

TECHNICAL MEMORANDUM

DATE: Friday, April 25, 1997
TO: Project Team, Peer Review Panel
FROM: Carl Batten
SUBJECT: Derivation of Technical Coefficients for Tranus' Social Accounting Matrix

The Tranus Social Accounting Matrix

The social accounting matrix lies at the core of Tranus' activity model. A social accounting matrix is an extended input-output table. In its upper left-hand corner is the interindustry table commonly used in input-output analysis. Additional rows in the social accounting matrix represent primary inputs. The most important of these for land use and transportation modeling are land and building space, which allow real estate prices and land use constraints to affect location, and households (by income class) which, as they supply labor to the production process, generate work trips. Additional columns represent the components of final demand. The household columns generate trips to purchase goods and services.

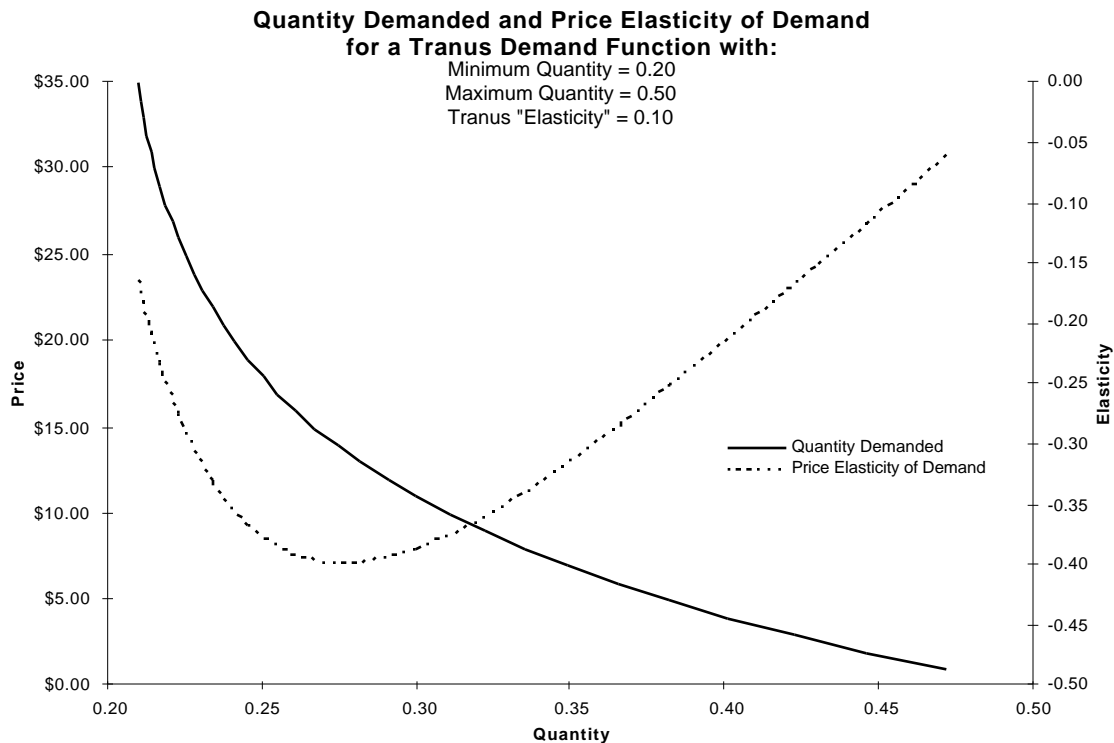
In a direct requirements table from a traditional input-output model, each cell contains a fixed coefficient representing the number of dollars' worth of the row sector's output used to produce one dollar's worth of the column sector's output. In the Tranus model, each cell contains three pieces of information:

- the minimum quantity of the row sector's output that is required to produce one unit of the column sector's output
- the maximum quantity of the row sector's output that could be put to use producing one unit of the column sector's output
- a coefficient relating changes in the quantity of the row sector's output used in the production of one unit of the column sector's output to the price of the row sector's output within the range of quantities between the minimum and maximum above.

Taken together, these three parameters define a demand function. Tranus also allows the specification of substitution functions, which incorporate the prices of substitute inputs into the calculation of quantity demanded.

It is important to note that although the third parameter is referred to as an “elasticity” in the Tranus documentation, it is not the same thing as what is referred to as an elasticity in the economics literature. In economics, a price elasticity of demand is ratio of the proportional change in quantity demanded to the proportional change in price. For example, a price elasticity of demand of -1.0 means that a one percent increase in price will result in a one percent decrease in quantity demanded. In Tranus, the “elasticity” represents a coefficient from a logit model. In the no-substitutes case, Tranus calculates the quantity of row sector output used in the production of one unit of column sector output as the minimum quantity plus (the maximum quantity minus the minimum quantity) times e to the (minus “elasticity” times a zone-specific price). Figure 1 shows a Tranus demand function.

Figure 1: Example Tranus Demand Function



As can be seen in this example, the elasticity of the Tranus demand function depends on both the specification of the Tranus “elasticity” parameter and the price.

For the interindustry portion of the social accounting matrix, we will be specifying fixed technical coefficients (i.e., the maximum and minimum quantities will be the same). These coefficients will be based on an input-output model of the state of Oregon produced by IMPLAN, a system of software and

data sets originally developed by the U.S. Forest Service for policy analysis. Some adjustments to technical coefficients in the trade sectors will be required, along with changes in the personal consumption expenditure vectors for the household classes, to align the representation of economic activity with travel activity.

How IMPLAN works

The IMPLAN system is a set of software tools and databases that is capable of constructing synthetic input-output tables for any county or aggregation of counties in the United States. It also facilitates the definition of economic activities as vectors of changes in final demand and automates the estimation of economic impacts that would result from changes in the levels of activities. For this project, we used IMPLAN to estimate the technical coefficients used to populate the interindustry portion of the statewide social accounting matrix used in the Transus model.

IMPLAN comes with the following data:

- A national-level table of direct requirements coefficients. Each column represents an industry and each row represents a commodity. Each cell in the table represents the number of dollars' worth of the row commodity used to produce one dollar's worth of the column industry's output. The columns in the direct requirements table sum to less than one, the difference being value added.
- A national-level table of byproducts coefficients. Each column represents a commodity and each row represents an industry. Each cell in the table represents the number of dollars' worth of the column commodity produced when a row industry produces one dollar's worth of output. The rows in the byproducts table sum to one and most off-diagonal elements are zero.
- County-level border data by industry consisting of total industry output, employment, components of value added (employee compensation, taxes, proprietors' income, and other property income), personal consumption expenditures (by high, medium, and low income households), state and local government purchases and sales, federal government purchases and sales, changes in inventory, capital formation, and foreign exports and imports.
- Fitted coefficients from a regression model used to estimate regional purchase coefficients. A regional purchase coefficient is the proportion of an input that is purchased within the region and can be no higher than the proportion of regional demand that can be met by regional production. They often are lower, which implies cross hauling.

