Social and Economic Analysis

Introduction

This section contains information on the legal and administrative framework within which decisions must be made, a section on the affected social and economic environment to set context, an analyses of economic impacts by alternative, a financial efficiency analysis (present net value (PNV), distribution analysis (includes effects on employment and labor income for two modeled areas), social impact analysis, and a discussion and estimate of cumulative effects.

Laws, Policy, and Direction

- The **Multiple-Use Sustained-Yield Act of 1960** identifies guiding principles for managing the resources of the National Forest System. The direction to manage these resources for the greatest good over time necessitates the use of economic and social analysis in determining management of the National Forest System.

- The **National Environmental Policy Act of 1969** requires that before any agency of the federal government may take actions significantly affecting the quality of the human environment, that agency must examine not only the potential impacts of that action on physical and biological resources, but also the socioeconomic consequences (40 CFR 1508.14).

- The **Forest and Rangeland Renewable Resources Planning Act of 1974**, as amended by the **National Forest Management Act of 1976**, establishes the requirement to consider economic effects in the land management planning process.

- **Title 36 Code of Federal Regulations Part 219** implements sections 6 and 15 of the National Forest Management Act. It provides guidelines for evaluating alternatives in forest plans and requires consideration of economic and social factors.

- **Office of Management and Budget Circular A-94** (revised March 27, 1972) provides guidelines for evaluating the economic efficiency of federal agency programs and projects.

- **Office of Management and Budget Circular A-116** (issued August 16, 1978) requires executive branch agencies to conduct urban and community impact analyses of major initiatives and to conduct long-range planning.

- The **Public Rangelands Improvement Act of 1978** requires economic analysis of grazing use on Forest Service administered lands, fee formulas, and funding of rangeland programs and identification of associated economic impacts on the livestock industry.

- **Executive Order No. 12898 on Environmental Justice** (issued February 11, 1994) requires that each federal agency make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.

Affected Environment

Regional Overview

Over the last 25 years the economy of the Intermountain West has become more diversified, more urban or suburban, and less dependent on agriculture and resource extractive industries on national forest lands (timber harvest, livestock grazing, oil and gas production, and mining). In general, the economy of the area surrounding the Wasatch-Cache has prospered and grown substantially over the last generation, and especially during the 1990's. This growth mirrors, but also has surpassed some national economic measures of growth. The Utah Governor's Office of Planning and Budget and the State of Wyoming's Division of Economic Analysis both have abundant statistics for the last several years that show substantial statewide and county growth.

In 1999, the economy in Utah showed continued expansion, recently however, the rate of expansion has slowed (Isaacson, July-August, 2000). At the beginning of the year 2001, there were growing concerns about a downturn in national economic trends. The stock market in 2000 had its first down year in nearly a decade, and some measures of overall economic activity show a slowing of the economy during the latter half of the year (BEA, 2001). The Federal Reserve Board, after earlier concerns for inflation in 2000, recently cut interest rates to stimulate flagging conditions and avoid recession (February, 2001), and the new Bush administration implemented a tax cut, in part to revive the economy. Over the past two decades the intermountain west has fared comparatively well when compared to other regions of the country. Nevertheless, while many observers suggest recent sluggishness is only a short-term correction in an otherwise expanding economy, others have more concern about the future.

The importance and extent of social and economic impacts vary based on the perspective of the individual. On one extreme, there are those who would make social and economic needs of the local community, or an even smaller segment of society, of paramount importance above all else. Others would advocate that social and economic factors are of no importance and should be completely disregarded in favor of environmental concerns. The challenge for the Forest Service is to find an acceptable balance between resource use and preservation. Even then, there will be those who will resist acceptance of a final decision.

Study Area

In describing the social and economic environment that may be affected by the Wasatch-Cache Forest Plan, each county is described in terms of lifestyle and quality of life as

well as the level of interest and issues highlighted in Forest Plan revision processes. Following these general descriptions of the individual counties within the study area, a general review of the regional social and economic environment at the county level will provide a basis for context and comparisons.

The counties included in the analysis, Box Elder, Cache, Davis, Morgan, Rich, Salt Lake, Summit, Tooele, Weber, and Uinta, will be referred to collectively as the regional study area. Wasatch and Duchesne counties have not been included in the analysis, the acreage of Wasatch-Cache National Forest within these county boundaries are small, 21,173 and 29,709 acres respectively, and the culture and lifestyle of the counties are associated with the Uinta National Forest. For more information on these counties and their relationship to forest planning, refer to the Wasatch-Cache National Forest Plan documentation.

The following descriptions of counties in the study area are presented to provide social and economic context for this analysis. Information presented is largely from interviews with county planners, but also comes from impressions gathered during scoping, and other published sources (See Appendix B11 and project records for more details.)

Box Elder County

The lifestyle in Box Elder County is small town or rural. Urban expansion and development influences from the Wasatch Front (Salt Lake and Ogden) are beginning to reach Brigham City. Lower land values in the area and more available open space may see more urbanization of the area over the next two decades. The Standard Examiner recently covered stories in which concerns for rural and agricultural preservation were expressed which opposed suburban development proposals.

Generally, there have been few Forest Service activities proposed in Box Elder County on the Wasatch-Cache. The Wellsville Mountains are mostly designated Wilderness, and the Willard Peak and Ben Lomond areas are steep, rocky and unsuited for most development activities. Traditionally, these areas have been used for watershed and backcountry recreation. Box Elder County has recently been interested in interacting with the Forest Service on trails and roads management, especially as it affects wildland resource values. During Forest Plan scoping, Honeyville community leaders expressed the need to maintain quality watershed for the town.

Cache County

This once rural agricultural county now has significantly more national chain restaurant and store franchises, shopping centers, and other suburban amenities than it had 20 years ago. There is substantial new light manufacturing in the county, a bigger hospital has been built, county buildings are proposed for improvements, and other growth related symptoms are apparent. Traffic in the Logan areas is noticeably more congested than it was a few years ago. The recent improvement of U.S. 89 from Brigham City and future improvements to the Logan Canyon Highway provide speedier and safer access to other areas for commercial and personal uses. While development pressures continue, most

people in the county appreciate the high quality of life that they have, and ready access to wildland recreation is a very important component of the lifestyle.

Several forest plan-related public meetings that were held in the Logan area had the largest attendance of any area where these meeting were held. Interest in the proposed action and alternative development was broad, and interactions with the Forest Service and between community members has been considerable and vocal. A broad range of opinions regarding future Wilderness proposals, Wild and Scenic River proposals, motorized and non-motorized access opportunities, snowmobile use, management of roadless areas, and livestock grazing have been voiced.

Davis County

Most of the people in Davis County have a suburban lifestyle. Those who live next to the forest often enjoy hiking directly out of their neighborhoods onto the public lands, where they use planned and developed trails. Sometimes the foothill vegetation and watershed are impacted by inappropriate use of ATVs, creation of haphazard trails, or trash dumping. These activities are not allowed, but are often difficult to enforce even though Davis County and the Forest Service have posted the area. Most of the water from small streams that run off the Forest is used to supply culinary water to towns in Davis County.

While no public meetings were held in Davis County during scoping, for the Preliminary AMS and Proposed Action, a number of respondents commented on these two documents from a variety of perspectives. Davis County has indicated that while watershed is a critical concern for communities at the base, maintaining and improving outdoor recreation access and fire protection in the foothills are also increasingly important management needs.

Morgan County

People in the Morgan County still live in small towns or in the countryside on small acreage non-commercial home sites. Some agriculture is practiced, but it is an important economic activity for only a few residents, as most commute to jobs on the Wasatch Front. Only a small section on the western edge of Morgan County is within the Wasatch-Cache National Forest. This part of the Forest is steep and undeveloped. Access to this portion of the Forest is very poor or non-existent, yet this main ridge of the Wasatch Front provides critical watershed for the county, and backcountry recreation activities for people who mainly access it from the Salt Lake and Davis County areas.

The majority of people attending forest plan meetings held in the Ogden area in 1999 were from Morgan County. Some of these users expressed an interest in maintaining traditional motorized (winter and summer) recreation access on the Forest. In a Forest Plan scoping meeting held in Morgan County in the spring of 1999, concerns for potential deterioration of watershed conditions by possible development above Mountain Green were expressed. County planning and zoning personnel noted that sustainability of

national forest watershed, and water supply and water quality issues were among the more important that were facing the county.

Maintaining a rural or small town atmosphere for the county is an important value held by many residents. Transportation planning to meet the needs of an increasing population was also an important issue.

Rich County

Rich County has a rural, agricultural lifestyle, much of which relates to public lands uses. More traditional values regarding land use on public lands are commonly held. Many people still make their living in agriculture (mostly livestock grazing), and work closely with the land on a daily basis. Hunting, fishing, riding and other rural and outdoor recreation activities are common. For most shopping and dining, or social opportunities, people go to Evanston, Ogden, or Logan. Raspberry farming is still carried on in the Bear Lake area, but production is not as large as it was 20-30 years ago. The economy of the Bear Lake area is more active in the summer with increased seasonal recreation. Often young people must leave the county after high school or college graduation to find desirable employment.

One public meeting regarding forest plan revision was held in Randolph. The turnout for the meeting at the courthouse was small, therefore not a large number of local opinions have been heard on forest plan issues and decisions. However, there have been other recent projects and grazing permit related work done in the county offering public opinion on general Forest issues. The county planner and commissioners have been consulted regarding the forest plan revision. The desire to continue existing land use opportunities has been stressed in these interactions.

Salt Lake County

Salt Lake County is the largest urban center in the Intermountain Region, and functions as the transportation, cultural, political, and economic center. Its citizens, Salt Lake County and local governments recognize the vital role National Forest lands and the canyons east of Salt Lake Valley play in adding to the quality of life for the area. The proximity of cooler high elevation forested lands, internationally renowned ski areas, developed camping and undeveloped recreation opportunities, three designated Wildernesses, and a spectacular scenic backdrop are not taken for granted by residents. Employers often use outdoor recreation proximity as a lure to attract new residents to the area.

The Forest Service, county and city officials recognize that as costs of government escalate, it is mutually beneficial to share expertise and resources for public benefit. One example is the cooperation between Salt Lake County and the Forest Service over the past decade to improve stream habitat, riparian environment and recreation facilities in Mill Creek Canyon. It is expected that similar cooperative projects will follow in this county and across the Forest.

Several public meetings have been held in the Salt Lake area on forest plan revision and they have been well attended. A broad spectrum of public opinions was represented. Over the past several years, interest in local Forest Service activities has centered on ski area expansion proposals, helicopter skiing, undeveloped and developed recreation and Wilderness management issues. Watershed protection and water quality have also been ongoing concerns.

Summit County

People whose families have lived in Summit County for several generations, as well as the many new arrivals to the area are both enamored with Summit County. The area's rural and small town lifestyles, year-round outdoor recreation opportunities, good schools, and prosperous economy make it a great place to live and raise a family. Most citizens of the area have benefited from its recent economic prosperity and their proximity to a major urban area for services beyond what the local area provides.

Summit County government has expressed an interest in close involvement with the Forest Service as the forest plan is revised. The county is interested in the economic and social effects of national forest management as it relates to its citizens, and want to emphasize cooperative planning to help reach a desirable future. KPCW, a public radio station in Park City, often airs programs highlighting national forest issues, helping to involve and inform the community.

Public meetings held in the Kamas City Hall over the past year on the forest plan topics have added to the Forest Service's understanding of public sentiment. Individual citizens have commented during Forest Plan scoping and proposed actions from a broad range of perspectives.

Tooele County

Many people have found that living in Tooele County and commuting to work in Salt Lake County or Utah County, is a very reasonable alternative to living directly on the Wasatch Front. In Tooele County, home and real estate prices tend to be lower for similar homes to those in Salt Lake, and commuting time and costs are not much different. The smaller town and/or rural lifestyle possible in the county is also attractive to those who have chosen to live in the area. While the county generally serves as a bedroom community for those who commute to the Wasatch Front, many do work locally. These people are employed in the local support service and retail work mentioned above, as well as at Tooele Army Depot and Dugway. The County is actively seeking other industrial and commercial development, so that the area can be more stand-alone in respect to its economy, employment and tax base.

Tooele County planners and elected officials have expressed interest in forest planning and its potential for land allocations since the planning process began more than a year ago. The County is interested in engaging with the Forest Service in watershed protection and development projects (and has in the recent past – Clover Creek), and in

coordinating and ensuring trail use opportunities for its citizens across county, private and federal lands. Letters from interested citizens have indicated similar interests. One public meeting held in Tooele at the release of the Preliminary AMS was lightly attended.

Weber County

In general, local people make up the majority of national forest users east of Ogden. Hiking on trails on the east bench and up canyons out of Ogden is a popular pursuit, as is boating at Pineview Reservoir, fall hunting, and the use of developed campsites. Snowmobiling in the Monte Cristo area and skiing at Snowbasin are popular winter activities. Ogden and Weber County residents are supplied by water from captured stream runoff from the mountains, artesian wells, Pineview Reservoir (also a major Forest Service recreation use area) and the Weber River basin.

Recent results from the 2000 census show that the Hispanic population of Ogden City has grown to 24% of the population. (Buchta, March 22, 2001). This is approximately a doubling of Hispanic people in Ogden over the last ten years. Other urban complexes along the Wasatch are also experiencing this trend, but in somewhat lesser percentages. These potential new users of the Wasatch-Cache perhaps bring with them somewhat different use patterns and interests as they related to the Forest.

Public meetings and work sessions on the Preliminary AMS and Proposed Action were held in Ogden at Weber County Library branches (Huntsville and Ogden) and at Ogden High School. These meetings received a moderate attendance of users with a variety of viewpoints regarding the issues that were presented. Interest in the land exchange process and development of Snowbasin over the past decade has been major. There is a continual interest and community participation in trail development project on the front and in Pineview Reservoir recreation issues.

Uinta County, Wyoming

People with long-term ties, as well as newcomers to the area value the rural lifestyle and environment that Uinta County provides. The idea of creating conservation easements as is occurring in other parts of the West is actively talked about. Access to public lands is an important value. Most people work locally, but a growing number commute to Salt Lake City or Park City for jobs, as access is relatively quick down I-80. Some airline employees and pilots who work out of the Salt Lake International Airport commute from Evanston. Lower income and sales taxes in Wyoming, lifestyle preferences, and somewhat lower property prices also provide an incentive for some to live here. The City of Evanston has a diverse and well-developed public recreation and parks program. In addition, the population can enjoy outdoor activities on public lands including; hunting, fishing, horse use, camping, hiking, cross-country skiing, use of ATVs and snowmobiles. Many have significant investments in time and/or dollars in these recreation interests. There is increasing public demand for year-round access to the Forest. The growth of winter recreation activities (snowmobile and skiing use) translates to higher winter management costs for the Forest Service than in the past.

