

Missoula County Industrial Lands Study

II. Economic Trend Analysis/Assessment

Growth and change in the Missoula County area economy

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Overview and Summary

This technical evaluation and report was done in conjunction with an inventory and evaluation of industrial lands in Missoula County by PCI Consultants of Missoula under contract with Missoula County. This economic assessment includes evaluations of the following:

- A. Area population trends, components of growth and change, area population aging over time and projected future shifts in the age composition of the area population, relating these trends to change occurring in peer cities and counties in the western U.S. similar in population size to Missoula County.
- B. Labor force growth and trends, pre- and post-recession, and recent and projected patterns in labor force growth and jobs growth by industry and occupation in Missoula County.
- C. Area economic growth and restructuring including shifts in the area economy measured by sector-level growth and change in employment and labor earnings; pre- and post-recession, creating context for understanding area trends by comparing these to economic trends among western peers.
- D. Trends in the changing structure and industrial make-up of the Missoula area economy, focusing upon sectors most tied to industrial lands in the county, relating and comparing key trends and features of the Missoula County economy to those of peer areas in the larger region and western U.S.
- E. Expectations and projections regarding future growth in the area economy and its key sectors including those that may require industrial lands as location sites.
- F. Peer areas in the state and region experiencing higher levels of manufacturing and other industrial development than Missoula County and their recent manufacturing and industrial trends.
- G. Review of recent and past "target industry" studies for Missoula County and the goals and strategies they imply and their implications for industrial lands adequacy and planning in the county.

This overview and summary is followed by analysis of pertinent data on area population and economic trends and patterns, which are extensively charted and discussed (numbered and organized A to G). The analyses provide a backdrop against which economic development needs and opportunities for Missoula County can be explored, and implications for industrially zoned lands gauged.

The “quantity” of industrial lands in the county appears to be adequate for current and future demands. However, there may be questions about the “quality” of these lands and their readiness and attractiveness for future needs in a changing economy.

There are many uses for these lands – sites for manufacturing, material handling, and product fabrication; sites for trucking firms and freight transportation; rail yards and construction yards; and sites for large storage, warehousing, and distribution facilities. They can become homes for large call centers, breweries and bottling plants, cement manufacturing plants, salvage yards, and implement dealerships. They also can become locations for office condos, laboratories, research and testing facilities, and mail and package sorting and delivery centers. The multiplicity of potential uses has grown and is likely to continue growing.

The role these lands may play in the future will continue to evolve, as the economy of the area and region evolves. Missoula County’s economy today is much different than 30 and 40 years ago. It is more diverse and there will be a myriad of activities on these lands, some industrial in nature, but some not.

The mixing of types of businesses and activities will create challenges in the management of these lands and in positioning them for the kinds of economic opportunities Missoula County may be presented with in the future. Core areas within these industrial lands or cornerstone areas could be protected for industrial uses but there is likely to be increasing pressure on many periphery areas of these lands for quasi-industrial and non-industrial uses.

Impressions drawn from an inventory and tour of these lands suggest that Missoula County has a relatively large amount of industrially-zoned lands, even though their quantity is decreasing through encroachment of other uses, but also because of fairly prevalent contamination – an unfortunate legacy of some past industrial uses of these lands. In spite of this, many large blocks or corridors of industrially-zoned lands remain.

The character and quality of these lands for some future uses is less certain. And this may affect their “competitiveness” in attracting the types of uses area economic development organizations and elected officials may be seeking. Some of these lands and the structures that occupy them have the appearance of what remains from a past economy – an economy that has been in decline for many years, if not decades. What kind of impressions do these lands make with prospective new businesses and firms who may have many other options for where they may choose to locate? And what kind of impressions does the appearance of some of these lands have on visitors to the area and to businesses seeking locations in high quality, attractive communities?

There is a need to carefully consider what may lie in the future for these lands and to determine what should and can be done to better position them for future economic opportunity, industrial or otherwise. Of course, what can and should be done, particularly if it entails any public funding and support, would hinge on participation by those who currently own these lands and stand to benefit from improvements in them and in surrounding infrastructure.

This report accompanies the inventory, analysis, and mapping work done of industrial lands in Missoula County by PCI consultants. Summary sections are supported by extensive analysis contained in three general sections: Population and Demographic Trends (study components A and B), Economy Trends (components C, D, and E), and Industrial Trends in Region Peers (component F), extending further into a review of past target industry studies done for the Missoula area (G). These latter materials are referenced by page number throughout the summary. A report appendix

provides descriptions of NAICS industry types and categories used in assembling various economic data.

A. Population and Demographic Trends in Missoula County

Population growth and change The most recent population estimate for Missoula County's is 111,807 (July, 2013, Census Bureau). This is up from 109,426 in July of 2010 and from 96,000 in 2000. (p. 1 of technical materials) Growth had accelerated to relatively high levels in the early '90s, but slowed and in more recent years the county's population is growing at less than one percent a year. In the last four years Missoula County's population has been growing by about 700 to 800 persons a year or about 0.6 to 0.7% a year. This is relatively slow growth when compared to past years.

During the period from 2000 through 2007, Missoula County grew each year by more than one percent and as high as two percent in 2006. Over the full course of the last decade from 2000 to 2010, Missoula County's population rose from about 96,000 to 109,426 – an increase of over 13,000 residents or nearly 14%.

Missoula County's population growth was compared to growth among 50 general population peers for Missoula County in the western U.S. (see pages 13 and 14 to see peers selected) Missoula County's growth of 22% during the '90s ranked 13th among all these peers and growth during this period was clearly most concentrated in the Interior Mountain West region of the western U.S. (page 15)

Missoula's growth of 14% between 2000 and 2010 ranked it 18th among the 50 peers. Growth slowed in Missoula County between decades, but slowing growth also typified what happened in most other similar size places in the West. (page 16)

Population change by component In the '90s, Missoula County's population rose from about 79,000 to 96,000 – an increase of more than 17,000 new residents and almost 22%. Growth was particularly fast from 1991 to 1995 when the county grew by about two and a half percent a year. This sudden and somewhat unanticipated increase in population was fueled by a fairly dramatic shift in population migration patterns in the western United States, with many more people relocating to the Interior West of the U.S., including western Montana, than the number moving away. In the period from 1991 to 2000 nearly 12,000 more people moved to Missoula County than the number moving away (“net migration”). Adding to this was population growth from natural change (births minus deaths) of about 5,000.

In the last decade (2000 to 2010) growth by natural change continued at about the same rate, adding about 5,000 new residents, but net migration slowed to growth of 8,600. Going forward, growth through natural change will slow because of population aging and the more moderate rate of net migration in recent years is expected to continue.

Anticipated future population growth Under recent and currently anticipated patterns of growth Missoula County's population should grow to about 120,000 residents by 2020 and to over 130,000 by 2030 – reflecting relatively moderate rates of growth of under 10% during both these decades. This reflects both slower growth from natural change because of an aging population and moderate levels of net migration. (see pages 6 through 10)

Growth is projected at plus or minus 1% a year in both the current and next decade through 2030. How much actual growth may vary from this forecast will largely hinge on emerging migration

patterns and the movement of people and families to and from Missoula County. This is very difficult to predict with any reliability. Livability and quality of life will still largely drive migration of people into western Montana.

The relative performance of the area economy will impact these projections. During the decade of the '80s – a time of a struggling area economy – Missoula County added over 7,000 new residents through natural change, while losing over 4,000 through net migration. This resulted in overall population growth during the period of only 4%.

