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Upper Rio Grande Valley - Texas Interindustry Study

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ABSTRACT

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ABSTRACT : The Interindustry Study of the Upper Rio Grande Valley
indicates that the region is highly dependent on Federal government expendi-
tures and export trade. The export-base industry in the region is highly
dependent on imports and mostly related to outside firms. The manufacturing
sector is quite limited to very few basic industries like primary metal,
petroleum refining and apparels. These 3 industries have very low multipliers
because the local supportive industry is not developed enough to provide the
basic industries with a significant proportion of their input needs.

The agricultural sector and the trades sector based on agricultural
products have the highest multipliers among all local processing sectors be-
cause of their high dependence on local markets for their inputs. Unfortu-
nately, their contribution to the gross regional product is minute because
of their low level of output. These sectors should be encouraged to expand.

The construction sections rank very high in the level of their outputs
and their multipliers. However, they are highly dependent on government ex-
penditures. A boom in regional construction will be quite helpful to the
region insofar as most local processing sectors will be substantially affected
by a rise in final demand for construction.

The study shows that the regional processing sectors produced in 1967
an output valued at $1,804,573,000 in 1967 dollars. The region exported
goods and services valued at $692 million but imported goods and services
valued at $730 million.

Upper Rio Grande Valley - Texas

Interindustry Study

1967

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April, 1972

OFFICE OF THE GOVERNOR   PRESTON SMITH
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PREFACE

Professor Wassily Leontief of Harvard University published the first Input-Output analysis of the U. S. Economy in 1936. As opposed to other analytic tools used by economists which emphasize understanding of economic phenomena through economic variables, such as employment, income, the interest rate, the price level, gross product, value added, and investment, Leontief's Input-Output techniques dealt with the problem of understanding the structure of specialized functioning economies, and the ways in which the individual parts influence each other. The Input-Output technique permits the analyst to classify and organize transactions data about the economy into mathematical statements which represent the trading among the individual sectors of the economy. The models systematically display each sector's sales and purchases and quantitatively measure outputs and inputs of each sector for the time period chosen. A solution of the system of equations provides quantitative estimates of interindustry relationships.

Since Leontief's first Input-Output publication in 1936, Input-Output Models of the U. S. Economy have been published by the Bureau of Labor Statistics of the U. S. Department of Labor and by the Office of Business Economics of the U. S. Department of Commerce. The former was for the year 1947 and the latter were for the years 1958 and 1963. A number of other national Input-Output Models have been prepared, including models for Japan, The United Kingdom, France, Sweden, The Netherlands, Russia, and Israel. In recent years, Input-Output Models of economies of states within the United States have been published. Notable examples are those for West Virginia, Kansas, Washington, Arizona, Nebraska, North Carolina, New Mexico and Mississippi. Other recent studies of regions and parts of states include The Lower Colorado Region, parts of California, Pennsylvania, Oklahoma and Texas.

Governments and industries alike have found the information provided by Input-Output Models to be useful in planning future activities and assessing the economic impacts of selected investments and policies. Industries such as Western Electric, Celanese Corporation, and United States Steel Corporation have used Input-Output analyses to assist in the planning of procurement of input materials, intra-industry management of diverse but interrelated departments and the estimation of expected direct and indirect consumption of products produced both by direct customers as well as the customers of their respective customers. Notable uses of Input-Output Models by governmental agencies are the evaluations of economic impacts of public facility construction, defense spending, and water project construction.

In 1968, the Population and Economics Task Force of the Planning Agency Council for Texas initiated an extensive interindustry study of the Structure of the Texas Economy. Funding was obtained through

Planning Grant with one-third state and two-thirds federal monies. Project administration, leadership, and direction was placed in the Division of Planning Coordination of the Office of the Governor.

The major aim of the program was the estimation of Input-Output Models of regional economies within Texas and of the Texas statewide economy for 1967. The procedures emphasized estimation of Input-Output Models from a sample of primary data. Secondary data were required for the purpose of calculating a part of the Input-Output Model parameters, including the individual sector or industry output totals. The study year 1967 was chosen, since 1967 was the most recent year for which complete censuses of manufacturing, business, transportation, and mineral industries were available for Texas.

Nine Texas Universities were invited by the Governor to participate in the project. For study purposes, Texas was divided into nine regions and the Governor's Office initiated a series of contracts with each of the nine participating universities (later reduced to eight) for the collection of data from a sample of manufacturing and business establishments of a specific region and the estimation of the regional Input-Output Model. Each contract provided for a project staff and a project director at each participating university. The contractual arrangement further provided for uniform coordination of regional projects to the extent that definitions and standard questionnaires, data processing procedures, and data classification procedures, as determined through the leadership of the statewide project director's office, would be followed in the conduct of each respective regional study.

The state project director's office established the sampling procedure and drew the sample of establishments to be interviewed in each region. The state project director's office issued general guidelines, special reports prepared by individual consultants, and conducted a part of the secondary and primary data processing. Regional project directors participated in the formulation of research guidelines through periodic project directors' meetings and in "special reports" to the state director's office. The regional project staffs conducted the surveys, prepared the survey data for computer data processing, and transmitted copies of the survey data to the state director's office. The survey data from the nine individual regions were combined and used in the estimation of a state Input-Output Model. In addition, each regional project staff analyzed the data and estimated the Input-Output Model for its particular region.

The Upper Rio Grande regional project was conducted at The University of Texas at El Paso by members of the staff of the Bureau of Business and Economic Research. This report presents the Input-Output Model and suggests some types of analyses that can be made of the regional economy. The Input-Output analyses and interpretations are those of the author, and do not necessarily represent the views of the State Project Director, the Office of the Governor, nor the U. S. Department of Housing and Urban Development.

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Herbert W. Grubb, Ph.D.
Texas Input-Output Project Director

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INTRODUCTION

Our modern economic system is highly complex and extremely inter-
related. Production of goods and services is usually done in several
stages by a large number of specialized manufacturing and business
establishments. A decision by an entrepreneur to expand an industrial
sector, or a decision by a government agency to increase or cut down
expenditures in an economic sector may have far-reaching effects on
other sectors of the economy. For example if the oil industry or the
textile industry in El Paso decided to build a new refinery or a new
apparel plant, apart from the direct increase in employment and wage
incomes that would result, indirect effects would also occur. The
construction industry along with other secondary (supporting and
consumer-oriented) industries would increase sales' revenue and this
might induce them to expand their operations. Such an expansion
would induce further expansions in the same or other sectors in the
economy due to the chain reactions of combined direct, indirect and
induced effects resulting from an impulse of new investment. The
reverse is quite likely to occur if a manufacturer decides to curtail
his operations, or the government decides to cut down its expendi-
tures.

While there exists a tremendous amount of information regarding
the economic structure and the interdependency of the various sectors
at the national level, only a comparatively meager amount of such
information is available at the state level. Much less information
is known or available at the regional level.

Businessmen and government planners need detailed information
about the economic structure at the state and regional level to
guide them in their policy decisions. They need information about
the interdependency of the various economic sectors to be able to
assess the impact of factors which affect the economic performance
within the state and within the region.

INTERINDUSTRY STUDIES

In our specialized economy, a product or a service usually
passes through various stages of production before being delivered
to the ultimate consumer. As an example more than a score of
economic sectors are involved in delivering a new car to a consumer.
Production and sale of a new car comprises the following stages
and economic sectors: extraction of ores - the mining sector;
steel fabrication - the metal products sector; the making of glass -
the glass products sector; the production of plastic, paint and
leather - the chemicals and leather sector; the building of the motor
and the assembly of the car - the automotive sector; the delivery
of the car - the transportation sector; the sale of the car - the
advertising, the retail and the financial sectors. The above

example indicates two points. First, that several sectors of the econ-
omy may be involved in the production of one commodity. This involve-
ment represents the interdependency within an economic structure.
Second, many sectors (or industries) do not sell the bulk of their
output directly to the ultimate consumer but to other industries.
The goods and services that industry A sells to industry B constitute
what is known as intermediate demand as contrasted to the final demand
which includes the bill of goods sold to the ultimate user.

Input-Output models - or interindustry studies as developed by
Wassily W. Leontief offer the economic analyst and hence the policy
planner an effective tool to study the economic structure of a nation
or a community. An input-output model is a representation of the
economic structure for an economic unit. It depicts the transactions
of sales and purchases for goods and services from manufacturer to
distributor to consumer. An input-output model for a region is much
more helpful to the policy planner than a volume of unrelated statis-
tical data pertaining to a host of industries in so far as it gives
a detailed balance sheet of all transactions within an economy over
a certain base period (usually a year). The balance sheet presents
the details of final as well as intermediate demand. The data used in
an input-output (or an interindustry) model are the transaction flows
of goods and services-in dollar volume-inside an economic unit. This
method of dealing with statistical information about the economic
structure of a region enables the analyst to visualize the direct and
indirect impacts of changes in final demand (called exogenous forces)
on the level of economic activities of the various industrial sectors
of a region. It also enables the planner to perform reliable consis-
tent forecasting of the potential economic growth in a region.[1]

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[1]Interindustry models were first introduced by the French econo-
mist Francois Quesnay in his "Tableau Economique" which was published
in 1758. Leon Walras (1877) elaborated on the concept and introduced
the Walrasian system which stated the interdependencies among produc-
tive sectors of the economy and the competing demand of each industry
for factors of production and the substitutability among their outputs
in consumption.

The classical general equilibrium theory referred to as the
Input-Output approach and its actual application to the study of the
American economy has been described in considerable detail in Wassily
W. Leontief, The Structure of the American Economy, 1919-1939, second
edition, revised Oxford University Press, N.Y., 1951.

For a detailed study of the techniques and use of input-output
please refer to Walter Isard, Methods of Regional Analysis: An Intro-
duction to Regional Science, M.I.T. Press, Cambridge, Massachusetts,
1963; and Wassily W. Leontief, "The Structure of Development" reprinted
from Scientific America, September, 1963. W. H. Freeman and Co., San
Francisco.

Building a Regional Interindustry Model

There are three possible methods for building a regional inter-
industry model. The first method relies on the adoption of the
national input-output coefficients with proper adjustments to the
regional economy. Several economists have used this method for
developing input-output models for various states and regions.[2]
Actually, the Economic Research Project at Harvard University is
conducting an exhaustive study for adopting national input-output
coefficients to all states in the country. However, it has been
found that there is a great deal of diversion between national and
regional coefficients due to differences in product mix, industry
mix, and interregional trade patterns. Adjustment of national
coefficients becomes even more tedious and subject to a high degree
of inaccuracy at the regional level due to the highly specialized
nature of regional economies (because of locational factors) and
their strong dependence on imports and exports.

The second method relies on secondary sources, i.e., available
statistical data. It is true that various government agencies
collect periodically an enormous amount of data on economic activity
in the nation, yet these data are not detailed enough and are rarely
in the proper format for input-output analysis.

The third method relies on primary data collected through a
direct survey of business establishments. This method, though more
costly than the above-mentioned methods is far more reliable,
especially for a regional economy. Because of budgetary and time
limitations, the interindustry study for The Upper Rio Grande Valley
Region (called hereinafter the Region) was based on a judicious com-
bination of direct survey and available statistical data.

OBJECTIVES OF THE STUDY

The primary objective of the study is to provide an economic
tool to serve planning by Texas public agencies. Being a part of
several studies conducted simultaneously for all other regions in the
state, the study is expected to indicate the economic interrelation-
ships between the various parts of the state and the outside world.

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[2]William A. Schaffer and Kong Chu, Application of the Regional
Input-Output Table Simulation: A Provisional Interindustry Model of
Atlanta, Discussion Paper 6, A Program in Regional Industrial Develop-
ment, Georgia Institute of Technology, June, 1968; also see CONSAD
Research Corp., Regional Federal Procurement Study, prepared for Office
of Economic Research, United States Department of Commerce, Contract
7-35211 October 1967, and Hewings, G. J.D., "Regional Input-Output
Models Using National Data: The Structure of the West Midlands
Economy," Annals of Regional Science, Volume 3, 1969.

4

The resulting regional and state input-output models will describe
in detail the interdependency within the economic structure of the
regions and the state. The economic information obtained from the
model will help the government in guiding statewide planning pro-
grams by providing planners with a valid tool for assessing the
implications of alternatives for current planning programs. The
study is expected to provide capabilities to accurately identify
and delineate regional development problems and potentials to
specific procedures for effectively dealing with them.

Once the regional structural relationships are known (from the
regional model) a policy planner will be able to measure the alter-
native levels of regional economic activity associated with such
programs as urban development and of governmental decisions such
as curtailing or expansion of Fort Bliss activities. It will also
point to the implications of projected levels of economic activity
such as bottlenecks in housing, skill levels, transportation needs,
etc.

The regional model will also provide businessmen and regional
economic development boards with reliable information about the
economic structure of the region. The model will indicate the
areas of strength and weakness of the regional economy.

Since regional imports and exports constitute a major part of
regional economic activity, the study will indicate the volume and
components of trade in these areas thereby pointing out the indus-
trial sectors with potential for expansion in regard to foreign
markets (markets outside the area) and fields of new investment
where new or expanded local industries may offer substitutes for
imported goods and services.

The study is expected to provide three tables.[3] The first
table -- called the "Transactions Flow Matrix"--gives the details
of purchases and sales of every sector from (to) every other sec-
tor in the regional economy and to final demand. This table thus
represents the direct requirements of every industry to fulfill
its production needs. The second table--called the "Technical
Coefficients Matrix"--expresses the transactions of every economic
sector into per dollar purchases relative to total input. For a
national economy, such a table represents the technical require-
ments for production (or the production function) of every industry
in the economy. However, due to the specialization of the regional
economy and its dependence on imports to fill some of its industrial
needs, the technical coefficients table for the region represents
trade requirements rather than technical requirements.

[3]The format and explanation of the tables is given in detail
in Appendix A of this report.

The third table represents the interdependency coefficients for the region. This table is of extreme importance since it indicates the linkages in the regional economy. It is particularly helpful to private and public decision makers because it sums up for every industry both the direct and indirect impact on its level of production (and needs) as a result of an increase in the level of final demand for its products or any other goods and services produced in the region. Such a table can be effectively used to measure the impact of policy decisions and to answer such questions as "what will be the effects on the local economy if a new industry relocates in the region or if government spending patterns change?"

The study is also expected to produce a set of sectoral multipliers and income multipliers. Multipliers are methematical factors that can be used to compute the level of production of an industry as a result of an increase in the level of demand for its products. Multipliers may also be used by government planners to assess the impact of increased government spending on every sector of the economy. It is true that overall multipliers can be estimated by other economic studies such as economic base studies; but only input-output studies can provide the analyst with detailed multipliers for every sector of the economy.

The objectives of this study can therefore be summed up in the following points:

- Development of a transactions flow matrix in dollar volume for all pertinent sectors in the regional economy including final demand.

- Development of technical and interdependence coefficients for the processing sectors of the regional economy.

- Development of three sets of multipliers for the processing sectors of the regional economy namely sectoral multipliers, direct and indirect or simple income multipliers and direct, indirect and induced income multipliers.

- Analysis of the results of the study indicating their significance and implications for policy decisions.

The achievement of the above-mentioned points provide the region (and the state) with an economic information system that lends itself readily to the assessment of alternative policy planning program and offers an effective tool for consistent economic forecasting. The study provides a general framework that indicates the regional problems, needs and areas of potential economic growth. It will also provide the basis for further investigative studies in specific areas of the regional economy.

By measuring the employment and water requirements for all sectors of the regional economy, the study provides a tool to assess the impact on employment and available water supplies of alternative policy decisions. The study provides local industrial development boards with valid economic information to enable the members of the boards to assess the actual impact of relocation of specific industries in the region and to be reliably selective in their search for industries to invite to the region.