Uinta County requested cooperating agency status from the Forest Service for the purposes of forest planning, and has been given that status. Local ranching, timber harvest, oil and gas, and recreation users are very interested in long term planning and project activities on the Wasatch-Cache. Many long-term residents are concerned that possible changes to general multiple-use opportunities will deleteriously affect desirable traditional lifestyles and the local economy. It is a strongly held belief among these people that there are trends towards restriction of ongoing land-uses. It is thought that this trend has been apparent over the last 20 years, and the trend is undesirable and threatens their interests.

American Indians

American Indian people have occupied areas in northern Utah and southwestern Wyoming for thousands of years. Archeological evidence and historical and ethnographic accounts attest to the diversity, longevity, and importance that American Indian groups have had in this area. Descendants of these historic groups occupy areas of northern Utah, southeast Idaho, and Wyoming.

American Indians today retain inherent rights based on provisions of the United States Constitution and treaties with the United States that obligate the United States to maintain government-to-government relationships with federally recognized tribes. Numerous laws, forest planning regulations (36 CFR 219.7) and Forest Service policy (Forest Service Manual 1563) all speak to the recognition of American Indian governments and require consultation with tribes regarding decisions that have the potential to effect treaty and traditional and cultural values. In general, these laws and policies recognize tribal sovereignty, and treaty rights where they exist, and support traditional economic, cultural, and religious practices.

The Wasatch-Cache National Forest is very interested in cultivating good relationships with American Indian groups. National Forest lands and resources represent significant cultural and economic values to American Indians and to the other citizens of the United States. Several land management issues and concerns are of mutual interest to tribes and the Forest Service.

In Utah, Forest Supervisors have the responsibility for implementing government-to-government communications and coordination with federally recognized tribes. District Rangers also interact with Tribes on day-to-day matters, under the authority of the Forest Supervisor. In the past year the Forest Supervisor, Deputy Forest Supervisor, and District Rangers have met directly with tribal leaders to develop understanding of their interests or concerns regarding national forest lands.

Three American Indian tribes are closely related to land areas of the Wasatch-Cache National Forest. These are the Skull Valley Band of Goshute Indians, the Northwestern Band of Shoshoni, and the Northern Ute. While these tribe's reservations are within areas where they lived historically, Shoshonean and Ute groups used to range freely over much larger areas covering millions of acres of land that is now in federal, state, local,

and private ownership. As sovereign governments, American Indians have status equal to or above that of state and county governments. Because of the unique trust relationship between the federal government and tribes, Indian Nations and tribal members are distinguished as different from the general public. Treaties, statutes and executive orders often reserve off-reservation rights and address traditional interests relative to the use of federal lands. Maps estimating the extent of the tribes' historic use areas are on file at the Forest.

Skull Valley Band of Goshute Indians

The Skull Valley reservation is adjacent to the Wasatch-Cache National Forest along the southwest slopes of the Stansbury Range. Their reservation occupies over 17,000 acres and the Skull Valley Band maintains an office in Salt Lake City. The reservation population is about 25, while total tribal enrollment is over 100, with most members living off the reservation (USDA Forest Service 2000k).

The Treaty of Tooele Valley was signed on October 12, 1863. No land was set aside as a reservation until 1912. The band does not have a constitution or charter, but is governed by a tribal council and executive committee.

Discussions between the Wasatch-Cache (the Forest Supervisors and Salt Lake District Ranger) and the Skull Valley Band indicate that the American Indians are interested in the protection of cultural sites and human remains, Wilderness protection and designation, problems with public or agency access across the reservation to the national forest, and developing more economic opportunities for tribal members.

Northwestern Band of Shoshoni

The Northwestern Band of Shoshoni reservation occupies 187 acres of land in northern Box Elder County, and the tribe maintains an office in Brigham City, Utah. In 1996 there were 383 enrolled members in Idaho and Utah who maintained residences over a large area reservation (USDA-Forest Service 2000k).

The Treaty of Box Elder of 1865 was the first signed by members of this band. Subsequent treaties and ratification dates related to the Northwestern Band of Shoshoni are 1872, 1874, 1880, 1881, 1882, and 1889. A constitution for the tribe was approved in 1987.

The Forest Supervisor and Logan District Ranger have interacted with the Northwestern Band of Shoshoni during 2000. Discussions with the Northwestern Band of Shoshoni indicate that they are interested in protection of American Indian sites on the Forest, Wilderness designation, acquisition of more sovereign lands for their reservation (not specifically related to national forest lands), and continuance of cultural integrity and traditions.

Northern Ute

The Uinta and Ouray Indian Reservation (of the Northern Ute Tribe) is large, occupying about 4,500,000 acres in eastern Utah within Uintah, Duchesne, Grand and Wasatch Counties. A tribal office is maintained at Ft. Duchesne, Utah (See the Northern Ute Webpage at www.ubtahnet.com). The Northern Utes are governed by six council members, two each from the three bands that make up the tribe: Uncompahgre, Uintah, and Whiteriver. Tribal enrollment is over 3,000.

Primary working relations with the Forest Service are maintained through Ashley and Uinta National Forest leadership, rather than by the Wasatch-Cache. This arrangement is practical, as the reservation is contiguous with those two Forests and at some greater distance from the Wasatch-Cache. The Wasatch-Cache recognizes that traditional and historical tribal interests also extend onto lands managed by it, but that most Forest Service interactions with the tribe are better served by dealing with the other two Forest offices.

The Northern Utes are interested in numerous issues related to the national forests in the area, including maintaining access to traditional gathering sites and ceremonial areas, maintenance of cultural lifeways, issues relating to access and roads, passage of recreationists across tribal lands to national forest lands, and water rights (H. Jay Groves, Northern Ute Tribe, personal communication, 11/15/2000.)

Land Ownership

The Wasatch-Cache administers National Forest System lands in all counties within the regional study area. The acreages of National Forest System lands and total county acres are displayed in Table SE-1. The amount of National Forest System lands in each county varies significantly. Other federal lands (lands managed by the Department of Defense, the BLM, Caribou, Sawtooth, Ashley, and Uinta National Forests) also make up substantial portions of Box Elder, Tooele, Rich, and Uinta counties.

Table SE-1. Area figures for counties within the regional study area

County	County total land base**	National Forest lands*	Wasatch-Cache Forest lands
	area in acres		percent of total
Box Elder, UT	3,592,960	24,328	<0.1
Cache, UT	749,440	267,827	35.7
Davis, UT	171,520	37,580	21.9
Morgan, UT	385,920	13,996	3.6
Rich, UT	661,760	49,398	7.5
Salt Lake, UT	488,960	95,533	19.5
Summit, UT	1,183,360	501,871	42.4
Tooele, UT	4,430,720	150,234	3.4
Uinta, WY	1,336,417	37,762	2.8
Weber, UT	412,160	67,805	16.5

Sources: Land Areas of the National Forest System, 1998. www.dced.state.ut.us/history/history facts/uhcounty statistics.com.

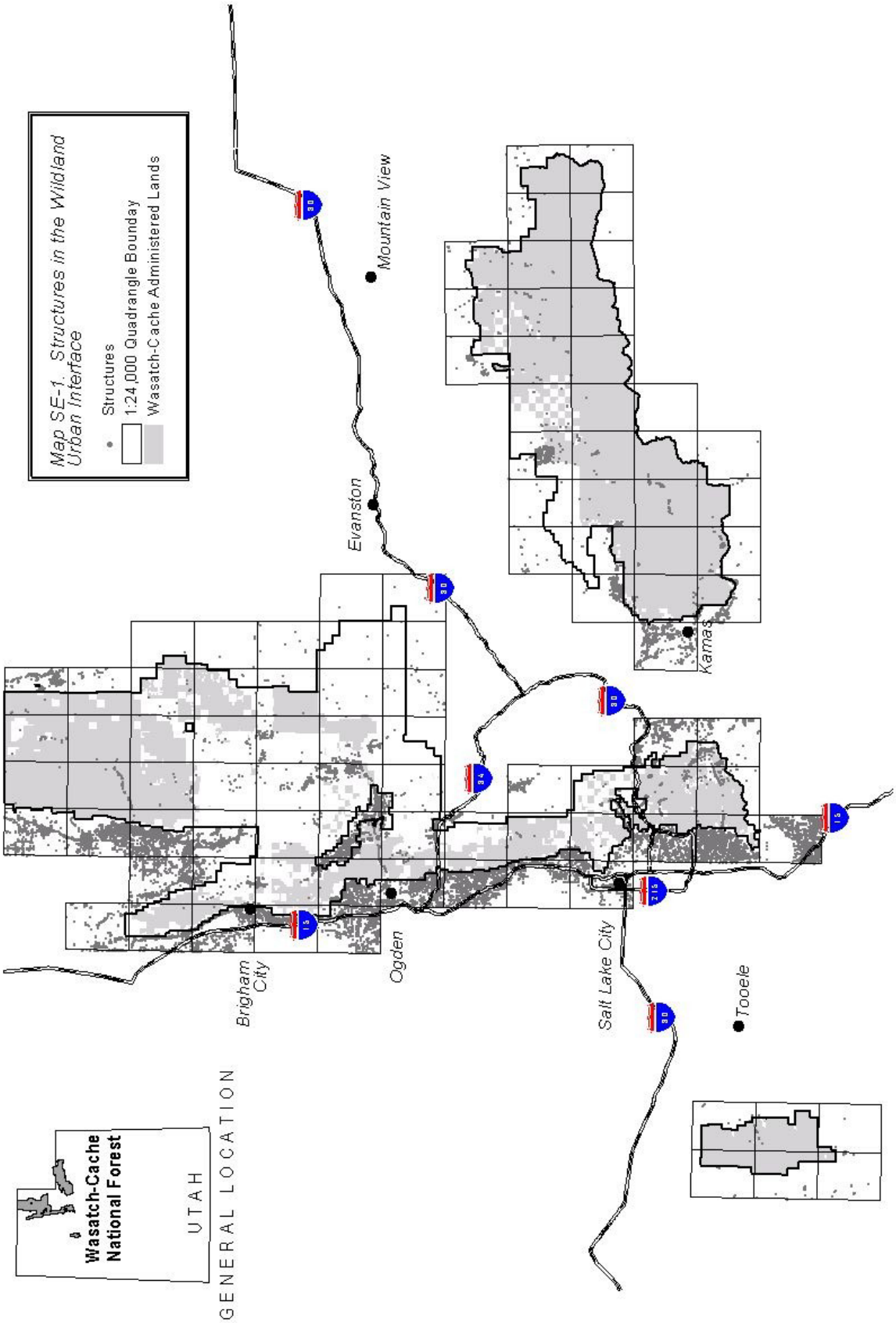
Demographics

The population in the area of the Wasatch-Cache's direct influence is growing at a rapid rate. Overall in the State of Utah, the population has grown from 1,729,100 in 1990, to about 2,172,513 in 2000, and is projected to reach over 2.7 million by 2010 (Utah, State of 1998). Most of the growth has been and is projected to be in areas surrounding the Wasatch-Cache National Forest. The majority of this population increase is due to births in the state, however, a substantial percentage is also due to recent increases in immigration.

The State of Utah and local associations of governments (Mountainland AOG, Bear River AOG, and Wasatch Front Regional Council), counties, and cities all recognize the major changes that population increases have had and will continue to have on life in northern Utah. Planning efforts within and between all these entities consider population growth related questions among the most important that need answers. Similarly, the Forest Service in northern Utah has seen user demand continue to rise mostly as a simple response to the growing number of people in the area.

On the eastside of the Wasatch Range (Heber Valley, Summit County, Morgan County, Ogden Valley, and Cache Valley) growth rates and development are faster than on the more populous front. More detailed discussions of each county are developed below. County planners (Summit, Uinta, Tooele, Weber, Cache) recognize that there is a trend toward transition of rural agricultural landscapes to suburban or urban development, and some county zoning direction is beginning to protect and preserve rural areas. National Forest System lands continue to be looked to for providing open space, recreation opportunities, and quality of life aspects people associate with the area.

Map SE-1 shows the distribution of structures adjacent to the boundaries of the Wasatch-Cache. Structures shown by the dots are dwellings, commercial buildings, Forest Service administrative sites, and other constructed features. Not surprisingly, structures abut the forest nearly continuously along the Wasatch Front, and are heavily distributed in the Cache Valley near national forest lands. Even at the west end of the Uinta Mountains in the Kamas and the upper Weber River area structures are densely distributed, and becoming more common in the interface between private lands and the forest. While the Stansbury Range and north slope of the Uinta Mountains currently do not have the same density of structures on nearby lands seen elsewhere, it is expected that over the next 10-20 years this density should increase substantially.


Map SE-1 Structures in the Wildland Urban Interface
Structures
1:24,000 Quadrangle Boundary
Wasatch-Cache Administered Lands
Mountain View
Evanston
Kamas
Brigham City
Ogden
Salt Lake City
Tooele
GENERAL LOCATION
UTAH
Wasatch-Cache National Forest

The magnitude of growth across northern Utah and southwest Wyoming vary somewhat and are displayed in table SE-2 and discussed below in some detail for counties that contain land administered by the Wasatch-Cache. (No discussion is provided for Wasatch or Duchesne Counties, as the acreage of Wasatch-Cache Forest system lands in these counties is relatively small. Most national forest lands in the county are within the Uinta National Forest, and effects to the counties are more related to management of that forest.)

Table SE-2. Population for Analysis Area and States, 1991-2000.

