

---

**DOUGLAS COUNTY**  
**COMMERCIAL SECTOR**  
**LEAKAGE STUDY**

Study Conducted by:

Thomas R. Harr  
Randall Mead  
Winnie Moore  
KatPy Halbardier  
and  
Dick BartPolet

Thomas R. Harr is a Professor in the Department of Applied Economics and Statistics and Director of the University Center for Economic Development at the University of Nevada, Reno.

Randall Mead is a Research Associate in the Department of Applied Economics and Statistics

Winnie Moore is Assistant State Director of the Nevada Small Business Development Center, Bureau of Business and Economic Research, University of Nevada, Reno.

KatPy January 1999

of race, color, religion, sex, age, creed, national origin, veteran status, physical or mental disability, and in accordance with university policy, sexual orientation, in any program or activity it operates. The University of Nevada employs only United



This publication, *Douglas County Commercial Sector Leakage Study* was published by the Business Development Center and the University Center for Economic Development in the Department of Applied Economics and Statistics at the University of Nevada, Reno. Funds for this publication were provided by Douglas County Commissioners, through the University of Nevada, Reno Office of Sponsored Projects Account Number 1990046, the United States Department of Commerce Economic Development Administration under University Centers Program contract #07-06-03262-98. This publication's statements, findings, conclusions, recommendations, and/or data represent solely the findings and views of the authors and do not necessarily represent the views of the Douglas County Commissioners, Nevada Small Business Development Center, U.S. Department of Commerce, the Economic Development Administration, the



**Section IV. Business Development Strategies to  
Sector Demands .....**



## **List of Tables**

Table 15. Percentage Breakdown by Location Expenditure







**DOUGLAS COUNTY**  
**COMMERCIAL SECTOR**  
**LEAKAGE STUDY**

*“Where shopping flourishes, so do the communities that foster it. Where it fades,  
so do the economic prospects of communities that foster it.”*  
National Council for Economic Development.

During the fall of 1998, the Bureau of Business and Economic Research, Nevada State Business Development Center and the University Center for Economic Development conducted an analysis of the Douglas County commercial sector. A consumer survey was financially supported by Douglas County, Nevada State Business Development Center, and the University Center for Economic Development.

The report is divided into four sections. The first section provides an overview of national, state and county trends in the commercial sector. The second section of the report completes a market area analysis of commercial sector activity in Douglas County. The third section completes an analysis of commercial sector purchasing patterns by Douglas County residents and identifies commercial sector sales leakages by resident type. The final section develops and suggests strategies for Douglas County to reduce or capture commercial sector sales leakages.

# **DOUGLAS COUNTY COMMERCIAL SECTOR LEAKAGE STUDY**

## **EXECUTIVE SUMMARY**

This study was commissioned by the Douglas County Commissioners to investigate, estimate and provide suggestions for mitigating commercial sector leakages in Douglas County.

### **Section I. National, State and Douglas County Commercial Sector Leakages**

- During the 1980's and 1990's, there have been rapid changes in the national commercial sector. Growth has occurred in commercial sector segments such as discount general merchandisers, membership warehouse clubs, "category killer" stores, factory outlet malls, specialty mail order and Internet stores.
- Nationally, the retail sector employed 18% of non-agricultural employment in 1992, which represents 1 in 5 Americans in the workforce.
  - + In the state of Nevada, the retail sector employed 16% of Nevada's total employment in 1992.
  - + In Douglas County, the retail sector employed 14% of the 1992 total employment.

### **Section II. Market Area Analysis for Douglas County Commercial Sector**

- Nominal taxable sales in Douglas County increased from \$235.3 million in 1987 to \$411.0 million in 1997.
  - + Real taxable sales, taxable sales adjusted for inflation, in Douglas County increased from \$283.2 million in 1987 to \$368.4 million in 1997 or a 30 percent increase from 1987 to 1997.
  - + Per capita real taxable sales in Douglas County decreased by 17.6 percent from 1987 to 1997. During the same time period Carson City per capita and taxable sales increased by 7.3 percent.

attracting consumers from outside its county's boundaries. However, if the pull factor is less than one, the county is losing consumers.

- Douglas County per capita real taxable sales were greater than similar values for Carson City from 1987 to 1990. Since 1990, Carson City real per capita taxable sales have been greater than Douglas County values and by 1997 real per capita taxable sales in Carson City were approximately 25 percent greater than real per capita taxable sales in Douglas County.
- An analytical procedure to estimate commercial sector activity for a county or community is the pull factor.
- Pull factors can be used to evaluate the commercial sector activity through time for a given county or to make cross-county comparisons of a county's commercial sector.
- What does the pull factor tell us? If the pull factor is greater than one, then the county is attracting consumers from outside its county's boundaries.

