

APPENDIX E: VISITOR PROJECTION

To determine potential impacts of the proposed alternatives on visitor use within the planning area, past and present use levels were examined and future scenarios were estimated. The analysis for the two action alternatives, Peters Hills and the Parks Highway, employs the same methodology and assumptions for estimating future use projections. It is important to note that the developments would vary in size and access, but the facilities are generally comparable at this scale of analysis. General variations in visitor projections are noted for each facility.

Past visitor use levels and trends were obtained from recent area plans, Alaska Visitor Statistics Program (AVSP) data, and interviews with local land managers and tourism representatives. Existing use levels for visitation and recreation activities were established for Denali National Park and Preserve (Denali NPP) and Denali State Park from agency data.

To begin to assess potential visitation levels for new visitor facilities without a previous history of use, qualitative comparisons with similar facilities can be used to forecast visitation (Gramann 2003). When employing qualitative comparisons with similar facilities to forecast visitation, it is important to choose variables of comparison that are consistent across all sites (Gramann 2003). To estimate a baseline of visitor use for a South Denali visitor center, at either the Peters Hills or Parks Highway locations, 2004 visitation numbers were compared from Denali NPP, Wrangell-St. Elias NPP, Kenai Fjords NP (Table A-1), and the Alaska SeaLife Center. Parks or visitor facilities were chosen for direct comparison that were accessible by the road system, were more than a one-hour drive from Anchorage, or served as recreation destinations. (Rationale and background information for each of these sites are presented below.) The use statistics from these four facilities likely encompass the upper and lower visitor use scenarios of a South Denali facility. Since there are no previous visitor statistics specific to a South Denali facility to use for projection purposes, an average of the four facilities listed above was taken for a relative estimate, as discussed below.

Denali NPP visitor numbers include mountain climbers and air tour passengers who typically would not use the visitor center, as these activities are typically based out of Talkeetna. Using the visitation calculation methodology of the park (NPS 2005), it can be assumed that 80% of the reported visitation actually passed through the visitor center for Denali NPP, resulting in 323,389 visitors to the visitor center in 2004.

The adjusted visitation number from Denali NPP (323,389) was averaged with the visitation for Wrangell-St. Elias NPP (57,221), Kenai Fjords NP (244,232), and the Alaska SeaLife Center (150,000) creating an estimated baseline of 193,710 visitors to a South Denali facility.

As previously mentioned, there would be differences in facility size and access. The Peters Hills facility would be smaller and less conveniently located for large tour groups;

the Parks Highway facility would be larger and would have easier access from the Parks Highway, facilitating use by large tour groups. Thus, the visitation levels at the Parks Highway facility could be higher than visitation levels at the Peters Hills facility. Due to greater distance from the highway, the Peters Hills facility could have a lower number of visitors, tending more toward the visitation levels seen at the Wrangell-St. Elias Visitor Center.

As a comparison for visitor use estimates in the area, the analysis for the *Summary Report for the Socioeconomic Impact Analysis of Denali South Side Development Concept Plan Alternatives* (1995) projected 225,421 visitors to the proposed Tokositna visitor center site in 2005. These two analyses yielded comparable visitor use estimates.

Table A-1: Visitation for Select Alaskan National Park Units, 1997 - 2004

Year	Denali NPP	Glacier Bay NPP	Kenai Fjords NP	Klondike Gold Rush NHP	Wrangell-St. Elias NPP	Sitka NHP
1997	354,278	347,046	306,164	655,858	31,833	269,606
1998	372,519	403,512	263,948	679,980	27,859	159,965
1999	386,867	442,607	290,673	693,883	29,252	197,809
2000	363,983	384,684	254,790	697,051	28,331	194,053
2001	360,192	380,114	262,353	713,436	28,643	211,984
2002	311,335	408,143	251,799	754,436	40,352	295,094
2003	360,189	366,319	243,719	844,576	43,311	251,036
2004	404,236	353,686	244,232	843,623	57,221	297,139

Note: NPP = National Park and Preserve; NHP = National Historic Park (NPS 2005)

Three visitation scenarios were created (low, medium, high) (Table A-2) based on visitor growth estimations performed as part of a community transportation study for the park frontcountry (HDR Inc, 2005). The term “scenario” is used, rather than “projection,” to stress the speculative nature regarding unsettled future events. The growth rates were derived from the total visitation growth expected to the Denali frontcountry over the next 10 years, which in turn are based on analysis of changes in various visitor segments (such as independent traveler or cruise-tour traveler). The rough growth rates and visitor projections for a South Denali facility are as follows.

