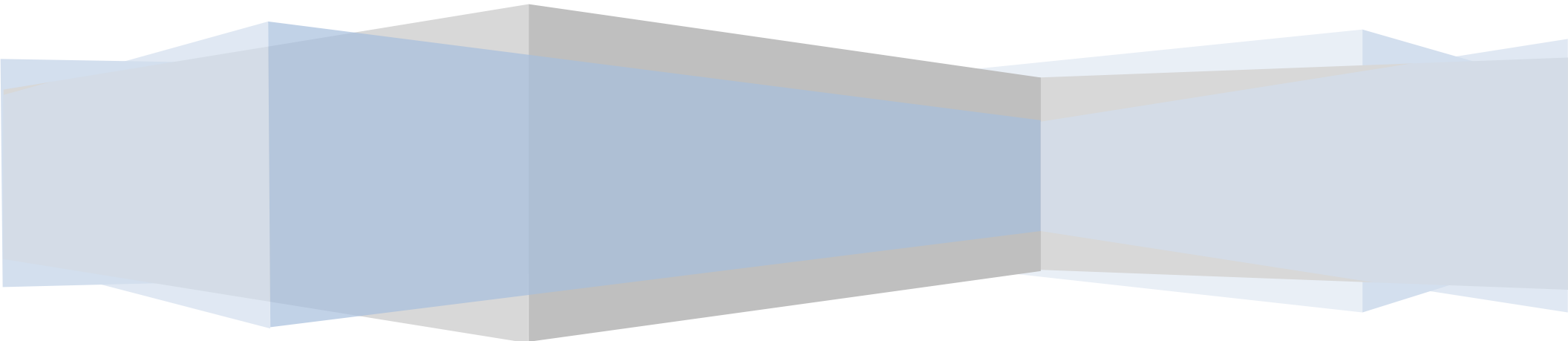


# Broomfield City and County Economic Base

By Gary Horvath



## Broomfield City and County Economic Base

### Purpose

In early May 2011, the Colorado Office of Economic Development and International Trade released preliminary components of its Bottom Up county-by-county Economic Development strategic plan for the state.

The section that addressed Broomfield County, included an objective to:

Build a strong diversified employment base in Broomfield that minimizes cyclical impacts of market changes and that provides job opportunities for Broomfield residents of all skills.

The purpose of this document is to provide information about Broomfield's economic base. In addition it will provide data and commentary to inform the discussion about the role that diversification of Broomfield industries should play in the growth of Broomfield.

This analysis includes information, discussion and data in the following areas:

- Private sector employment
- Percentage of private sector employment
- Scenarios for diversification of Broomfield industries
- Location quotient analysis
- Comparison of Broomfield location quotients to other metro county location quotients
- Minimization of cyclical impacts from market changes
- Job opportunities for residents with all skills
- Ideas that might be part of diversification
- Closing thoughts.

## Private Sector Employment

The U.S. economy is driven by distinctive competencies of the various states and regions. For example, the Colorado's scenic beauty and outdoor activities drive the tourism industry, while its abundance of natural resources drives the state's extractive industries. These competencies are difficult, if not impossible to replicate.

Colorado also has competencies that can be replicated, such as a highly educated work force, strength in specific clusters or industries, and a vibrant innovative spirit.

The fact that Colorado has competencies in certain areas causes it to have a distribution of industries that is different from the U.S. In other words, these strengths should be

viewed as strengths or competencies. At the same time, they prevent Colorado from being as "diversified" as the U.S. For the same reasons, Broomfield has a different distribution of companies than Colorado and the U.S.

Colorado is a state with a small private workforce, about 1.7% of total U.S. private employment (Table I).

Similarly, about 1.6% of the state's workforce is employed in Broomfield. Geographically, it is 27.1 square miles, or 0.03% of the state's land area. The small size of Broomfield's workforce and its geographic size play a major role in establishing economic development policies.

**Table I - Private Super Sector Employment**

<b>Industry</b>	<b>U.S. Total</b>	<b>Colorado</b>	<b>Broomfield County</b>
Total, all industries	106,947,104	1,828,955	28,641
Natural Resources and Mining	1,783,558	37,738	17
Construction	5,948,837	131,003	1,293
Manufacturing	11,810,371	129,642	5,107
Trade, Transportation, and Utilities	24,651,647	399,183	5,851
Information	2,807,721	74,682	2,645
Financial Activities	7,589,821	143,787	1,404
Professional and Business Services	16,488,835	330,141	6,945
Education and Health Services	18,321,635	253,984	1,564
Leisure and Hospitality	13,001,028	262,334	3,267
Other Services	4,369,780	65,707	548
Unclassified	173,872	755	2

Source: 2009 Annual QCEW, LMI.

## Percentage of Private Sector Industries

The data in Table II shows that the industry composition of the U.S., Colorado, and Broomfield are distinct. There are significant differences at the most basic level - goods and service producing employment. The TTU sector is the only sector where the three geographic areas have a percentage of employment that is somewhat similar.