- For import substitution targeting, location quotient values less than 1.0 signify potential expansion or development in the given sector.
- When comparing location quotient values of Douglas County to values in Churchill, Carson City and Lyon Counties, Douglas County commercial sectors with low location quotient values and therefore potential commercial sector targets are department stores; new and used automobile stores; gasoline service station and other automobile supply stores; apparel and accessory stores; miscellaneous retail stores; personal services; personal supply services; computer programming; data processing and other related services; home health care services; and residential personal care.
- Population-employment ratio is calculated by dividing a county's population by the employment in a selected commercial sector.
- Population-employment ratios are used for inter-county comparisons.
- A relative population-employment ratio indicates that each employee in the given commercial sector serves more people than average which implies a potential to expand.
- When comparing population-employment ratio of Douglas County to values in Churchill, Carson City and Lyon Counties, commercial sectors for potential expansion, development or relocation in Douglas County are department stores; new and used car dealers; gasoline service stations and other automobile supply stores; personal supply stores; amusement and recreations

### **Section III. Analysis of Commercial Sector Purchasing Patterns**

- From a questionnaire of Douglas County residents, purchase patterns for twenty-two commercial sectors were derived. Purchase patterns were derived for Douglas County overall and for six residential areas in Douglas County.
- The six residential areas are: Springfield, Douglas, and Douglas County, The Ranch Valley, Genoa, and the six other residential areas in Douglas County.
- Purchase patterns for commercial sectors were derived from a survey of Douglas County residents. Purchase patterns for commercial sectors were derived for Douglas County overall and for six residential areas in Douglas County.
- The limited dependent statistical procedure called Tobit regression was used to derive the factors that influence Douglas County households in shopping for groceries, general merchandise, clothing and small appliances in Douglas County.
- Results of the Tobit regression indicate that Douglas County employment influences the probability of purchasing commercial sector goods and services in Douglas County. If a household is employed outside of Douglas County, but live in Douglas County, their probability of shopping locally for commercial sector goods is lower than couples who live and work in Douglas County.

#### **Section IV. Business Development Strategies to Capture Local Commercial Sector Demands**

- In developing commercial sector strategies, the following program can be used:
  - i.) Analyze the local business sector to identify the needs and opportunities to be pursued by
  - ii.) Provide management assistance and counseling to improve the efficiency and profitability of local businesses.

iii.) Assist new business start-ups and entrepreneurial activity by analyzing potential markets and local skills and matching entrepreneurs with technical and financial resources.

iv.) Provide assistance in identifying and obtaining financing.

v.) Develop a one-stop permit center.

vi.) Involve active local organizations and the media.

vii.) Promote the development of home based enterprises.

- To develop strategy for local commercial sector development, Douglas County should investigate completing a strategic plan for Douglas County commercial sector development.

-



**SECTION I**

**NATIONAL, STATE AND DOUGLAS COUNTY  
COMMERCIAL SECTOR TRENDS**

**SECTION I**

**NATIONAL, STATE AND DOUGLAS COUNTY  
COMMERCIAL SECTOR TRENDS**

coordination or cooperation in establishing policies or promoting downtown shopping. Many downtown areas are losing their former function as a central community shopping area and meeting place, and are evolving to be a blend of service type businesses such as real estate offices, lawyers, accountants, insurance agents and a small mix of retailers.

During the late 1980's and 1990's, the commercial sector in the nation has realized rapid growth in several segments of the commercial sector such as discount mass merchants. These segments are discount general merchandisers, membership warehouse clubs, "category killer" stores, factory outlet malls, specialty mail order and/or Internet stores.

### *Discount General Merchandise Stores*

Discount general merchandisers encompass such national chains as Wal-Mart, K-Mart and Target, as well as several regional chains such as Shopko. These stores range in size from 30,000 to 140,000 square feet, depending on the age of the store and market area served. These stores typically have 30 or more departments and relatively low prices due to a lower level of service than traditional department stores, and also due to continual improvement of operating

WarehWuse clubs operate on a very thin gross profit margin, ranging between 8 to 12% of sales. Therefore operating costs are kept low by austere facilities and by shipping merchandise

### *Mail Order Houses and Internet Shopping*

Mail order houses have evolved from general catalog sales like Sears, Montgomery Wards and JC Penney's to specialty services. Currently, there are thousands of specialty mail order houses that cover computers and supplies, office supplies, apparel for the whole family and sporting goods, just to mention a few. However, with improved telecommunications, the Internet and delivery services, mail order house services in the future are forecast to increase. Specialty mail order businesses seem to appeal to busy people, hobbyists and those located in remote areas.

### **NATIONAL RETAIL TRENDS**

The Consumer Science and Retailing Department at Purdue University (1998) lists the following issues concerning national retail trends.

- The national retail sector employs approximately 18% of all non-agricultural





training and technical assistance, establishing a mechanism to increase transfer of business operations to new owners, developing financial assistance programs for new and aspiring businesses and developing extension and outreach programs that assist communities to understand and cope with a changing economy.

- Gruidl and Andrianacos (1994) found that demand factors played a central role in rural commercial sector capture. County population and income levels were found to have significant impacts on rural commercial sector expansion. However, elements underlying the supply side of the rural retail market such as access and adoption of new commercial sector technologies were important components to rural commercial sector trade.
- Darling and Tubene (1996) investigated commercial sector activity for 87 rural Kansas cities. Their results showed that city population alone explained significant variation in taxable commercial sector sales. Kansas cities with population over 5,000 consistently showed an inflow of commercial sector trade.
-



of commercial sector firms greatly impact the probability of existence of other types of commercial sector activities.



**SECTION II:**

compared to neighboring Carson City, Churchill and Lyon Counties (Figure 2) values for Douglas County are much higher. Douglas County real per capita taxable sales were greater than Carson City real per capita taxable sales from 1987 to 1990. Since 1990, Carson City real per capita taxable sales have been greater than Douglas County and by 1997, real per capita taxable sales in Carson City were approximately 25 percent greater than real per capita taxable sales in Douglas County.

Table 1. Douglas County Nominal and Real Taxable Sales, 1987-1997.