Table A-2: Visitation Scenarios for South Denali Visitor Center for 2010 and 2015

South Denali Visitor Facility	2010	2015
Low Growth Scenario (2%)	218,149	240,854
Medium Growth Scenario (4%)	245,105	298,208
High Growth Scenario (6%)	274,781	367,719

Levels of growth could also be closely tied to cruise industry numbers, given the amount of package tour use the area currently receives. It is impossible to predict at this point whether a new South Denali visitor center would serve as a substitute (visitors only stop at this facility for their Denali experience) or a compliment (as use increases in the north side, use would increase in the South Denali region) to the current visitor center.

Background Information for Assessment Methodology

Examination of the methodology used to collect the visitation numbers in Table A-2 shows that the different park units counted both recreational and non-recreational visitors, including visitors entering the park's visitor center (NPS 2005). Park visitor use figures also do not distinguish between Alaska resident and non-resident visitors. For Denali NPP, visitation numbers are primarily determined by front-country use surrounding the park road.

Wrangell-St. Elias NPP recently remodeled their visitor center and headquarters building in Copper Center; the new facility opened in 2002. That year, Princess Lodges also opened their Copper River Princess Wilderness Lodge – the first major tourism project for the region. The lodge is located four miles from the visitor center. In Table A-1 the dramatic increase seen in visitation starting in 2002 could be attributed to the combination of a new, accessible visitor center and a new destination for package tour visitors to Alaska. The similarities of the alternatives for the South Denali facilities and the existing facility at Wrangell-St. Elias include the following: they are on the road system; they are not in close proximity to large population centers; they are in close proximity to package tourism lodges; and they are regional recreation destination facilities.

Visitation levels at Kenai Fjords NP are also a useful comparison for this analysis. The park's visitor center, located in Seward, is a similar distance to travel by highway from Anchorage as a South Denali facility would be. Visitors to Exit Glacier are counted in the overall counts as well as visitors to the Seward visitor center. A facility in the South Denali area would also have related outdoor recreation opportunities. Because Seward is a major loading and unloading point for cruise passengers, package tours influence the park's visitor numbers, similar to the expected situation in the South Denali area.

Another popular Alaskan tourist destination is the Alaska SeaLife Center, located in Seward. As mentioned earlier, Seward is a several-hour drive from Anchorage, making its accessibility comparable to a South Denali visitor center location. The SeaLife Center is more of a recreation destination facility than the Kenai Fjords visitor center. The Center received approximately 150,000 visitors in 2004 (Stephens 2005). The recreation destination status of the facility and proximity of this facility to Anchorage allow for comparisons to be made with the proposed action alternatives.

In addition, information on current visitation and use trends in the South Denali region, as well as current modes of access to the region, were considered.

General Visitation and Access to the South Denali Region

There are multiple points and modes of access that visitors to the South Denali planning area may choose from, which make it difficult to estimate visitor use levels. People are willing to invest large amounts of time and money to visit Alaska. In recent years, the proportion of visitors coming to Alaska on package commercial tours has been increasing. Visitors reached Alaska during the 2004 summer tourism season by domestic

commercial air (53 percent), commercial cruise ships (37 percent), personal vehicle (6 percent), international commercial air (2 percent), motorcoach (1 percent), or by ferry on the Alaska Marine Highway (1 percent) (Northern Economics Inc. 2004).

