The Effective Population of Teton County, Wyo.

An Update of the 1993 Study Conducted by Summit Management Consulting on behalf of the Town of Jackson and Teton County, Wyoming

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FINAL REPORT

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Executive Summary

The Jackson/Teton County Comprehensive Plan (Comp Plan), adopted in May 2012, is anchored by three common community values: ecosystem stewardship, growth management, and quality of life. To ensure these values are upheld, the Comp Plan calls for a continuous feedback cycle with annual monitoring to prioritize implementation strategies and proactively adapt to changing conditions and community needs. Elected representatives selected a set of indicators to help measure and evaluate changes in the community and guide any needed changes in future policy direction. A metric to quantify the effective population of Teton County is one of the indicators required for the annual report. The Jackson Hole Conservation Alliance was charged with developing a methodology to quantify the “effective population” for the annual growth indicators report.

Effective population is defined as the population where people are found at a given point in time, as opposed to counting them only where they reside. Determining the effective population is essential for understanding the cumulative economic, social, and environmental impacts residents, workers, and visitors alike have on the community. Using the estimates from the effective population can help town and county staff, elected officials, and community organizations guide policies, revise land development regulations, and provide levels of service appropriate to the actual human population and ecosystem of Teton County.

<table>
<thead>
<tr>
<th>TETON COUNTY’S 2012 EFFECTIVE POPULATION BY SEASON</th>
</tr>
</thead>
<tbody>
<tr>
<td>PERMANENT RESIDENTS</td>
</tr>
<tr>
<td>COMMUTERS</td>
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<tr>
<td>SEASONAL RESIDENTS</td>
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<tr>
<td>SEASONAL WORKERS</td>
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<tr>
<td>VISITORS</td>
</tr>
<tr>
<td>Total Population</td>
</tr>
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</table>

In 1992, the Jackson Hole Conservation Alliance and the Jackson Hole Chamber of Commerce jointly commissioned Summit Management Consulting to complete one of the first studies of Teton County’s effective population as part of the 1994 Comprehensive Plan. There were few attempts to update the analysis after the initial study was completed. Efforts to assess the effective population were not resumed until nearly 20 years later as part of the Comp Plan process in 2010. The purpose of this report is to provide the town and county with an updated effective population analysis as well as an updated method that Town of Jackson and Teton County staff can review, revise, and repeat annually for future growth indicator reports.
Teton County’s 2012 Effective Population
BREAKDOWN BY SEASON

WINTER 2012

TOTAL 39,966 persons

Permanent Population 21,675 (54%)
Overnight Visitors 9,108 (23%)
Seasonal Residents 4,047 (10%)
Daily Commuters 1,909 (10%)
Seasonal Workers 1,327 (3%)

SPRING 2012

TOTAL 29,631 persons

Permanent Population 21,675 (73.1%)
Overnight Visitors 2,731 (9.2%)
Seasonal Residents 1,212 (4.1%)
Daily Commuters 3,809 (12.9%)
Seasonal Workers 204 (0.07%)

SUMMER 2012

TOTAL 60,282 persons

Permanent Population 21,675 (36%)
Overnight Visitors 23,874 (39%)
Seasonal Residents 5,858 (10%)
Daily Commuters 3,809 (6%)
Seasonal Workers 5,066 (8%)

FALL 2012

TOTAL 29,549 persons

Permanent Population 21,675 (73.4%)
Overnight Visitors 2,577 (8.7%)
Seasonal Residents 1,145 (3.9%)
Daily Commuters 3,809 (12.9%)
Seasonal Workers 343 (0.1%)
The above table and graphs represent key findings for the 2012 effective population study. Due to the large seasonal fluctuations of people visiting the area, the effective population includes not only permanent residents, but also seasonal non-working residents (second home owners), seasonal working residents (referred to locally as “90-day wonders”), visitors (defined as any person spending at least one night in Teton County), and daily commuters. Since these seasonal changes have such significant impacts on the level of goods and services accessed in Teton County, the effective population is calculated at four points in the calendar year when the number of people in the county rises and falls: winter (February 15th); spring (April 15th); summer (July 15th); and fall (November 15th).

The effective population for the Town of Jackson and Teton County consists of the sum of the following:
1. Permanent Residents
2. Daily Commuters (people who work in Teton County but live elsewhere)
3. Seasonal residents (second home owners)
4. Seasonal workers
5. Overnight visitors

The Alliance’s review of Teton County’s effective population suggests a seasonal fluctuation ranging from 36% more people above the permanent residential base to upwards of 178% more people on a given day. Future policy, planning, and budgeting decisions for transportation, housing, utilities and infrastructure, population growth, and environmental conservation will need to account not only for the permanent residents of Teton County, but also the thousands of other people who come to the area.

This report provides a careful analysis of each component of the effective population and its implications for the community. It includes an in-depth review of the available data sources, methodologies, assumptions for determining each number, and recommendations for further data collection and analysis. The report also details the changing population since the 1993 effective population study and how each component has changed (or remained stable) over the past 20 years.
Introduction

In 1992, the Jackson Hole Conservation Alliance and the Jackson Hole Wyoming Chamber of Commerce jointly commissioned Summit Management Consulting to complete one of the first studies of Teton County’s effective population as part of the 1994 Comprehensive Plan (Appendix C). In the nearly 20 years since the first report was released, there have been few endeavors to update the analysis. Efforts to assess the effective population were not resumed until 2010 as part of the Comp Plan process in 2010.

On May 8, 2012, the town and county leaders officials adopted the Jackson/Teton County Joint Comprehensive Plan. In 1994, the Comp Plan laid out a vision and prioritized a set of values for the community that included ecosystem stewardship, preservation of community character, and growth management. These values were reaffirmed in the 2012 Comp Plan, while also responding to changing social, economic, and ecological conditions in the community. The 2012 Plan is intended to serve as a living document that responds to changing conditions and maintains the community’s values, while emphasizing predictability, accountability, and measurability to guide policy and decision making.

As a means to uphold predictability and accountability, the current plan requires annual monitoring to ensure the vision and values are being achieved. The annual indicators report is part of a growth management program laid out in the plan that monitors and compares actual community growth to the desired future conditions. Through set targets, triggers, and corrective actions, the annual indicators allow the community to adaptively respond to changes, set budgets and work plans, and prioritize strategies.

One of the annual indicators is measuring and monitoring the “effective population” of Teton County. Effective population is defined as the population where people are found at a given point in time, rather than counting them only where they reside. The annual indicator report charges the Jackson Hole Conservation Alliance with providing the Town of Jackson and Teton County staff an updated effective population analysis and methodology that can be repeated annually for monitoring changes and trends.

As Jackson Hole is a popular mountain resort and gateway community, there are significant seasonal fluctuations in the local population, which has far-reaching effects on the community and local governments. Using these effective population estimates can help town and county staff, elected officials, and community organizations guide policies, revise land development regulations, provide levels of service appropriate to the actual human population and ecosystem of the area, and plan accordingly for the peaks and valleys of the population.

Methodology

After evaluating previous effective population efforts for Teton County and the Town of Jackson, as well as effective population/daytime population reports from other communities, it
was determined the best methodology for Jackson/Teton County consists of the following:

1. Permanent Residents
2. Daily commuters (people who work in Teton County but live elsewhere)
3. Seasonal residents (second home owners)
4. Seasonal workers
5. Overnight visitors

However, due to increases and decreases of people in the county over the course of a year, the effective population for the county is based on four seasonal point-in-time calculations (winter, spring, summer and fall1) rather than a yearly average.

Not included in this report, but common in other effective population/daytime population estimates are the homeless and chronically under-housed. Although not specifically identified in this analysis, annual effective population reports should monitor the homeless segment for possible inclusion in the future.