Area	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	Change 1991-2000
	people										Percent
Box Elder, UT	36,864	37,317	37,882	38,541	39,077	39,802	40,751	41,571	42,378	42,872	16%
Cache, UT	72,924	75,794	78,390	81,134	84,006	86,326	88,002	89,866	90,299	91,625	26%
Davis, UT	193,773	199,199	204,936	210,164	214,622	219,687	224,871	230,937	235,912	240,259	24%
Morgan, UT	5,613	5,762	6,015	6,251	6,487	6,664	6,747	6,852	6,991	7,165	28%
Rich, UT	1,669	1,678	1,739	1,805	1,832	1,860	1,828	1,866	1,924	1,966	18%
Salt Lake, UT	751,023	774,408	798,049	819,039	836,008	853,076	871,580	881,840	891,116	899,698	20%
Summit, UT	17,124	18,406	20,247	22,044	23,902	25,297	26,634	27,970	29,004	29,976	75%
Tooele, UT	27,284	27,852	28,572	29,578	30,345	31,364	33,048	35,351	38,079	41,641	53%
Uinta, WY	19,101	19,476	19,581	19,927	19,884	19,936	19,935	20,029	19,901	19,707	3%
Weber, UT	162,186	166,479	171,055	176,032	180,546	184,584	188,334	190,846	193,697	197,264	22%
Analysis area	1,287,561	1,326,371	1,366,466	1,404,515	1,436,709	1,468,596	1,501,730	1,527,128	1,549,301	1,572,173	22%
Utah	1,779,780	1,836,799	1,898,404	1,960,446	2,014,177	2,067,976	2,119,784	2,165,960	2,203,482	2,241,555	26%
Wyoming	459,260	466,251	473,081	480,283	485,160	488,167	489,451	490,787	491,780	494,001	8%

Source: U.S. Department of Commerce, Regional Economic Information System, 2002.

Table SE-3 highlights the racial characteristics for comparison of the analysis area. As is common in counties throughout the rural west, county populations are not as racially diverse as the general population of the United States. Over the last decade there has been a net immigration from other states, and some foreign immigration, which has markedly increased ethnic diversity in the area, mostly in people of Hispanic or Asian/Pacific origins. Most of the counties make up very little of the total population of their State total with the exception of Salt Lake and Davis counties.

Table SE-3. Population Characteristics Compared for the United States, Utah, Wyoming and Analysis Area in 2000.

Area	2000 Population	Percent of State Population	White	Black or African American	American Indian and Alaska Native	Asian, Native Hawaiian and Other Pacific Islander	Some other race(s)	Latino or Hispanic, any race
	people	percent	percent of total population					
Box Elder, UT	42,745	1.9	92.9	0.2	0.9	1.0	5.0	6.5
Cache, UT	91,391	4.1	92.2	0.4	0.6	2.2	4.6	6.3
Davis, UT	238,994	10.7	92.3	1.1	0.6	1.8	4.3	5.4
Morgan, UT	7,129	0.3	98.1	0.0	0.2	0.2	1.5	1.4
Rich, UT	1,961	0.1	98.2	0.0	0.1	0.4	1.4	1.8
Salt Lake, UT	898,387	40.2	86.3	1.1	0.9	3.8	7.9	11.9
Summit, UT	29,736	1.3	91.8	0.2	0.3	1.0	6.6	8.1
Tooele, UT	40,735	1.8	89.2	1.3	1.7	0.8	7.1	10.3
Uinta, WY	19,742	4.0	94.3	0.1	0.9	0.3	4.4	5.3
Weber, UT	196,533	8.8	87.7	1.4	0.8	1.4	8.7	12.6
Utah	2,233,169	na	89.2	0.8	1.3	2.3	6.3	9.0
Wyoming	493,782	na	92.1	0.8	2.3	0.6	4.3	6.4
U.S.	282,124,631	na	75.1	12.3	0.9	3.8	7.9	12.5

Source: U.S. Department of Commerce. U.S. Census Bureau, 2002.

na = not available.

Total percentages for each county may add to more than 100 percent as people can select more than one race.

Table SE-4 highlights additional demographics of the analysis area. The median ages of county residents in the analysis area are significant lower median age in Utah as compared with the general population. All the analysis area counties have higher populations over 65 than state or national averages indicating the communities around the forest are attractive for retirees, or that people who live in the area, prefer to continue living in the area after they retire. The percent of homes used as second or vacation homes indicates that Rich and Summit counties attract part-time residents to the area. Family sizes are also larger in Utah than Wyoming or the US average. Part of the tendency for larger family sizes may be associated with the culture of members of the Church of Jesus Christ - Latter Day Saints that is prevalent in the state.

Table SE-4. Demographic Characteristics Compared for the United States, Utah, Wyoming and Analysis Area in 1989 and 2000.

Area	Average family size	Median age	Population 65 and over	Persons at or below poverty level, 1989*	Second or vacation homes
	people	years	percent of total	percent of total	percent of total
Box Elder, UT	3.63	28.0	10.4	7.2	2.2
Cache, UT	3.59	23.9	7.1	13.3	1.1
Davis, UT	3.67	26.8	7.3	7.1	0.3
Morgan, UT	3.81	28.5	8.7	8.6	2.5
Rich, UT	3.44	34.3	14.1	13.8	59.6
Salt Lake, UT	3.53	28.9	8.1	9.7	0.7
Summit, UT	3.30	33.3	4.8	7.1	35.0
Tooele, UT	3.51	27.1	7.1	11.3	1.2
Uinta, WY	3.31	31.4	7.0	8.5	3.0
Weber, UT	3.42	29.3	10.3	9.9	1.4
Utah	3.57	27.1	8.5	11.2	3.9
Wyoming	3.00	36.2	11.7	11.6	5.5
U.S.	3.14	35.3	5.1	12.8	3.1

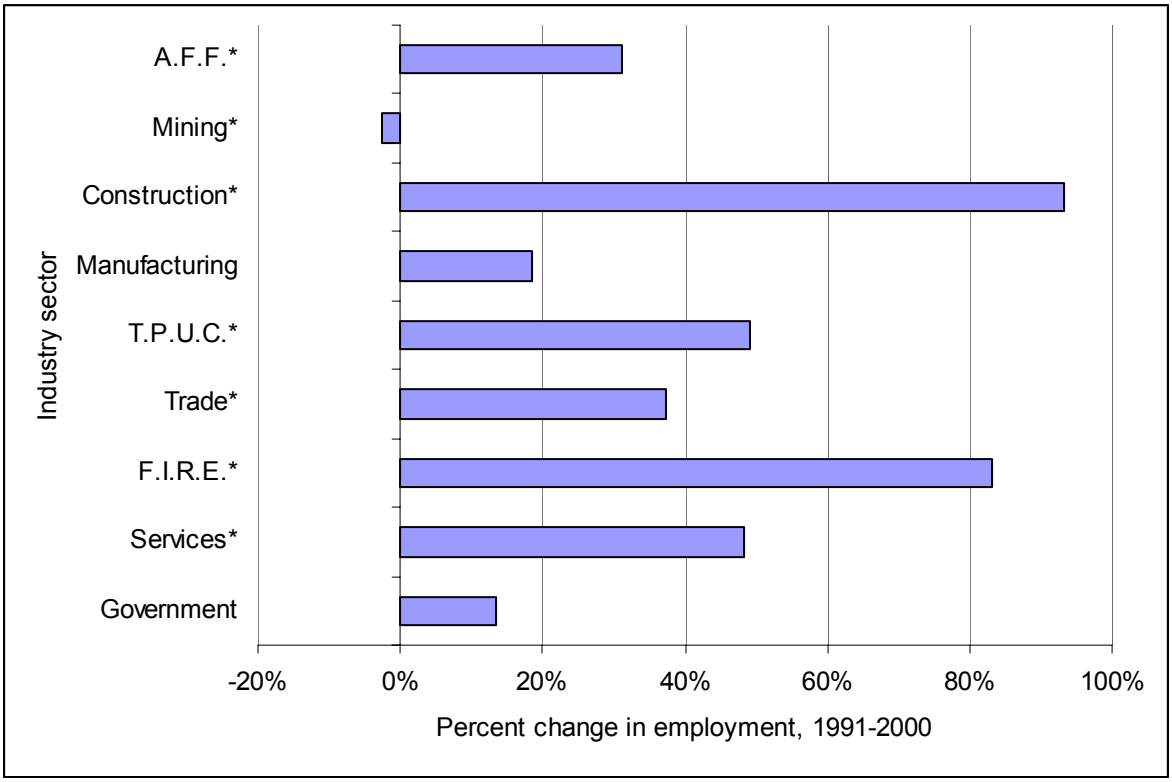
Source: U.S. Department of Commerce, U.S. Census Bureau, 2002. 1990 Census.

*2000 poverty statistics not available at this time.

Employment

With population changes and growth, employment within the analysis area has also been changing. Figure SE-1 highlights the change in employment by sector for between 1991 and 2000, for all counties in the analysis area combined (each counties separate analysis is available from the planning record). Individual counties within the analysis area show some degree of variability, but several trends are consistent.

Figure SE-1. Employment change by major industry between 1991 and 2000 for the Wasatch-Cache Analysis Area.



Source: U.S. Department of Commerce, Regional Economic Information System, 2002.
* Figures were estimated for Box Elder, Morgan, Rich, Tooele, Weber, and Uinta Counties due to disclosure regulations of employment and income data.

Sectors defined according to Standard Industry Classification Manual, 1987.

A.F.F. (Agricultural, forestry, and fishing services) includes all farming activity as well as businesses engaged in agricultural production, forestry, commercial fishing, hunting and trapping, and related services.
Mining includes the extraction of minerals occurring naturally, quarrying, well operations, milling, preparation at the mine site, and exploration and development of mineral properties.
Construction includes new work, additions, alterations, reconstruction, installations, and repairs of structures.
Manufacturing includes the processing of materials (products of agriculture, forestry, fishing, mining, and quarrying) into new products. Examples include food, textiles, mineral processing, lumber, wood products, furniture, paper, machinery, and appliances.
Trade includes all wholesale and retail trade. Wholesale trade includes the selling of goods to retailers or other wholesalers. Wholesalers maintain inventories of goods, extend credit; physically assemble, sort, and grade goods in large lots, break bulk goods into smaller lots and advertise. Retail trade includes the selling of goods for personal or household consumption and rendering services incidental to the sale of the goods. Examples include groceries, hardware, drug store, and other specialty stores.
Services include businesses engaged in providing a wide variety of services for individuals, business, government, and other organizations. Examples include hotels; health, legal, engineering, and professional services; and educational institutions.

F.I.R.E. (Finance, insurance, and real estate) includes business that operate in the fields of finance, insurance, and real estate, such as banks, investment companies, insurance agents and brokers; real estate buyers, sellers, and developers.
T.P.U.C. (Transportation, public utilities and communications) includes passenger and freight transportation, communications services, electricity, gas, steam, water and sanitary services and all establishments of the United States Postal Service.
Government includes all Federal, state, and local government employees involved in executive, legislative, judicial, administrative and regulatory activities.

Construction is the largest growth sector in the analysis and was increasing in all counties included in the analysis. This sector is associated with increasing population and overall growth of the area, residential and commercial buildings being constructed, as well as infrastructure required to accommodate the influx of people. In several counties the growth in second and vacation homes also increases the demand for construction activity.

Also associated with growth, the trade and services sectors increased in the last 10-years. All counties in the analysis area had increases in these sectors. Increasing population and construction also leads to increases in F.I.R.E. and T.P.U.C activity. Rich and Summit counties saw large increases in F.I.R.E. likely associated with second home construction and sales.

Manufacturing includes logging, sawmills and wood production, which are associated with outputs from the Wasatch-Cache National Forest. Processing of food and other production is also accounted for within this sector. Most counties in the analysis area show some increases in manufacturing employment.

Agricultural, forestry and fishing sector shows some increase in employment. Recent trends toward smaller operations being bought up and brought under management of larger corporations may account for some of the changes in employment. The figures highlighted do not account for seasonal trends or part-time labor within the agriculture sector.

The majority of government employment increases throughout the study area occurred within state and local education. In general, large increases have not occurred in this sector in any of the analysis area counties.

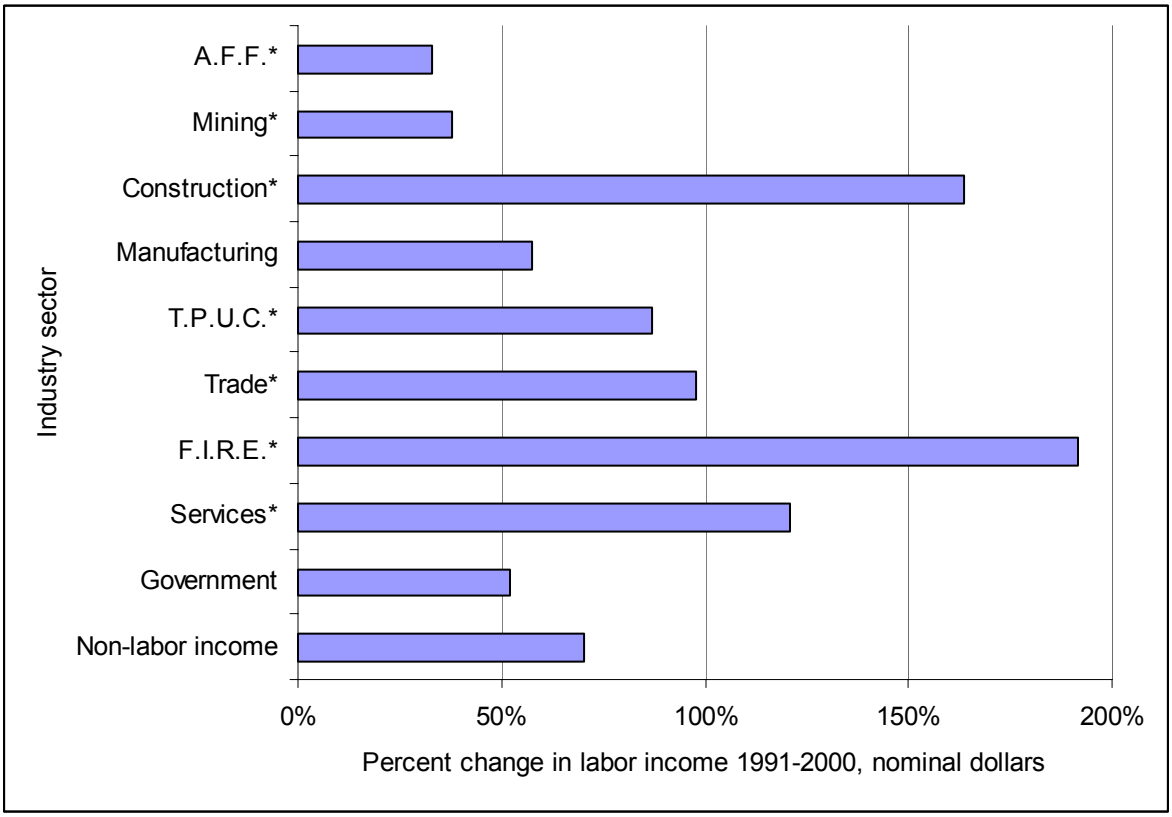
The only sector to show an employment decline within the analysis area is mining. While there is some mineral activity within the study area, most is not occurring on Forest lands. These changes seen within this sector are likely due to larger market forces impacting individual mineral and oil and gas industries. For more information concerning mining and drilling activity, refer to the minerals section of this FEIS.