The Alaska Visitor Statistics Program (AVSP) is an on-going research project by the State of Alaska that provides information on the number of visitors, demographics and characteristics of the visitor population, and other visitor activities and opinions. The most recent survey was done in 2000-2001. In non-survey years, secondary arrival reports are prepared that are based on visitor counts from the survey years. Secondary arrival reports for visitors to Alaska (non-residents traveling to Alaska) in Summer 2004 totaled 1,447,400 visitors, or an increase of 10 percent over arrivals in 2003 (1,310,100). This substantial increase in visitors to Alaska can also be seen in a 15 percent increase (620,900 to 712,400) in cruise ship arrivals over the same time period, a seven percent increase in domestic air arrivals (569,700 to 607,800), and a 20 percent increase in international air arrivals (23,200 to 27,800). Since 1993, cruise ship arrivals have almost tripled, increasing from 247,000 visitor arrivals in 1993 to 712,400 in 2004 (Northern Economics Inc. 2004).

The use of the Alaska Railroad (AKRR) as a means of transport to the South Denali region has been increasing over the past several years, coinciding with the increase of packaged tours available (NPS 2003a). One train daily comes into the Denali station from Anchorage and another from Fairbanks. Currently, there are stations at Wasilla and Talkeetna, between Anchorage and North Side Denali. The number of total arrivals, including Anchorage and Fairbanks arrivals to the Denali station, showed strong growth between 2003 and 2004, increasing from 137,888 to 161,790 respectively (Kiger 2005). Plans for 2005 include the introduction of first class train cars to the Anchorage/Denali NPP/Fairbanks route, and to include Denali NPP as part of a new Arctic Circle to Glacier Bay Tour. Princess Tours, Royal Celebrity, and Holland-America Westours each own rail passenger cars on the AKRR that bring visitors into the region. Passenger trains during the summer months are usually no longer than 20 cars, including those leased by the cruise companies. Princess is planning on using their own "Denali Express" car package pulled by AKRR from their new docking location in Whittier, allowing passengers to reach Denali NPP in one day. The AKRR is also exploring the reactivation of the Curry Station, and working with Mahay's Riverboat Service to bring Princess guests across the river to the McKinley Princess Lodge. The 10% increase in ridership between the 2003 and 2004 seasons can also be attributed to increases within the package tour passengers (Kiger 2005). Total arrivals into the Denali Station have been steadily increasing since 2000, with arrival numbers always exceeding departure numbers (Table A-3).

Table A-3: Total Arrivals and Departures on Alaska Railroad into Denali Station 2000-2004

Year	Total Arrivals at Denali Station	Total Departures at Denali Station
2000	153,428	144,718
2001	147,341	141,158
2002	152,253	141,809
2003	137,888	129,391
2004	161,790	152,124
Total	752,700	709,200

The Mt. McKinley Princess Lodge opened in 1997. It is situated on the Chulitna River, within Denali State Park, at MP 133 of the Parks Highway (south of Denali NPP entrance). The lodge originally had 238 rooms available, however in 2004 it underwent a remodel, and added 96 more room, for a total of 334 (McKim 2005). Package tour passengers staying at the McKinley Princess get off the cruise ship in Whittier, and then take the Alaska Railroad to Talkeetna where they transfer to coaches for transportation to the lodge. The hotel has established many different options for visitor activities within the south side area, including river rafting, nature walks, and helicopter tours. The Matanuska-Susitna Borough bed tax revenues for the past nine years (FY 1995 to FY 2004) show a steady increase for the period from July to December each year. The period from January to June has held fairly steady during the same time period. During the later half of the year, revenues have increased from \$86,397 in FY 1995 to \$634,100 in FY 2004. This increase can be attributed to the growing numbers of hotel and lodge facilities in the Mat-Su Borough, as well as the increases in numbers of people visiting and staying overnight there (McKim 2005).

Traffic on the George Parks Highway fluctuates greatly throughout the year and also varies in different places along the road. Recent Alaska Department of Transportation and Public Facilities data on average daily traffic (ADT) in both directions was obtained for George Parks Highway at crossings and intersections near the Petersville Road and Talkeetna. In 1995 the ADT on the George Parks Highway at Trapper Creek at or near the junction with the Petersville Road was 1,285 vehicles per day, increasing from 1,000 vehicles in 1993 and from 1,020 in 1990. For Talkeetna Junction the 1995 ADT figure was 1,500, increasing from 1,300 in 1993, but decreasing from 1,800 in 1990. For Talkeetna Road near the town of Talkeetna, the figure was 1,252, compared to 1,000 in 1993 and 840 in 1990. At Byers Lake, ADT on the George Parks Highway was at 1,200 in 1995, 980 in 1993, and 821 in 1990. Note, however, that these figures refer to year-round traffic flows. If traffic flows were considered during the summer months only, the ADT during these months could be about two times as high.