Year	Nominal Taxable Sales	Real Taxable Sales*
	(\$1,000)	(\$1,000)
1987	235,261	283,242
1988	267,689	310,941
1989	286,861	319,729
1990	298,428	318,833
1991	284,285	292,114
1992	294,413	294,413
1993	321,001	312,745
1994	336,488	320,476
1995	367,265	341,610
1996	393,938	359,612
1997	410,974	368,355

\*Real taxable sales derived using implicit price deflator with base year = 100.0







## **Pull Factor Analysis**

Because of differences in population and income, it is often difficult to compare county's sales with another. One method of measuring sales is to measure sales per capita. If local tastes and preferences are the same. The procedure used in this analysis to compute the Pull Factor =

The formula for computing the pull factor is as follows

$$\frac{\text{County Population} \times \text{State Taxable Sales}}{\text{County Taxable Sales} \times \text{State Population}}$$



### *Interpretation and Use of the Pull-Factor*

For economic development, the pull-factor analysis can help identify selected retail sectors that may be targeted for retail sector development. Most often a pull-factor below 1.00 indicates a retail sector opportunity. However, this assumes that the low pull-factor is due to local residents shopping outside the county, which is not always true. Analogously, if a pull-factor is above 1.00 it may suggest that the county is drawing in residents from neighboring counties to shop.

A pull-factor above 1.00 indicates that the county sells more of a product than would be expected given its population and income. The most likely reasons for this volume of sales are either the local economy is specialized in a particular economic sector, or residents are shopping outside their own communities. If an economy is specialized in a particular economic sector it may buy more of a given retail product or products. For example, Churchill County has a pull-factor for farm implement products well above 1.00. This does not necessarily mean however, that it has excess supply or is selling to neighboring county residents. Rather, in light of its local economy specialized in irrigated agriculture, it has a higher than average demand for such products. In this case, understanding the cause of the pull factor may suggest that a farm implement store may be needed in Churchill County, while a county with a low pull factor for farm implement stores may not be suitable for such an operation because of a lack of natural resources.

The second reason for a high pull-factor is that the county is pulling in residents from neighboring counties. For example, in Carson City, its high pull-factor for automobiles and general merchandise stores probably reflects its role as a regional shopping area for the neighboring counties of Douglas, Lyon and Storey. Many communities have actually pursued a strategy of becoming a regional shopping center in much the same way that the nations try to increase their exports. If a county is exporting its retail products, the local retail sector is bringing outside dollars into the local or regional economy which, like a basic sector yields responding opportunities which increase overall local or regional economic activity.

If a county has a pull factor below 1.00, this means that either the local economy does not demand this product, or local residents are purchasing the product outside the county. Churchill County, for example, is an economy dominated by agriculture and the livestock industry base, as

opposed to tourist economies of Reno or Las Vegas or the mining economy in Elko County.

*Sales by Sector*

Table 3. Overall Pull Factor in Douglas County, 1987 \* 1997

---

Year

Pull Factor

Figure 3. Overall Pull Factor for Douglas County, 1987-1997.

Table 4. Douglas County, Nevada Taxable Sales and Pull Factors

Sector Title	Pull	Taxable Sales 1997	Potential	Lost
Agricultural Products-Crops	0.4482	60,030	133,933	73,903

Table 4. Continued

---

	Pull	Taxable	Potential	Lost
--	------	---------	-----------	------

---

Specifically for the retail sectors, the pull factor for the Building Materials, Hardware and



## Location Quotients and Population-Employment Ratios

Trade area analysis presumes that the assortment of goods and services offered by the community remains fixed and only their quantities vary. Community market analysis provides guidance on costs to the firm, access to alternative sources, and consumer demands.

Temporarily ignoring cost differences among merchants, the question becomes, “what goods or services currently purchased outside Douglas County (imported) by Douglas County residents can be provided locally (import substitution)?”

### *Location Quotient Procedures*

One procedure that can be used for import substitution analysis is location quotient procedures. Location quotients can indicate if a community produces more than what is needed for its own use and is selling the excess to non-local markets. It can also tell us which type of businesses are not accommodating local demands and are a source of consumption leakages.

Location quotient procedures identify import substitution potentials (Shaffer, 1989). The location quotient is the ratio of the share of local employment in a particular sector to the share of national employment in that sector.

$$\text{Location Quotient} = \frac{\% \text{ of Local Employment in Sector } i}{\% \text{ of National Employment in Sector } i}$$

For import substitution targeting, location quotient values less than 1.0 signify that the county has less employment in that particular commercial sector than the national average. One) Tj 0 -20

Carson City, CPurchill and Lyon may provide additional information to target local commercial sector activities. From Table 5, of the 26 commercial sectors investigated only 4 commercial

population, not just employed. Counting just employed people as done with location quotients may produce distorted results if the community has a high proportion of younger and/or older residents.

### *Population-Employment Ratio Results*

From Table 6, commercial sector population-employment ratios for twenty-six commercial sectors in Douglas, Churchill, Carson City and Lyon Counties are presented. Commercial sector opportunities are identified by finding relatively higher population-employment ratios as compared to similar values in Churchill, Carson City and Lyon Counties. Commercial sectors that may be targeted by population-employment ratios are Department Stores; Other General Merchandise Stores; New and Used Car Dealers; Gasoline Service Stations and Other Automobile Supply Stores; Personnel Supply Services; Amusement and Recreation Services; Home Health Care Services; Child Day Care Services and Residential Care Services. From the Standard Industrial Classification Code reference (1987) stores with the Department Store category have 50% more employees while Other General Merchandise Stores conditions. What are unique local demands? What are the productivity factors affecting the number of workers in this particular commercial sector? What are the alternative sources of supply in the area?

