

Local & Regional Travel Patterns Study



Sponsored by:
Garfield County, Pitkin County, City of Aspen,
Town of Snowmass Village, City of Rifle

TAC members & Study Team

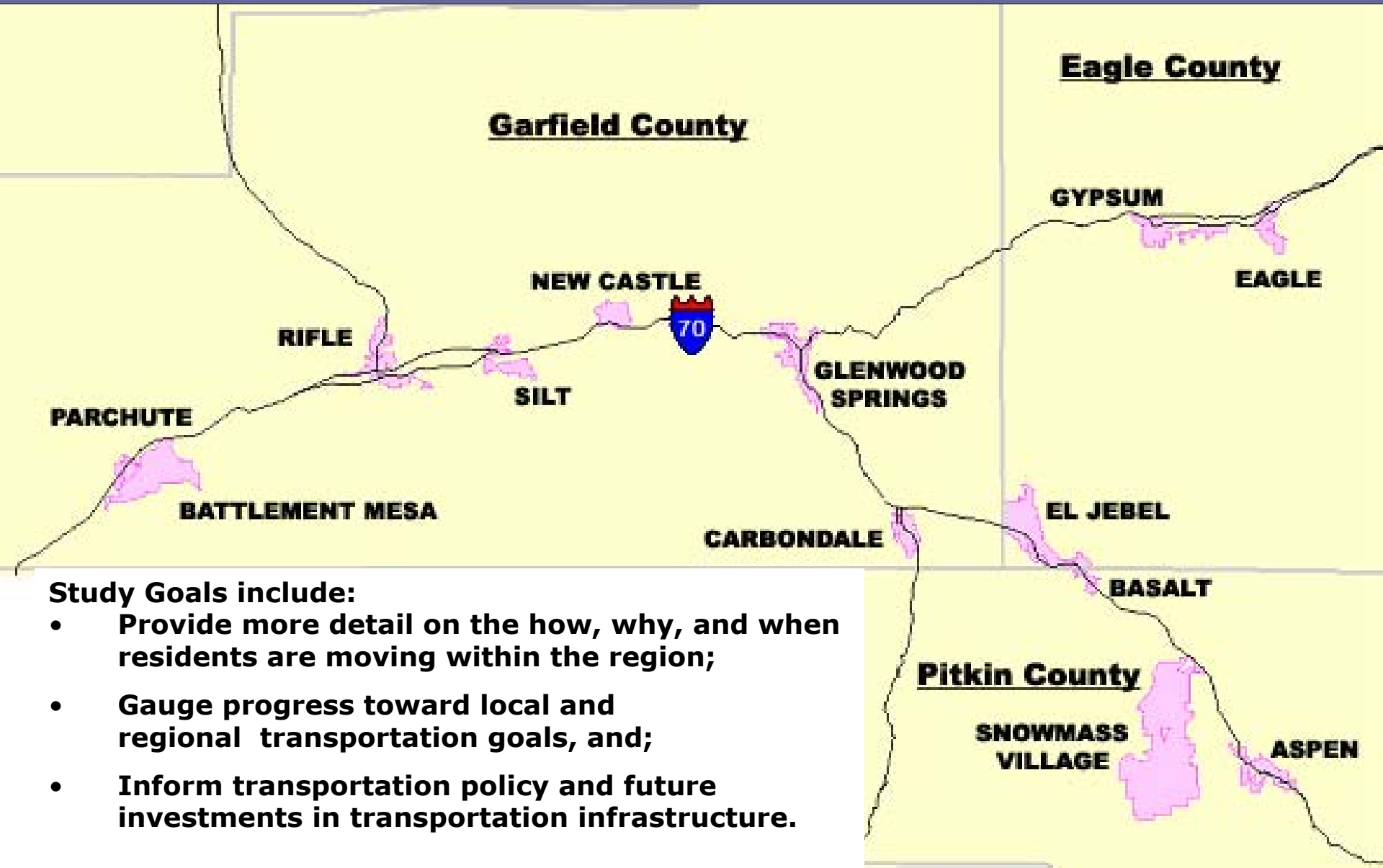
TECHNICAL ADVISORY COMMITTEE

John Krueger	City of Aspen Transportation Department
Larry Thompson	City of Glenwood Springs
Mike Pelletier	City of Glenwood Springs Senior Long Range Planner
Melissa Laeser	City of Glenwood Springs Transportation Manager
Matt Sturgeon	City of Rifle Planning Director
Karen Rowe	Colorado Department of Transportation Resident Engineer
Rebecca Leonard	Eagle County Planning and Building
Mark Bean	Garfield County Building and Planning Director
Jeff Nelson	Garfield County Engineering Department
Randy Russell	Garfield County Planning Department
Kristin Kenyon	RFTA Transit Planning
Glenn Hartmann	Town of Basalt Community Development Coordinator
Mark Chain	Town of Carbondale Planning Director
Jim Stevens	Town of New Castle Project Coordinator
Juanita Satterfield	Town of Parachute Town Administrator
Janet Steinbach	Town of Silt Community Development Director
Chris Conrad	Town of Snowmass Village

STUDY TEAM

- **RRC Associates, Boulder, CO**
- **Healthy Mountain Communities, Carbondale, CO**
- **Charlier Associates, Boulder, CO**

Survey Area & Goals



Study Goals include:

- Provide more detail on the how, why, and when residents are moving within the region;
- Gauge progress toward local and regional transportation goals, and;
- Inform transportation policy and future investments in transportation infrastructure.

Survey background

Employee

- **4,000 surveys distributed (3000 in 1998)**
- **1,027 surveys completed (a response rate of 26% / 1998 had a 17% response rate).**

Employer

- **367 surveys distributed (up from 200 in 1998), and generated 123 responses – a 36% response rate.**

The 30 largest employers in the region were included in the sampling frame (due to their disproportionate share of employment), along with a random sample of employers of other sizes. Additionally, businesses in smaller communities were intentionally somewhat oversampled to ensure sufficient local return rates from employers and employees in those communities.

Current Travel Patterns

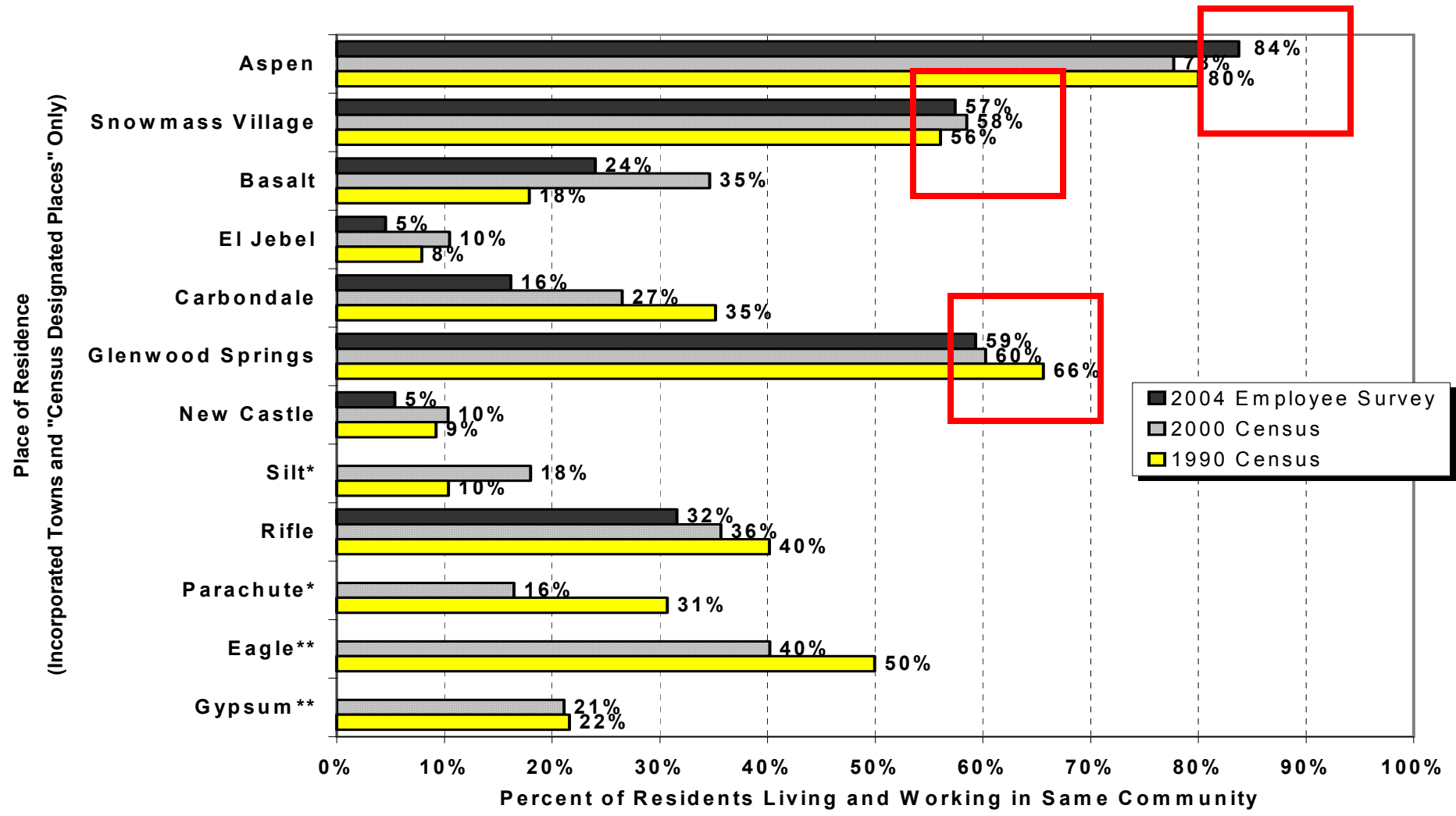


Means of Transportation to Work: Comparison by Place of Residence

- The bus mode share is unusually high, as it was in 1998. A 10 to 11 percent bus mode share to and from work (12 to 13 percent with “park ‘n ride”) is about five to ten times what would normally be expected in a rural/small town regional setting in the U.S.
- The carpool/vanpool data is also relatively high (combined mode share of 15 to 16 percent).

	Roaring Fk/Lower Colorado Total	Garfield County	Basalt / El Jebel	Pitkin County	Denver-- Boulder-- Greeley CMSA	Portland --Salem, OR--WA CMSA	Summit County	Routt County	Gunnison County	Crested Butte	Jackson, WY
Drive Alone	64%	68%	60%	57%	79%	64% 77%	70%	73%	61%	35%	67%
Carpool	20%	22%	22%	13%	12%	20% 13%	13%	16%	17%	9%	16%
Walk	7%	5%	3%	14%	2%	7% 3%	9%	6%	13%	25%	11%
Bicycle	1%	0%	0%	3%	1%	1% 1%	1%	2%	6%	17%	3%
Transit	7%	3%	16%	12%	5%	7% 6%	5%	2%	3%	12%	3%
Other	1%	1%	0%	1%	1%	1% 1%	1%	0%	1%	2%	0%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Residents that work in the same community in which they live



Source: Bureau of Transportation Statistics; 2000 US Census; RRC Associates, Inc.

