Method**

County	Census Tract	Census Block Group	Transit Analysis Zones	Area Description	Estimated Annual Passenger-Trip Demand					Estimated Daily Transit Demand		Daily Demand Density (Trips per Sq. Mile per Day)
					Elderly	Mobility Limited	Elderly + Mobility Limited	General Public	Total Annual Demand	#	%	
Yellowstone	9405	1	1	NW Corner of Crow Reservation, Soda Springs	150	30	180	180	360	1	4.7%	0.0
Big Horn	9405	2	2	Pryor	120	40	160	430	590	2	7.7%	0.1
			4	North Fort Smith	0	0	0	0	0	0	0.0%	0.0
	9405	3	5	South Fort Smith	70	50	120	100	220	1	2.9%	0.4
			6	Saint Xavier	20	10	30	30	60	0	0.8%	0.0
	9406	1	8	Crow Agency	350	210	560	1,590	2,150	8	28.2%	2.7
			9	Dunmore	280	170	450	1,260	1,710	7	22.4%	0.1
	9406	2	10	Benteen	10	0	10	30	40	0	0.5%	0.1
	9407	1	12	Spear	50	20	70	180	250	1	3.3%	0.0
13			Wyola	60	30	90	240	330	1	4.3%	0.2	
9407	2	15	Lodge Grass	260	170	430	1,480	1,910	7	25.1%	1.4	
9407	3											
Totals					1,370	730	2,100	5,520	7,620	30	100%	

Source: LSC, 2007, 2000 US Census, Montana Census and Economic Center, Department of Commerce, 2006.