Last, but not least, the study aims at providing the local businessmen and the local entrepreneur with detailed information about the economic structure of the region. Such information will enable the businessman to compare his firm's production require-ments with those prevailing in the region. It will also give him an insight into the real level of demand for the product of his firm both directly and indirectly, i.e., not only his actual and potential customers but also his customer's customers.

The analysis of the results of the survey point out to local investors the areas of potential expansion and also the areas of new investments to produce goods and services for which a market already exists in the region through imports.

SOCIO-ECONOMIC BACKGROUND

An Overview of the Region

The Upper Rio Grande region consists of the twelve counties listed in Table 1. The location of the region and its counties is also shown in the map in Figure 1. The region extends from El Paso county, which forms a jutting edge on the western extremity of Texas, down along the Rio Grande Valley and the United States - Mexico border.

Most of the area's 32,976 square miles are sparsely populated. El Paso County holds 81.1 percent of the population and accounts for an even larger share of economic activity. Two other cities, Eagle Pass and Del Rio, contain an additional 10.2 percent of the popula-tion. The region, then, is a contrast of large open areas, devoid of intensive economic activity, and the compact El Paso urban area with a concentration of such activity. Such a contrast complicates "regional" economic analysis. Almost by definition, most of such analysis must be devoted to the center of population. By the same token, it complicates a review of the economic background. It be-comes necessary, first, to explain those forces which account for the lack of vigorous economy throughout most of the area and, second, to identify those anomalous factors which generated the complex urban economy on the western edge. This is best accomplished by first

Figure 1

TEXAS INPUT-OUTPUT REGIONS
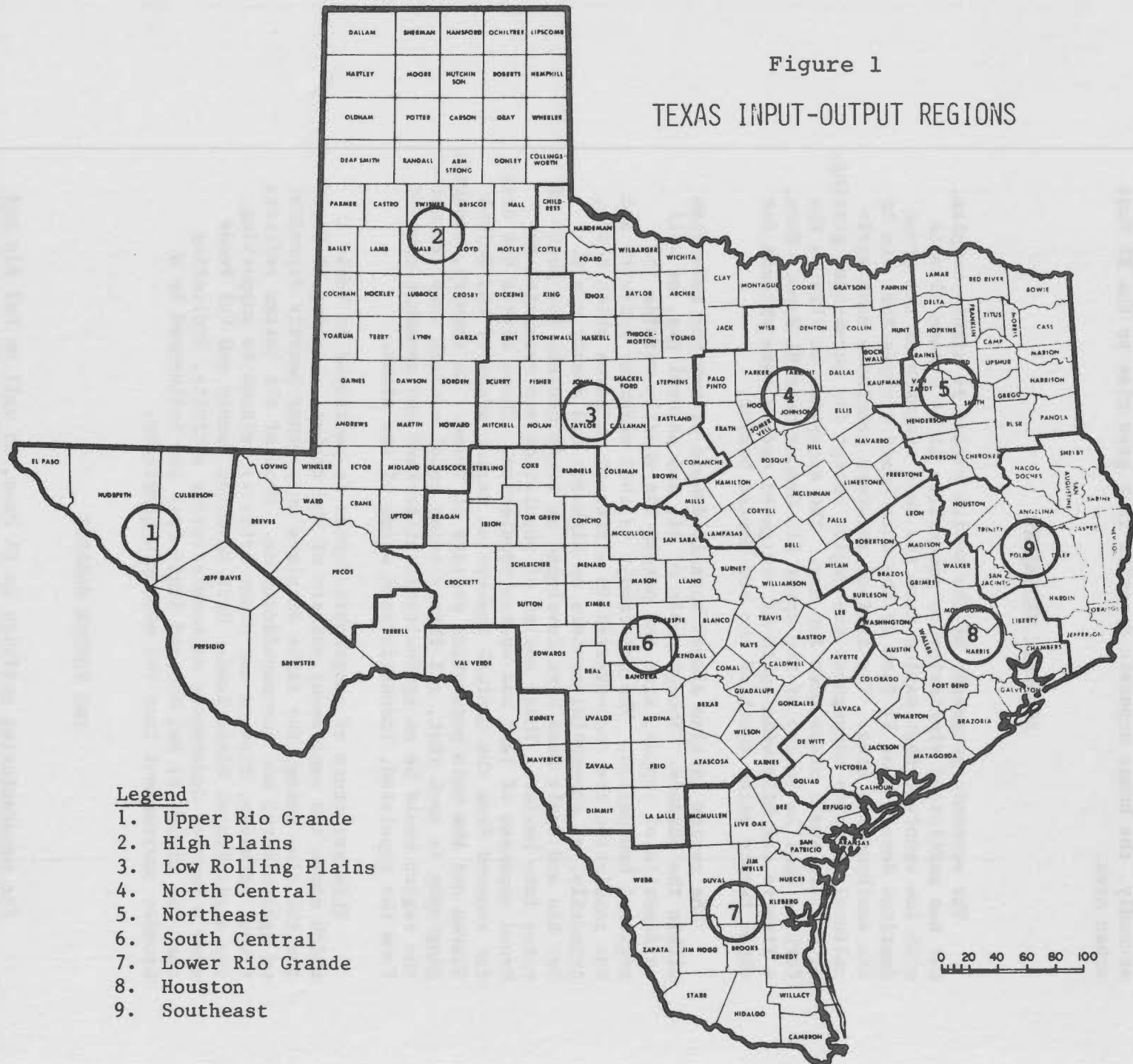
<u>Legend</u>
1. Upper Rio Grande
2. High Plains
3. Low Rolling Plains
4. North Central
5. Northeast
6. South Central
7. Lower Rio Grande
8. Houston
9. Southeast

0 20 40 60 80 100

viewing the natural economic geography of the entire region and, secondly, the human economic dynamics that gave rise to the El Paso urban area.

ECONOMIC GEOGRAPHY

The economic geography of the entire region is highly complex, but has sufficient similarity to generalize it as a warm climate with low rainfall that varies from the near vastness of the great American desert near El Paso to the more humid steppes that lie in the southeastern area. The limited moisture precludes much agricultural activity throughout the region except for scrub-land grazing, with a few small areas mown for hay. The exception to this is the fertile Mesilla Valley of the upper Rio Grande near El Paso. Here, a five to ten mile wide swath of irrigated agriculture extends for about twenty miles south of the New Mexico border.

The region is also almost totally devoid of natural resources within the borders. Though pools of oil and natural gas, as well as deposits of copper, zinc and potash lie shortly outside the regional boundaries. The net result is that economic activity and the population are concentrated in scattered enclaves which serve, primarily, as commercial centers on highways and county seats. Del Rio and Eagle Pass have developed as trade centers for ports of entry into Mexico. These nuclei of population are separated by broad expanses of land and sparse population. These cities are also far removed from the central industrial market areas of the United States and the main population centers of Texas. In summary, economic geography is such that, all things being equal - which they are not - the region would be an agricultural hinterland and somewhat removed from the populated, industrialized areas of the state.

This structure of geographic forces is portrayed in Table 1 which shows the employment pattern of the region. Leaving El Paso for the time being, the table displays an economy heavily dependent on agricultural and non-manufacturing. Most of the latter reflects trade, services, finance and other activity related to supporting the agricultural hinterland. Both Maverick County and Val Verde show a heavier dependence on manufacturing activity, indicating that the cities of Del Rio and Eagle Pass are influenced by a broader environment than the economic geography.

THE BORDER PARADOX

The manufacturing activity in El Paso, as well as Del Rio and Eagle Pass, arises from what might be best called the border paradox. This paradox stems from the fact the United States-Mexico border area may be viewed, at one and the same time, as both a relatively affluent and poor stretch of land. The United States side of the border is an area of general poverty.

Table 1. Employment by Industry, April 1967 - Upper Rio Grande Valley - Texas 1967

County	Total Employment	Agricultural	Per-cent	Manufacturing	Per-cent	NonManu-facturer	Per-cent
Brewster	2,325	360	14.4	40	1.6	1,925	77.0
Culberson	1,030	255	23.0	5	4.5	770	69.4
Dimmit	n.a	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
El Paso	109,315	2,000	1.8	19,765	18.0	87,550	80.2
Hudspeth	1,255	555	38.9	15	1.1	685	48.0
Jeff Davis	635	235	37.0	0	0.0	400	63.0
Kinney	1,300	550	42.3	15	1.2	735	56.5
La Salle	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Maverick	6,200	850	13.7	810	13.1	4,540	73.2
Presideo	1,898	550	29.1	50	2.6	1,290	68.3
Terrell	715	165	23.1	5	0.7	545	76.2
Val Verde	9,680	1,300	13.4	840	8.7	7,540	77.9

Robert R. Nathan Associates: Industrial and Employment Potential of the
United States - Mexico Border, Economic Development Administration, p. 145.

There is, however, sufficient economic "roll out" of United
States affluence in terms of income and activity so that some cities
appear as centers of economic wealth and opportunity to most of
Mexico. Mexican border cities, in general, have per capita incomes
above the average throughout Mexico, even though below their United
States counterpart cities. Although the industrial job-holder
along the border of Mexico may have a relatively high income com-
pared to the rest of the country, the large number of unemployed
tends to depress per capita income.

The attractions of high incomes and employment opportunities,
the latter both real and illusionary, have resulted in a flow of
migrants from rural Mexico to border cities. Historical practices
which allowed legal and illegal entry into the United States spread
conditions of population pressure and surplus workers to both sides
of the boundary, further depressing economic conditions north of
the border.

These conditions of economic contrast have resulted in high
population densities in a region not conducive to high human
productivity. People move to the border seeking job opportunities
which may not exist. In some cases, jobs may be created simply
because of the existing pool of unemployment even when better,
more productive work is available elsewhere. This tends to yield
low incomes and underemployed human resources. In addition, some
job seekers are locked out of the market due to cultural backgrounds,
skill levels, or language barriers. Ethnic prejudice may also bar
many from employment or relegate them to menial tasks. The results
are elements of abject poverty, high unemployment and general under-
employment compounded by ethnic discrimination, based to various
degrees in various places on clutural-linguistic differences and
prejudices.

Over the years, a pool of labor has attracted some industrial-
ization which enlarged employment opportunities. Economic growth
in the United States has been based on technology and new capital
equipment which made labor more productive and allowed a rapid
escalation in wages. Those industries not sharing the increases in
technological productivity were forced to compete in a high-wage
labor market and have found locational advantages along the border.
Some industries have relocated, but more significantly, some of
those already located on the border grew rapidly. Thus, most border
cities have seen local manufacturing employment grow at a more rapid
rate than is typical elsewhere in the country.

The most dominant activity is garment manufacturing, pri-
marily men's slacks. In El Paso, Eagle Pass and Del Rio, the
needle trades account for the biggest single block of manufacturing
workers. The fact that cloth is imported into the region and most
of the finished product is exported demonstrates the important role
of the labor supply and wage rates. Over the years these plants
have grown and expanded by maintaining an ever narrowing competitive
edge with plants located near textile mills and major trade areas.

Manufacturing of leather goods and other labor intensive industries are also prevalent along the border.

Most of these plants were started as small local operations. As they flourished in the competitive climate, they have grown into large national or regional firms. Their role in community economic development varies, however, from what is more typical of manufacturing plants. Typically, one thinks of manufacturing centers being established because of local raw material supply, adjacent markets, or some related transport cost advantage. As the industry grows, it attracts skilled labor to the community. With the exception of some food processing in El Paso, this situation is reversed along the border. It is the labor supply which attracted industry and this situation has had a peculiar impact on the economic nature of the region, an impact which is discussed further in the deeper economic analysis of the region.

THE TWIN-PLANTS PROGRAM

The Mexican Border Industrial Program was also initiated on the relative locational advantage of labor supply. Its initial success, and the promise of more to come, gives some indication of the relative advantage of a border location to labor intensive industries - that is, those industries which have a high labor input per unit of output. This program combines Mexican labor with United States technology and materials. Under the Mexican rules, materials and machinery are imported into Mexico duty free, the product is assembled, assorted, or otherwise finished in Mexico and then exported to the United States or to foreign markets. The program permits any financial mixture of Mexican or non-Mexican capital.

This program involves no change in United States tariff regulations. Under existing United States rules (Tariff regulations 806.30 and 807) duty is paid only on the "value added" to the product (providing no manufacturing or change of form has occurred upon its reentry to the United States).

Although not required, the "twin-plant concept" frequently involves the establishment of a production facility in a United States border city (to perform the capital intensive activities) and an assembly facility in Mexico, to provide the labor intensive functions. This complicates interindustry flows somewhat since the output of the United States plant is classified as an export when it leaves the plant and an import when it returns when all that has really happened is a portion of the work-in-process has been farmed out.

The potential economic benefit of the twin plants' program to the border area is great. The El Paso Industrial Development Corporation had estimated in September 1969 that El Paso had a direct benefit of 690 jobs ($5,001,275 in payroll) and Juarez 2,460 jobs ($3,914,400 in payroll) as a result of the program.[4]

NATURAL RESOURCE PROCESSING

The El Paso urban complex has two additional pillars of economic support not shared by other cities in the region. The first of these is the processing of natural resources. As mentioned, the region itself contains meager natural resources; however, supplies of copper, phosphate, petroleum and natural gas lie adjacent to the boundary of the region. Because of its early settlement along the trade route, El Paso has become a center for processing much of the natural resources. Petroleum refineries, gas pipeline headquaters, and two large refineries have been established to process and transport raw materials. Other minor deposits are brought into the city on a flow-through basis for export. Wholesale operations, copper smelters, and refineries have thus become a significant part of the economic base of El Paso. But, again because of the transport network and the way regional boundaries are drawn, all of the raw materials are imported and most of the products are exported. El Paso and the region's main contribution is what takes place in the process of handling and refining.

MILITARY ACTIVITY

The natural geography of the region is such that most agricultural activity is not economically feasible. These same geographic conditions, however, have been important in attracting new military technology to the area around El Paso. The dry desert climate produces clear skies and sparse vegetation over and around a rugged mountain and flat basin. These uninhabited, or sparsely inhabited spaces provided the ideal setting for the testing of missiles and explosives. The lack of habitation provided both secrecy and safety. The broad expanses of relatively clear land are ideal for testing

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[4]Unpublished report of the El Paso Industrial Development Corporation, September 1969.

rockets over the large distances and available at low prices.
The cloudless, dry skies are also ideal for using equipment needed
to measure and control rocket flights. The surrounding mountains
serve as bleachers for these electronic spectators to follow the
missiles. Thus, the flat basins and valleys that have often been
abandoned by man, except for an occasional herder, became the
perfect spot for testing modern weapons.

The White Sands Missile Center and Holloman Air Force Base
are two of three major installations which developed in this
natural setting. Technically, both, lie outside the region across
the border in New Mexico. They still contribute to the El Paso
economy in many ways. Most of their supplies and personnel pass
through the El Paso transportation terminals, and many contractors
have headquarters in that city. In addition, many employees,
particularly at White Sands, have chosen El Paso as their home.

Fort Bliss, an installation of some twenty-five thousand to
thirty-five thousand military personnel is located in El Paso,
however. Curiously enough, much of its testing and training
grounds also lie in New Mexico. It is this military complex, more
than any other, which contributes to the government sector of the
city's economy. Military and civilian employees from this base
are far more numerous than other federal employees who guard the
border and carry on other federal government functions in the city.

IRRIGATED AGRICULTURE

Another aspect of the El Paso economy deserves brief mention.
Not all of the region is restricted in agricultural production.
The Mesilla Valley of New Mexico and West Texas lies along the
Upper Rio Grande. Here water is plentiful for irrigation and
the dry warm climate is favorable for intensive row crops. Cotton
was the traditional crop, and dominated the valley for many years.
Recently, vegetable growing has taken on an increasingly import-
ant role, as have pecan orchards. This agricultural activity
may easily be overlooked when compared with urban economic activity
of El Paso. On the other hand, its importance is indicated by
the fact that El Paso County has the largest absolute number of
agricultural works of any county in the region, even though the
percentage figure is the smallest. The absolute value, however,
reflects both the size and type of farming activity which occupy
the banks of the Upper Rio Grande.