Population aging trends and patterns An important aspect of population change over the last three decades has been the gradual but steady aging of the area population. Between 2000 and 2010 when the county's population grew by 14%, growth focused among aging boomers in their 50s and 60s, and among children of boomers, primarily in their 20s. (pages 4 and 5)

For the 2010 to 2020 period growth is primarily occurring among boomers, now moving into their 60s and 70s, and young adults moving from their 20s and into their 30s. The number of persons in their 20s and 50s is projected to decrease significantly. Aging comes to full fruition between 2020 and 2030 with growth then focusing among persons in their 70s and 80s and among those in their 40s. And by 2030 those 65 and older will represent over 20% of the county's population, up from 11.5% in 2010. (pages 6 and 8)

The median age of Missoula County's population rose from 27 in 1980 to 33.2 in 2000 and to 34.3 in 2010. By 2020 this will rise to around 36 and by 2030 to around 38. This population aging is significant and will translate into many areas of impact (housing, workforce, area consumption patterns, educational needs, health care needs, income composition, transportation needs, etc.),

Even with this aging, Missoula County will continue to be one of the "youngest" in Montana and in the larger region, owing to the fact that even as the population in place ages, Missoula has shown the ability to retain and attract young adults. Many areas, particularly more rural ones, have not. (see maps on pages 11 and 12 and peer comparisons on 18-20)

With a greater proportion of the population at older ages, housing needs and wants will steadily shift from a past narrow focus on 3-4 bedroom, single family dwellings to smaller homes, including condos, townhomes, and apartments. As a greater proportion of the population moves to ages 65 and older, their exit from the workforce will result in much slower growth in the area labor force, and labor markets will become increasingly tight. Education will steadily shift from past narrow focuses on educating children and young adults to educating people at all ages throughout their lives.

A growing number of older adults will only further fuel the already fast growth in health care services, an already large and important segment of the Missoula economy. Area personal income, once coming primarily from labor earnings (around 75% in the early '70s and 62% more recently), will become split more evenly between labor earnings on the one hand and investment and transfer payment income (non-labor sources) on the other. (page 32)

B. Labor Force Growth and Trends in Missoula County

Labor force and employment growth The labor force includes all persons in an area that are either employed or actively pursuing employment in a given month. The county's labor force steadily and consistently grew from less than 45,000 workers in the early '90s to well over 60,000 by October of 2008 – fairly marked growth by any standard. The nationwide recession officially began in

December of 2007 but this did not result in a fallback in Missoula County's labor force until late in 2008. This fallback culminated with a low of around 57,000 workers in January, 2011. (page 21)

The labor force of Missoula County is now steadily growing again and the pace of this growth will hinge upon how fast the economy recovers and then on what the pace of growth may be under a new and different, fully recovered economy in the years ahead. Labor force and employment growth in western Montana in the fifteen or more years leading into the most recent recession was heavily influenced by population growth (particularly increased rates of in-migration), that magnified growth in housing and construction that then led to expansions in real estate and financial sector activity as well as area trade.

Over the entire period from the early '90s up to the present, the lowest unemployment rate in Missoula County was in September of 2006, a year prior to the onset of the national recession, when unemployment fell to 2.2%. (page 23) In a larger national context, a "full employment economy" is one where unemployment is at around 4%. This is considered normal and allows for some people moving between jobs on a constant basis. Area unemployment as low as 2% reflects very "tight" labor market conditions – ones where there can often be more jobs than workers to fill them.

Missoula's unemployment rate recently fell below 4% although it rose back above this in the subsequent month. (page 23) While there is currently more labor than available jobs and there continues to be obvious under-employment, this situation may be relatively short-lived as future growth in the work force will be constrained by an aging population and a growing number of retirees. If the economic recovery continues as present, Missoula County will very likely see a 2% unemployment rate sometime during the summer of 2016.

Future labor force expansion A growing economy will steadily add jobs and employ more people. It also will steadily reduce under-employment as more workers move into more promising areas of employment. As this growth continues the labor force must grow to accommodate this growth. When economic growth is relatively fast, it can out-pace growth in the labor market, leading to very low unemployment rates and tight labor markets. Wage and salary rates also begin to rise more readily and rapidly. Premiums are placed on persons having valued skills and experience.

Labor force growth was clearly slowing in Missoula County since 2000 and this partly reflects a slowdown in growth in the area population at prime ages for workforce participation. (page 25) As the population ages, areas without growing populations will actually see shrinking work forces. With moderate growth, Missoula County's work force is likely to continue to grow, but more slowly than in the past.

After the economy is fully recovered, labor force growth in Missoula County is likely to be around 1% a year. By the mid-2020s, this growth will be even slower, but will be increasingly fed by influxes of new workers and residents from outside. (page 26) Missoula County has a fairly high level of part-time employment or jobs that are less than full-time. (page 27) As unemployment rates fall in the future under a constraint labor force, area wage and salary rates are likely to increase more readily and "under-employment" will be gradually squeezed out of the economy. At least, this is how it is suppose to work.

Self-employment in the county About 21% of Missoula's total employment, which includes all full- and part-time jobs in the county, is proprietor or self-employment. This self-employment rose from about 14% in the early '70s to 16.5% in the early '80s before gradually rising to current levels. (page 28) Higher levels of self-employment in an area economy can be associated with "entrepreneurism" or workers striking out on their own and creating new businesses and income sources. But this can

also reflect the need by wage and salary workers to find other sources of income because their other primary jobs are inadequate in supplying the income they need.

Missoula's current self-employment rate of 21% of all jobs is 29th highest among the 50 peers used in making these kinds of comparisons. (page 29) So, although rising over time, Missoula's self-employment should not be considered inordinately high.

Labor market tightening and workforce development A tightening labor market and changing economy will place a growing emphasis on workforce development and adult education programming. It is these programs that help workers to move between jobs and into more promising and growing areas of employment. In 2007 nearly 32% of Missoula County's adult population was college educated and this ranked it 7th highest among the 50 peers in this measure of educational attainment. (page 30) Missoula ranks 8th among these peers in share of the population that is high school educated with only 6.8% of adults without a high school diploma. (page 31) So in terms of these traditional measures of educational attainment, Missoula ranks high.

But workforce development in the future will occur in different ways than strictly standard high school and college educations. Much of it will be more focused and designed around lifelong adult education that is flexible, incremental, and progressive, with less emphasis given to degrees or time-consuming standard educational credentials and more on periodic two, three, and four course progressions that provide faster skill enhancements for individuals that can then be quickly and readily put to use in changing work and business environments.

C. Area Economic Growth and Re-structuring

Area personal income growth Measured in 2010 inflation-adjusted dollars, total personal income in Missoula Co. steadily increased from less than \$1 billion in the early '70s to over \$2 billion in the early '90s. By 2000 personal income stood at almost \$3 billion and had reached almost \$3.8 billion in 2008 before declining for two years during the recession. More recently in 2012, personal income stood at \$3.89 billion. (page 32)

Changing mix of personal income sources Today a little over 60% of Missoula County's personal income comes from employment earnings or labor income. This has gradually fallen from about 75% in the early '70s and can be expected to fall further in the years ahead as the area population ages. A growing number of retirees will pull more and more of their income from savings and investments and from transfer payments including Social Security and Medicare payments.

Area per capita income trends Real per capita income levels in Missoula County rose from \$16,284 in 1970, to \$21,051 in 1980, to \$23,889 in 1990, to \$30,670 in 2000, and to \$35,247 in 2007 before falling and then largely recovering by 2012 to \$35,061. Per capita income fell in 2008, 2009, and 2010 with the economic slowdown. Growth returned in 2011 and 2012 and is continuing in 2013 and 2014 with falling area unemployment. (pages 35 and 36)

Among the 50 peer areas, Missoula County ranks 30th in 2012 per capita income. Of the six peer places in Montana, Missoula County now ranks last – the other five all have higher per capita incomes in 2012 than Missoula County. Yellowstone Co. (Billings) is highest at \$41,710. (page 37)

The single most commonly used indicator of area economic well-being is per capita income, or total area personal income divided by the total number of area residents. The biggest drawback with per capita income as an indicator of area economic well-being is that it is an "average". It doesn't tell us anything about income distribution.