Personal Income

Total personal income is comprised of non-farm income, farm income, property income, and Non-labor income. The largest component is generally non-farm income, which includes all wages and salaries that are not directly associated with farming activity. Farm income includes proprietors net farm income, wages and payments-in-kind for farm

labor, and salaries of officers of corporate farms. Non-labor income includes retirement and disability, income maintenance, and unemployment, property income made from rent, dividends, and interest from investments. Figure SE-2 highlights the percent change of total personal income by major sectors between 1991 and 2000 for the analysis area in 2000 dollars.

Figure SE-2. Total personal Income change in real 2000 dollars between 1991 and 2000 by major sector for the Wastach-Cache analysis area.



Source: U.S. Department of Commerce, Regional Economic Information System, 2002.
* Figures were estimated for Box Elder, Morgan, Rich, Tooele, Weber, and Uinta Counties due to disclosure regulations of employment and income data.

All dollars in Figure SE-2 have been converted to 2000 dollars to allow for direct comparisons without interference from inflation. Similar to the employment comparison, several trends are consistent across the counties of the analysis area. All counties show an increase between 1991 and 2000 in real non-labor income, generally associated with retirement payments. Retirees in a community can have a significant social and economic contribution. Economically, their income is an import of money into the community, there is not an associated job or export of product for wages. Retirees also have time and other resources to become involved in a community in terms of leadership, building community capacity, or other social programs that improve the well-being of the entire community.

The F.I.R.E. sector had the largest increase in labor income between 1991 and 2000 for the entire analysis area. The construction sector also had a large increase between 1991 and 2000. Similar to the employment trends, the increase in demand for housing and infrastructure related to increasing population is likely driving the growth in these sectors.

This agriculture, farming and fishing sector fluctuates year to year depending on various market conditions and prices so often trend analysis over short periods are difficult depending on if the beginning and end points were up or down years for the industry. In the case of this 10-year period, the analysis also includes a trend from many small farms toward a few larger corporate operations. Mining income, unlike the employment analysis, shows an increase in income between 1991 and 2000.

The remaining sectors show some growth in labor income, but in many cases the growth in income is smaller than the growth in employment. This highlights the lower wages and seasonal or part-time positions often associated with many sectors, especially trade and services jobs.

Per Capita Income

Annual per capita personal income (PCPI) in Utah in 2000 was $23,436 slightly lower than the national average of $29,469. Table SE-5 below displays the 2000 per capita personal income and average annual growth rate between 1990 and 2000 and the change between 1999 and 2000 for counties and states in the analysis area. Because per capita income is a measure of both income and population, smaller counties in Utah often show a lower change or growth than either the state or national average due to large family sizes. Summit County has a per capita income much higher than other counties in the analysis area, the state of Utah, and the national average.

Table SE-5. Per Capita Personal Income and percent change for the Analysis Area, 2000.

Area	2000 per capita Personal Income	1990-2000 change	1999-2000 change
	dollars	percent	
Box Elder, UT	22,321	3.9	5.8
Cache, UT	18,714	3.5	2.0
Davis, UT	24,100	4.9	5.6
Morgan, UT	21,995	4.9	5.9
Rich, UT	17,447	3.5	3.0
Salt Lake, UT	27,330	5.1	5.6
Summit, UT	40,528	5.7	4.5
Tooele, UT	18,542	2.2	4.8
Uinta, WY	22,042	4.1	4.1
Weber, UT	22,757	3.5	4.5
Utah	23,436	4.6	5.1
Wyoming	27,372	4.3	5.3
United States	29,469	4.2	5.8

Source: U.S. Department of Commerce, Regional Economic Information System, 2002.

Poverty

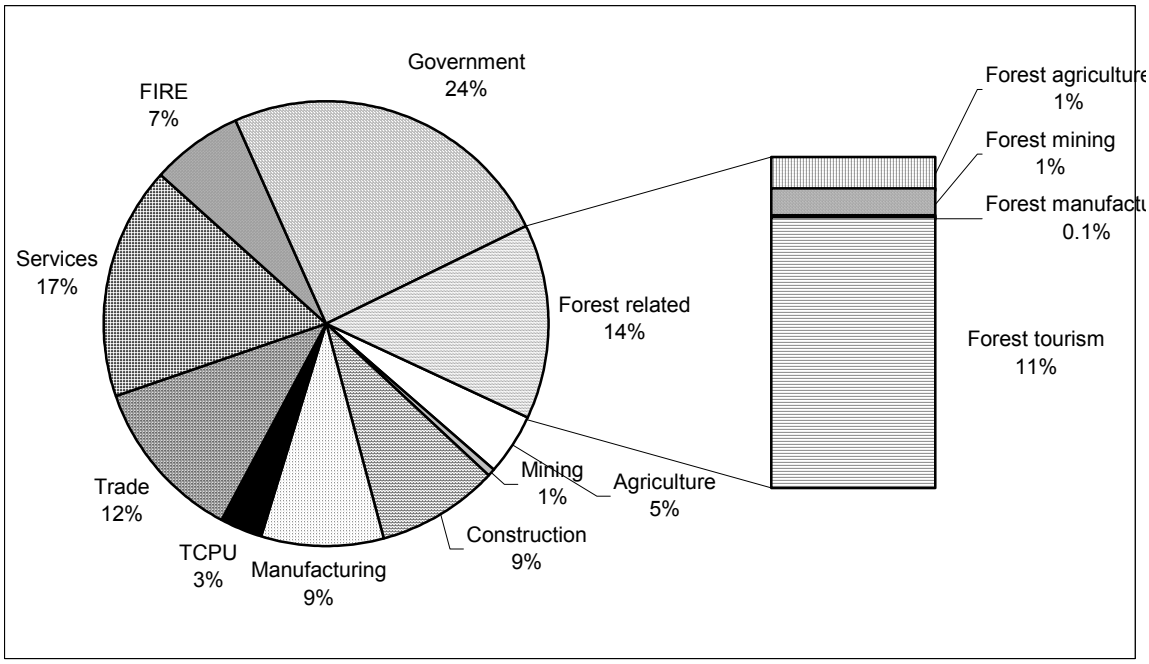
In 1997, 8.9 percent of Utah's population was in poverty with only 3.6 percent receiving public assistance. Only six other states had lower poverty rates. Utah has the eleventh highest percentage of homeowners in the nation at 72.5 percent (Utah, State of 2001b). Both these conditions indicate a relatively high standard of living.

Forest Resource Related Industries and Resources

This section focuses on industries that use forest –related resources: wood products, mining/processing, recreation and tourism, and grazing. These are the four industries that are directly dependent on forest-related resources and are the most likely to be impacted (positively or negatively) by Wasatch-Cache National Forest Management. These industries' production activities occur inside and outside the Forest, and in many cases, the Forest is not the only source of the forest-related resources.

Data for the following analysis is from IMPLAN Pro models (MIG 2000). This data allows for the separation of specific sectors and includes information not available from other state or Federal data sources. The trade-off is that the latest data available is for 1999. Other sources of 2000 data are available and were used in earlier descriptions of the economic conditions. Figure SE-3 displays employment by sector with forest-related employment summarized separately as the 'forest-related' category. The forest-related category includes employment in grazing (Forest agriculture), oil and gas drilling (Forest mining), logging and sawmills (Forest manufacturing), and visitor industry activities such as outfitter and guides, hotels, retail trade, and services that are supported by Wasatch-Cache resources or outputs (Forest tourism). For more information, individual sectors selected to represent each industry see Appendix B11.

Figure SE-3. Estimated Forest Service-related employment contributions within the analysis area, 1999.

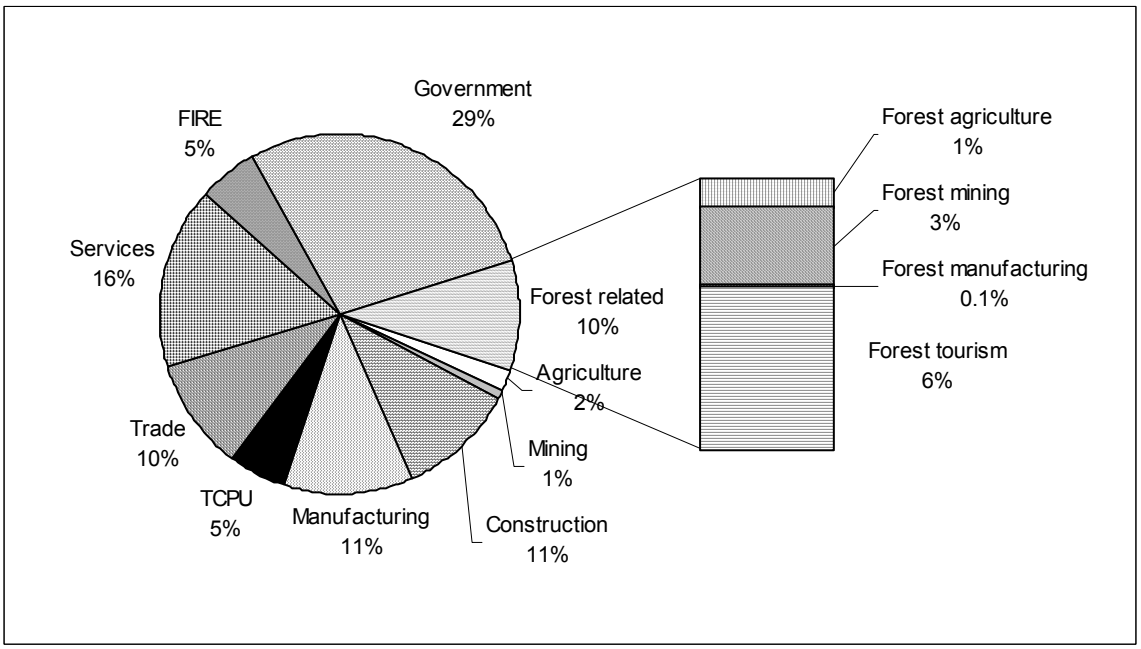


Source: MIG, 2002.

Within the analysis area, the employment estimated to be directly related the Wasatch-Cache National Forest activity is about 14 percent. The majority of forest-related employment is within tourism related activities. It is difficult to estimate all impacts specifically related to Forest management, this analysis is likely a conservative estimate of employment. Those counties with infrastructure for support and processing forest outputs are more likely to be impacted by changes in management. Summit County in terms of mining and recreation/tourism facilities, Uinta County in terms of grazing and wood production on the Forest, and counties with developed tourism opportunities will also have specific interests in Wasatch-Cache Forest management.

Figure SE-4 displays the contribution of Forest-related activities to the labor income of the analysis area economy. The outputs provided on the Forest are important to individual businesses and local communities, but in terms of the functioning economy surrounding the Wasatch-Cache, Forest-related outputs account for about 10 percent of the labor income. As discussed before, the difference between the employment portion and labor income is likely the differences in wages associated with the sectors. The recreation/tourism industry opportunities tend to be more seasonal and part time in nature with lower wages, accounting for less of the labor income than employment. The mining and manufacturing sectors tend to be the opposite, contributing the same portion or more labor income than employment due to higher wages and full time, year-round employment.

Figure SE-4. Estimated Forest Service-related labor income contributions within the analysis area, 1999.



Source; MIG, 2002.

The following analysis describes some historical trends and current situation of the four forest resource-related industries within the analysis area.

Timber

Today's national forest timber sale program differs dramatically from the program that existed only a decade ago (www.fs.fed.us/land/fm/tspirs/changing.html, 6/25/98, USDA-Forest Service, 1999). These differences have changed the role that timber production from national forests has played in national and regional economies. Closer to home and at a smaller scale there have also been reductions in the amount of timber available for sale and harvested (See Topic 6 – Timber Suitability).

Considerable new information on the local timber industry has recently been put together in a study entitled "Wyoming Timber Market Analysis: The New Western Timber Economy" (Rideout and Hesseln, 2000). The report includes the Wasatch-Cache National Forest in its study area. The study finds that restrictions based on pressures supporting amenity values on local forests, international market events, flatter domestic demand, and market conditions that favor highly capitalized processing are selecting against smaller and family owned mills. This condition is not unique to the local area, but is commonly found throughout the West.

The timber industry in northern Utah and southwest Wyoming is not a big contributor to the regional economy, but it has existed for a long time and is integral to local communities and those individuals directly employed within the industry. In northern

Utah, especially near the Wasatch-Cache Forest, there are few direct timber- related jobs as a percentage of total employment. A few small logging companies and mills are located in Evanston and Mountain View, Wyoming and in Kamas, Utah near the Forest.

Timber harvest on the Wasatch-Cache and related mill activities have been conducted for many years. In the past several years, bidders from outside the local areas have also begun to look at the Wasatch-Cache as a source for timber, and timber is being sold outside the local area and sometimes transported to mills as far away as Belgrade, Montana and Saratoga, Wyoming. Timber harvest levels have declined over the past decade, but have been relatively stable for the past three years (See Timber Affected Environment for specific analysis of timber harvest trends).

The most recent TSPIRS (Timber Sale Program Information Reporting System) report available for the Wasatch-Cache was completed for fiscal year 1998. This report highlights results of the timber program on the Forest. Based on information supplied to the TSPIRS reporting system, timber harvest from the Wasatch-Cache in fiscal year was 7.73 million board feet sold and awarded, with 2.56 million board feet harvested. This activity supported 64 annual average jobs and 3.2 million in labor income within the logging and sawmill sectors.

Figures SE-3 and SE-4 display the limited contribution of the wood products in the analysis area. Those jobs within the industry do tend to be higher paying, but subject to both the price swings in the wood-products industry and the swings in supply from local sources, including Forest Service.

Grazing

According to State of Utah Agricultural Statistics Service (Gneiting and Albert, 1999) overall cattle production in the State has been relatively stable since 1992. For sheep, lambs, and wool a general decline in production is noted over the same period, which reflects the broader economic situation for this sector of the economy.

Range use and demand for forage on the Wasatch-Cache have varied 10 to 20 percent over the last 15 years, but no clear trend in demand is recognized on the Forest (See Livestock Grazing/Range Management Affected Environment.) Cattle head months actually grazed on the Forest were 85 percent of the number authorized for the five years from 1995-1999, while for sheep for the same period the average head months grazed were at 80 percent of what was allowed. The Forest has more than 100 permits for range use, one of the most common permitted uses.