The fact that the composition of industries is different for Colorado and Broomfield means they have different assets

and strengths and make different contributions to the overall economy.

This suggests that a "strong diversified employment base" can have a different meaning for the nation, the states, and counties or regions within the state. Furthermore, this may infer that a county as small as Broomfield may be most successful if it focuses on its distinctive competencies and strengths, while relying on the regional economy to provide support in areas where it lacks competencies.

**Table II - Percentage of Private Sector Industries**

<b>Industry</b>	<b>U.S. Total</b>	<b>Colorado</b>	<b>Broomfield County</b>
<b>Base Industry: Total, all industries</b>	100.00%	100.00%	100.00%
<b>Total Goods Producing</b>	18.30%	16.30%	22.40%
<b>Total Service Producing</b>	81.5%	83.70%	77.60%
<b>Natural Resources and Mining</b>	1.67%	2.06%	0.06%
<b>Construction</b>	5.56%	7.16%	4.51%
<b>Manufacturing</b>	11.04%	7.09%	17.83%
<b>Trade, Transportation, and Utilities</b>	23.05%	21.83%	20.43%
<b>Information</b>	2.63%	4.08%	9.24%
<b>Financial Activities</b>	7.10%	7.86%	4.90%
<b>Professional and Business Services</b>	15.42%	18.05%	24.25%
<b>Education and Health Services</b>	17.13%	13.89%	5.46%
<b>Leisure and Hospitality</b>	12.16%	14.34%	11.41%
<b>Other Services</b>	4.09%	3.59%	1.91%
<b>Unclassified</b>	0.16%	0.04%	0.01%

Source: 2009 Annual QCEW, LMI.

## Scenarios for Diversification of Broomfield Industry

Public officials and economic developers will attempt to retain and recruit companies in hopes of making their economy achieve specified goals. With that in mind, the analysis in this section will look at two hypothetical scenarios. In each case, the goal is to diversify the local economy so that its distribution of industries matches the U.S.

- Scenario I - Apply the distribution of private sector employment for the U.S. to the 2009 Broomfield employment (28,641). See Table III.
- Scenario II - Apply the distribution of private sector employment for the U.S. to projected Broomfield

employment in 2020. This projection is based on data from the Colorado State Demography Office (See Table IV).

As will be shown, both scenarios illustrate that drastic changes would have to occur for the local economy to match the U.S. percentages.

Table III looks at the first scenario, the case where the U.S. distribution of companies is applied to the current Broomfield employment levels.

**Table III - Percentage of Private Super Sector Industries (Current)**

<b>Industry</b>	<b>U.S. Total</b>	<b>Broomfield Employment Based on U.S. %</b>	<b>2009 Broomfield Employment Actual</b>	<b>Difference</b>
Base Industry: Total, all industries	100.00%	28,641	28,641	
Natural Resources and Mining	1.67%	478	17	461
Construction	5.56%	1,592	1,293	299
Manufacturing	11.04%	3,162	5,107	-1,945
Trade, Transportation, and Utilities (TTU)	23.05%	6,602	5,851	751
Information	2.63%	753	2,645	-1,892
Financial Activities	7.10%	2,034	1,404	630
Professional and Business Services (PBS)	15.42%	4,416	6,945	-2,529
Education and Health Services (EHS)	17.13%	4,906	1,564	3,342
Leisure and Hospitality (Tourism)	12.16%	3,483	3,267	216
Other Services	4.09%	1,171	548	623
Unclassified	0.16%	46	2	44

Source: 2009 Annual QCEW, LMI.

This means of hypothetically redistributing Broomfield's workforce to match the U.S. proportions infers that Broomfield currently has about 2,000 too many manufacturing

workers and an equal excess of information workers. In addition, there are about 2,500 too many PBS workers. On the other hand, these reductions would be offset by the addition

of 3,300 health care workers, plus a number of workers from smaller sectors.

Now let's look ahead to 2020 (Scenario II) and assume that Broomfield's population has reached 75,000. About 45% of the people are employed, i.e. there are 33,750 wage and salary workers.

The data in table IV shows how the employment levels of the various sectors would need to change over time for Broomfield to reach the same industry distribution as the U.S. To reach these percentages Broomfield employment in both the Information and PBS sectors would be reduced by 1,750 and manufacturers would be cut by 1,400.

In their place, the city would add 4,217 health care workers, 2,000 TTU workers, 900 financial services employees and about 800 workers in both the Hospitality and Personal Services Sectors. The tax base and personality of Broomfield would be changed drastically if this scenario played out.

This brief scenario analysis illustrates how dominant some industries are in the local economy and the transformation that would have to occur to meet the same distribution as the U.S. economy. This analysis was not performed with the intent of supporting changes of this magnitude.