Summary

In summary, El Paso County dominates the economy of the region. Its population and economic statistics soar above those of the other counties, individually or combined. It thus becomes the focal point of economic analysis.

El Paso's position is made possible by many factors. The fertile valley with irrigation possibilities make a more intense agriculture possible. The "Border Paradox" has provided a labor supply, similar to, but much larger than the two other major cities of the region. It becomes a more natural home for industries seeking a border location or a place for processing of raw materials. Finally, those same geographical conditions which preclude agricultural activity, have caused the city to be surrounded by a crescent of national defense installations. This convergence of forces has established a major metropolitan area that holds well over four-fifths of the region's economic endeavors.

METHODOLOGY

Introduction

As was mentioned in the preface, the interindustry study of Texas comprises nine regional models. This report is confined to the input-output model for the Upper Rio Grande Valley of Texas. The regional model was largely built on survey data with the exception of agriculture and government sectors which were based on statistics published by government sources. All the surveys pertaining to the regional model were performed locally. However, due to time and budgetary constraints, the statewide project director, in cooperation with regional project directors assigned some universities special projects for the state and regional models. The special projects included: agriculture, construction, mining, utilities, communication, transportation, wholesale and retail trade, financial institutions and selected service.

The collection and processing of data and estimation of control totals for agricultural sectors was assigned to Richard Foote at Texas Tech University. The preparation of survey questionnaires, processing of data and estimation of control totals for the construction sectors was assigned to Dr. E. George at the University of Texas at El Paso. Similar duties for the mining sectors were assigned to Dr. James Vinson at Hardin-Simmons University; for the communication sectors to Dr. David Moorman at Texas Tech University; for the utilities sectors to Dr. W. Mullendore and Mr. A. Ekholm at the University of Texas at Arlington. Designing formulas for and computation of wholesale and retail trade margins was assigned to Dr. Louis Stern at the University of Houston. The statewide project director's office

(Dr. Herbert W. Grubb and his staff) at Austin collected and processed data on transportation, selected services, and government sectors. The same office designed computer programs to process data for all the regions for all sectors except construction. Reallocation of merchandise purchased for resale by the trade sectors to isolate trade margins was performed at Austin using a computer program developed by the statewide project director's office. Dr. Grubb and his staff estimated control totals for all sectors that were not assigned as special projects. They also estimated - in cooperation with the Texas Water Development Board - water requirements for all regional and state model sectors. In cooperation with the regional project directors they developed uniform questionnaires for the survey and coordinated the project for the adaptation of uniform techniques and terminology to assure compatibility of the models and comparability of the results.

The methodology adopted here was designed to build a regional input-output model. The model can be described as a static, open, Leontief model. It is static in the sense that all transactions in the processing sectors are on current account having no time dimensions while dynamic aspects of capital formation are segregated outside the matrix in the final demand section. Final demand sectors are considered autonomous since changes in the level of economic activity can be initiated by these sectors through an increase (or decline) in government spending, investments, household spending and exports. The openness derives from the fact that economic activities are placed in two categories, those whose demand can be explained by the system (intermediate demand) and those whose demand must be initially assumed or given (final demand).

The following sections present definitions of the terms used in the study, the organization of the survey and the methods used to collect and process the collected data.

Sectoring

A sector may be defined as:

1. a commodity or group of commodities;

2. a group of establishments having in common certain characteristics (such as production of similar commodities, use of the same principal raw material, or possession of similar types of equipment);

3. an activity (such as the activity of providing new residential construction);

4. a defined process (such as sand casting of metals).[5]

The national interindustry studies models are classified in sectors approximating the four-digit level of the Standard Industrial Classification in manufacturing areas, with broader aggregation of non-manufacturing activities.

Data related to the regional economy were examined for evidence of economic activity in broad Standard Industrial Classification categories. Wherever activity was detected the particular industry was included in an initial four-digit level Standard Industrial Classification classification. Certain industries were aggregated to form individual sectors. Aggregation was based mostly on similarity of product mix or uniformity of input structures.

Since the regional economy, like most regional economies is a specialized economy, many Standard Industrial Classification categories that can be represented by individual sectors in the National or State input-output models had to be aggregated or omitted for the regional model due to lack of significant economic activity in some Standard Industrial Classification categories. To facilitate comparison with the national and state models, the regional model sectors are listed in Table 2 with the related Standard Industrial Classification categories.

As can be seen from Table 2 the regional model has three broad sections: namely the processing sectors, final demand sectors and final payments sectors. The processing section has sixty-six sectors which comprise eight broad categories: agriculture; mining; manufacturing; transportation and communication; utilities; wholesale and retail trade; finance, insurance and real estate; and services. The final demand sector has eight sectors which comprise households, government, exports and capital formation. The final payments sector has six sectors which comprise households, government, imports and depreciation. The regional model sectors cover all significant economic activities (sales and purchases of goods and services) within the region during the base year 1967.

Sampling Procedure

Even though some sectors were designed on commodity or activity or process basis, all surveys were conducted on an establishment

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[5]Duane Evans and Marvin Hoffernberg, "The Interindustry Relations Study for 1947", the Review of Economics and Statistics, Vol. XXXIV, No. 2, May 1952, pp. 113.

Table 2. Regional Model Sectors, 1963 national model sectors, and
related SIC codes--(Upper Rio Grande Valley); Texas 1967

Sector Number	Regional Model Sector Title	Components	Related SIC Codes
	AGRICULTURE		
1	Irrigated Crops	Irrigated cotton	0112
		Irrigated food grains	0113
		Irrigated feed grains	0313
		All other irrigated crop production	0122,0123,0119
2	Livestock, Dairy and Poultry	Range livestock production	0235
		Feedlot livestock production	0135-36
		Dairy	0132
		Poultry and eggs	0133-34
3	Agricultural Supply	Agricultural supply except farm machinery	5962,69
4	Agricultural Services	Ginning and compressing	0712
		Agricultural services	0712-15,19,22-23 0729,31,41
	MINING		
5	All Mining	Crude petroleum	1311
		Natural gas	1321
		Oil and gas field services	1381-82,89
		All other mining and quarrying	1411,22-23,29, 42,46,52,56,59, 76-77,92,99,101-- 103,05-06,08-09

Sector Number	Regional Model Sector Title	Components	Related SIC Codes
	CONSTRUCTION		
6	Residential Construction	New private housing, high rise apartments, alterations and repair	1511
7	Commercial Construction	Commercial, educational and institutional construction	1511
8	Industrial Construction	Factories, plants and warehouses	1511
9	Facility Construction	Roads, highways, marinas and sewers	1611,21
10	Maintenance and Repair	Maintenance and repair for all existing construction	1700
	MANUFACTURING		
11	Food Processing	Meat products	2011,2013
		Poultry products	2015
		Dairies	2021-24,26
		Animal feeds	2042
		Bakery products	2051-52
		Canned, preserved, picked dried and frozen foods	2031-38
		Other foods and kindred production	2091-99, 2061-63,71-72 2121
		Beverages	2082,84,86-87
12	Textile and Apparel	Textile mill products	2211,21,31,41, 51,53,56,59, 2261-62,69,71- 72,79,81,84, 91,93-95,97-99

Sector Number	Regional Model Sector Title	Components	Related SIC Codes
12	Textile and Apparel	Mens and boys, women, misses and childrens furnishings	2311,21-23,27-29,31,35-37,99,41-42,51-52,61,63,69
		Related apparel	2371,81,84-87,89,91-97,99
13	Lumber	Lumber mills	2421,26,29
		Millwork and wood products	2431-33,41-45,91,99
14	Furniture	Wood furniture and fixtures	2511-12,15,19,21,41,91,99
		Metal furniture and fixtures	2514,22,42
15	Boxes and Paper Containers	Paper board boxes, corrugated fiber boxes, food containers	2641-47,49
16	Printing and Publishing	Newspapers	2651-55
		Publishing	2721,31,41
		Printing	2732,51-53
		Manifold business forms	2761
		Other printing and publishing	2771,82,89,91,93-94,99
17	Chemicals	Chlorine and alkalies	28121-24,32-34
		Inorganic chemicals	28191-99
		Fibers, plastics	28211-17,19
		Soaps, cleansers and toiletries	2841-44
		Paints and varnishes	2851
		Other chemicals	2861,91-93,95,99
18	Petroleum	Petroleum refining	2911
		Other petroleum products	2951-52,92,99

Sector Number	Regional Model Sector Title	Components	Related SIC Codes
19	Rubber and Leather	Fabricated rubber products	3069
		Plastics products	3079
		Leather and leather products	3111,31,31,41-42,51,61,71-72 99
20	Glass, Stone and Clay	Glass	3221,29,31
		Clay	3251,53,55,59, 61-62,69
		Cut stone and other clay and shell products	3281,91-92,95-97,99,74-75,01, 93
21	Cement and Concrete	Ready mixed cement and concrete, concrete bricks blocks and other cement products	3271-73,41
22	Primary Metals	Blast furnaces	3312
		Primary steel and iron	3313,15-17
		Nonferrous primary and secondary	3331-33,39,41
		Castings and forgings primary steel and iron, nonferrous primary and secondary smelting	3362,69,91-92 99
23	Fabricated Metals	Fabricated steel	3441
		Plate work	3443
		Sheet metal and architectural	3444,46,49
		Metal Doors	3442
		Electroplating, coating and engraving	3471,79
24	Machinery	Material handling machinery and equipment	3534-36

Sector Number	Regional Model Sector Title	Components	Related SIC Codes
24	Machinery	Mining machinery and equipment	3532-33
		General industrial machinery	3561-62,64-67,69
		Service industry machinery	3581-82,86,89,99
		Electric instruments	3611-13,21-22, 24,41-42,44,29
		Electric household equipment	3631-36,39
		Electronic communications equipment	3651,61-62,71-74,79
		All other electrical apparatus	3671,93-94,52, 99, 91
25	Scientific Instruments	Motor vehicles and parts	3713,14-15,11
		Scientific instruments	3811
		Medical instruments	3841-43
		Photographic, time and optical instruments	3851,31,61,71
26	All Other Manufacturing	Games and toys	3941-42,49
		All other manufacturing	3911,13-14,31, 51-53,55,61-64, 82-84,87,91,93, 95,99

TRANSPORTATION, COMMUNICATION AND UTILITIES

Sector Number	Regional Model Sector Title	Components	Related SIC Codes
27	Railroad Transportation	Railroads, sleeping cars and other passenger services, railway express service	4011,13,21,41
28	Intercity and Motor Freight	Intercity rural highway transportation	4131-32
		Motor freight transportation	4213,31
29	Trucking and Warehousing	Local trucking storage	4212,14,24
		Farm product warehousing and storage	4221

Sector Number	Regional Model Sector Title	Component	Related SIC Codes
29	Trucking and Warehousing	Refrigerated warehousing	4222-23
		General warehousing	4225-26
30	Air Transportation	Air transportation, certified and noncertified, finest facilities and air terminal service	4511,21,82-83
31	All Other Transportation	Pipe line transportation	4612-13, 19
		Local and suburban transportation	4111,19,21, 40,50
		Other transportation service	4141-42,41,71-72, 4742,82-84,89
		Arrangement of transportation, local transportation, pipeline transportation (except natural gas)	4721
32	Telephone and Telegraph	Telephone and telegraph	4811,21
33	Radio, T. V. and Other Communications	Radio and T.V. Broadcasting	4832-33
		Other communications (n.e.c.)	4899
34	Gas Utility	Gas services (private)	4922-23,32
		Gas services (public)	9149,9249,9349
35	Electric Utility	Electric services (private)	4911,31
		Electric services (public)	9151,9251,9351
36	Water Utility	Water and sanitary service systems (public)	9102,9202,9302
		Water and sanitary service	4941,52-53,59,61

WHOLESALE TRADE

37	Auto Parts and Supplies	Automobiles, automotive equipment, tires and tubes	5012-14

Sector Number	Regional Model Sector Title	Component	Related SIC Codes
38	Wholesale Groceries and Related Products	General line groceries, frozen food, dairy, poultry, seafood, meat and related products	5041-49
39	Wholesale Farm Products	Cotton, grain and miscellaneous farm products	5052-53,59
40	Wholesale Livestock	Cattle, hogs, sheep and stockyards	5054,4731
41	Wholesale Machinery	Commercial machines, construction and mining equipment, transportation (except locomotives)	5081-85,87-88
42	Wholesale Petroleum	Petroleum and petroleum products	5092
43	General Wholesale	Chemicals and allied products, dry goods, appliances, home furnishings, sporting goods	5022,28-29,33-34,36-37,39,63-65,72,74,77,91,93-99

RETAIL TRADE

44	Lumber Yards and Hardware	Lumber yards	5211
		Farm equipment dealers	5252
		Hardware, heating, electrical, paint and wallpaper	5221,31,41,51
45	Department and Mail Order Houses	Department and variety stores, dry goods and needle work stores	5311,31,99
46	Food Stores	Grocery stores, meat and seafood markets, retail bakeries, egg and poultry dealers	5411,21,31,41,51,62,99
47	Automotive Dealers and Repair Shops	Franchised and nonfranchised new and used car dealers repair shops, tire, battery and accessory dealers	511,21,31,7549,31,34-35,38-39,42

Sector Number	Regional Model Sector Title	Component	Related SIC Codes
48	Gas Service Stations	Gasoline service stations	554
49	Apparel and Accessory Stores	Men's, boy's, women's and children's wear, accessories and specialty stores	5611,21,31,41, 51,61,71,81,99
50	Furniture Stores	Furniture, home furnishings, household appliance stores, floor covering stores	5712-15,19,22, 32-33
51	Eating and Drinking Places	Restaurants, bars and cafeterias	5812-13
52	All Other Retail	Drug stores, liquor stores, antique stores, optical stores, hobby shops and all other retail	5912,21,32-33, 42-43,52-53,91- 92,99,71,82,84, 92-97,99,41,51

FINANCIAL, INSURANCE, REAL ESTATE

53	Banking and Credit Agencies	Banking and credit agencies	60,61
54	Insurance Carriers	Insurance carriers	63,6411
55	F.I.R.E., n.e.c.	Brokerages and exchange dealers, insurance agents, real estate holding and investment companies	62,64,65,66,67

SERVICES

56	Legal and Accounting	Legal services	8111
		Accounting, auditing and bookkeeping	8931
57	Lodging Services	Hotels, motels, boarding houses and trailer parks	7011,21,41, 31-32
58	Personal and Photographic Services	Laundries, barber shops, funeral services, coin operated services, beauty shops	7211-18,31,41 51,61,71,99

Sector Number	Regional Model Sector Title	Component	Related SIC Codes
58	Personal and Photo-graphic Services	Photographic services	7813-15,21, 7395,7221
59	Advertising	Advertising agencies, radio, T.V. and publishers adver-tising representatives	7331,32,39 7311-13,19
60	Motion Picture and Recreational Services	Motion picture, amusement parks and recreational services, bowling, pool, golf courses, skating rinks, swimming pools	7816-18,32-33, 7911,29,32-33, 41-43,45-49
61	Auto Rental and Parking Services	Passenger car rental service, truck rentals	7523,25 7512-13,19
62	Electrical and Miscel-laneous Repair	Electrical repair shops, radio and T.V. and refrig-erator repair shops	7622-23,29
		Miscellaneous repair shops	7631,41,92,94, 99
63	Medical Services	Physicians, dentists, sur-geons, osteopaths and chiropractors	8011,21,31,41
		Hospital and laboratory services	8061,71-72
		Other medical services	8092,99
64	Educational Services	Schools (public and private)	8211
		Colleges and universities	8221-22
		All other educational services	8231,41-42,99
65	Engineering and Archi-tectural Services	Architectural and engineer-ing services	8911
66	All Other Professional Services	Private employment agencies	7361
		Research and development	7391,8921
		All other business services	7341-42,49,51, 92-94,96-99,73

Sector Number	Regional Model Sector Title	Component	Related SIC Codes
66	All Other Professional Services	All other professional services	8999
		All other services	8411,21,8611, 21,31,41,51, 61,71,99,8811

FINAL PAYMENTS

67	Households	Wages, salaries, interest payments, profit and other income	
68	Federal Government	Taxes and other payments to Federal Government	
69	State Government	Taxes and other payments to State Government	
70	Local Government	Taxes and other payments to Local Government	
71	Imports	Payments for purchases from outside the region	
72	Depreciation	Capital consumption allowance	

FINAL DEMAND

67	Households	Purchases by households for consumption	
68	Federal Government	Defense and nondefense expenditures	9119,23,28,36, 37,90,9160,61, 80,85,87,99
69	State Government	Educational services, public roads and other state government expenditures	9249,82,85,87, 91,99
70	Local Government	Locally operated utilities, educational services, public welfare, public roads and other local government expenditures	9349,82,85,87, 91,99

Sector Number	Regional Model Sector Title	Component	Related SIC Codes
73	Exports	Sales outside the region of regionally produced goods and services	
74	Inventory Changes	Inventory additions minus depletions	
75	Gross Private Capital	Formation of new capital – new construction, new plant and equipment	
76	Gross Savings	Income withheld from expenditures within the region or on imports	

basis.[6] In order to produce comparable regional and statewide Input-Output Models, sampling was done according to the State Input-Output Model definitions. The regional sample was drawn from a list of the region's establishments contained within each sector of the state Input-Output Model.