A description of the methodology for each category, along with data sources, assumptions, implications, and future recommendations is detailed within this report.

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1 Winter: February 15, 2012; Spring: April 15, 2012; Summer: July 15, 2012; Fall: November 15, 2012.
Permanent Population

Population is most often defined as the total number of people living in a specific geographic location. Estimating the true resident population of Teton County is difficult due to the high mobility of individuals who identify themselves as residents, but are not in the county year round. For the purposes of this report, the permanent population is considered the total number of people living year round within Teton County. This permanent population estimate serves as the baseline for the effective population estimate.

Data Source(s)
The permanent population was derived from the U.S. Census 2012 population estimates program. The Census bases the population estimates on the decennial census in 2010 and utilizes annual data about area births, deaths, and migration to calculate the 2012 population estimate.

Assumption(s)
The census estimate is the most reliable, readily available, and repeatable estimate for the permanent population. This report assumes the same number of permanent residents regardless of the time of year. Given this assumption, there may be an over-estimation during the spring and fall calculations when many residents head out for vacations and travel. However, there is little reliable data to account for the reverse migration in the off-seasons. Future research towards understanding what percentage of year round residents leave in the spring and fall, and for how long, could provide useful data to expand on the current effective population estimates.
Daily Commuters

Since the 1993 effective population report, there has been a notable increase in the number of full-time, year-round employees who live in other communities. In 1990, roughly 86 percent of Teton County’s workforce lived within the county, but by 2010, the number shrank to only 68 percent. This translates to a 28 percent increase in the number of commuters since 1990. This rise of commuters is a concern for several facets of the community, and is directly tied to the 2012 Comp Plan.

Counting the commuter population is paramount for not just for understanding the implications to workforce housing, transportation, safety, and emergency services, but also for its reverberations throughout implementation of the comp plan.

Daily commuters are defined as a member of the permanent workforce in Teton County but live outside of the county. For this report, and to avoid double counting some of the seasonal workforce, the commuter number is comprised only of permanent workers that would otherwise be a resident of Teton County. This includes those employees that work seasonal jobs year round.

Data Source(s)

Commuter data for Teton County is quite variable. Commuter estimates, from three different data sources, ranges from 2,500 to more than 8,000 commuters. After reviewing data from the Wyoming Department of Workforce Services, Wyoming Department of Transportation (WYDOT) vehicle traffic counts and START ridership, and the U.S. Census American Community Survey (ACS), the daily commuter estimate was derived from the Census (Journey-to-Work) data.

Using ACS data and the base population of an area, the Census estimates commuters as:

\[
\text{Total resident population} + \text{Total workers in area} - \text{total workers living in area} = \text{Daytime population}
\]

Assumption(s)

The Census completed an estimate for Teton County based on 2006-2010 ACS data and 2010 population estimates. The same methodology was followed using the most recent data available, 2007-2011 ACS and 2012 base population to extrapolate a commuter figure for 2012. This data is based on the permanent residence of individuals; the commuter estimate assumes the data does not include seasonal workers who commute.

For a detailed account of the data sources and methodologies reviewed, see Appendix A.
WYDOT’s vehicle traffic count data provides a rich resource for estimating the number of cars entering the county. However, because it is raw data, it requires several assumptions and is extremely resource-intensive. For example, to calculate the number of commuters using the WYDOT data, it was assumed that working employees were likely to enter the county during the hours of 5 a.m. to noon.

In comparing the U.S. Census (preferred source) with the WYDOT data, the Census is slightly higher. However, if WYDOT analysis is expanded to 5 a.m. to 2 p.m. or later, when many service-related shifts begin, the number of vehicles and commuters increases. Using vehicle count data during traditional 9-to-5 commute hours to capture the number of commuters likely misses a large percentage of the service and retail-related workforce. But expanding the hours of analysis also begins to double count other travelers, including overnight visitors, or permanent residents traveling. Without further research, it is difficult to estimate how much of an over count the Census may be and how much of an under count the WYDOT data may be.

**Implications/Recommendations**

As stated in the 2012 Plan, Teton County is a community first and a resort second. Understanding the number of commuters coming into the area from surrounding communities, seasonally and year round, has significant implications to the community. The rise of commuters not only takes a toll on the transportation infrastructure, but affects the housing situation, impacts wildlife and the environment, and contributes to economic and intellectual leakage. Those who leave Teton County in the evening are more likely to contribute not just wages\(^2\), but also volunteer their time and intellectual capital to the community they live in rather than the community where they work. Honing in on the number and type of commuters should be a priority area for future research; and the importance of seasonal commuters should also not be skipped over.

It is highly recommended that the commuter phenomenon in Teton County and surrounding areas be further researched for understanding the broader policy and decision making implications.

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\(^2\) According to the Wyoming Labor Market Information, roughly $20,000 of wages earned in Teton County is spent elsewhere.
Seasonal Residents (second-home owners)

Seasonal residents are defined as individuals that own a home in Teton County but their primary residence is elsewhere. They are, by definition, in residence less than six months of the year in the county. Because second home residents are not counted as part of the permanent population, the impacts to the community are not readily apparent. But second homes can change the landscape and culture of communities. For instance, second homes often present a challenge to local governments because residential developments tend to cost more in public services than they generate in tax revenue. This task is even more difficult in Teton County, where due to the high mobility of residents, it is difficult to differentiate between some seasonal and “permanent” residents. For this report we attempt to identify the difference between these two populations, based primarily on U.S. Census counts.

Data Source(s)

The number of seasonal homes was derived from the 2010 U.S. Census and the 2012 population estimate. The 2010 Census provides an estimate of the percentage of homes in the county that are not primary homes, but used seasonally or for recreation. The 2012 population estimate provides an estimate for the total housing units in Teton County. To calculate the total number of second homes in the county in 2012, the percentage of second homes from 2010 was applied to the total housing unit estimate for 2012.

Assumption(s)

Estimating the total number of second homes within the county is straightforward, but estimating the number of people per home, at a given point in time, can be difficult.

Household Size

The 2010 Census estimate for average household size, 2.34, was used to calculate the number of people in a household. Although the Census numbers represent primary residences, it is the best available data to estimate the number of persons in secondary homes as well.

The American Community Survey also provides household size estimates, based on either 3-year or 5-year averages. These household estimates range from 2.66-2.69. However, because the 2010 Census was a 100 percent population count, it reflects a higher level of confidence and lower margin of error than the ACS estimates.

Occupancy Rate

It is assumed the percentage of second homes occupied on a given date follows the same occupancy rate used for overnight visitors in lodging facilities (see Section 6.)

### Seasonal Residents

#### Total Housing Units

- Winter: 4,047
- Spring: 1,212
- Summer: 3,933
- Fall: 1,284

#### Percentage of units seasonal

- 22.1%

#### Total Seasonal Homes (2012)

- 2,877

#### Household Size

- 2.34

#### Maximum # persons

- 6,732

#### Occupancy rate (by season)

- Winter: 61.5%
- Spring: 27.2%
- Summer: 45.0%
- Fall: 20.6%
This is the percentage of lodging units occupied in Teton County. Although second homes are occupied somewhat differently than lodging, it is a best guess and provides a baseline for further understanding the occupancy rate of second homeowners.