**Table IV - Percentage of Private Super Sector Industries (2020)**

<b>Industry</b>	<b>U.S. Total</b>	<b>Broomfield Employment U.S. Percentages</b>	<b>2009 Broomfield Employment</b>	<b>Number of Workers Needed to Meet U.S. Percentages</b>
<b>Base Industry: Total, all industries</b>	100.00%	33,750	28,641	
<b>Natural Resources and Mining</b>	1.67%	564	17	547
<b>Construction</b>	5.56%	1,877	1,293	584
<b>Manufacturing</b>	11.04%	3,726	5,107	(1,381)
<b>Trade, Transportation, and Utilities</b>	23.05%	7,779	5,851	1,928
<b>Information</b>	2.63%	888	2,645	(1,757)
<b>Financial Activities</b>	7.10%	2,396	1,404	992
<b>Professional and Business Services</b>	15.42%	5,204	6,945	(1,741)
<b>Education and Health Services</b>	17.13%	5,781	1,564	4,217
<b>Leisure and Hospitality</b>	12.16%	4,104	3,267	837
<b>Other Services</b>	4.09%	1,380	548	832
<b>Unclassified</b>	0.16%	54	2	52

Source: 2009 Annual QCEW, LMI.

## Location Quotients of the Colorado and Broomfield Private Sector Industries

A more typical way to evaluate the composition of the local economy is to look at industry location quotients for Broomfield and the neighboring counties. (The Broomfield location quotient is the percentage of workers in Broomfield industry divided by the percentage of workers in the same U.S. industry. A location quotient greater than 1.0 means Broomfield has a higher concentration of workers in that industry).

The data in Table V compares the location quotients, or concentrations of Colorado and Broomfield industries. The sectors with location quotients greater than 1.2 are highlighted. (Research conducted by the Kansas City Federal

Reserve indicates that sectors with location quotients greater than 1.2 may be viewed as "export" industries). Although the PBS and Tourism sectors are not highlighted, they have state location quotients near 1.2 (1.17 and 1.18) and might be considered as export industries.

This table clearly illustrates that Broomfield and Colorado have different strengths than the U.S. The higher concentration of manufacturing, information, and PBS workers means that Broomfield will make greater contributions to the state economy in these areas and a lower level of contributions in other areas.

<b>Table V - Colorado and Broomfield County Private Super Sector Industry Location Quotients</b>		
<b>Industry</b>	<b>Colorado</b>	<b>Broomfield County</b>
Total, all industries	1.00	1.00
Natural Resources and Mining	1.24	0.04
Construction	1.29	0.81
Manufacturing	0.64	1.61
Trade, Transportation, and Utilities	0.95	0.89
Information	1.56	3.52
Financial Activities	1.11	0.69
Professional and Business Services	1.17	1.57
Education and Health Services	0.81	0.32
Leisure and Hospitality	1.18	0.94
Other Services	0.88	0.47
Unclassified	0.25	0.04

Source: 2009 Annual QCEW, LMI  
 Note: Highlighted areas have location quotients greater than 1.0.

## Comparison of Broomfield County, Major Denver MSA Counties, and Colorado Sector Location Quotients

By drilling down to the sector level it is possible to gather more information about the various industries. Specifically, Broomfield has high concentrations of companies in the Professional, Scientific, and Technical sector (PTS) and the Management of Corporations and Enterprises sector (MCE).

In addition, the data in Table VI compares the location quotients for the major counties of the Denver Metropolitan Statistical Area (MSA).

Certain trends are evident. For example, the metro counties have low concentrations in agriculture. As expected, the state has a location quotient near 1.0 for wholesale and retail trade, but counties with regional shopping centers have a location quotient greater than 1.0. The high concentration in the Mining Sector for the state includes a high concentration in Denver. While mining and drilling does not occur in Denver, this is the office location for many of the companies in the extractive industries.

