

# Appendix M

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**John Henry Grobey**  
Consultants Report

## THE ECONOMIC IMPACT OF RIVERBED GRAVEL MINING IN HUMBOLDT COUNTY

By John H. Grobey, Ph. D.  
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### INTRODUCTION.

Gravel mining operations have had, and will continue to have, substantial effects on the Humboldt County economy. It provides an input of vital and perhaps indispensable importance to a number of key activities in the construction industry. Construction sand and gravel provide the necessary ingredient in foundation construction and other stabilization requirements in road construction, maintenance and repair. Concrete blocks and bricks, asphaltic concrete aggregates and other bituminous mixtures cannot be prepared without these inputs. Other important uses include fill materials, snow and ice control, and railroad-grade ballast. The importance of these uses is out of all proportion to the modest market values and regional cash flows generated by this sector of the economy.<sup>1</sup> Questions about the economic significance of this industry may be addressed by asking what would happen to the economy if gravel mining were brought to a complete halt. It is hard to imagine what substitute material might be used, or where it could be obtained as cheaply. Many economic activities would simply cease. The significance of this industry might be likened to the proverbial horseshoe nail.

The presentation of the following economic analysis does not rest on such a drastic scenario as the shut down of the industry, but rather on marginal changes in the volume and value of industry output. The unit cost of sand and gravel has increased sharply in the past several years due to regulatory constraints on riverbed mining operations. Unfortunately, there is no easy way to estimate the value to the economic base of the county's economy of assets that were NOT constructed due to reduction in the quantity demanded of gravel and sand inputs in response to the increases in their prices. While total county production of sand and gravel is not yet known for 1991 and 1992, Mad River production levels fell by 43 percent from 1991 to 1992. If this figure is indicative of what happened to total county production, it can be stated that such a reduction must have been attended by the curtailment of some projects requiring sand and gravel inputs.

But one cannot engage in economic analysis of events that did not happen unless those events that would have happened barring a particular circumstance can be identified. These effects are termed "forward-linked" effects, and are not typically treated in regional economic impact analyses. These effects are arguably more important than the analysis of "backward-linked" effects of an industry's activity, but the difficulty of measuring them precludes their inclusion in the analysis except anecdotally, as in the present case. Perhaps an example will help to illustrate the significance of this class of issues and the difficulty of including them in the analysis. One could ask Simpson Investment Company officials if they would have retro-fitted and upgraded their pulp mill instead of shutting it down had it not been for the sharp increase in the price of concrete. It is obviously difficult to answer the question of whether the price of concrete was a decisive factor in the decision to shut down the mill. While it was probably not, another example easier to determine would be to estimate the reduction in maintenance and repairs on county roads out of a fixed budget due to the increased price. These sorts of

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<sup>1</sup>See California Minerals Yearbook--1988, page 97.

hypothetical questions would have to be repeated for many other possible events, and the answers one could define from them would cast the precision of the analysis in serious doubt. For that reason, most economic impact analyses therefore do not attempt to account for them, focussing instead on backward-linked effects which are relatively easily accessible to the analysis. While this study is no exception to the general rule, I believe it important at least to make mention of the class of events excluded from the analysis.

### THE APPROACH OF THIS STUDY

I have employed an existing 1985 Input-Output model originally developed by the University of Minnesota at St. Paul and the U. S. Forest Service Research Laboratory at Fort Collins, Colorado, in cooperation with the U. S. Bureau of Economic Analysis, of the Department of Commerce. This model is known as the IMPLAN model. I adapted the model to the county's economy and the task at hand; namely, to estimate the backward-linked effects of changes in the output of the gravel mining industry.

Analysis of backward-linked impacts is performed by asking how change in final demand for the output of the industry in question (the direct impact) will indirectly affect those industries which supply it with necessary inputs (the first-round indirect impact). These first-round effects feed back through the interindustry structure many times, generating additional indirect impacts. In doing so, household income levels are also affected, and thus, consumption spending is also impacted. These latter effects are called induced impacts. The model employed aggregates the economy of the county into 45 sectors, which is sufficiently detailed for the purpose of the study. A complete list of IMPLAN sector numbers, names, and their corresponding Bureau of Economic Analysis commodity numbers, and Standard Industrial Classification Codes are listed in the Appendix. Standard Input-Output techniques are employed to perform the analysis.<sup>2</sup> Several comments are in order.

First, Input-Output models were developed to analyze demand-side disturbances, and their use in analyzing changes in supply rather than demand requires that the analysis be transformed into an "equivalent change in demand". This, however, must not be allowed to obscure the fact that no demand change has taken place. Further, Input-Output models assume that no change in the vector of industry prices takes place, basically implying infinitely elastic supply functions, when that is clearly not the case. Appropriate adjustments must be made to the analysis to account for these difficulties. For example, to the extent that supply constraints involve increases in the unit price of the output, a smaller change in physical output would generate a particular change in gross receipts. Such a price change would also generate changes in interindustry demand, involving forward-linked effects already noted above as not examined here except anecdotally. Appropriate adjustments have been made in the analysis that follows.

I used the model to address the question of what would happen if the 1985 output of the industry had changed by one million 1985 dollars, based on prices prevailing at the time (estimated at about \$5 per cubic yard, river run, delivered to an average haul distance). This would involve, in other words a change (in either direction) of output of about 200,000 cubic yards in 1985. It is to be noted that at current prices, it would take a change of only about 69,000

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<sup>2</sup>A thorough description of I/O techniques is beyond the scope of this study. The reader may wish to consult a standard reference work on the subject such as, Miemyk, William H. 1965. The Elements of Input-Output Analysis. Random House. New York.

cubic yards to generate the same million dollar change in gross sales. Direct employment effects of output-level changes are based on physical output per man-year. Since the change in physical output required to change gross receipts by a similar amount is smaller now than in 1985, the direct employment effects would be proportionally smaller. But another way to look at it is that the gross value of output per worker has gone up substantially in step with the price increases, so that an equivalent physical output change would generate nearly three times the change in gross sales. Of course, the price increase reduces quantity demanded, so that physical output will be substantially smaller. The demand for some uses of sand and gravel is elastic, while other uses have relatively inelastic demand. Inelastic demand means that the percent reduction in the quantity demanded is smaller than the percent increase in the price.

The price increase is a reflection of much-elevated regulatory costs, and the higher unit costs of extracting an equivalent volume of gravel during the reduced window of time for mining operations under current regulatory practices. Compression of the time to mine a year's supply has necessitated the use of more capital equipment, larger storage capacity, and more labor during that limited period. One operator, Bill O'Neill of Arcata Readimix reported in response to my telephone survey that his annual costs as of April 1, 1993 had risen by almost \$405,000 as a direct result of newly imposed regulations. These costs are partly reflected in the higher prices, but are also partly absorbed, resulting in lower yields on invested capital and land rent.

#### **HUMBOLDT COUNTY GRAVEL PRODUCTION, GROSS VALUE, AND PRICES**

Table I lists industry production levels, values, and prices per cubic yard for the period 1975 to 1992. Production levels are given for The Mad River and for the County as a whole. Some of the production figures are based on estimates that I would characterize as pretty rough. Mad River figures are probably more reliable, but even these figures may contain significant errors. The figures for the county as a whole are less reliable. This was clear from inspection of the data, which indicated that for some years, production for the county was less than the Mad River component. In such cases, I substituted estimates for the county based on the application of the average ratio of county to Mad River production. But I have little confidence either in these production estimates or in the estimates of unit prices found by dividing gross value by total production. The gross value figures are, for the most part, not very reliable either. I did a quick telephone survey of three firms, asking them for their best estimates of average delivered prices over time. I believe these price estimates are more reliable than those listed, found by dividing gross sales by total production. While I could have "backed-out" estimates of gross production by dividing these prices into gross values, I did not have sufficient confidence in the gross value estimates to make the exercise worthwhile. I believe the 1985 data, on which basis the Input-Output model was constructed are reasonably reliable since they were compiled by the Bureau of Economic Analysis from their County Business Patterns database.

Table II shows a summary of selected Input-Output information, for the industry including:

- Base year information
- Base year coefficients
- Multipliers for the sand and gravel mining industry

Type I and Type III multipliers are given for output, personal income, total income, value added, and employment. Type I multipliers account for direct and indirect impacts, while induced

effects are added as well in the Type III multipliers. Type I multipliers, for example, are computed by summing the direct and indirect impacts and dividing them by the direct impacts. Table III presents the impacts of a one-million dollar change in 1985 output of the industry on employee compensation, property income, total income, value added, and employment. Direct, indirect, induced, and total impacts are given. These figures could be determined by applying the type I and Type III multipliers to the direct impacts. They were compiled here from the detailed tables derived from the I-O model (Tables IV, V, and VI). These latter tables enable one to identify the other sectors of the economy impacted by the change in output of the gravel industry.

Industry and Commodity Balance Sheets are included in an appendix which give even more detailed information about the industry. The reader may find it necessary to consult the glossary in order to interpret the data in the balance sheets. Also included in the appendix is the aforementioned list of industries, BEA commodities, and associated SIC codes.