To answer these specific questions regarding commercial sector expenditures by Douglas County residents, a consumer questionnaire was administered. Results of this questionnaire along with results of the four market area analysis procedures discussed earlier in this paper only

Table 5. Location Quotient Values for Selected Commercial Sectors for Douglas, Churchill, Carson City and Lyon Counties, 1995.

Commercial Sector	Churchill	Carson City	Lyon
Building, Materials, Hardware and Garden Supplies		0.68	0.00
Department Stores			0.66
Other General Mercandise Stores			0.00
Stores			0.12

Table 6. Population-Employment Ratios for Selected Commercial Sectors for Douglas, ChurchQll, Carson City and Lyon Counties, 1995.

Commercial Sector	Douglas	ChurchQll	Carson City	Lyon
BuQlding, Materials, Hardware and Garden Supplies	207.31	400.74	169.46	466.32
Dep0.tment Stores	NA*		45.72	NA

**SECTION III**

**ANALYSIS OF COMMERCIAL SECTOR PURCHASING PATTERNS**

**BY DOUGLAS COUNTY RESIDENTS**

## SECTION III

### ANALYSIS OF COMMERCIAL SECTOR PURCHASING PATTERNS BY DOUGLAS COUNTY RESIDENTS

In Section II a detailed trade area market and import substitution analysis was completed. However, analysis in Section II does not inform Douglas County decision-makers of the commercial sector shopping behavior of Douglas County residents. A Douglas County consumer telephone questionnaire was conducted for four hundred plus (400+) Douglas County residents to ascertain the commercial shopping behavior of Douglas County residents.

The questionnaire addresses primarily:

1. Where do Douglas County residents shop?
2. What type of commercial sector goods and services are purchased outside of Douglas County by its residents?
3. What factors, such as, price, quality, selection, proximity, etc. contribute to the loss of commercial sector sales?
4. What dollar volume of commercial sector sales are lost to Douglas County because of sales leakages?

These questions are of interest for various reasons to several groups. From the standpoint of Douglas County, sales leakages cost the county tax revenues from the sales tax paid on items purchased outside the trade area analysis and import substitution to target their commercial sector endeavors. With development of additional commercial sector opportunities, local consumers will have more choices and will be better served.

#### Commercial Sector Leakage Analysis

Estimates of sales leakages were derived by asking residents how frequently they shopped for various commercial sector goods and services, such as clothing, in local commercial centers in Douglas County, Carson City, Washoe County as well as South Lake Tahoe, California. These responses were used to estimate the percentage of retail sales, by category and

in total, made in the alternative commercial sector centers. The sample was stratified by place of residence and is proportional to the populations of the county's six major geographic areas: Jack's Valley, East Valley, Lake Tahoe, Gardnerville/Minden, Foothill Area and South Douglas County/Topaz.

These estimates of frequency of sales leakages were then used with estimates of household spending in various commercial sector categories (U.S. Department of Labor, 1998). The twenty-two (22) commercial sector categories are listed in Table 7 along with estimated total spending in these categories by Douglas County residents, and estimated sales leakages.

The overall results reflected in Table 7 show that these twenty-two commercial sector sales categories account for \$320.3 million in commercial sector sales by Douglas County residents, approximately \$8,100 per county resident in 1997 dollars of this \$325.5 million in 1997 spending. Estimates from the survey indicate that approximately \$169.4 million, or 53%



Table 7. Douglas County Residential Consumption Leakage by Category, 1997\*

Category	Total Expenditures (\$)	Sales Leakages (\$)	Percent Leakages of Total Expenditures (%)	
Food and Groceries	74,886,069	20,765,907	27.73	
Eating and Drinking	22,290,358	9,580,396	42.98	
General Merchandise	12,271,316	10,817,165	88.15	
Clothing and Shoe Stores	23,007,729	21,703,191	94.33	
Furniture	9,848,408	7,936,234		
				for Appliances 8,057,753

Table 8. Douglas County Resident Qal Consumption by Category by Location, 1997\*

Category	Minden/ GardVerville	South Lake Tahoe	Carson City	Reno/Sparks	Other	TOTAL
FWod and Groceries	54,195,048	104,840	17,920,236	2,194,162	471,782	74,886,069
Eating and Drinking	11,700,209	1,009,753	7,128,456	1,794,374	*57,566	22,290,358
General MerchandQse CTothing and Shoe Stores	1,343,709	110,442	8,088,024	2,554,888	174,253	12,271,316

## General Attitudes of Douglas County Commercial Sector

There were four general attitude questions concerning the Douglas County commercial sector. Regarding Douglas County residents' view of the IWcal retail/commercial trade sector, only 5% repTied excelTent; 46% repTied good; 40% repTied poor and 9% had nW opinion. With only 5% of the repTies being excelTent tW having a good opinion of IWcal commercial trade sector, the IWcal sector Uay want tW address this issue.

The first question asked Douglas County residents about commercial sector prQces relative to other areas. Of the total respondents, 34% repTied Doat IWcal prQces were higher whiTe 52% perceived IWcal retail prQces as the same, 5% beTieved IWcal prQces were IWwer Doan other areas and 9% had nW opinion.