*Incorporated Silt and Parachute responses to 2004 survey are fewer than 40.

**2004 data for Eagle & Gypsum not available, since survey did not include all of Eagle County (employees in Eagle River Valley upvalley of Eagle were not surveyed.)

Employees that live in the same community in which they work

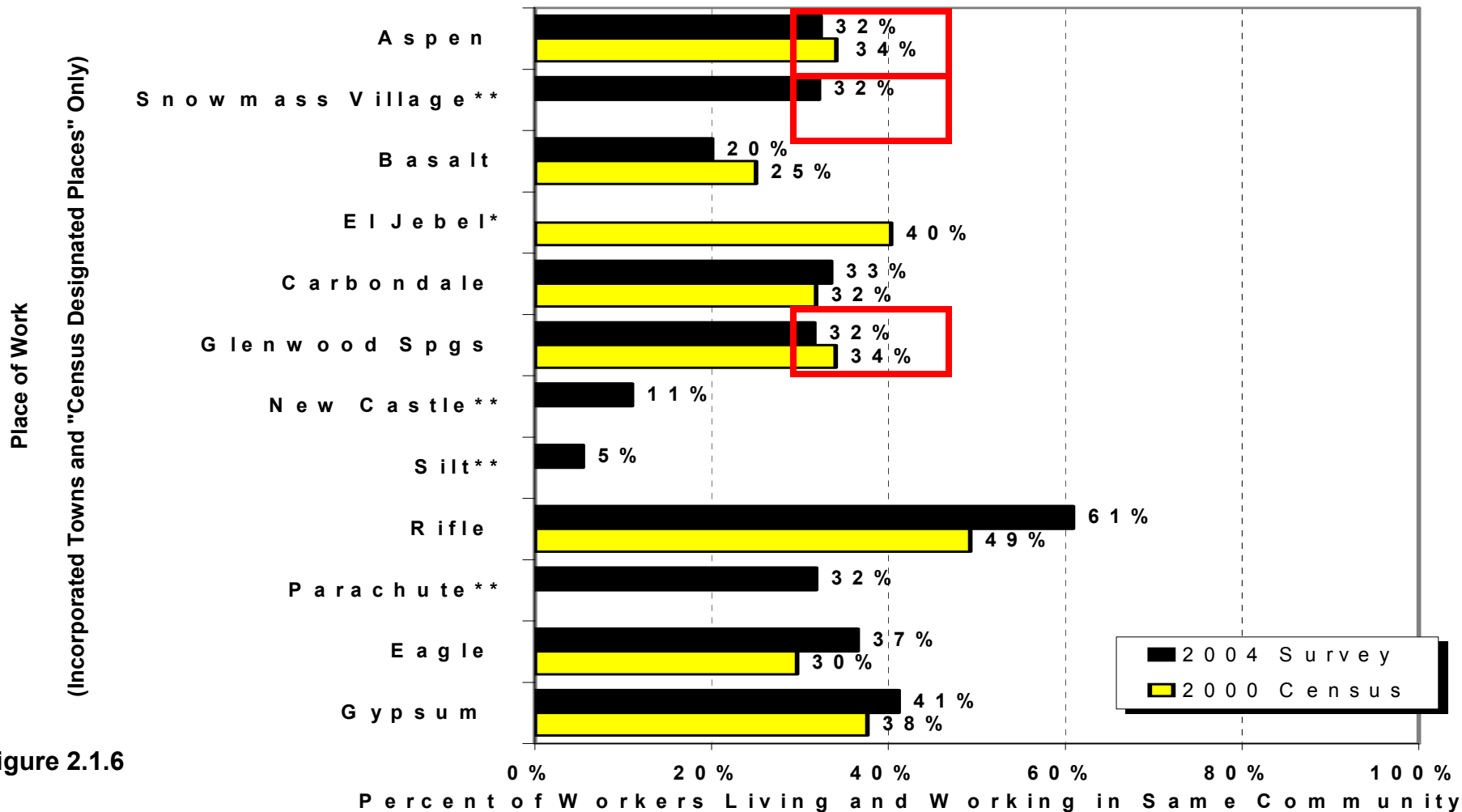


Figure 2.1.6

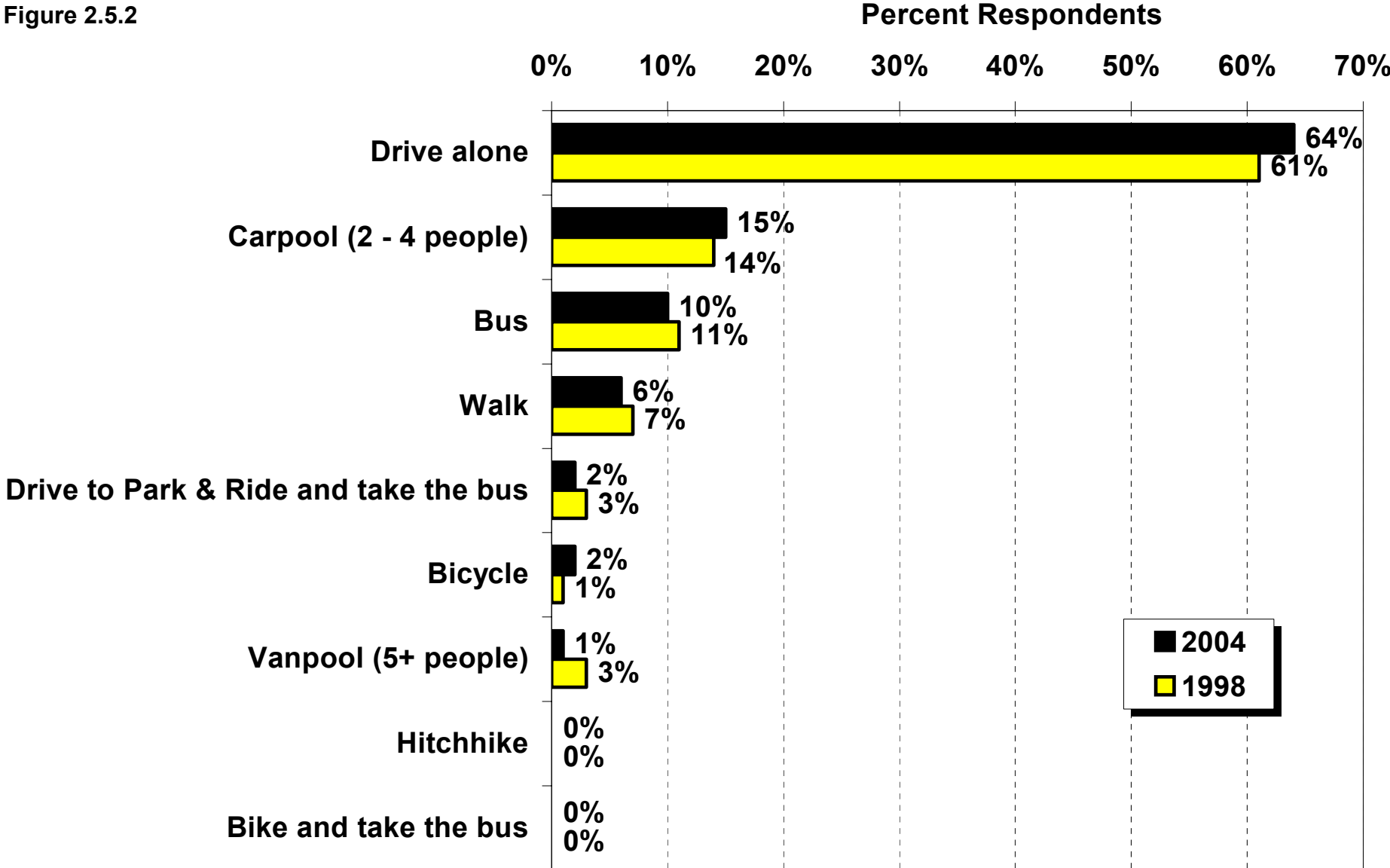
Source: Bureau of Transportation Statistics; 2000 US Census; 2004 Employee Survey; R R C Associates, Inc.

*El Jabel sample size below 40 responses.

**Census information for communities with fewer than 2,500 persons in the year 2000 is unavailable. Survey responses for Silt and New Castle were fewer than 40 - interpret with caution.

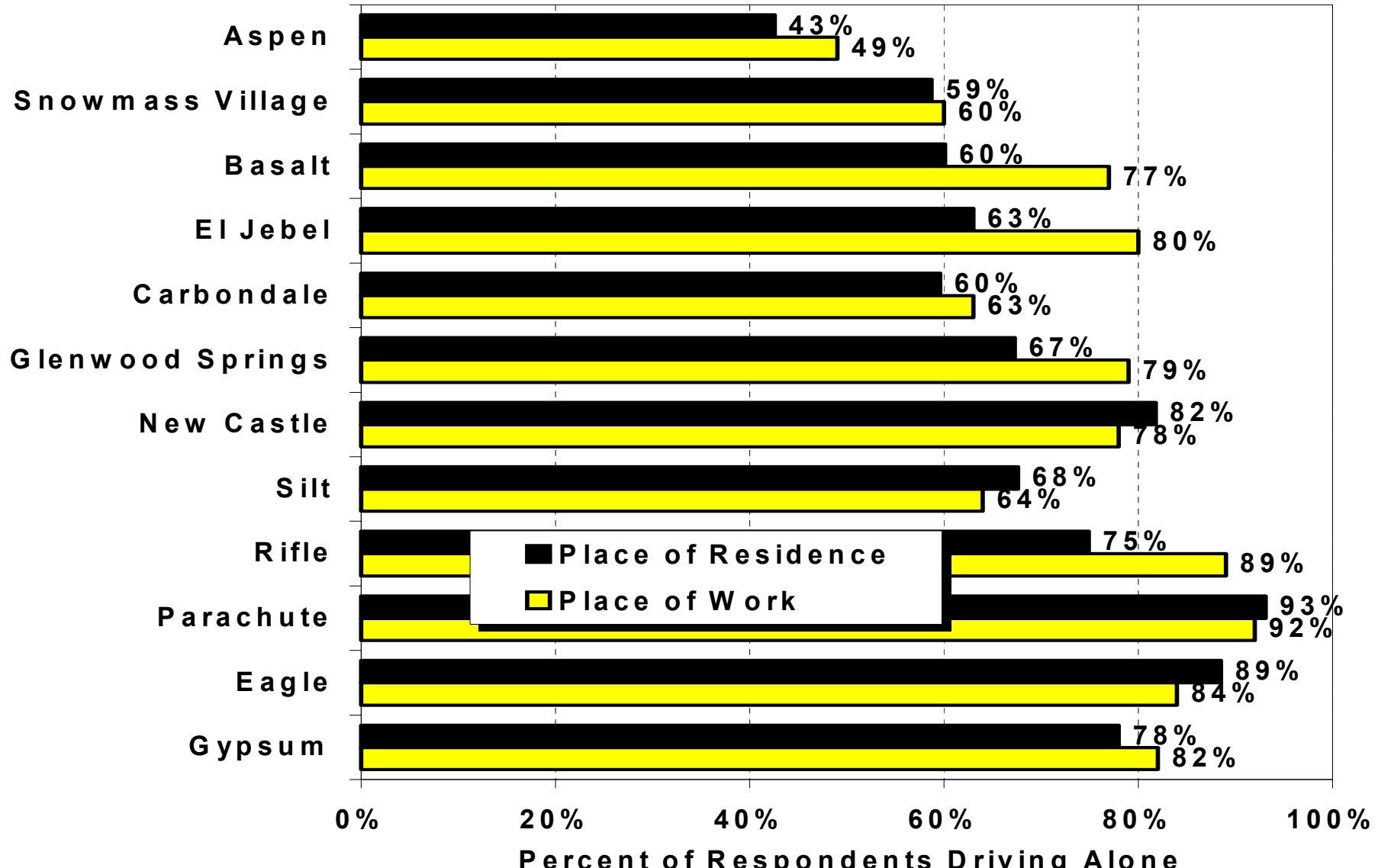
Means Of Travel To Work: Most Recent Work Day