**Implications/Recommendations**

It is likely the estimates for second homes are higher than actual occupancy in April and November and lower than actual occupancy in the peak seasons, especially July. This is attributable to volatility in the number of people per household, as this may change season to season. In addition, the occupancy rates of second homes may or may not follow the lodging estimates. Given these assumptions, the estimate laid out here provides a starting point for the community to understand the impacts of seasonal residents. As Teton County continues to grow, further research should be conducted to capture the number and locations of primary and seasonal residences and the true occupancy rates of seasonal homes, including household size. This will help officials understand how second home owners residing in the county drive land use, transportation, and environmental policy discussions, as compared to the impacts of the permanent residential population.
Seasonal Workers

The economy of Teton County is largely driven by the seasonal swings in visitation, which in turn, drive the size of the workforce. While some permanent residents work multiple seasonal positions year round, it is not enough to fill the demand in the summer and winter. The county requires additional workers during these peak seasons. Although seasonal workers are not part of the permanent population, they are a large part of what defines the community. This segment of the workforce comprises the servers and waiters at restaurants, sales clerks at retail stores, and tour guides who help make Teton County a top-tiered vacation destination.

Data Source(s)

The number of seasonal workers in Teton County was calculated using total workers working in an area from the ACS 3-year estimate. This base number for the permanent workforce, including those living outside of Teton County, was compared with the U.S. Bureau of Labor Statistics (BLS) 2012 Census of Employment and Wages. The number of jobs for each time period (winter, spring, summer and fall), was subtracted from the base number of jobs to provide an estimate of the number of seasonal jobs.

The BLS employee jobs data represents the number of covered workers who worked or received pay for the pay period on the 12th day of each month. Looking at monthly employment data from the U.S. Bureau of Labor Statistics, it was possible to determine the number of jobs that were unfilled by the permanent workforce.

Assumption(s)

It is assumed a new seasonal employee does not fill every seasonal job. Permanent residents that work seasonally, or pick up a second job during the peak seasons fill some of the seasonal jobs. Seasonal workers also may work more than one job at a time. To account for the fluctuation of permanent and seasonal workers, and multiple jobs, a rate of 1.2 jobs per person was applied to the job estimate across all four time periods. See Appendix B for description of 1.2 jobs per person methodology.

Although this data attempts to capture all seasonal workers, it does not capture the undocumented workers. They too are an important part of the community, filling a demand and enriching the culture, and also creating a need for public services.

Seasonal Workers

<table>
<thead>
<tr>
<th>Total Jobs</th>
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<tbody>
<tr>
<td>February 2012</td>
<td>16,263</td>
</tr>
<tr>
<td>April 2012</td>
<td>14,916</td>
</tr>
<tr>
<td>July 2012</td>
<td>20,750</td>
</tr>
<tr>
<td>November 2012</td>
<td>15,082</td>
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</tbody>
</table>

- Total workers working in an area: 14,671

\[
\text{Number of jobs/person} = \frac{\text{Total jobs (by season)}}{1.2} = \frac{\text{Total workers (by season)}}{1.2}
\]

- Winter: 1,327
- Spring: 204
- Summer: 5,066
- Fall: 1,145
Implications/Recommendations
The seasonal workforce helps drive the economy of Teton County. The predominant industries influenced by the seasonal changes are service and retail. The 1993 effective population study also illustrated a large spike in service and retail-related industries. In 1993, there was a significant increase in construction jobs during the summer. Looking at the 2012 data, there appears to be little movement across the calendar year in construction-related jobs. This data is based on 2012 numbers. As growth and development continue to rebound from the recession, a larger peak may begin to appear in construction-related seasonal jobs as well.

![2012 Employment Data By Month and Industry](source: BLS)
Overnight Visitors

The health, well-being and vitality of Teton County are inextricably linked to the visitors that flock to the area each year. Attempting to count the number of visitors on a given day is no small task due to the variations in visitor characteristics and activities.

Visitors who only pass through Teton County on the way to other destinations certainly have an impact on local infrastructure and the provision of goods and services. However, for the purposes of determining the effective population of Teton County, visitors are defined as an individual staying at least one night in the county who is not a permanent resident, commuter, seasonal resident, or seasonal worker. Therefore, visitors are primarily tourists staying in lodging establishments or campgrounds across the county.

Lodging

Data Source(s)

The number of developed units permitted in Teton County was used as the source data to calculate the number of overnight visitors in lodging establishments. Lodging establishments includes hotel lodging, bed and breakfast lodging, guest/dude ranches, (legal) short-term rentals, and privately owned commercial campgrounds and RV parks not on federal land.

<table>
<thead>
<tr>
<th>Occupation Rates</th>
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<tr>
<td>February 2012</td>
</tr>
<tr>
<td>60.1%</td>
</tr>
<tr>
<td>April 2012</td>
</tr>
<tr>
<td>18%</td>
</tr>
<tr>
<td>July 2012</td>
</tr>
<tr>
<td>87%</td>
</tr>
<tr>
<td>Nov 2012</td>
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<tr>
<td>17%</td>
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To estimate the occupancy rate of lodging establishments, the 2012 Rocky Mountain Lodging Report (RMLR) for Wyoming Lodging and Restaurant Association was used. The RMLR is based on actual room stays and includes walk-ins in addition to reservations and was selected as the preferred source for estimating lodging occupancies.
Assumption(s)
The data provided by the county does not indicate which units are open and closed by season. For this report, it is assumed all establishments are open year round to ensure the methodology is easily repeatable and reliable. It would be very resource-intensive to determine which units are open during each season.

The Rocky Mountain Lodging Report (RMLR) is a summary of the actual number of rooms occupied during the specified month. This number is only a census of the lodging units and does not capture the short-term rentals or guest/dude ranches, or all 3,800 lodging units. However, the same occupancy rate was assumed across all lodging establishments to estimate number of rooms rented.

The RMLR sums data across all of Teton County and for the entire month. Although occupancy and number of units may be higher in the Town of Jackson or Teton Village, it reflects an average among the different areas. This likely results in an underestimate of winter and summer visitors and overestimates the number of April and November visitors. In contrast, the Jackson Hole Chamber of Commerce Lodging Barometer provides a breakdown of occupancy rate forecasts by week and by area, but these are only forecasts, not actuals. The RMLR is not only a report of the actuals, but is also easily accessible and repeatable for future effective population efforts.

See Appendix C for a comparison between the RMLR occupancy rate and the Chamber of Commerce Lodging Barometer.

To convert the number of occupied rooms/units into actual people, it is assumed lodging establishments follow a similar annual peak occupancy (APO) rate as is common in resort communities. The APO for each establishment type is listed in Table 1.

### Campgrounds
In addition to those visitors staying in lodging establishments, there are also hundreds of visitors that camp out in the surrounding national forests and national parks. In this study, we included Grand Teton National Park, the southern extent of Yellowstone within Teton County, and nineteen developed campgrounds in Bridger-Teton National Forest and Caribou-Targhee National Forest. Three campgrounds (East Table, Station Creek and Wolf Creek) are not in Teton County, but sit along the border of Teton and Lincoln Counties with the closest services at Hoback Junction or Alpine. It was determined to include these campgrounds in the study since they are close to the county and likely still accessing resources in Teton County.