The first step in building an input-output table with IMPLAN is to combine county-level border data sets for all the counties in the study region. The regional border data then are combined with the national-level information.

Multiplying the elements of each column in the table of national-level direct requirements the corresponding coefficient from the vector of regional total industry output yields a use table. Each cell in the use table represents the number of dollars' worth of the row commodity consumed by the column industry in a year.

Multiplying the elements of each row in the table of national-level byproducts coefficients by the corresponding coefficient from the vector of regional total industry output yields a make table. Each cell in the make table represents the number of dollars' worth of each row commodity produced by the column industry in a year.

Premultiplying the use matrix by the table of byproducts coefficients yields an industry by industry transactions table. Scaling each row in the transactions table by a regional purchase coefficient makes it a regional transactions table in which each cell represents the number of dollars' worth purchases from the regional row industry by the regional column industry in a year. Scaling each column by the inverse of total industry output for that industry yields a table of regional technical coefficients.

The IMPLAN system automatically performs all of these calculations (and more) when construction regional input-output accounts. Once the input-output tables are created, they may be aggregated according to any scheme specified by the user. IMPLAN's 528 sectors correspond closely to the BEA's sectoral scheme. The aggregation scheme used for this project reduces IMPLAN's 528 sectors to 28. Table 1, below, lists the sectors agreed upon by the project team. A list of all the IMPLAN sectors and the sectors from the list below to which they were assigned is appended to this memorandum.

Table 1: Sectoral Scheme for Statewide Model

- 1 Farms
- 2 Forests
- 3 Fisheries
- 4 Mines
- 5 Construction
- 6 Food Processing
- 7 Lumber & Wood
- 8 Pulp & Paper
- 9 Printing & Publishing
- 10 Nonmetallic Mineral Products
- 11 Metals
- 12 Machinery & Equipment
- 13 High Tech
- 14 Transport Equipment
- 15 Other Manufacturing
- 16 Transport
- 17 Communications & Utilities
- 18 Wholesale
- 19 Retail
- 20 Finance, Insurance, & Real Estate
- 21 Lodging
- 22 Personal Services
- 23 Business Services
- 24 Amusements
- 25 Health Services
- 26 Education
- 27 Organizations
- 28 Other Government

IMPLAN Results

The tables on the following pages show the technical coefficients from the IMPLAN model.

Table 2: Aggregated Technical Coefficients from IMPLAN

	Farms	Forests	Fisheries	Mines	Construction	Food Processing
Farms	0.13648	0.00584	0.00003	0.00002	0.00006	0.16912
Forests	0.01106	0.12673	0.00000	0.00000	0.00004	0.00042
Fisheries	0.00000	0.00000	0.00167	0.00000	0.00000	0.00667
Mines	0.00017	0.00065	0.00047	0.01735	0.00090	0.00008
Construction	0.00991	0.02016	0.00810	0.00398	0.00114	0.00178
Food Processing	0.00572	0.00315	0.00888	0.00001	0.00003	0.05554
Lumber & Wood	0.00421	0.00016	0.00004	0.00029	0.03407	0.00017
Pulp & Paper	0.00389	0.00474	0.00016	0.00010	0.00010	0.01252
Printing & Publishing	0.00005	0.00017	0.00018	0.00010	0.00019	0.00188
Nonmetallic Mineral Products	0.00004	0.00014	0.00013	0.00015	0.00124	0.00886
Metals	0.00069	0.00219	0.00048	0.00069	0.00575	0.00322
Machinery & Equipment	0.00653	0.01521	0.00055	0.00230	0.00842	0.00034
High Tech	0.00005	0.00061	0.00046	0.00013	0.00311	0.00013
Transport Equipment	0.00035	0.00084	0.01047	0.00053	0.00088	0.00007
Other Manufacturing	0.01004	0.01764	0.06314	0.00154	0.01325	0.00229
Transport	0.01395	0.00822	0.01049	0.00733	0.01845	0.01680
Communications	0.01682	0.05240	0.00348	0.02689	0.00997	0.01628
Wholesale	0.01969	0.03196	0.02583	0.00474	0.03249	0.02762
Retail	0.00056	0.00128	0.00152	0.00024	0.02688	0.00035
Finance & Insurance	0.04406	0.05907	0.01814	0.01545	0.00965	0.00423
Lodging	0.00076	0.00228	0.00311	0.00257	0.00143	0.00049
Personal Services	0.00000	0.00004	0.00005	0.00005	0.00023	0.00014
Business Services	0.04438	0.11860	0.01349	0.00201	0.01036	0.00086
Amusements	0.00000	0.00000	0.00000	0.00003	0.00036	0.00007
Health Services	0.00076	0.00000	0.00000	0.00000	0.00000	0.00000
Education	0.00000	0.00121	0.00620	0.00033	0.00000	0.00005
Organizations	0.00087	0.00255	0.00300	0.00056	0.00004	0.00060
Other Government	0.00347	0.00600	0.00200	0.00157	0.00122	0.00373

	Lumber & Wood	Pulp & Paper	Printing & Publishing	Nonmetallic Mineral Products	Metals	Machinery & Equipment
Farms	0.00006	0.00005	0.00003	0.00011	0.00005	0.00002
Forests	0.00108	0.00010	0.00000	0.00004	0.00001	0.00000
Fisheries	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Mines	0.00011	0.00066	0.00005	0.00791	0.00732	0.00004
Construction	0.00841	0.00437	0.00243	0.00608	0.01000	0.00744
Food Processing	0.00003	0.00028	0.00012	0.00021	0.00014	0.00006
Lumber & Wood	0.22975	0.04107	0.00003	0.00274	0.00154	0.00195
Pulp & Paper	0.00136	0.01371	0.00196	0.00730	0.00171	0.00280
Printing & Publishing	0.00022	0.00049	0.01286	0.00032	0.00045	0.00045
Nonmetallic Mineral Products	0.00092	0.00013	0.00003	0.00964	0.00088	0.00084
Metals	0.00437	0.00349	0.00059	0.00278	0.08812	0.01013
Machinery & Equipment	0.00427	0.00510	0.00331	0.00143	0.00427	0.03165
High Tech	0.00037	0.00143	0.00224	0.00052	0.00138	0.02584
Transport Equipment	0.00192	0.00045	0.00017	0.00016	0.00051	0.00328
Other Manufacturing	0.00893	0.01992	0.01487	0.01094	0.00569	0.00351
Transport	0.02194	0.02234	0.01152	0.03466	0.01937	0.00660
Communications	0.03679	0.05675	0.03943	0.03909	0.06904	0.02136
Wholesale	0.02879	0.02439	0.01856	0.01348	0.02548	0.03387
Retail	0.00109	0.00090	0.00188	0.00073	0.00079	0.00120
Finance & Insurance	0.00930	0.00541	0.01345	0.00624	0.00800	0.00872
Lodging	0.00038	0.00174	0.00363	0.00049	0.00157	0.00209
Personal Services	0.00024	0.00017	0.00011	0.00027	0.00026	0.00020
Business Services	0.00454	0.00326	0.00344	0.00202	0.00187	0.00185
Amusements	0.00014	0.00010	0.00065	0.00012	0.00012	0.00053
Health Services	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Education	0.00351	0.00060	0.00079	0.00040	0.00037	0.00069
Organizations	0.00173	0.00057	0.00236	0.00110	0.00053	0.00092
Other Government	0.00333	0.01673	0.00178	0.00297	0.00499	0.00327