Figure 2.5.2



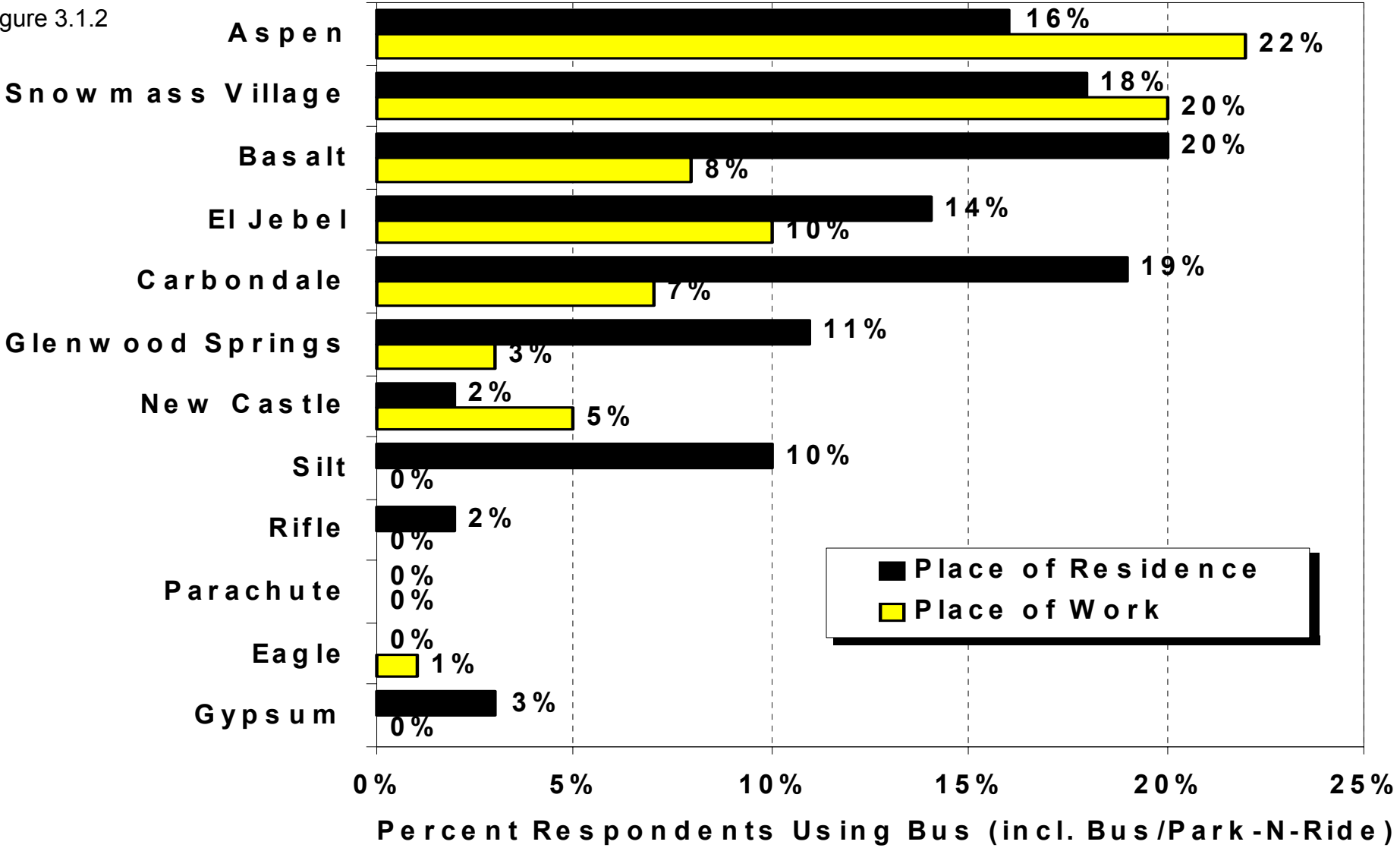
Respondents who commuted by driving alone

Figure 3.1.1



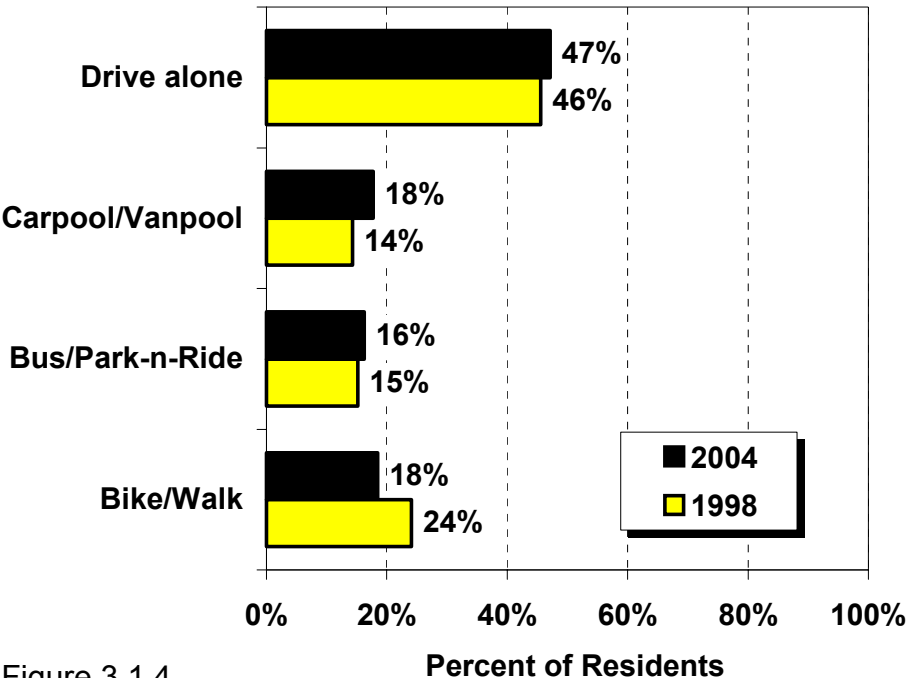
Respondents who commuted by bus

Figure 3.1.2



Mode split by place of residence

Live in Aspen Snowmass



Live in Basalt El Jebel

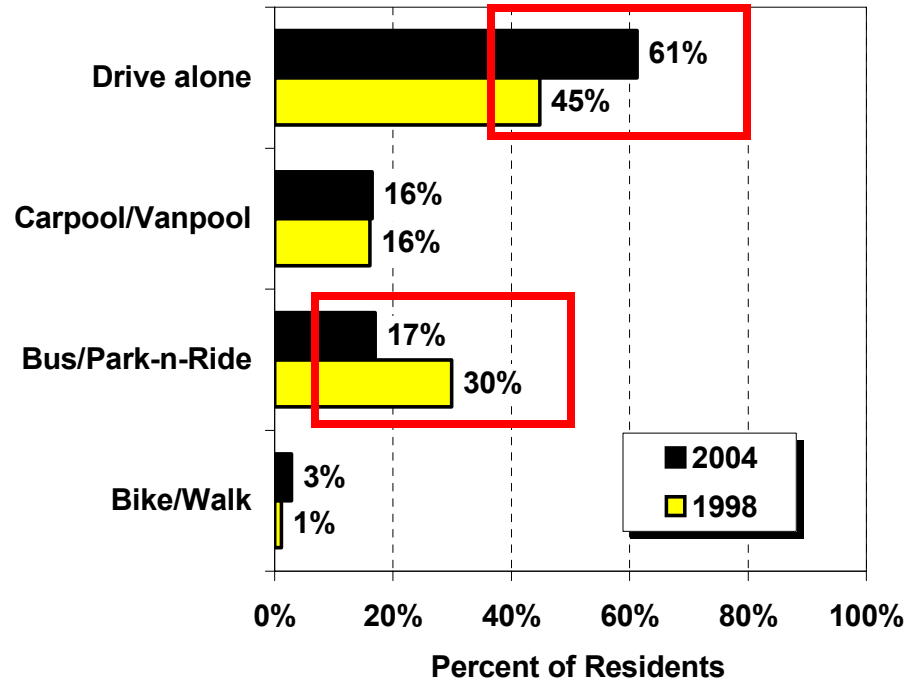
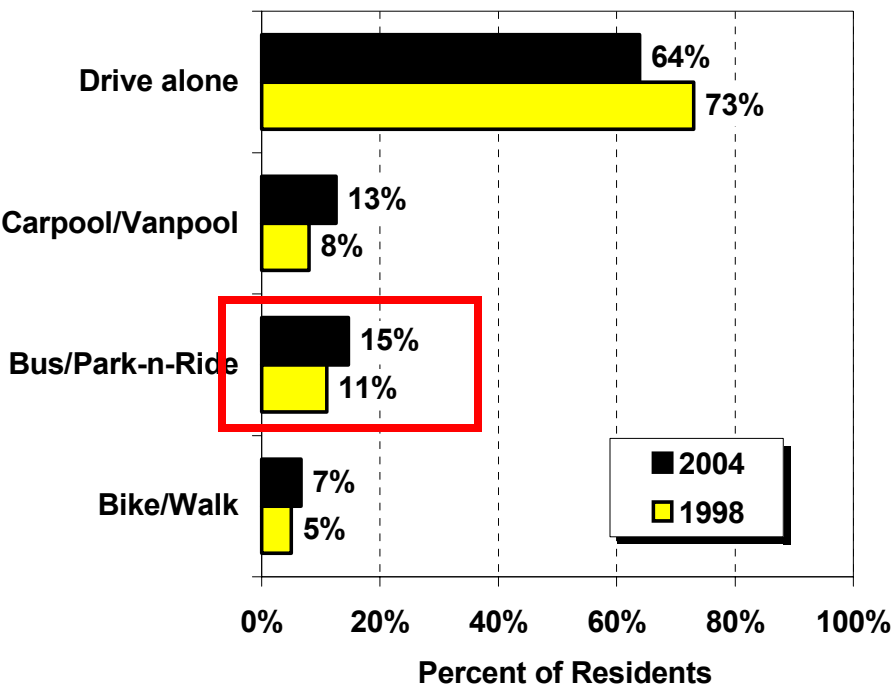