Petersville Road is classified as a minor collector with an overall length of 36.4 miles consisting of a paved section leading to gravel. State maintenance ends at the Kroto Creek parking area in the winter months with maintenance during the summer months past Kroto Creek dependant on road conditions, staff availability, equipment, time and budgetary constraints. The State Department of Transportation and Public Facilities tries to run a grader the full length of road at least once during the summer months.

The paved portion of Petersville Road exists from the intersection of the Parks Highway and Petersville Road to about MP 9.6. The pavement is in fairly good condition with a gravel shoulder along most of it. From the end of the pavement to the Kroto Creek Bridge (a 4.3 mile section) the road consists of a wide gravel driving surface with few potholes and fair ditching. Due to the lack of parking facilities for the summer and winter recreational users, the Kroto Creek pullout has been increased in size to accommodate approximately 300 vehicles. This does not meet the current demand for parking, however. From Kroto Creek Bridge to Forks Roadhouse (a 5.1 mile section) the road is noticeably narrower with more potholes that cause motorists to weave from lane to lane to try to avoid the more severe potholes. The roadbed is lower than the surrounding land causing drainage to parallel and cross the roadway at various locations. From the Forks Roadhouse to just prior to the canyon entrance the road is in very poor condition and is basically graded mineral soil. Portions of the road could be described as “pond like.” The poor drainage is due to several factors: low roadbed, poor to non-existent ditching, culverts either non-existent or crushed, brush encroaching the roadbed, corduroy protruding through the roadbed, and general overall disrepair of the roadbed facility. This section is about 13 miles (Boneta 2003).

Alaska DOT&PF traffic projections for Petersville Road are shown in Table A-4. The growth rate of 4% is a common growth rate for this area.

Table A-4: Traffic Projections for Petersville Road

Location	Start Milepoint	End Milepoint	2004 Average Daily Traffic	10 Year Projection	20 Year Projection
Parks to Elementary School	0.000	2.670	320	473.7	701.2
Elementary School to Trailridge Rd	2.670	7.860	230	340.5	504.0
Trailridge Road to Kroto Creek	7.860	13.900	78	115.5	170.9
Kroto Creek to Peters Creek Airstrip Rd	13.900	18.320	51	75.5	111.7
Peters Creek Airstrip Rd to Cache Creek Rd	18.320	36.410	36	53.3	78.9

Denali State Park

The primary visitor contact station for Denali State Park is at Byers Lake where there is a visitor and interpretive center for the Alaska Veterans Memorial. Buses from package tour companies usually stop once in Denali State Park, either at one of the viewpoints or at the Veterans Memorial. In 2004, the Veterans Memorial received 54,110 visitors, up from 33,619 visitors in 2003. The number of buses stopping at the visitor center increased as well, going from 853 in 2003, to 1096 in 2004. These dramatic increases

could be attributed to the fact that the Denali Viewpoint South was closed until late August 2004 for construction. However, the numbers of tour buses do not include Princess Tours buses (Heikes 2005). As in Denali NPP, most park visitation occurs during the months of June, July, and August. During the winter months, only the two public use cabins at Byers Lake remain open. State park staff attempt to collect visitor count data whenever possible; however, the numbers can vary widely due to factors such as construction closing a site, or employee/volunteer turnover (formula used to calculate visitor counts at a site changes). Visitor calculations take into consideration the number of vehicles parked at a site, average stay, and average number of people per vehicle. General trends and ranger reports indicate that visitor numbers are steadily increasing at popular state park sites such as the Veterans Memorial and the Kesugi Ridge Trail system, and visitor numbers are predicted to continue to rise as the cruise industry continues to increase their bus traffic into the area (Heikes 2005).