TABLE I

HUMBOLDT COUNTY GRAVEL PRODUCTION, 1975-1992					
YEAR	MAD RIVER CUYDS (000)	COUNTY TOTAL (000)	GROSS VALUE (\$x1000)	AVERAGE PRICE PER CU. YD. (CURRENT \$)	PRICE ESTIMATE BASIS
1975	498.8	749	2173	2.90	G. V./COUNTY TOTAL
1976	513.5	1037.3EST	NA	NA	NA
1977	505.9	1021.9EST	NA	NA	NA
1978	523.5	845.2	2136	2.53	G. V./COUNTY TOTAL
1979	372.7	825.4	2094	2.54	G. V./COUNTY TOTAL
1980	358.6	1075.2	3119	2.90	G. V./COUNTY TOTAL
1981	281.1	567.8EST	NA	NA	\$6 SURVEY
1982	252.9	395.8	1081	2.73	G. V./COUNTY TOTAL
1983	193.7	391.2EST	NA	NA	\$6.50 SURVEY
1984	253.3	514.8	1152	2.24NR	G. V./COUNTY TOTAL
1985	327.1	660.7EST	3327.5 BEA	5.04	G. V./COUNTY TOTAL
1986	284.2	680.4	2172	3.19NR	G. V./COUNTY TOTAL
1987	302.3	610.6EST	NA	NA	\$8.00 SURVEY
1988	293.3	635.6	2878	4.53	G. V./COUNTY TOTAL
1989	339.3	685.4EST	4194	6.12	G. V./COUNTY TOTAL
1990	348.4	746.4	NA	NA	\$10.00 SURVEY
1991	268.4	NA	NA	NA	\$10.00 SURVEY
1992	152.6	NA	NA	\$13.50SUR	TEL SURVEY
1993	NA	NA	NA	\$14.5SUR	TEL SURVEY
NOTES:	(1)EST Based on applying average ratio of county total to Mad River				
	(2)NA= Not Available				
	(3) NR=Author deems Not Reliable				
	(4) BEA=U. S. Bureau of Economic Analysis				
Sources:	Regional Econ. Info. System				
	(1)Compiled by Randy Klein from California Board of Mining & Geology together with some estimates made by Lane Davis of Pacific Affiliates				

TABLE II

HUMBOLDT COUNTY SAND & GRAVEL MINING INDUSTRY: INPUT-OUTPUT INFORMATION SUMMARY							
ITEM	ECONOMIC IMPACT ANALYSIS			IMPLAN REPORT MID.901A			
	1985 DOLLARS IN MILLIONS						
	Base Year	Base Year	Employee	Property	Total PoW	Total Value	Employment
	Final Demand	TIO	Comp Inc.	Income	Income	Added	No. of Jobs
BASE YEAR INFORMATION-1985	3.3275	1.773	0.65	0.3902	1.0402	1.078	19
ECONOMIC IMPACT ANALYSIS							
1985 DOLLARS IN MILLIONS							
	Base Year	Base Year	Employee Comp	Property Inc	Total Income	Value Added	Employment
	Final Demand	TIO	Coefficient	Coefficient	Coefficient	Coefficient	Coefficient
			(Income/MM\$)	(Income/MM\$)	(Income/MM\$)	(V.A./MM\$)	(No.Jobs/MM\$)
BASE YEAR COEFFICIENTS	3.327	1.7732	0.3666	0.22	0.5866	0.6077	10.715
HUMBOLDT COUNTY SAND & GRAVEL MINING INDUSTRY MULTIPLIERS							
MULTIPLIER TYPE	DIRECT	INDIRECT	INDUCED	TOTAL	TYPE I	TYPE III	
OUTPUT	1	0.12509	0.23901	1.3641	1.12509	1.3641	
PERSONAL INCOME	0.3666	0.0419	0.0852	0.4937	1.1142	1.3467	
TOTAL INCOME	0.5866	0.0699	0.1352	0.7918	1.1192	1.3497	
VALUE ADDED	0.6077	0.0786	0.15	0.8362	1.1293	1.3761	
EMPLOYMENT	10.715	1.9717	4.3296	17.0163	1.184	1.5881	

TABLE III

IMPACT ON THE HUMBOLDT COUNTY ECONOMY OF A ONE-MILLION \$ CHANGE IN THE OUTPUT OF THE GRAVEL MINING INDUSTRY--1985 DOLLARS							
	Final	Industry	Employee	Property	Total PoW	Total Value	Employment
TOTALS	Demand	Output	Income	Income	Income	Added	Number
BY TYPE	(MM\$)	(MM\$)	(MM\$)	(MM\$)	(MM\$)	(MM\$)	of Jobs)
direct	1	1	0.3666	0.22	0.5866	0.6077	10.71
indirect	0	0.1251	0.0419	0.0281	0.0699	0.0786	1.97
induced	0.2624	0.3205	0.1143	0.0671	0.1814	0.2011	5.81
TOTAL	1.3	1.4	0.52	0.32	0.84	0.89	18.5
Change in Population =		46.					

TABLE IV

HUMBOLDT COUNTY—GRAVEL MINING INDUSTRY		\$MM 1985		Impact Report #904				
INDIRECT EFFECTS OF ONE MILLION DOLLARS OF GROSS SALES								
	INDUSTRY IMPACTED BY CHANGE	Final	Total	Employee	Property	Total PoW	Total Value	Employment
SECTOR	AGGREGATED INDUSTRY DESCRIPTION	Demand	Output	Income	Income	Income	Added	(Number
#		(MM\$)	(MM\$)	(MM\$)	(MM\$)	(MM\$)	(MM\$)	of Jobs)
1	AGG AGRICULTURE & FISHERIES	0	0.0004	0.0001	0.0001	0.0002	0.0002	0.01
22	AGG FORESTRY	0	0	0	0	0	0	0
47	AGG MINING, EXCEPT SAND & GRAVEL	0	0	0	0	0	0	0
48	CONSTR SAND & GRAVEL MINING	0	0.0002	0.0001	0	0.0001	0.0001	0
66	AGG RESIDENTIAL & OTHER CONSTRUCTION	0	0.001	0.0002	0.0002	0.0004	0.0004	0.01
67	AGG INDUSTRIAL CONSTRUCTION	0	0.0037	0.0011	0.0007	0.0018	0.0018	0.04
82	AGG FOOD & KINDRED PROD & TOBACCO PR	0	0.0002	0	0	0.0001	0.0001	0
151	AGG TEXTILES AND APPAREL	0	0	0	0	0	0	0
160	LOGGING CONTRACTORS	0	0	0	0	0	0	0
161	AGG PRIMARY SAWMILLS	0	0.0001	0	0	0	0	0
165	AGG REMANUFACTURED WOOD PRODUCTS	0	0	0	0	0	0	0
174	AGG WOOD FURNITURE	0	0	0	0	0	0	0
186	AGG FURNITURE & FIXTURES, N.E.C.	0	0	0	0	0	0	0
187	PULP MILLS	0	0.0002	0	0	0.0001	0.0001	0
200	AGG PRINTING & PUBLISHING	0	0.0012	0.0004	0.0002	0.0006	0.0006	0.02
215	AGG CHEM & ALLIED PROD, & DRUGS & SUNI	0	0.0002	0	0	0	0	0
234	AGG PAINTS & ALLIED, & PETROLEUM PROD	0	0	0	0	0	0	0
243	AGG TIRES, RUBBER & PLASTICS	0	0	0	0	0	0	0
252	AGG LEATHER PRODUCTS	0	0	0	0	0	0	0
255	AGG GLASS & CERAMIC S PRODUCTS	0	0	0	0	0	0	0
292	AGG STEEL & NON-FERROUS METALS	0	0	0	0	0	0	0
308	AGG MISC. FABRICATED METAL PRODUCTS	0	0.0009	0.0003	0.0001	0.0004	0.0004	0.01
334	AGG MISCELLANEOUS MACHINERY	0	0.0002	0.0003	-0.0002	0.0001	0.0001	0
349	AGG FOREST PRODUCTS MACH	0	0	0	0	0	0	0
362	AGG ELECTRONIC COMPUTERS & OFFC EQU	0	0	0	0	0	0	0
368	AGG ELECTRICAL EQUIPMENT	0	0	0	0	0	0	0
409	SHIP & BOAT BUILDING & REPAIR	0	0	0	0	0	0	0
417	AGG INSTRUMENTS & SUPPLIES	0	0.0003	0.0001	0	0.0001	0.0001	0
446	RAILROADS AND RELATED SERVICES	0	0.0016	0.0008	0.0001	0.0009	0.001	0.02
447	AGG TRANSIT & MOTOR FREIGHT	0	0.0053	0.0021	0.0014	0.0035	0.0035	0.1
449	WATER TRANSPORTATION	0	0.0005	0.0001	0	0.0002	0.0002	0
450	AGG MISC. TRANSPORT & COMMUNICATIONS	0	0.0042	0.0014	0.0012	0.0027	0.0028	0.04
457	AGG UTILITIES	0	0.0082	0.0008	0.0014	0.0022	0.0026	0.02
461	AGG WHOLESALE TRADE	0	0.0213	0.009	0.0034	0.0124	0.0158	0.31
462	AGG RETAIL TRADE	0	0.0023	0.0009	0.0004	0.0013	0.0015	0.05
464	AGG FINANCE INSURANCE & REAL ESTATE	0	0.0263	0.0066	0.0066	0.0182	0.0185	0.33
471	AGG PERSONAL SERVICES	0	0.0215	0.0061	0.0041	0.0102	0.0122	0.49
480	AGG BUSINESS SERVICES	0	0.0207	0.0091	0.0051	0.0141	0.0143	0.42
503	AGG MEDICAL SERVICES	0	0	0	0	0	0	0
507	AGG EDUCATION & EDUCATION SERVICES	0	0	0	0	0	0	0
511	LABOR & CIVIC ORGANIZATIONS	0	0	0	0	0	0	0
516	AGG FEDERAL GOVERNMENT ENTERPRISES	0	0.0019	0.0013	-0.0001	0.0011	0.0011	0.04
519	AGG STATE & LOCAL GOVT ENTERPRISES	0	0.0026	0.0009	0.0002	0.001	0.001	0.04
525	GOVERNMENT INDUSTRY	0	0	0	0	0	0	0
527	HOUSEHOLD INDUSTRY	0	0	0	0	0	0	0
	TOTAL	0	0.1251	0.0419	0.0281	0.0699	0.0786	1.97