Figure 3.1.4

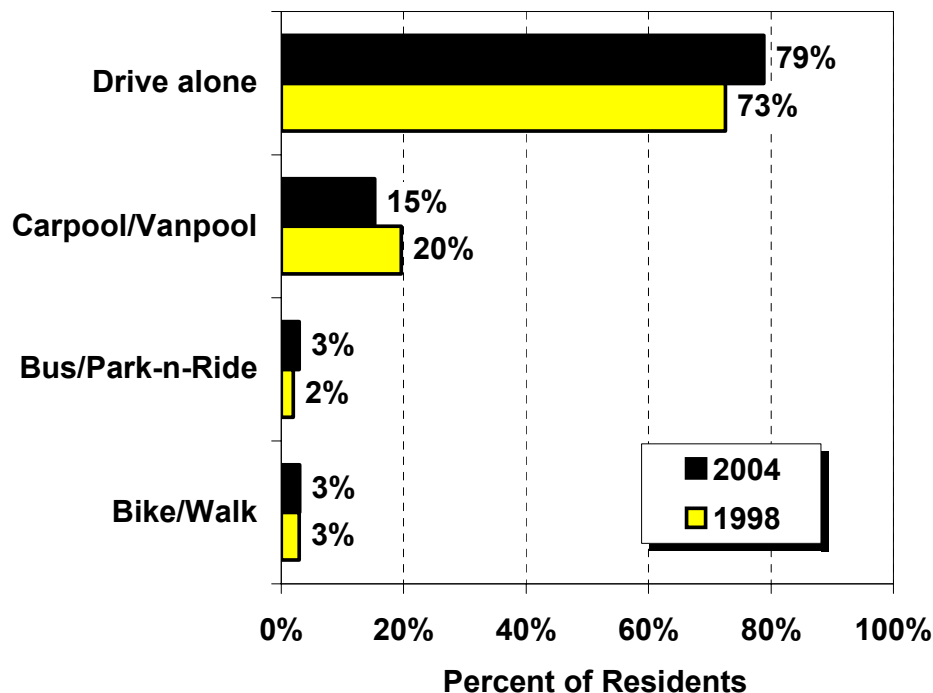
The 13 percentage point drop in transit share in Basalt/El Jebel could in part be the result of highway improvements (although sampling issues are also likely to be a factor).

Mode split by place of residence

Live in Carbondale Glenwood



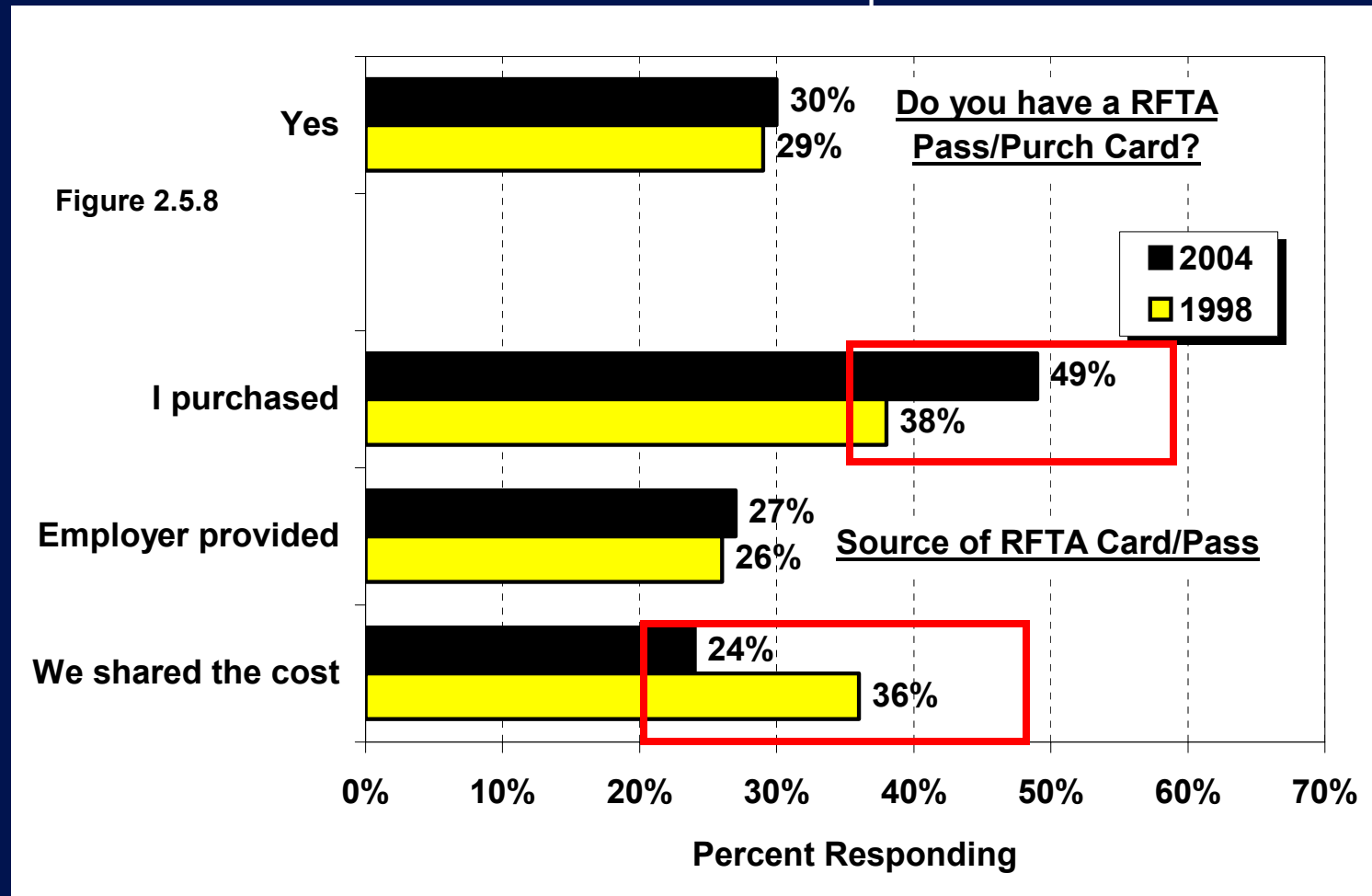
Live in New Castle/Silt/Rifle/Parachute



Increase in bus service in Carbondale/GWS could be from increase from hour to 1/2 hour bus service.

Why the changes in mode share? Who pays for the pass?

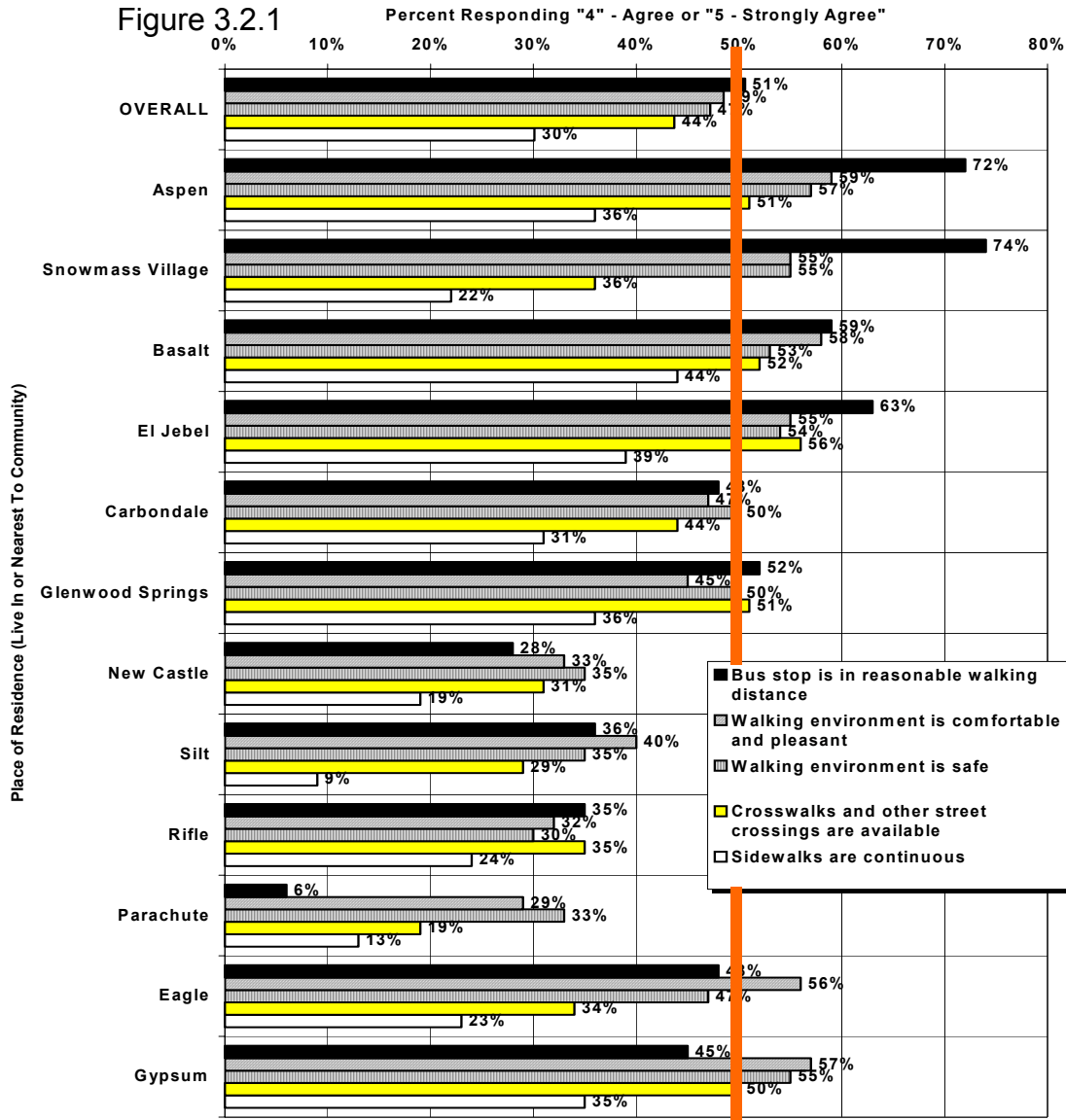
RFTA Pass/Punch Card Ownership: 2004 and 1998



Further declines in employer- subsidized bus passes could lead to declines in the number of pass-holders and, as a secondary impact, in bus ridership. This issue (and related issues, such as pricing of passes) warrants continued monitoring.

