

Northern San Joaquin

Resources Industries: Economics and Impact

13,100 jobs

\$410 mil in wages

470 support jobs

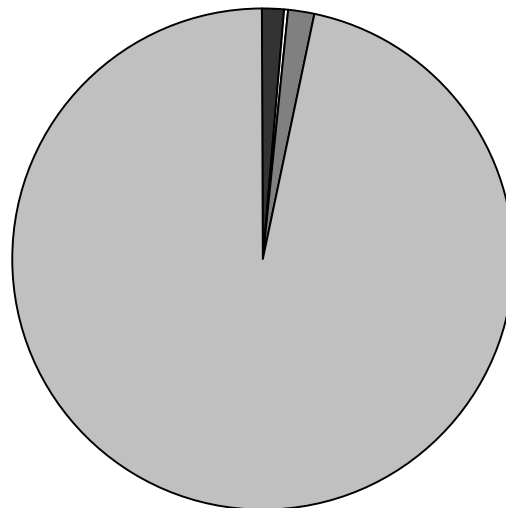
\$1.1 bil in sales

The industries that make up the resources cluster are wood products, mining, and mineral products. These industries currently support over 13,000 jobs in the northern San Joaquin region. This represents about 3.6 percent of total employment.

Employment in resources industries in the northern San Joaquin region

Total 1999 Estimated
Employment
363,000

- Metal Products
- Mining Products
- Wood Products
- Other



Resource industries trends

The forestry and wood products industries have been involved with the Sustainable Forestry Initiative. This initiative has been responsible for such progress as voluntary labeling, responding to consumer demand for knowledge of sustainable practices and source of supply. Similar labeling standards can help identify the type of product to aid in recycling.

Much of the industry is concerned with liabilities under environmental statutes. Efforts by industry associations are concentrated in the political arena and not technical advancement. Efforts to help the environment are generally limited to better marketing of recycling and sustainability programs already in place.

The nonfuel mining industries are also concerned with regulation. The most important issue is access to public lands for exploration and development. Corporations are fighting the reform of the 1872 Mining Law, which fixed land leases and land buying from the federal government at little or no cost.

The nonfuel mining industry has other concerns with technological advance and overall economic growth. Recycling technologies are advancing, especially in ferrous metals. Further advances may be warranted—and more profitable—under a changing regulatory climate. As a supplier to most other industries, nonfuel minerals are especially subject to the business cycle. Finally, international trade sets prices for many minerals, so differing domestic conditions can greatly affect the national supply.

Industrial minerals, such as crushed stone and gravel, construction sand and gravel, and cement, are mostly produced and consumed in the United States. Little processing is necessary.

Demand for these industrial minerals is also dependent on economic growth. Both public and private construction creates demand for highways and roads and their improvements; housing and other building construction; and in some industrial processes.

What are **industry clusters**?

Industry clusters represent industry groups that share similar technologies, labor skills, distribution channels, and related markets. There is substantial evidence that collaboration among businesses with such shared interests, supported by research and educational institutions as well as governmental agencies, can provide a useful understanding of local economies. Cluster analysis can identify industry groupings that competitively export goods and services from the region; encourage further development of the robust parts of each cluster; and supplement those parts that are currently weak.

Employment in resources industries should grow slowly over the next few years, with almost 2,000 new jobs projected between 1999 and 2006.

Some segments of the cluster are not represented at all in the area. In the following table, these have employment and firms listed as zero.

The largest employment gains will come in wood buildings and mobile homes; wood and paperboard containers; and miscellaneous fabricated metal products.