The thQrd general attitude question asked about the seTection of commercial sector goods at bolts in Douglas County versus other areas. Of the tWtal respondents, 76% responded Dhat Douglas County retailTers had less seTection, while 19% repTied Doat there was Uore seTection and 4% had nW opinioV. The result of this survey is sQmilar tW the responses found in RWchin and Jeter (1991). The prQUary advantage th trade areas have Wver rural areas is the wide seTection they offer in theQr retail shops. Because of shelf space cost, this is a disadvantage that rural retailers cannWt address. Therefore they Uust

### **Leakage Analysis by Place of Residence** offer targeted products and servQce.

The fourth and final general attitude question asked if the parking availability on Highway 39-200r in downtown Minden/GardnervilTe was a deterrent tW shopping in Douglas County and other areas by alT of Douglas Counounresidents. This section County. Of total respondents, 39% repTied Dhat parking probTems were a deterrent, whiTe 5+% s proportional expenditures of twenty-twW commercial sectors by five areas of repTied nW and 4% had nW opinioV. Given Doat more than 1 in 3 consumers in Douglas County consider parking a hindrance to shopping alWng Highway 395 and downtown Minden/GardnervilTe, IWcal Douglas County decision Uakers Uay want tW address this probTem.

residence in DWuglas CWunty. The five geographical areas of DWuglas CWunty residence are



Table 10. Percentage Breakdown by Location of Expenditures for Eating and Drinking for All Douglas County, Jack's Valley, Gardnerville/Minden, South Douglas/Topaz, Gardnerville Ranchos and Genoa Residences

Location of Expenditure	Location of Residence					
	All Douglas County	Jack's Valley	Gardnerville/Minden	South Douglas County/Topaz	Gardnerville Ranchos	Genoa
	(%)	(%)	(%)	(%)	(%)	(%) Gardnerville/Minden

Table 11. Percentage Breakdown by Location of Expenditures for General Merchandise for All of Douglas County, Jack's Valley, Gardnerville, and Lake Tahoe

Location of Expenditure	All Douglas County	Jack's Valley	Gardnerville/Minden	South Douglas County/Topaz	Gardnerville Ranchos	Genoa
	(%)	(%)	(%)	(%)	(%)	(%)
Gardnerville/Minden	11.0	2.7	11.6	6.5	18.9	20.3
Lake Tahoe						





**Table 1a** Percentage Breakdown by Location of Expenditures for Furniture for All of Douglas County, Jack's Valley, Gardnerville/Minden, South Douglas/Topaz, Gardnerville Ranchos and Genoa Residences.

---

Location of Expenditure	Location of Residence						
	All Douglas County	Tw uglas	Jack's Valley	Gardnerville/Minden	South Douglas County/Topaz	Gardnerville Ranchos	Genoa
	(%)	(%)	(%)				

1.734.4

Percentage Breakdown by Location of Expenditures for Major Appliances for All of Douglas County, Jack's Valley, Gardnerville/Minden, South Do

---

Location of Residence

Location of Expenditure	Jack's Valley	Gardnerville/Minden	South Douglas County
-------------------------	---------------	---------------------	----------------------

**Table 15. Percentage Breakdown by Location of Expenditures for Small Appliances for All of Douglas County, Jack's Valley, Gardnerville/Minden, South Douglas/Topaz, Gardnerville Ranchos and Genoa Residences.**

Location of Expenditure	Location of Residence					
	All Douglas County	Jack's Valley	Gardnerville/Minden	South Douglas County/Topaz	Gardnerville Ranchos	Genoa
	(%)	(%)	(%)	(%)	(%)	(%)
Gardnerville/Minden	19.0	4.2	20.1	20.0	18.2	17.6
Lake Tahoe	0.3	0.0	0.2	0.0	0.0	0.0
Carson City	60.0	77.9	58.0	69.9	79.1	70.6
Reno/Sparks	18.1	17.9	18.8	10.1	2.4	5.9
Other	2.6	0.0	2.9	0.0	0.0	5.9
<b>TOTAL</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Table 16. Percentage Breakdown by Location of Expenditures for Automobiles for All of Douglas County, Jack's Valley, Gardnerville/Minden, South

Location of Expenditure County	Location of Residence					
	All Douglas County	Jack's Valley	Gardnerville/Minden	South Douglas County/Topaz Ranch	Gardner	Gilboa
	(%)	(%)	(%)	(%)	(%)	(%)
Gardnerville/Minden	11.8	5.5	11.1	25.0	31.2	25.0
Lake Tahoe	1.2	2.8	1.3	0.0	0.0	0.0
Carson City	53.2	55.6	52.2	*7.7	54.5	56.1
Reno/Sparks	26.4	33.3	26.4	7.3	14.3	18.9
Other	7.4	2.8	9.0	0.0	0.0	0.0
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0

Table 17 Percentage Breakdown by Location of Expenditures for Hardware for All of Douglas County, Jack's Valley, Gardnerville/Minden, South Douglas

Location of Residence						
Location	Jack's Valley	Gardnerville/ Minden	South Douglas County/Topaz	Gardnerville Ranchos	Genoa	
Expenditure	All Douglas County					
	(%)	(%)	(%)	(%)	(%)	(%)

Gardn  
Minden

Table 18. Percentage Breakdown by Location of Expenditures for Sporting Goods for All of Douglas County, Jack's Valley, Gardnerville/Minden, SoutP De glas/Topaz, Gardnerville Ranchos and Genoa Residences.