Poor pedestrian environment

Figure 3.2.1



“Every trip begins and ends with walking,”
 Dan Burden
 Walkable Communities

Improvements in walk environment are achievable everywhere in the region.

Highway improvements

Basalt to Buttermilk Total Cost = +\$180 million



Before



After

Significant highway improvement have made the commute easier.

This expansion of highway capacity could also encourage higher transit ridership, but that effect will not be pronounced unless other service characteristics (especially headways) of the regional bus routes are improved.

Future Travel Patterns



Traffic lights on State Highway
82 between Aspen and
Glenwood Springs

1990 = 0

2005 = 16

Ways to think about the future

Prediction



Forecast



Projection



Projections based upon past trends, assumptions about expected changes in the trends (which can change), and finally, existing conditions.

Data sources utilized in projections

U.S. Census Transportation Planning Package datafiles, 2000;

County population projections - Colorado State Demographer, 2003;

Subcounty population projections (Garfield County) – Leigh Scott & Cleary, 2004;

Subcounty population projections (Eagle County) – Eagle County Planning Department, 2004;

Employment estimates and projections by county - ES 202 data files, 1990 and 2000 U.S. Census, and Center for Business and Economic Forecasting, Inc.;

Current and projected traffic on I-70 and SH 82 - Colorado Dept. of Transportation;

Economic base analysis (2002) – Colorado State Demographer;

Social and economic effects of second homes (2004) - Northwest Colorado Council of Governments; and,

Transit ridership trends and related data on transit service - Roaring Fork Transit Authority.

Forces influencing future growth in our region

Jim Westkott
State Demographer
Economic base -
“drivers”

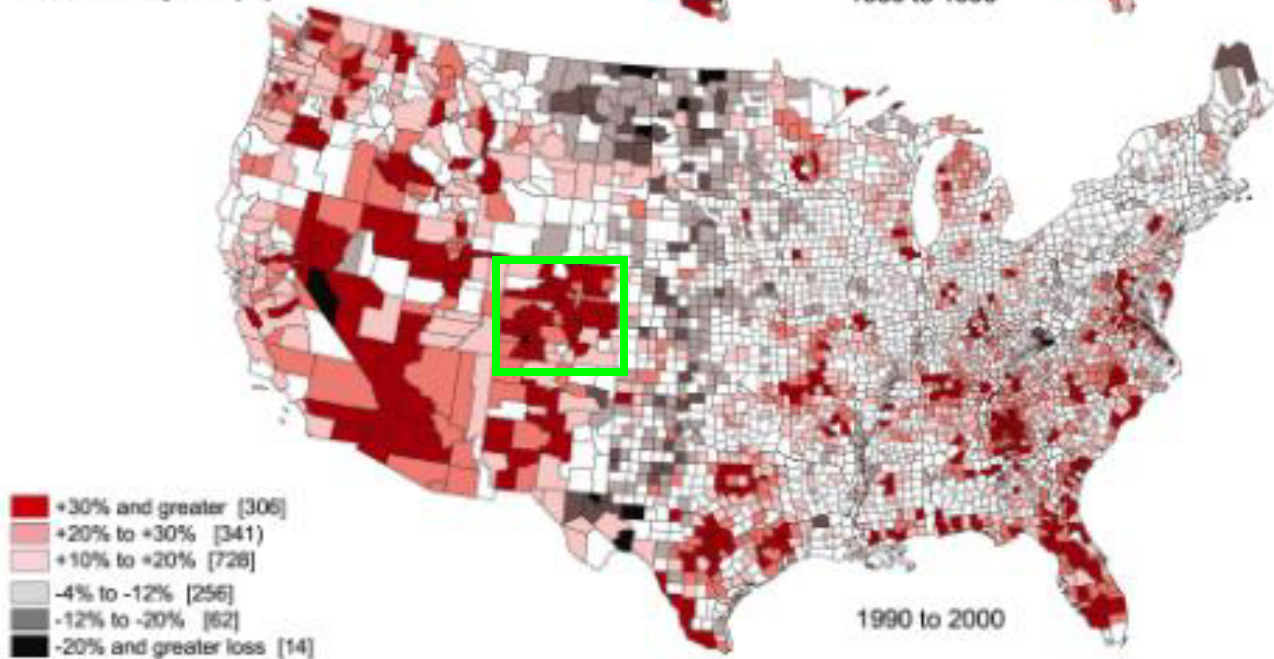
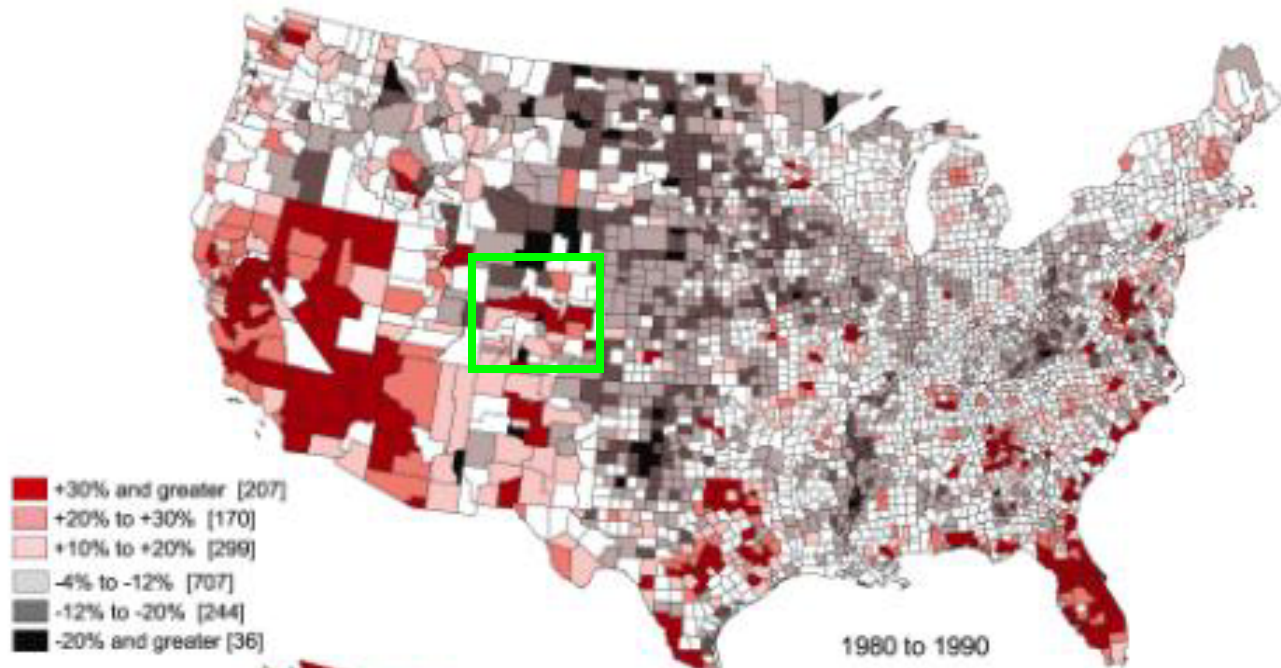
- **Tourism**
- **Second homes**
- **Retirees . . . tourists that stay longer.**
- **Lone eagles, home sourcers, small industries.**
- **Energy**



National context of each = strong growth!!!

Population Growth and Decline in the U.S.

Strong trends toward growth in Western states



Population projections

	<u>2000</u>	<u>2010</u>	<u>2020</u>	<u>2030</u>
Eagle –RF	35,500	48,800	63,400	78,000
Pitkin	15,800	18,600	23,100	27,200
Eagle RF	7,500	8,500	9,300	10,000
Garfield	<u>44,300</u>	<u>58,500</u>	<u>76,600</u>	<u>97,000</u>
TOTAL	103,100	134,400	172,400	212,200
Av % Ch	4.8%	2.7%	2.5%	2.1%

Source: State Demographer

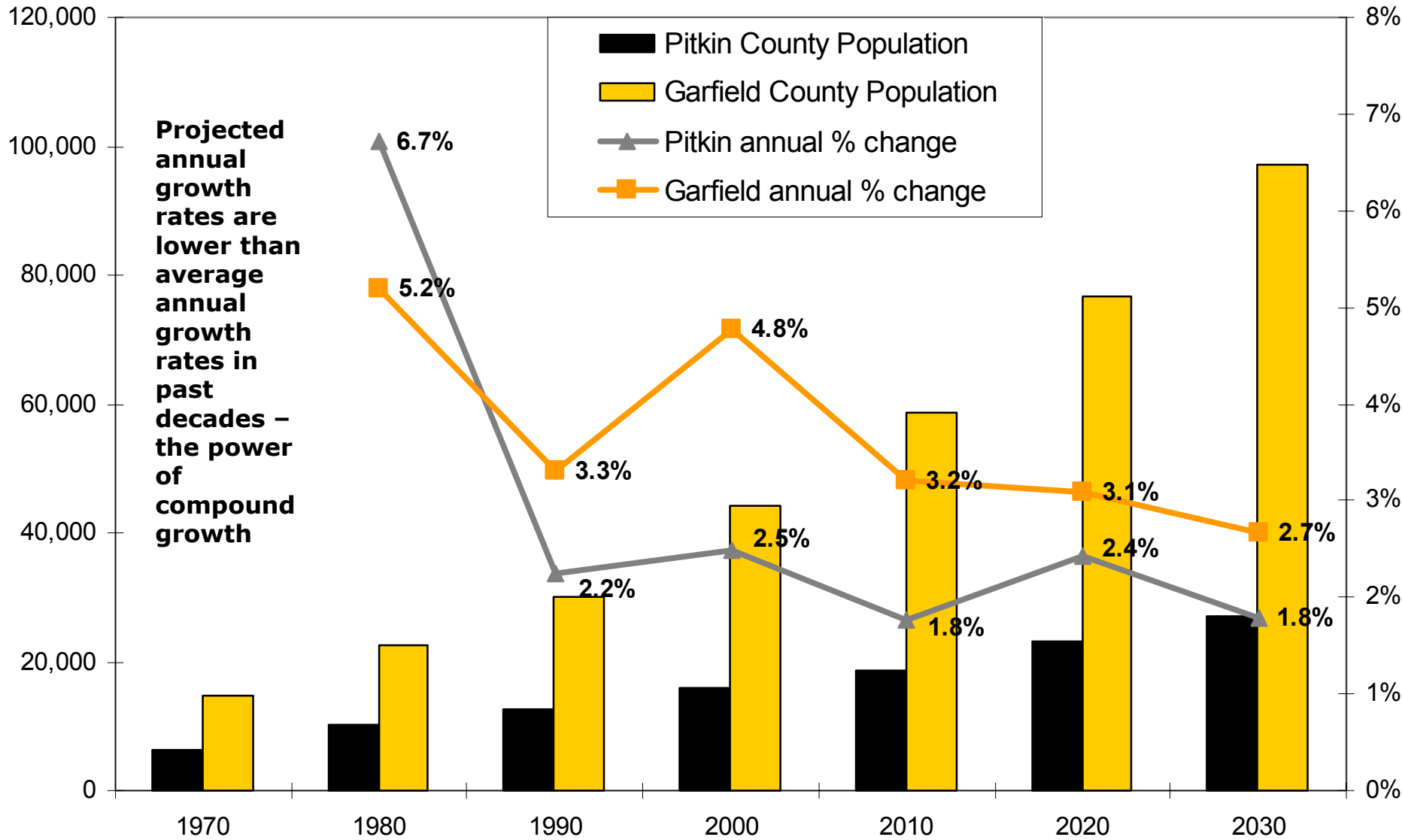
Ongoing work by the Watershed Growth Scenarios Task Force is indicating that a more rapid growth curve is likely to occur the Roaring Fork region than is described in this report. Based on the Task Force's work, readers should be cautioned to review the Roaring Fork projections with a sense that they may apply 5 years earlier than projected in the report.