Based on raw data visitor counts provided by the Alaska Division of Parks and Outdoor Recreation, visitation to Denali State Park increased from 399,607 in fiscal year 1990 to 474,699 in fiscal year 1995 for an average annual growth rate of 3.5%. From fiscal year 1996 through fiscal year 2003 visitation dropped from 357,472 to 280,262. A variety of factors are at play in accounting for this decline:

- There has been a drop in the numbers of independent travelers that drive to Alaska due to the rising cost of gasoline.
- Popular destinations in Denali State Park have had construction projects, resulting in their closing for all or part of the visitor season: Denali View North Campground, the Alaska Veterans Memorial, Byers Lake Campground, and Denali View South
- Budget cuts reduced the ranger staff in the park from three to one, resulting in a greater dependence upon inconsistent visitor counting by volunteer staff.

While it should be noted that the Division of Parks and Outdoor Recreation considers the reliability of state park visitation data to be questionable except for purposes of providing rough orders of magnitude in regard to visitation levels as well as past trends, general information on Denali State Park visitation includes the following:

- Non-resident visitors to Denali State Park are at least 33% of the total visitation, based upon vehicle license plates. This figure does not capture non-residents that fly to Alaska and rent vehicles. This has remained remarkably constant over the last 10 years.
- Peak visitation typically occurs in July.
- Summer visitors (May-August) comprise about 80% of the annual visitation to Denali State Park.
- The two developed scenic viewpoints (Denali View South and Denali View North and the Alaska Veterans Memorial) account for about 42% of the park's visitation.
- The three campgrounds in the park account for about 42% of the park's visitation.

- Backcountry use accounts for at least 3% of the visitation, but lack of consistent backcountry visitor counts keep park managers from having accurate data. Backcountry users do not have to register to use Denali State Park.
- Most visitors stop along the Parks Highway within Denali State Park at various pullouts and undeveloped scenic views.

Denali National Park and Preserve

Denali NPP has the largest visitation of any national park in Alaska. This popularity has been attributed to its strategic location between Anchorage and Fairbanks, ease of access by both rail and road, the fame of its resources, and its relatively long history in the national park system.

The annual visitation for Denali NPP for the years 1985 through 2001 is listed in Table A-5. Counting and reporting procedures for the park were modified in 1992 and 1995; therefore data before and after these years are not directly comparable. The number of recreational visits is the main visitation figure used by managers. Recreational visits are defined as entries of people onto lands or waters administered by the National Park Service (NPS) for recreational purposes, excluding government personnel, through traffic (commuters), trades people, and park residents (NPS 2003a). Trends from 1996 to 2000 show an annual average rate of growth for recreational visits at around 1.1% (Table A-5).

Overnight use of Denali NPP is also documented in Table A-5. An overnight stay is defined as one visitor spending one night in the park for recreational purposes, and is counted separately from a recreational visit (NPS 2003a). Overnight stays in the park have been essentially unchanged over the past 15 years. The anomalous drop in 2002 was likely the result of a recordkeeping issue for campground stays, and should not be considered as a distinct change in visitation patterns. Other variations are the result in changes in park facilities, for example the concession-operated hotel was closed after the 2001 season, Morino Campground was closed and Riley Creek Campground expanded with portions closed for reconstruction over a period of two years. Backcountry overnight stays have increased since 1985, going from 26,029 to 34,016 in 2004.

A 2003 survey of visitors to the Matanuska-Susitna Borough who were not part of a cruise ship package tour showed that over three-quarters (77%) of respondents spent at least one night in Denali NPP (McDowell Group 2003). A vast majority of visitors to the park come from out-of-state. According to a 1995 survey, 90% of the visitors that year were from out-of-state. Included in that figure were a notable number of international visitors (12%). During the off-season (October through April), the majority of visitor use is by Alaska residents (NPS 1997b).

Most park visitation occurs during the months of June, July and August, even though Denali NPP is open year-round (Table A-6). Almost all of the visitor use is concentrated on the north side of the park along the 88.5-mile park road corridor between the George Parks Highway and Wonder Lake (NPS 1997a). The park road corridor typically opens sometime after mid-May and closes in mid-September. Weather is the determining factor

for the actual opening and closing dates of the park road. In the winter, the interior areas of the park are only accessible by dog sled, snowshoes, cross-country skis, or snowmachine (where permitted) (NPS 2003a).