Location of Expenditure	Location of Residence					
	All Douglas County	Jack's Valley	Gardnerville/Minden	SoutP Deuglas County/Topaz	Gardnerville Ranchos	Genoa
	(%)	(%)	(%)	(%)	(%)	(%)
Gardnerville/Minden	13.1	10.7	12.2	17.9	18.0	17.5
Lake Tahoe	1.0	7.1	0.8	0.0	0.0	0.0
Carson City	52.5	53.6	51.5	*4.1	69.0	60.6
eno/Sparks	30.3	28.6	31.7	14.4	13.0	21.9
OtPer	3.1	0.0	3.8	3.6	0.0	0.0
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0

**Table 19** Percentage Breakdown by Location of Expenditures for Computers and Software for All of DWuglas County, Jack’s Valley, Gardnerville/Minden, South DWuglas/Topaz, Gardnerville Ranchos and Genoa Residences.

Location of Expenditure	Location of Residence					
	All DWuglas County	Jack’s Valley	Gardnerville/Minden	South DWuglas County/Topaz	Gardnerville Ranchos	Genoa
	(%)(%)	(%)	(%)			
				Gardnerville/Minoan	8.9	0.09025.0

Table 20. Percentage Breakdown by Location of Expenditures for Service Garages and Repair for All of Douglas County, Jack's Valley, Gardnerville/Minden, South Douglas/Topaz, Gardnerville Ranchos and Genoa Residences.

Location of Expenditure	Location of Residence					
	All Douglas County	Jack's Valley	Gardnerville/Minden	South Douglas County/Topaz	Gardnerville Ranchos	Genoa
	(%)	(%)	(%)	(%)	(%)	(%)
Gardnerville/Minden	46.1	14.2	48.2	42.3	83.9	67.9
Lake Tahoe	0.8	0.0	1.1	0.0	0.0	0.0
Carson City	37.0	69.2	34.6	55.1	13.9	16.4
RenW/Sparks			4.5	2.6	2.2	11.0
Other	10.6	11.1	11.6	0.0	0.0	4.7
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0



Table 21. Percentage Breakdown by Location of Expenditures for Miscellaneous Repair for All of Douglas County, Jack's Valley, Gardnerville/Minden, SoutP Douglas/TWpaz, Gardnerville Ranchos and Genoa Residences.

Location of Expenditure	Location of Residence					
	All Douglas County	Jack's Valley	Gardnerville/Minden	SoutP Douglas County/TWpaz	Gardnerville Ranchos	Genoa
	(%)	(%)	(%)	(%)	(%)	(%)
Gardnerville/Minden	56.4	20.8	57.1	53.9	65.4	72.0
Lake Tahoe	0.3	0.0	0.4	0.0	0.0	0.0

Table 22. Percentage Breakdown by Location of Expenditures for Medical and Dental for All of Douglas County, Jack's Valley, GardVerville/Minden, South Douglas/Topaz, GardVerville Ranchos and Genoa Residences.

Location of Expenditure	Location of Residence					
	All Douglas County	Jack's Valley	GardVerville/Minden	South Douglas Couc 0/Topaz	GardVerville RaVchos	Genoa
	(%)	(%)	(%)	(%)	(%)	(%)
						GardVerville/Minden