	High Tech	Transport Equipment	Other Manufacturing	Transport	Communications	Wholesale
Farms	0.00001	0.00003	0.00053	0.00025	0.00001	0.00000
Forests	0.00000	0.00002	0.00020	0.00000	0.00000	0.00000
Fisheries	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Mines	0.00007	0.00004	0.00144	0.00028	0.00055	0.00001
Construction	0.00349	0.00850	0.00299	0.01442	0.04411	0.00061
Food Processing	0.00016	0.00004	0.00176	0.00025	0.00004	0.00001
Lumber & Wood	0.00043	0.00496	0.00381	0.00025	0.00019	0.00054
Pulp & Paper	0.00193	0.00028	0.00657	0.00018	0.00007	0.00041
Printing & Publishing	0.00035	0.00014	0.00056	0.00054	0.00059	0.00022
Nonmetallic Mineral Products	0.00090	0.00304	0.00219	0.00007	0.00008	0.00005
Metals	0.00581	0.00639	0.00350	0.00048	0.00035	0.00003
Machinery & Equipment	0.00472	0.00858	0.00561	0.00056	0.00278	0.00015
High Tech	0.18679	0.00972	0.00416	0.00025	0.00441	0.00005
Transport Equipment	0.00031	0.03279	0.00022	0.00203	0.00039	0.00002
Other Manufacturing	0.00492	0.00816	0.04643	0.00401	0.00195	0.00020
Transport	0.00375	0.01084	0.00993	0.08408	0.00878	0.00062
Communications	0.01883	0.01307	0.02417	0.01833	0.03974	0.00416
Wholesale	0.02563	0.03914	0.02205	0.00780	0.00571	0.00130
Retail	0.00073	0.00057	0.00078	0.00299	0.00046	0.00040
Finance & Insurance	0.00940	0.00622	0.00763	0.01828	0.01474	0.00321
Lodging	0.00335	0.00073	0.00075	0.00086	0.00041	0.00078
Personal Services	0.00010	0.00033	0.00050	0.00153	0.00008	0.00102
Business Services	0.00115	0.00368	0.00149	0.01112	0.00202	0.00132
Amusements	0.00052	0.00031	0.00024	0.00039	0.01767	0.00035
Health Services	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Education	0.00202	0.00157	0.00241	0.00037	0.00147	0.00000
Organizations	0.00079	0.00018	0.00090	0.00119	0.00084	0.00028
Other Government	0.00127	0.00149	0.00228	0.00266	0.00610	0.00054

	Retail	Finance & Insurance	Lodging	Personal Services	Business Services	Amusements
Farms	0.00348	0.00001	0.00021	0.00001	0.00303	0.00031
Forests	0.00000	0.00000	0.00000	0.00000	0.00758	0.00000
Fisheries	0.00017	0.00000	0.00000	0.00000	0.00000	0.00000
Mines	0.00004	0.00001	0.00008	0.00008	0.00006	0.00003
Construction	0.00354	0.03435	0.01886	0.00372	0.00430	0.00847
Food Processing	0.01518	0.00001	0.00098	0.00007	0.00011	0.00623
Lumber & Wood	0.00004	0.00000	0.00009	0.00007	0.00015	0.00128
Pulp & Paper	0.00071	0.00002	0.00006	0.00024	0.00047	0.00007
Printing & Publishing	0.00011	0.00084	0.00095	0.00108	0.00154	0.00062
Nonmetallic Mineral Products	0.00016	0.00001	0.00268	0.00003	0.00111	0.00002
Metals	0.00012	0.00005	0.00005	0.00029	0.00123	0.00011
Machinery & Equipment	0.00023	0.00021	0.00005	0.00138	0.00340	0.00014
High Tech	0.00012	0.00032	0.00009	0.00050	0.01157	0.00030
Transport Equipment	0.00006	0.00005	0.00004	0.00008	0.00783	0.00004
Other Manufacturing	0.00051	0.00038	0.00138	0.00322	0.00415	0.00179
Transport	0.00260	0.00290	0.00549	0.00327	0.00427	0.00246
Communications	0.02085	0.01113	0.05457	0.02931	0.02325	0.03313
Wholesale	0.00395	0.00058	0.00384	0.00637	0.01174	0.00246
Retail	0.00161	0.00121	0.00038	0.00115	0.00918	0.00151
Finance & Insurance	0.02288	0.09414	0.03285	0.02890	0.02114	0.03719
Lodging	0.00076	0.00146	0.00039	0.00078	0.00365	0.00311
Personal Services	0.00072	0.00002	0.00156	0.01255	0.00427	0.00038
Business Services	0.00394	0.01023	0.00839	0.00352	0.00479	0.01353
Amusements	0.00168	0.00045	0.00064	0.00046	0.00204	0.15057
Health Services	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Education	0.00027	0.00004	0.00000	0.00000	0.00093	0.00000
Organizations	0.00079	0.00086	0.00278	0.01255	0.00405	0.00581
Other Government	0.00359	0.00165	0.01408	0.00815	0.00244	0.00612

	Health Services	Education	Organizations	Other Government
Farms	0.00209	0.00062	0.00004	0.00000
Forests	0.00000	0.00010	0.00054	0.00000
Fisheries	0.00002	0.00000	0.00000	0.00000
Mines	0.00007	0.00005	0.00012	0.00009
Construction	0.01504	0.06523	0.13567	0.02344
Food Processing	0.00672	0.00359	0.00043	0.00005
Lumber & Wood	0.00018	0.00144	0.00001	0.00000
Pulp & Paper	0.00072	0.00057	0.00018	0.00000
Printing & Publishing	0.00193	0.00320	0.00634	0.00003
Nonmetallic Mineral Products	0.00090	0.00098	0.00006	0.00000
Metals	0.00088	0.00177	0.00008	0.00005
Machinery & Equipment	0.00013	0.00078	0.00006	0.00053
High Tech	0.01242	0.00315	0.00054	0.00005
Transport Equipment	0.00005	0.00017	0.00016	0.00001
Other Manufacturing	0.00555	0.00200	0.00270	0.00069
Transport	0.00262	0.00507	0.00591	0.00029
Communications	0.03054	0.03256	0.05196	0.01445
Wholesale	0.00964	0.00940	0.00671	0.00067
Retail	0.00099	0.00119	0.00154	0.00011
Finance & Insurance	0.06491	0.09791	0.24253	0.00200
Lodging	0.00116	0.00099	0.02570	0.00010
Personal Services	0.00047	0.00061	0.00125	0.00001
Business Services	0.00303	0.00812	0.00837	0.00045
Amusements	0.00095	0.00835	0.00301	0.00002
Health Services	0.00471	0.00000	0.00000	0.00000
Education	0.00011	0.00033	0.00004	0.00016
Organizations	0.00246	0.00344	0.00182	0.00007
Other Government	0.00444	0.00522	0.02251	0.00194

Adjustments to the IMPLAN-Generated Coefficients

In the IMPLAN model, a consumer purchases goods from a retailer, the transaction is represented as a purchase of the goods from their manufacturer, transportation from the transport sector, wholesale margin from wholesale trade, and retail margin from retail trade. This allows the purchases of specific goods to affect the sectors that produce those goods. But it does not correspond to the transportation flows associated with the transaction.