Job projections

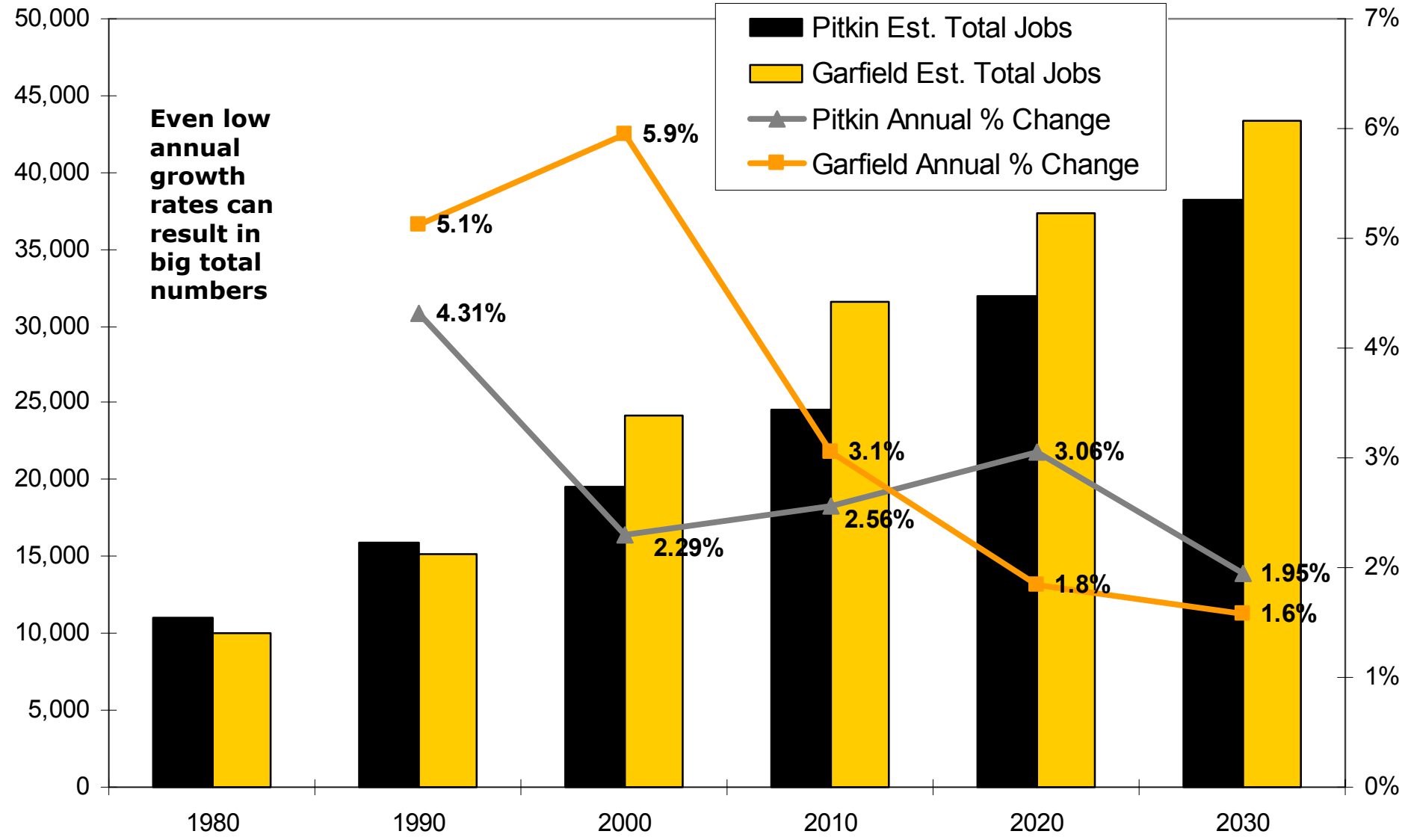
	<u>2000</u>	<u>2010</u>	<u>2020</u>	<u>2030</u>
Eagle	34,400	45,100	65,000	81,250
Pitkin	19,500	24,500	32,000	38,250
Garfield	<u>24,200</u>	<u>31,600</u>	<u>37,400</u>	<u>43,300</u>
TOTAL	78,100	101,200	134,400	162,800
Av % Ch	6.9%	2.6%	2.9%	1.9%

Source: State Demographer

Change in County Population: 1970-2030



Change in County Jobs: 1980-2030



I-70: 2003 Traffic Counts vs. 2025 Traffic Projections

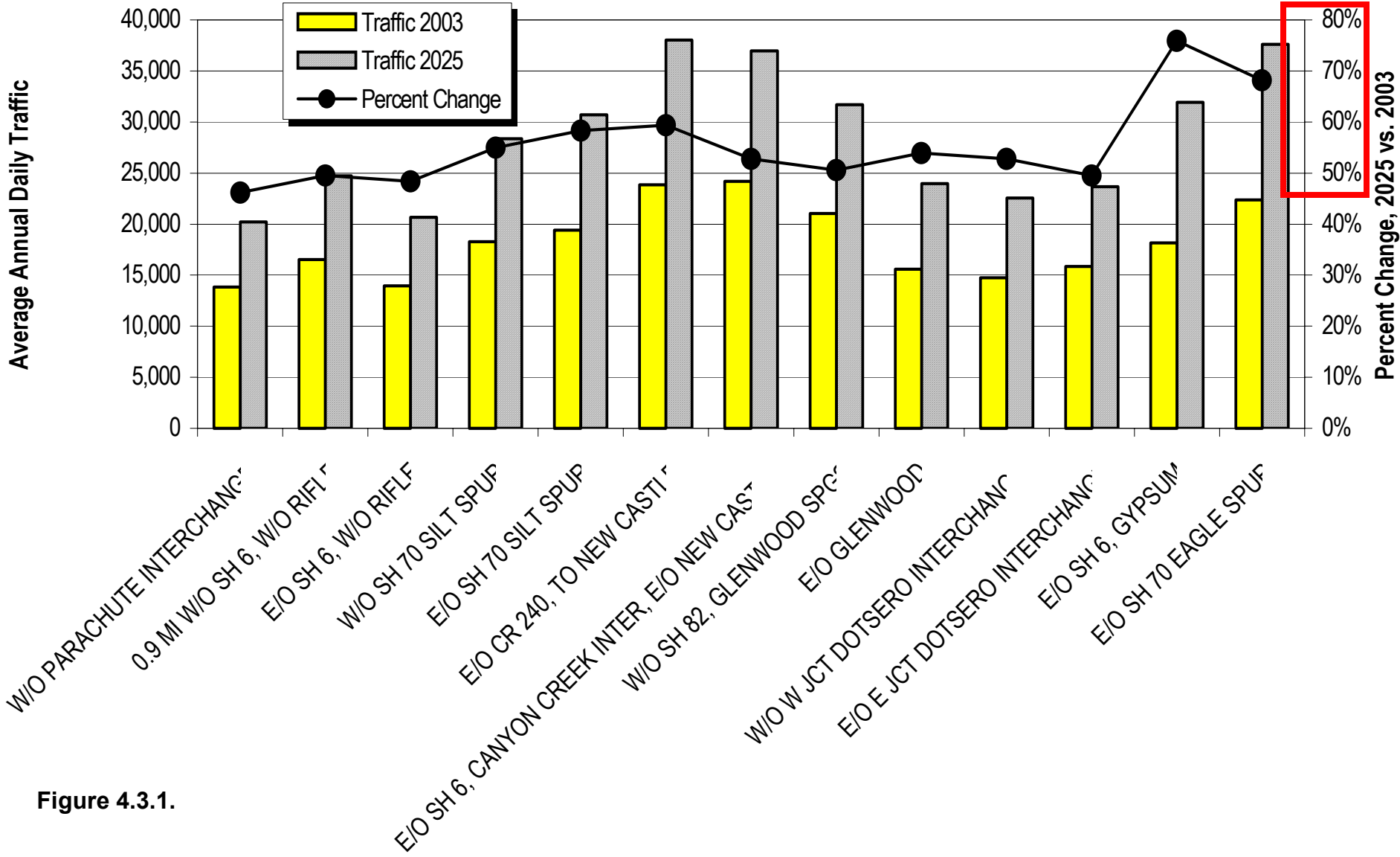
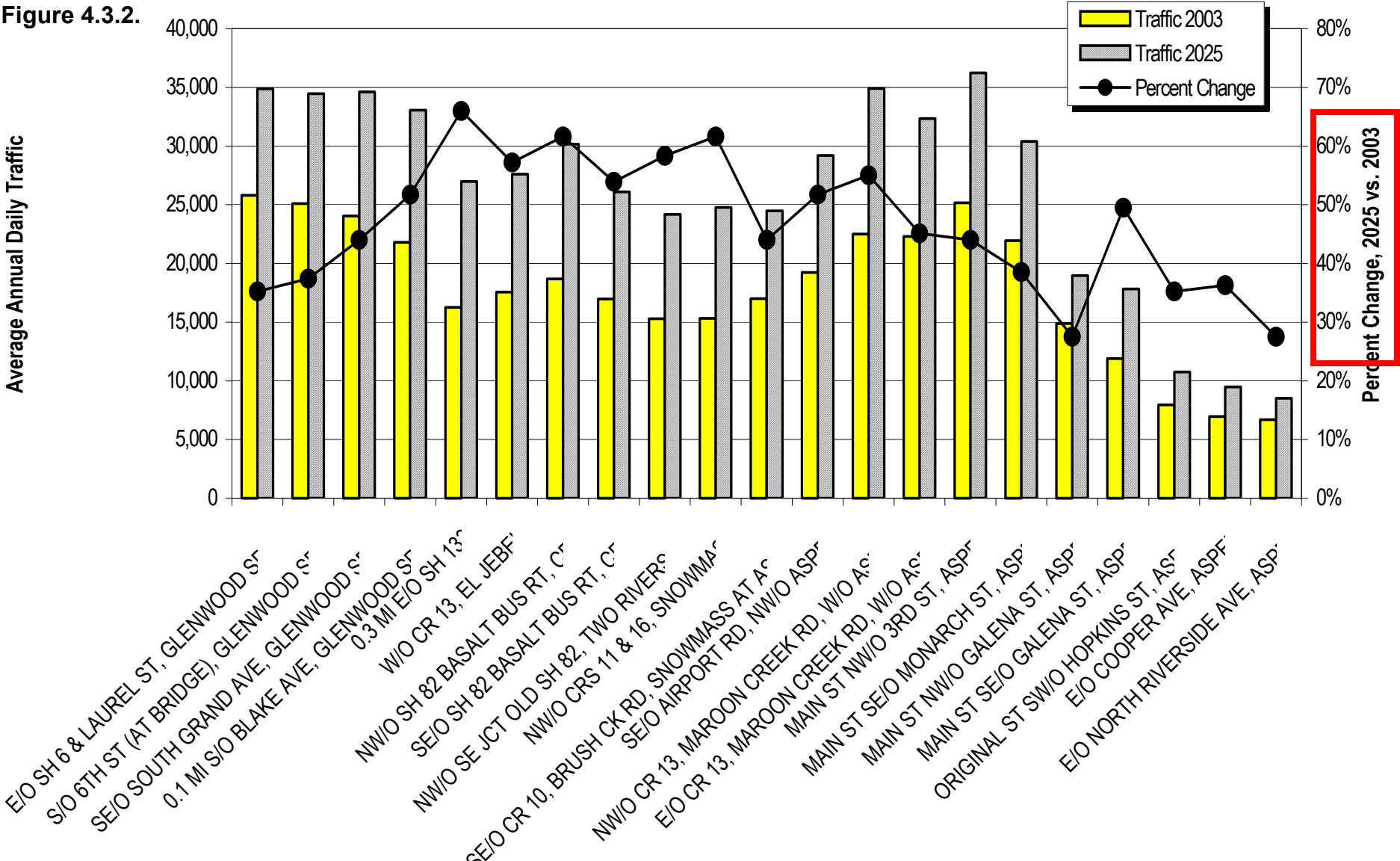