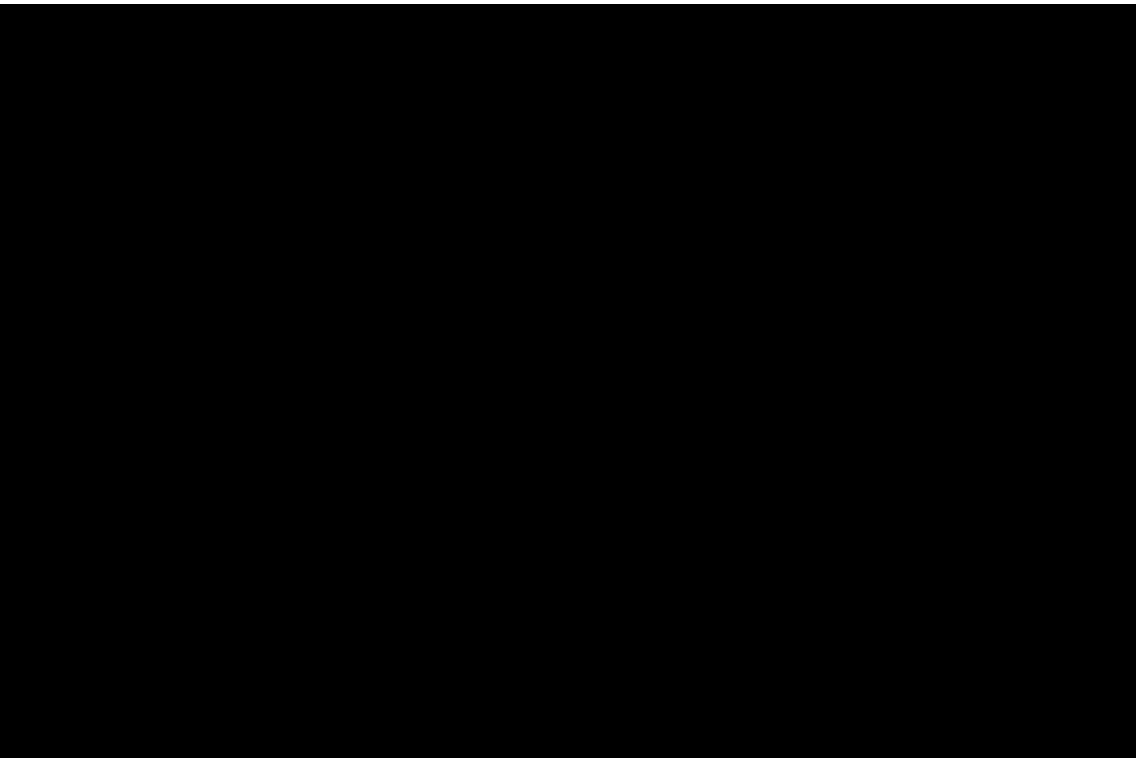


Table 23. Percentage Breakdown by Location of Expenditures for Banking for All of Douglas County, Jack's Valley, Gardnerville/Minden, South Douglas/Topaz, Gardnerville RanchWs and Genoa Residences.

---

Table 24. Percentage Breakdown by Location of Expenditures for Accounting Services for All of Douglas County, Jack’s Valley, Gardnerville/Minden, South Douglas/Topaz, Gardnerville Ranchos and GenWa Residences.

Location of Expenditure	Location of Residence					
	All Douglas County	Jack’s Valley	Gardnerville/Minden	South Douglas County/Topaz	Gardnerville Ranchos	GenWa
	(%)	(%)	(%)	(%)	(%)	(%)
Gardnerville/Minden	51.8	11.1	53.3	33.3	55.6	66.7

Table 25. Percentage Breakdown by Location of Expenditures for Legal Services for All of Douglas County, Jack's Valley, Gardnerville/Minden, South Douglas/Topaz, Gardnerville RanchWs and Genoa Residences.

Location of Expenditure	Location e Residence					
	All Douglas County	Jack's Valley	Gardnerville/Minden	South Douglas County/Topaz	Gardnerville RanchWs	Genoa
	(%)	(%)	(%)	(%)	(%)	(%)
Gardnerville/Minden	55.3	18.8	56.9	66.7	66.7	66.7
Lake TahWe	3.8					

Table 26. Percentage Breakdown by Location of Expenditures for Insurance for All of Douglas County, Jack's Valley, Gardnerville/Minden, South Douglas/TWpaz, Gardnerville Ranchos and Genoa Residences.

Location of Expenditure	Location of Residence				
	All Douglas County	Jack's Valley	Gardnerville/Minden	South Douglas County/TWpaz	Gardnerville Ranchos

(%)(%) (%) (%) (%)

39.8 60.052.878.665.8

Table 27. Percentage Breakdown by Location of Expenditures for Casino and Gaming for All of Douglas County, Jack's Valley, Gardnerville/Minden, South Douglas/TWpaz, Gardnerville Ranchos and Genoa Residences.

---

Location of Expenditure	Location of Residence				
	All Douglas County	Jack's Valley	Gardnerville/Minden	South Douglas/TWpaz	Gardnerville Ranchos and Genoa

---





Table 29. Percentage Breakdown by Location of Expenditures for Health Clubs for All of Douglas County, Jack's Valley, Gardnerville/Minden, SW Douglas/Topaz, Gardnerville Ranchos and Genoa Residences.

Location of Expenditure	Location of Residence				
	All Douglas County	Jack's Valley Minden	Gardnerville/SW Douglas/Topaz	Gardnerville Ranchos	Genoa
	(%)	(%)	(%)	(%)	(%)
Gardnerville/Minden	60.0	50.0			

Table 30. Percentage Breakdown by Location of Expenditures for Movie Theaters for All of Douglas County, Jack's Valley, Gardnerville/Minden, South Douglas/Topaz, Gardnerville RanchWs and Genoa Residences.

Location of Expenditure	Location of Residence					
	All Douglas County	Jack's Valley	Gardnerville/Minden	South Douglas County/Topaz	Gardnerville RanchWs	Genoa
	(%)	(%)	(%)	(%)	(%)	(%)
Gardnerville/Minden	76.5	73.5	76.7	78.9	78.4	86.5
Lake Tahoe	0.0	0.0	0.0	0.0	0.0	0.0
Carson City	19.6	16.5	19.7	21.1	18.3	11.4
Reno/Sparks	3.3	4.1	3.2	0.0	3.3	2.1
Other	0.6	0.9	0.4	0.0	0.0	0.0
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0

## Factors Influencing Commercial Sector Sales

Results of the previous tables reflect the more general growth of northern Douglas County as a “bedroom community” for Carson City and Reno/Sparks where many north end Douglas County residents work. Commuting to work from Douglas County to Carson City and Reno/Sparks also has an impact on sales leakages by increasing the convenience of shopping out of town.

To investigate some of these issues in greater detail the survey data was used to compare the shopping behavior of Douglas County residents with different demographic profiles. The key factors used to

1. Labor status, i.e., retired or working
  2. Marital status
  3. Job location of head of household
  4. Job location of spouse
- Variations in consumer profiles based on these factors were then used to estimate consumer profiles, along with probabilities of their shopping for groceries, clothing, general merchandise and small appliances, are shown in Table 31.<sup>3</sup>

For example, the first two profiles shown in the table show that the marital status of retired households has very little impact on where consumers shop for groceries. That is, a 64.8% probability for retired and married consumer versus a 75.8% probability for retired and unmarried consumer. Comparing other commercial Douglas County than being retired and unmarried.