For our purposes, we can assume that the composition of consumer expenditures will remain constant. This allows us to modify the social accounting matrix to represent consumer purchases as being from the retailer, who buys from the distributor or manufacturer. The model's representation of economic flows will then correspond to its representation of transportation flows. A household's choice of where to purchase retail goods will be modeled as a function of the cost of getting to the zone where the retailer is located, rather than the cost of getting to the zone where the manufacturer is located, which should result in a better-fitting model.

Table 3, below, shows the margins used by the IMPLAN system for purchases by households aggregated to our Transus sectoral scheme.

Table 3: Aggregated IMPLAN Margins

Tranus Sector	Sector Name	Transport Margin	Wholesale Margin	Retail Margin
1	Farms	0.061	0.070	0.222
2	Forests	0.018	0.036	0.303
3	Fisheries	0.010	0.073	0.244
4	Mines	0.261	0.002	0.234
6	Food Processing	0.017	0.085	0.227
7	Lumber & Wood	0.007	0.034	0.366
8	Pulp & Paper	0.019	0.052	0.362
9	Printing & Publishing	0.014	0.046	0.259
10	Nonmetallic Mineral Products	0.016	0.081	0.399
11	Metals	0.009	0.083	0.384
12	Machinery & Equipment	0.012	0.094	0.289
13	High Tech	0.002	0.079	0.381
14	Transport Equipment	0.027	0.040	0.165
15	Other Manufacturing	0.011	0.095	0.298
23	Business Services	0.000	0.002	0.017

To make the adjustments to the technical coefficients generated by IMPLAN, we will move the purchases by households to the retail sector and have the retail sector purchase the appropriate quantities of goods, transport, and wholesale trade. We will adjust the household columns accordingly.

Tranus	Implan	Description	SIC	SIC PART
Farms	1	DAIRY FARM PRODUCTS	0241	Also : part of 0191, 0259, 0291
Farms	2	POULTRY AND EGGS	0251 0252 0253	Also : part of 0191, 0219, 0259, 0291
Farms	3	RANCH FED CATTLE		Part of 0191, 0212, 0219, 0259, 0291
Farms	4	RANGE FED CATTLE		Part of 0191, 0212, 0219, 0259, 0291
Farms	5	CATTLE FEEDLOTS	0211	Also : part of 0191, 0219, 0259, 0291
Farms	6	SHEEP, LAMBS AND GOATS	0214	Also : part of 0191, 0219, 0259, 0291
Farms	7	HOGS, PIGS AND SWINE	0213	Also : part of 0191, 0219, 0259, 0291
Farms	8	OTHER MEAT ANIMAL PRODUCTS		Part of 0191, 0212, 0219, 0259, 0291
Farms	9	MISCELLANEOUS LIVESTOCK	0271 0272	Also : part of 0191 0219 0259 0273 0279 0291
Farms	10	COTTON	0131	Also : part of 0191, 0219, 0259, 0291
Farms	11	FOOD GRAINS	0111 0112	Also : part of 0191, 0219, 0259, 0291
Farms	12	FEED GRAINS	0115	Also : part of 0139, 0191, 0219, 0259, 0291
Farms	13	HAY AND PASTURE		Part of 0139, 0191, 0219, 0259, 0291
Farms	14	GRASS SEEDS		Part of 0139, 0191, 0219, 0259, 0291
Farms	15	TOBACCO	0132	Also : part of 0191, 0219, 0259, 0291
Farms	16	FRUITS	0171 0172 0174 0175	Also : part of 0179, 0191, 0219, 0259, 0291
Farms	17	TREE NUTS		Part of 0173, 0179, 0191, 0219, 0259, 0291
Farms	18	VEGETABLES	0134 0161	Also : part of 0119, 0139, 0191, 0219, 0259, 0291
Farms	19	SUGAR CROPS	0133	Also : part of 0191, 0219, 0259, 0291
Farms	20	MISCELLANEOUS CROPS		Part of 0119, 0139, 0191, 0219, 0259, 0291
Farms	21	OIL BEARING CROPS	0116	Also : part of 0119, 0139, 0173, 0219, 0259, 0291
Forests	22	FOREST PRODUCTS		Part of 0181, 0191, 0219, 0259, 0291
Forests	23	GREENHOUSE AND NURSERY PRODUCTS	0182	Also : part of 0181, 0191, 0219, 0259, 0291
Forests	24	FORESTRY PRODUCTS	0810, 0830, 0970	
Fisheries	25	COMMERCIAL FISHING	0910	
Business Services	26	AGRICULTURAL, FORESTRY, FISHERY SERVICES	0710 0720 0750 0760 0254 0850 0920	Also : part of 0279
Business Services	27	LANDSCAPE AND HORTICULTURAL SERVICES	0780	
Mines	28	IRON ORES	1010	
Mines	29	COPPER ORES	1020	
Mines	30	LEAD AND ZINC ORES	1030	
Mines	31	GOLD ORES	1041	
Mines	32	SILVER ORES	1044	
Mines	33	FERROALLOY ORES, EXCEPT VANADIUM	1060	
Mines	34	METAL MINING SERVICES	1080	
Mines	35	URANIUM-RADIUM-VANADIUM ORES	1094	
Mines	36	METAL ORES, NOT ELSWHERE CLASSIFIED	1099	
Mines	37	COAL MINING	1200	
Mines	38	NATURAL GAS & CRUDE PETROLEUM	1310	
Mines	39	NATURAL GAS LIQUIDS	1320	
Mines	40	DIMENSION STONE	1410 1420	
Mines	41	SAND AND GRAVEL	1440	
Mines	42	CLAY, CERAMIC, REFRACTORY MINERALS, N.E.C.	1450	
Mines	43	POTASH, SODA, AND BORATE MINERALS	1474	
Mines	44	PHOSPHATE ROCK	1475	
Mines	45	CHEMICAL, FERTILIZER MINERAL MINING, N.E.C.	1479	
Mines	46	NONMETALLIC MINERALS (EXCEPT FUELS) SERVICE	1480	
Mines	47	MISC. NONMETALLIC MINERALS, N.E.C.	1490	
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Construction	49	NEW INDUSTRIAL AND COMMERCIAL BUILDINGS		Part 15, 16, 17
Construction	50	NEW UTILITY STRUCTURES		Part 15, 16, 17
Construction	51	NEW HIGHWAYS AND STREETS		Part 15, 16, 17
Construction	52	NEW FARM STRUCTURES		Part 15, 16, 17
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Construction	54	NEW GOVERNMENT FACILITIES		Part 15, 16, 17
Construction	55	MAINTENANCE AND REPAIR, RESIDENTIAL		Part 15, 16, 17
Construction	56	MAINTENANCE AND REPAIR OTHER FACILITIES		Part 15, 16, 17
Construction	57	MAINTENANCE AND REPAIR OIL AND GAS WELLS	1380	
Food Processing	58	MEAT PACKING PLANTS	2011	
Food Processing	59	SAUSAGES AND OTHER PREPARED MEATS	2013	
Food Processing	60	POULTRY PROCESSING	2015	
Food Processing	61	CREAMERY BUTTER	2021	
Food Processing	62	CHEESE, NATURAL AND PROCESSED	2022	
Food Processing	63	CONDENSED AND EVAPORATED MILK	2023	
Food Processing	64	ICE CREAM AND FROZEN DESSERTS	2024	
Food Processing	65	FLUID MILK	2026	
Food Processing	66	CANNED SPECIALTIES	2032	
Food Processing	67	CANNED FRUITS AND VEGETABLES	2033	
Food Processing	68	DEHYDRATED FOOD PRODUCTS	2034	
Food Processing	69	PICKLES, SAUCES, AND SALAD DRESSINGS	2035	
Food Processing	70	FROZEN FRUITS, JUICES AND VEGETABLES	2037	
Food Processing	71	FROZEN SPECIALTIES	2038	
Food Processing	72	FLOUR AND OTHER GRAIN MILL PRODUCTS	2041	
Food Processing	73	CEREAL PREPARATIONS	2043	
Food Processing	74	RICE MILLING	2044	
Food Processing	75	BLENDED AND PREPARED FLOUR	2045	
Food Processing	76	WET CORN MILLING	2046	
Food Processing	77	DOG, CAT, AND OTHER PET FOOD	2047	
Food Processing	78	PREPARED FEEDS, N.E.C	2048	
Food Processing	79	BREAD, CAKE, AND RELATED PRODUCTS	2051, 2053	
Food Processing	80	COOKIES AND CRACKERS	2052	
Food Processing	81	SUGAR	2061 2062 2063	
Food Processing	82	CONFECTIONERY PRODUCTS	2064	
Food Processing	83	CHOCOLATE AND COCOA PRODUCTS	2066	
Food Processing	84	CHEWING GUM	2067	
Food Processing	85	SALTED AND ROASTED NUTS & SEEDS	2068	
Food Processing	86	COTTONSEED OIL MILLS	2074	
Food Processing	87	SOYBEAN OIL MILLS	2075	
Food Processing	88	VEGETABLE OIL MILLS, N.E.C	2076	
Food Processing	89	ANIMAL AND MARINE FATS AND OILS	2077	
Food Processing	90	SHORTENING AND COOKING OILS	2079	
Food Processing	91	MALT BEVERAGES	2082	
Food Processing	92	MALT	2083	
Food Processing	93	WINES, BRANDY, AND BRANDY SPIRITS	2084	
Food Processing	94	DISTILLED LIQUOR, EXCEPT BRANDY	2085	
Food Processing	95	BOTTLED AND CANNED SOFT DRINKS & WATER	2086	
Food Processing	96	FLAVORING EXTRACTS AND SYRUPS, N.E.C	2087	
Food Processing	97	CANNED AND CURED SEA FOODS	2091	
Food Processing	98	PREPARED FRESH OR FROZEN FISH OR SEAFOOD	2092	