Median household income Another indicator of area economic well-being is median household income. Median household income in Missoula County in 2010 was \$44,084. This ranked Missoula 31st among the 50 peers from highest to lowest. This compares similarly with Missoula's 30th rank in comparing 2012 per capita income levels. (page 38)

While the economy grows and personal income in the aggregate increases, much of the gains in income are pushing incomes higher among the highest income individuals and households while having little impact on middle income households. Of the 50 peers, only 17 experienced increases in median household incomes from 2000 to 2010. Missoula is one of these having an increase with median household income up by \$852 – a relatively small increase but an increase nonetheless. (page 39)

Area poverty levels The number of people living in households and families where incomes are below national threshold levels considered necessary for affording the basic necessities of living (food, housing, clothing, energy, transport, etc.) is regularly estimated. In 2010 the poverty rate in Missoula County was 15%. This ranked 22nd among the 50 peers with the lowest poverty rates ranked highest. Missoula's poverty rate of 15% is the highest among the six peers in Montana with Helena having the lowest (11.4%), followed by Bozeman and Billings, both at 12.9%. (page 40)

As another indicator of the growing inequality of income and wealth in the U.S., all but one of the 50 peer areas had an increase in poverty from 2000 to 2010 (Casper, WY, being the exception). Missoula's poverty rate rose from 13% to 15%, a two percentage point increase. While large, this was the 9th smallest percentage increase in poverty among all of the peers. (page 41) Two-digit poverty rates, although now the norm, should always be considered relatively high and they almost always occur when the poverty ranks can be made up of many working individuals who simply have inadequate income in spite of their employment.

Major Sectors of Employment and Income in Missoula County, 1980-2000 Since more than 60% of Missoula County's personal income comes from work, it is important to examine where this labor income comes from. Data on labor income and employment are compiled for major sectors of the economy. The system used in doing this prior to 2001 was the SIC (Standard Industry Classification) coding system.

In the SIC system, "services" sector is broadly defined to include many services that are now broken out separately (including health care, legal services, engineering services, administrative services, etc.). Labor earnings of those employed somewhere in the services economy in Missoula County rose from \$230 million in 1980 to \$380 million in 1990 and to \$750 million in 2000. (page 42)

In 2000 the 2nd biggest generator of labor earnings was retail trade at \$300 million in 2000, followed by Transportation and Public Utilities at around \$210 million. The manufacturing sector was the 4th largest generator of labor earnings in 2000 at almost \$190 mil.

Past area economic restructuring Over time as the economy changes and restructures, some sectors decline while others grow and the economy re-configures. In this give and take the manufacturing sector of Missoula County lost ground during the '80s with a \$32 mil. fall in labor earnings. This was followed by a \$19 mil. decline in the '90s. So over this 20-yr. period of time manufacturing labor earnings in Missoula County fell from almost \$240 mil. annually to less than \$190 mil. This was the single greatest area of decline among all sectors of the economy over this period. (page 43)

The single greatest area of growth was in services with labor earnings growing by \$152 mil. in the '80s and by more than \$370 mil. in the '90s. These shifts fundamentally reordered and redefined the Missoula area economy away from manufacturing and into services. Adding to this were labor earnings increases in retail trade (growth of \$31 mil. in the '80s and \$105 mil. in the '90s), reflecting Missoula's growing prowess as a regional center of trade. Labor earnings in state government, which includes the University of Montana, increased by \$20 mil. and \$55 mil., respectively, in the '80s and '90s, reflecting Missoula's continuing and growing prowess as a center of higher education and also education-based research and other programming. (pages 43 and 44)

As a result of these shifts and changes, the services sector and its share of all labor earnings grew from 17% in 1980 to 32% in 2000, while manufacturing's share fell from 18% in 1980 (which, at that time, was the largest among all of the sectors) to 8% in 2000. (page 44)

More recent area economic growth and restructuring As services have become a larger and larger share of the U.S. economy, changes were made in how income and employment data are compiled, including changes that involved breaking the larger SIC services sector into several smaller and more narrowly defined new sectors. The new system is called "NAICS" (North American Industry Classification System).

Under this system, health care services, once part of the SIC services sector, is now a separate sector and it is the largest generator of labor earnings in Missoula Co. at \$523 mil. in 2012 (the most recent annual county data). This is a little over 18% of all labor earnings in the county. Well below health care services in 2nd place is retail trade at \$257 mil., followed closely by state government including the University of Montana (\$252 mil.). (page 45)

Between 2001 and 2012, health care services added \$147 mil. in labor earnings, over 40% of the total increase in labor earnings economy-wide in Missoula County. State government added \$69 mil., 19% of the total gain. Another newly created sector, administrative and waste management services, added almost \$68 mil. This latter sector is comprised of firms who do routine support activities for other organizations, like waste handling, personnel and office administration, clerical services, collection and security services, etc. This is a relatively large, yet unappreciated sector of the local economy. Its growth partly reflects the growing use of "flexible" management by firms and organizations whereby they contract out or buy selected support services from outside providers rather than have this work done internally by firm employees.

Professional, scientific, and technical services, also a newly created separate sector of the economy under NAICS, added \$52 mil. This sector includes legal services, accounting services, engineering and architectural services, computing services, consulting services, and other types of similar professional services performed for other businesses and individuals.

Meanwhile, over this same period since 2001, manufacturing labor earnings in Missoula County fell by another \$63 mil. and labor earnings in transportation and warehousing fell by \$60 mil. (page 46) With these changes, Missoula's economy became even more driven by and dependent upon health care services; higher education; and professional, technical, and administrative services and much less dependent on both manufacturing and transportation – both much more dominant and important sectors in Missoula's economy in the '70s.

Changing economy – changing "drivers" of growth It's important to note that the drivers of growth in the Missoula economy are no longer the "basic industries" of the past, such as wood and paper products and other areas of manufacturing. If these industries still drove growth like some economists purport, then their massive declines over the last 30 and more years would have led to a

much smaller area economy than now. In the '80s under a much simpler economy, manufacturing losses in Missoula County did directly translate into a depressed area economy overall. However, this hasn't largely been the case since then as other areas in the economy have grown into greater prominence.

The simplistic assumptions in and architecture of the traditional "economic base" model with its focus on dividing the economy into two parts, basic and non-basic, simply haven't kept pace with the evolution and transformation of modern economies and the more nuanced ways in which economic growth is transmitted. This is particularly true when an area economy is gradually evolving into a more urban-based economy where growth becomes more "generative" in nature than "derivative". There are interdependencies and inter-relationships that, together, push growth forward even as previously basic and vital sectors of the economy decline. How this works defies the simple logic and analytics contained in traditional economic base models.

Many services in a modern economy are not simply consumer services, but producer services or services that some businesses do for or provide to other businesses. And these are growing. Plus many producer services are exported, their provision or sale is not restricted to users in the local area. So having them does provide the local area access to income from external sources.

Also, the economy has become more "footloose" with both people and businesses increasingly able to operate successfully in locations of their choosing. And this is why many desirable places to live have thriving economies even as they shed jobs in some longstanding areas of employment. People not only migrate to jobs, but jobs and new businesses now increasingly migrate to desirable, high-quality places for people to live. This is partly responsible for not only Missoula's economic growth over the last twenty-five years, but that of many small or modest size cities throughout the larger Rocky Mountain West region.

Recent employment growth Health care services is the largest employer among all sectors in Missoula County with full- and part-time employment of 10,531 in 2012. It is one of the few sectors that continued to add more jobs almost every year since 2001, even during the recession. Retail trade has the 2nd highest employment at 9,451, which is down from a 2007 peak of 10,500.

At a considerably lower level of employment and ranking 3rd among sectors is accommodations and food services (lodging facilities, restaurants, etc.). (page 48) Manufacturing ranks 14th among major sectors in terms of employment with 2,150 workers in 2012, down from 3,100 in 2001. (pages 48 and 49)

Employment losses and gains, recession and post-recession During the recession (2007-10) the biggest job losses in Missoula County were by retail trade (minus 1,316), construction (minus 1,167), and manufacturing (minus 805). In the more recent period of economic recovery (2010 to 2012, which is the most recent available annual county data) job growth in Missoula County was led by state government including UM (plus 570), health care (plus 483), and accommodations and food services (plus 417), as well as by retail trade and transportation and warehousing. (pages 49 and 50)

Statewide Economic Trends in Montana It is instructive to also consider job and income change and shifts in the larger economy of Montana. As with Missoula County, the health care sector is Montana's largest generator of labor earnings and by a large margin with \$3.3 bil. labor earnings in 2012. The 2nd largest generator is local government including public schools at \$2.2 bil. Retail trade is 3rd with \$1.9 bil. in labor earnings, followed by construction with \$1.8 bil. Construction is

well down from its peak in 2007 of \$2.2 bil. Manufacturing labor earnings state-wide fell from about \$1.1 bil. in 2001 to \$1 bil. in 2012. (page 52)

Retail trade has the highest total employment in Montana with almost 72,000 jobs in 2012, which is 11.4% of the total. But if you add all sectors involving primarily consumer product and service retail and wholesale trade, including accommodations and food services, this total grows to over 195,000 jobs or 31% of the total.