Because there has been a long tradition of grazing on the Forest and relatively large numbers of people have permits to graze, possible economic and also social/lifestyle effects to livestock grazing of Forest Plan alternatives are of considerable interest. Receipts collected for livestock grazing use on the Forest in FY 2000 were $89,959. In 2000 the value for the AUMs for cattle on the forest was $248,175 and the value for

sheep AUMs was $163,455. Grazing fees on the Forest have not increased per animal unit in the last four years.

Similar to the wood products industry, grazing is a small portion of both the regional economy and the local area. But to specific ranchers operating under permit on Forest Service lands, the continued opportunity to graze is important and can be vital to their year round operations. The livestock industry is also subject to the prices and supplies within a larger United States market. The relatively small operations within the analysis area do not influence these larger trends.

Leasable Minerals, Mineral Materials and Other Minerals

Oil and gas and coal are the most common minerals managed under leases, rather than by claims or sales. Oil and gas production companies bid to lease areas on the Wasatch-Cache National Forest that are made available for mineral leasing. Rental fees collected vary on the bids that are made, and the demand is sensitive to the potential of the area to produce as well as current markets. In 1999 the Wasatch-Cache collected rental fees on 72 oil and gas leases of 69,848 acres. The number of these leases does not vary much from year to year, but demand can vary as noted before. The fees collected from these leases amounted to $104,772 in 1999.

When a leased property produces oil or gas products, the federal, state, and local governments share royalties based on the value of the leasable minerals that are produced. In the five years from 1995 to 1999, the average value of the oil and gas produced from these leases was $11,060,035. Royalties paid to the federal, state, and local governments on this production averaged $1,549,230 for the same period of time. The federal government retains one-half of these royalties, and the other half is paid to the states to redistribute within the state and to the counties.

Mineral materials include sand, gravel, and rock. Year-end reports for the Wasatch-Cache National Forest show that the Forest rarely sells any common variety minerals, and therefore there is no local economic value to these resources. These materials are commonly purchased from local private sources. The Forest Service uses a small amount of mineral materials obtained from on Forest sources for roads and campgrounds for fill and maintenance. In 1999, the total value of these products used by the Forest Service was $3,858. Receipts to the government for these minerals on the Forest in FY 2000 were $372. The Wasatch-Cache has no producing mines for mineral ores or other hard rock minerals. For more information concerning general mining and oil and gas activity on the Forest, see the Minerals Affected Environment chapter.

Figures SE-3 and SE-4 attempt to separate out the oil and gas activity that occurs outside Forest Service lands, and that activity within Forest System lands. In this analysis, only crude oil is included. The figures highlight the importance of this mineral activity in the analysis area, whether on National Forest lands or private lands. The level of employment is relatively small, but the income associated with those jobs is significant.

Recreation and Tourism

There are a wide variety of recreation and tourism activities on the Wasatch-Cache (See Recreation and Tourism Affected Environment for specific details). The direct economic collections of developed recreation activities are relatively easy to derive as the Forest Service, concessionaires, or special use permits account for these dollars. However, the direct economic contribution and value to the economy of recreation and tourism activities are not easily derived and often have to be estimated. As discussed earlier, Figures SE-3 and SE-4 combine several sectors related to recreation and tourism activity, but because residents of the area also purchase similar goods and services, the amount of employment and income that can be allocated to tourism and recreation activities is difficult to estimate. The figures do not attempt to separate out local contributions from nonresident spending. The figures to indicate that the visitor industry is a large portion of the potential contribution of the Forest to the local economy, although the jobs are associated with lower wages and seasonal employment. The following describes trends and current situations of general recreation activities that occur on the Forest

Developed Recreation – Concessionaires currently operate most Forest Service campgrounds in the Wasatch-Cache National Forest under special use permits. These permits authorize concessionaires to operate and maintain these facilities, including collecting use fees that are used to cover costs of the operation and maintenance. The Forest Service charges concessionaires a fee for this private use of government-owned facilities, and special use permits generally allow costs attributable to landlord maintenance to be offset against fees owed to the Forest Service.

Hunting, Fishing and Wildlife Viewing – The wildland backdrop of the Wasatch-Cache is heavily used for these activities. All national forest lands are attractive for these activities due to the availability of habitat and the wildlife populations that use them, but the Wasatch-Cache is closer to large populations of users than any other forest. For this analysis estimations of the jobs related to these activities and their economic impacts have been calculated based on information provided in two documents: The Economic Values of Fishing, Hunting, and Wildlife Viewing on National Forest Lands (TRCA, 2000) and 1996 National Survey of Fishing, Hunting, and Wildlife Associated Recreation (USDI, 1997). Estimates for the amount of use on the Forest are highlighted in the recreation section of this document.

Snowmobiles and ATVs - Counts of snowmobiles and ATVs in Utah are done by the Utah Department of Motor Vehicles. In the year 2000, nearly 70 percent of Utah's 27,440 snowmobile registrations were counted in the nine Utah counties that have generally been described in this document as those most closely related to the Wasatch-Cache; similarly 41,026 ATVs were registered in the same counties, or 59 percent of ATV registrations in Utah.

Utah's Division of Parks and Recreation completed a survey (prepared by Utah State University, Institute of Outdoor Recreation and Tourism) that assesses economic and social aspects of snowmobiling in Utah. This survey reports that the Hardware Ranch,

Logan Canyon, Monte Cristo area is the most popular in the state. (Appendix Q1) These sites are either on or immediately adjacent to the Wasatch-Cache, highlighting the need for management of motorized uses.

Annual expenditures for snowmobile activity by Utah residents in 2000 were estimated by the study to be $52.6 million. Mean expenditure per snowmobile was $1,621, while new purchasers (24.7 percent of the last year's snowmobile population) spent an average of $6,555 on their new machines. Expenditure and trip information from this survey was used to estimate the jobs and income impacts of alternatives within the analysis area and is documented in the planning record. While no similar information exists for ATV operation, a recent survey highlights that in Utah ATV owners paid about $4.8 million in property taxes in 2000. These survey results highlight motorized recreation as an active user group of public lands and an important contributor to local businesses.

Developed Ski Areas – About 52 percent of downhill skiers in Utah come from outside the state, while 48 percent are local customers (Wikstrom, 2000). The portion of the use that comes from outside the local area brings new dollars to the local economy and is important from an economic perspective. These non-resident skiers spend $207 per day when coming to ski; resident skiers spend much less on all categories of expenditures. Non-residents spend money on lift tickets, rentals, hotels and restaurants, and other miscellaneous items. Last year total spending by ski visitors in Utah reached $740 million, with additional indirect impacts of $436 million in increased earnings (Wikstrom, 2000).

The five ski areas on the Wasatch-Cache accounted for about half the total number of downhill skiers in the state and have about 1,240 permanent employees and 2,625 seasonal employees. From 1994-1999 annual receipts to the government from these five ski areas that currently have permits to operate on the Wasatch-Cache averaged $762,245. Details on skier visitation trends and ski area development projections on the Wasatch-Cache and adjacent ski areas are available in the Recreation Affected Environment of this document.

Revenues to the State

Under the 25 Percent Fund Act of 1908, counties receive payments from the federal government equal to twenty-five percent of all receipts taken in from National Forest lands within that county. The funds were to be spent on public schools or roads in the county. In October of 2000, the Secure Rural Schools and Community Self Determination Act of 2000 passed which changed the amount of these payments. Recognizing recent losses to many counties of income from reduction of traditional uses on federal lands and fluctuating payment amounts, the law allows counties to select a stabilized payment levels (their full payment amount based on the average of the three highest 25 percent payments made to the state between fiscal years 1986 and 1999), or continue the traditional 25 percent payment. All of the counties receiving funds from the Wasatch-Cache have selected the stabilized payments except for Rich County Utah.

Table SE-6 displays the full payments made to counties based on the Secure Payment language and the payments related to Wasatch-Cache National Forest receipts under Title I, II and III of the act and Rich Counties fiscal year 2001 payment. Title I funds are to be used for education and roads. Title II and III funds are required when counties receive a full payment of $100,000 or more. These counties are required to reserve no less than 15 and no more than 20 percent of the distribution for forest restoration, maintenance, or stewardship projects. Title II funds are to be spent on special projects and are intended to foster cooperation and consensus among a wide array of forest users. Title III funds are to be spent on county projects.

Table SE-6. 25 Percent Fund Payments to Counties from Wasatch-Cache National Forest, 2001.

	Wasatch-Cache Payment	Title I	Title II	Title III
Box Elder, UT	6,076	6,076	0	0
Cache, UT*	87,654			
Davis, UT	16,512	16,512	0	0
Morgan, UT	6,179	6,179	0	0
Rich, UT*	15,735			
Salt Lake, UT	41,938	41,938		
Summit, UT	217,877	185,196	0	32,682
Tooele, UT*	32,437			
Uinta CO, WY	16,107	16,106	0	0
Weber, UT	29,579	29,579	0	0

Source: USDA Forest Service, Washington Office. 2001.
*Cache, Rich, and Tooele counties in Utah did not select secure payments, so payment amount shown is fiscal year 2001 payment made based on Forest revenues..
Payments to Duchesne and Wasatch County from Federal Government not shown as counties are considered out of the analysis area.

Under the Payments in Lieu of Taxes (PILT) Act of 1976, counties receive payments from the federal government for having federal lands within their counties to make up for lost revenues. Congress appropriates PILT payments based on a complex formula developed at a national scale using population and acreage of federal lands and the value of other federal revenues as key factors. The final annual PILT appropriation is not only based on the formula but is also sensitive to politics and other national funding priorities from year to year. Due to the complexity of the development of PILT payment values, past PILT payment amounts should only be used as a general indicator of possible future PILT values, and never as a guarantee of future revenues to counties. For the preceding reasons, changes in individual forest plans may not be good predictors of local PILT payments (Bill Howell, WO-BLM, personal communication, July, 2000). Table SE-7 displays the amounts of PILT payments to counties in fiscal years 1996 - 2001.

Table SE-7. PILT payments to counties from Federal Government, fiscal year 1996-01.

Fiscal year	Box Elder, UT	Cache, UT	Davis, UT	Morgan, UT	Rich, UT	Salt Lake, UT	Summit, UT	Tooele, UT	Uinta, WY	Weber, UT
	nominal dollars									
1996	913,117	181,113	22,131	10,817	82,822	63,267	342,193	729,890	423,299	43,253
1997	853,087	172,860	21,468	10,214	83,343	60,008	324,470	712,895	403,938	41,415
1998	864,414	179,324	24,582	10,630	84,764	59,528	323,752	726,699	403,554	45,903
1999	887,078	164,699	19,770	10,303	84,332	64,874	345,816	747,505	419,356	36,592
2000	938,662	188,351	25,407	11,765	92,313	71,236	380,674	828,955	443,216	45,225
2001	1,345,476	274,719	34,960	16,212	142,611	97,951	523,941	1,360,622	631,772	69,696

*Payments to Duchesne and Wasatch County from Federal Government not shown as considered out of analysis area.

For counties in the Wasatch-Cache analysis area, funding from PILT and 25 percent fund payments are used as part of funding for county budgets. Table SE-8 shows to what extent these revenue sources supported county governments in 1999, an example of a recent year. A very low percentage of county funding in urban counties is provided from these revenues. In all cases PILT and 25 percent payments made up less than 9 percent of total county revenues in 1999.

Table SE-8. County Budgets and Federal Payments from PILT and 25% Fund (1999)

County	Total County Budget	PILT	25% Fund Payments	Total budget from Federal Funding	County Budget from Federal Funding
	dollars in 1999				percent
Box Elder, UT	10,111,314	887,078	9,111	896,189	8.86
Cache, UT	12,059,059	164,699	104,873	269,572	2.24
Davis, UT	28,802,782	19,770	14,945	34,715	0.12
Morgan, UT	4,274,664	10,303	5,616	15,919	0.37
Rich, UT	1,705,819	84,332	18,323	102,655	6.02
Salt Lake, UT	223,979,905	64,874	37,819	102,693	0.05
Summit, UT	16,865,528	345,816	198,117	543,933	3.23
Tooele, UT	21,086,738	747,505	62,801	810,306	3.84
Uinta, WY	15,091,065	419,356	15,292	434,648	2.88
Weber, UT	28,144,463	36,592	25,334	61,926	0.22

Source: County budgets in Utah from Utah State Auditors Website, www.lgr.sao.state.ut.us/1999%20County%20Budgets_1. Uinta County Website, www.webcom.com/ucedc/county/budget99.

Environmental Consequences

The impacts of the alternatives are projected based on Forest Service expenditures and the estimated outputs in five program areas of forest management: recreation/tourism, range, wildlife and fish, timber, and minerals. The output levels used for this analysis represent the projected 10-year average for the planning period. Resource specialists have provided estimates based on the best available information and professional judgment. Additionally, because complete information about the area economies was not available, it was necessary to make a number of assumptions in order to conduct the analysis. Where pertinent to the discussion of effects, some of these assumptions are explained below. More information about the assumptions and processes used to conduct the analysis is provided in Appendix B11, Forest Plan Revision Process.

The nine-county scale of analysis represents the region of economic and social relationship and interaction with the Wasatch-Cache National Forest and its management policies. The analysis model incorporates county level data into the regional scale and generates results at the regional level. Because of this, economic effects at any smaller combination of counties, or an individual county, were not generated and cannot be inferred from the analysis results.

Because of limited data, the need for modeling assumptions, limits to the model itself, and other factors, the most important use of the results is to compare relative economic effects among the seven alternatives analyzed in detail (the current condition is also displayed in addition to the seven action alternatives). The results should not be viewed as absolute economic values that accurately portray the infinitely complex economic interactions of the regional economy, but as an estimate of potential effects.

The economic sections of the analysis consider the potential effects to market-related goods and services that are traditionally related to national forests, for which monetary values are available, and for which analysis tools are generally accepted. Passive use values have not been quantified. Therefore, the analysis considers the possible economic impacts of alternatives to timber, livestock grazing, mining, and recreation. It does not consider many other "amenity" values for which monetary values and analysis techniques are less clear. These are mainly comprised of existence, bequest, option and quasi-option values.