Local resources cluster

Industry	SIC	Firms (1996)	Employ- ment (1996)	Employ- ment (Est. 1999)	Projected Growth 1999 to 2006	Yearly Growth Rate
Metals Industries Core		155	5 142	5 374	764	1.9%
Iron ores	101	0	0	0	0	N/A
Copper ores	102	0	0	0	0	N/A
Lead and zinc ores	103	0	0	0	0	N/A
Gold and silver ores	104	6	91	76	-26	-5.8%
Ferroalloy ores, except vanadium	106	0	0	0	0	N/A
Metal mining services	108	0	0	0	0	N/A
Miscellaneous metal ores	109	1	3	3	0	2.1%
Blast furnace and basic steel prods	331	6	83	95	35	4.6%
Iron and steel foundries	332	5	142	132	-21	-2.4%
Primary nonferrous metals	333	0	0	0	0	N/A
Secondary nonferrous metals	334	1	6	5	-2	-6.6%
Nonferrous rolling and drawing	335	1	160	160	0	N/A
Nonferrous foundries (castings)	336	4	43	61	74	12.1%
Miscellaneous primary metal prods	339	2	45	45	0	-0.1%
Metal cans and shipping containers	341	11	1,063	1,035	-63	-0.9%
Cutlery, handtools, and hardware	342	9	138	159	62	4.8%
Plumbing and heating, except electric	343	6	79	108	116	11.0%
Fabricated structural metal products	344	50	2,116	2,161	109	0.7%
Screw machine products, bolts, etc.	345	5	97	122	84	7.8%
Metal forgings and stampings	346	10	194	230	113	5.9%
Misc. metal services	347	12	364	406	118	3.7%
Misc. fabricated metal products	349	26	518	577	164	3.6%
Mining Industries Core		79	1 128	1 127	28	0.3%
Dimension stone	141	0	0	0	0	N/A
Crushed and broken stone	142	2	3	3	-1	-5.7%
Sand and gravel	144	18	125	106	-34	-5.3%
Clay, ceramic, & refractory minerals	145	1	3	0	0	N/A
Cement, hydraulic	324	3	9	8	-2	-3.2%
Structural clay products	325	5	32	41	31	8.4%
Concrete, gypsum, plaster prods	327	46	885	899	33	0.5%
Cut stone and stone products	328	4	71	71	0	0.0%
Wood Products Industries Core		211	5 854	6 149	1 041	2.3%
Forestry	08	12	68	84	53	7.2%
Logging	241	49	417	440	58	1.8%
Sawmills and planing mills	242	16	764	653	-200	-5.1%
Millwork, plywood, structural	243	71	1,241	1,292	129	1.4%
Wood containers	244	18	528	608	237	4.8%
Wood buildings and mobile homes	245	7	455	574	415	8.1%
Miscellaneous wood products	249	12	849	867	43	0.7%
Wood office furniture	2521	2	41	56	58	10.7%
Wood partitions and fixtures	2541	8	116	108	-17	-2.5%
Pulp mills	261	0	0	0	0	N/A
Paper mills	262	1	265	274	21	1.1%
Paperboard mills	263	1	265	252	-28	-1.7%
Paperboard containers and boxes	265	14	845	942	273	3.7%

Current job locations and concentration

Within the region, the highest number of core resources employment is in San Joaquin

and Stanislaus counties. Concentration of employment (compared to statewide concentration) in Amador, Calaveras, and Tuolumne counties is also high, as indicated in bold in the following table.

JOBS IN THE RESOURCES CLUSTER

County	Percentage of Total
Alpine	0.0%
Amador	5.8%
Calaveras	1.3%
Mariposa	0.4%
Merced	8.4%
San Joaquin	47.6%
Stanislaus	31.8%
Tuolumne	4.7%

Future job growth

Occupation Demand 1999 to 2006

Misc. assemblers & fabricators	360
First line supv: prod. & construct	70
Misc. helpers, laborers, movers	50
Shipping & receiving clerks	40
General managers/top executives	40
Sales reps, non technical	40
Machinists	30
Production inspectors & testers	30

Clusters and workforce development

The cluster approach is important to workforce development agencies because it shows where employment growth is likely to occur, and shows the variety of related businesses that share common attributes. Training providers can coordinate their training programs for groups of occupations and skills within a cluster. Cost-effective programs can be tailored directly to the needs of the businesses in that cluster.

The local resource industries are short of mechanics, welders, and machinery operators. Many companies say they have openings now, and recruitment from other companies is common. These specialized skills can command a wage premium in the area.

These skills will also be in high demand in the future. Across the industries, the number of jobs will increase substantially in the coming years.

- Good welders, especially those who can weld exotic metals and who can use a variety of techniques, are hard to find. Employers prefer they come certified, although larger employers will pay to get their welders certified.
- Good mechanics who can maintain production and earthmoving equipment are hard to find. They are highly paid. Companies continually raid from other companies. This talent pool is aging and beginning to retire and will need replacing.
- A good work ethic is the most important skill. This includes an awareness of the employee's responsibilities (i.e. that the employer has a need, is paying the employee to fill the need, and has a right to expect the employee to perform adequately). "The best thing training agencies can teach is that there is no free ride."
- Most large employers provide their own training, and are seeking employees with strong basic skills rather than specialized skills.
- Truck drivers are pre-screened for drugs. Few others are, unless there is a reason to suspect substance abuse.

- Manufacturers require basic English communication skills (understand enough English to understand instructions and safety signs), basic math skills (adding and counting), and basic mechanical aptitude and spatial skills. They will train the employee in the specifics after that. An employee will progress if he/she shows initiative, a willingness to learn, and is willing to work hard.

Training and policy issues

- The ability to weld or cut with a torch, plus mechanical aptitude, is important in mechanical occupations. Other than that the most desirable trait is eagerness to learn and commitment.
- A person from a community college is more likely to be a candidate for first-line supervisor, for office or management rather than a production worker.
- All employers know employment and training agencies exist, but awareness of specific services is irregular. Employers are skeptical of their value and do not think to contact them. Therefore these agencies should make the effort to collaborate to cooperatively promote their services region-wide.