TABLE V

HUMBOLDT COUNTY		\$MM 1985		Impact Report #005				
IMPACT OF RIVERBED GRAVEL MINING		INDUCED EFFECTS BASED ON 2 ITERATIONS						
SECTOR #	INDUSTRY IMPACTED BY CHANGE AGGREGATED INDUSTRY DESCRIPTION	Final Demand (MM\$)	Industry Output (MM\$)	Employee Income (MM\$)	Property Income (MM\$)	Total PoW Income (MM\$)	Total Value Added (MM\$)	Employment Number of Jobs)
1	AGG AGRICULTURE & FISHERIES	0.0032	0.0042	0.0009	0.0012	0.0021	0.0022	0.09
22	AGG FORESTRY	0	0	0	0	0	0	0
47	AGG MINING, EXCEPT SAND & GRAVEL	0	0	0	0	0	0	0
48	CONSTR SAND & GRAVEL MINING	0	0	0	0	0	0	0
66	AGG RESIDENTIAL & OTHER CONSTRUCTION	0	0.002	0.0005	0.0003	0.0008	0.0008	0.02
67	AGG INDUSTRIAL CONSTRUCTION	0	0.0015	0.0004	0.0003	0.0007	0.0007	0.02
82	AGG FOOD & KINDRED PROD & TOBACCO PR	0.0029	0.0036	0.0006	0.0002	0.0008	0.0008	0.02
151	AGG TEXTILES AND APPAREL	0.0009	0.0009	0.0002	0.0001	0.0003	0.0003	0.02
160	LOGGING CONTRACTORS	0	0.0001	0	0	0	0	0
161	AGG PRIMARY SAWMILLS	0.0001	0.0004	0.0001	0	0.0001	0.0002	0
165	AGG REMANUFACTURED WOOD PRODUCTS	0.0001	0.0002	0	0	0.0001	0.0001	0
174	AGG WOOD FURNITURE	0.0009	0.0009	0.0003	0.0001	0.0004	0.0004	0.02
186	AGG FURNITURE & FIXTURES, N.E.C.	0	0	0	0	0	0	0
187	PULP MILLS	0	0.0002	0	0	0.0001	0.0001	0
200	AGG PRINTING & PUBLISHING	0.0003	0.0028	0.001	0.0005	0.0015	0.0015	0.04
215	AGG CHEM & ALLIED PROD, & DRUGS & SUNI	0.0003	0.0005	0.0001	0.0001	0.0001	0.0001	0
234	AGG PAINTS & ALLIED, & PETROLEUM PROD	0	0	0	0	0	0	0
243	AGG TIRES, RUBBER & PLASTICS	0	0	0	0	0	0	0
252	AGG LEATHER PRODUCTS	0.0001	0.0001	0	0	0	0	0
255	AGG GLASS & CERAMIC S PRODUCTS	0	0.0001	0	0	0	0	0
292	AGG STEEL & NON-FERROUS METALS	0	0	0	0	0	0	0
308	AGG MISC. FABRICATED METAL PRODUCTS	0	0	0	0	0	0	0
334	AGG MISCELLANEOUS MACHINERY	0	0	0	0	0	0	0
349	AGG FOREST PRODUCTS MACH	0	0	0	0	0	0	0
362	AGG ELECTRONIC COMPUTERS & OFFC EQU	0	0	0	0	0	0	0
368	AGG ELECTRICAL EQUIPMENT	0	0	0	0	0	0	0
409	SHIP & BOAT BUILDING & REPAIR	0	0	0	0	0	0	0
417	AGG INSTRUMENTS & SUPPLIES	0.0004	0.0007	0.0002	0.0001	0.0003	0.0003	0.01
446	RAILROADS AND RELATED SERVICES	0.0001	0.0002	0.0001	0	0.0001	0.0001	0
447	AGG TRANSIT & MOTOR FREIGHT	0.0012	0.0039	0.0015	0.001	0.0025	0.0026	0.07
449	WATER TRANSPORTATION	0.0001	0.0003	0.0001	0	0.0001	0.0001	0
450	AGG MISC. TRANSPORT & COMMUNICATIONS	0.0093	0.0158	0.0055	0.0047	0.0102	0.0107	0.15
457	AGG UTILITIES	0.0057	0.0096	0.001	0.0016	0.0026	0.0031	0.02
461	AGG WHOLESALE TRADE	0.0162	0.0206	0.0087	0.0039	0.012	0.0152	0.3
482	AGG RETAIL TRADE	0.0628	0.0644	0.0258	0.0111	0.0369	0.0425	1.36
484	AGG FINANCE INSURANCE & REAL ESTATE	0.0409	0.0519	0.013	0.019	0.032	0.0365	0.65
471	AGG PERSONAL SERVICES	0.0458	0.0525	0.0148	0.01	0.0248	0.0298	1.21
480	AGG BUSINESS SERVICES	0.0044	0.0131	0.0058	0.0032	0.009	0.0091	0.27
503	AGG MEDICAL SERVICES	0.056	0.0571	0.0277	0.0094	0.0371	0.0374	1.25
507	AGG EDUCATION & EDUCATION SERVICES	0.0024	0.0024	0.0012	0.0002	0.0014	0.0014	0.08
511	LABOR & CIVIC ORGANIZATIONS	0.002	0.002	0.0009	0.0003	0.0011	0.0011	0.05
516	AGG FEDERAL GOVERNMENT ENTERPRISES	0.0011	0.0031	0.0021	-0.0002	0.0019	0.0019	0.08
519	AGG STATE & LOCAL GOVT ENTERPRISES	0.0049	0.0055	0.0018	0.0004	0.0022	0.0022	0.08
525	GOVERNMENT INDUSTRY	0	0	0	0	0	0	0
527	HOUSEHOLD INDUSTRY	0	0	0	0	0	0	0
	<b>Total</b>	<b>0.2624</b>	<b>0.3205</b>	<b>0.1143</b>	<b>0.0671</b>	<b>0.1814</b>	<b>0.2011</b>	<b>5.81</b>

TABLE VI

HUMBOLDT COUNTY		\$MM 1985		Impact Report #906				
TOTAL EFFECTS OF ONE MILLION DOLLARS OF GRAVEL GROSS SALES								
SECTOR #	INDUSTRY IMPACTED BY CHANGE AGGREGATED INDUSTRY DESCRIPTION	Final	Industry	Employee	Property	Total PoW	Total Value	Employment
		Demand (MM\$)	Output (MM\$)	Income (MM\$)	Income (MM\$)	Income (MM\$)	Added (MM\$)	Number of Jobs)
1	AGG AGRICULTURE & FISHERIES	0.0032	0.0046	0.001	0.0014	0.0024	0.0024	0.1
22	AGG FORESTRY	0	0	0	0	0	0	0
47	AGG MINING, EXCEPT SAND & GRAVEL	0	0	0	0	0	0	0
48	CONSTR SAND & GRAVEL MINING	1	1.0002	0.3666	0.2201	0.5867	0.6078	10.72
66	AGG RESIDENTIAL & OTHER CONSTRUCTION	0	0.0029	0.0007	0.0005	0.0012	0.0012	0.03
67	AGG INDUSTRIAL CONSTRUCTION	0	0.0051	0.0015	0.001	0.0025	0.0025	0.08
82	AGG FOOD & KINDRED PROD & TOBACCO PR	0.0029	0.0038	0.0006	0.0003	0.0008	0.0009	0.02
151	AGG TEXTILES AND APPAREL	0.0009	0.001	0.0003	0.0001	0.0003	0.0003	0.02
180	LOGGING CONTRACTORS	0	0.0001	0	0	0	0	0
181	AGG PRIMARY SAWMILLS	0.0001	0.0005	0.0001	0	0.0002	0.0002	0.01
185	AGG REMANUFACTURED WOOD PRODUCTS	0.0001	0.0002	0.0001	0	0.0001	0.0001	0
174	AGG WOOD FURNITURE	0.0009	0.0009	0.0003	0.0001	0.0004	0.0004	0.02
188	AGG FURNITURE & FIXTURES, N.E.C.	0	0	0	0	0	0	0
187	PULP MILLS	0	0.0004	0.0001	0.0001	0.0001	0.0001	0
200	AGG PRINTING & PUBLISHING	0.0003	0.004	0.0014	0.0007	0.0021	0.0021	0.05
215	AGG CHEM & ALLIED PROD, & DRUGS & SUNI	0.0003	0.0006	0.0001	0.0001	0.0002	0.0002	0
234	AGG PAINTS & ALLIED, & PETROLEUM PROD	0	0	0	0	0	0	0
243	AGG TIRES, RUBBER & PLASTICS	0	0	0	0	0	0	0
252	AGG LEATHER PRODUCTS	0.0001	0.0001	0	0	0	0	0
255	AGG GLASS & CERAMIC S PRODUCTS	0	0.0001	0	0	0	0	0
292	AGG STEEL & NON-FERROUS METALS	0	0	0	0	0	0	0
308	AGG MISC. FABRICATED METAL PRODUCTS	0	0.0009	0.0003	0.0001	0.0004	0.0004	0.01
334	AGG MISCELLANEOUS MACHINERY	0	0.0002	0.0003	-0.0002	0.0001	0.0001	0
349	AGG FOREST PRODUCTS MACH	0	0	0	0	0	0	0
362	AGG ELECTRONIC COMPUTERS & OFFC EQU	0	0	0	0	0	0	0
368	AGG ELECTRICAL EQUIPMENT	0	0	0	0	0	0	0
409	SHIP & BOAT BUILDING & REPAIR	0	0	0	0	0	0	0
417	AGG INSTRUMENTS & SUPPLIES	0.0004	0.001	0.0003	0.0001	0.0004	0.0004	0.01
446	RAILROADS AND RELATED SERVICES	0.0001	0.0019	0.001	0.0001	0.0011	0.0011	0.02
447	AGG TRANSIT & MOTOR FREIGHT	0.0012	0.0081	0.0036	0.0024	0.006	0.0081	0.18
449	WATER TRANSPORTATION	0.0001	0.0008	0.0002	0.0001	0.0002	0.0002	0
450	AGG MISC. TRANSPORT & COMMUNICATIONS	0.0093	0.0199	0.0089	0.006	0.0129	0.0136	0.2
457	AGG UTILITIES	0.0057	0.0178	0.0018	0.003	0.0048	0.0056	0.05
461	AGG WHOLESALE TRADE	0.0182	0.0419	0.0177	0.0067	0.0244	0.031	0.61
462	AGG RETAIL TRADE	0.0828	0.0866	0.0287	0.0115	0.0382	0.044	1.41
464	AGG FINANCE INSURANCE & REAL ESTATE	0.0409	0.0782	0.0196	0.0287	0.0483	0.055	0.97
471	AGG PERSONAL SERVICES	0.0458	0.074	0.0209	0.0141	0.035	0.0419	1.7
480	AGG BUSINESS SERVICES	0.0044	0.0339	0.0148	0.0083	0.0231	0.0234	0.69
503	AGG MEDICAL SERVICES	0.056	0.0571	0.0277	0.0094	0.0371	0.0374	1.25
507	AGG EDUCATION & EDUCATION SERVICES	0.0024	0.0025	0.0012	0.0002	0.0014	0.0014	0.08
511	LABOR & CIVIC ORGANIZATIONS	0.002	0.002	0.0009	0.0003	0.0011	0.0011	0.05
516	AGG FEDERAL GOVERNMENT ENTERPRISES	0.0011	0.005	0.0034	-0.0003	0.003	0.003	0.1
519	AGG STATE & LOCAL GOVT ENTERPRISES	0.0049	0.0082	0.0027	0.0005	0.0032	0.0032	0.12
525	GOVERNMENT INDUSTRY	0	0	0	0	0	0	0
527	HOUSEHOLD INDUSTRY	0	0	0	0	0	0	0
<b>TOTAL</b>		<b>1.2624</b>	<b>1.4456</b>	<b>0.5227</b>	<b>0.3152</b>	<b>0.8379</b>	<b>0.8874</b>	<b>18.49</b>
Change in Population = 46.								