Existence values refer to the amount an individual would be willing to pay to preserve an old-growth forest stand, for example, even if they had no intention of ever visiting it. Bequest value refers to the amount individuals would be willing to pay to preserve the stand for the enjoyment of their children or future generations. Option value refers to the premium risk-adverse individuals would be willing to pay in excess of their expected surplus to ensure the future availability of the stand in an environment of uncertainty. Quasi-option value arises because there is uncertainty about the future value of a natural resource. Information about the value of the resource is revealed only with the passage of time.

While the passive values associated with the Forest as a whole are no doubt considerable, and the Forest Service recognizes the tremendous value of these kinds of items, they are extremely difficult to accurately measure, particularly on the per acre basis, which would be needed in order to make a comparison among alternatives. Analysis methods to quantify them in an economic analysis are also not readily available or agreed upon. Such values are described and considered qualitatively within the social and other individual resource sections of this document. Additional assumptions and the derivation of value estimates by alternative are included in Appendix B11.

Financial and Economic Efficiency

Financial and economic efficiency are analyzed in this section. Financial efficiency examines revenue and cost implications from the perspective of the Forest Service. It could also be said that this is the perspective of the taxpayer. Only those revenues and costs that are recorded in financial records are included in this analysis.

When considering quantitative issues, financial efficiency analysis offers a consistent measure in dollars for comparison of alternatives. This type of analysis does not account for non-market benefits, opportunity costs, individual values, or other values, benefits, and costs that are not easily quantifiable. This is not to imply that such values are not significant or important – but to recognize that non-market values are difficult to represent with appropriate dollar figures. The values not included in this part of the analysis are often at the center of disagreements and the interest people have in forest resource projects. Therefore, financial efficiency should not be viewed as a complete answer but as one tool decision makers use to gain information about resources, alternatives, and trade-offs between costs and benefits.

Economic efficiency examines a broader definition of benefits by including values for national forest uses that are not captured in the marketplace. Many non-market and passive use values are excluded from the economic efficiency analysis completed here. Some outcomes of effects, such as biological diversity, visual amenities, and some social impacts have no monetary values or costs that have been established by USDA or the Forest Service. While some research studies have explored the development of such values, this analysis has considered these items in a non-monetary fashion in the other resource sections of this EIS. Willingness-to-pay values for recreation use are the primary additions over a financial analysis. Estimated market value for meat gained by grazing livestock on public land is also included. See Appendix B11 for a description of values used in the economic analysis.

Net public benefit is an important concept in the current regulations for carrying out a forest plan revision. Net public benefit is defined as the overall value to the nation of all outputs and positive effects (benefits) minus all the associated Forest Service inputs and negative effects (costs) for producing those primary benefits, whether they can be quantitatively valued or not. Thus, net public benefits conceptually are the sum of this economic analysis plus the net value of non-priced outputs and costs. It is not the results of an economic analysis alone. This concept is the basis upon which the Regional Forester selects an alternative for implementation. Net public benefits are discussed in the Record of Decision.

The main criterion used in assessing financial and economic efficiency is present net value (PNV), which is defined as the value of discounted benefits (or revenues) minus discounted costs. A PNV analysis includes all outputs, including timber, grazing, and recreation, to which monetary values are assigned. As noted above, the monetary values include both market and non-market values received by the public. In deriving PNV figures, costs are subtracted from benefits to yield a net value. "Future values" (i.e., benefits received in the future) are discounted using an appropriate discount rate to obtain a "present value." The PNV of a given alternative is the discounted sum of all benefits minus the sum of all costs associated with that alternative. PNV, as required by NFMA (36 CFR 219) estimates attempt to condense a large amount of information into a single value, they must be used with caution.

Table SE-9 displays the economic and financial PNV for each alternative. All dollars are in constant dollars with no allowance for inflation. A four percent discount rate was used over a period of 50-years (2002-2051). While the planning horizon for the forest plan is 10-15 years, the PNV analysis considers costs and benefits into the future to account for long-term benefits and discount costs. While the question of the appropriate discount rate to use is debatable, the four percent level is consistent with what is commonly used in evaluation of public policy. Revenues are not reduced for payments made to states and counties. The reduction of PNV in any alternative as compared to the most financially or economically efficient solution is the economic trade-off, or opportunity cost, of achieving that alternative.

Forest Service budgets have been held constant over the planning horizon. Specific allocation differences between resource programs were made based on each alternative's emphasis. Based on estimated resource outputs by alternative, the level of revenues to the Forest Service change by alternative.

Table SE-9. Economic and financial efficiency (PNV) estimated by alternative for 50-year planning horizon, in millions of dollars.

Value	Alternative							
	Current	No Action	1	2	3	5	6	7
	present value, million of dollars							
Forest Service revenues	172	173	158	163	137	174	139	140
Public benefits	14,135	14,867	14,779	14,820	14,851	15,089	14,860	14,868
Costs	-417	-417	-417	-417	-417	-417	-417	-417
Financial PNV	-245	-244	-259	-254	-280	-243	-278	-277
Economic PNV	13,718	14,450	14,362	14,403	14,434	14,672	14,443	14,451

Source: USDA Forest Service 2002b, Quick-Silver.

As shown in Table SE-9, the financial PNV (Forest Service revenues minus costs) for the budget level varies little between the alternatives, with alternative 3 being the most negative, -$280 million to Alternative 5 with a total of -$243 million. All alternatives do show negative financial PNV, indicating that costs of Forest Service management are estimated to be greater than the revenues taken in over the next 50 years. What appears to make Alternative 5's financial PNV the highest is the higher levels of timber harvest

and grazing associated with the alternative. Alternatives with preservation emphases such as 1 and 6 show the highest net cost to the taxpayer, because there are fewer agency revenues associated with these activities associated with the alternatives while expenses remain the same.

The economic PNV (public benefits minus costs) is positive for all alternatives. The net value ranges from a low $14,362 million for Alternative 1 to a high of $14,671 million for Alternative 5. There is only a 2 percent difference between the lowest and highest PNV—a difference that may be indistinguishable given estimated accuracies for value and output estimates. The net economic benefits are orders of magnitude larger than the financial gross revenues. This suggests that even with the limited monetary values available for the analysis, society benefits greatly from implementing any alternative fully considered in this document.

Distribution Analysis

Distribution analysis is not concerned with costs and benefits directly, or with direct values of resources, but with the equity in which resource are distributed. In essence, it is the balancing of local, regional, and national uses. By identifying local impacts and being aware of national values, decision makers can balance the benefits and costs among geographical, political, social, ethnic, and economic sectors of society. In this analysis, the distribution of potential impacts within the analysis area is considered from several perspectives, impacts of employment and labor income by alternative, and environmental justice. The following analysis is one of the many tools decision makers will use to compare the relative difference among alternatives.

Employment and Labor Income

The following analysis and discussion examines the potential effects of alternatives on employment and labor income opportunities within the analysis area. Although in many cases the differences between the alternatives are relatively small, the impact may be considerable to individual communities, persons, families, or businesses. Within small communities, the loss of a single job can be very important, even though the impact across the analysis area is negligible.

The IMPLAN model was used to estimate complex economic relations in order to approximate the effects of each alternative on the economy as a whole. The IMPLAN model is an input output model that estimates and uses multipliers as a means to estimate the change in direct, indirect, and induced effects as a result of an adjustment in the level of final demand for the goods or services provided by a given sector of the economy. These multipliers also take into account the effects of leakage and imports.

The employment and income estimated should be viewed as resource opportunities, not as actual jobs the alternatives will provide. The impacts estimated are based on the assumption of full implementation of each alternative. The actual changes in the economy will depend on individuals taking advantage of resource-related opportunities

supported by each Forest plan alternative. If market conditions, or trends in resource use are not conducive to developing some opportunities, the impact on the economy will be different than estimated here. The results highlighted below only account for jobs and income related to Forest Service outputs, the figures do not represent total industry participation or activities associated with other resources outside the Wasatch-Cache.

Leakage occurs when money must be spent outside the analysis area in order to fulfill production needs – if a local restaurant requires seafood for production of dinner, the money spent in Washington or Oregon for fresh salmon is considered a leakage. The money has left the analysis area and is no longer available for circulation within the local economy. Imports to the local area are basically someone else's leakage – when non-residents enters the analysis are for a weekend of skiing, all the money spent is considered new money, or an import to the economy.

The following tables estimate the potential impact of each alternative on the employment and labor income in the analysis area. The model estimates how many jobs and associated income would be necessary in each sector to fulfill the resource demand of each alternative within the analysis area. The jobs estimated are not necessary new employment – the tables display the total employment (direct, indirect, and induced) needed to produce each alternative's resource output. The current situation highlights the level of employment and income that is currently associated with Forest activities, so the difference between alternatives can be compared to current operations.

It is also important to note that in the IMPLAN model, jobs can be part-time, full-time or seasonal. In this analysis, jobs are not the same as a Full Time Equivalent (FTE). This is important to consider when looking at these job figures that only the portion of an industry related to forest outputs will be accounted for in the analysis. For example, if there were 350 grazing permittees within an area, those jobs may be represented by only 75 jobs in the Forest Planning model because these operations do not graze solely on Forest Service lands. The analysis only accounts for that grazing output on the Forest and then adds all jobs together so the 75 jobs represents the employment of the 350 permittees while operating on the Forest.

Table SE-10 displays the estimated annual average employment within the analysis area. All alternatives show similar results with a change of 305 potential jobs between the highest and lowest alternative. Alternative 5, emphasizing traditional commodity production, estimates the largest increase in jobs from the current situation, and Alternative 1 estimates the least increase. A portion of the potential increase is due to the assumption of full implementation of all alternatives, while the current situation is reflective of actual budget and personnel limitations encountered annually by all Forest Service offices.

Table SE-10. Average Annual Employment by Program by Alternative (Decade 1)

Resource	Current	Alternatives: No Action	1	2	3	5	6	7
	average annual employment, jobs							
Recreation/tourism	5,510	5,982	5,960	5,977	5,993	6,002	5,993	5,993
Wildlife and fish	80	88	88	88	88	88	88	88
Grazing	35	35	33	29	35	35	33	34
Wood products	60	60	0	18	25	63	33	37
Minerals	89	89	52	52	210	251	210	227
Forest Service expenditures	393	393	394	392	392	392	392	392
Total forest management	6,167	6,647	6,527	6,556	6,743	6,831	6,749	6,771
Percent change from current	---	8%	6%	6%	9%	11%	9%	10%

Source: MIG 2002.

The majority of all jobs estimated for the alternatives are within the recreation and tourism program. Most of these jobs are likely to be seasonal and associated with the retail or service sectors. The differences between the alternatives in the recreation/tourism program are due to management prescriptions allowing for developed recreation such as ski areas and ski area expansion or other facilities that increase the number of users within an area.

The grazing program outputs are based on averages of actual use over a ten-year period adjusted by alternative based on suitable acres and forage utilization allowances. Alternative 2 assumes the least suitable range resulting in total AUMs of 84 percent of the current average, and a potential decline in associated jobs. Although actual AUMs are projected to change by Alternative, permitted AUMs will not change as a result of Forest Plan Revision. Adjustments to permitted numbers depend on site-specific monitoring, analysis, and decisions.

Timber harvesting is an important component of each alternative. Alternatives 5 and 7 manage timber as a commercial resource while other alternatives highlight timber harvest as a tool used in achieving forest health and restoration goals. Employment associated with timber harvesting includes logging of the trees and local milling. In some cases, such as urban interface fuels reduction projects, the trees harvested are often too small to be used in sawmill operations so employment is limited to logging of the material.

Available lands for mineral exploration and continued oil and gas drilling vary depending on the emphasis and management of each alternative. Alternatives 1 and 2 minimize the level of activity and thus the associated jobs while Alternatives 5 and 7 expand mineral opportunities and jobs. For individual resource, see the resource section in this document for specific output information and descriptions.

Table SE-10 displays the estimated annual average labor income within the analysis area by resource program. The labor income differences by alternative show similar trends as the employment figures with limited variability between alternatives. The largest portion is within the recreation/tourism program. Alternative 5 estimates the largest change, 14 percent, from the current level of labor income associated with higher outputs and activities. Alternative 1 estimates lowest labor income when compared to the current level. Again, because of the assumption of full implementation of the alternatives, all show positive change from the current situation, which is constrained by actual budget.

Table SE-11. Labor Income estimated by Program by Alternative (Decade 1)

Resource	Current	Alternatives						
		No Action	1	2	3	5	6	7
	average annual, in millions of dollars							
Recreation	108.2	117.6	117.0	117.4	117.8	117.9	117.8	117.8
Wildlife and Fish	1.6	1.8	1.8	1.8	1.8	1.8	1.8	1.8
Grazing	0.5	0.5	0.5	0.4	0.5	0.5	0.5	0.5
Wood products	1.4	1.4	0.0	0.4	0.6	1.4	0.8	0.8
Minerals	4.5	4.5	2.6	2.6	10.6	12.6	10.6	11.4
Forest Service expenditures	12.4	12.4	12.4	12.5	12.5	12.5	12.5	12.5
Total forest management	128.6	138.2	134.3	135.1	143.8	146.7	144.0	144.8
Percent change from current	---	7%	4%	5%	12%	14%	12%	13%

Source: MIG 2002.

Environmental Justice – Civil Rights

A specific consideration of equity and fairness in resource decision-making is encompassed in the issue of environmental justice and civil rights. As required by law and Title XI, all federal actions will consider potentially disproportionate effects on minority or low-income communities. Potential impacts or changes to low-income or minority communities within the study area due to the proposed action should be considered. Where possible, measures should be taken to avoid negative impacts to these communities or mitigate the adverse affects.

As highlighted in the Affected Environment of this section, there are few minorities within the study area and no communities are considered low-income. While there are individual households that are either minority or low-income, the communities as a whole are not.

Payments to the State

As highlighted in chapter 3 of the social and economic analysis, all counties within the Wasatch-Cache National Forest analysis area except Cache, Rich, and Tooele counties in Utah have selected stable payments under the secure payments legislation. There will be

no changes in payments to states by alternative to those counties selecting stable payments. Cache, Rich, and Tooele counties will continue receive a portion of Forest revenues, Table SE-11 highlights historical payments by program to these counties. Funds from timber harvesting and salvage are a significant portion of the related payments; it is likely any alternative with lower timber activity may return fewer funds to the counties. Grazing has been fairly stable over the last three fiscal years, contributing a similar amount to the county payment; since all alternatives have allotment use similar to current this trend will continue. Current land uses, power lines, and special uses are not significantly impacted by any of the alternatives, but several limit future ski area developments and expansions that may limit future county payments. Finally, the fees from recreation have been declining and will likely continue to do so under all alternatives as the Forest Service moves toward concessionaries and Fee Demo. These collections are not included in payment calculations.