Data Source(s)
Estimates for USFS campground occupancy at 252 campsites were derived from the

<table>
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<tr>
<th>Lodging</th>
<th>Total establishments by category</th>
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<tr>
<td></td>
<td>5,975 (total) x APO 2.0/person</td>
</tr>
<tr>
<td></td>
<td>4.0/person = Maximum # persons</td>
</tr>
<tr>
<td></td>
<td>15,136 (total) x Occupancy rate (by season) =</td>
</tr>
<tr>
<td></td>
<td>Total overnight visitors in establishments</td>
</tr>
<tr>
<td>Winter</td>
<td>7,408</td>
</tr>
<tr>
<td>Spring</td>
<td>2,219</td>
</tr>
<tr>
<td>Summer</td>
<td>13,168</td>
</tr>
<tr>
<td>Fall</td>
<td>2,095</td>
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</tbody>
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Bridger-Teton National Forest (BTNF) 2012 campground occupancy. It is assumed
that 3.3 persons are at a USFS campsite, based upon the 2008 Bridger-Teton Nation-
al Visitor Use Monitoring Survey The National Park Service visitor use statistics were
used to collect data about overnight visitors in Grand Teton National Park (GTNP)
and the southern portion of Yellowstone National Park (YNP). In addition to camp-
grounds/RV sites within each park, data was also collected on the number of visitors
to the lodges that are within Teton County, since facilities on federal property are
not included in the above lodging estimates. The visitor use statistics report the
number of people at campgrounds, RV parks, lodges and backcountry monthly3.

For GTNP, all overnight visitors (lodges, campgrounds, RV parks and backcountry)
were included in the data. Only overnight visitors (lodges, campgrounds, and RV
parks) in YNP at locations within Teton County were included.

To estimate the number of people on a given night on both USFS and NPS lands, the
total number of visitors at a site was divided by the number of days in the month.
See Appendix C for more details about campground estimates.

**Implications/Recommendations**
These estimates represent a point in time. It does not account for length of stay by
visitors and thereby cannot be extrapolated into a cumulative number.

This estimate provides a baseline from which future tourism and economic studies
can build. Future efforts should strive to refine visitation numbers in the county and
the impacts to local government budgets, infrastructure, transportation, housing,
and community character. It is recommended that further research about visitation
habits, including length of stay, better estimates of lodging occupancy by area, and
demographic/economic data of these visitors be prioritized. Improved estimates for
these areas will help guide future decisions of the community to ensure Teton Coun-
ty is first and foremost a community and a destination resort second.

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Discussion/Analysis

This study attaches data to what many in the community already grasp; the effective population of Teton County is much higher than just the permanent residents. In the middle of July, the number of people in Teton County nearly triples on a given night. Even in the low season in April and November, the effective population is still nearly 30,000, roughly 9,000 above the permanent population. In the spring and fall, nearly 3 in 4 people in the county are permanent residents. However, come winter, the number dips to 1 in 2 people, and by summer, only 1 in 3 people are permanent residents. If it seems as though locals are less likely to see the faces they know in the grocery store in the winter and summer, it’s because locals are the minority.

These figures, specifically the percentages of permanent residents to seasonal effective populations, are consistent with those from the 1993 analysis. Although data sources, assumptions and conditions vary, the two studies highlight how much Teton County is impacted by people who are not permanent community residents.

The implications of an effective population study can be far reaching. The purpose is to provide leaders, decision makers, and the community with the tools needed to guide future policies and regulations. Several elements of this methodology highlight areas for future research, and/or increased data to refine and build upon the 2012 effective population analysis.

The goal for this report is to provide a framework for annual monitoring efforts that can be easily repeated, and refined as needed.

The estimate of an effective population is only as good as the data available. In addition to the numbers, this report highlights areas with insufficient data, and where the data gaps may significantly impact future planning and policy.
Further research about the lodging occupancy rates, including locations within the county, types of lodging, and the average number of people per room can refine and enhance the quality of the overnight lodging estimate. Efforts to refine this category would reach well beyond an effective population study, and necessitate investment from local businesses and land managers.

Similarly, investing in a detailed commuter study for the region can improve this effective population indicator report, as well as drive other comp plan implementation efforts such as housing, transportation, wildlife safety, and conservation. Efforts to understand the economic and demographic profiles of each population segment will only continue to enhance policy development and inform decisions to sustain and promote the community character of Teton County.

Future research should also attempt to capture the taxpayer costs and the revenue associated with each population segment. This information can help guide future priorities, and build community support for setting budgets and work plans.

Acknowledgments
The Jackson Hole Conservation Alliance is grateful to the Jackson Hole Chamber of Commerce, Town of Jackson and Teton County staff, Jonathan Schechter, and Tim O’Donoghue for their assistance and support throughout this study.
Sources


Bridger-Teton National Forest National Visitor Use Monitoring Results. USDA Forest Service Region 4. 4 August 2009.

Bureau of Economic Analysis. Local Areas Personal Income and Employment. http://bea.gov/iTable/iTable.cfm?reqid=70&step=1&isuri=1&acrdn=5#reqid=70&step=1&isuri=1


National Park Service Public Use Statistics Office.


Appendix A: Commuter Methodology

Commuter data for Teton County is quite variable. Commuter estimates, from three different data sources, ranges from 2,500 to more than 8,000 commuters. After reviewing data from the Wyoming Department of Workforce Services, Wyoming Department of Transportation vehicle traffic counts and START ridership, and the U.S. Census American Community Survey, the daily commuter estimate was derived from the Census (Journey-to-Work) data.

Method 1
U.S. Census American Community Survey “Journey-to-Work” data (preferred)
The U.S. Census provides 2010 estimates the commuter-adjusted daytime population of a place using ACS data from 2006-2010. In the ACS survey, respondents are asked to identify their place of residence and place of employment in the “reference week.” The reference week is defined by the US Census as the week preceding the date which the respondent completed the questionnaire or interview. Because the survey is conducted over a 12-month period, the reference week is not the same time period. It is assumed that because this survey is attempting to reach individuals at their permanent residence, it does not include seasonal workers. To use the 2010 estimates and update for the most recent data available (2011), we repeated the U.S. Census methodology as follows:

\[
(Total\ resident\ population + Total\ workers\ in\ area) - total\ workers\ living\ in\ area
\]

Method 2
Wyoming Department of Transportation (WYDOT) Monthly Automatic Traffic Recorder Reports & START Ridership

Commuter estimates were calculated using WYDOT monthly automatic traffic recorder reports and extrapolating the number of cars each day from specific highways which are common entry points into the county. The traffic report provides hourly traffic counts for every day of the month and is also separated by direction.

Assumption(s)
• Commuters enter the county by one of the following:
  1. NB26/89 at Teton/Lincoln County border;
  2. NB Hwy 189/191 near Bondurant;
  3. WB Hwy 287 near Dubois; and
  4. WB Hwy 22 west of Wilson
• The number of reverse commuters, those living in Teton County but working in another county, is minimal and has a negligible effect on the overall commuter estimate. An estimate for reverse commuters was not included in the analysis.
• Most commuters enter the county between 5 a.m and noon, Monday thru Friday.
• The estimate does not adjust for commercial trucks because they have minimal influence
on the commuter data. WYDOT data suggests the number of trucks on the four routes is negligible in terms of total vehicles. For example, Highway 22 and Teton Pass, it was expected to see a spike in truck miles because the route opens up to trucks. But even in the summer, the number of trucks on the route was around 150, whereas the total vehicles in a day stretched over 5,000.

Based on these assumptions, traffic count data was collected for each of the four highway segments, in the direction entering the county, during the 7-hour window. Data for weekend traffic was removed from each month. Weekday traffic counts in the identified timeframe were totaled and averaged for each month (February, April, July, and November). The Federal Highway Administration’s National Household Travel Survey estimate of 1.13 persons per commuter vehicle was used to estimate the number of people. These figures were added with daily ridership data from the START bus for the three Star Valley-Jackson and two Teton Valley-Jackson morning routes.

Upon additional analysis of the data, it was determined that this still failed to capture all the commuters. The commuter travel window could be expanded to 2 p.m., but it would be more difficult to differentiate between commuters and leisure travelers.