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Food Processing	99	ROASTED COFFEE	2095	
Food Processing	100	POTATO CHIPS & SIMILAR SNACKS	2096	
Food Processing	101	MANUFACTURED ICE	2097	
Food Processing	102	MACARONI AND SPAGHETTI	2098	
Food Processing	103	FOOD PREPARATIONS, N.E.C	2099	
Other Manufacturing	104	CIGARETTES	2110	
Other Manufacturing	105	CIGARS	2120	
Other Manufacturing	106	CHEWING AND SMOKING TOBACCO	2130	
Other Manufacturing	107	TOBACCO STEMMING AND REDRYING	2140	
Other Manufacturing	108	BROADWOVEN FABRIC MILLS AND FINISHING	2210 2220 2230 2261 2262	
Other Manufacturing	109	NARROW FABRIC MILLS	2240	
Other Manufacturing	110	WOMENS HOSIERY, EXCEPT SOCKS	2251	
Other Manufacturing	111	HOSIERY, N.E.C	2252	
Other Manufacturing	112	KNIT OUTERWEAR MILLS	2253	
Other Manufacturing	113	KNIT UNDERWEAR MILLS	2254	
Other Manufacturing	114	KNIT FABRIC MILLS	2257 2258	
Other Manufacturing	115	KNITTING MILLS, N.E.C	2259	
Other Manufacturing	116	YARN MILLS AND FINISHING OF TEXTILES NEC	2269 2281 2282	
Other Manufacturing	117	CARPETS AND RUGS	2270	
Other Manufacturing	118	THREAD MILLS	2284	
Other Manufacturing	119	COATED FABRICS, NOT RUBBERIZED	2295	
Other Manufacturing	120	TIRE CORD AND FABRIC	2296	
Other Manufacturing	121	NONWOVEN FABRICS	2297	
Other Manufacturing	122	CORDAGE AND TWINE	2298	
Other Manufacturing	123	TEXTILE GOODS, N.E.C	2299	
Other Manufacturing	124	APPAREL MADE FROM PURCHASED MATERIALS	2310 2320 2330 2340 2350 2360 2370 2380	
Other Manufacturing	125	CURTAINS AND DRAPERIES	2391	
Other Manufacturing	126	HOUSEFURNISHINGS, N.E.C	2392	
Other Manufacturing	127	TEXTILE BAGS	2393	
Other Manufacturing	128	CANVAS PRODUCTS	2394	
Other Manufacturing	129	PLEATING AND STITCHING	2395	
Other Manufacturing	130	AUTOMOTIVE AND APPAREL TRIMMINGS	2396	
Other Manufacturing	131	SCHIFFI MACHINE EMBROIDERIES	2397	
Other Manufacturing	132	FABRICATED TEXTILE PRODUCTS, N.E.C	2399	
Lumber & Wood	133	LOGGING CAMPS AND LOGGING CONTRACTORS	2410	
Lumber & Wood	134	SAWMILLS AND PLANING MILLS, GENERAL	2421	
Lumber & Wood	135	HARDWOOD DIMENSION AND FLOORING MILLS	2426	
Lumber & Wood	136	SPECIAL PRODUCT SAWMILLS, N.E.C	2429	
Lumber & Wood	137	MILLWORK	2431	
Lumber & Wood	138	WOOD KITCHEN CABINETS	2434	
Lumber & Wood	139	VENEER AND PLYWOOD	2435 2436	
Lumber & Wood	140	STRUCTURAL WOOD MEMBERS, N.E.C	2439	
Lumber & Wood	141	WOOD CONTAINERS	2441 2449	
Lumber & Wood	142	WOOD PALLETS AND SKIDS	2448	
Lumber & Wood	143	MOBILE HOMES	2451	
Lumber & Wood	144	PREFABRICATED WOOD BUILDINGS	2452	
Lumber & Wood	145	WOOD PRESERVING	2491	
Lumber & Wood	146	RECONSTITUTED WOOD PRODUCTS	2493	
Lumber & Wood	147	WOOD PRODUCTS, N.E.C	2499	
Lumber & Wood	148	WOOD HOUSEHOLD FURNITURE	2511	
Lumber & Wood	149	UPHOLSTERED HOUSEHOLD FURNITURE	2512	
Lumber & Wood	150	METAL HOUSEHOLD FURNITURE	2514	
Lumber & Wood	151	MATTRESSES AND BEDSPRINGS	2515	
Lumber & Wood	152	WOOD TV AND RADIO CABINETS	2517	
Lumber & Wood	153	HOUSEHOLD FURNITURE, N.E.C	2519	
Lumber & Wood	154	WOOD OFFICE FURNITURE	2521	
Lumber & Wood	155	METAL OFFICE FURNITURE	2522	
Lumber & Wood	156	PUBLIC BUILDING FURNITURE	2530	
Lumber & Wood	157	WOOD PARTITIONS AND FIXTURES	2541	
Lumber & Wood	158	METAL PARTITIONS AND FIXTURES	2542	
Lumber & Wood	159	BLINDS, SHADES, AND DRAPERY HARDWARE	2591	
Lumber & Wood	160	FURNITURE AND FIXTURES, N.E.C	2599	
Pulp & Paper	161	PULP MILLS	2610	
Pulp & Paper	162	PAPER MILLS, EXCEPT BUILDING PAPER	2620	
Pulp & Paper	163	PAPERBOARD MILLS	2630	
Pulp & Paper	164	PAPERBOARD CONTAINERS AND BOXES	2650	
Pulp & Paper	165	PAPER COATED & LAMINATED PACKAGING	2671	
Pulp & Paper	166	PAPER COATED & LAMINATED NEC	2672	
Pulp & Paper	167	BAGS, PLASTIC	2673	
Pulp & Paper	168	BAGS, PAPER	2674	
Pulp & Paper	169	DIE-CUT PAPER AND BOARD	2675	
Pulp & Paper	170	SANITARY PAPER PRODUCTS	2676	
Pulp & Paper	171	ENVELOPES	2677	
Pulp & Paper	172	STATIONERY PRODUCTS	2678	
Pulp & Paper	173	CONVERTED PAPER PRODUCTS, N.E.C	2679	
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Printing & Publishing	175	PERIODICALS	2720	
Printing & Publishing	176	BOOK PUBLISHING	2731	
Printing & Publishing	177	BOOK PRINTING	2732	
Printing & Publishing	178	MISCELLANEOUS PUBLISHING	2740	
Printing & Publishing	179	COMMERCIAL PRINTING	2750	
Printing & Publishing	180	MANIFOLD BUSINESS FORMS	2760	
Printing & Publishing	181	GREETING CARD PUBLISHING	2770	
Printing & Publishing	182	BLANKBOOKS AND LOOSELEAF BINDERS	2782	
Printing & Publishing	183	BOOKBINDING & RELATED	2789	
Printing & Publishing	184	TYPESETTING	2791	
Printing & Publishing	185	PLATE MAKING	2796	
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Other Manufacturing	193	CELLULOSIC MAN-MADE FIBERS	2823	
Other Manufacturing	194	ORGANIC FIBERS, NONCELLULOSIC	2824	
Other Manufacturing	195	DRUGS	2830	
Other Manufacturing	196	SOAP AND OTHER DETERGENTS	2841	