Table SE-12. Cache, Rich, and Tooele counties Utah, 25% payment, fiscal year 1999-2001.

	Cache County			Rich County			Tooele County		
Revenue category	FY99	FY00	FY01	FY99	FY00	FY01	FY99	FY00	FY01
	nominal dollars								
Timber	51,448	33463	92,332	8,988	6,006	16,574	256	4,906	4,714
Grazing	25,006	25,660	24,750	4,368	4,606	4,443	4,687	4,792	4,392
Land use	4,308	3,128	5,017	752	561	900	22,314	4,118	1,858
Recreation Special Use	44,850	30,158	47,964	7,835	5,413	8,610	203,929	173,787	13,303
Power Line	7,529	7,204	7,344	1,315	1,293	1,318	773	789	801
Minerals	0	0	0	0	0	0	64	66	956
Recreation Fees	15,258	13,753	5,477	2,665	2,468	983	137	155	291
KV/Salvage	271,093	138,697	167,731	47,364	24,897	30,099	25,535	18,278	9,922
Total revenues	419,492	252,063	350,615	73,291	45,247	62,928	257,695	206,891	136,237
County 25% payment	104,873	63,016	87,654	18,323	11,312	15,735	64,424	51,723	34,059

Source USDA Forest Service 2001c.

Economic Cumulative Impacts

The revision process estimates potential economic effects of alternatives in the short term. There are no reasonably foreseeable future actions within the analysis area that would significantly impact current uses of the area in the future. In some cases, jobs and income related to one type of resource development may be forgone in order to emphasize or manage an area for a different resource output; other types of jobs and income will be associated with this alternative management. Individuals may be adversely impacted by selection of one alternative over another, but in the larger, regional economy, each alternative offers a different mix of opportunities to the area.

Social Impact Analysis

This section covers social impacts that more often occur off national forest lands. Effects of alternatives to recreationists and other users that occur directly on the Forest (in recreation, from other commodity development activities, through Wilderness

designation, vegetation management, wildlife habitat management, fire management, and watershed management) are described in sections devoted to these topics.

The social impacts section has three parts.

First, effects related to Issue 4. This issue was developed to deal with economic and social values. The effects of alternatives on several kinds of uses (livestock grazing, timber harvest, oil and gas leasing, and ski areas, and recreation), as portions of the economy, and use interactions have been described previously. Aspects of these uses, which have a social effect on lifestyles of people involved in livestock grazing, timber harvest, oil and gas work and recreation will be addressed in this section. A narrative discussion of the effects of alternatives is provided for these affected forest users. We recognize that the public has a broad range of values and interests in how national forest lands are managed, and that this section cannot likely meet every individual's or group's expectations or concerns. What is provided are some general observations on the probable effects of the alternatives to relatively intangible social values described in Issue 4.

Second, effects related concerns raised by individual counties. A narrative is provided which describes effects to concerns raised by individual counties that were voiced during information gathering for this analysis. Effects to American Indians in the vicinity are also discussed.

Third, a discussion of potential cumulative effects is provided for an interpretation of the longer-term general effects of population changes, demographic shifts, increasing diversity, and social issues related to forest plan decisions.

Effects of Alternatives on Social Conditions related to Livestock Grazing

While projected AUMs are not grossly affected for cattle and only moderately affected for sheep, suitable acres do change by alternative, having implications for how livestock grazing is to be managed and distributed. Depending on current conditions of an individual allotment and how suitable acres are distributed, actual AUMs may change and management requirements may affect permittee operations. Increased needs for riding and fence construction and maintenance apply to all alternatives that reduce suitable acres. In Alternative 7, the 30-40% forage utilization guideline for lands in unsatisfactory condition will require additional diligence on the part of permittees to keep use levels within the allowable. This may mean more time spent managing livestock on the forest making less time available for other pursuits.

Those permittees whose allotments are in areas recommended for Wilderness for example can expect that any existing motorized access under their Term Grazing Permit for proper management of livestock can continue at least until such time as

Congress acts. However some recreationists may complain about this access because it is not available to the general public.

Alternatives 1, 2, 3, 6, and 7 close all or some currently vacant allotments. As these allotments are not currently used, there should be no short-term social effects associated with this change from current status. Long-term, closed allotments will provide ungrazed areas for those who enjoy recreating in areas lacking the influence of domestic livestock grazing.

Those groups or individuals who do not favor the use of national forests for livestock grazing could be more satisfied with alternatives that reduce suitable acres and/or projected AUMs. However the differences in terms of presence of livestock grazing and accompanying environmental effect are expected to be minimal from a recreation setting or aesthetic perspective.

Effects of Alternatives on Social Conditions related to Timber Harvest and Vegetation Management

Projections for timber harvest levels vary by alternative as presented in the Timber section. While most local mills have adapted to decreasing or intermittent supply from federal lands by increasing purchase from other suppliers, further adaptation might be required under alternatives all alternatives except 4 and 5. Similarly, if decreased supply projections equate to some effect on social patterns associated with those people employed by mills or in logging, then alternatives that show reductions in harvest might have some minor effect on related social patterns.

Emphasis on the forestwide subgoal for vegetation composition and structure (trending toward historic range of variability through increased prescribed burning, wildland fire use, or mechanical treatment) may also affect local social conditions. Alternatives 2, and 3, 6 and 7 to a lesser extent, increase forest vegetation management efforts by increasing the acres treated by the techniques mentioned above. Some new Forest Service jobs or some contract opportunities to accomplish these vegetation management goals could be created. The economic modeling has included higher values for Forest Service budget in these alternatives related to these activities.

Those groups or individuals who do not believe the Wasatch-Cache should be open for commercial timber harvesting might be more satisfied Alternatives 1 and 2 that limit harvest to restoration related activities.

Effects of Alternatives on Social Conditions related to Oil and Gas Leasing

Alternatives, 3, 5, 6, and 7, provide for some additional oil and gas leasing with differing stipulations on the roadless areas of the North Slope. Projections for production differ by alternative (See Oil and Gas section.) For Summit County, additional county revenues would

be realized on royalties, taxes and other income, but few additional jobs are actually projected (See Economics section.) Uinta County would probably also see a few additional jobs, but might see less county revenue increases, as much of the producing area is in Utah.

Socially, any changes to the makeup of communities in Summit or Uinta County or from the selection of any alternative, would be very minor. No major oil boom or bust will result from any alternative; there will be no substantive increase in population, jobs, or diversity as a result of any alternative related to oil and gas leasing.

Those groups or individuals who do not believe that roadless areas on the North Slope should be leased will be aggravated if a decision to lease part or all of the area is made. These people will likely protest or appeal a decision to lease in roadless, believing that irretrievable losses of ecosystem will be made.

Effects of Alternatives on Social Conditions related to Recreation

For recreation, the Alternatives largely vary on the amounts of motorized versus non-motorized recreation available, particularly as relates to winter snowmobile access.

Businesses dependent on motorized recreation (ATV and snowmobile dealers, gas stations) and segments of society whose lifestyles are related to motorized recreation use will favor Alternatives 3, 4, 5, and 7. These alternatives maintain acres and trails available for motorized access and uses about where they are today, or try to expand motorized uses where possible, which would appeal to these people. Alternatives 1, 2, and 6 limit snowmobile use in roadless areas and recommended wilderness, which may be offensive to the motorized group of users.

Alternatives 1, 2, 6, and, 7 which provide protection for roadless areas, and limit the use of snowmobiles in these areas, will appeal to segments of society who (as a rule) do not favor the use or expansion of motorized recreation, but prefer non-motorized, small-group outdoor recreation activities or protection of ecosystem components from what they perceive as threats to their uses or the natural system.

For outfitter-guides, all alternatives except the No Action Alternative provide new criteria for assessing the need for outfitter guides. Most individuals or groups that have an interest in outfitting and guiding on the Forest ought to be pleased with the specificity provided in these criteria for assessing proposals. Some individuals and groups do not favor providing outfitting and guiding services on the Forest; while they may have preferred that any potential for new outfitting and guiding be closed off, these individuals may also be pleased to find the criteria provided for assessing proposals.

Socially, various user groups have strong preferences for different kinds of recreation, and their acceptance or rejection of the adequacy of any alternative to meet their needs seems relatively straightforward. Predicting individual responses to these alternatives is very difficult.

Effects of Alternatives on Social Conditions related to Ski Areas and Heliskiing

Alternative 5 is the only alternative that allows increased acreage for ski resort permits. The other alternatives do not. Because of this, Alternative 5 ought to appeal to the ski resorts, or to those groups or individuals who support more opportunity for developed ski resorts and businesses. For individuals or groups who do not want additional allocations for ski area expansion (for ecosystem, other recreational opportunity, simply maintaining the status quo, or a variety of other reasons) other alternatives would seem more socially acceptable.

Alternatives 3-7 allow heliskiing, in about the same locations where it is currently allowed. Individuals who enjoy heliskiing and the owners of this business will find these alternatives in their favor. Alternatives 1 and 2 do not allow the continuance of heliskiing on the forest, after the current permitted use expires. Opponents of heliski use will probably support a decision that would choose Alternative 1 or 2.

Effects of Alternative Wilderness Recommendations on Social Conditions

In Utah, as in much of the west, the issue of whether to have more Wilderness or not is most often polarizing. The actual physical merit of an area (its "capability") is often not the major question at hand. Rather, the historical context in which former battles over Wilderness have been waged and the intrenched positions of key individuals bear equally as heavily on the question. Any Wilderness recommendation is perceived as too much by some, while smaller recommendations are thought to be environmentally irresponsible by others. An attempt to find some middle ground is difficult. It is likely that the choice for any alternative will be unsatisfying to many.

Wilderness advocates tend to prefer Alternative 1 with the largest Wilderness recommendation; conversely, those opposed to more Wilderness (motorized use and access enthusiasts, advocates of timber, oil and gas, and livestock grazing use) are highly opposed to these recommendations. At the other end of the spectrum, Alternatives 4 and 5 are preferred by those opposed to more Wilderness, as none is recommended; advocates for more Wilderness are highly opposed to these alternatives. In between these two extremes are Alternatives 2, 3, 6, and 7, at least with respect to Wilderness recommendation. Each of these alternatives can be said to be more or less acceptable to opposing segments of society depending on the amount of Wilderness recommended, or not, and the choice for any of these alternatives would carry with it acceptance or discontent by different affected groups.

Effects of Alternative Roadless Area Management on Social Conditions

How roadless areas should be managed in the future – to maintain their "natural" ecosystem functions, or to be more actively managed or developed - has been a key public issue in this forest plan revision. This forest plan revision effort has been contemporary with and heavily affected by the Roadless Area Conservation Rule 36 CFR

294 (RACR). See other sections of this document for more detailed information on implications of the rule. Public debate on roadless area conservation, both in this forest plan's revision forums and at the national scale has been contentious and polarized.

Different individuals and groups of people experience solitude, serenity, spiritual renewal and a variety of other positive emotions in different ways. The kinds of wildland settings and personal or group experiences that provide positive fulfillment to some users are not fulfilling for others. Families and groups with differing traditions about how they recreate, use, or otherwise see value in public lands are fervent about their desires to preserve those values they see as shrinking or threatened. This section is intended to disclose how the alternatives may affect or be perceived by groups with differing personal/social values.

Alternatives 1, 2, and 6 applied the RACR protections to all roadless areas (no timber harvest, no road building). Roadless area values are fully protected in Alternative 1, nearly as much so in Alternative 2, and to a lesser extent in Alternatives 6 and 3. The selection of any of these alternatives with larger Wilderness recommendations or more roadless acres maintained, reduced areas available for motorized use, emphases on ecosystem functions and restoration, setting aside additional wild lands for more primitive forms of use, as a refuge for species/wildlife, would appeal to segments of society where these values were held high.

Alternatives 5 and 4 allow development (road construction, timber harvest, new recreation developments) in most roadless areas; within the parameters of forest plan standards and guidelines. The selection of either of these alternatives would appeal to segments of society that value these uses. These alternatives are probably more amenable to social groups who make a living through commodity production based on using national forest lands. Advocates for motorized use, winter and summer, would find these two alternatives better suit their personal needs.

Alternatives 3, 6 and 7 tend to be more middle of the road with respect to societal values on roadless area management, resulting in neither full maintenance of identified roadless area values (See Appendix C-2), or in more developed uses in roadless areas. Alternative 7 examined and evaluated roadless areas for unique and individual values and recommends management for each roadless area with more information and knowledge of environmental and social context than do the other alternatives. Because of this Alternative 7 might appear to have some advantage to others in terms of public support, however, it is unlikely that a choice for this alternative would satisfy a large majority of the public.

Effects on Social Conditions from Fuel/Vegetation Treatment

Alternatives that have more opportunities and acres identified for mechanical fuel treatment (Alternatives 3, 6 and 7) would have more of an impact on social conditions. Residents in the wildland-urban interface would be impacted by mechanical fuel treatment designed to mitigate fire behavior. Residents would be encouraged to complete

fuel treatment actions on private land in areas adjacent to where fuel treatment occurs on public land. Some residents may not be supportive of fuels reduction actions because of reduced perceived scenic quality resulting from more open-growing vegetation. Using local contractors to complete mechanical fuel treatment work would positively impact the local economy. This impact would be greatest when local contractors are used in less-populated communities.

Other effects on social conditions from fuel treatment in the wildland-urban interface are the reduced risk of severe wildland fire burning homes or causing landslides where fuel treatments have been accomplished. See section on "Effects on Social Conditions from Fire Management" for additional discussion.

Effects on Social Conditions from Fire Management

Fire management actions have the potential to greatly impact social conditions with the most impacts from large wildland fires. Since most communities surrounding the Wasatch-Cache NF do not heavily rely on timber production from federal lands, the impact of wildland fire burning suitable timber stands would be minimal. However, many residents surrounding the forest choose that location because of the scenic and remote qualities. Following a large wildland fire, perceived scenic quality is greatly reduced in the short-term. Additionally, risks of substantial erosion are greatly increased. This would affect home and property values, and may be costly or devastating to homeowners (in the event of homes burning and/or severe landslides). It is difficult to determine which Alternatives would have more risk of homes burning or severe landslides. Alternatives 1 and 4 have the least managed fuel reduction actions in the wildland-urban interface and therefore may have the highest potential risk and related impacts. In small communities, the use of local contractors for fire suppression actions (caterers, equipment rentals, drivers, etc.) may benefit local communities.