**Method 3**  
Wyoming Labor Market Information (LMI) – Commuting Data  
The Wyoming Department of Workforce and Statistics provided commuting data for each county, by quarter, from 2005 to the third quarter in 2011. However, because this data is synthesized at a quarterly level, it is difficult to breakdown the number of commuters per day. In addition, because LMI compares Wyoming driver’s license data with Department of Revenue wage information, the data may be counting some of the seasonal workers rather than daily commuters. It was determined that even though this is titled “commuter data,” it is not a reliable source for Teton County.
Appendix B: Jobs Per Person

The jobs per person multiplier was generated using the 5-year ACS estimate of number of people who live and work in Teton County. This number is reflective of those that are of working age, and excludes those under 16 and over 65. The base number was divided by the 5-year average (2007-2011) of number of jobs in April and November. April and November job totals were used to estimate the jobs per person rather than the annual BLS number to avoid influences from peak season job totals. For example, including the annual number would bump the jobs per person to 1.41, which is likely a high estimate for winter, spring, and fall.

\[
\text{Number of persons working and living in an area} \div \text{5-year average (BLS jobs in April and November)}
\]

\[
12,522 \div \text{average[April = 15,233 & November=17,730]} = 1.2
\]
Appendix C: Occupancy Rates

Lodging

The Jackson Hole Chamber of Commerce Lodging Barometer occupancy rates is compared to Rocky Mountain Lodging Report occupancy rates for Teton County, Wyoming. Since 2009, the difference between the two estimates for occupancy ranges from -5% to 8%. These differences are likely attributable to walk-in guests which is captured in the Lodging Report but not the Lodging Barometer.

Jackson Hole Chamber of Commerce (JHCC) *FORECASTED*
Rocky Mountain Lodging Report (RMLR) *ACTUALS*

<table>
<thead>
<tr>
<th></th>
<th>February</th>
<th>April</th>
<th>July</th>
<th>November</th>
</tr>
</thead>
<tbody>
<tr>
<td>RMLR</td>
<td>55%</td>
<td>15.7%</td>
<td>83%</td>
<td>15.5%</td>
</tr>
<tr>
<td>JHCC</td>
<td>61%</td>
<td>13%</td>
<td>75%</td>
<td>16%</td>
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<tr>
<td>% difference</td>
<td>-10.9%</td>
<td>17.2%</td>
<td>9.6%</td>
<td>-3.2%</td>
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<table>
<thead>
<tr>
<th></th>
<th>February</th>
<th>April</th>
<th>July</th>
<th>November</th>
</tr>
</thead>
<tbody>
<tr>
<td>RMLR</td>
<td>54.2%</td>
<td>15.6%</td>
<td>87.9%</td>
<td>15%</td>
</tr>
<tr>
<td>JHCC</td>
<td>55%</td>
<td>14%</td>
<td>83%</td>
<td>15%</td>
</tr>
<tr>
<td>% difference</td>
<td>-1.5%</td>
<td>10.3%</td>
<td>5.6%</td>
<td>0.0%</td>
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</table>

<table>
<thead>
<tr>
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<th>February</th>
<th>April</th>
<th>July</th>
<th>November</th>
</tr>
</thead>
<tbody>
<tr>
<td>RMLR</td>
<td>53%</td>
<td>13%</td>
<td>88.5%</td>
<td>12.9%</td>
</tr>
<tr>
<td>JHCC</td>
<td>57%</td>
<td>15%</td>
<td>83%</td>
<td>13%</td>
</tr>
<tr>
<td>% difference</td>
<td>-7.5%</td>
<td>-15.4%</td>
<td>6.2%</td>
<td>-0.8%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>February</th>
<th>April</th>
<th>July</th>
<th>November</th>
</tr>
</thead>
<tbody>
<tr>
<td>RMLR</td>
<td>60.1%</td>
<td>18%</td>
<td>87%</td>
<td>18%</td>
</tr>
<tr>
<td>JHCC</td>
<td>61%</td>
<td>14%</td>
<td>83%</td>
<td>13%</td>
</tr>
<tr>
<td>% difference</td>
<td>-1.5%</td>
<td>22.2%</td>
<td>4.6%</td>
<td>27.8%</td>
</tr>
</tbody>
</table>

| Average Difference | -5.4% | 8.6% | 6.5% | 5.9% |
Campgrounds

USFS Campground Occupancy Rates

**BRIDGER-TETON NATIONAL FOREST**

<table>
<thead>
<tr>
<th>Jackson District</th>
<th># of sites</th>
<th>Maximum # people (3.3/site)</th>
<th>July 2012 Occupancy*</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atherton</td>
<td>20</td>
<td>66</td>
<td>71%</td>
<td>47</td>
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<tr>
<td>Crystal Creek</td>
<td>6</td>
<td>19.8</td>
<td>44%</td>
<td>9</td>
</tr>
<tr>
<td>Curtis Canyon</td>
<td>11</td>
<td>36.3</td>
<td>30%</td>
<td>10</td>
</tr>
<tr>
<td>East Table</td>
<td>17</td>
<td>56.1</td>
<td>100%</td>
<td>56</td>
</tr>
<tr>
<td>Granite</td>
<td>51</td>
<td>168.3</td>
<td>40%</td>
<td>67</td>
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<tr>
<td>Hoback</td>
<td>13</td>
<td>42.9</td>
<td>57%</td>
<td>24</td>
</tr>
<tr>
<td>Kozy</td>
<td>8</td>
<td>26.4</td>
<td>28%</td>
<td>7</td>
</tr>
<tr>
<td>Little Cottonwood</td>
<td>1</td>
<td>3.3</td>
<td>100%</td>
<td>6</td>
</tr>
<tr>
<td>Red Hills</td>
<td>5</td>
<td>16.5</td>
<td>52%</td>
<td>9</td>
</tr>
<tr>
<td>Station Creek</td>
<td>16</td>
<td>52.8</td>
<td>73%</td>
<td>39</td>
</tr>
<tr>
<td>Station Creek Group Site**</td>
<td>2</td>
<td>6.6</td>
<td>100%</td>
<td>20</td>
</tr>
<tr>
<td>Wolf Creek</td>
<td>20</td>
<td>66</td>
<td>34%</td>
<td>22</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Buffalo District</th>
<th># of sites</th>
<th>Maximum # people (3.3/site)</th>
<th>July 2012 Occupancy*</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Angles</td>
<td>4</td>
<td>13.2</td>
<td>4%</td>
<td>1</td>
</tr>
<tr>
<td>Box Creek</td>
<td>6</td>
<td>19.8</td>
<td>4%</td>
<td>1</td>
</tr>
<tr>
<td>Hatchet</td>
<td>9</td>
<td>29.7</td>
<td>35%</td>
<td>10</td>
</tr>
<tr>
<td>Pacific Creek</td>
<td>8</td>
<td>26.4</td>
<td>10%</td>
<td>3</td>
</tr>
<tr>
<td>Sheffield</td>
<td>5</td>
<td>16.5</td>
<td>15%</td>
<td>2</td>
</tr>
<tr>
<td>Turpin</td>
<td>18</td>
<td>59.4</td>
<td>35%</td>
<td>21</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Caribou-Targhee National Forest</th>
<th># of sites</th>
<th>Maximum # people (3.3/site)</th>
<th>July 2012 Occupancy*</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teton Canyon</td>
<td>20</td>
<td>66</td>
<td>100%</td>
<td>66</td>
</tr>
<tr>
<td>Teton Canyon Group Site**</td>
<td>2</td>
<td>6.6</td>
<td>100%</td>
<td>19</td>
</tr>
<tr>
<td>Trail Creek</td>
<td>10</td>
<td>33</td>
<td>100%</td>
<td>33</td>
</tr>
</tbody>
</table>

*Occupancy rates derived from BTNF 2012 monthly campsite occupancy.
**Assumes three groups at group sites.