Health care jobs total nearly 71,000, 11.2% of the total. Jobs in local government totaled 46,500, 8% of the total. Jobs in the six sectors that entail some type of professional, financial, or business service together total 128,600 jobs, over 20% of the total. Jobs in these latter sector categories tend to be most heavily concentrated in more urban areas of the state, including Missoula County.

Statewide manufacturing employment totaled 21,400 in 2012, down from 24,450 in 2001, a 12.5% decline. Transportation and warehousing totaled 19,200 in 2012, up from 17,400 in 2001. (page 54)

Job trends nationally in the U.S. There were 20.6 mil. jobs nationally in health care services in 2013, which is the largest employer nationally. So, at all three levels – the area, the state, and the nation – health care services is the largest employer. From 2000 to 2013 (the most recent national data) U.S. health care jobs grew by 5.5 mil., the biggest jobs increase by any sector of the economy. During this same period U.S. jobs in manufacturing decreased by 5 mil., the biggest decrease in jobs among sectors. (page 55)

Jobs in real estate services, accommodations and food services, and professional and technical services all increased by 2.4 to 2.5 mil. Jobs in finance and insurance increased by 2 mil., and jobs in administrative and waste management services grew by 1.4 mil.

D. Trends in Missoula County's Industrial Sectors

The sectors within the Missoula economy most likely to require locations like those zoned for industrial purposes are manufacturing (including production of all types of products and materials and related storage and handling facilities), transportation and warehousing (including rail, trucking, and freight-handling facilities, as well as storage and distribution facilities), and also utilities (electricity, gas, water, etc.). Businesses in wholesale trade also require product handling, storage, and distribution facilities that often may require industrial-type locations.

History of manufacturing decline in Missoula County Labor earnings for manufacturing rose sharply in the '70s and hit their all-time peak for Missoula County in 1979 at \$269 mil. (2010 inflation-adjusted dollars). Much of this manufacturing was concentrated in wood products and these labor earnings quickly fell to almost \$200 mil. by 1982. This coincided with a nation-wide recession at that time that also included very high interest rates. (page 57)

Manufacturing recovered a bit but stood at \$213 mil. in 1993 before falling to much lower levels in 1994. Manufacturing continued its decline and had labor earnings of about \$150 mil. by 2001. The sector stabilized for a few years before declining sharply again, this time because of the gradual shutdown of the paper plant. With paper manufacturing then gone, labor earnings fell to \$106 mil. by 2010 and to \$91 mil. in 2012. Today manufacturing generates about one-third the labor earnings it once generated at its peak in 1979. (page 57) Manufacturing's share of total labor earnings in the county has shrunk from almost 18% in 1977 to only about 3% in 2012. (page 58)

Manufacturing employment in Missoula County peaked in 1979 at 5,060. By the early '90s this employment had fallen to about 4,400. In 2000 manufacturing employment was about 4,100. Marked declines in county manufacturing continued and, today, it has a little over 2,000 jobs. The slide in recent years largely resulted from the gradual reduction and closing of the area's paper plant. (pages 60 and 61) Manufacturing's share of total employment in the county has shrunk from a high of 13.3% in 1972 to less than 3% in 2012. (page 63)

These declines in Missoula's manufacturing sector can be seen in changes in how the county's industrial lands are now used. The Champion mill site in down-town Missoula now contains no wood products manufacturing. Widespread contamination of the site from its past use in manufacturing has been and is being cleaned up and the site is now the home of a minor league baseball park. Other parts of the site are being redeveloped for mixed residential and commercial use. The Bonner mill site also is being redeveloped but largely around other potential manufacturing uses.

The future of manufacturing is unsure in Missoula Co., but it may be more stable at its current lower levels with activity spread across a larger number of smaller firms. Past losses were mainly concentrated in large area manufacturers in wood and paper.

Transportation and utilities and wholesale trade The transportation and public utilities sector generated about \$218 mil. in labor earnings at its peak in 2000, but today this is closer to \$160 mil., with this decline largely accounted for by declines in truck transportation (see table on page 59). The share of labor earnings accounted for by transportation and utilities also has shrunk, but not to the same degree as with manufacturing, falling from almost 12% in 1982 to less than 6% in 2012.

County employment in transportation, warehousing, and utilities steadily rose from less than 2,000 in the early '70s to more than 4,000 by 2000. Since then, this employment has fallen dramatically to around 2,550 jobs. (page 61) The share of total employment in the county in transportation and utilities once stood as high as 7.6% in the early '80s. Today it is less than half of this at 3.4%. (page 63)

Wholesale trade has gradually grown in Missoula County, reaching a high in labor earnings of \$133 mil. in 2007. Its recent decline can be attributed to the general economic slowdown during the recession. It will likely continue to grow in Missoula County. Wholesale trade jobs in Missoula County gradually increased to around 2,700 jobs in the late '90s. After which they gradually declined to around 2,100 jobs in 2012. (page 61)

Do these industrial sectors drive growth in the Missoula economy? If these industrial sectors heavily accounted for overall growth in the Missoula economy, the area would have a much smaller economy today than it has. Overall employment has grown in periods even when manufacturing fell ('92-'97, '97-'02, and '02-'07). Employment in transportation and utilities and wholesale trade tends to grow when overall employment grows, but not always. (page 62)

Further evidence of this can be seen in annual change from 2001 to 2007 and from 2010 to 2012. Manufacturing and transportation and utilities employment often decreased even as overall employment in Missoula County grew. So these do not appear to "drive" employment growth in the county, particularly in more recent years.

Statewide trends in industrial sectors Manufacturing labor earnings grew in the 2001-07 period (\$44.4 mil.), fell by \$177 mil. during the recession and then recovered by \$52 mil. in the post-recession recovery. Durables manufacturing (mainly wood products and fabricated metals, but also

nonmetals and machinery) has been largely in decline. Nondurables manufacturing (mainly petroleum refining and food, but also chemicals) has been more stable. (page 64)

Manufacturing employment peaked in Montana in 1979 with 29,000 jobs, 19,500 in durables including 12,000 in wood products. They fell to 22,000 in 1982 and gradually rose back to 29,000 again in 1997 (SIC codes). These jobs fell from 2001-07, even as labor earnings grew by \$44 mil. Jobs fell by 4,160 during the recession, recovering by 1,566 between 2010 and 2012. (page 65)

It is difficult to conclude from these patterns of change that increases in manufacturing employment or even labor earnings in Montana are probable or even likely. Prior to the recession (2001-07) total jobs statewide increased by 75,400 while manufacturing jobs shrunk by 488, utility jobs fell by 96, and transport jobs grew by 1,200. (page 65)

Utilities labor earnings statewide have grown from \$297 mil. in 2001 to \$368 mil. in 2012. Labor earnings in transportation and warehousing are rising also. Truck and rail are the largest transportation sub-sectors.

National trends in industrial employment Manufacturing employment in the U.S. peaked in 1979 at 21.5 million full- and part-time workers, which at that time represented 19% of all jobs in the U.S. In 2001 manufacturing jobs in the U.S. totaled 16.9 million and accounted for 10% of all jobs. And in 2012 these jobs totaled 12.6 million, 7% of all U.S. jobs. (page 67) Every major sector and sub-sector of U.S. manufacturing lost employment in the pre-recession period of U.S. economic growth leading into the recession (2001-07) and they all lost employment during the recession. Most have seen some recovery more recently.

Utilities employment in the U.S. has fallen from 616,000 jobs in 2001 to 575,000. Jobs in transportation and warehousing grew from 5.5 mil. to 5.8 mil.