**Table VI - Location Quotients for Colorado, Broomfield and Other Major Denver MSA Counties**

Industry	Broomfield	Adams	Arapahoe	Boulder	Denver	Douglas	Jefferson	Colorado
NAICS 11 Agriculture	0.00	0.78	0.04	0.26	0.03	0.12	0.16	0.70
NAICS 21 Mining	0.10	0.31	0.71	0.64	2.97	0.64	0.43	2.19
NAICS 22 Utilities	0.00	0.98	0.19	0.36	0.95	0.43	1.00	0.88
NAICS 23 Construction	0.81	2.09	1.20	0.64	0.82	1.57	1.24	1.29
NAICS 31-33 Manufacturing	1.61	0.76	0.28	1.09	0.50	0.26	0.95	0.64
NAICS 42 Wholesale trade	0.64	2.02	1.04	0.74	1.37	0.78	0.74	0.98
NAICS 44-45 Retail trade	1.23	0.95	0.91	0.90	0.54	1.41	1.21	0.96
NAICS 48-49 Transportation/warehousing	0.11	2.74	0.34	0.22	1.69	0.25	0.34	0.87
NAICS 51 Information	3.52	0.65	2.83	2.63	1.53	2.64	0.91	1.56
NAICS 61 Private education services	0.39	0.64	0.60	0.70	1.12	0.77	0.71	0.68
NAICS 62 Health care	0.31	0.74	0.89	0.93	0.80	0.61	0.85	0.83
NAICS 71 Arts, entertainment, recreation	0.74	0.41	0.74	1.17	1.14	2.18	0.90	1.36
NAICS 52 Finance and insurance	0.61	0.42	1.98	0.75	1.30	1.31	0.91	1.05
NAICS 53 Real estate/rental/leasing	0.93	1.13	1.29	0.92	1.59	0.77	1.15	1.27
NAICS 54 Professional and technical	2.13	0.54	1.53	2.41	1.55	1.46	1.59	1.33
NAICS 55 Mgmt of companies/enterprises	3.18	0.71	1.47	0.45	1.47	1.84	0.92	0.90
NAICS 56 Administrative and waste	0.57	1.10	1.45	0.66	1.29	0.61	1.03	1.08
NAICS 72 Accommodation and food	0.97	0.93	0.81	1.07	1.03	1.19	1.12	1.15
NAICS 81 Other services	0.47	0.89	0.76	0.84	0.96	0.89	0.90	0.88

Source: 2009 Annual QCEW, LMI.

Note: Highlighted areas have location quotients greater than 1.0.

Note: BLS includes Clear Creek, Elbert, Gilpin, and Park as part of the Denver MSA. Technically, this is not a complete analysis of the Denver MSA because they are not included.



The data in Table VII compares the location quotients of Broomfield to Mesa, Pueblo, El Paso, Larimer, and Weld Counties.

care. In addition they have lower concentrations of companies in the Manufacturing, Information, and PTS sectors. These sectors include companies in the state’s advanced technology cluster.

Certain trends appear. For example, the metro areas outside the Denver region tend to be centers for retail and health

**Table VII - Location Quotients for Colorado, Broomfield, Mesa, and Northern and Major Southern MSA Counties**

Industry	Broomfield	El Paso	Pueblo	Mesa	Larimer	Weld	Colorado
NAICS 11 Agriculture	0.00	0.09	0.32	0.72	0.58	4.67	0.70
NAICS 21 Mining	0.10	0.11	0.21	10.09	0.49	7.02	2.19
NAICS 22 Utilities	0.00	0.68	1.96	0.86	0.45	0.70	0.88
NAICS 23 Construction	0.81	1.23	1.36	1.68	1.42	1.82	1.29
NAICS 31-33 Manufacturing	1.61	0.64	0.83	0.47	0.96	1.49	0.64
NAICS 42 Wholesale trade	0.64	0.54	0.53	0.89	0.55	1.02	0.98
NAICS 44-45 Retail trade	1.23	1.06	1.19	1.15	1.20	0.87	0.96
NAICS 48-49 Transportation/warehousing	0.11	0.53	0.66	1.16	0.52	0.77	0.87
NAICS 51 Information	3.52	1.39	0.70	0.67	0.99	0.57	1.56
NAICS 61 Private education services	0.39	0.90	0.33	0.23	0.50	0.26	0.68
NAICS 62 Health care	0.31	0.83	1.53	1.14	1.03	0.80	0.83
NAICS 71 Arts, entertainment, recreation	0.74	1.12	0.99	1.04	1.11	0.67	1.36
NAICS 52 Finance and insurance	0.61	1.13	0.57	0.78	0.58	1.01	1.05
NAICS 53 Real estate/rental/leasing	0.93	1.14	0.79	1.16	1.16	0.78	1.27
NAICS 54 Professional and technical	2.13	1.62	0.34	0.66	1.21	0.41	1.33
NAICS 55 Mgmt of companies/enterprises	3.18	0.28	0.18	0.21	0.27	0.82	0.90
NAICS 56 Administrative and waste	0.57	1.37	1.53	0.87	1.04	0.87	1.08
NAICS 72 Accommodation and food	0.97	1.21	1.24	1.17	1.33	0.87	1.15
NAICS 81 Other services	0.47	1.16	0.75	0.84	0.83	0.70	0.88

Source: 2009 Annual QCEW, LMI.

Note: Highlighted areas have location quotients greater than 1.0.

Note: BLS includes Teller as part of the Colorado Springs MSA. Technically, this is not a complete analysis of the Colorado Springs MSA because it is not included.

A more comprehensive look at location quotients would include an evaluation at 3 to 6 digits. Such an analysis would identify additional areas where Broomfield has high concentrations. It would also identify companies that help create those high levels of

concentrations. That information would be invaluable in understanding the role of certain Broomfield companies and the importance of retaining them or attracting other companies to create a cluster.

## Comments from Bottoms Up Preliminary Plan - Minimization of Cyclical Impacts from Market Changes

It is unrealistic to think that a small economy can be engineered to minimize the volatility of the business cycle. The Federal Reserve could surely speak to the challenges of such a task and their success, or lack thereof, of implementing monetary policy.