## **APPENDIX**

HUMBOLDT COUNTY		\$MM 1985		ACCOUNTS REPORT # 114A	
INDUSTRY BALANCE SHEET, PART I					
INDUSTRY 48: CONSTRUCTION SAND AND GRAVEL					
REGIONAL	COMMODITY	MARKET	BY-PRODUCT	REGIONAL	TOTAL
COMMODITY	PRODUCTION	SHARE	COEFFICIENT	PURCHASE	COMMODITY
	(MM\$)	COEFFICIENT	COEFFICIENT	COEFFICIENT	EXPORTS (MM\$)
44	0.02648	0.77657	0.01493	0.00001	0.0341
48	1.7266	0.95087	0.97371	0.01038	1.79383
55	0.00912	0.83314	0.00615	0	0.00978
238	0.00636	0.26942	0.00471	0.01703	0
267	0.00074	0.02849	0.00042	0	0.02586
269	0.00193	0.00259	0.00109	0.00004	0.74554
TOTAL	1.77322				2.60909

HUMBOLDT COUNTY		\$MM 1985		ACCOUNTS REPORT #114B		
INDUSTRY BALANCE SHEET, PART II (INPUTS)						
INDUSTRY 48: CONSTRUCTION SAND AND GRAVEL						
COMMODITY	TOTAL	GROSS	REGIONAL	REGIONAL	REGIONAL	DOMESTIC
	ABSORPTION	INPUTS	PURCHASE	ABSORPTION	INPUTS	IMPORTS
	COEFFICIENT	(\$MM)	COEFFICIENT	COEFFICIENT	(\$MM)	(\$MM)
27	0.0001066	0.00019	0.96269	0.0001026	0.00018	0.00001
39	0.0000015	0	0	0	0	0
40	0.0012479	0.00221	0	0	0	0.00221
44	0.0000222	0.00004	0.00001	0	0	0.00004
45	0.0001282	0.00023	0	0	0	0.00023
46	0.0000416	0.00007	0	0	0	0.00007
47	0.0000582	0.0001	0.00303	0.0000002	0	0.0001
48	0.0208678	0.03665	0.01038	0.0002145	0.00038	0.03627
55	0.0418258	0.07381	0	0	0	0.07381
74	0.003667	0.0065	0.82716	0.0030332	0.00538	0.00112
115	0.000107	0.00019	0.00015	0	0	0.00019
151	0.000308	0.00055	0.07051	0.0000217	0.00004	0.00051
190	0.0000769	0.00014	0	0	0	0.00014
191	0.0001744	0.00031	0	0	0	0.00031
194	0.0074441	0.0132	0	0	0	0.0132
195	0.0002519	0.00045	0	0	0	0.00045
198	0.0003872	0.00069	0	0	0	0.00069
199	0.0001291	0.00023	0.04837	0.0000062	0.00001	0.00022
201	0.0005473	0.00097	0.00749	0.0000041	0.00001	0.00096
204	0.0001445	0.00028	0.01571	0.0000023	0	0.00025
205	0.0002187	0.00039	0.0817	0.0000179	0.00003	0.00036
207	0.0001393	0.00025	0.00817	0.0000011	0	0.00024
208	0.0000464	0.00008	0.0047	0.0000002	0	0.00008
215	0.0009401	0.00167	0.26086	0.0002452	0.00043	0.00123
216	0.0006393	0.00113	0.14002	0.0000895	0.00016	0.00097
221	0.0026053	0.00462	0.00026	0.0000007	0	0.00462
235	0.018857	0.03344	0.00844	0.0001591	0.00028	0.03318
236	0.0012716	0.00225	0.00193	0.0000025	0	0.00225

COMMODITY	TOTAL	GROSS	REGIONAL	REGIONAL	REGIONAL	DOMESTIC
	ABSORPTION	INPUTS	PURCHASE	ABSORPTION	INPUTS	IMPORTS
	COEFFICIENT	(\$MM)	COEFFICIENT	COEFFICIENT	(\$MM)	(\$MM)
240	0.0007236	0.00128	0.00001	0	0	0.00128
243	0.0007455	0.00132	0.00221	0.0000016	0	0.00132
244	0.0003505	0.00064	0.0009	0.0000003	0	0.00064
245	0.0025678	0.00465	0.00001	0	0	0.00465
255	0.0001222	0.00022	0.1749	0.0000214	0.00004	0.00018
273	0.0001747	0.00031	0	0	0	0.00031
275	0.0002825	0.0005	0	0	0	0.0005
280	0.0048763	0.00866	0.00012	0.0000006	0	0.00866
292	0.0008698	0.00154	0.01299	0.0000112	0.00002	0.00152
298	0.0006866	0.00122	0.00028	0.0000002	0	0.00122
308	0.0031382	0.00556	0.00022	0.0000007	0	0.00556
315	0.0014829	0.00283	0.00005	0.0000001	0	0.00283
320	0.0001388	0.00025	0.00128	0.0000002	0	0.00025
325	0.0064484	0.01143	0.12942	0.0008345	0.00148	0.00965
329	0.0014333	0.00254	0.00743	0.0000106	0.00002	0.00252
331	0.0117767	0.02088	0.00349	0.0000411	0.00007	0.02081
334	0.0168802	0.02993	0.00842	0.0001422	0.00025	0.02968
335	0.0013654	0.00242	0.00014	0.0000002	0	0.00242
338	0.0072767	0.01291	0.00035	0.0000026	0	0.0129
339	0.0004286	0.00076	0.00067	0.0000002	0	0.00076
340	0.0018721	0.00296	0.00017	0.0000003	0	0.00296
343	0.0002228	0.0004	0.05001	0.0000111	0.00002	0.00038
344	0.0004808	0.00085	0.02824	0.0000126	0.00002	0.00083
353	0.0031734	0.00563	0	0	0	0.00563
354	0.0017715	0.00314	0	0	0	0.00314
355	0.0003243	0.00058	0	0	0	0.00058
357	0.0012312	0.00218	0	0	0	0.00218
359	0.0004443	0.00079	0	0	0	0.00079
361	0.0033126	0.00587	0.00001	0	0	0.00587
373	0.0000068	0.00001	0.00011	0	0	0.00001
374	0.0015755	0.00279	0.00012	0.0000002	0	0.00279
375	0.0025914	0.0046	0.00008	0.0000002	0	0.00459
376	0.00002	0.00004	0.00001	0	0	0.00004
386	0.0002338	0.00041	0	0	0	0.00041
387	0.0001866	0.00033	0.00004	0	0	0.00033
396	0.0000252	0.00004	0	0	0	0.00004
399	0.0000528	0.00009	0.00191	0.0000001	0	0.00009
400	0.0005752	0.00102	0.00713	0.0000041	0.00001	0.00101
404	0.0088782	0.01184	0.00739	0.0000494	0.00009	0.01175
420	0.0002225	0.00039	0.77805	0.0001731	0.00031	0.00099
425	0.0001483	0.00026	0.00008	0	0	0.00026
445	0.000634	0.00112	0.03564	0.0000226	0.00004	0.00108
446	0.0052411	0.00829	0.30075	0.0015763	0.0028	0.0085
447	0.0007065	0.00125	0.32583	0.0002302	0.00041	0.00084
448	0.0028629	0.00508	1	0.0028629	0.00508	0
449	0.0005759	0.00102	0.75761	0.0004363	0.00077	0.00025
450	0.0011754	0.00208	0.10751	0.0001264	0.00022	0.00186
451	0.0001838	0.00034	0	0	0	0.00034