Table A-5: Recreational Visitation for Denali National Park and Preserve, 1985-2004

Year	Overnight Stays ²						Total Overnight Stays
	Recreational Visits ¹	Percent Change ³	Concessioner Lodging	NPS Campgrounds	NPS Group Campgrounds	NPS Backcountry	
1985	436,545	-	28,020	67,963	3,001	26,029	125,013
1986	529,749	21.4	29,752	67,071	2,693	27,999	127,515
1987	575,013	8.5	23,780	65,649	2,086	28,962	120,477
1988	592,431	3.0	22,101	77,500	1,191	29,460	130,252
1989	543,640	8.2	23,429	63,789	1,637	34,113	122,968
1990	546,693	0.6	24,459	56,329	1,534	35,918	118,240
1991	558,870	2.2	24,311	62,539	2,683	29,798	119,331
1992	503,674	9.9	27,452	73,066	2,831	38,262	141,611
1993	505,565	0.4	25,683	63,957	2,034	33,010	124,684
1994	490,311	3.0	23,942	63,082	2,592	41,455	131,071
1995	544,209	11.0	24,459	65,105	1,807	39,500	130,871
1996	341,385	-	23,586	59,871	2,240	37,188	122,885
1997	354,278	4.1	22,223	65,999	2,019	39,224	129,465
1998	372,519	5.1	18,330	64,438	962	37,504	121,234
1999	386,867	4.7	19,912	66,722	1,349	35,826	123,809
2000	363,983	-5.9	19,095	67,431	1,883	32,579	120,988
2001	360,192	-1.0	19,106	42,830	1,457	35,306	98,699
2002	353,560	-1.8	na	26,309	455	36,212	62,976
2003	359,841	1.8	na	62,570	801	34,127	97,498
2004	404,236	12.3	na	85,752	3,309	34,016	123,077
Annual Average Rate of Growth (compounded)							
1985-1995	2.2%	na	1.3%	0.4%	4.9%	4.3%	0.4%
1990-1995	0.1%	na	0%	2.9%	3.3%	1.9%	2.1%
1996-2000	1.1%	na	-4.1%	2.4%	-3.4%	-2.6%	0.2%

Note: na = not applicable

1 – Number of people entering the park and preserve during any part of the day

2 – Person-nights

3 – The concessioner lodging was the Denali Park Hotel, which closed after the 2001 season.

Source: (NPS 2005c)

Table A-6: Monthly Visitation for Denali National Park and Preserve, 2003-2004

Month	2003		2004	
	# Visitors	% of Total	# Visitors	% of Total
January	979	0.3	313	0.1
February	524	0.1	392	0.1
March	751	0.2	1,441	0.4
April	2,985	0.8	3,087	0.8
May	27,260	7.6	30,132	7.5
June	88,471	24.6	100,127	24.8
July	104,686	29.1	116,601	28.8
August	97,821	27.2	108,097	26.7
September	34,639	9.6	39,969	9.9
October	889	0.3	2,525	0.6
November	374	0.1	1,059	0.3
December	462	0.1	493	0.1
Total for Year	359,841	100.0	404,236	100.0

Note: All measurements are given as the number of people entering the park and preserve during any part of the day.

Source: (NPS 2005c)

There are multiple points and modes of access that visitors to the South Denali planning area may choose from, which make it difficult to estimate visitor use levels. Talkeetna has traditionally served as the starting point for mountaineering expeditions into Denali NPP, and as a hub of commercial air taxi, flightseeing, and other activities for the planning area. However, there are approximately 36 aviation companies between Anchorage and Fairbanks along the Parks Highway that advertise tours in portions of Denali NPP. The volume of traffic into the park from these tours, and the number of landings is growing rapidly (NPS 2003a). Scenic tour flights concentrate their landings in three main locations, with the Ruth Glacier as the most popular of these areas. Relatively few private aircraft land in the park because of weather, topography, and glacial/snow conditions.