Since Broomfield began operating as a city/county in November 2001, it has experienced steady growth in a difficult economic environment. This occurred in part because it was in the growth stage of its life cycle.

Broomfield's private sector employment remained flat during both the 2001 and 2007 recessions. In part this can be attributed to the mix of industries in Broomfield.

In contrast, Boulder County lost employment during both recessions and has fewer private sector employees than in 2002 (Boulder is in the mature stage of its life cycle). An employment comparison for Broomfield, Boulder, and Colorado is shown in Table VIII.

**Table VIII – Broomfield, Boulder, and Colorado Private Sector Employment**

Area	2002	2003	2004	2005	2006	2007	2008	2009
Boulder	132,825	127,170	128,098	130,431	132,492	135,235	136,815	127,074
Broomfield	24,648	24,965	26,740	27,613	28,547	29,339	29,162	28,641
Colorado	1,814,307	1,776,722	1,800,646	1,843,544	1,890,640	1,934,618	1,943,153	1,828,955

Source: 2009 Annual QCEW, LMI.

There was a sharp increase in the number of firms in Broomfield during the 2001 recession and its recovery period (Table IX). While growth has continued, it has occurred at a

much slower pace. Because of Broomfield's small land mass and its maturation as a municipality firm growth is likely to continue at a much lower rate in the years ahead.

**Table IX – Broomfield, Boulder, and Colorado Private Sector Firms**

Area	2002	2003	2004	2005	2006	2007	2008	2009
Boulder	11,602	11,606	11,702	12,139	12,454	12,753	12,862	12,793
Broomfield	1,322	1,445	1,594	1,807	1,925	2,028	2,040	2,066
Colorado	153,830	156,986	160,104	166,540	171,682	175,442	175,410	171,729

Source: 2009 Annual QCEW, LMI.

There is a national trend for companies to reduce their levels of employment. This has occurred because of increased

productivity and caution related to economic concerns. Anecdotal evidence out of Silicon Valley suggests that startups

are requiring less venture capital because they have fewer employees, they are more cautious, and they have a much better understanding of their products than during the go-go

90s. This reduction in the size of a firm is occurring in Colorado as well. These trends should be watched to see if they continue and to what extent they play out in Broomfield.

**Table X – Broomfield, Boulder, and Colorado Private Sector Employees per Firm**

Area	2002	2003	2004	2005	2006	2007	2008	2009
Boulder	11.4	11.0	10.9	10.7	10.6	10.6	10.6	9.9
Broomfield	18.6	17.3	16.8	15.3	14.8	14.5	14.3	13.9
Colorado	11.8	11.3	11.2	11.1	11.0	11.0	11.1	10.7

Source: 2009 Annual QCEW, LMI.

Total private sector wages at Broomfield companies remained relatively flat during the 2001 and 2007 recessions. Both

Boulder County and the state posted sharp declines in 2009 (Table XI).

**Table XI – Broomfield, Boulder, and Colorado Private Sector Wages**

Area	2002	2003	2004	2005	2006	2007	2008	2009
Boulder	\$5,898	\$5,850	\$6,140	\$6,510	\$6,889	\$7,282	\$7,436	\$6,735
Broomfield	\$1,221	\$1,255	\$1,389	\$1,439	\$1,613	\$1,795	\$1,768	\$1,804
Colorado	\$68,921	\$69,098	\$72,398	\$76,678	\$82,553	\$88,290	\$90,796	\$85,631

Source: 2009 Annual QCEW, LMI.

Note: Wages are not inflation adjusted.

Broomfield’s unemployment rates have typically been slightly higher than Boulder, but at or below the rate for the state.

Typically, either Boulder or Larimer County has the lowest MSA unemployment rates in the state.

**Table XII – Broomfield, Boulder, and Colorado Unemployment Rates**

Area	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Boulder	3.7	5.8	5.8	4.9	4.5	3.7	3.3	4.1	7.0	7.1
Broomfield	3.7	5.8	6.4	5.8	4.9	4.3	3.5	4.5	7.8	7.9
Colorado	3.8	5.7	6.1	5.6	5.1	4.3	3.7	4.8	8.3	8.9

Source: 2009 Annual QCEW, LMI.

A more comprehensive look at the Broomfield economy would include a review of construction activity (permits, starts, and valuation), retail trade sales, and property tax collections.

A flurry of construction activity during the first part of the past decade related to the rapid growth of the county. The level of building activity dropped off as Broomfield matured and the country entered the Great Recession. Local retail trade sales

were impacted by both recessions, but appear to be increasing at a double digit rate in 2011, a much faster rate than the state or neighboring counties.

An evaluation of the data sets presented above suggests that Broomfield was an unwilling participant in both recessions,

but felt the impact at a lesser level than other parts of the state.