**NPS Occupancy**

Occupancy rates for campgrounds and lodging in Grand Teton National Park and Yellowstone National Park based on NPS visitor statistics. Includes all overnight visitors in GTNP and visitors to the following lodges and campgrounds in YNP:

1. Old Faithful
2. Old Faithful Lodge
3. Old Faithful Snow Lodge
4. Grant Village Lodge
5. Grant Village
6. Grant Village Group
7. Lewis Lake
8. Bridge Bay
9. Fishing Bridge
THE EFFECTIVE POPULATION
OF TETON COUNTY, WYOMING

A Study Commissioned by:
THE JACKSON HOLE CHAMBER OF COMMERCE
and
THE JACKSON HOLE ALLIANCE FOR RESPONSIBLE PLANNING

Study Conducted by:
SUMMIT MANAGEMENT CONSULTING
JACKSON, WYOMING
JANUARY 1993
Executive Summary

To assist their respective deliberations regarding the proposed joint comprehensive plan being drafted by the Town of Jackson and Teton County, Wyoming, the Jackson Hole Chamber of Commerce and Jackson Hole Alliance for Responsible Planning commissioned Summit Management Consulting to study and attempt to accurately quantify the “effective population” of Teton County, Wyoming. The effective population was defined as being a combination of Teton County’s four primary population categories: permanent residents, seasonal non-working residents, seasonal working residents, and transients (primarily tourists).

Because of the wide seasonal fluctuations in the non-permanent population categories, an effective population figure was calculated for four dates, each representative of its respective season: Winter - December 28; Spring - May 1; Summer - August 1; Fall - October 15.

The table below presents the key figures determined by this study.

<table>
<thead>
<tr>
<th>Teton County - Effective Population Components by Season</th>
<th>Winter (December 28)</th>
<th>Spring (May 1)</th>
<th>Summer (August 1)</th>
<th>Fall (October 15)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permanent Residents</td>
<td>13,799</td>
<td>13,799</td>
<td>13,799</td>
<td>13,799</td>
</tr>
<tr>
<td>Seasonal Residents</td>
<td>3,210</td>
<td>1,124</td>
<td>3,933</td>
<td>1,284</td>
</tr>
<tr>
<td>Seasonal Workers</td>
<td>990</td>
<td>796</td>
<td>5,834</td>
<td>2,244</td>
</tr>
<tr>
<td>Transients</td>
<td>7,996</td>
<td>2,705</td>
<td>28,323</td>
<td>3,169</td>
</tr>
<tr>
<td>Total</td>
<td>25,905</td>
<td>18,424</td>
<td>51,889</td>
<td>20,496</td>
</tr>
</tbody>
</table>

The numbers above include lodging facilities and campgrounds in Grand Teton Park, the southern half of Yellowstone Park, the private lands northeast of Grand Teton, and the town of Alta, Wyoming. By removing these numbers, a tally is created for the area south of Grand Teton National Park and east of the Tetons, the area in which most of Teton County’s private lands lie. For this area, the totals dropped to: Winter - 24,351 (554 fewer); Spring - 18,413 (111 fewer); Summer - 37,987 (13,902 fewer); Fall - 20,397 (99 fewer).

An analysis of the numbers suggests that any planning deliberations regarding Teton County’s human population must take into account a current effective population ranging seasonally between 130 and 400 percent of the permanent population.
Introduction

In early 1991, the governments of Teton County, Wyoming and the Town of Jackson, Wyoming, began a joint effort to create a comprehensive land use plan which would cover all private land lying within their respective jurisdictions. This planning process will soon be entering its third year. A notable aspect of this lengthy process has been a tremendous amount of public involvement, including a close examination of the issues involved by a variety of citizens' groups. One consequence of this citizen involvement has been the identification of particular questions which individual groups felt needed answering, but which the planning officials were not able to effectively address.

One such question was exactly how many people are in Teton County at any one time. In their respective deliberations about land use in Teton County and the Town of Jackson, both the Jackson Hole Chamber of Commerce (Chamber) and the Jackson Hole Alliance for Responsible Planning (Alliance) became interested in the concept of "effective population." Effective population recognizes that, because of Teton County’s tourism-based economy, there are frequently many more people in the area than simply the permanent population. "How many people?" and "At what time of year?" are questions crucial to consideration of planning-related issues such as infrastructure requirements, commercial needs, housing mix, and population and commercial growth rates. Accordingly, both the Chamber and the Alliance felt that an accurate measure of Teton County’s effective population was important before they could intelligently speak to any issue related to the effect people are having or might have upon the area.

In the fall of 1992, both the Chamber and Alliance came to believe that no reliable estimate of effective population existed. Feeling this estimate to be crucial to their deliberations the Chamber and Alliance agreed to jointly engage Summit Management Consulting (SMC) to study this issue and arrive at an accurate estimate of effective population.

Exactly how large Teton County’s effective population might be requires not only an accurate count of the County’s permanent population, but also a rigorous tabulation of all categories of non-permanent residents. At different times of year, a large number of individuals spending a night in Teton County are either transients (primarily tourists) or seasonal residents (individuals whose primary residence is elsewhere). These tourists and seasonal residents drive the area’s bustling tourism-based economy, which in turn requires that a large number of seasonal workers be added to the mix. Accordingly, between tourists, seasonal residents, and seasonal workers, the number of people in Jackson and Teton County on any given day can be quite a bit higher than the number of permanent residents alone. This study is an effort to calculate exactly how much higher.

Methodology

For the Town of Jackson and Teton County, effective population consists of the sum of four population elements:

- Permanent population
- Seasonal residents (second home owners)
- Seasonal workers
- Transients (primarily tourists)
It was felt that, in order to accurately calculate effective population, an accurate estimate had to be made of each of these four elements. Moreover, because the non-permanent resident components of the effective population vary so widely from season to season, it was also felt that each component needed to be examined at four different times of the year: winter, spring, summer, and fall. Accordingly, this study attempted to calculate the number of people in each category on four dates felt to be representative of the four local tourism seasons: December 28 (winter); May 1 (spring); August 1 (summer); and October 15 (fall).

Different procedures were followed for calculating population figures for each of the four categories. The specific methodology for each category is described in the section for that category. Where appropriate, three estimates will be provided in a category: high, low, and "best guess." Unless otherwise noted, all data was collected in late 1992.

Components of Effective Population

Permanent Population

Permanent population is defined as all individuals permanently living in Teton County. The starting point for any calculation of permanent population is the decennial census conducted by the United States Department of Commerce, Bureau of the Census. This survey placed Teton County's permanent population at 11,172.

For two reasons, however, this figure needs to be modified. The first reason is that over two years have passed since the Census was conducted. The second reason is that many local officials feel the Census significantly under-counted Teton County's permanent population.

Besides doing a physical survey of all United States residents once every ten years, the Census Bureau also makes estimates of how the population in a given area will change between counts. For 1992, the Census Bureau estimates Teton County's population at 11,898. This report will use that figure as the low estimate for permanent population. For its own internal purposes, Teton County has calculated that the 1992 permanent population was 14,932; this will be the high estimate.

The "best guess" estimate in this category is based on voter registration numbers. In the November 1992 election, 8,521 people voted, 88% of the 9,683 who were registered to vote. It is assumed that some of those who voted are not, in fact, permanent residents of Teton County, but instead seasonal residents who claim Teton County as their residence for tax purposes (and who therefore vote by absentee ballot in Teton County in order to maintain their residence claim). It is also recognized that population estimates based on the number of people registered to vote in 1992 will be inflated because not all of those who were registered to vote still live in Teton County.