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Other Manufacturing	198	SURFACE ACTIVE AGENTS	2843	
Other Manufacturing	199	TOILET PREPARATIONS	2844	
Other Manufacturing	200	PAINTS AND ALLIED PRODUCTS	2850	
Other Manufacturing	201	GUM AND WOOD CHEMICALS	2861	
Other Manufacturing	202	NITROGENOUS AND PHOSPHATIC FERTILIZERS	2873 2874	
Other Manufacturing	203	FERTILIZERS, MIXING ONLY	2875	
Other Manufacturing	204	AGRICULTURAL CHEMICALS, N.E.C	2879	
Other Manufacturing	205	ADHESIVES AND SEALANTS	2891	
Other Manufacturing	206	EXPLOSIVES	2892	
Other Manufacturing	207	PRINTING INK	2893	
Other Manufacturing	208	CARBON BLACK	2895	
Other Manufacturing	209	CHEMICAL PREPARATIONS, N.E.C	2899	
Other Manufacturing	210	PETROLEUM REFINING	2910	
Other Manufacturing	211	PAVING MIXTURES AND BLOCKS	2951	
Other Manufacturing	212	ASPHALT FELTS AND COATINGS	2952	
Other Manufacturing	213	LUBRICATING OILS AND GREASES	2992	
Other Manufacturing	214	PETROLEUM AND COAL PRODUCTS, N.E.C.	2999	
Other Manufacturing	215	TIRES AND INNER TUBES	3010	
Other Manufacturing	216	RUBBER AND PLASTICS FOOTWEAR	3020	
Other Manufacturing	217	RUBBER AND PLASTICS HOSE AND BELTING	3052	
Other Manufacturing	218	GASKETS, PACKING AND SEALING DEVICES	3053	
Other Manufacturing	219	FABRICATED RUBBER PRODUCTS, N.E.C	3060	
Other Manufacturing	220	MISCELLANEOUS PLASTICS PRODUCTS	3080	
Other Manufacturing	221	LEATHER TANNING AND FINISHING	3110	
Other Manufacturing	222	FOOTWEAR CUT STOCK	3130	
Other Manufacturing	223	HOUSE SLIPPERS	3142	
Other Manufacturing	224	SHOES, EXCEPT RUBBER	3143 3144 3149	
Other Manufacturing	225	LEATHER GLOVES AND MITTENS	3150	
Other Manufacturing	226	LUGGAGE	3160	
Other Manufacturing	227	WOMENS HANDBAGS AND PURSES	3171	
Other Manufacturing	228	PERSONAL LEATHER GOODS	3172	
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Nonmetallic Mineral Products	231	GLASS CONTAINERS	3221	
Nonmetallic Mineral Products	232	CEMENT, HYDRAULIC	3240	
Nonmetallic Mineral Products	233	BRICK AND STRUCTURAL CLAY TILE	3251	
Nonmetallic Mineral Products	234	CERAMIC WALL AND FLOOR TILE	3253	
Nonmetallic Mineral Products	235	CLAY REFRACTORIES	3255	
Nonmetallic Mineral Products	236	STRUCTURAL CLAY PRODUCTS, N.E.C	3259	
Nonmetallic Mineral Products	237	VITREOUS PLUMBING FIXTURES	3261	
Nonmetallic Mineral Products	238	VITREOUS CHINA FOOD UTENSILS	3262	
Nonmetallic Mineral Products	239	FINE EARTHENWARE FOOD UTENSILS	3263	
Nonmetallic Mineral Products	240	PORCELAIN ELECTRICAL SUPPLIES	3264	
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Nonmetallic Mineral Products	243	CONCRETE PRODUCTS, N.E.C	3272	
Nonmetallic Mineral Products	244	READY-MIXED CONCRETE	3273	
Nonmetallic Mineral Products	245	LIME	3274	
Nonmetallic Mineral Products	246	GYPSUM PRODUCTS	3275	
Nonmetallic Mineral Products	247	CUT STONE AND STONE PRODUCTS	3280	
Nonmetallic Mineral Products	248	ABRASIVE PRODUCTS	3291	
Nonmetallic Mineral Products	249	ASBESTOS PRODUCTS	3292	
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Nonmetallic Mineral Products	251	MINERAL WOOL	3296	
Nonmetallic Mineral Products	252	NONCLAY REFRACTORIES	3297	
Nonmetallic Mineral Products	253	NONMETALLIC MINERAL PRODUCTS, N.E.C	3299	
Metals	254	BLAST FURNACES AND STEEL MILLS	3312	
Metals	255	ELECTROMETALLURGICAL PRODUCTS	3313	
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Metals	279	METAL SANITARY WARE	3431	
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Machinery & Equipment		310 LAWN AND GARDEN EQUIPMENT	3524	
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Machinery & Equipment		330 FOOD PRODUCTS MACHINERY	3556	
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Machinery & Equipment		332 PUMPS AND COMPRESSORS	3561 3563	
Machinery & Equipment		333 BALL AND ROLLER BEARINGS	3562	
Machinery & Equipment		334 BLOWERS AND FANS	3564	
Machinery & Equipment		335 PACKAGING MACHINERY	3565	
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Machinery & Equipment		354 INDUSTRIAL MACHINES NEC.	3599	
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Transport Equipment	396	COMPLETE GUIDED MISSILES	3761	
Transport Equipment	397	TRAVEL TRAILERS AND CAMPERS	3792	
Transport Equipment	398	TANKS AND TANK COMPONENTS	3795	
Transport Equipment	399	TRANSPORTATION EQUIPMENT, N.E.C.	3799	
High Tech	400	SEARCH & NAVIGATION EQUIPMENT	3812	
High Tech	401	LABORATORY APPARATUS & FURNITURE	3821	
High Tech	402	AUTOMATIC TEMPERATURE CONTROLS	3822	
High Tech	403	MECHANICAL MEASURING DEVICES	3823 3824 3829	
High Tech	404	INSTRUMENTS TO MEASURE ELECTRICITY	3825	
High Tech	405	ANALYTICAL INSTRUMENTS	3826	
High Tech	406	OPTICAL INSTRUMENTS & LENSES	3827	
High Tech	407	SURGICAL AND MEDICAL INSTRUMENTS	3841	
High Tech	408	SURGICAL APPLIANCES AND SUPPLIES	3842	