That reduced impact can be attributed, in part, to Broomfield being in a growth stage of its life cycle and the distribution of industries in the county.

**Comments from Bottoms Up Preliminary Plan - Job Opportunities for Broomfield Residents of All Skills**

Since its inception, average annual private sector wages for Broomfield have exceeded the average of neighboring Boulder County and the state (Table XIII). Broomfield has consistently had one of the highest average annual county wages since its inception.

Over time, Broomfield officials have made decisions to invest in infrastructure, parks, and open space. These amenities have

drawn highly educated people to the area and created a demand for certain types of services and upscale housing. It will be essential for Broomfield to retain and attract companies that will provide the tax base to pay for the infrastructure and community that has been built and that plans to be built. In other words, it will likely be necessary to attract and retain a greater percentage of companies that pay higher than average annual wages.

Area	2002	2003	2004	2005	2006	2007	2008	2009
Boulder	\$44,407	\$46,003	\$47,933	\$49,911	\$51,992	\$53,844	\$54,348	\$53,002
Broomfield	\$49,518	\$50,286	\$51,944	\$52,120	\$56,495	\$61,179	\$60,611	\$62,987
Colorado	\$37,988	\$38,891	\$40,207	\$41,593	\$43,664	\$45,637	\$46,726	\$46,820

Source: 2009 Annual QCEW, LMI.

In addition to attracting high paying workers, Broomfield companies also hire employees across the spectrum of occupations and pay rates (Table XIV).

Data from the *2009 Colorado Data Mining Report*, produced for Colorado's Workforce System, shows that Broomfield provides jobs for residents of all skills and pay levels. Almost two-thirds of the workers in the county hold occupations in categories below the county average of \$25.61 per hour.

**Table XIV - Occupations for Broomfield County**

<b>SOC Occupations</b>	<b>SOC</b>	<b>Average Hourly Rate</b>	<b>Percentage of Occupations</b>
Sales and related occupations	41-0000	\$18.00	15.8%
Office and administrative support	43-0000	\$19.84	15.7%
Computer and mathematical science	15-0000	\$46.84	10.4%
Food preparation and serving related	35-0000	\$8.31	8.5%
Production occupations	51-0000	\$15.65	7.9%
Business and financial operations	13-0000	\$37.08	6.9%
Management occupations	11-0000	\$57.11	5.2%
Installation, maintenance, and repair	49-0000	\$27.72	4.5%
Construction and extraction occupations	47-0000	\$17.80	4.1%
Transportation and material moving	53-0000	\$16.07	3.7%
Architecture and engineering occupations	17-0000	\$46.68	3.3%
Building and grounds cleaning and	37-0000	\$11.21	2.4%
Personal care and service occupations	39-0000	\$9.39	2.0%
Healthcare practitioners and technical	29-0000	\$29.78	2.0%
Education, training, and library	25-0000	\$22.99	1.9%
Arts, design, entertainment, sports, and	27-0000	\$23.42	1.5%
Life, physical, and social science	19-0000	\$37.90	1.3%
Healthcare support occupations	31-0000	\$11.85	0.9%
Protective service occupations	33-0000	\$19.22	0.7%
Legal occupations	23-0000	\$56.22	0.6%
Military Occupations	55-0000	\$8.40	0.4%
Community and social services	21-0000	\$22.55	0.3%
Farming, fishing, and forestry occupations	45-0000	\$10.36	0.1%
<b>Average Hourly Wages/Total Percentage</b>		<b>\$25.61</b>	<b>100.0%</b>

Source: Colorado Data Mining Report, EMSI.

### **Thoughts about the Evolution of Broomfield’s Industries and Economy**

The preceding analysis provides a brief overview of Broomfield’s industries and its strengths and weaknesses as an economy. Hopefully this information will serve as a foundation for understanding the evolution of its industries.

This section provides comments about each of Broomfield’s industry sectors. These thoughts have been included for the sole purpose of encouraging discussion about possible actions that Broomfield’s economic developers and policy makers should take to protect their public and private investments in the community.

Agriculture (NAICS 11) - Broomfield does not have space to devote to agriculture; however, it may choose to focus limited efforts to support agriculture-related industries. This might build on include development of an upper-end natural foods cluster, built around White Wave Foods, and other companies in the natural products cluster. As well, agriculture-related activities such as farmers' markets might appeal to certain residents and help the community stay in touch with its agricultural roots.

Mining (NAICS 21) - As seen from the location quotients, three of the metro counties have high location quotients in this area (Denver, Weld, Mesa). The former is the home of corporate offices, while the latter two counties are the sites for extensive extractive activity. Limited drilling activity may occur in Broomfield as a result of the Niobrara shale field. In addition, Conoco-Phillips may attract other extractive industries to the area. Broomfield might focus some effort on development of extractive industries related to the presumed development of Conoco-Phillips.