Proceeding from these assumptions, the Teton County Registrar of Voters was asked to predict how many individuals would remain on the voting rolls once the 1993 purge of non-voters and former residents was conducted. The Registrar estimates that, following the purge, 8,715 people will continue to be registered to vote in Teton County. The County further assumes that 80% of Teton County's residents aged 18 and over are registered to vote. Using these figures, it is estimated that 8,715x(0.8)=10,894 individuals aged 18 and over live in Teton County. To calculate the population of those ages 17 and under, an analysis of age
cohort patterns in the Census was conducted. This analysis suggests that approximately 21% of Teton County’s residents are 17 or under, leaving 79% aged 18 or over. \( \frac{79}{100} = 10,894/13; x = 13,799 \). Thus, the two age groupings yield a permanent population for Teton County of 13,799. This figure will be used as the “best guess” estimate. It is 1,901 higher than the Census estimate, and 1,133 lower than the County’s estimate.

<table>
<thead>
<tr>
<th>Teton County Permanent Population Estimates</th>
<th>Season</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;Best Guess&quot; (SMC)</td>
<td>Spring</td>
<td>12,799</td>
<td>12,799</td>
<td>12,799</td>
</tr>
<tr>
<td>High (Teton County)</td>
<td>Summer</td>
<td>14,932</td>
<td>14,932</td>
<td>14,932</td>
</tr>
<tr>
<td></td>
<td>Fall</td>
<td>14,932</td>
<td>14,932</td>
<td>14,932</td>
</tr>
</tbody>
</table>

**Seasonal residents (second home owners)**

Seasonal residents (second home owners) are defined as those individuals who own a home and live in Teton County for part of the year, but whose primary residence is elsewhere. For the purposes of this definition, it is assumed that the people who own and occupy these homes do not work while they are in Teton County.

The 1990 Census was conducted in late April and May of that year, a time when, because of the weather, it is generally assumed that the fewest number of non-permanent residents are to be found in Teton County. The Census classified 1,457 homes in Teton County - 21% of the total housing stock - as second homes. Since that time, the total housing stock in Teton County has risen by approximately 10%. Building permits do not specify whether a home will be used as a primary or secondary dwelling. Therefore, this study will use the extremely conservative assumption that the number of second homes has increased in the same proportion as it existed in the 1990 Census. Accordingly, the calculation of second homes begins with the Census report that the total housing stock in 1990 was 7,060. As of the end of 1992, it had increased by at least 10 percent, or 706 units. Of these, 21%, or 148, are assumed to be second homes, yielding a total of 1,457 + 148 = 1,605 second homes.

To estimate the number of people living in Teton County’s second homes at a given time of year, two additional assumptions need to be made: the number of people occupying each home, and how many of the second homes are occupied on the four days we are examining.

While Census data provide an average household size of 2.3 for Teton County’s homes, this number addresses only the households of permanent residents. No calculated figure exists for second homes. Accordingly, this study must make an estimate for this number. The table below shows the range of estimates.
Because no data exist regarding the profile of Teton County's second home owners, it will be assumed for the purposes of this study that, when occupied, each home contains an average of 2.5 residents. This yields 1,605 x 2.5 = 4,013 as the maximum number of people occupying second homes in Teton County.

As noted above, assumptions also must be made regarding not only number of occupants, but also what percentage of homes are occupied at any given time of year. It seems reasonable to assume that second home occupancy closely parallels tourist visitation patterns. Therefore, this study will apply the occupancy rates for local lodging rooms to second home occupancy.

Seasonal Workers

As suggested above, Teton County's population ebbs and flows seasonally as local businesses hire workers to provide goods and services to the large number of tourists passing through the area. In general, these individuals differ from seasonal residents in two ways: they work while in Teton County, and they live in housing stock other than the community's second homes.

To estimate the number of seasonal workers, employment information was obtained from the State of Wyoming Department of Administration, Employment Security Commission, Research and Analysis Section of the Administrative Services Division. The Commission was able to provide information about the total number of workers by industrial categories by month for the years 1984-1991. Three categories showed significant variations in seasonal employment: service, construction, and retail trade. Erring on the conservative side, these areas were assumed to employ the entire seasonal workforce. To calculate the size of this workforce, the several years of data in each category were averaged, with the low number in each category assumed to represent the permanent workforce, and the difference between the high and low assumed to represent the seasonal workforce. The table below presents the findings of this analysis.
### Transients (primarily tourists)

For the purposes of this study, transients were defined as anyone spending a night in Jackson Hole who is not a permanent resident, residing in a second home, or a seasonal worker. These individuals are primarily tourists spending the night in one of Teton County’s lodging establishments (hotel/motel, rental condo, bed and breakfast, rental cabin, guest ranch, guest suite/studio) or campgrounds.

The first step in calculating the number of transients was to determine the number of individuals who can be accommodated by all of Teton County’s lodging establishments and campgrounds at different times of the year. This number shall be referred to as a "pillow count," and differs from a count of rooms or count of beds by recognizing that the typical guest room contains more than one bed, and that the typical guest bed is often occupied by more than one person.

The pillow count was determined by surveying every lodging establishment in Teton County for three pieces of data: total rooms for hire, total number of beds for hire, and total number of pillows for hire. The total number of pillows was then adjusted by a seasonal occupancy figure (was the room occupied? If so, how many people per room?) estimated by using a combination of actual occupancy numbers from establishments which had them, and estimates from those which didn’t. The campground “pillow count” was calculated in a similar fashion. Both the lodging facility and campground numbers include all of Teton County, including Grand Teton National Park and the southern portion of Yellowstone National Park.
<table>
<thead>
<tr>
<th>Teton County - Lodging Facilities Pillow Count</th>
<th>Season</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Winter</td>
</tr>
<tr>
<td>Hotels, Motels</td>
<td>9,549</td>
</tr>
<tr>
<td>Condos</td>
<td>3,409</td>
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<tr>
<td>B&amp;Bs</td>
<td>71</td>
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<tr>
<td>Cabins</td>
<td>271</td>
</tr>
<tr>
<td>Guest Ranches</td>
<td>65</td>
</tr>
<tr>
<td>Suites and Studios</td>
<td>260</td>
</tr>
<tr>
<td><strong>Total Pillows</strong></td>
<td><strong>13,625</strong></td>
</tr>
<tr>
<td>Room Occupancy Rate</td>
<td>0.80</td>
</tr>
<tr>
<td>Bed Occupancy Rate</td>
<td>0.72</td>
</tr>
<tr>
<td>Pillow Occupancy Rate (Room Occ. x Bed Occ.)</td>
<td>0.58</td>
</tr>
<tr>
<td><strong>Occupied Pillows</strong></td>
<td><strong>7,903</strong></td>
</tr>
<tr>
<td>Number of Campsites</td>
<td>16</td>
</tr>
<tr>
<td>Maximum Number of Campers (3.45/site)</td>
<td>55</td>
</tr>
<tr>
<td>Occupancy Rate</td>
<td>0.05</td>
</tr>
<tr>
<td><strong>Total Number of Campers</strong></td>
<td><strong>3</strong></td>
</tr>
<tr>
<td><strong>Occupied Pillows</strong></td>
<td><strong>7,903</strong></td>
</tr>
<tr>
<td><strong>Total Number of Campers</strong></td>
<td><strong>3</strong></td>
</tr>
<tr>
<td><strong>Total Number of Transients</strong></td>
<td><strong>7,906</strong></td>
</tr>
</tbody>
</table>
Effective Population

Using the "most reasonable" estimates from above, the following table displays Teton County's effective population in each of the four seasons:

<table>
<thead>
<tr>
<th>Teton County - Effective Population Components by Season</th>
<th>Season</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Winter (December 28)</td>
</tr>
<tr>
<td></td>
<td>Spring (May 1)</td>
</tr>
<tr>
<td></td>
<td>Summer (August 1)</td>
</tr>
<tr>
<td></td>
<td>Fall (October 15)</td>
</tr>
<tr>
<td>Permanent Residents</td>
<td>13,799</td>
</tr>
<tr>
<td></td>
<td>13,799</td>
</tr>
<tr>
<td></td>
<td>13,799</td>
</tr>
<tr>
<td></td>
<td>13,799</td>
</tr>
<tr>
<td>Seasonal Residents</td>
<td>3,210</td>
</tr>
<tr>
<td></td>
<td>1,124</td>
</tr>
<tr>
<td></td>
<td>3,933</td>
</tr>
<tr>
<td></td>
<td>1,284</td>
</tr>
<tr>
<td>Seasonal Workers</td>
<td>990</td>
</tr>
<tr>
<td></td>
<td>796</td>
</tr>
<tr>
<td></td>
<td>5,834</td>
</tr>
<tr>
<td></td>
<td>2,244</td>
</tr>
<tr>
<td>Transients</td>
<td>7,906</td>
</tr>
<tr>
<td></td>
<td>2,705</td>
</tr>
<tr>
<td></td>
<td>28,323</td>
</tr>
<tr>
<td></td>
<td>3,169</td>
</tr>
<tr>
<td>Total</td>
<td>25,905</td>
</tr>
<tr>
<td></td>
<td>18,424</td>
</tr>
<tr>
<td></td>
<td>51,889</td>
</tr>
<tr>
<td></td>
<td>20,496</td>
</tr>
</tbody>
</table>

Discussion and Analysis

This study offers two immediately striking conclusions. The first is the sheer size of Teton County's effective population. At the absolute slowest time of year, there is still an effective population of over 18,400 people in the County; at the absolute busiest, that number practically triples to nearly 52,000.

The second, related, point is the range which Teton County's permanent residents represent in the effective population over the course of a year: from a high of 75% in the spring to a low of 27% in the summer. Put another way, in the spring, 3 out of every 4 people in Teton County are permanent residents; three months later, barely one in four is. Additionally, during the height of the summer, there are over twice as many transient "residents" of Teton County as there are permanent ones. Winter and fall numbers range between the extremes of spring and summer.

<table>
<thead>
<tr>
<th>Teton County - Effective Population Components by Season (Number and Percentage)</th>
<th>Winter (December 28)</th>
<th>Spring (May 1)</th>
<th>Summer (August 1)</th>
<th>Fall (October 15)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>#  %</td>
<td>#  %</td>
<td>#  %</td>
<td>#  %</td>
</tr>
<tr>
<td>Permanent Residents</td>
<td>13,799  53%</td>
<td>13,799  75%</td>
<td>13,799  27%</td>
<td>13,799  67%</td>
</tr>
<tr>
<td>Seasonal Residents</td>
<td>3,210  12%</td>
<td>1,124  6%</td>
<td>3,933  8%</td>
<td>1,284  6%</td>
</tr>
<tr>
<td>Seasonal Workers</td>
<td>990  4%</td>
<td>796  4%</td>
<td>5,834  11%</td>
<td>2,244  11%</td>
</tr>
<tr>
<td>Transients</td>
<td>7,906  31%</td>
<td>2,705  15%</td>
<td>28,323  55%</td>
<td>3,169  15%</td>
</tr>
<tr>
<td>Total</td>
<td>25,905 100%</td>
<td>18,424 100%</td>
<td>51,889 100%</td>
<td>20,496 100%</td>
</tr>
</tbody>
</table>
When considering the large number of summer transients and, to a lesser extent, seasonal workers, it is important to recognize that these figures include occupancy throughout Teton County. This includes 1,441 rooms and 908 campsites in Yellowstone National Park, 857 rooms and 1,190 campsites in Grand Teton National Park, and 165 rooms and 55 campsites in locations north of Moose outside the two parks and in Alta. Removing these from consideration, and focusing on the part of Teton County stretching east of the Tetons and south from Moose, the following numbers emerge.

<table>
<thead>
<tr>
<th>Teton County (East of the Tetons, South of GTNP) - Effective Population</th>
<th>Season</th>
</tr>
</thead>
<tbody>
<tr>
<td>Components by Season (Number and Percentage)</td>
<td>Winter (December 28)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>#</th>
<th>%</th>
<th>#</th>
<th>%</th>
<th>#</th>
<th>%</th>
<th>#</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permanent Residents</td>
<td>13,799</td>
<td>54 %</td>
<td>13,799</td>
<td>75 %</td>
<td>13,799</td>
<td>36 %</td>
<td>13,799</td>
<td>68 %</td>
</tr>
<tr>
<td>Seasonal Residents</td>
<td>3,210</td>
<td>13 %</td>
<td>1,124</td>
<td>6 %</td>
<td>3,933</td>
<td>10 %</td>
<td>1,284</td>
<td>6 %</td>
</tr>
<tr>
<td>Seasonal Workers</td>
<td>990</td>
<td>4 %</td>
<td>796</td>
<td>4 %</td>
<td>5,834</td>
<td>15 %</td>
<td>2,244</td>
<td>11 %</td>
</tr>
<tr>
<td>Transients</td>
<td>7,352</td>
<td>29 %</td>
<td>2,694</td>
<td>15 %</td>
<td>14,421</td>
<td>38 %</td>
<td>3,070</td>
<td>15 %</td>
</tr>
<tr>
<td>Total</td>
<td>25,351</td>
<td>100 %</td>
<td>18,413</td>
<td>100 %</td>
<td>37,987</td>
<td>100 %</td>
<td>20,397</td>
<td>100 %</td>
</tr>
</tbody>
</table>
As with any study, both the numbers used in this study and the methodology which produced them can be questioned. The numerical weaknesses are artifacts of the data available: some numbers simply weren’t available; others were best guesses based on data not directly related to the questions being asked. (Examples of the former are accurate counts of the permanent population, precise occupancy rates for lodging units and campgrounds, the number of people per second home, the number of people residing in Teton County - whether on a seasonal or permanent basis - in illegal campsites and other uncounted structures; an example of the latter is seasonal workers.)

Still other categories which might drive the effective population figure higher (e.g. the number of workers who commute into Teton County on a regular basis) were not incorporated for two reasons: because there was no way to make even a reasonable guess at that number, and because they would yield relatively small numbers compared to the four primary categories. Erring in the other direction, it is also acknowledged that there might be double-counting in some areas (the number of permanent residents might also include some individuals considered as seasonal workers; the number or seasonal workers might be inflated because of individuals holding more than one job).

Despite the potential for error, two points are important to consider, however. First, whenever a number seemed less-than-solid, this study erred on the side of the more conservative – or lower – number. Second, even if there is a significant error in every number, and even if all of these errors are made in the same direction (i.e. there are no liberal errors to offset the conservative errors), the general picture of Teton County’s effective population painted by this study almost certainly remains accurate: any planning considerations based on the number of people currently in Teton County at any one time should assume a range from over 18,000 on the low end to well over 50,000 on the high end. For planning deliberations focusing on the areas south of Grand Teton National Park and east of the Tetons, the high end of the range drops to around 40,000, a figure which is still three times greater than the permanent population. As suggested in the introduction, these numbers are so much higher than the permanent population that they should warrant the attention of planning officials and other concerned individuals.

Summit Management Consulting would like to acknowledge and thank Mark Hoyer of the Jackson Hole Alliance for his work in research assistance for this project.