COMMODITY	TOTAL	GROSS	REGIONAL	REGIONAL	REGIONAL	DOMESTIC
	ABSORPTION	INPUTS	PURCHASE	ABSORPTION	INPUTS	IMPORTS
	COEFFICIENT	(\$MM)	COEFFICIENT	COEFFICIENT	(\$MM)	(\$MM)
454	0.0013219	0.00234	0.87009	0.0011602	0.00204	0.0003
456	0.056914	0.10092	0.00189	0.0001074	0.00019	0.10073
457	0.0032707	0.0068	1	0.0032707	0.0068	0
458	0.0001068	0.00019	0.96853	0.0001034	0.00018	0.00001
459	0.0026488	0.0047	1	0.0026488	0.0047	0
460	0.0001525	0.00027	0	0	0	0.00027
461	0.0221341	0.03925	0.89501	0.0198103	0.03513	0.00412
462	0.000016	0.00003	1	0.000016	0.00003	0
463	0.0014947	0.00265	1	0.0014947	0.00265	0
464	0.0069191	0.01227	1	0.0069191	0.01227	0
465	0.0007613	0.00135	0.79577	0.0006058	0.00107	0.00028
466	0.0001653	0.00029	1	0.0001653	0.00029	0
467	0.0036714	0.00651	0.21388	0.0007852	0.00139	0.00612
470	0.0351589	0.06234	0.4216	0.014822	0.02628	0.03806
471	0.0065014	0.01153	1	0.0065014	0.01153	0
472	0.0000935	0.00017	1	0.0000935	0.00017	0
475	0.0004467	0.00079	1	0.0004467	0.00079	0
478	0.0031346	0.00656	0.77718	0.0024361	0.00432	0.00124
480	0.0004947	0.00088	0.18087	0.0000895	0.00016	0.00072
481	0.0050811	0.00901	0.26156	0.001329	0.00236	0.00685
482	0.0041046	0.00728	0.18112	0.0007434	0.00132	0.00596
483	0.0001918	0.00034	0.40585	0.0000778	0.00014	0.0002
484	0.0116529	0.02066	0.60175	0.0070121	0.01243	0.00823
485	0.0001054	0.00019	0.75821	0.0000799	0.00014	0.00005
486	0.0020701	0.00367	0.55409	0.001147	0.00203	0.00184
487	0.0018039	0.00284	1	0.0018039	0.00284	0
488	0.0028505	0.0047	0.60865	0.0018132	0.00286	0.00184
489	0.0028024	0.00497	1	0.0028024	0.00497	0
490	0.0015815	0.0028	1	0.0015815	0.0028	0
491	0.0031266	0.00554	1	0.0031266	0.00554	0
492	0.0006281	0.00111	0.47413	0.0002978	0.00063	0.00059
493	0.0060585	0.01074	1	0.0060585	0.01074	0
497	0.0003908	0.00069	0.0826	0.0000323	0.00006	0.00064
508	0.0001933	0.00034	0.19803	0.0000379	0.00007	0.00028
510	0.0013429	0.00238	0.35016	0.0004702	0.00083	0.00155
513	0.0000969	0.00017	1	0.0000969	0.00017	0
516	0.0009246	0.00164	1	0.0009246	0.00164	0
521	0.0015501	0.00275	1	0.0015501	0.00275	0
522	0.0002317	0.00041	0	0	0	0.00041
524	0.0006499	0.00098	0.00673	0.0000031	0.00001	0.00097
<b>TOTAL</b>	<b>0.3923137</b>	<b>0.89566</b>		<b>0.1025293</b>	<b>0.18181</b>	<b>0.51385</b>
<b>EMPLOYMENT COMPENSATION (\$MM) .8500</b>						
<b>INDIRECT BUSINESS TAXES (\$MM) .0374</b>						
<b>PROPRIETARY INCOME (\$MM) .0994</b>						
<b>OTHER PROPERTY INCOME (\$MM) .2907</b>						
<b>TOTAL VALUE ADDED (\$MM) 1.0776</b>						
<b>TOTAL INDUSTRY OUTPUT (\$MM) 1.7732</b>						
<b>END BALANCE SHEET, INDUSTRY 48</b>						

HUMBOLDT COUNTY		\$MM 1985	ACCOUNTS REPORT #115A			
COMMODITY BALANCE SHEET, PART I						
COMMODITY 48: CONSTRUCTION SAND AND GRAVEL						
REGIONAL INDUSTRY	INDUSTRY PRODUCTION (\$MM)	MARKET SHARE COEFFICIENT	BY-PRODUCTS COEFFICIENT			
48	1.7268	0.95067	0.97371			
268	0.00068	0.00037	0.00184			
269	0.01353	0.00745	0.01889			
HUMBOLDT COUNTY		\$MM 1985	ACCOUNTS REPORT #115B			
COMMODITY BALANCE SHEET, PART II						
COMMODITY 48: CONSTRUCTION SAND AND GRAVEL						
REGIONAL INDUSTRY	TOTAL ABSORPTION COEFFICIENT	GROSS INPUTS (\$MM)	REGIONAL PURCHASE COEFFICIENT	REGIONAL ABSORPTION COEFFICIENT	REGIONAL INPUTS (\$MM)	DOMESTIC IMPORTS (\$MM)
47	0.00022	0.00005	0.01038	0	0	0.00005
48	0.02067	0.03665	0.01038	0.00021	0.00038	0.03627
66	0.00018	0.00762	0.01038	0	0.00008	0.00754
67	0.00051	0.04472	0.01038	0.00001	0.00046	0.04428
68	0.00056	0.00522	0.01038	0.00001	0.00005	0.00517
69	0.00618	0.03842	0.01038	0.00006	0.0004	0.03802
70	0.00112	0.00049	0.01038	0.00001	0.00001	0.00049
71	0.00071	0.00112	0.01038	0.00001	0.00001	0.00111
72	0.00191	0.01509	0.01038	0.00002	0.00018	0.01483
73	0.00055	0.00467	0.01038	0.00001	0.00005	0.00462
74	0.00405	0.05975	0.01038	0.00004	0.00062	0.05913
75	0.00857	0.12103	0.01038	0.00009	0.00128	0.11977
215	0.00001	0	0.01038	0	0	0
234	0.00012	0.0001	0.01038	0	0	0.0001
243	0.00044	0.00035	0.01038	0	0	0.00035
244	0.00008	0.00008	0.01038	0	0	0.00008
255	0.00943	0.00283	0.01038	0.0001	0.00003	0.0029
268	0.02167	0.00899	0.01038	0.00022	0.00009	0.0089
269	0.0691	0.04948	0.01038	0.00072	0.00051	0.04897
515	0.00011	0.00288	0.01038	0	0.00003	0.00283
PCE-LOW		0	0.01038		0	0
PCE-MEDIUM		0	0.01038		0	0
PCE-HIGH		0	0.01038		0	0
CAPITAL FORMATION		0	0.01038		0	0
INVENTORY ADDITION		0.08265	0.01038		0.00088	0.08179
SL GOVT PUR/NON-ED		0	0.01038		0	0
SL GOVT PUR/ED		0	0.01038		0	0
FED GOVT PUR/NON-MIL		0	0.01038		0	0
FED GOVT PUR/MIL		0	0.01038		0	0
COMMODITY CREDIT CORP		0	0.01038		0	0
FOREIGN EXPORTS		0.01738	1		0.01738	0
DOMESTIC EXPORTS		0			1.79383	0
TOTAL FINAL DEMAND		0.10001	0.01038		0.01822	0.08179
TOTAL COMMODITY OUTPUT		1.7408				
END BALANCE SHEET, COMMODITY 48						

EXHIBIT A-2  
INDUSTRY CLASSIFICATION OF THE  
MICRO-IMPLAN 528 SECTOR  
INPUT/OUTPUT TABLES

No.	IMPLAN Sector Name	Bureau of Economic Analysis Commodity	Standard Industry Classification (SIC)
1	Dairy Farm Products	1.0100	0241 Also: part of 0191, 0259, 0291
2	Poultry & Eggs	1.0200	0251, 0252, 0253 Also: part of 0191, 0219, 0259, 0291
3	Ranch Fed Cattle	1.0311	Part of 0191, 0212, 0219, 0259, 0291
4	Range Fed Cattle	1.0312	Part of 0191, 0212, 0219, 0259, 0291
5	Cattle Feedlots	1.0313	0211 Also: part of 0191, 0219, 0259, 0291
6	Sheep, Lambs & Goats	1.0314	0214 Also: part of 0191, 0219, 0259, 0291
7	Hogs, Pigs & Swine	1.0315	0213 Also: part of 0191, 0219, 0259, 0291
8	Other Meat Animal Products	1.0316	Part of 0191, 0219, 0259, 0291
9	Misc. Livestock	1.0302	0271, 0272 Also: part of 0191, 0219, 0259, 0279, 0291
10	Cotton	2.0100	0131 Also: part of 0191, 0219, 0259, 0291
11	Food Grains	2.0201	0111, 0112 Also: part of 0191, 0219, 0259, 0291
12	Feed Grains	2.0221	0115 Also: part of 0139, 0191, 0219, 0259, 0291
13	Hay & Pasture	2.0222	Part of 0139, 0191, 0219, 0259, 0291
14	Grass & Seeds	2.0203	Part of 0139, 0191, 0219, 0259, 0291
15	Tobacco	2.0300	0132 Also: part of 0191, 0219, 0259, 0291
16	Fruits	2.0401	0171, 0172, 0174, 0175 Also: part of 0179, 0191, 0219, 0259, 0291
17	Tree Nuts	2.0402	Part of 0173, 0179, 0191, 0219, 0259, 0291
18	Vegetables	2.0501	0134, 0161 Also: part of 0119, 0139, 0191, 0219, 0259, 0291
19	Sugar Crops	2.0502	0133 Also: part of 0191, 0219, 0259, 0291
20	Misc. Crops	2.0503	Part of 0119, 0139, 0191, 0219, 0259, 0291
21	Oil Bearing Crops	2.0600	0116 Also: part of 0119, 0139, 0173, 0219, 0259, 0291
22	Forest Products	2.0701	Part of 0101, 0191, 0219, 0259, 0291
23	Greenhouse & Nursery Products	2.0702	0102, 0109 Also: part of 0101, 0191, 0219, 0259, 0291
24	Forestry Products	3.0001	0010, 0020, 0040, 0070
25	Commercial Fishing	3.0002	0910
26	Agriculture, Forestry & Fishery Services	4.0001	0710, 0720, 0750, 0760, 0254, 0050, 0920 Also: part of 0279
27	Landscape & Horticultural Services	4.0002	0780
28	Iron Ores	5.0100	1011
29	Ferroalloy Ores (Except Vanadium)	5.0200	1061
30	Copper Ores	6.0100	1021
31	Lead & Zinc Ores	6.0201	1031
32	Gold Ores	6.0202	1041
33	Silver Ores	6.0203	1044
34	Bauxite & Other Aluminum Ores	6.0204	1051
35	Metal Mining Services	6.0205	1081
36	Mercury Ores	6.0306	1092
37	Uranium-Radium- Vanadium Ores	6.0207	1094
38	Metal Ores (N.E.C.)	6.0208	1099
39	Anthracite & Anthracite Mining	7.0100	1111 Also: part of 1112
40	Bituminous & Lignite Mining, Services	7.0200	1211 Also: part of 1213
41	Natural Gas	8.0101	Caution: 1310 is split between 8.0101 and 8.0102
42	Crude Petroleum	8.0102	1310 See note above.
43	Natural Gas Liquids	8.0200	1321