The universe of establishments for sampling purposes for the various sectors were obtained from the Texas Employment Commission at Austin. The universe for the region was classified by four-digit Standard Industrial Classification codes and stratified by employment size: small establishments 1 to 19 employees; medium size establishments 20 to 249 employees; and large establishments 250 and over employees. The Texas Employment Commission listings also included quarterly wages and average employment for all cited establishments. A master regional index for establishments per sector was prepared. The sample composition for data collection was as follows:

1. For establishments having two hundred fifty and more employees one hundred percent of the establishments was included in the sample.

2. For the medium and small size establishments, the following sampling procedure was followed:

   a. For each cell represented by one or more establishments, one establishment (and an alternate) was drawn at random.

   b. For each cell represented by more than five establishments, a second random selection (with alternates) was made with replacement.

   c. For each cell represented by more than twenty establishments a ten percent proportionate sample (and alternates) was drawn at random with replacement.

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[6]Evans and Hoffenbert, Ibid., maintain that "There is much merit in the choice of the establishment as the basic unit of classification. Many current statistical programs are set up on an establishment reporting basis (which facilitates the collection of control totals data), and the establishment is a basic action unit in the economy. Moreover, some degree of stability through time in impact relationships is to be expected at this level of aggregation, since the establishment usually represents a collection of specialized equipment and specialized human experience within which rapid substitution possibilities are at least limited."

The sampling procedure outlined above was applied to the manufacturing sectors. The procedure was modified for other sectors; i.e., sample fraction for Services was one percent. The population of the trade sectors was further stratified into four-digit SIC groups within sectors. The sample fractions applied to each strata of Construction, Mining, Transportation, Communications, Finance, Insurance, and Real Estate, and Wholesale and Retail Trades were chosen to give the "best" representation possible within the project budget.

THE SURVEY

The survey, based on personal interviews, covered several steps, namely: sampling, preparation of questionnaires, pretesting, interviews, debriefing, editing and coding the responses.

Sampling

After establishing the size of the sample for each sector, actual firms to be interviewed were selected at random from the Texas Employment Commission master lists. An alternate random sample was selected simultaneously. A file was prepared for each division in the processing sectors such as manufacturing, services, etcetera. The file included a data sheet for every firm and its alternate to be interviewed. Each firm in the sample was given a six-digit identification number composed of the industry's state sector number, a code for its employment size (small, medium or large), a serial number indicating its position in the sample roster, and a code indicating whether it was an original or alternate sample firm.

The data sheet included the four-digit Standard Industrial Classification classification of the firm, the indentification number of the firm, its primary product, its address and telephone number, and the name of the officer of the firm to be contacted, plus the record of each contact made with the firm.

The Questionnaire

The questionnaires for every division in the processing sectors were prepared by committees of project directors. The final format of every type of questionnaire was all inclusive. It elicited responses on employment, wages, sales analysis, and a detailed account of all inputs and their origin. Since the regional economy is highly dependent on imports and exports, special care was taken in designing the questionnaires in such a way as to obtain as much detail as possible regarding the origin of purchases and the destination of sales.

Pretesting the Questionnaires. Every type of questionnaire (e.g., manufacturing or construction or services, etcetera) was

pretested on a small number of firms selected on a judgment basis.
Pretesting often resulted in revision of the questionnaire to con-
form with business accounting practices of various industries and
to clarify the terms used to obtain reliable information. A set
of the final form of all types of questionnaires used in the survey
is filed.

INTERVIEWS

Training

A group of graduate students was trained at the research center
to conduct the personal interviews with the business firms in the
region. The training emphasized the concepts of input-output analysis,
the meaning and significance of Standard Industiral Classification
codes, the structure of the model, and the expected contents of the
state sectors. The interviewers were also briefed about the charac-
teristics of the industrial sector they were going to handle.

Preparation for the Interview

The project director usually called an officer of the firm to
be interviewed to explain the project and the type of information
requested from the firm and asked for an appointment for the inter-
view, assuring him in the meantime of the confidentiality of his
responses. The project team then mailed to the officer a package
including a letter from the Governor of Texas explaining the need
for and the anticipated results of the project, a letter from the
University explaining its involvement in the project and soliciting
his firm's cooperation and a blank questionnaire to notify the
officer about the exact scope of information needed.

The Interview

The interviews were usually conducted by a team of graduate
students. They took detailed notes of all responses to the questions
and attempted to help the officer of the firm in giving precise
answers by showing him the sectoral structure of the model and the
geographic boundaries of the input-output regions and trying to
obtain correct Standard Industrial Classification codes for all
inputs of the firm. In many cases, the interviewers asked the
officer of the firm for more detailed information regarding its
operations and requested to be allowed access to the firm's books
or financial statements. In most cases, the firms cooperated
willingly. In some cases, however, the firms refused to allow the
interviewers to look at their books, but they agreed to retain the
questionnaire and to have one of their employees or accountants fill
in the required details. In a few cases, the officer of the firm
was surprised at the amount of information requested or resented what

he considered "nosing" into his business and refused to cooperate. This was particularly true of very small businesses.

Debriefing

To insure reliability of collected data, the interviewers were debriefed as soon as possible after conducting the interview. The data which had been obtained in the interview were checked against data obtained from the Texas Employment Commission and published secondary information concerning the industry interviewed. The responses recorded in the questionnaire were also checked for consistency and completion and a general balancing procedure was followed to insure that all purchases and sales were included. After debriefing, the interviewer and the project director rated the completed questionnaire regarding reliability of data.

Follow-Up

In case of inconsistency or incompletion or significant deviation from known patterns of the industry, the questionnaire of the firm was flagged and an attempt was made to secure another interview with the firm to correct the questionnaire or to obtain the reason for the discrepancies. In the few cases where the questionnaire could not be corrected or the discrepancy explained, the alternate firm was interviewed.

Evaluation of the Interview System

During the early stages of the survey the research team met with some resistance from the business community. The resistance was due largely to the following reasons:

1. Lack of understanding of the meaning and value of input-output analysis.

2. Misconception of the term "planning" which seems to connote--to some businessmen--governmental interference.

3. Time involved in the interview because of the length of the questionnaire and the detailed information required.

4. The use of terms such as "sector" and Standard Industrial Classification codes with which many businessmen are unfamiliar.

5. The lack of handy detailed historical records kept by the firms in an accessible and brief form.

6. The fear of divulging industrial secrets concerning the firm's operations.

To overcome this resistance, allay businessmen's fears, and educate them about the value of the project, a one-day conference was held at the university to which the businessmen were invited. During the conference the project director, Professor Miernyk, Dr. Grubb, and others explained to the businessmen the concepts involved in input-output, the objectives of the project and the value of the anticipated results which depended on obtaining reliable information.

The interviewers encountered very little resistance after the conference and received good cooperation from the business community. The extent of the success of the survey is indicated by Table 3 which shows the coverage ratio of firms in the various sectors.

Coding: Successfully completed questionnaires were balanced, edited and coded to show the sector number and Standard Industrial Classification category of every transaction. Specially designed coding forms were used to display systematically all transactions and the origin or destination of each.

Data Processing: The coded forms were then posted on data processing forms in preparation for computer operations. For each firm interviewed, six data cards were prepared showing the identification of the firm, the sector of the firm, the Standard Industrial Classification of the firm, total shipments, taxes, wages, employment, net income, expenditures on utilities and inventory, depreciation, rents, interests, profits or losses, travel and entertainment expenses, bad debts, and postage and office supply expenses.

The six leading data cards were followed by two sets of cards, one for analysis of sales and another for inputs including capital expenditures. All transactions were entered in producers' prices and coded to show the region of origin, the sector and Standard Industrial Classification of each purchase and sale.

Producers' Prices: There usually exists two types of prices for commodities: purchasers' and producers' prices. Purchasers' prices include marketing costs such as storage charges, and wholesale trade margins, transportation costs, and various taxes. To link consumers and users with previous processors all transactions in the regional model are valued at producers' prices, i.e., F.O.B. shipper; thereby excluding distribution and marketing costs. They, however, do include Federal, State, and local excise taxes collected and paid by the producers. Trade margins and transportation costs associated with inputs into consuming industries are charged to the trade and transportation industries as a purchase by the industry consuming the product.

Table   3   Coverage Ratio for the Regional Survey
Upper Rio Grande Valley – Texas 1967

Sector Name and Title	Percent of Firms of Sector	Percent of Employment of Sector	Percent of Wages Paid of Sector	Percent of Output of Sector
6 Residential Construction	22.11 %	35.67 %	25.42 %	29.22 %
7 Commercial Construction	18.62	74.69	87.24	74.71
8 Industrial Construction	13.88	45.50	49.61	45.59
9 Facility Construction	6.40	37.92	32.53	18.03
10 Maintenance and Reapir Construction	22.50	58.46	50.12	42.05
11 Food Processing	28.57	47.89	54.98	59.58
12 Textile, Mill Products and Apparel	35.48	26.41	50.01	40.63
13 Lumber	22.22	69.50	37.20	78.25
14 Furniture	15.71	75.00	13.91	23.18
15 Boxes and Paper Containers	66.66	71.18	62.48	71.00
16 Printing and Publishing	18.75	24.24	21.42	17.37
17 Chemicals	21.42	36.59	26.57	46.21
18 Petroleum	25.00	13.93	5.38	1.00
19 Rubber and Leather	18.18	46.43	60.87	77.36
20 Glass, Stone and Clay	33.33	9.57	2.07	1.01
21 Cement and Concrete	44.44	72.06	70.88	66.67
22 Primary Metal	33.33	19.54	13.81	8.64
23 Fabricated Metal	26.66	17.51	13.77	10.74
24 Machinery	57.14	59.50	54.59	59.95

Sector Name and Title	Percent of Firms of Sector	Percent of Employment of Sector	Percent of Wages Paid of Sector	Percent of Output of Sector
25 Scientific Instruments	30.00 %	3.15 %	1.57 %	8.06 %
26 All Other Manufacturing	50.00	52.56	53.06	50.46
33 Radio, T. V. and Other Communication	22.22	35.14	69.17	66.63
34 Gas Utility	20.00	n.a.	n.a.	33.26
35 Electric Utility	20.00	n.a.	n.a.	22.85
37 Autoparts and Supplies	9.00	19.00	60.00	47.00
38 Wholesale Groceries and Related Products	8.00	7.00	19.00	29.12
39 Wholesale Farm Products	16.00	19.00	48.00	64.00
41 Wholesale Machinery	9.00	26.00	14.00	15.07
42 Wholesale Petroleum	2.00	10.00	15.00	24.00
43 General Wholesale	42.00	43.00	42.00	16.00
45 Department Stores	4.00	25.00	25.92	12.28
46 Food Stores	1.00	1.25	1.29	9.64
47 Automotive Dealers and Repair Shops	2.00	7.00	17.00	7.15
49 Apparel and Accessory Stores	4.00	12.00	22.00	17.00
50 Furniture Stores	2.80	3.30	3.80	1.62
51 Eating and Drinking Places	1.00	1.00	1.00	0.97
52 All Other Retail	4.00	18.03	22.00	11.41
56 Legal and Accounting	11.00	25.00	28.00	18.00
57 Lodging Services	4.00	4.00	6.00	8.50
58 Personal and Photographic Services	2.10	2.90	3.40	4.50

Sector Name and Title	Percent of Firms of Sector	Percent of Employment of Sector	Percent of Wages Paid of Sector	Percent of Output of Sector
59 Advertising	30.00 %	23.00 %	36.00 %	20.00 %
60 Motion Pictures, Amusement and Recreation Services	9.30	9.20	13.00	13.00
61 Auto Rental, Auto Parking	6.70	6.00	7.10	4.67
62 Electrical and Miscellaneous Repair	9.00	9.40	7.00	2.50
63 Medical Services	7.00	17.00	19.00	13.40
64 Educational Services	20.00	25.71	12.30	10.00
65 Engineering and Architectural Services	25.00	38.57	35.49	33.22
66 All Other Professional Services	12.00	36.27	60.90	66.20 [a]

[a]The coverage ratio represents the percentage of successful interviews for each regional processing sector relative to the number of firms engaged in the sector's activity, their total employment, wages and output. The geometric mean of the ratios for each sector was used as a component of the reliability factor computed for survey results. Data for sectors not mentioned in the above table were either collected from secondary sources, mail surveys or an extremely small sample relative to the size of the industry.

CONTROL TOTALS

A Control Total (sometimes called border total) is defined as the dollar value of all outputs (inputs) for an input-output model sector. Control totals for the regional model sector expressed in producers' prices F.O.B. the shipper in 1967 were estimated by the staff of the state-wide project director's office and the directors of the special projects. In most cases, control totals were estimated from the 1967 census reports with modification to conform with input-output conventions.

The following comments prepared by Dr. Herbert W. Grubb, the Texas Input-Output Project Director, explain the contents of control totals for each major group of input-output sectors.[8]

Agriculture

"The value of the control totals for the agricultural sectors, and, of course, the value of the transactions along each row are in terms of the value of agricultural commodities at the point at which the farmers transfer ownership of these commodities to the food processing and the trades sectors. For example, for cotton, the control totals and the transactions value are the dollar value of the cotton after it has been ginned, but while the cotton is still at the gin yard. The reason for this particular definition of the control totals in cotton is that the farmer pays the ginning cost and that has been included in his inputs column. The cotton is sold at the gin to the cotton buyer. Following the sale by the farmer, the cotton is transported to the manufacturer who uses the fiber and the manufacturer pays the transportation and other costs incidental in moving the cotton from the gin to his place of use, including any storage that may be done in the process. The value of grains and vegetables are at the point at which the farmer delivers the materials to the "first handler". For example, in the case of grain, this would be at the grain elevator and, in the case of vegetables, this would most likely be either in the field or at the packing shed if the farmer paid the transportation cost to move the materials from the field to the packing shed. The control total for cotton ginning and for agricultural services is the gross value of billings for services rendered by these two sectors at the point at which the service was performed."

Mining

"The control totals for mining and the transactions values, of course,

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[8]The detailed explanation of the methodology used for the estimation of control totals for each regional model sector and the components of each control total is on file in unpublished procedural worksheets. The files are available at the University of Texas at El Paso Research Center and the Division of Management Science, Office of Information Services - Austin, Texas.

are the value of the crude petroleum and natural gas at the well head prior to transportation to the refineries. The refinery pays the transportation from the field to the refinery and this is a part of the refineries input cost. The control total for oil and gas field services is the gross value of billings for these services at the point at which the service was rendered. In this case, the sector provides the transportation to the point of producing the service and includes this as a part of his inputs. The control total for sulphur is the gross value of the material at the mine or the point at which it was produced if it was not produced in a sulphur mining process."