Figure 4.3.1.

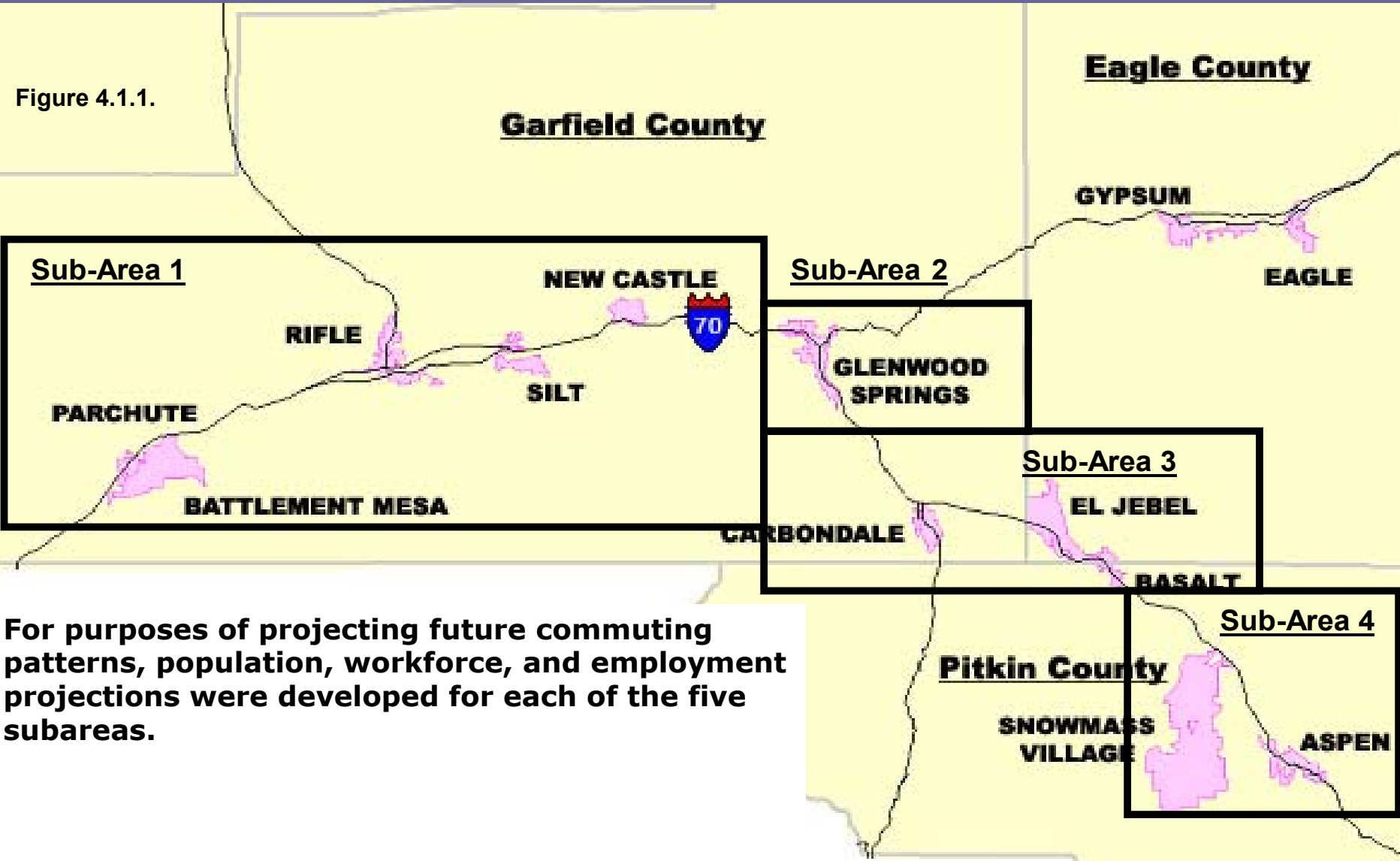
State Highway 82: 2003 Traffic Counts vs. 2025 Traffic Projections

Figure 4.3.2.



Sub-Areas in Regional Travel Shed

Figure 4.1.1.



For purposes of projecting future commuting patterns, population, workforce, and employment projections were developed for each of the five subareas.

Historic, current & projected traffic counts

SH82 @ Grand Ave. Bridge

	ATD	Annual % Change
1988	22,900	
2003	25,091	1%
2025	34,475	2%

SH 82 @ SH 133 Carbondale

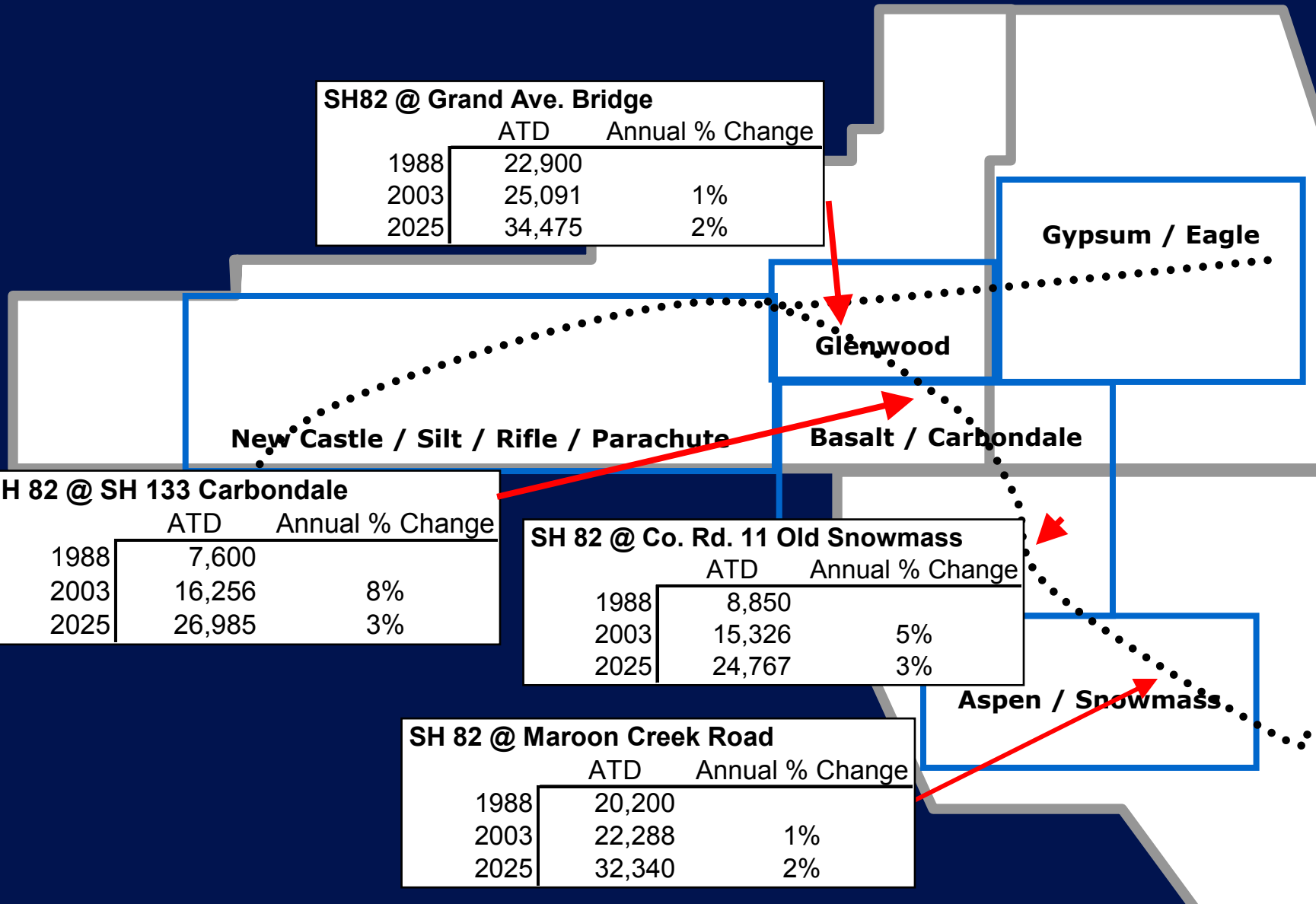
	ATD	Annual % Change
1988	7,600	
2003	16,256	8%
2025	26,985	3%