High Tech	409	DENTAL EQUIPMENT AND SUPPLIES	3843	
High Tech	410	X-RAY APPARATUS	3844	
High Tech	411	ELECTROMEDICAL APPARATUS	3845	
High Tech	412	OPHTHALMIC GOODS	3850	
High Tech	413	PHOTOGRAPHIC EQUIPMENT AND SUPPLIES	3860	
High Tech	414	WATCHES, CLOCKS, AND PARTS	3870	
Other Manufacturing	415	JEWELRY, PRECIOUS METAL	3911	
Other Manufacturing	416	SILVERWARE AND PLATED WARE	3914	
Other Manufacturing	417	JEWELERS MATERIALS AND LAPIDARY WORK	3915	
Other Manufacturing	418	MUSICAL INSTRUMENTS	3930	
Other Manufacturing	419	DOLLS	3942	
Other Manufacturing	420	GAMES, TOYS, AND CHILDRENS VEHICLES	3944	
Other Manufacturing	421	SPORTING AND ATHLETIC GOODS, N.E.C.	3949	
Other Manufacturing	422	PENS AND MECHANICAL PENCILS	3951	
Other Manufacturing	423	LEAD PENCILS AND ART GOODS	3952	
Other Manufacturing	424	MARKING DEVICES	3953	
Other Manufacturing	425	CARBON PAPER AND INKED RIBBONS	3955	
Other Manufacturing	426	COSTUME JEWELRY	3961	
Other Manufacturing	427	FASTENERS, BUTTONS, NEEDLES, PINS	3965	
Other Manufacturing	428	BROOMS AND BRUSHES	3991	
Other Manufacturing	429	SIGNS AND ADVERTISING DISPLAYS	3993	
Other Manufacturing	430	BURIAL CASKETS AND VAULTS	3995	
Other Manufacturing	431	HARD SURFACE FLOOR COVERINGS	3996	
Other Manufacturing	432	MANUFACTURING INDUSTRIES, N.E.C.	3999	
Transport	433	RAILROADS AND RELATED SERVICES	4010, 4740	Also part of 4789
Transport	434	LOCAL, INTERURBAN PASSENGER TRANSIT	4100	
Transport	435	MOTOR FREIGHT TRANSPORT AND WAREHOUSING	4200	Also part of 4789
Transport	436	WATER TRANSPORTATION	4400	
Transport	437	AIR TRANSPORTATION	4500	
Transport	438	PIPE LINES, EXCEPT NATURAL GAS	4600	
Transport	439	ARRANGEMENT OF PASSENGER TRANSPORTATION	4720	
Transport	440	TRANSPORTATION SERVICES	4730 4783, 4785	Also part of 4789
Communications & Utilities	441	COMMUNICATIONS, EXCEPT RADIO AND TV	4810 4820 4840 4890	
Communications & Utilities	442	RADIO AND TV BROADCASTING	4830	
Communications & Utilities	443	ELECTRIC SERVICES	4910	
Communications & Utilities	444	GAS PRODUCTION AND DISTRIBUTION	4920	Also part of 4930
Communications & Utilities	445	WATER SUPPLY AND SEWERAGE SYSTEMS	4940 4952	Also part of 4930
Communications & Utilities	446	SANITARY SERVICES AND STEAM SUPPLY	4953 4959 4960 4970	
Wholesale	447	WHOLESALE TRADE	5000 5100	
Retail	448	BUILDING MATERIALS & GARDENING SUPPLIES	5200	
Retail	449	GENERAL MERCHANDISE STORES	5300	
Retail	450	FOOD STORES	5400	
Retail	451	AUTOMOTIVE DEALERS & SERVICE STATIONS	5500	
Retail	452	APPAREL & ACCESSORY STORES	5600	
Retail	453	FURNITURE & HOME FURNISHINGS STORES	5700	
Retail	454	EATING & DRINKING	5800	
Retail	455	MISCELLANEOUS RETAIL	5900	
Finance, Insurance, & Real Estate	456	BANKING	6000	
Finance, Insurance, & Real Estate	457	CREDIT AGENCIES	6100 6710 6720 6733 6790	
Finance, Insurance, & Real Estate	458	SECURITY AND COMMODITY BROKERS	6200	
Finance, Insurance, & Real Estate	459	INSURANCE CARRIERS	6300	
Finance, Insurance, & Real Estate	460	INSURANCE AGENTS AND BROKERS	6400	
Finance, Insurance, & Real Estate	461	OWNER-OCCUPIED DWELLINGS		
Finance, Insurance, & Real Estate	462	REAL ESTATE	6500	
Lodging	463	HOTELS AND LODGING PLACES	7000	
Personal Services	464	LAUNDRY, CLEANING AND SHOE REPAIR	7210 7250	
Personal Services	465	PORTRAIT AND PHOTOGRAPHIC STUDIOS	7220	
Personal Services	466	BEAUTY AND BARBER SHOPS	7230 7240	
Personal Services	467	FUNERAL SERVICE AND CREMATORIES	7260	
Personal Services	468	MISCELLANEOUS PERSONAL SERVICES	7290	
Business Services	469	ADVERTISING	7310	
Business Services	470	OTHER BUSINESS SERVICES	7320 7331 7338 7383 7389	
Business Services	471	PHOTOFINISHING, COMMERCIAL PHOTOGRAPHY	7334 7335 7336 7384	
Business Services	472	SERVICES TO BUILDINGS	7340	
Business Services	473	EQUIPMENT RENTAL AND LEASING	7350	
Business Services	474	PERSONNEL SUPPLY SERVICES	7360	
Business Services	475	COMPUTER AND DATA PROCESSING SERVICES	7370	
Business Services	476	DETECTIVE AND PROTECTIVE SERVICES	7381 7382	
Business Services	477	AUTOMOBILE RENTAL AND LEASING	7510	
Business Services	478	AUTOMOBILE PARKING AND CAR WASH	7520 7542	
Business Services	479	AUTOMOBILE REPAIR AND SERVICES	7530 7549	
Business Services	480	ELECTRICAL REPAIR SERVICES	7620	
Business Services	481	WATCH, CLOCK, JEWELRY AND FURNITURE REPAIR	7630 7640	
Business Services	482	MISCELLANEOUS REPAIR SHOPS	7690	
Amusements	483	MOTION PICTURES	7800	
Amusements	484	THEATRICAL PRODUCERS, BANDS ETC.	7920	
Amusements	485	BOWLING ALLEYS AND POOL HALLS	7930	
Amusements	486	COMMERCIAL SPORTS EXCEPT RACING	7941	
Amusements	487	RACING AND TRACK OPERATION	7948	
Amusements	488	AMUSEMENT AND RECREATION SERVICES, NEC	7910 7991 7992 7993 7996 7999	
Amusements	489	MEMBERSHIP SPORTS AND RECREATION CLUBS	7997	
Health Services	490	DOCTORS AND DENTISTS	8010, 8020, 8030, 8040	