No.	IMPLAN Sector Name	Bureau of Economic Analysis Commodity	Standard Industry Classification (SIC)
44	Dimension Stone	9.0100	1411
45	Crushed & Broken Limestone	9.0201	1422
46	Crushed & Broken Granite	9.0202	1423
47	Crushed & Broken Stone	9.0203	1429
48	Construction Sand & Gravel	9.0301	1442
49	Industrial Sand	9.0302	1446
50	Bentonite	9.0400	1452
51	Fire Clay	9.0500	1453
52	Fuller's Earth	9.0600	1454
53	Kaolin & Ball Clay	9.0700	1455
54	Clay, Ceramic, Refractory Minerals	9.0800	1459
55	Nonmetallic Minerals (Except Fuels)	9.0900	1451
56	Gypsum	9.1000	1482
57	Talc, Soapstone & Borate Mines	9.1100	1496
58	Misc. Nonmetallic Minerals (N.E.C.)	9.1200	1499
59	Barite	10.0100	1492
60	Flourspar	10.0200	1473
61	Potash, Soda & Borate Minerals	10.0300	1474
62	Phosphate Rock	10.0400	1475
63	Rock Salt	10.0500	1476
64	Sulfur	10.0600	1477
65	Chemical, Fertilizer, Mineral Mines N.E.C.	10.0700	1479
66	New Residential Structures	11.0100	1521, 1522, 1530 In reality: part of the corresponding SICs
67	New Industrial & Commercial Buildings	11.0200	1541, 1542 In reality: part of the corresponding SICs
68	New Utility Structures	11.0300	1623 Also: part of 1629
69	New Highways & Streets	11.0400	1611, 1622
70	New Farm Structures	11.0500	
71	New Mineral Extraction Facilities	11.0600	Part of 108, 1112, 1213, 136, 148
72	New Government Facilities	11.0700	1629 In reality: part of 1629
73	Maintenance & Repair, Residential	12.0100	
74	Maintenance & Repair, Other Facilities	12.0200	
75	Maintenance & Repair, Oil & Gas Wells	12.0215	1380 In reality: part of 138
76	Complete Guided Missiles	13.0100	3761
77	Ammunition (Except for Small Arms)	13.0200	3483
78	Tanks & Tank Components	13.0300	3795
79	Small Arms	13.0500	3484
80	Small Arms Ammunition	13.0600	3482
81	Other Ordnance & Accessories	13.0700	3489
82	Meat Packing Plants	14.0101	2011
83	Sausages & Other Prepared Meats	14.0102	2013
84	Poultry Dressing Plants	14.0103	2016
85	Poultry & Egg Proc.	14.0104	2017
86	Creamery Butter	14.0200	2021
87	Cheese: Natural & Processed	14.0300	2022
88	Condensed & Evaporated Milk	14.0400	2023
89	Ice Cream & Frozen Desserts	14.0500	2024
90	Fluid Milk	14.0600	2026
91	Canned & Cured Sea Foods	14.0700	2091
92	Canned Specialties	14.0800	2032

No.	IMPLAN Sector Name	Bureau of Economic Analysis Commodity	Standard Industry Classification (SIC)
93	Canned Fruits & Vegetables	14.0900	2033
94	Dehydrated Food Products	14.1000	2034
95	Pickles, Sauces, & Salad Dressings	14.1100	2035
96	Fresh or Frozen Packaged Fish	14.1200	2092
97	Frozen Fruits, Juices, & Vegetables	14.1301	2037
98	Frozen Specialties	14.1302	2038
99	Flour & Other Grain Mill Products	14.1401	2041
100	Cereal Preparations	14.1402	2043
101	Blended & Prepared Flour	14.1403	2045
102	Dog, Cat, & Other Pet Food	14.1501	2047
103	Prepared Feeds (N.E.C.)	14.1502	2048
104	Rice Milling	14.1600	2044
105	Wet Corn Milling	14.1700	2046
106	Bread, Cake, & Related Products	14.1801	2051
107	Cookies & Crackers	14.1802	2052
108	Sugar	14.1900	2061, 2062, 2063
109	Confectionery Products	14.2001	2065
110	Chocolate & Cocoa Products	14.2002	2066
111	Chewing Gum	14.2003	2067
112	Malt Liquors	14.2101	2082
113	Malt	14.2102	2083
114	Wines, Brandy, & Brandy Spirit	14.2103	2084
115	Distilled Liquor (Except Brandy)	14.2104	2085
116	Bottled & Canned Soft Drinks	14.2200	2086
117	Flavoring Extracts & Syrups (N.E.C.)	14.2300	2087
118	Cottonseed Oil Mills	14.2400	2074
119	Soybean Oil Mills	14.2500	2075
120	Vegetable Oil Mills (N.E.C.)	14.2600	2076
121	Animal & Marine Fats & Oils	14.2700	2077
122	Roasted Coffee	14.2800	2095
123	Shortening & Cooking Oils	14.2900	2079
124	Manufactured Ice	14.3000	2097
125	Macaroni & Spaghetti	14.3100	2098
126	Food Preparations (N.E.C.)	14.3200	2099
127	Cigarettes	15.0101	2110
128	Cigars	15.0102	2120
129	Chewing & Smoking Tobacco	15.0103	2130
130	Tobacco Stemming & Redrying	15.0200	2140
131	Broadwoven Fabric Mills & Finishing	16.0100	2210, 2220, 2230, 2261, 2262
132	Narrow Fabric Mills	16.0200	2240
133	Yarn Mills & Finishing of Textiles (N.E.C.)	16.0300	2269, 2281, 2282, 2283
134	Thread Mills	16.0400	2284
135	Floor Coverings	17.0100	2270
136	Felt Goods (N.E.C.)	17.0200	2291
137	Lace Goods	17.0300	2292
138	Padding & Upholstery Filling	17.0400	2293
139	Processed Textile Waste	17.0500	2294
140	Coated Fabrics (Not Rubberized)	17.0600	2295
141	Tire Cord & Fabric	17.0700	2296

No.	IMPLAN Sector Name	Bureau of Economic Analysis Commodity	Standard Industry Classification
142	Cordage & Twine	17.0900	2298
143	Nonwoven Fabrics	17.1001	2297
144	Textile Goods (N.E.C.)	17.1002	2299
145	Women's Hosiery (Except Socks)	18.0101	2251
146	Hosiery (N.E.C.)	18.0102	2252
147	Knit Outerwear Mills	18.0201	2253
148	Knit Underwear Mills	18.0202	2254
149	Knitting Mills (N.E.C.)	18.0203	2259
150	Knit Fabric Mills	18.0300	2257, 2258
151	Apparel Made From Purchased Materials	18.0400	2310, 2320, 2330, 2340, 2350, 2360, 2370, 2380 Also: part of 3999
152	Curtains & Draperies	19.0100	2391
153	Housefurnishings (N.E.C.)	19.0200	2392
154	Textile Bags	19.0301	2393
155	Canvas Products	19.0302	2394
156	Pleating & Stitching	19.0303	2395
157	Automotive & Apparel Trimmings	19.0304	2396
158	Schiffi Machine Embroideries	19.0305	2397
159	Fabricated Textile Products (N.E.C.)	19.0306	2399
160	Logging Camps & Logging Contractors	20.0100	2410
161	Sawmills & Planning Mills, General	20.0200	2421
162	Hardwood Dimension & Flooring Mills	20.0300	2426
163	Special Product Sawmills (N.E.C.)	20.0400	2429
164	Millwork	20.0501	2431
165	Wood Kitchen Cabinets	20.0502	2434
166	Veneer & Plywood	20.0600	2435, 2436
167	Structural Wood Members (N.E.C.)	20.0701	2439
168	Prefabricated Wood Buildings	20.0702	2452
169	Wood Preserving	20.0800	2491
170	Wood Pallets & Skids	20.0901	2448
171	Particleboard	20.0902	2492
172	Wood Products (N.E.C.)	20.0903	2499
173	Wood Containers	21.0000	2441, 2449
174	Wood Household Furniture	22.0101	2511
175	Household Furniture (N.E.C.)	22.0102	2519
176	Wood TV & Radio Cabinets	22.0103	2517
177	Upholstered Household Furniture	22.0200	2512
178	Metal Household Furniture	22.0300	2514
179	Mattresses & Bedspings	22.0400	2515
180	Wood Office Furniture	23.0100	2521
181	Metal Office Furniture	23.0200	2522
182	Public Building Furniture	23.0300	2531
183	Wood Partitions & Fixtures	23.0400	2541
184	Metal Partitions & Fixtures	23.0500	2542
185	Blinds, Shades, & Drapery Hardware	23.0600	2591
186	Furniture & Fixtures (N.E.C.)	23.0700	2599
187	Pulp Mills	24.0100	2610
188	Paper Mills (Except Building Paper)	24.0200	2620
189	Paperboard Mills	24.0300	2630

No.	IMPLAN Sector Name	Bureau of Economic Analysis Commodity	Standard Industry Classification (SIC)
190	Envelopes	24.0400	2642
191	Sanitary Paper Products	24.0500	2647
192	Building Paper & Board Mills	24.0602	2660
193	Paper Coating & Glazing	24.0701	2641
194	Bags (Except Textile)	24.0702	2643
195	Die-Cut Paper & Board	24.0703	2645
196	Pressed & Molded Pulp Goods	24.0704	2646
197	Stationery Products	24.0705	2648
198	Converted Paper Products (N.E.C.)	24.0706	2649
199	Paperboard Containers & Boxes	25.0000	2650
200	Newspapers	26.0100	2710
201	Periodicals	26.0200	2720
202	Book Publishing	26.0301	2731
203	Book Printing	26.0302	2732
204	Misc. Publishing	26.0400	2740
205	Commercial Printing	26.0501	2751, 2752, 2754
206	Lithographic Platemaking & Services	26.0502	2795
207	Manifold Business Forms	26.0601	2760
208	Blankbooks & Looseleaf Binders	26.0602	2782
209	Greeting Card Publishing	26.0700	2770
210	Engraving & Plate Printing	26.0801	2753
211	Bookbinding & Related Work	26.0802	2789
212	Typesetting	26.0803	2791
213	Photoengraving	26.0804	2793
214	Electrotyping & Stereotyping	26.0805	2794
215	Industrial Inorganic & Organic Chemicals	27.0100	2810, 2865, 2869 In reality only part of 2819
216	Nitrogenous & Phosphatic Fertilizers	27.0201	2873, 2874
217	Fertilizers (Mixing Only)	27.0202	2875
218	Agricultural Chemicals (N.E.C.)	27.0300	2879
219	Gum & Wood Chemicals	27.0401	2861
220	Adhesives & Sealants	27.0402	2891
221	Explosives	27.0403	2892
222	Printing Ink	27.0404	2893
223	Carbon Black	27.0405	2895
224	Chemical Preparations (N.E.C.)	27.0406	2899
225	Plastics Materials & Resins	28.0100	2821
226	Synthetic Rubber	28.0200	2822
227	Cellulosic Man-Made Fibers	28.0300	2823
228	Organic Fibers (Noncellulosic)	28.0400	2824
229	Drugs	29.0100	2830
230	Soap & Other Detergents	29.0201	2841
231	Polishes & Sanitation Goods	29.0202	2842
232	Surface Active Agents	29.0203	2843
233	Toilet Preparations	29.0300	2844
234	Paints & Allied Products	30.0000	2850
235	Petroleum Refining	31.0101	2910
236	Lubricating Oils & Greases	31.0102	2992
237	Petroleum & Coal Products (N.E.C.)	31.0103	2999
238	Paving Mixtures & Blocks	31.0200	2951