Utilities (NAICS) – Colorado's utilities are concentrated in Denver. About 1,800 of the state's 8,400 utility workers are employed there. Several hundred employees work in each of the major MSAs. This is not an area of strength for Broomfield. At the moment it is an unlikely area for future development.

Construction (NAICS 23) - Theoretically, construction should have a location quotient of 1.0, with higher values during periods of expansion. While it is essential for Broomfield to

have a certain level of construction business, it is satisfactory to have a location quotient less than 1.0 given the strength of the industry in neighboring communities. It is appropriate for Broomfield to have a sufficient concentration of specialty construction workers, i.e. companies that perform new work, additions, alterations, and repairs. A review of 3-digit NAICS reveals that is the case.

Manufacturing (NAICS 31-33) – About 16% of the state's manufacturing employees work in Boulder and Broomfield counties (20,400). Larimer and Weld have a similar amount, followed by Denver, at about 19,700 workers. Other areas of manufacturing strength include Jefferson (17,800), El Paso (13,800), and Adams (10,800). Colorado's manufacturers are essential to its high tech cluster and innovation. It is necessary for Broomfield to work with other manufacturing counties to ensure a local supply chain and a sufficient based of trained workers.

Wholesale Trade (NAICS 42) – Given the concentration of wholesalers in Adams, Denver, and Arapahoe counties (about 55% of the state total), this sector is an unlikely candidate for expansion in Broomfield. Broomfield has about 1% of the state's total employment for the sector.

Retail Trade (NAICS 44-45) – Broomfield County has a high concentration of retail workers because it has a regional shopping center. This is a competency that must be protected. About 4,800 retail employees work in Broomfield.

Transportation and Warehousing (NAICS 48-49) – About 100 of the state’s 59,000 T&W workers are employed in Broomfield. About 60% of the state’s T&W workers are employed in Adams or Denver counties. While transportation and warehousing are critical to Broomfield’s economy, neither are a driver of the economy.

Information (NAICS 51) – About 24% of the state’s Information workers are employed in Arapahoe County, 19% in Denver, and 15% in Boulder and Broomfield combined. Each of these three areas has different technological competencies. Over the past decade, this sector has evolved rapidly, both in terms of structure and technology. As well, it has been extremely volatile. There may be opportunities for Broomfield to strengthen its role in software publishing and telecommunications.

Finance and Insurance (NAICS 52) - The Colorado financial sector is located in Denver and the Tech Center. Broomfield employs about 900 workers in this sector and has a location quotient of .61. Broomfield has competencies in areas (corporate headquarters, manufacturing, IT, etc.) that should make it attractive to banking, VC, leasing, insurance, and equity companies.

Real estate and Rental and Leasing (NAICS 53) - Broomfield has a location quotient of .9; however, only 500 workers are employed in this sector. (Many realtors are not recorded in this sector; rather they are included in the Non-Employer Statistics database compiled by the U.S. Census Bureau). The

strength of the sector in other metro counties relates to rental and leasing of property or equipment.

Private Education Services (NAICS 61) – Broomfield has less than 1% of the state’s 28,000 private education workers. Positions in this sector range from youth sports camps to vocational training to private PK-20 education. Naropa’s recent announcement that they are contemplating a move points out the possibility of recruiting other private education firms that could provide training service for other companies in the area.

Health Care and Social Assistance (NAICS 62) – A state location quotient for health care should theoretically be 1.0. Areas with regional health care facilities are more likely to have concentrations greater than 1.0. Broomfield is unlikely to become a regional center for health care in the Front Range. Given its size, it seems judicious to support the growth of existing centers of health care excellence. At the same time, it is important for Broomfield to have adequate health care facilities such as urgent care, home health care, nursing care facilities, etc. distributed throughout the community.

Professional and Technical and Scientific Services (NAICS 54) - This sector includes attorneys, architects, engineers, researchers, consultants, computer systems management, and other professions essential to the advanced technology cluster. About 61% of workers in this sector work for companies in Denver (22.6%), Boulder/Broomfield (15.1%), El Paso (12.6%), and Jefferson (11.1%) counties. Broomfield has a location quotient of 2.13 for this sector. Because of the wide

array of industries served by this sector, this is an area that could be a focus for further penetration.

Management of Companies and Enterprises (NAICS 55) - This is a small sector that includes national and regional headquarters and holding companies. About 83% of the state's employees at MCE companies work in six counties: Denver (31.6%), Arapahoe (21.2%), Jefferson (9.5%), Douglas (8.8%), Broomfield (5.5%), Adams (5.5%). Broomfield has a distinctive competency that warrants further consideration. This strength is derived from Broomfield's proximity to Rocky Mountain Metropolitan Airport, federal facilities, and several higher education institutions. As well it is recognized for its intellectual firepower and is located at the center of Colorado's high tech corridor.

Administrative and Waste Services (NAICS 56) – This category includes companies which provide B-to-B services. At the state level, this is a sector that should have a location quotient near 1.0. Such is the case with Colorado. About 45% of the employees in this sector work in Denver, Jefferson, and El Paso Counties. Almost 1,100 are employed in Broomfield. This is not a likely candidate for further penetration.