The analysis also suggests that labor status is not a particularly important factor. If we compare

---

<sup>3</sup> Probabilities were estimated using a Tobit analysis to determine the sensitivity of shopping location decisions to individual household



The analysis reported in Table 31 shows that by far the most significant factor determining where Douglas County shops is place of employment. For example, an unmarried consumer in Douglas County has a 20.31% probability of shopping for general merchandise in Douglas County, but if the consumer works in Carson City the probability falls to 15.15% and if the consumer works in Reno/Sparks the probability falls to 12.45%. Also, note for a Douglas County married couple where both members of the household work in Carson City, the probability of shopping for general merchandise in Douglas County is only 10.45%. However, if both members of the household work in Reno/Sparks, the probability of shopping for general merchandise in Douglas County drops to 9.37%. Therefore an economic development effort would be possible reduction of retail-commerce by Douglas County residents and reduction of commercial sector leakages.









**Assist new business start-ups and entrepreneurial activity by analyzing potential markets and local skills and matching entrepreneurs with technical and financial resources.**

The Nevada State Economic Development Commission and local Economic Development Authorities are often actively attempting to attract such new businesses. Establishing a business incubator is another way to assist new businesses. An incubator is a building with shared space or service requirements that reduce start-up costs for new businesses. Incubators have been successful in many locations, but are not right for every town. A successful incubator must have long-range planning, specific goals and good management in order to identify markets and entrepreneurs.

**Provide assistance in identifying and obtaining financing.** Small businesses often have difficulty obtaining long-term bank financing for expansion because they lack assets to mortgage, cannot obtain affordable terms or rates, or cannot present a strong business plan. A business development program can identify public loan programs (such as Industrial Development Bonds) and package them with private loans to make projects feasible, as well as provide assistance in undertaking joint projects for the business district:

- improving street appearance
- improving management of commercial area
- building renovation
-

Undertaking these projects requires cooperation, Wrganization and efficient management. These projects can improve a business district's competitive position and attract new customers. The Main Street program prWvides many good exampTes Wf towns such as Carson City Wr Yerington wWrking fWr economic revitalization. The Main Street Program developed by the NatioVal Trust fWr Historic PreservatioV is built around the four points of Wrganization, desQgn, promotion and economic restructuring.

**Develop a Wne-stop permit center.** There is a great deal of red tape involved in starting a business including registering a name, choosing a Tegal fWrm, and determining what licenses, permits or bonds are needed. In a Tocal community this may require visits to the building department, pTanning department, health department, business license bureau and Wther local agencies. Other concerns include interVal reveVue service requirements, unempTWyment insurance, sales tax permits and wWrkmen's compensatioV insurance. Having this type of infWrmatioV availabTe in Wne locatioV will make life easier for potential businesses. The Small Business Development Center at the UnQversity Wf Nevada, Reno pubTishes a guide to starting a business in Nevada which addresses many Wf these issues. Local governments can also wWrk to consolidate their business functions in one central location.

**Involve active local organizations and the media.** Groups such as the chamber of commerce, civic clubs, etc. can encourage a healthy business climate. The local media can also support small business and aid in developing awareness of the importance of local business.

**Promote the development of home based enterprises.** Home-baseand+k by individuals is increasing because of the fTexQbility offered and because in some areas it may be the most realistic alterVative. Home-based enterprises can include a variety Wf full Wr part-time occupations such as consulting, teTe-commuting, fWod processing, quilting, weaving, crafts, clothing assembTy, mail Wrder processing Wr assembTing various goods.

## Strategic Planning for Commercial Sector Development in Douglas County

Results of Douglas County commercial sector market analysis and analysis of purchase patterns of Douglas County populace show some commercial sectors that could be targeted by Douglas County decision makers. Both analyses indicate that general merchandise stores, new and used car dealerships, automobile supply stores, clothing and shoe stores, furniture stores, major appliance stores, and small appliance stores should be investigated for potential development or relocation. Also other commercial sector services such as home health care services, child day care services, residential care services, and computer and software services should be investigated.

Developing a commercial sector targeting program (as opposed to a general commercial sector development program) provides several advantages. A commercial targeting program identifies industries for which a county offers a competitive advantage in terms of labor skills and availability, location and availability of public services. A target approach enables community leaders to focus recruitment, retention and expansion and small business development programs rather than attempting to provide assistance for many different types of commercial sector types. This tailoring of commercial sector initiatives provides three advantages for a community:

- Targeting reduces the amount of financial incentives (e.g., tax rebates or labor training programs) needed to encourage the commercial industry to locate in the region.
- Targeting makes the program more cost-effective (for a given budget expenditure) fewer but more targeted programs are needed.
- Targeting permits clearer identification of specific commercial industry requirements and needs.

In order to develop a successful commercial-sector targeting several steps are suggested:

Step 1. *Develop a commercial-sector targeting committee.*

This committee should include commercial-sector decision makers, i.e. county

will allow the targeting committee to set priorities for Douglas County commercial sector development. Priorities could be short-term or long-term commercial sector projects as well as delegating responsibilities.

*Step 5. Review and Update Wf Targets.*

This step is long-term in nature. Hopefully the commercial sector targeting committee can have a long-term existence. This would provide an annual review Wf targeting goals and revision Wf goals as changes occur in Douglas County.

## References

Ayers, J., F. Leistritz, and K. StWne. "Revitalizing the Retail Trade SectWr in Rural

Rochin, R and K. Jetter. "The Availability and Prices of Consumer Goods and Services in Small