No.	IMPLAN Sector Name	Bureau of Economic Analysis Commodity	Standard Industry Classification (SIC)
239	Asphalt Felts & Coatings	31.0300	2952
240	Tires & Inner Tubes	32.0100	3010
241	Rubber & Plastics Footwear	32.0200	3020
242	Reclaimed Rubber	32.0301	3030
243	Fabricated Rubber Products (N.E.C.)	32.0302	3060
244	Misc. Plastics Products	32.0400	3070
245	Rubber & Plastics Hose & Belting	32.0500	3040
246	Leather tanning & Finishing	33.0001	3110
247	Footwear Cut Stock	34.0100	3130
248	Shoes (Except Rubber)	34.0201	3143, 3144, 3149
249	House Slippers	34.0202	3142
250	Leather Gloves & Mittens	34.0301	3150
251	Luggage	34.0302	3160
252	Women's Handbags & Purses	34.0303	3171
253	Personal Leather Goods	34.0304	3172
254	Leather Goods (N.E.C.)	34.0305	3190
255	Glass Products (N.E.C.)	35.0100	3210, 3229, 3230
256	Glass Containers	35.0200	3221
257	Cement, Hydraulic	36.0100	3240
258	Brick & Structural Clay Tile	36.0200	3251
259	Ceramic Wall & Floor Tile	36.0300	3253
260	Clay Refractories	36.0400	3255
261	Structural Clay Products (N.E.C.)	36.0500	3259
262	Vitreous Plumbing Fixtures	36.0600	3261
263	Vitreous China Food Utensils	36.0701	3262
264	Fine Earthenware Food Utensils	36.0702	3263
265	Porcelain Electrical Supplies	36.0800	3264
266	Pottery Products (N.E.C.)	36.0900	3269
267	Concrete Block & Brick	36.1000	3271
268	Concrete Products (N.E.C.)	36.1100	3272
269	Ready-Mixed Concrete	36.1200	3273
270	Lime	36.1300	3274
271	Gypsum Products	36.1400	3275
272	Cut Stone & Stone Products	36.1500	3280
273	Abrasive Products	36.1600	3291
274	Asbestos Products	36.1700	3292
275	Gaskets, Packing & Sealing Devices	36.1800	3293
276	Minerals, Ground or Treated	36.1900	3295
277	Mineral Wool	36.2000	3296
278	Nonclay Refractories	36.2100	3297
279	Nonmetallic Mineral Products (N.E.C.)	36.2200	3299
280	Blast Furnaces & Steel Mills	37.0101	3312
281	Electrometallurgical Products	37.0102	3313
282	Steel Wire & Related Products	37.0103	3315
283	Cold Finishing of Steel Shapes	37.0104	3316
284	Steel Pipe & Tubes	37.0105	3317
285	Iron & Steel Foundries	37.0200	3320
286	Iron & Steel Forging	37.0300	3462
287	Metal Heat Treating	37.0401	3398

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No.	IMPLAN Sector Name	Bureau of Economic Analysis Commodity	Standard Industry Classification (SIC)
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288	Primary Metal Products (N.E.C.)	37.0402	3399
289	Primary Copper	38.0100	3331
290	Primary Lead	38.0200	3332
291	Primary Zinc	38.0300	3333
292	Primary Aluminum	38.0400	3334 Also: part of 2819
293	Primary Non-Ferrous Metals (N.E.C.)	38.0500	3339
294	Secondary Non-Ferrous Metals	38.0600	3340
295	Copper Rolling & Drawing	38.0700	3351
296	Aluminum Rolling & Drawing	38.0800	3353, 3354, 3355
297	Non-Ferrous Rolling & Drawing (N.E.C.)	38.0900	3356
298	Non-Ferrous Wire Drawing & Insulating	38.1000	3357
299	Aluminum Castings	38.1100	3361
300	Brass, Bronze, & Copper Castings	38.1200	3362
301	Non-Ferrous Castings (N.E.C.)	38.1300	3369
302	Non-Ferrous Forging	38.1400	3463
303	Metal Cans	39.0100	3411
304	Metal Barrels, Drums, & Pails	39.0200	3412
305	Metal Sanitary Ware	40.0100	3431
306	Plumbing Fixture Fittings & Trim	40.0200	3432
307	Heating Equipment (Except Electric)	40.0300	3433
308	Fabricated Structural Metal	40.0400	3441
309	Metal Doors, Sash, & Trim	40.0500	3442
310	Fabricated Plate Work (Boiler Shops)	40.0600	3443
311	Sheet Metal Work	40.0700	3444
312	Architectural Metal Work	40.0800	3446
313	Prefabricated Metal Buildings	40.0901	3448
314	Misc. Metal Work	40.0902	3449
315	Screw Machine Products & Bolts	41.0100	3450
316	Automotive Stamping	41.0201	3465
317	Crowns & Closures	41.0202	3466
318	Metal Stamping (N.E.C.)	41.0203	3469
319	Cutlery	42.0100	3421
320	Hand & Edge Tools (N.E.C.)	42.0201	3423
321	Hand Saws & Saw Blades	42.0202	3425
322	Hardware (N.E.C.)	42.0300	3429
323	Plating & Polishing	42.0401	3471
324	Metal Coating & Allied Services	42.0402	3479
325	Misc. Fabricated Wire Products	42.0500	3495, 3496
326	Steel Springs (Except Wire)	42.0700	3493
327	Pipe, Valves, & Pipe Fittings	42.0800	3494, 3498
328	Metal Foil & Leaf	42.1000	3497
329	Fabricated Metal Products (N.E.C.)	42.1100	3499
330	Steam Engines & Turbines	43.0100	3511
331	Internal Combustion Engines (N.E.C.)	43.0200	3519
332	Farm Machinery & Equipment	44.0001	3523
333	Lawn & Garden Equipment	44.0002	3524
334	Construction Machinery & Equipment	45.0100	3531
335	Mining Machinery (Except Oil Fields)	45.0200	3532
336	Oil Field Machinery	45.0300	3533

No.	IMPLAN Sector Name	Bureau of Economic Analysis Commodity	Standard Industry Classification (SIC)
337	Elevators & Moving Stairways	46.0100	3534
338	Conveyors & Conveying Equipment	46.0200	3535
339	Hoists, Cranes, & Monorails	46.0300	3536
340	Industrial Trucks & Tractors	46.0400	3537
341	Machine Tools, Metal Cutting Types	47.0100	3541
342	Machine Tools, Metal Forming Types	47.0200	3542
343	Special Dies & Tools & Accessories	47.0300	3544, 3545
344	Power Driven Hand Tools	47.0401	3546
345	Rolling Mill Machinery	47.0402	3547
346	Metalworking Machinery (N.E.C.)	47.0403	3549
347	Food Products Machinery	48.0100	3551
348	Textile Machinery	48.0200	3552
349	Woodworking Machinery	48.0300	3553
350	Paper Industries Machinery	48.0400	3554
351	Printing Trades Machinery	48.0500	3555
352	Special Industry Machinery (N.E.C.)	48.0600	3559
353	Pumps & Compressors	49.0100	3561, 3563
354	Ball & Roller Bearings	49.0200	3562
355	Blowers & Fans	49.0300	3564
356	Industrial Patterns	49.0400	3565
357	Power Transmission Equipment	49.0500	3566, 3568
358	Industrial Furnaces & Ovens	49.0600	3567
359	General Industrial Machinery (N.E.C.)	49.0700	3569
360	Carburetors, Pistons, Rings, Valves	50.0001	3592
361	Machinery (Except Electrical) (N.E.C.)	50.0002	3599
362	Electronic Computing Equipment	51.0101	3573
363	Calculating & Accounting Machinery	51.0102	3574
364	Scales & Balances	51.0300	3576
365	Typewriters & Office Machines	51.0400	3572, 3579
366	Automatic Merchandising Machines	52.0100	3581
367	Commercial Laundry Equipment	52.0200	3582
368	Refrigeration & Heating Equipment	52.0300	3585
369	Measuring & Dispensing Pumps	52.0400	3586
370	Service Industry Machines (N.E.C.)	52.0500	3589
371	Instruments to Measure Electricity	53.0100	3625
372	Transformers	53.0200	3612
373	Switchgear & Switchboard Apparatus	53.0300	3613
374	Motors & Generators	53.0400	3621
375	Industrial Controls	53.0500	3622
376	Welding Apparatus, Electric	53.0600	3623
377	Carbon & Graphite Products	53.0700	3624
378	Electrical Industrial Apparatus (N.E.C.)	53.0800	3629
379	Household Cooking Equipment	54.0100	3631
380	Household Refrigerators & Freezers	54.0200	3632
381	Household Laundry Equipment	54.0300	3633
382	Electric Housewares & Fans	54.0400	3634
383	Household Vacuum Cleaners	54.0500	3635
384	Sewing Machines	54.0600	3636
385	Household Appliances (N.E.C.)	54.0700	3639