Arts, entertainment, and recreation (NAICS 71) – The sector includes everything from fitness clubs to ski areas. About 400 Broomfield workers are employed in the AER sector. This sector might be further developed by building on existing facilities and organizations such as the Bank One Event Center, Vail Resorts, or the Outdoor Industry Association.

Accommodation and Food Services (NAICS 72) - Broomfield has a high concentration of employees in both areas. The Accommodations sector has about 400 workers and a location quotient of 1.34. In addition, about 2,500 workers are employees in food service businesses, with a location quotient of 1.11. This is an area of potential growth with further development of the NW quadrant of the Denver metro area. Growth should occur at a rate similar to population and workforce growth.

Other Services (NAICS 81) - This sector includes businesses that provide personal services (auto maintenance, hair care, appliance upkeep, laundries, etc.) and nonprofits. Typically, this sector has a location quotient of 1.0. About 550 workers are employed in this area in Broomfield. The fact that the sector has a location quotient below 1.0 is most likely a function that residents on the borders of Broomfield receive personal services from neighboring communities. It is important to have the appropriate level of personal services as it causes residents to stay in the community.

Federal Government - Federal government employment is small in the area, but will increase slightly with the addition of the National Archives facility. While it may not be possible to develop a cluster of federal government agencies similar to the Federal center in Lakewood, it may be possible to have additional federal facilities join the National Archives. Regional federal facilities have a major impact on Broomfield, for example, NIST, NOAA, NCAR, NTIA, NREL.



State Government - There are only a small number of state employees who work in Broomfield. The majority of Colorado state employees work at colleges and universities. It is not necessary for Broomfield to have its own college or university, although branches of specific universities may be appropriate for the Interlocken area. It is important to foster the further development of relationships between local companies and PK-20 education to ensure a more highly trained workforce and companies with greater innovation.

Local Government - Broomfield is recognized for the efficiencies gained in the consolidation of its city and county operations. Another key component of local government employment is PK-12 education. A strong education system is imperative in recruiting and retaining companies, especially

### **Closing Thoughts**

The statement that motivated this analysis was made with good intent.

Build a strong diversified employment base in Broomfield that minimizes cyclical impacts of market changes and that provides job opportunities for Broomfield residents of all skills.

After reviewing the composition of the national, state, and metro counties, it is clear that it is difficult to define what a diverse economy would look like. In the process of matching the strengths of neighboring counties with the strengths of Broomfield, it is debatable whether such diversification is actually necessary, even if it could be defined and was

those who earn higher than average wages and expect strong school systems for their children.

Advanced Technology (AT) - The NAICS codes do not have a category for advanced or high technology. As such AT is not an industry, but a cluster (clusters cross several industries). There are various definitions of AT, most of which include the Manufacturing; Information, and PBS sectors. Broomfield and Boulder County are the focal point for the AT cluster (photonics, nanotechnology, software, IT, RFIDs, homeland security, aerospace, renewable energy). It is imperative that Broomfield closely monitor the rapid evolution of these clusters as a way of protecting its high concentration of AT companies.

possible to achieve. In many ways, it makes more sense to diversify Broomfield's tax revenue base rather than trying to diversify it's industries.

As well, this simple analysis suggests that Broomfield has felt fewer shocks from the last two recessions than other parts of the state.

Finally it appears that Broomfield provides job opportunities for residents with different skills. Moving forward, it will be necessary for Broomfield to retain and attract companies that can provide a tax base (without undue burden) to support the infrastructure that has been built.

Broomfield must maintain access to a strong education system(public and private) and that the workforce system continues to provide training to meet the changing needs of county workers and residents.

There are also factors that go beyond the scope of this analysis, such as transportation, housing, and revenue generation. Does Broomfield have the type of housing to match the wages of the local workers? Are training opportunities in place to ensure a highly trained workforce? Does Broomfield have adequate transportation systems to minimize commute times and ensure an efficient flow of commerce?

Through the efforts of previous and current public officials, economic developers, chamber leaders, workforce system, and private sector leaders Broomfield has developed an attractive community to live, work, and play in.

It is attractive because of the infrastructure, parks, open space, recreation activities, education, and business offerings within the community and neighboring areas.

There is a price associated with this attractiveness.

For the past decade Broomfield has enjoyed solid growth. As the community transitions from its growth phase to a mature stage, the management of its industry base will present different challenges. The recruitment and retention of companies will become even more strategic.

Looking ahead, local policy makers must focus on managing an evolving economy, rather than creating a new one. This will increase the need to develop stronger partnerships with neighboring communities with the intent of creating efficiencies (or reducing duplication), creating regional competencies, yet protecting Broomfield's assets.

Protecting Broomfield's attractiveness as a community will be a different type of challenge moving forward!