Growing segments of the Missoula economy The Missoula area economy has now become one largely centered around three major segments – health care services and all other sub-sectors tied to health care provision; retail and wholesale trade and everything that this entails including leisure and hospitality services, and arts, entertainment, and recreation services; and, thirdly, professional, technical, and business services, which combines all professional and technical services, administrative services, financial and insurance services, and real estate services.

The first of these, Missoula's health care complex, generates \$2.7 mil. in labor earnings for every \$20 mil. in area personal income. The second, Missoula's trade center complex, generates \$2.5 mil. in labor earnings for every \$20 mil. in area income. And the third, professional and business services and all it fully entails, generates \$3.2 mil. for every \$20 mil. in area income, with \$2.3 mil. of this from professional, technical, and administrative services and another \$0.97 mil. from financial and real estate services. So, Missoula County's economy now is centered in and built upon these large and growing segments. (page 69)

At a smaller level, but nevertheless of great importance, is the segment that includes state government and the University of Montana, which produces \$1.3 mil. in labor earnings for every \$20 mil. in area personal income. When you add to this what comes from federal civilian government and U.S. military presence in Missoula County, this adds to this another \$0.73 mil., bringing the total for state and federal government to \$2 mil. in labor earnings per \$20 mil. in total personal income. (page 69)

Manufacturing in Missoula County now generates \$0.46 mil. per \$20 mil. in total personal income; transportation, warehousing, and utilities together generate \$0.76 mil. The construction sector as a whole is now generating about \$0.89 mil. in labor earnings per \$20 mil. in area income.

How Missoula County's areas of specialization compare with peers Various sector dependencies and specializations in Missoula County can be gauged as relatively high or low by comparing them with other similar areas in the western U.S. For this purpose the 50 western population peers that are counties including metro and micropolitan areas designated by the U.S. Census Bureau are used.

Health care dependency/specialization: Among the 50 peers, Missoula ranks very high (4th) in the relative importance of health care services in the structure of the area economy and in area economic specialization. (page 70) Among Montana peers, Missoula ranks highest at \$2.7 mil., followed by Billings at \$2.6, Kalispell and Great Falls at \$2.2, Helena at \$1.8, and Bozeman at \$1.4 mil.

Retail/wholesale trade specialization: If just retail trade and wholesale trade are added together, these represent \$1.9 mil. in labor earnings per \$20 mil. in personal income. Missoula ranks 12th among the 50 peers in this area of specialization. Among Montana peers, Billings ranks highest at \$2.45 mil. Bozeman ranks just above Missoula at \$2.04 mil. Kalispell (\$1.77), Great Falls (\$1.64), and Helena (\$1.35) rank significantly below Missoula. (page 71)

Professional and technical services: Missoula County's 3rd largest area of economic specialization is in professional, technical, and business services. If we consider the largest of these by itself – professional, scientific, and technical services – this sector generated \$1.06 mil. in labor earnings for every \$20 mil. in income in 2012. At this level, Missoula ranks 6th highest among the 50 peers in this area of economic specialization. Ranking first is Bozeman at \$2.13 mil. This is an impressive showing by Bozeman given the fact that this is one area of fairly rapid growth in the U.S. economy as a whole. (page 72)

The professional and technical services sector tends to have a larger presence in the Interior Rocky Mountain West region than, say, in the Plains region, with large concentrations in not only Bozeman, but Helena, Billings, Idaho Falls, Logan, and Kalispell. (chart on page 72 and map on page 73)

State and federal government dependency/specialization: When you add labor earnings generated in Missoula County by state government, federal civilian government, and U.S. military together, this totaled over \$2 mil. in labor earnings for every \$20 mil. in area income. This ranks Missoula 17th among the 50 peers in this area of specialization. Helena ranks 3rd at \$4.7 mil. (page 74)

Construction sector dependency/specialization: It is good to have a large and thriving construction industry in an area because it reflects underlying area growth. But this dependency, if too high, can make an area vulnerable to up and down swings inherent in construction activity. Missoula ranks 11th among the 50 peers in this area of specialization. Ranking 1st, 2nd, and 3rd in this category are Bozeman, St. George, and Grand Junction – all peers in the smaller Rocky Mountain West region where population and economic growth have been high relative to other regions. (page 75)

Area dependence on local government including public schools: This segment of the economy is compared mainly to determine how what Missoula County allocates to local government and public schools compares to other peers. The biggest cost of local government is in paying for its employees and labor earnings paid to local government employees in Missoula County totaled about \$1 mil. for every \$20 mil. in area personal income. This ranks Missoula 37th among the 44 peers for which this

data was available. All six of the Montana peers rank low in this regard. All are similar in how they are organized and funded for local government and local public education and all rank low in this area of economic dependency. (page 76)

Financial sector dependency/specialization: As a center for banking and other areas of finance and insurance, Missoula ranks ranked 11th in this area of economic specialization and dependency among the 50 peers. (page 77)

Area specialization in transportation and warehousing: In 2012 the transportation and warehousing sector generated \$129 million in area labor earnings in Missoula County, which was about \$0.66 mil. for every \$20 mil. in area personal income. The transportation and warehousing sector includes railroads and trucking firms and their employment and local area labor earnings. It also includes air transportation, pipelines, warehousing, and transportation support. Missoula ranked 15th among the 50 in this area of economic specialization and dependency. Ranking highest among peers in Montana is Billings at \$0.75 mil., 9th highest among peers. Great Falls ranked 12th at \$0.69 mil. Ranking lowest among Montana peers in this area of specialization is Bozeman at \$0.31 mil, 35th among the 50 peers. (page 78)

Manufacturing industry dependency/specialization: While ranking relatively high in area specialization in health care services, trade, and professional, scientific, and technical services, Missoula ranks low among peers in manufacturing specialization. The \$0.46 mil. in labor earnings for every \$20 mil. in total personal income in 2012 ranks Missoula 40th among peers in this area of specialization. Ranking highest is St. Joseph, MO, at \$4.68 mil., Ames, IA, ranks 2nd at \$4.12 mil., and Logan, UT, ranks 3rd at \$3.56 mil.

Peers in the larger Plains region tend to rank higher in this than places in the Mountain region. (pages 80 and 81) Among the six Montana peers, Kalispell ranks highest at \$0.96 mil., 24th among the 50 peers. Billings is 2nd highest in Montana at \$0.91 mil., which ranks it 29th among the 50. Bozeman is next at \$0.67 mil., ranking it 33rd. Great Falls and Helena are both below Missoula at \$0.40 mil., and \$0.32 mil., respectively. (page 80) These all can be considered very low manufacturing dependencies.

Trend in manufacturing growth among the 50 peers While Missoula County has experienced fairly sharp declines in manufacturing labor earnings and employment, it is not alone. Thirty-five of the 50 peer counties (70%) lost manufacturing employment over the 2001-12 period that includes the pre-recession and post-recession periods. (page 82)

Only 12 of the peers had sizeable gains of more than 100 jobs. Logan, UT, had a gain of over 2,500 jobs; St. Joseph, MO, gained of over 2,300; Midland, TX, added 1,647; and Flagstaff, AZ, gained 1,619. Coeur d'Alene, ID, had a gain of 609 manufacturing jobs. St. George, UT; Casper, WY; and Idaho Falls, ID; all in the larger Rocky Mountain West region, also had sizeable gains of 300 jobs or more. So there are exceptions to the more general trend in that some areas have added manufacturing employment and some of these are in the Rocky Mountain West.

Among Montana peers only, Yellowstone Co. has the highest employment in manufacturing among the six with 3,618 full and part-time jobs in 2012. This is down a bit from a high over the period of 3,825 in 2008, but up from 2010. Flathead Co. had the highest level of manufacturing employment at the beginning of the period (4,139 in 2001) and also prior to the recession (4,135 in 2007), but this fell to as low as 2,782 in 2010 before increasing. (page 83)

Gallatin Co. is 3rd among the six peers in 2012 manufacturing employment at 2,752. This is down from 3,107 in 2007. Missoula Co. is now 4th in manufacturing employment at 2,148 in 2012. It was 3rd among these six peers in 2002 when manufacturing employment stood at 3,134. The cumulative picture for all six of these Montana counties is for fairly flat growth, if any, in manufacturing employment.