SH 82 @ Co. Rd. 11 Old Snowmass

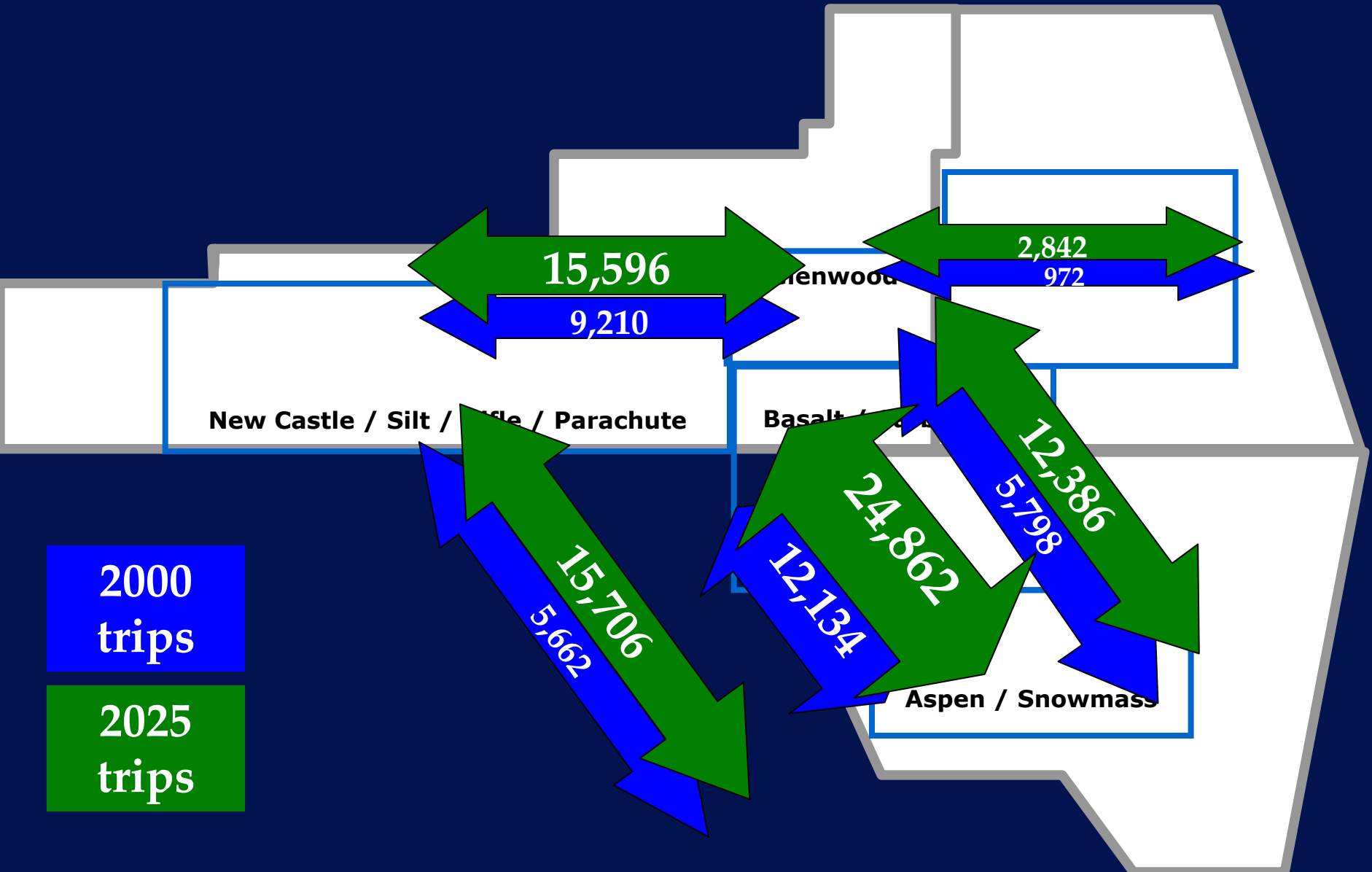
	ATD	Annual % Change
1988	8,850	
2003	15,326	5%
2025	24,767	3%

SH 82 @ Maroon Creek Road

	ATD	Annual % Change
1988	20,200	
2003	22,288	1%
2025	32,340	2%



Commuter trip market 2000 & 2025



2000
trips

2025
trips

Conclusions and Recommendations



Region's travel patterns remain unique



- **A relatively high share of workers commute by bus**
- **An even higher percentage of Roaring Fork workers carpool or vanpool to work**
- **Workers interested in local circulator bus service**

The regional commute mode share has the potential to increase even more in the future with the improvement in the efficiency of existing commuter transit services, such as the implementation of Bus Rapid Transit (BRT), and encouragement by local governments of more transit oriented, pedestrian-friendly development patterns.

More people, jobs, traffic on horizon

- **Almost of doubling of population = growth in traffic;**
- **Job growth greater than population growth and housing development in Pitkin County, increasing up-valley commuting;**
- **Growth of mid-valley local commuting (Basalt, El Jebel, Carbondale) and Garfield County in general.**

Transit markets will grow



- Significant growth in vehicle traffic is projected
- Existing regional transit markets will grow
- Transit opportunities will continue to grow within the Lower Colorado corridor



Job growth in the Roaring Fork Valley, especially in Pitkin County and Glenwood Springs will exceed population growth, thereby increasing the amount of in-commuting.

Travel Patterns Study supports CIS

DATA	CIS	Travel Patterns
Horizon Year(s)	2008, 2025	2025
Travel Market	<u>All Trips</u>	<u>Commute Only</u>
Mode Share in Travel Market	9 – 11%	15 – 30%

TPS findings confirm CIS findings. Mode shares projected in CIS are achievable based on the mode shares found by TPS.

BRT can meet increased transit demand

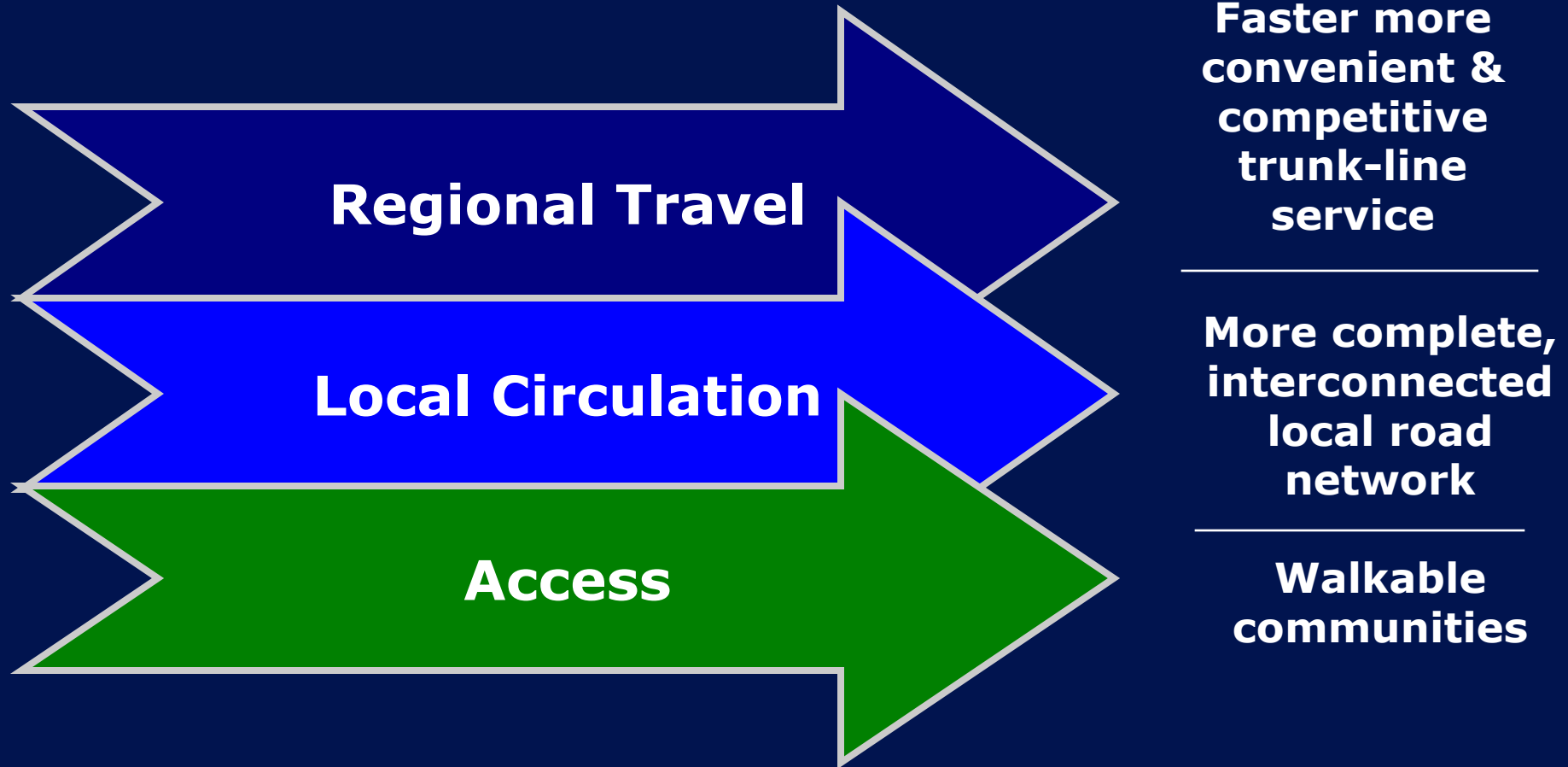
- **Bus Rapid Transit Alternative (BRT) would provide sufficient capacity for 15% to 30% intercity commute mode shares in 2025 (shown in TPS - reasonable range)**
- **Travel Patterns Study also highlights robust future demand for local transit circulation services**



But - traffic growth & congestion will also continue

- **Transit investments cannot erase traffic growth or reduce congestion (same true for hwy investments)**
- **Significant growth in transit system capacity is needed to meet demand for intercity commuting**
- **Without major expansion of transit services (consistent with CIS) it may not be possible to:**
 - **Satisfy regional employment needs**
 - **Maintain reasonable equity in mobility**

Need to better connect elements of mobility planning



Often focus so much on regional travel corridors, we forget the importance of local circulation and access to schools, stores, and neighborhoods to reinforce and support the regional system's efficiency.

Summary Recommendations

- **Implement BRT with all due speed;**
- **Cities and counties should work to reduce over-reliance on state arterials;**
- **Avoid over-sizing arterials;**
- **Create more complete, connected local roadway network; and**
- **Improve infrastructure and access to encourage more walking and bicycling for short trips.**

All these recommendations would improve quality of life today as well as help manage the traffic and transportation needs over the next two decades.

Study Contact information

David Becher - RRC Associates

daveb@rrcassociates.com

303-449-6558 x111

Jim Charlier - Charlier Associates

jfc@charlier.org

303-543-7277

Colin Laird - Healthy Mountain Communities

claird@hmccolorado.org

963-5502

Full study is online at www.hmccolorado.org