Construction

"The control totals for construction are the gross value of construction put-in-place as defined by the 1967 Census of Construction. This means that the construction sectors bore the cost of transportation of building materials to the construction site and included these in the cost-of-construction column."

Manufacturing

"The manufacturing sectors control totals and value of transactions are expressed in terms of dollar values F.O.B. the shipper. Some of these sectors are last stage processors for finished goods and some are processors for materials which move on into other manufacturing activities. In each case, the manufacturer who purchases the output pays the transportation from the point of shipment to his particular factory where it is used."

Transportation

"The transportation sector control totals and transactions are expressed in terms of gross billings for services rendered. This, of course, is a difficult industry to identify and quantify. The total value of receipts for the year 1967 was tabulated from annual reports to the Texas Railroad Commission by the transportation establishments licensed to do business in Texas. One exception to this was the control total for the commercial airlines which was obtained from the Air Transportation Association and was defined in the same manner as the control totals for the other transportation sectors."

Communications

"The communications control totals and transactions are expressed in terms of gross billings for the industries for services performed. The transportation and other trade margins on materials that these sectors purchased for use in their operations are included as part of the inputs and are passed along as a part of the production of services through the sale of services to the users of such advertising and other communications services."

Utilities

"The value of the services rendered in the form of natural gas and electric and water and sanitation services are as follows: Natural gas is measured at its value when sold to the consumer. This is slightly different from other conventions in the producer price matrix and is done because the natural gas transmission companies perform the process of moving the gas from the point of production to the point of consumption We were unable to separate the transportation and material value of the gas and, consequently, were forced to define the control value of natural gas services as the sale price to the consumer. The control total for the electric service industry is measured in the same way as that for the natural gas industry; i.e., the value of electric service is measured as it is delivered to the consumer. The problem here is the same as that for natural gas in that the electric utility companies generate the electricity, pay the cost of fuel and the transportation cost of moving the fuel from the point of production to the point of use for electric generation and transport the electric energy to the consumer. The transportation charge is not identifiable and, consequently, the convention of valuing the electric service at its point of consumption was adopted. The water and sanitation control totals were obtained directly from local governments and are measured as the value of the service delivered to the consumer."

Wholesale Trade

"The wholesale trade control totals are the margins or mark-ups on merchandise purchased for resale. The margins include transportation on merchandise purchased for resale and, therefore, have a larger transportation entry than would be the case if the producer price definitions had been followed throughout the matrix in the strictest sense. That is to say that the transportation purchases by both the wholesale and the retail trade sectors have the transportation on merchandise purchased for resale as well as the transportation on inputs purchased for use by these trade sectors in doing their businesses."

Finance, Insurance and Real Estate

"The control total for the finance sector is the sum of the total operating revenue of Texas Charter Institutions as obtained from income reports made to the Banking and Consumer Credit Commissions of Texas. The insurance sector is quite different and requires a further explanation. There is a report by Huffman and Grubb (on file) which explains the definition of the insurance sector in detail. In general, the total premiums collected for fire and casualty type policies were summed from the reports of the Texas Insurance Commission and entered as a part of the control total for the sector. Health and accident insurance was treated the same way. For life insurance policies, the component attributable to this portion of the industry was estimated at the cost of selling and servicing life insurance policies. That is to say that the portion of life insurance which is the basis for accruing cash values was not counted in the statement of control totals for the insurance sectors.

"The control totals for the real estate and miscellaneous portions of these sectors were estimated from sample survey data. In general, the definition of the control total is the gross billings for lease and rental of office space, brokerage fees on various transactions, and rental for use of real estate was included in this control total. This is one of the few sectors for which we had very little data and had to rely almost entirely on the sample."

Services

"The control totals for the services sectors were the gross billings for services rendered at the point at which the service was delivered. In this case, the transportation on materials involved in producing the service is included as a part of the inputs of the service sector, and, therefore, is also included as a part of the charge for rendering the service. The education services and the government sectors were entered as the total cost of producing the services. The data were obtained from various secondary sources and from reports and records of the Texas Education Agency, in the case of education.

"Control totals for government sectors were estimated as the total sum of expenditures for government services for each branch of government.

"Control totals for imports, exports, depreciation and inventory charges were estimated for the survey results adjusted by census data. Control totals and distribution of consumption expenditures for households were obtained from the Office of Business Economics Regional data and the consumers surveys conducted by the Survey of Current Business."

Balancing the Questionnaires

Each questionnaire was balanced using the basic input-output equation: Total Revenue = Total Expenditure. Total revenue equals the value of gross sales and increases in inventory valuation. It excludes income from sources other than production like rent or dividends on securities, et cetera.

Expenditures include value of production material, labor, depreciation, total taxes, services, transportation, utilities, communication, insurance, and salaries, decreases in inventory valuation, and net income before taxes.

Capital expenditures, as such, were not included in the balancing equation since they do not represent expense on current account. However, an amount for depreciation or an estimate thereof from secondary sources was included in the balancing equation. The difference between revenue and expenditure was noted and an attempt was made to reallocate the difference by reinterviewing the firm through phone calls or asking for expert judgment. On failure to reallocate the residual reliably, the questionnaire was rejected.

Input Coefficients

Edited and balanced questionnaires for all sectors subject to surveys were processed to produce three sets of crude coefficients for every sector. The sets included a set of purchases (input) production coefficients, a set of import coefficients, and a set of sales (output) coefficients for every sector. The crude coefficients were simply the per dollar (relative to gross revenue adjusted for inventory changes) purchase (import or sale) for every firm interviewed from all other regional model sectors including final payment (final demand).

Input (output) coefficients were then computed as the weighted ratio of each input (or output) in the sample for each sector to the adjusted gross total output of the sample. The weights used were the ratio of the output of every member firm in a sample for a sector to the total output of all firms in the sample for the sector.

Preliminary Transactions Flow Matrix

The coefficients – derived according to the above-mentioned method – were extended by multiplying the entries in every cell for a sector by the control total of the sector. For the sectors that included more than one two-digit Standard Industrial Classification category and therefore covered more than one fample of firms, the raw entries for every set of extended vectors were added horizontally sector by sector to produce an augmented column vector for the regional model sector. Imports were segregated and entered in the imports sector in the final payments section of the transactions matrix regardless of the foreign sector from which they were bought.[9]

Adjusted Input Coefficients

Entries in the preliminary transactions flow matrix included merchandise purchased for resale in all wholesale and retail trade transactions. A procedure was developed by Dr. Louis Stern at the University of Houston to reallocate all merchandise purchased for resale to the previous processors and leave only trade margin (mark up) in the wholesale and retail trade sectors.[10] The procedure was applied to the adjusted gross shipment of every trade sector and purchases of other sectors from the trade sectors. Entries labled "travel and entertainment" in all sectors were reallocated to the proper producing sectors.

The procedure applied resulted in adjusted input coefficients which linked all transactions to the proper previous processors. These new coefficients were extended by the control totals to develop the

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[9]The Research Center at the University of Texas at El Paso has on file detailed information regarding the sectors which supplied different imports to the processing sectors in the region.

[10]Dr. Louis Stern, Unpublished Report, Division of Management Science, Office of Information Services, Austin, Texas.

transactions flow matrix.

The Transactions Flow Matrix

Two tables were prepared: a rows only table and a columns only table. The former included sales transactions and the latter included purchases transactions. Entries in the two tables were obtained from survey results by extending the adjusted input coefficients. The rows or columns in each table were checked for accuracy and completion in preparation for balancing.

The Household Column Vector: The household row vector entries were obtained from the survey results. The household column vector was derived using a combination of secondary sources and the residual method. The regional Economic Information System of the Office of Business Economics, United States Department of Commerce, stated in its regional analysis of personal incomes that total personal income in 1967 for El Paso SMSA was $885,845 thousand dollars. Based on this figure, total personal income in the region can be estimated at approximately $1,109,714 thousand dollars. Assuming that personal income is subject to an average of 15 percent tax, disposable income can be estimated as $943,257 thousand dollars. In 1967, the average propensity to consume in the nation was approximately 89 percent. Applying the national average to the region would leave approximately $839,498 thousand dollars for households in the region to spend on goods and services in 1967.

This amount was used as a first approximation for consumption expenditure. A hypothetical column vector for household purchases was derived using the estimated amount of consumption expenditure. The distribution of purchases was based on the national average "Personal Consumption Expenditures by Type of Product."[11]

The expenditure items were coded according to the regional model sector numbers and entered into a tentative final demand household column. Household purchases from the wholesale retail trade sectors were adjusted to show only the trade margins while merchandise purchased for resale by the trade sectors was reallocated according to Dr. Stern's procedure to previous processors.

The entries in the household column vectors were later readjusted in the balancing procedure according to the sales data in the survey and a residual method.

BALANCING THE MATRIX

Since every sale is also a purchase, then every entry in the rows

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[11]Survey of Current Business, July 1968, United States Department of Commerce, p. 30.

only table should be exactly equal to its counterpart in the columns only table. On examining the two tables, it was found that the equality of the corresponding cells was infrequent. The reasons for the inequality can be attributed to the following factors:

1. Only input data were available for some sectors. These included transportation, communications, utilities, and some selected services.

2. Input data from the survey were generally more comprehensive than the output data. It was not unusual to receive a response from a firm stating, "we sell to everybody". In some cases, it was difficult for the firm to state accurately the sectors to which it sold its product or to divulge the accurate percentage distribution of its output among the other sectors of the economy.

It was decided to follow Professor Miernyk's methodology to balance the purchases and sales matrices.[12] A reliability quotient was computed for every sector. The quotient was based on: (1) the proportion of total sales (or shipments), wages and employment accounted for by the survey sample in each sector (the coverage ratio); (2) the homogeneity of output within the sector; (3) personal judgment on the reliability of the firm's responses.

Computation of the Quotient:

$$A = \sqrt[3]{1/c \ x \ H \ x \ J}$$

where $1/c$ = reciprocal of coverage ratio--a composite index of percentage of sales, wages, and employment

H = 1 for complete homogeneity of output
2 for a close product mix--like cement and concrete
3 for a heterogeneous product mix--like food processing

J = rating of the completed questionnaire by both the interviewer and the project director.
1 for perfectly complete and balanced return
2 for complete input but incomplete output coverage
3 for responses deemed as doubtful estimates.

In the preliminary balancing run, cells with only one entry - usually sectors with only input data available - were accepted. The contents of such cells were posted on a new transactions matrix. Cells with two different entries were tested for the quotients of their respective sectors. The one with the lower quotient was accepted and posted on the new matrix if the original difference between the sales

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[12]W. H. Miernyk et al., Simulating Regional Economic Development, Lexington: Heath-Lexington Books, 1970, pp. 17-18

and purchase entries was not substantial. In the latter case (e.g., if one entry is several times the amount of the other), the unallocated row and column were checked for the respective sectors for partial reallocation to the smaller entry.

This method was facilitated by following Professor Miernyk's advice and starting with the sectors that had the highest reliability quotients, followed by the ones that had only input data, and then the rest of the matrix, cell by cell.

The balancing procedure was iterated several times till all the processing sectors were balanced. The unallocated rows and columns were almost exhausted by filling in the gaps between row and column entries. The residual amounts were allocated to households.

Once the processing sectors were balanced, the final demand and final payments sectors were automatically balanced.

IMPORTS

Imports and exports usually constitute a significant portion of regional economic activities. Thus, there is a need in a regional input-output model to set out explicitly the assumptions and methodology of handling imports.

The volume and content of import activities within a region are not only functions of the local manufacturing activities, but also of regional trade patterns which are usually stable over considerable periods of time.[13]

It is possible for a regional economy to be simultaneously an importer and an exporter of the same commodity leading to substantial cross-hauling of outputs of various industries. Consequently, it is important, for meaningful analysis, to consider both competitive and non-competitive imports.

Competitive imports are those commodities and/or services which are imported in a region, even though they have regional counterparts that are produced locally. Non-competitive imports are those commodities and/or services which have no regional counterparts. Both types of imports may be imported either for ultimate use (final demand) or for further processing (intermediate demand).

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[13]L.N. Moses, "The Stability of Interregional Trading Patterns and I/O Analysis", American Economic Review, Vol. XLV, Dec. 1955, No. 5, pp. 803-833.

There are different conceptual arguments concerning the treatment of competitive and non-competitive imports within the context of an input-output model.[14] In the present regional model all imports, whether competitive or non-competitive, are aggregated in one row in the final payments sector of the transactions flow matrix and charged to the purchasing sectors. To avoid inflating the GRP, the sum of the import row's entries was entered as a negative value at the intersection of the import sector with the export sector of the final demand. This treatment of imports facilitates the comparison between the regional model and other regional and state models in Texas. It will also allow for the development of an interindustry matrix based strictly on local transactions; thus it will be easy to measure the impact of changes in final demand on local industry.

INVENTORY CHANGE

Inventories are used by firms for balancing production runs through additions when demand is slack, or depletions when demand outruns supply. Such additions and depletions of inventories of any particular commodity are not only done by the producing firm or industry; they are also done by other industries or even households using that commodity. Current production of any good may not equal the total amount of that good which is currently (over a certain accounting period) being consumed by final or intermediate use because of inventory additions and depletions.

The 1963 National Input-Output model charged the inventory change of any product to the previous producing industry regardless of which sector actually owns or holds the inventories.[15] This technique allows for balancing gross inputs (rows and columns) of each sector by adding increases of inventory to and subtracting depletions from the consumption of the producing industry.

Professor Miernyk suggested that purchases should be adjusted for changes in goods-in-process and finished goods inventories by including net additions to inventories in total gross output.[16] Technical flow coefficients are then calculated by first subtracting inventory depletions from total gross output and dividing each column entry by this adjusted gross output figure. All purchases are therefore proportionately adjusted for inventory changes.

The firms interviewed in the regional input-output survey were able

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[14]Please refer to Appendix B for the conceptual arguments related to the treatment of imports in various input-output studies.

[15]_Survey of Current Business_, July 1968, United States Department of Commerce.

[16]William H. Miernyk, et al, _Simulating Regional Economic Development_, Lexington: Heath-Lexington Books, 1970, p. 17.

to provide in their responses only the book value for net inventory changes regardless of the contents of the inventory. Thus, it was quite difficult to allocate inventory changes to the previous successor. It was decided that inventory should be charged to the sector holding it. This deviation from the National Input-Output methodology is not expected to produce significant errors in the analysis of the economic structure of the region because: (1) net inventory changes for any one sector constituted an infinitesimal proportion of gross total output for the sector; (2) a substantial proportion of net inventory change was goods-in-process.

Since an inventory depletion represents current sales higher than actual expenditures and an inventory increase represents current sales lower than actual expenditures, gross total output was adjusted accordingly by adding depletions to column totals and subtracting additions from row totals. This was accomplished simply by entering net inventory change with an algebraic sign in a separate column in the final demand sector.

MULTIPLIERS

Changes in final demand through increases (or decreases) in expenditures by government, households, investments or exports generate a change in the level of activity in an economic system by stimulating (or depressing) the levels of intermediate demand for the processing sector. As a result of these changes the level of income in the system rises (or falls) by a multiple of the amount of increased (decreased) expenditure. The factor by which the amount of expenditure is multiplied to give the total addition to (or subtraction from) income in the system is called the "multiplier".[17]

There are different methods for deriving the multipliers for an economic system. One of the methods involves the use of aggregate economic indicators, namely, marginal propensity to save and marginal propensity to consume. This method is used for the national economy. Another method that has been applied for regional economies involves the use of economic base studies.[18] Such studies usually produce a single average regional

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[17] For a detailed explanation of the multiplier concepts, see Miernyk, op.cit., pp. 42-50; also Daniel H. Garnick, "Differential Regional Multiplier Models", Journal of Regional Science, Vol. 10, No.1, 1970; John S. Chipmen, "The Multisector Multiplier", Econometrica, 18: 365, Oct. 1950 and Floyd Harmstom, "Use of an Intersectoral Model in Developing Regional Multipliers", The Annals of Regional Science, Vol. III, June 1969, No.1.