E. Expectations for Area Future Job Growth and Growth in Missoula's Industrial Sectors

Currently projected state-wide job growth At the national level, the U.S. Bureau of Labor Statistics (BLS) projects U.S. manufacturing employment, which fell an average of 2.4% a year between 2002 and 2012, including during the national recession, is likely to continue to fall from 2012 to 2022 at 0.5% per year. This will reduce overall manufacturing employment in the U.S. by almost 5% over the full ten-year period. This projected decline in manufacturing jobs is much more modest decline than the U.S. has seen over the last 20 or more years, but is decline nonetheless.

In Montana job projections for ten-year futures are produced by the Montana Department of Labor and Industry (MDLI) every two years. Ones issued in April, 2014, predict jobs somewhere in the leisure and hospitality industry to increase the most in Montana (up by 12,800 and accounting for almost 18% of all job growth for the period). This sector's size and growth is spurred by the more than 11 mil. out-of-state visitors that Montana receives each year. Health care service jobs would grow by nearly the same number, accounting for another 18% of all new jobs. (pages 88, 89, and 90)

The professional, technical, and business services sector accounts for the 3rd most new jobs at 11,700, 16% of all new jobs. Retail trade jobs would grow by 7,300, accounting for another 10% of the total. These four sectors together would account for over 60% of all new jobs. Construction would add around 7,000 jobs, but most of these construction jobs are ones recovered from recent losses during the recession.

MDLI projects manufacturing jobs in Montana will increase, reversing recent and past trends of decline, but the projected increase will add only about 2,600 jobs state-wide. Under MDLI's projections jobs in transportation and warehousing grow by 2,800, 4% of the total growth in jobs. Wholesale trade jobs grow by 2,500, 3.5% of the total.

Currently projected jobs growth in Northwest Montana MDLI also produces jobs projections for sub-areas or regions of Montana – five separate regions in all, including a 7-county area in northwest Montana that includes Missoula, Ravalli, Lake, Mineral, Sanders, Flathead, and Lincoln Counties. Employment numbers used here count one job per worker – a workers “primary” job – so these are lower for each sector's total employment figure generated by BEA, which count all full- and part-time jobs.

Excluding self-employment and unpaid family workers, total jobs in the 7-county region rise from 122,600 in 2012 to 141,400 by 2022, an increase of 18,800 or 15%. Health care service jobs, estimated at 19,600 in 2012, grow to 23,750 by 2022. Jobs in retail trade grow from 16,900 to 19,000 – 2nd to Health Care. Manufacturing jobs would grow from 6,500 to a little over 7,000, about 500 new jobs in the 7-county area, an increase of 8%. Transport and warehousing jobs would rise from 3,655 in 2012 to 4,223 in 2022. Jobs in wholesaling would rise from 3,342 to 3,828. (page 84)

The largest projected growth by far is in jobs in the health care sector – with these jobs increasing by more than 4,000 over the period and accounting for almost 22% of all job growth in the region.

Two other sectors follow behind health care and both are in retail trade, including accommodations and food services with growth of 2,600 jobs and retail trade with growth of almost 2,100 jobs. Together these two trade sectors are projected to account for almost 25% of job growth. Jobs in arts, entertainment, and recreation services add another 1,000 jobs, more than 5% of new jobs. Next are jobs growth in administrative and waste services and professional, scientific and technical services, together accounting for 14% of projected new jobs. (page 86) The projected increase in manufacturing jobs of 500 would account for only 2.7% of the total increase over the period.

Recent and past trends and these projections do not indicate that growth in manufacturing jobs is likely to be a large and significant part of the economy of Missoula County and the larger surrounding region.

F. Peer Areas in the Region and Their Industrial Trends

Areas similar in population size to Missoula and Missoula County located in the Plains region tend to have higher levels of specialization in manufacturing than ones in the Interior West or Rocky Mountain West region. And manufacturing specialization also tends to be higher for peers in the Northwest and Pacific regions. So it is best to gauge Missoula's manufacturing potential using peers mainly from the Rocky Mountain West region.

Even for the larger set of 50 peers, 35 (70%) lost manufacturing employment over the period from 2001 to 2012. (page 82) And only 12 of the other 15 had gains during this period of more than 100 jobs. These include several peers from the closer region, including:

Logan, UT, with a gain of over 2,500 jobs; Flagstaff, AZ, with a gain of 1,619 jobs; Coeur d'Alene, ID, with a gain of 609 manufacturing jobs; and Idaho Falls, ID, with a gain of 300 jobs. All of these were examined more closely in terms of their patterns of labor income and employment change in several key industrial sectors including manufacturing.

Twenty-five "region" peers were identified from the 50 western population peers, including Logan, Flagstaff, Coeur d'Alene, and Idaho Falls, where manufacturing employment has seen some recent gains. (pages 91 and 92) However, 18 of the other 21 closer region peers had lost manufacturing employment since 2001, including Missoula which lost 931 manufacturing jobs over this period. (page 93) Other peers in Montana, including Billings, Great Falls, Helena, and Bozeman, are included in these and all had job losses in manufacturing, but these were relatively small. (pages 83 and 93)

Logan, UT has the highest specialization in manufacturing by far among these 25 peers with \$3.56 mil. in manufacturing labor earnings for every \$20 mil. in area personal income. What's more this specialization increased from 2001 to 2012, up from \$3.10 mil. in labor earnings in 2001. (page 91)

Flagstaff, AZ, is 4th in manufacturing specialization among the 25 and this has increased from \$0.91 mil. in labor earnings per \$20 mil. in area personal income to \$1.47 mil. Coeur d'Alene ranks 8th with recent gains in manufacturing employment. Idaho Falls ranks 13th, but this specialization is increasing with rising manufacturing employment.

Industrial trends in these four are focused upon in more detail. Bozeman also is included in this, mainly because many associate recent growth in the Bozeman area economy with gains in manufacturing and, more specifically, "high tech" manufacturing. This is examined more closely.

Manufacturing trends in Twin Falls, Idaho, also are examined more closely, mainly because of its well-known gains in food manufacturing in recent years.

Manufacturing and other industrial trends in selected peers Whereas manufacturing employment declined in Missoula Co. by 129 jobs between 2001 and 2007 (pre-recession), manufacturing employment grew by 2,484 jobs in Logan (Cache Co.), by 1,191 in Flagstaff (Coconino Co.), by 548 in Coeur d'Alene (Kootenai Co.), by 464 jobs in Idaho Falls (Bonneville Co.), by 225 jobs in Twin Falls (Jerome Co.), and by 142 jobs in Bozeman (Gallatin Co.) during the same period.

And while manufacturing jobs grew by only 3 in Missoula Co. from 2010 to 2012 (post-recession recovery), they grew by 499 in Logan, by 468 in Flagstaff, by 413 in Idaho Falls, by 273 in Coeur d'Alene, by 128 in Bozeman, and by 61 in Twin Falls. (page 94)

Logan, Utah, industrial trends Logan is located in Cache County, Utah, which had a county-wide 2010 population of 112,656 compared to Missoula County's 109,300. Manufacturing labor earnings have steadily grown over the entire period, rising from \$354 mil. in 2001 to \$577 mil. in 2012. Much of the increase is in durables manufacturing, mainly computers and electronics (\$53 mil. to \$75 mil.) and miscellaneous manufacturing (\$32 mil. to \$123 mil.). (page 95) Nondurables manufacturing also is rising, up from \$220 mil. in labor earnings to \$307 mil. The gain here is mainly in food (\$120 mil. to \$183 mil.) and chemicals (\$27 mil. to \$59 mil.). Wholesale trade labor earnings in the area more than doubled, increasing from \$23 mil. to \$47 mil.