Cluster wages

Wages in the resources cluster in the region are slightly lower than those in the state, ranging from three percent lower in wood products to 17 percent lower in supplier industries. Average wages in each industry are in the following table.

WAGES IN CLUSTER, 1996

Industry	SIC	Avg Wage (\$)	Industry	SIC	Avg Wage (\$)
Metals Industries Core		32,600	Wood Products Industries Core		30,200
Nonferrous foundries (castings)	336	22,200	Forestry	08	19,600
Iron and steel foundries	332	23,200	Wood containers	244	20,600
Misc. metal services	347	25,900	Wood buildings, mobile homes	245	23,200
Screw machine prods: bolts, etc.	345	26,100	Millwork, plywood, structural	243	23,300
Nonferrous rolling and drawing	335	26,700	Miscellaneous wood products	249	24,400
Cutlery, handtools, and hardware	342	27,500	Wood partitions and fixtures	2541	30,400
Plumbing/heating, exc. electric	343	29,200	Sawmills and planing mills	242	33,000
Metalworking machinery	354	30,600	Logging	241	33,100
Misc. fabricated metal products	349	30,800	Wood office furniture	2521	33,300
Misc. industrial machinery	3599	31,200	Paperboard mills	263	36,100
Fabricated structural metal prods	344	32,400	Paperboard containers, boxes	265	38,900
Blast furnace and basic steel prods	331	33,300	Paper mills	262	43,000
Metal forgings and stampings	346	34,200	Pulp mills	08	30,200
Gold and silver ores	104	37,100	Supplier Industries		29,700
Misc. metal ores	109	39,100	Paints and allied products	285	23,300
Metal cans, shipping containers	341	40,000	Printing ink	2893	26,400
Secondary nonferrous metals	334	42,000	Misc. special industry machinery	3559	26,700
Misc. primary metal prods	339	42,500	Public warehousing and storage	422	26,800
Mining Industries Core		32,500	Misc. chemical preparations	2899	27,500
Structural clay products	325	14,000	Adhesives and sealants	2891	27,700
Cut stone and stone products	328	25,100	Products of purchased glass	323	28,400
Clay, ceramic, & refractory minerals	145	31,100	Misc. plastics products	308	28,700
Concrete, gypsum, plaster prods	327	32,700	Trucking & courier svcs, exc. air	421	29,400
Crushed and broken stone	142	35,700	Air transportation, scheduled	451	29,500
Sand and gravel	144	38,900	Electrical industrial apparatus	362	29,500
Cement, hydraulic	324	50,300	Metalworking machinery	354	30,600
			Misc. industrial machinery	3599	31,200
			Water transportation services	449	36,300
			Plastics materials and resins	2821	37,400
			Flat glass	321	47,500
			Petroleum refining	291	65,600

Supplier industries to the cluster are also growing. The confluence of local suppliers and buyers can lead to growth in all sectors of the cluster.

Supplier industries and local employers

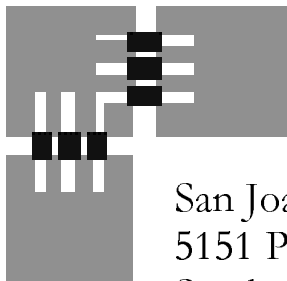
Industry	New Jobs by 2006
Misc. plastics products	1,320
Trucking & courier services, except air	270
Metalworking machinery	90
Public warehousing and storage	30
Plastics materials and resins	20

The major employes in the various core and supplier industries are included in the following table.

SELECTED MAJOR CLUSTER EMPLOYERS

Establishment	Product or Service	City
Core Industries		
California Cedar Products	Wood pencil slats	Stockton
Proctor & Gamble	Paper mill	Modesto
Dopaco, Inc.	Folding food containers	Stockton
Newark Sierra Paperboard Products	Paperboard mills	Stockton
Pacesetter Industries	Mobile homes	Atwater
Pacific Southwest Container	Corrugated boxes	Modesto
Sierra Pacific Industries	Rough lumber	Standard
American Modular Systems, Inc.	Modular homes	Manteca
Barbosa Cabinets, Inc.	Wood kitchen cabinets	Tracy
Bittbest of California	Metal doors	Merced
Supplier Industries		
Summit Logistics	General warehousing	Tracy
Libby Owens-Ford	Flat glass	Lathrop
Product Development Corp.	Warehousing, telemarketing	Merced
Swift Transportation Co.	Building materials transportation	Stockton

This fact sheet provides detailed information on where employment growth will occur in the eight- county region and highlights the skill requirements of the resources industries. These data can be used by the Northern San Joaquin Regional Collaborative the basis for aggregation of market demand by skill and category. This will permit the development of efficient training and education programs that cut across county boundaries and serve all resources firms in the region. Establishing a system for continued reassessment of the needs of these businesses would lead to the creation of a regional labor market that can effectively match the supply and demand for labor without public sector intervention.



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