[18] An economic base study was conducted for the region. The aggregate income multiplier derived from the study was 1.5. The details of the study are included in a special report (unpublished) on the regional interindustry study. The report can be found at the University of Texas at El Paso Library and Research Center.

income and employment multiplier which can be used to estimate increases in income and employment resulting from new impulses in the exogenous sectors—namely primary or export industry. Such an aggregate multiplier ignores the impact of differential patterns of impulses in the exogenous sectors. Multiplier analysis which shows the current effect of policy decision on variables representing economic activity in each sector of the economy requires a system that will show the levels of these variables. Interindustry models are designed to facilitate such analysis through the display of the structural interdependence in the economy.

Input-Output models lend themselves to the development of three types of multipliers.

A. Sectoral Multipliers

Each cell in the Leontief inverse matrix $[I - A]^{-1}$ depicts[19] the amount of output required both directly and indirectly from a sector (the industry at the left of the row) in order for the industry at column head to deliver one dollar worth of output to final demand. Thus, every cell of the inverse matrix is a miniature multiplier (or a sector by sector component of the overall sectoral multipliers) denoting both the direct and indirect effect upon the industrial sector at the left of the row by an increase in demand affecting the industrial sector at the head of the column. The total sum of the entries in any column in the Leontief inverse is called the sectoral multiplier. It indicates the total addition both direct and indirect in output as a result of an increase of one dollar in final demand. The contents of the column show the components sector by sector of the increase in output.

B. Type I Multiplier

Type I multiplier is also called the simple income multiplier. It takes into account the direct and indirect changes in income resulting from an increase of one dollar in the output of all the industries in the processing sectors. It is computed as follows:

$$[M] = [H] \times [I - A]^{-1} \times [1/H]$$

where M is a row vector of simple income multipliers, H is a row vector of household coefficients derived by dividing payments to household for each processing sector by the adjusted total output of the sector.

$$[I - A]^{-1} \text{ is the Leontief inverse,}$$

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[19][I is an identity matrix and A is the technical coefficients matrix. Please refer to Appendix A for further explanation of the input-output techniques.

[1/H] is a diagonal matrix of reciprocals of the above-mentioned household coefficients.

$$\begin{vmatrix} 1/H_1 & 0 & 0 & 0 \ldots 0 \\ 0 & 1/H_2 & 0 & 0 \ldots 0 \\ 0 & 0 & 1/H_3 & 0 \ldots 0 \\ 0 & 0 & 0 & 0 \ldots 1/H_n \end{vmatrix}$$

C.   Type II Multiplier

Type II multiplier includes direct, indirect and induced changes in income resulting from an increase of one dollar in the output of all the industries in the processing sectors. It is computed as follows: The transactions matrix is closed on the household column, i.e., the household column is now treated like a processing industry and will have to be balanced with the rest of the processing sectors. The technical coefficients matrix based on the new closed matrix is then subtracted from an identity matrix and inverted.[20] The entries of the household column in the inverted matrix are then divided by the household coefficients of the original transactions matrix giving a vector of multipliers.

INTERPRETATION OF THE REGIONAL MODEL

Introduction

In order to explain the regional model effectively and to indicate the methodology that can be used to interpret the model tables for analytical purposes, an abbreviated (summarized) version of the model is introduced here. This version has only fourteen sectors in the processing sectors versus sixty-six in the actual regional model. Entries in the abbreviated model cells represent an aggregation of corresponding cells in the actual regional model displayed in the appendix.

Regional Transaction Flows

Table 4 is the first part of the abbreviated model; it represents a summary of regional transaction flows. The processing sector of the matrix - the upper left hand quadrant of the table - has fourteen sectors, both as rows and columns. The sectors represent aggregated sets of major groups of industries thereby giving a comprehensive portrayal of the structure of the regional economy. Looking at the table rows,

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[20]The new matrix to be inverted is $[I - A']$ where I is an identity matrix and A' is the technical coefficients matrix augmented by a row and a column of household coefficients.

Table 4. Summary of Regional Transaction Flows - Upper Rio Grande Valley - Texas 1967
(all figures are in $1,000)

Selling to(Inputs) Buying from(Outputs)	Agri.	Min.	Const.	Food Proc.	Tex. & Appar.	Wood Fd. & Prnt.	Chem & Chem Pd.	Metal Pd & Instr.	Trans. & Comm.	Util.	Whsl. Trade	Retail Trade	F.I.R.E.	Services	House-hold	Govt.	Exports	Other	Total
Agriculture	6,479	0	8	3,761	830	20	38	10	0	0	955	532	0	87	3,021	15,951	39,181	0	70,873
Mining	2	0	5,184	0	0	1	2,550	188	12	0	0	103	0	5	0	95	33,573	0	41,713
Construction	587	11	1,153	1,490	2,454	250	2,010	1,885	1,110	505	333	1,363	561	1,527	5,461	97,702	21,576	79,974	219,952
Food Processing	1,718	0	11	2,138	0	1	9	12	23	0	588	494	174	1,274	61,678	2,853	15,827	- 860	85,940
Textile and Apparel	278	0	1,075	1	2,460	45	30	12	0	17	217	1,540	1	345	6,712	4,866	167,745	2,956	188,300
Wood Products and Printing	739	41	2,958	306	295	1,619	81	55	400	74	188	884	303	1,115	6,339	633	6,429	791	23,250
Chemicals and Chemical Products	1,533	167	21,198	132	26	121	9,520	1,622	3,679	486	95	2,123	4	1,221	17,730	3,931	164,105	- 1,353	226,340
Metal Products and Instruments	453	622	7,021	39	32	259	403	15,748	551	86	863	1,002	0	968	10,983	6,320	134,043	937	180,330
Transportation and Communication	1,240	668	2,033	1,080	1,424	710	3,255	4,276	4,014	548	7,810	7,349	1,062	6,669	17,922	14,224	10,287	0	84,571
Utilities	1,979	1,357	907	669	955	267	3,500	3,802	2,074	10,950	2,384	4,190	2,013	5,035	21,650	7,582	7,908	0	77,492
Wholesale Trade	2,732	859	2,754	644	681	469	308	619	3,321	348	689	5,615	428	7,683	35,038	10,830	41,578	0	114,596
Retail Trade	1,824	239	1,367	397	202	26	194	154	239	415	403	511	434	2,020	151,790	1,273	22,806	0	184,294
F.I.R.E.	2,945	52	6,336	1,141	4,078	994	1,275	1,597	2,947	1,337	4,804	7,630	5,309	10,807	25,762	1,143	0	0	78,157
Services	498	91	5,424	687	3,389	193	726	1,113	2,429	613	5,209	6,706	3,620	18,912	134,266	17,907	26,642	340	228,765
Household	11,584	25,048	79,923	26,030	66,130	9,744	30,691	56,412	31,868	29,597	61,453	90,297	41,288	113,932	23,400	412,317	0	0	1,109,714
Government	5,485	4,235	5,619	2,068	7,313	785	11,791	4,782	8,917	10,472	7,803	12,772	7,643	8,977	192,373	29,217	0	0	320,252
Imports	26,267	6,524	69,845	43,925	97,014	6,849	154,242	83,810	17,325	15,094	18,279	35,027	12,436	36,118	102,363	4,924	-629,989	0	100,053
Other	4,530	1,799	7,136	1,432	1,017	897	5,717	4,233	5,662	6,950	2,523	6,156	2,881	12,070	293,226	0	0	0	356,229
Total	70,873	41,713	219,952	85,940	188,300	23,250	226,340	180,330	84,571	77,492	114,596	184,294	78,157	228,765	1,109,714	632,038	61,711	82,785	3,690,821

entries in the cells (for each sector) represent the sales (output) by the sector at the left margin to each sector at the column heads of the matrix. The same cell entries looking down the column for each sector also represent the purchases (input) by the sector at the head of the column to each sector cited at the left margin of the matrix. Since every sale is also a purchase, there is one entry in each cell.

When the processing sectors in the region are ranked according to the value of their outputs the following order develops: services, chemicals, construction, apparel, retail trade, metal products, wholesale, food processing, transportation, financial institutions, utilities, agriculture, mining and wood products. However, manufacturing sectors as a group--food processing, apparels, wood products, chemicals and metal products--rank higher by far than any other major group of sectors. The output of all manufacturing sectors amounts to $704 million which is approximately 37 percent of the gross regional product. The manufacturing sectors import goods and services valued at $368 million, but export goods valued at $488 million, thus contributing a surplus trade balance of $102 million. This surplus which does not show in the table is unfortunately eroded by the other sectors leaving the region with a deficit trade balance (excess of imports over exports) of approximately $39 million.

The importance of the transactions flow matrix lies primarily in showing the distinction of sales and purchases by each sector to and from all other sectors. Since the entries in the matrix cells are in millions of dollars, they help show at a glance the magnitude and thereby the significance of individual transactions to various industries. The matrix also shows the magnitude and composition of both the export and import markets for the regional economy. The final demand and final payments quadrants of the matrix give the distribution of household expenditures and the sources of household incomes. The government column vector can be analyzed to show both the dependence of various sectors on government activities and the impact of changes in government expenditures on the level of economic activity in various sectors.

Example in Reading Some Sectors

Reading some rows and their corresponding columns in the transactions matrix the following observations can be made:

1. Agricultural sectors rank as the third lowest among processing sectors in the level of economic activity. The sector sells approximately 82 percent of its output to final demand (ultimate users). The rest of its output is distributed largely among agriculture, food processing, wholesale trade, textile and retail trade sectors. Agriculture buys different amounts of its inputs from almost all other sectors. It imports 37 percent of its inputs, exports 55 percent of its output and pays about 16 percent of the value of its output to households.

2. Mining Sector ranks as the second lowest among processing sec-
    tors in the level of economic activity. The sector sells almost
    80 percent of its output to the export market. Most of the rest
    of its output is sold to the construction and chemical sectors.
    Mining buys very small amounts of its inputs from other local
    processing sectors. The bulk of its inputs (60 percent) is in
    the form of payments to households.

3. Construction ranks third highest among processing sectors in
    the level of economic activity. The sector sells 93 percent
    of its output to final demand sectors as capital formation
    (since new buildings are considered investment). The rest of
    the construction output is primarily in the form of mainten-
    ance and repair and is distributed among all other processing
    sectors. The construction industry buys 26 percent of its
    inputs from all the local processing sectors, pays 36 percent
    of the value of its output to households and imports almost
    one-third of its inputs.

The Technical Coefficients Table

Cell entries in the technical coefficients table (Table 5) are
computed by dividing every cell entry in the processing sector of the
transactions flow matrix by the control total (gross output adjusted
for inventory changes) for the sector. Thus technical coefficients for
each column vector represent the distribution of purchases for the sec-
tor at the head of the column from every other processing sector to
produce one dollar worth of its output. This table is usually called
the "direct requirements table" since it shows what each industry re-
quires from other industries to produce its output. The total row at
the bottom of the table indicates the proportion of every dollar spent
by an industry on goods and services produced in the regional markets.
The columns in the table reflect the trade requirements (or the recipe
for production) for each sector within the regional economy. For
example, by reading down column four (food processing sector) one finds
that for every dollar of its output the industry spent 14.5 cents locally.
It purchased 4.37 cents worth of agricultural products, did not buy any
mining products, paid 1.7 cents for maintenance and repair construction,
bought from itself (other food processors or different intermediate
stages of food processing) 2.5 cents worth of goods, purchased a negli-
gible amount of goods from the apparel sector, paid 0.3 of a cent to the
wood products and publishing sector, paid 0.1 of a cent to the chemical
industry, bought an almost negligible amount from the metal products
industry, paid 1.3 cents to the transportation and communications sector,
0.8 cents to utilities,0.7 cents in trade margins to the wholesale trade
sector,0.5 cents in trade margins to the retail trade sector, 1.3 cents
to the financial sector and 0.8 cents to the services sector.

The other columns of the table can be read in the same way. The
table gives an indication of the direct linkages that pertain between each
industry and the rest of the regional processing sectors. It is to be
noticed that the total proportion of inputs from local processing sectors
ranges from a high of 32 percent (i.e., 32 cents out of each dollar) for

Table 5. Technical Coefficients for Summary of Regional Transactions
Upper Rio Grande Valley - Texas 1967

Sector	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1 Agriculture	.091417	.000000	.000036	.043763	.004408	.000860	.000168	.000055	.000000	.000000	.008334	.002887	.000000	.000380
2 Mining	.000028	.000000	.023569	.000000	.000000	.000043	.011266	.001043	.000142	.000000	.000000	.000559	.000000	.000022
3 Construction	.008282	.000264	.005242	.017338	.013032	.010753	.008880	.010453	.013125	.006517	.002906	.007396	.007178	.006675
4 Food Process	.024241	.000000	.000050	.024878	.000000	.000043	.000040	.000067	.000272	.000000	.005131	.002680	.002226	.005569
5 Textile & Apparel	.003923	.000000	.004887	.000012	.013064	.001935	.000133	.000067	.000000	.000219	.001894	.008356	.000013	.001508
6 Wood Products & Printing	.010427	.000983	.013448	.003561	.001567	.069634	.000358	.000305	.004730	.000955	.001641	.004797	.003877	.004874
7 Chemicals & Chemical Products	.021630	.004004	.096376	.001536	.000138	.005204	.042061	.008995	.043502	.006272	.000829	.011520	.000051	.005337
8 Metal Products & Instruments	.006392	.014911	.031921	.000454	.000170	.011140	.001781	.087329	.006515	.001110	.007531	.005437	.000000	.004231
9 Transportation & Communication	.017496	.016014	.009243	.012567	.007562	.030538	.014381	.023712	.047463	.007072	.068152	.039877	.013588	.029152
10 Utilities	.027923	.032532	.004124	.007785	.005072	.011484	.015463	.020804	.024524	.141305	.021804	.022735	.025756	.022009
11 Wholesale Trade	.038548	.020593	.012521	.007494	.003617	.020172	.001361	.003433	.039269	.004491	.006012	.030468	.005476	.033585
12 Retail Trade	.025736	.005730	.006215	.004620	.001073	.001118	.000857	.000854	.002826	.005355	.003517	.002773	.005553	.008830
13 F.I.R.E.	.041553	.001247	.028806	.013277	.021657	.042753	.005633	.008856	.034846	.017253	.041921	.041401	.067927	.047241
14 Services	.007027	.002182	.024660	.007994	.017998	.008301	.003208	.006172	.028721	.007910	.045455	.036388	.046317	.082670
Total	.324623	.098459	.261098	.145276	.089357	.213978	.105589	.172423	.245935	.198459	.214126	.217272	.177962	.252084

agriculture to a low of 8.9 percent for the apparel sector with an average
of 19.4 percent for all sectors (the table does not show this computed
average). This low average relative to the corresponding national average
which exceeds 90 percent simply means that processing sectors buy less
than 20 percent of their trade requirements locally. Of course this fact
should not be categorically interpreted to mean that all industries in
the region buy 80 percent of their requirements from non-local markets
because part of the 80 percent of the inputs is paid to households. Pay-
ments to households which include wages, salaries, interest and return
to capital amounts on the average to 39 percent. Purchases of imports
from foreign markets, however, amounts to 34.5 percent of the total out-
put of the processing sectors. This means that on the average the local
market was able to satisfy less than one-fifth of the direct requirements
of all sectors. To fulfill their needs for their outputs, regional
industries were obliged to pay 34.5 cents on every dollar to foreign
markets. Because of the limitation on natural resources, it may not be
possible to fulfill all industrial needs locally. In other words, one
cannot expect the region to be completely self supporting due to its
economic geography. But the table gives an indication of the areas where
expansion of supportive industries may occur. For example, the apparel
industry imports approximately $80 million worth of textiles from outside
the region. In the meantime, the region grows cotton and produces slight-
ly more than $3 million worth of textiles. This situation indicates the
existence of a local market for a vastly expandable textile industry.