Logan is home to Utah State University (enrollment of about 22,500) and also the Bridgerland Applied Technology Workforce Training Center (BATC) which also houses the Cache Business Resource Center (temporary office space and mentoring to entrepreneurs). BATC has an enrollment of about 10,600 students. It also has ICON Health & Fitness that develops and manufactures fitness equipment. FreeMotion Fitness is a commercial division of ICON and has moved its corporate headquarters from Colorado Springs to Logan. Campbell Scientific that makes technical instruments, Thermo Fisher Scientific that produces biotechnology products, and New Dawn Technologies that produces computer software products also are in Logan (Economic Development Corporation of Utah). (page 95)

Cache Co. where Logan is located is near major transportation artery I-15 and Logan Cache Airport. Logan City is 80 miles northeast of Salt Lake City. The Salt Lake City metro area has over 1.1 million people. Between Logan and Salt Lake City is another metro area – Ogden-Clearfield with another 550,000.

Flagstaff, Arizona, industrial trends Flagstaff is located in Coconino County in north-central Arizona, which had a county-wide population of 134,421 in 2010. Manufacturing labor earnings grew throughout the period, rising from \$161 mil. in 2001 to \$334 mil. in 2012. Transportation and warehousing labor earnings grew, rising from \$88 mil. to \$101 mil. Wholesale trade grew from \$34 mil. to \$49 mil. (page 96)

Flagstaff is the home of Northern Arizona University with about 19,300 students enrolled at the Flagstaff campus. It is located at the junction of Interstate 40 (east-west) and 17 (north-south). The area's rail system is referred to as Southern Transcon and is one of the busiest rail lines in the western U.S. with 90 to 100 trains passing through daily. Flagstaff is located 130 miles north of Phoenix which has an estimated 4.3 million people living in its metropolitan area.

There are five different industrial parks situated nearby these transportation corridors. Major manufacturers in the area include W. L. Gore (makers of Gore-Tex products), Nestle Purina PetCare (pet food), SCA Tissue (tissue paper), Joy Cone (ice cream cones), and Prent Thermoforming (precision packaging used by Apple and Gore). Walgreens operates a major distribution center in the city. (Wikipedia).

Idaho Falls, Idaho, industrial trends Idaho Falls is located in Bonneville County, Idaho, which had a county-wide population of 104,234 in 2010. Manufacturing labor earnings have steadily grown, except during the recession years, rising from \$93 mil. in 2001 to \$137 mil. in 2012. Nondurables manufacturing is the larger portion of this, including chemicals and food. Durables manufacturing includes fabricated metals, furniture, nonmetal minerals, and miscellaneous. The area's main transportation sector is trucking. Wholesale trade is the area is quite substantial – \$265 mil. in labor earnings in 2012, up from \$193 mil. in 2001. (page 97)

Idaho Falls is located about 160 miles north of Ogden, UT, a metro area of about 550,000 people. It is about 200 miles from Salt Lake City which has a metro population of 1.1 mil. Idaho Falls does not have a major university, but it has Eastern Idaho Technology College. It also has a satellite campus that offers courses through both Idaho State and Idaho Universities. The campus also has the Center for Advanced Energy Studies that's run in conjunction with the Idaho Lab. The Idaho National Engineering and Environmental Lab is located about 25 miles west of the city, employing more than 8,000 people and functions as an internationally known energy research center.

Coeur d'Alene, Idaho, industrial trends Coeur d'Alene is located in Kootenai County, Idaho, which had a county-wide population of 138,494 in 2010. The area has been able to expand area manufacturing, which was growing rapidly prior to the recession. The largest share of this is durables and includes wood products, although this is rapidly declining, falling from \$57 mil. in 2001 to \$34 mil. Furniture manufacturing labor earnings also are declining. (page 98)

But durables manufacturing in computers and electronics (\$30 mil.), fabricated metals (\$24), electronic equipment (\$22 mil.), primary metals, and miscellaneous is growing. Nondurables manufacturing also is growing including plastics, chemicals, and printing. Labor earnings in utilities and transportation are significant but are not growing. Wholesale trade labor earnings are relatively small but are growing.

Coeur d'Alene is located about 33 miles from Spokane, WA, which has a metro area population of 530,000. It has no major university. It lies on Interstate 90 but winter travel through nearby mountainous areas can be difficult for trucks. The Coeur d'Alene Chamber web site says that diversified manufacturing expanded in the 1990s and there are 35 businesses involved in an aerospace consortium. There are firms in avionics and controls, as well as networks and security systems. Customer call centers have come to the area attracted by "cutting edge switching technology and fiber deployment". The area has around 12 industrial parks.

Bozeman, Montana, industrial trends Bozeman is located in Gallatin County, Montana, which had a county-wide population of 89,500 in 2010. While manufacturing in the area is significant (\$119 mil. in labor earnings in 2012), it has remained relatively flat since 2001. Manufacturing accounted for 4.7% of total area labor earnings in Gallatin County in 2012, as compared to 3.2% in Missoula. But in 1997 Gallatin's manufacturing sector accounted for 8.3% of area labor earnings, so there has been a significant decline in its dependency on manufacturing over this recent period of growth. (page 100)

What is growing is professional and technical services, up from \$147 mil. to \$378 mil. Wholesale trade is rapidly growing, increasing from \$68 mil. to \$107 mil. Transportation is growing, particularly

truck transport. And the area construction industry is particularly large, even with a major decline during the recession. (page 99) While Gallatin's manufacturing sector may not be growing overall as measured by total labor earnings, it does seem to be shifting complementing some of the growth in professional and technical services that is research and development oriented.

Bozeman is located about 140 miles west of Billings, MT, which has a metro area population of 160,000. It is home to Montana State University and Gallatin College and is located on Interstate 90. It is known for companies like RightNow Technologies (software), Simms Fishing Products, Gibson Guitar, and three dozen firms that make up an area laser-optics industry.

A new industrial park is being developed (North Park) where "manufacturers of products and/or purveyors of knowledge or information can realize cost savings, increase efficiencies and take advantage of the existing and potential assets and/or geographical proximities to transportation corridors and air services" (Bozeman City Commission). Industries with potential include "manufacturing and fabrication, along with the bio-science and bio-technology, high technology, photonics, and the outdoor industry as sectors that the City should encourage and support in an effort to create new, higher-paying and skilled jobs while diversifying the local and regional economies."

G. Review of Past Target Industry Studies for Missoula County and Their Implication for Industrial Land Planning

In the context of the analyses done in the course of this study and how it may relate to future uses and needs for industrial lands in the county, past target industry studies done for the area are identified and examined. Target industries are ones considered to be good "fits" for an area, ones that provide significant benefits to an area economy in its development, and ones considered both desirable and attainable for an area. There have been a number of these target industry studies done for Missoula over the years.

1994 Missoula Airport Development Park As part of a planning study for the Missoula Airport Development Park, analyses were done by project consultants identifying industries or sectors within the economy that could be targets for future development of the new, county-owned, development park. This produced the following list of target industries or industry clusters:

value-added fabrics manufacturing (miscellaneous fabricated textile products including bags and canvas products, manufacturing and warehouse facility)

food and beverage production (beer and spirits manufacturing, miscellaneous food products including canned goods, coffees, chips, pastas, etc.)

building materials manufacturing (lumber and wood products, etc., but mainly value-added wood products; millwork, veneer, plywood, etc., manufacturing; cement)

tools of technology manufacturing (computer storage devices; light industrial/research and development; computer peripheral equipment, like printers, plotters, graphic displays; electronic components and accessories like electron tubes, circuit boards, semiconductors, sensors, etc.; measuring, analyzing and controlling instruments including optical instruments, surveying instruments, other scientific and guidance instruments, medical and dental instruments, etc.; surgical, medical and dental instruments and supplies)

transportation equipment manufacturing & freight facilities and warehouses (equipment for land, air, rail, transport , etc.; maintenance facilities for motor freight transport, warehouse)

business support (business credit institutions, office/administrative; research, development and testing services including physical and biological research, etc, research organizations, testing labs, etc., office facilities; membership organizations, offices; amusement and recreation services including sports promoters, fitness facilities, membership sports clubs, etc.; job training and vocational rehabilitation services, public education)

recreation and sporting goods manufacturing (motorcycles, bicycles, parts, manufacturing; miscellaneous transportation equipment like travel trailers and campers, pickup mounts, golf carts, etc.)

entrepreneurial (various entrepreneurial companies requiring office or industrial condominiums or incubator space, typically new startups, etc.)

supporting industries – (industrial inorganic chemicals, including pigments, alkalis, gases, manufacturing); woodworking machinery such as for mills); public warehousing and storage like for farm and food products, etc., warehousing; wholesalers of lumber and other construction materials, industrial machinery and equipment, other durable goods like sporting goods, precious stones, apparel and piece goods, showrooms/warehousing; computer facilities management services including data processing facilities, office)

So, a broad array of industries and businesses within these general cluster categories were identified as realistic and potential targets and fits for Missoula. These involve manufacturing of an assortment of products, material fabrication, warehousing and distribution facilities, firms engaged in research and development and testing, transportation facilities like trucking firms and freight handling facilities, and also some wholesaling. (page 105) Target industries identified in the study still have relevancy. All have continuing viability in a place like Missoula County and are targets of some areas similar in size and character to Missoula County. And they would generally need industrial-type sites in their locations.