The social impacts of prescribed fire and wildland fire use would be minimal and do not significantly vary across alternatives.

Potential Effects on Concerns Raised by Counties

Meetings with each county were conducted to assess what counties were interested in related to national forest management during the early stages of this analysis. Some of this information is presented in the Affected Environment section above. This section describes effects to counties based on what was said to be of interest during these information-gathering meetings.

Box Elder County

Under any alternative watershed for the community of Honeyville is protected. Ongoing travel management planning in eastern portions of the county adjacent to the Wasatch Range has been conducted with the Forest Service. Summer travel management planning for routes is separate from this Forest Plan; however, it is expected that further interactions between the county and the Wasatch-Cache will occur, and the Forest

Service is interested in county concerns for the area related to resource impacts, safety, and on and off road vehicle use.

Cache County
Cache County planning personnel indicated (as heard in scoping meetings with the general public) that there was a broad range of opinions in the county on forest planning issues. Effects of alternatives on Wilderness proposals, winter and summer motorized and non-motorized use, roadless area management, livestock grazing, and protection of rivers eligible as Wild and Scenic Rivers are presented in those sections.

As population grows and development continues in Cache County, demands on Forest lands will continue to rise. Socially, this may be contentious as users interact with competing demands; it is also possible that local users may see the need to come to terms with one another and help find common solutions.

Davis County
In Davis County watershed protection has been provided in every alternative to ensure protection of downstream uses. In Alternatives 3 and 5 the intent is to provide additional recreational opportunities for motorized and developed uses respectively, while continuing watershed protection. All action alternatives employ new fire management direction with more emphasis on the use of prescribed and wildland fire use.

Morgan County
All alternatives provide substantial protection of watershed conditions above Mountain Green on the southeast portions of Mt. Ogden.

South of I-15 access from the east side to the Wasatch Front has been limited (across private lands). In the revised Forest Plan written to express Alternative 7 conditions the Desired Future Condition states that any existing access will be maintained, and if not present, that public access would be acquired. Providing new access to the backside of the Wasatch Range here would provide quicker access to undeveloped recreation opportunities in the area. It might also mean some increase in traffic during highest use periods through county areas to the forest.

Rich County
Few, if any, social effects will be noted in Rich County from any alternative. A continuance of existing land-use opportunities are provided. No changes in current allotment status are presented in any alternative. Timber harvest opportunities, while not available in Alternative 1 are present in other alternatives at or near the current low production levels. For the most part, local social and economic activities with dependency on the Forest have not been changed.

Salt Lake County
In Salt Lake County critical watershed values are protected under each alternative. The alternatives also provide for protection of scenic values (as the scenic backdrop is an important amenity for residents.) In the county there has been considerable controversy

between those interested in continuing heliski opportunities and those who oppose this activity. Alternatives are presented which support either position. Attempts in project level analyses to resolve this conflict have not been successful. The Proposed Forest Plan provides an objective for Tri-Canyon planning refinement with a collaborative group, which is intended to address this need.

Similarly, general social controversy has revolved around the extent to which new development in the canyon is appropriate. Alternative 5 allows for additional acreages for some ski-area permits and more allowance for recreational facilities development, while other alternatives do not.

Continuance of cooperative ventures with local and county governments for fire protection, law enforcement, and recreation management (e.g. Mill Creek) are not decisions made in this plan. These arrangements are mutually beneficial to all agencies and governments involved to cut costs and increase services to the public, and no changes are projected for them.

Summit County

Protection of municipal watersheds above the Kamas Valley are provided under all alternatives, which has been a stated objective of town and county officials in Summit County.

The county is also interested in the economic and social effects of forest management, as well as cooperative planning with the Forest Service. The Wasatch-Cache will be interested in engaging county in discussions under any alternative to consider mutual needs or the specific needs of the county.

Summit County receives revenues (as do other counties) from royalties and receipts related to activities on the Wasatch-Cache. Under Alternatives 3, 5, 6, and 7 which support larger potential for oil and gas production these revenues have a higher probability for larger returns; while revenues approximately equal current revenues are probable under Alternatives 1, 2, and 4.

Under all alternatives Summit County will probably continue its rapid population growth and development. It is unlikely that a decision to implement any of the alternatives presented in this analysis would change this scenario.

Tooele County

Under any alternative county officials can expect continuing interaction and cooperation with the Wasatch-Cache. Continued interagency planning on watershed and fire management can be expected.

Under Alternatives 3, 5, 6, and 7 some additional emphasis on developed recreation and controlling and channeling motorized recreation would occur, which would favor remarks that the county provided during interactions with the Forest. These alternatives, as well as the Desired Future Condition in the Draft Forest Plan, call for a more active

recreation presence and management in the Stansbury Range. Tooele County is interested in expanding and coordinating with the Forest Service in providing outdoor recreation opportunities for its residents and other visitors.

County officials might not favor Alternatives 1, 2 and 3 that recommend more Wilderness in the Stansbury Range.

Weber County

Weber County and its towns and cities recognize that watershed protection is a valuable component of the national forest management, which is provided for in all alternatives. Similarly, interactive fire planning will also occur, no matter which alternative is selected. Continuing cooperation in planning for urban front trails will also occur.

The Monte Cristo and Curtis Creek areas are recognized as valuable winter snowmobile range, which is provided for in each alternative, in somewhat different amounts, dependent on the degree to which roadless areas and wildlife corridors are protected during winter.

The Snowbasin area development is not a decision related to forest planning. No new allocations of land are planned for Snowbasin under any alternative.

Uinta County, Wyoming

Uinta County has been particularly interested in interacting with the Wasatch-Cache on forest planning. The County and its Resource Committee have cooperating agency status with the Forest Service for forest planning. (Also see section below on Consideration of plans of other federal agencies, states, local governments, and Indian tribes.)

Uinta County's position has been consistent that 1) Forest Plan decisions should not negatively affect current livelihoods that derive from the Forest, 2) that some enhancement of economic opportunity on the Forest can be accomplished while still providing responsible land stewardship, and 3) that current motorized access be maintained. The county has not been supportive of recommendations of additional Wilderness.

Given these considerations, the County is not supportive of Alternatives 1 and 2, which provide for considerable additions to Wilderness. Similarly, but to a lesser extent, Alternatives 3 and 6 are also not favored. Alternative 5, which provides for some additional economic opportunity through timber harvest, no Wilderness recommendation, and continues existing access would seem to be most in line with the situation described as desirable by the Resource Committee. Parts of Alternative 7 may be acceptable to many in the county, as it identifies some areas for timber harvest and other vegetation treatments that had been recommended for roadless protection in earlier alternatives, but the county is not supportive of any recommendation for Wilderness.

The County's Resource Committee has expressed that existing lifestyles in the area have great value, and that Forest Plan decisions should not negatively affect this. While

specific criteria were not developed to look at how current lifestyle is affected, it is clear that lifestyle in the county, as well as across the several county planning areas, is changing. Forest Plan decisions are not likely to change lifestyle nearly so much as other factors that are outside the realm of Forest Planning. The cumulative effects section, which follows addresses some of the larger forces that may affect Uinta County lifestyles.

American Indians

During scoping, no specific issues related to forest planning were raised by the American Indians described in the Affected Environment. Nevertheless, through discussions with line officers, some consideration of conditions generally favorable or not to American Indians are inferred.

Skull Valley Band of Goshute Indians
Additional Wilderness is recommended for the Deseret Peak Wilderness in Alternatives 1, 2, and 3, although in decreasing amounts with each alternative. As our line officers understand that additional wilderness is favored by the Goshutes, each of these alternatives would generally support their values. Alternatives 4, 5, 6, and 7 have no additional Wilderness and probably would not be favored. Under each alternative cultural remains, sites and values are protected by federal law and proposed forest plan management direction. No reductions to current grazing are anticipated under any alternative in the Stansbury Range, maintaining current opportunities for economic uses.

Northwestern Band of Shoshoni
Alternatives 1, 2, 3, 6, and 7 all recommend additions to designated Wilderness. Discussions with the Northwestern Band of Shoshoni indicate that they are interested in Wilderness designation; therefore, these alternatives might support tribal intentions better than Alternatives 4 and 5. Under each alternative cultural remains, sites and values are protected by federal law and proposed forest plan management direction. Recently recorded prehistoric sites near the Northwestern Band of Shoshoni' reservation, as well as others that have been known for some time, will be protected under any alternative.

Northern Ute
As with the aforementioned tribes, the Northern Utes are interested in maintaining access to and protecting traditional gathering sites and ceremonial areas, and sites. Under any alternative these uses and rights are recognized. Additions to all Wildernesses, but particularly to the Uinta Mountains are provided in Alternatives 1, 2, 3, 6 and 7. It is likely that alternatives that support larger Wilderness additions would be more favorable to the Northern Utes than those that have little or none. Water rights, an item of expressed interest to the Northern Utes, are not affected by this Forest Plan's decisions.

Consideration of plans of other federal agencies, states, local governments, and Indian tribes

36 CFR 219.7 requires that the results of a review of other plans be presented in the analysis of effects. The Forest Service has made various efforts during this forest plan

revision process to understand and consider the policies and perspectives of other agencies and governments. As stated above, county planners for each county were consulted regarding their key concerns in the development of the forest plan revision, and these concerns were carried forward in the development of alternatives.

The States of Utah and Wyoming, as well as several counties commented on the DEIS, and their letters are published in Appendix A. No comments were received from Indian Tribes, although some meetings were held with tribal leaders during the planning process to identify tribal concerns. In addition, for Uinta County, Wyoming and Summit County, Utah cooperating agency status was established by a Memorandum of Understanding. In general for all counties in the planning area, management direction in the Revised Wasatch-Cache Forest Plan is compatible with goals and objectives of these local governments.

For Uinta County, Wyoming, a specific review of the County's land use plan was conducted. The Forest Service's plan and planning process is generally consistent with the County plan. Uinta County plan goals and objectives usually call for interaction with federal agencies in planning processes so that county concerns on any topic are aired, understood, and considered in federal decisions. On certain items (Wilderness recommendation, timber harvest levels, opportunities for oil and gas leasing in more areas, any further limitation of recreation access, restrictions on predator control, and the general effects of all preceding items on overall cultural patterns) the County is concerned that a forest plan written for Alternative 7 is not in the County's best interests, even though the planning process has met most County plan goals for interaction.

Social Cumulative Effects

Population

The rapidly expanding population will create more demands on the Wasatch-Cache over the next two decades. Population growth will further reduce the available open space in urban areas adjoining the Forest, increasing demand for opportunities to recreate and to escape urban environments. As urban areas expand, more and more people will experience lifestyle changes as rural environments recede. With expanding urban influences, residents are likely to experience higher levels of government influence in their lives, further exacerbating some current resentment toward governmental restrictions and their impacts. The growing list of management actions and restrictions on activities and uses within the Forest required by the Endangered Species Act, the Clean Water Act, and other Federal legislation may also serve to further agitate local governments who believe that too much local control has been lost.

Demography

Urbanization and development sprawl will occur over the next decade along the Wasatch Front, in the valleys on the backside of the Wasatch Range and adjacent to the north slope of the Uintas. While local urban, county, and regional planners and the public are making progress in refining the kinds of development that are desirable and recognize

some of the inherent costs and effects associated with sprawl, nevertheless, growth, even if abated, will continue in some form, and overall density will increase.

The interface of both primary homes with the Wasatch-Cache boundary will become more frequent along the Wasatch Front, and of ranchettes, trophy homes, and seasonal homes in sparsely populated areas. This development and filling in of open space will reduce universal access to these public lands. In addition, this interface of private homes with wildlands will create new threats from brush and forest fires and a demand for protection of lives and assets.

Diversity

Ethnic diversity will increase if current trends continue, and perhaps at an even faster rate. Different ethnic groups have been shown to have preferences for different types of recreation and use. But diversity in user demand, (not ethnically related) will also affect the Wasatch-Cache. Just as the previous Forest Plan did not anticipate mountain biking or snowboarding; we can be sure that new technology will develop that will increase the diversity of demands on the Forest. Legally and correctly, a responsive attitude will exist in the Forest Service in the near future to try to provide for the variety of cultural and use preferences stated by our public, while still sustaining underlying resources.

"Second Paycheck"

The "second paycheck" concept applies to the recognition that amenity and quality of life values associated with living near large tracts of well managed and attractive public land is a real benefit to many residents – in fact, a "second paycheck" (Dave Iverson, Intermountain Region, personal communication, 3/2001). A few people have moved to Utah or other parts of the West simply for these amenity values, while many others are at least attracted by these opportunities, among their other considerations. If current trends in American life continue, there will be a tendency to more competitive workplace situations, more complexity, and greater demands placed on individuals in their workplaces. For this reason, the "second paycheck" ought to increase in value over the next generation, and people will increasingly be interested in the management of public lands – as they see it in their own personal interests to be involved and attempt to direct the outcomes of public lands decisions.

Wilderness and Wild and Scenic Rivers

Alternatives currently under consideration would recommend the additions to all seven Wildernesses on the Forest, and add a new Wilderness. Other forests in Utah will begin their revisions in the coming years. Each will need to address recommendations for Wilderness and Wild and Scenic Rivers. These wildland congressional designations have been among the most difficult for society to make regarding public lands. Political forces, emotions, and values are strong on either side of these allocations, and no clear outcome is yet on the horizon. The public, land management agencies, and politicians at every level have become weary with the debate. It is likely that efforts at forming coalitions of diverse interests will be attempted with hopes of resolving these questions.

Roadless Areas

The choice for how roadless areas on national forests will be managed is a key local, regional and national issue that has substantial importance in assessing cumulative effects on naturally evolving systems and human uses. For many people who seek to preserve the resource values they most treasure, protective designations and rules are a welcome change to current forest management policies. Cumulatively however, many of these changes may limit the region's capacity to satisfy the rapidly growing population's desire for some types of recreation opportunities and other uses. Frustrations may grow for individuals who prefer opportunities such as heliskiing or using ATVs as the opportunities they seek become crowded by other users and management attention turns to reducing user conflicts. It will become increasingly difficult to provide the same wide range of recreation opportunities that have been available in the past as the number of users increase and uses on the already limited space available are further constrained. Those with economic ties to forest resources will likely find it increasingly difficult to locate alternative sources on neighboring public lands. Growing numbers of forest users, conflicting objectives, and the overriding need to ensure ecosystem health and sustainability will require compromise on the part of all involved to resolve differences. Increased strain between user groups in many cases will be unavoidable.