The direct requirements table can be used by existing industries
and planning boards to show areas of potential expansion and the avail-
ability of local markets for their products or local sources of supply
for their production.

The Interdependency Coefficient Table

This table (Table 6) is the most important table in the model. It
is based on the technical coefficients table and shows the total of di-
rect and indirect requirements for each processing sector as a result of
an increase of one dollar in final demand for its products. The table
is derived through a process of iteration in the following manner:
starting with the direct requirements table, it can be seen that the
chemicals industry (sector 7), for example, in order to be able to pro-
duce $1 million worth of its output will need the following inputs from
the local processing sectors: $168 from agriculture, $11,268 from
mining, $8,880 from construction, $40 from food processing, $133 from
apparel, $358 from wood products, $42061 from chemicals, $1,791 from
metal products, $14,381 from transportation and communication, $15,463
from utilities, $1,361 from trade margins in wholesale trade, $857 in
trade margins from retail trade, $5,633 from financial institutions,
$3,208 from services. In other words, the chemical sectors will need to
spend $105,589 on local goods and services to produce $1 million worth
of its output.

Assume that the ultimate consumer (households, government or export
markets) raise their expenditures on chemical products by 10 percent.
To satisfy the additional demand, the industry has to increase its inputs

proportionately. Thus the industry will buy $184,040 worth of commodities from the agricultural sectors, ($168 by 1.10), $12,392 from mining, $46,267 from the chemical sector . . et cetera.

To meet the added requirements on its output, the agricultural sector will have to increase its inputs proportionately and so will every other sector affected by the increase in demand for chemicals, including the chemical sector itself. This round of increase in requirements will necessitate another round of increases, since each sector will continue to increase its outputs as the chain reactions continue. To find out the total amount of this direct and indirect requirements, one can continue to multiply each round of requirements by the proportional increase till the increments in output become too insignificant quantitatively to be worth another round of multiplication. This procedure can be achieved mathematically in an easy way by computing what is called the Leontief Inverse. This computation was done to the technical coefficients table and the results are shown in the interdependency coefficients table.

After all rounds of adding to production, one finds that to meet an increase in demand of $1 million the chemical industry will require the following inputs from other regional sectors: $234 from agriculture, $12,022 from mining, $9,854 from construction, $121 from food processing, $221 from apparel, $742 from wood products, $1,045,933 from chemicals, $2,794 from metal products, $16,879 from transportation and communication, $20,394 from utilities, $2,863 from wholesale trade, $1,299 from retail trade, $8,183 from financial institutions and $5,294 from services. In other words, an increase in demand of $1 million for the chemical industries will lead to purchases of $1,126,834 from the local processing sectors. It may be recalled here that the chemical industry – according to the technical coefficients table – buys local goods and services valued at only $105,589 to produce $1 million worth of its output, but if the demand for its products increases over the level attained in 1967 by $1 million, a chain reaction of expenditures on local goods and services will be generated that exceeds $1 million (in 1967 producers' prices). The tremendous difference between the two figures is a result of the interdependencies among the different regional processing sectors.

On comparing the technical coefficients table with the interdependency table one will notice that while the former has a number of empty cells (zero entries)[21] the latter has no zero entries at all (except for sectors that do not sell anything to intermediate demand and other processing sectors). The absence of zeroes in the interdependency table is due to the fact that the entries in this table indicate not only direct sales to an industry's customers but also the indirect sales to the industry's customers' customers. The entries on the interdependency table are also much higher than the corresponding entries in the technical coefficients table because they represent aggregates of requirements.

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[21]The number of cells with zero entries will be much higher if the sectors are disaggregated as can be seen in the actual regional table in the appendix.

Table 6   Interdependency Coefficient for Summary of Regional Transactions
Upper Rio Grande Valley - Texas 1967

Sector	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1 Agriculture	1.102533	.000238	.000305	.049604	.005002	.001293	.000234	.000143	.000493	.000101	.009629	.003750	.000275	.001198
2 Mining	.000658	1.000118	.024956	.000524	.000359	.000482	.012022	.001589	.001095	.000304	.000217	.000982	.000246	.000361
3 Construction	.011754	.001216	1.007687	.019061	.013935	.013119	.009854	.012418	.015550	.008231	.005355	.009593	.008856	.009096
4 Food Process	.027972	.000187	.000438	1.026947	.000350	.000440	.000121	.000209	.000879	.000185	.006043	.003439	.002864	.006688
5 Textile & Apparel	.004848	.000123	.005180	.000414	1.013393	.002275	.000221	.000185	.000285	.000393	.002150	.008726	.000239	.001916
6 Wood Products & Printing	.013404	.001344	.015135	.005067	.002272	1.075640	.000742	.000850	.006157	.001586	.002961	.006195	.005115	.006539
7 Chemicals & Chemical Products	.028331	.005754	.103010	.005741	.002344	.009333	1.045933	.013139	.050217	.009127	.005780	.015918	.002479	.009303
8 Metal Products & Instruments	.009268	.016845	.036492	.001934	.000990	.014209	.002794	1.096526	.008892	.001976	.009531	.007358	.000939	.006231
9 Transportation & Communication	.028091	.019750	.016218	.016813	.010005	.038397	.016879	.028859	1.056617	.010459	.076078	.047881	.018675	.038721
10 Utilities	.041994	.039977	.011726	.013106	.008157	.018807	.020394	.028957	.035057	1.166512	.030648	.032403	.034953	.032885
11 Wholesale Trade	.046587	.022189	.016000	.011490	.005507	.024619	.002863	.005745	.044059	.006606	1.012135	.035197	.009213	.039817
12 Retail Trade	.029650	.006202	.007223	.006552	.001752	.002084	.001299	.001463	.004112	.006628	.005071	1.004132	.006863	.010627
13 F.I.R.E.	.057003	.004658	.036442	.020032	.026319	.053829	.008183	.013379	.045474	.023625	.052995	.052106	1.078392	.060838
14 Services	.016989	.005106	.031527	.012410	.002390	.015659	.005294	.009947	.038756	.012462	.056101	.046635	.056396	1.097567
Total	1.419083	1.123709	1.312339	1.189696	1.112774	1.270186	1.126834	1.213408	1.307640	1.248195	1.274695	1.274315	1.225504	1.321788

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The interdependency table is quite valuable both for policy planners and businessmen. It reveals the total impact on all local industries that can result from an impulse in new expenditure in one industry's originating in the final demand sectors of the economy.

The bottom row of the table which comprises the total for each sector represents what is called the "sectoral multipliers". The sectoral multiplier is a factors which indicates the total requirements (local purchases from other sectors) an industry will need for every increase of one dollar in final demand for its output. Entries in the column for a sector distributes the different components of the total requirements sector by sector.

Notice that the sectoral multipliers range in value from 1.113 for apparel to 1.419 for agriculture with an average of 1.24. The relatively low value of the sectoral multiplier is a result of the weak linkages among the various regional processing sectors and the dependence of local industry on imports.[22] It is also the result of a lack of strong supportive industries, i.e., industries that evolve around basic and exporting industries to serve their needs. Currently most developed industries in the region like the metal refining, apparel and petroleum refining depend on imports to satisfy most of their needs for machinery, parts . . et cetera. There is also a dearth of diversification and lack of self-sufficiency in the available product mix in the region that leads to the importation of more than $700 million worth of goods and services from outside the region.

The Income Multipliers

The sectoral multipliers described above represent only the repercussions on the regional processing industries as a result of increases in final demand. They do not show, however, the impact on income as a result of such increases. Simple income multipliers take into consideration the proportion of input that each industry pays out to households since an increase in production will lead to an increase in household incomes.

The income multipliers which were computed from the model have the following values:

Agriculture	1.909	Mining	1.083
Construction	1.300	Food Processing	1.213
Textile and Apparel	1.137	Wood Products and Printing	1.276
Chemicals and Chemical Products	1.307	Metal Products and Instruments	1.242

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[22]It averages approximately 1.5 for the Nation as a whole.

Transportation and Communication	1.325	Utilities	1.258
Wholesale Trade	1.217	Retail Trade	1.240
F.I.R.E.	1.199	Services	1.294

As can be seen from the above, the income multipliers range from a high of 1.91 for agriculture to a low of 1.08 for mining, with an average of 1.285. The income multipliers are on the whole slightly higher than the sectoral multipliers but they are still lower than the National average for the same reasons as the sectoral multipliers, namely weak intra-regional linkages among local industries and dependence on imports.

The income multipliers enable the analyst to find out how much household incomes will increase as a result of an increase in final demand. Government agency and consumer-oriented industries can find out through the multipliers the impact of new expenditures on the regional level of income. The multipliers are also helpful to planning or industrial development boards in guiding their selection of new programs or industrial relocation by pointing out the industry that increases the welfare of the community or the one that will generate the highest level of economic activity.

SURVEY RESULTS

Table 7 shows the summary of the Regional Transactions Flows obtained from the survey. The processing sectors in the region produced in 1967 a total gross adjusted output valued at $1,804,573 in producers' prices and 1967 dollars. The largest contributor to total output was the manufacturing sector which produced 39.02 percent of gross output. The second largest contributor was wholesale and retail trade which produced (in trade margins) 16.56 percent of total output. Services produced 12.67 percent and construction produced 12.18 percent. The lowest proportion of total output is attributed to the mining sector at 2.31 percent, followed by agriculture at 3.92 percent.

The processing sectors employed approximately 97,330 persons and paid to households approximately $674 million in payment for their role in the production process. Final demand sectors played an important role in moving the regional economy by purchasing 81 percent of total output. Final demand sectors purchased from a low of 34 percent of the output of the financial, banking and real estate sectors to 93 percent of the output of the construction industry. Some processing sectors, like agricultural supply, new construction, apparel and accessory stores, furniture stores, department stores, food stores, medical and educational facilities delivered almost all of their output to final demand sectors. On the other hand, the trucking and warehousing sector delivered all its output to the intermediate demand sectors. Cement and concrete sector delivered only 12 percent of its output to final demand and the lumber sector delivered 16 percent of its output to final demand.

TABLE 7. Summary of the Regional Transaction Flows-Upper Rio Grande Valley - Texas 1967
(Transactions in Thousand Dollars)

Sector Name & Number	Adjusted Gross Output	Purchases Frm.Local Processing Sects.	Purchases Local as % of Gr.Out.	Final Payments	Final Payment as % of Gr.Out.	Sales to Processing Sectors	Intermediate Demand as % of Gross Out.	Sales to Final Demand	Final Demand as % of Gross Output
AGRICULTURE									
01-Irrigated Crops	$26,100	$ 6,697	25.659	$ 9,762	37.402	$ 9,485	36.341	$ 16,615	63.659
02-Livk/Dairy/Poultry	40,110	14,858	37.043	10,249	25.552	1,041	2.595	39,069	97.405
03-Agri. Supply	383	149	38.903	179	46.736	0	0.000	383	100.000
04-Agri. Service	4,280	1,303	30.444	1,409	32.921	2,194	51.262	2,086	48.738
Total Agriculture	70,873	23,007	32.462	21,599	30.476	12,720	17.948	58,153	82.052
MINING									
05-All Mining	41,713	4,107	9.846	31,082	74.514	8,045	19.287	33,668	80.713
CONSTRUCTION									
06-Res. Const.	54,149	12,742	23.531	17,235	31.829	0	0.000	54,149	100.000
07-Comm. Const.	53,146	11,155	20.989	24,074	45.298	0	0.000	53,146	100.000
08-Ind. Const.	18,638	4,480	24.037	6,657	35.717	0	0.000	18,638	100.000
09-Facil. Const.	72,866	25,162	34.532	30,790	42.256	0	0.000	72,866	100.000
10-M. & R.	21,153	3,890	18.390	13,922	65.816	15,239	72.042	5,914	27.958
Total Construction	219,952	57,429	26.110	92,678	42.136	15,239	6.928	204,713	93.072

Table 7, Page 2

Sector Name & Number	Adjusted Gross Output	Purchases Frm.Local Processing Sects.	Purchases Local as % of Gr.Out.	Final Payments	Final Payment as % of Gr.Out.	Sales to Processing Sectors	Intermediate Demand as % of Gross Out.	Sales to Final Demand	Final Demand as % of Gross Output
MANUFACTURING									
11-Food Process	85,940	12,485	14.528	29,530	34.361	6,442	7.496	79,498	92.504
12-Textile, Apparel	188,300	16,826	8.936	74,460	39.543	6,021	3.198	182,279	96.802
13-Lumber	6,750	1,853	27.452	2,665	39.481	5,675	84.074	1,075	15.926
14-Furniture	2,400	1,079	44.958	821	34.208	429	17.875	1,971	82.125
15-Boxes/Paper	700	202	28.857	165	23.571	286	40.857	414	59.143
16-Print./Publishing	13,400	1,841	13.739	7,775	58.022	2,668	19.910	10,732	80.090
17-Chemicals	6,130	1,180	19.250	2,117	34.535	3,551	57.928	2,579	42.072
18-Petroleum	192,880	11,628	6.029	34,554	17.915	21,568	11.182	171,312	88.818
19-Rubber/Leather	8,400	1,420	16.905	3,666	43.643	785	9.345	7,615	90.655
20-Glass/Clay/Stone	5,050	2,402	47.564	2,373	46.990	3,789	75.030	1,261	24.970
21-Cement/Concrete	13,880	7,269	52.370	5,489	39.546	12,234	88.141	1,646	11.859
22-Primary Metal	140,460	20,786	14.799	48,091	34.238	17,507	12.464	122,953	87.536
23-Fabri. Metal	21,100	5,914	28.028	7,890	37.393	6,926	32.825	14,174	67.175
24-Machinery	2,170	668	30.783	1,152	53.086	1,030	47.465	1,140	52.535
25-Scientific Inst.	15,630	3,343	21.388	7,761	49.655	1,992	12.745	13,638	87.255
26-All Other Mfg.	970	382	39.381	533	54.948	592	61.031	378	38.969
Total Manufacturing	704,160	89,278	12.679	229,042	32.527	91,495	12.993	612,665	87.007
TRANSPORTATION & COMM.									
27-Railroad Trans.	13,494	4,849	35.934	7,720	57.211	11,834	87.698	1,660	12.302
28-Intercity/Freight	25,762	6,595	25.600	13,721	53.261	9,885	38.370	15,877	61.630
29-Truck/Warehouse	1,286	485	37.714	784	60.964	1,286	100.000	0	00.000
30-Air Transportation	8,446	3,417	40.457	3,104	36.751	3,494	41.369	4,952	58.631
31-All Other Trans.	3,908	1,698	43.449	1,896	48.516	1,443	36.924	2,465	63.076
32-Telephone & Telegraph	26,716	1,549	5.798	16,955	63.462	12,182	45.598	14,534	54.402
33-Radio/TV/Etc.	4,959	2,206	44.485	2,267	45.715	2,014	40.613	2,945	59.387
Total Trans.& Comm.	84,571	20,799	24.594	46,447	54.921	42,138	49.826	42,433	50.174