Long List by IMPLAN sector

Tranus	Implan	Description	SIC	SIC PART
Health Services	491	NURSING AND PROTECTIVE CARE	8050	
Health Services	492	HOSPITALS	8060	
Health Services	493	OTHER MEDICAL AND HEALTH SERVICES	0740, 8070, 8080, 8090	
Business Services	494	LEGAL SERVICES	8110	
Education	495	ELEMENTARY AND SECONDARY SCHOOLS	8210	
Education	496	COLLEGES, UNIVERSITIES, SCHOOLS	8220	
Education	497	OTHER EDUCATIONAL SERVICES	8230 8240 8290	
Education	498	JOB TRAININGS & RELATED SERVICES	8330	
Education	499	CHILD DAY CARE SERVICES	8350	
Health Services	500	SOCIAL SERVICES, N.E.C.	8320 8390	
Health Services	501	RESIDENTIAL CARE	8360	
Organizations	502	OTHER NONPROFIT ORGANIZATIONS	8400 8650 8690 6732 8922	
Organizations	503	BUSINESS ASSOCIATIONS	8610 8620	
Organizations	504	LABOR AND CIVIC ORGANIZATIONS	8630 8640	
Organizations	505	RELIGIOUS ORGANIZATIONS	8660	
Business Services	506	ENGINEERING, ARCHITECTURAL SERVICES	8710	
Business Services	507	ACCOUNTING, AUDITING AND BOOKKEEPING	8720, 8990	
Business Services	508	MANAGEMENT AND CONSULTING SERVICES	8740	
Business Services	509	RESEARCH, DEVELOPMENT & TESTING SERVICES	8730	
Transport	510	LOCAL GOVERNMENT PASSENGER TRANSIT		Part of 4100
Communications & Utilities	511	STATE AND LOCAL ELECTRIC UTILITIES		Part of 4910
Other Government	512	OTHER STATE AND LOCAL GOVT ENTERPRISES	--	
Communications & Utilities	513	U.S. POSTAL SERVICE	4311	
Communications & Utilities	514	FEDERAL ELECTRIC UTILITIES		Part of 4910
Other Government	515	OTHER FEDERAL GOVERNMENT ENTERPRISES	--	
	516	NONCOMPARABLE IMPORTS	--	
	517	SCRAP	--	
	518	USED AND SECONDHAND GOODS	--	
Other Government	519	FEDERAL GOVERNMENT - MILITARY	--	
Other Government	520	FEDERAL GOVERNMENT - NON-MILITARY	--	
Other Government	521	COMMODITY CREDIT CORPORATION	--	
Education	522	STATE & LOCAL GOVERNMENT - EDUCATION	--	
Other Government	523	STATE & LOCAL GOVERNMENT - NON-EDUCATION	--	
	524	REST OF THE WORLD INDUSTRY	--	
Households (low income)	525	HOUSEHOLD INDUSTRY-LOW INCOME	8800	
Households (medium income)	526	HOUSEHOLD INDUSTRY-MED INCOME	8800	
Households (high income)	527	HOUSEHOLD INDUSTRY-HIGH INCOME	8800	
	528	INVENTORY VALUATION ADJUSTMENT	--	