No.	IMPLAN Sector Name	Bureau of Economic Analysis Commodity	Standard Industry Classification (SIC)
386	Electric Lamps	55.0100	3641
387	Lighting Fixtures & Equipment	55.0200	3645, 3646, 3647, 3648
388	Wiring Devices	55.0300	3643, 3644
389	Radio & TV Receiving Sets	56.0100	3651
390	Phonograph Records & Tapes	56.0200	3652
391	Telephone & Telegraph Apparatus	56.0300	3661
392	Radio & TV Communication Equipment	56.0400	3662
393	Electron Tubes	57.0100	3671, 3672, 3673
394	Semiconductors & Related Devices	57.0200	3674
395	Electronic Components (N.E.C.)	57.0300	3675, 3676, 3677, 3678, 3679
396	Storage Batteries	58.0100	3691
397	Primary Batteries, Dry & Wet	58.0200	3692
398	X-Ray Apparatus & Tubes	58.0300	3693
399	Engine Electrical Equipment	58.0400	3694
400	Electrical Equipment (N.E.C.)	58.0500	3699
401	Truck & Bus Bodies	59.0100	3713
402	Truck Trailers	59.0200	3715
403	Motor Vehicles	59.0301	3711
404	Motor Vehicle Parts & Accessories	59.0302	3714
405	Aircraft	60.0100	3721
406	Aircraft & Missile Engines & Parts	60.0200	3724, 3764
407	Aircraft & Missile Equipment (N.E.C.)	60.0400	3728, 3769
408	Ship Building & Repairing	61.0100	3731
409	Boat Building & Repairing	61.0200	3732
410	Railroad Equipment	61.0300	3740
411	Motorcycles, Bicycles, & Parts	61.0500	3750
412	Travel Trailers & Campers	61.0601	3792
413	Mobile Homes	61.0602	2451
414	Motor Homes	61.0603	3716
415	Transportation Equipment (N.E.C.)	61.0700	3799
416	Engineering & Scientific Instruments	62.0100	3811
417	Mechanical Measuring Devices	62.0200	3823, 3824, 3829
418	Automatic Temperature Controls	62.0300	3822
419	Surgical & Medical Instruments	62.0400	3841
420	Surgical Appliances & Supplies	62.0500	3842
421	Dental Equipment & Supplies	62.0600	3843
422	Watches, Clocks, & Parts	62.0700	3870
423	Optical Instruments & Lenses	63.0100	3830
424	Ophthalmic Goods	63.0200	3850
425	Photographic Equipment & Supplies	63.0300	3860
426	Jewelry, Precious Metal	64.0101	3911
427	Jewelers' Materials & Lapidary	64.0102	3915
428	Silverware & Plated Ware	64.0104	3914
429	Costume Jewelry	64.0105	3961
430	Musical Instruments	64.0200	3930
431	Games, Toys, & Children's Vehicles	64.0301	3944
432	Dolls	64.0302	3942
433	Sporting & Athletic Goods	64.0400	3949
434	Pens & Mechanical Pencils	64.0501	3951

No.	IMPLAN Sector Name	Bureau of Economic Analysis Commodity	Standard Industry Classification (SIC)
435	Lead Pencils & Art Goods	64.0502	3952
436	Marking Devices	64.0503	3953
437	Carbon Paper & Inked Ribbons	64.0504	3955
438	Artificial Trees & Flowers	64.0600	3962
439	Buttons	64.0701	3963
440	Needles, Pins, & Fasteners	64.0702	3964
441	Brooms & Brushes	64.0800	3991
442	Hard Surface Floor Coverings	64.0900	3996
443	Burial Caskets & Vaults	64.1000	3995
444	Signs & Advertising Displays	64.1100	3993
445	Manufacturing Industries (N.E.C.)	64.1200	3999 In reality: part of 3999
446	Railroads & Related Services	65.0100	4010, 4040, 4740 Also: part of 4789
447	Local, Interurban Passenger Transit	65.0200	4110, 4120, 4130, 4140, 4150, 4170
448	Motor Freight Transport & Warehousing	65.0300	4210, 4220, 4230 Also: part of 4789
449	Water Transportation	65.0400	4410, 4420, 4430, 4440, 4450, 4460
450	Air Transportation	65.0500	4510, 4520, 4580
451	Pipe Lines (Except Natural Gas)	65.0600	4610
452	Transportation Services	65.0701	4710, 4723, 4780 In reality: part of 4780
453	Arrangement of Passenger Transportation	65.0702	4722
454	Communications (Except Radio & TV)	66.0000	4810, 4820, 4890
455	Radio & TV Broadcasting	67.0000	4830
456	Electric Services	68.0100	4910 Also: part of 4930
457	Gas Production & Distribution	68.0200	4920 Also: part of 4930
458	Water Supply & Sewage System	68.0301	4940, 4952
459	Sanitary Services & Steam Supplies	68.0302	4953, 4959, 4960, 4970 Also: part of 4930
460	Recreational Related Wholesale Trade	69.0101	5041, 5043
461	Other Wholesale Trade	69.0102	5010, 5020, 5030, 5042, 5050, 5060, 5070, 5080, 5090, 5100
462	Recreational Related Retail Trade	69.0201	5551, 5561, 5941, 5946, 5947, 5948
463	Other Retail Trade	69.0202	5200, 5300, 5400, 5510, 5520, 5530, 5540, 5570, 5590, 5600, 5700, 5910, 5920, 5930, 5942, 5943, 5944, 5945, 5949, 5960, 5980, 5990, 7396, 8042
464	Banking	70.0100	6000
465	Credit Agencies	70.0200	6100, 6710, 6720, 6733, 6790
466	Security & Commodity Brokers	70.0300	6200
467	Insurance Carriers	70.0400	6300
468	Insurance Agents & Brokers	70.0500	6400
469	Owner-Occupied Dwellings	71.0100	
470	Real Estate	71.0200	6500, 6600 Also: part of 1531; excluding part of 6552
471	Hotels & Lodging Places	72.0100	7000
473	Laundry, Cleaning, & Shoe Repair	72.0201	7210, 7250
473	Funeral Service & Crematories	72.0202	7260
474	Portrait & Photographic Studios	72.0203	7220, 7290
475	Electrical Repair Services	72.0204	7620
476	Watch, Clock, Jewelry & Furniture Repair	72.0205	7630, 7640
477	Beauty & Barber Shops	72.0300	7230, 7240
478	Misc. Repair Shops	73.0101	7690
479	Services to Buildings	73.0102	7340
480	Personnel Supply Services	73.0103	7360
481	Computer & Data Processing Services	73.0104	7370

No.	IMPLAN Sector Name	Bureau of Economic Analysis Commodity	Standard Industry Classification (SIC)
482	Management & Consulting Services	73.0105	7391, 7392, 7397
483	Detective & Protective Services	73.0106	7393
484	Equipment Repair & Leasing	73.0107	7394
485	Photofinishing, Commercial Photography	73.0108	7332, 7333, 7395
486	Other Business Services	73.0109	7320, 7331, 7339, 7350, 7399
487	Advertising	73.0200	7310
488	Legal Services	73.0301	8110
489	Engineering, Architectural Services	73.0302	8910
490	Accounting, Auditing, & Bookkeeping	73.0303	8930, 8990
491	Eating & Drinking Places	74.0000	5800 Also: part of 70
492	Automobile Rental & Leasing	75.0001	7510
493	Automobile Repair & Services	75.0002	7530, 7549
494	Automobile Parking & Car Wash	75.0003	7520, 7542
495	Motion Pictures	76.0100	7800
496	Dance Halls, Studios, & Schools	76.0200	7910
497	Theatrical Producers, Bands, Etc.	76.0201	7920
498	Bowling Alleys & Pool Halls	76.0202	7930
499	Commercial Sports (Except Racing)	76.0203	7941
500	Racing & Track Operation	76.0204	7948
501	Membership Sports & Recreation	76.0205	7997
502	Amusement & Recreation Service	76.0207	7992, 7993, 7996, 7999
503	Doctors & Dentists	77.0100	8010, 8020, 8030, 8041
504	Hospitals	77.0200	8060
505	Nursing & Protective Care	77.0301	8050
506	Other Medical & Health Services	77.0302	8040, 8049, 8070, 8080, 8090
507	Elementary & Secondary Schools	77.0401	8210
508	Colleges, Universities, Schools	77.0402	8220
509	Other Educational Services	77.0403	8230, 8240, 8290
510	Business Associations	77.0501	8610, 8620
511	Labor & Civil Organizations	77.0502	8630, 8640
512	Religious Organizations	77.0503	8660
513	Other Nonprofit Organizations	77.0504	8400, 8650, 8690, 6732, 8922
514	Residential Care	77.0800	8361
515	Social Services (N.E.C.)	77.0900	8321, 8399, 8331, 8351
516	U.S. Postal Service	78.0100	4311
517	Federal Electric Utilities	78.0200	Part of 491
518	Other Federal Government Enterprises	78.0400	--
519	Local Government Passenger Transit	79.0100	Part of 41
520	State & Local Electric Utilities	79.0200	Part of 491
521	Other State & Local Government Enterprises	79.0300	--
522	Noncomparable Imports	80.0000	--
523	Scrap	81.0001	--
524	Used & Secondhand Goods	81.0002	--
525	Government Industry	82.0000	--
526	Rest of the World Industry	83.0000	--
527	Household Industry	84.0000	8800
528	Inventory Valuation Adjustment	85.0000	--

## GLOSSARY

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**By-Products Matrix** The fraction of each industry's Total Output that each commodity represents.

**Absorption Matrix** The fractions of each industry's total outlay spent on commodities consumed during production, net of imports.

**Make Matrix** The values of commodities produced by each industry.

---

**Use Matrix** The values of commodities (columns) used in production by each industry (rows), net of imports.

---

**Market Shares** The fraction of each commodity's Total Supply produced by each industry.

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**Total Absorption Coefficient** The corresponding industry column from the National absorption matrix (if unmodified).

**Gross Inputs** The industry's total purchase of the commodity (includes imports). This can be calculated as  
 $\text{Total Industry Output} * \text{Total Absorption Coefficient}$

**Regional Absorption Coefficient** The fraction of the industry's total outlay spent on a commodity (net of imports). This is the product of the Total Absorption Coefficient \* RPC.

**Regional Inputs** The industry's local purchase of each commodity. This is equal the product of Gross Inputs times the RPC.

**Domestic Imports** This is actually Total Imports and is equal to Gross Inputs minus Regional Inputs.

Value added components and Total Industry Output are shown to complete the input requirements for the industry balance sheet.

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**Industry Production** Total production of the highlighted commodity by each industry producing the commodity.

**Market Share Coefficient** The non-zero components from the corresponding commodity column of the Market Share matrix.

**By-Product Coefficient** The non-zero components from the corresponding commodity column of the By-product matrix.

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