The airport park study identified the following “competitive weaknesses” for Missoula:

Labor force availability (there is greater availability in areas with larger, more concentrated populations)

Access to markets/resources (relative geographic isolation of Missoula from major manufacturing and retailing markets)

State and local business climate (state tax structure creates weaknesses the study asserted)

Factors considered to be “competitive strengths” of Missoula include:

Transportation linkages (rail and truck linkages and services, largely because of the presence of Montana Rail Link, the concentration of trucking firms, and access to Interstate 90; air service also compares favorably to other similar-size cities)

Quality of life (compares favorably to other cities in the region, in comparing crime rates, housing costs, area recreational amenities, and financial commitment to area education)

The study concludes: “.. businesses locating in the Missoula area will have the advantages of a highly educated work force, competitive utility rates and real estate costs, and a superior quality of life.”

Missoula Economic Partnership (MEP) target industries The Missoula Economic Partnership (MEP) has identified what it considers “best fit sectors” for Missoula. According to MEP, these are “key sectors that would not only draw capital and create jobs, but also benefit our community’s human, environmental and cultural assets and values.” These include:

- *Manufacturing*
- *Forest products and renewables* (forest products, renewable energy and new products, forest management services, new wood-using industries, etc.)
- *Life sciences*
- *Information technologies*
- *Back office and creative services* (architectural and engineering services, advertising agencies, payroll and bookkeeping services, call centers, etc.)

Target Industries Identified by the Bitter Root Economic Development District (BREDD) BREDD’s recently revised Comprehensive Economic Development Strategy (CEDS, March, 2013) cites several studies in identifying “specific industries of focus for the region.” These studies include: 2010 study by **Garner Economics** entitled: “A Competitive Realities Report & Business Target Recommendations for Missoula, Montana”, a 2012 study by **Regional Technology Strategies** of North Carolina study for the state of Montana entitled: “Regional Economic Development Strategies in Montana”, a 2013 study directed by Don Macke on **Economic Gardening**.

The study by Garner Economics identifies the following targets:

Creative professional services (computer systems design services, marketing consulting services, architectural services, physical, engineering and biological research, advertising agencies)

Shared back-office services (call centers, office administrative services, payroll & bookkeeping services, facilities support services)

Mobile entrepreneurs (independent small businesses including self-employment)

Medical/pharmaceutical wholesaling (wholesaling of prescription drugs, medical supplies, ophthalmic lens, and laboratory & scientific supplies)

All of these are growing areas within the Missoula economy and have continuing potential. Their location requirements vary, often not requiring industrial sites, per se.

The Regional Technology Strategies study identifies “select lead sectors” for the Missoula Region including:

Leisure & hospitality (hotels, other gambling industries, artists, writers, and performers, full-service restaurants, recreational and vacation camps)

Professional services (commercial banking, portfolio management, custom computer programming services, management consulting services, wholesale trade agents and brokers, marketing consulting services, computer systems design services)

General medical hospitals

Colleges and universities

Animal production (agriculture-based)

All of these are important facets of Missoula County's current economy, with the possible exception of "animal production". The Economic Gardening study identified industries to focus upon in supporting entrepreneurs and business development including:

Bio-sciences and pharmaceuticals

Information technology

Clean technology

Recreational tourism

University transfer

The thrust of "economic gardening" concepts in economic development thinking is that most job growth is by small business, and that community development can best be achieved by hundreds of small companies starting up and growing together in an environment that helps this to happen. The industries above are ones believed to offer the greatest potential for this in the Missoula area.

Changes occurring in the structure and makeup of the Missoula area economy have transformed it into a much more diverse economy and one much more involved in service provision than in goods production. This is not surprising because it is the same fundamental change that has been occurring in the U.S. economy as a whole and in more urban-based regional economies throughout the U.S. In essence Missoula County now has an economy firmly based in health care services with a growing inter-dependent health care complex; in professional, technical, financial, and business services, areas where the U.S. economy as a whole is seeing rapidly growth; and in consumer service and product trade. Missoula County also has a large component based in state and federal government, including the education programming of the University of Montana and land management programming of state and federal land management agencies.

The larger region in which Missoula is located also is fortunate to receive millions of visitors each year and their spending supports a growing tourism and recreation industry. Leisure and hospitality jobs are projected to grow by more than any other sector in northwest Montana over the next 10 years.

The various target industry studies done for Missoula over the years largely reflect the changing nature and likely future development of the area economy. However, they don't have contained in them a well-grounded and perhaps more specific and targeted strategy for how the area may want to develop in some of the more industrial areas of the economy. The "old industrial economy" of Missoula County clearly was heavily based in wood and paper products manufacturing. These industries largely accounted for manufacturing in the county when it was at its peak in the late '70s. And many industrial lands in the county reflect their heavy prior use by these industries.

Wood products manufacturing will continue in the area in one form or another, but it will not likely return to the days when it almost singularly defined manufacturing and industrial activity in Missoula County.

Target industry studies done for Missoula County over the years have largely tried to reflect where future economic development opportunities may lie. However, they lack specificity and this is particularly true in how they articulate what may lie in the future for manufacturing and some of the more industrial areas of the economy. Without greater specificity and, perhaps, realism regarding this, it isn't possible to carefully gauge how current industrially-zoned lands in the county fit with future economic development goals.

If these lands are to be better positioned for the future, the question becomes: “Positioned for what?” And once better specified and answered, the next question becomes: “What do they require?”

I. Industrial Lands Adequacy in Missoula County

This economic study along with the inventory, mapping, and analyses done by PCI professionals can provide some of the groundwork necessary to begin to answer these questions with greater confidence and reliability. There are a lot of industrial lands in the county and many are either not being used or not intensively used. There probably is a need to differentiate these into large “blocks” that can be considered and planned for individually. A focus could be placed on preserving core areas within these blocks for future industrial uses. Areas in the peripheries of these blocks could be more intentionally planned for more mixed uses and development, since this is likely to occur intentionally or unintentionally.

The future use of the various large blocks of industrial lands in the county could be separately planned for in similar fashion as was done in planning for Missoula’s Airport Development Park. Different blocks in different parts of the city and county are likely to have differing opportunities (some maybe targeted for wood products companies, others for metal and other material fabricators, and others for IT companies and call centers.

Options for mixed use areas on the peripheries of the various blocks could be planned for individually as well. In some of these areas there may be growing pressure for retail and trade uses while in others the uses could be targeted for office condos and facilities for professional and technical service providers and companies whose work entails extensive research and development activity.

Certain blocks could be simply targeted for accommodating current and future trucking firms and their related freight handling and maintenance facilities. And other areas where rail is already present could be preserved for future uses where rail is an indispensable component.

Some of the blocks of industrial lands could be targeted for companies who need not only industrial locations, but ones that are attractive and consistent with the images that are essential for success. Aside from the Missoula Airport Development Park, there may not be many options for this now in the county. Making some of these industrial lands more attractive and inviting also enhances the community’s acceptability for future uses on those lands by making them more consistent with goals of community livability and attractiveness.

As this type of planning proceeds across the county’s industrial lands and with individual blocks and areas within them, infrastructure needs can be better evaluated and specified – necessary steps in then putting forth initiatives and funding to achieve carefully determined and targeted infrastructure needs. Mapping and inventory work by PCI should greatly facilitate this type of planning and evaluation.