Sector Name & Number	Adjusted Gross Output	Purchases Frm.Local Processing Sects.	Purchases Local as % of Gr.Out.	Final Payments	Final Payment as % of Gr.Out.	Sales to Processing Sectors	Intermediate Demand as % of Gross Out.	Sales to Final Demand	Final Demand as % of Gross Output
UTILITIES									
34-Gas Utility	38,865	8,041	20.690	21,533	55.405	21,351	54.936	17,514	45.064
35-Electric Utility	30,639	4,769	15.565	21,306	69.539	15,990	52.188	14,649	47.812
36-Water Utility	7,988	2,569	32.161	4,180	52.328	2,741	34.314	5,247	65.686
Total Utilities	77,492	15,379	19.846	47,019	60.676	40,082	51.724	37,410	48.276
WHOLESALE/RETAIL TRADE									
37-Whsle. Auto Parts	30,676	3,703	12.068	17,755	57.882	8,131	26.506	22,545	73.494
38-Whsle. Groceries	4,380	1,933	44.132	1,589	36.279	563	12.854	3,817	87.146
39-Whsle. Farm Prod.	5,762	2,328	40.403	1,884	32.697	480	8.330	5,282	91.670
40-Whsle. Livestock	1,111	517	46.535	154	13.861	191	17.192	920	82.808
41-Whsle. Machines	14,801	3,340	22.566	9,836	66.455	5,843	39.477	8,958	60.523
42-Whsle. Petroleum	8,566	2,049	23.920	5,963	69.612	2,405	28.076	6,161	71.924
43-Whsle. General	49,300	10,668	21.639	34,598	70.178	9,537	19.345	39,763	80.655
44-Lumber Yds., Etc.	6,708	1,998	29.785	3,992	59.511	930	13.864	5,778	86.136
45-Dept. Stores, Etc.	48,710	7,656	15.718	28,643	58.803	16	0.033	48,694	99.967
46-Food Stores	25,393	4,401	17.332	18,244	71.847	176	0.693	25,217	99.307
47-Auto Dealers	28,883	9,117	31.565	11,204	38.791	2,290	7.929	26,593	92.071
48-Gas Serv. Stations	9,386	3,519	37.492	5,681	60.526	3,075	32.762	6,311	67.238
49-Apparel/Acces.	10,265	2,153	20.974	5,391	52.518	0	00.000	10,265	100.000
50-Furniture	16,258	4,021	24.732	7,953	48.917	0	00.000	16,258	100.000
51-Eat & Drink	20,580	3,858	18.746	15,621	75.904	1,157	5.622	19,423	94.378
52-All Other Retail	18,111	3,319	18.326	12,496	68.997	781	4.312	17,330	95.688
Total W. R. T.	298,890	64,580	21.606	181,004	60.559	35,575	11.902	263,315	88.098

Table 7, Page 4

Sector Name & Number	Adjusted Gross Output	Purchases Frm.Local Processing Sects.	Purchases Local as % of Gr.Out.	Final Payments	Final Payment as % of Gr.Out.	Sales to Processing Sectors	Intermediate Demand as % of Gross Out.	Sales to Final Demand	Final Demand as % of Gross Output
F.I.R.E.									
53-Bank & Credit	36,629	3,226	8.807	28,509	77.832	25,763	70.335	10,866	29.665
54-Ins. Carriers	18,407	2,694	14.636	10,074	54.729	12,431	67.534	5,976	32.466
55-F.I.R.E. n.e.c.	23,121	7,989	34.533	13,229	57.216	13,058	56.477	10,063	43.523
Total F.I.R.E.	78,157	13,909	17.796	51,812	66.292	51,252	65.576	26,905	34.424
SERVICES									
56-Legal and Accounting	15,841	3,074	19.405	12,579	79.408	9,297	58.689	6,544	41.311
57-Lodging	14,534	5,172	35.586	6,591	45.349	2,182	15.013	12,352	84.987
58-Personal	20,505	4,137	20.176	14,421	70.329	1,859	9.066	18,646	90.934
59-Advertising	5,706	1,088	19.068	2,523	44.217	5,098	89.345	608	10.655
60-Motion Pictures	7,107	1,780	25.046	3,932	55.326	1,205	16.955	5,902	83.045
61-Auto Rentals	6,120	2,425	39.624	2,912	47.582	4,914	80.294	1,206	19.706
62-Electric	6,556	1,105	16.855	3,358	51.220	2,125	32.413	4,431	67.587
63-Medical	37,536	9,133	24.331	22,930	61.088	264	0.703	37,272	99.297
64-Educational	72,659	16,864	23.210	41,481	57.090	0	0.000	72,659	100.000
65-Engineering/Arch.	2,362	502	21.253	1,651	69.898	1,163	49.238	1,199	50.762
66-All Other Profess.	39,839	12,388	31.095	22,601	56.731	21,503	53.975	18,336	46.025
Total Services	228,765	57,668	25.208	134,979	59.003	49,610	21.686	179,155	78.314
GRAND TOTAL	$1,804,573	$346,156	19.182	$835,662	46.308	$346,156	19.182	$1,458,417	80.818

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Intermediate demand, i.e., demand for goods and services by processing sectors from other processing sectors to be able to deliver their final goods for ultimate use, seemed to be a smaller factor in moving the local economy than final demand. Sales to intermediate demand by processing sectors amounted to only 19 percent of total output. The lowest percentage of sales to intermediate demand sectors was 0.0 percent by agricultural supply, new construction sectors, apparel, furniture stores, and educational institutions. For other processing sectors sales to intermediate demand ranged from 3.0 cents per dollar of output in the case of department stores to total output for the trucking and warehousing sector.

Financial, banking, and real estate sectors seem to be highly dependent on the processing sectors. They sold almost 66 percent of their output to intermediate demand. Utilities and transportation and communication sectors sold almost half of their output to the other processing sectors.

Processing sectors, on the whole, purchased only 19 percent of their inputs from local processing sectors. Not one sector in the whole regional economy bought all of its inputs locally. This fact can be interpreted as a lack of self-sufficiency and diversification in the regional economy. However, as will be shown later, there is a relatively high degree of crosshauling of goods and services that occur in the region. In spite of the fact that economic activity nodes in the region are separated geographically by long distances from economically active nodes in other regions, yet there is no reason to believe that distance alone will force a sector to satisfy all its input requirements locally had they existed because of interregional trade patterns, free movement of trade and the legal setup of some of the larger local firms. However, it seems reasonable to believe that if the manufacturing industry in the region becomes more diversified than it is now, local firms may find it more advantageous to satisfy larger portions of their input requirements locally.

Locally supplied inputs ranged from almost 6 percent for the telephone and telegraph sector to 52 percent for cement and concrete. Mining sectors bought almost 10 percent of their input requirements locally; manufacturing sectors on the whole purchased almost 13 percent of their inputs locally, while the agriculture sectors, which rank the highest in local purchases, bought 32 percent of all their input requirements locally.

To satisfy the bulk of their input requirements, all processing sectors resorted to imports. The regional economy paid more than one-third of the value of its total output to foreign (non-local) producers of goods and services. In other words, in 1967 almost $623 million leaked out of the region to pay for imports by the processing sectors. If the value of imports that were purchased for ultimate use by the final demand sector were added to the value of imports by processing sectors, the amount of leakage outside the region would be approximately $730 million, or almost half the gross regional product.

Processing sectors paid about 37 percent of all their expenditures to households as wages, salaries, interest, profit and other income. The payment by processing sectors constituted almost 61 percent of the total income of households in the region. The rest of household income came from public sources, especially the Federal government which paid households alone approximately half the amount paid to them by all processing sectors put together. This indicates that the region is highly dependent on the Federal government to support its income level and employment.

Payments by processing sectors to households ranged from a low of 10.46 percent (of expenditures by the sector) by the petroleum sector to 75.94 percent by the legal and accounting service sector.

Processing sectors exported goods and services valued at $691,700 thousand or 38.33 percent of the value of its total output. Even though the value of exports by processing sectors is higher than the value of goods and services imported by the same sector, the region on the whole has a trade balance deficit of $38,342 thousand - almost 2.56 percent of the gross regional product.

Almost two-thirds of all processing sectors participated in the export trade to a greater or lesser degree. The sectors that did not contribute to exports include agricultural supplies, facility construction, maintenance and repair construction, glass, stone and clay, machinery, most of the transportation and communications sectors, most of the retail trade sectors (except department stores), all financial sectors and some service sectors. For other sectors, exports as a percentage of output by sector ranged from almost 6 percent by electric utility to 85.27 percent by the livestock, dairy and poultry sectors.

Ranking of Economic Activity by Processing Sectors

Looking at the overall output of the local processing sectors in a descending order of economic activity one finds that the highest level of economic activity was displayed by the manufacturing sector which produced $704 million worth of products or 39.02 percent of total adjusted gross output of all processing sectors. Manufacturing sectors, however, bought from foreigners $386 million worth of goods and services, or 62 percent of all imports bought by the processing sectors. They also exported $488 million worth of products, thus accounting for 71 percent of all exports in the region.

Wholesale/retail trade sectors ranked second after manufacturing. They accounted for 16.56 percent of total output by processing sectors, and they produced about $299 million worth of trade margins. It is to be noted that the actual value of shipments (total revenue) of the trades sectors was much higher than the figure cited above which is stripped of the value of all merchandise purchased for resale. The trades sectors accounted for a very small percentage of total imports or exports - each being less than 10 percent.

The construction sectors held the fourth rank in output. At 220 million worth of construction put-in-place, they accounted for 12.18

percent of total output by the processing sectors. Construction contributed only 3.1 percent of total exports but purchased 11.21 percent of total imports.

Financial, banking and real estate sectors ranked fifth. They produced $78 million or 4.33 percent of total output. These sectors did not export anything and accounted for only about 2 percent of total imports.

Utilities ranked sixth. They produced $77 million or 4.29 percent of total output. Utilities purchased 2.42 percent of all imports and sold 1.14 percent of exports.

Agricultural sectors ranked seventh. They produced $71 million worth of products or 3.92 percent of total output. They accounted for 4.21 percent of all imports but sold 5.66 of the region's exports.

Transportation sectors ranked eighth. They produced $53 million worth of services or 2.93 percent of total output. They accounted for about 1 percent of total imports and total exports.

Mining sectors ranked ninth. They produced $42 million worth of products or 2.31 percent of total output. Mining bought only 1 percent of total imports but contributed 4.85 percent to exports.

Communications sectors held the lowest rank in production among processing sectors. They produced $31,006 thousand worth of services, did not contribute anything to exports, and purchased 1.39 percent of total imports.

Multipliers

Table 8 shows the sectoral, simple income and Type II multipliers for all regional processing sectors. The non-weighted average sectoral multiplier was approximately 1.34, while the non-weighted average simple income multiplier was approximately 1.42. The petroleum sector had a sectoral multiplier of 1.072 which was followed closely by the telephone and telegraph sector whose multiplier was 1.075. Both sectors had very low interaction (linkages) with other processing sectors, and petroleum had the highest imports input among all sectors.

The cement and concrete sector had a sectoral multiplier of 1.693, which was the highest multiplier, followed closely by the glass, stone and clay sector whose multiplier was 1.648. Both sectors displayed a high degree of interdependence with other processing sectors. The former purchased 52.4 percent of its inputs locally, while the latter purchased 48 percent of its direct requirements locally.

The banking and credit agencies sector had the lowest simple income multiplier, which was 1.081, followed closely by the telephone and telegraph sector, whose multiplier was 1.117. It is to be noted that both sectors also had very low sectoral multipliers, namely, 1.112 and 1.075 respectively. While the local purchases of the banking sector were

Table 8. Sectoral, Simple Income Multipliers and Type II Income Multipliers
for Regional Processing Sectors – Upper Rio Grande Valley – Texas 1967

Sector Name & Number	Sectoral Multipliers	Simp.Income Multipliers	Type II Income Multipliers
01 Irr. Crops	1.322	1.671	2.30472
02 Livstk. Dry. Plty.	1.474	2.250	3.10308
03 Agri. Supply	1.517	1.573	2.16949
04 Agri. Service	1.397	1.685	2.32423
05 All Mining	1.126	1.088	1.50015
06 Resd. Constructn.	1.317	1.514	2.08797
07 Comcl. Construct.	1.290	1.270	1.75127
08 Ind. Construction	1.331	1.382	1.90528
09 Facil. Construct.	1.444	1.484	2.04591
10 Maint and Repair	1.248	1.166	1.60713
11 Food Process	1.188	1.231	1.69744
12 Textile and Appar	1.110	1.150	1.58695
13 Lumber	1.376	1.418	1.95461
14 Furniture	1.587	1.962	2.70480
15 Boxes and Paper	1.372	1.848	2.54889
16 Print and Publish	1.177	1.176	1.62140
17 Chemicals	1.239	1.358	1.87257
18 Petroleum	1.072	1.201	1.65589
19 Rubber and Leather	1.214	1.260	1.73787
20 Glass/Clay/Stone	1.648	1.747	2.40898
21 Cement/Concrete	1.693	2.215	3.05418
22 Primary Metal	1.186	1.234	1.70119
23 Fabri. Metal	1.350	1.423	1.96174
24 Machinery	1.404	1.394	1.92189
25 Scientific Instr.	1.269	1.312	1.80871
26 All Other Mfg.	1.501	1.694	2.33603
27 Railroad Trans.	1.461	1.436	1.97961
28 Intercity Freight	1.309	1.323	1.82484
29 Truck Warehouse	1.501	1.452	2.00280
30 Air Trans	1.474	1.387	1.91300
31 All Other Trans.	1.540	1.521	2.09763
32 Telephone & Telegraph	1.074	1.117	1.54072
33 Radio and TV	1.546	1.636	2.25592
34 Gas Utility	1.259	1.282	1.76742
35 Electric Utility	1.194	1.208	1.66621
36 Water Utility	1.415	1.487	2.05081
37 Whlse. Auto Parts	1.149	1.134	1.56406
38 Whlse. Grocery	1.546	1.900	2.62041
39 Whlse. Farm Prod.	1.553	1.711	2.35866
40 Whlse. Livstk.	1.613	2.641	3.64100
41 Whlse. Machinery	1.296	1.242	1.71318

Table 8, Page 2

	Sector Name	Sectoral Multipliers	Simp.Income Multipliers	Type II Income Multipliers
42	Whlse. Petroleum	1.311	1.252	1.72702
43	General Whlse.	1.281	1.202	1.65689
44	Lumber Yds. Hdwre.	1.377	1.327	1.83026
45	Dept . Store	1.201	1.187	1.63782
46	Food Stores	1.219	1.152	1.58816
47	Auto Dealers	1.398	1.551	2.13805
48	Gas Service Sts.	1.450	1.282	1.76727
49	Apparel Accesor.	1.262	1.272	1.75415
50	Furniture	1.295	1.324	1.82523
51	Eat and Drink	1.237	1.171	1.61529
52	All Other Retail	1.239	1.203	1.65858
53	Bank & Credit	1.112	1.081	1.49039
54	Insurance Carrier	1.192	1.196	1.64910
55	F.I.R.E. n.e.c.	1.419	1.526	2.10468
66	Legal and Accting	1.246	1.175	1.62007
57	Lodging	1.454	1.775	2.44730
58	Personal & Photo	1.259	1.197	1.65116
59	Advertising	1.247	1.280	1.76537
60	Recreation	1.328	1.355	1.86797
61	Auto Rental	1.501	1.701	2.34562
62	Elec. and Msc. RP	1.210	1.218	1.67906
63	Medical	1.321	1.281	1.76645
64	Educational	1.298	1.282	1.76837
65	Engineering Arch	1.291	1.195	1.64722
66	All Other Profes.	1.410	1.399	1.92932

slightly higher than those of the telephone sector, both were lower than 10 percent. The banking sector paid a high proportion of its expenditures to households, namely 63.32 percent. The reciprocal of the households coefficient, which was only 1.57, would mathematically reduce the value of the income multiplier.

The wholesale livestock sector had the highest income multiplier, namely 2.641, followed by livestock, dairy, and poultry sector, whose multiplier was 2.250. Both sectors displayed a high degree of interdependence with other processing sectors, and both sectors had low household coefficients, namely 12.78 percent and 13.63 percent respectively.

Changes in final demand invariably lead to changes in income and employment. An increase in households income will lead to an increase in consumption which will induce further changes in the level of production. To find out the impact of household expenditure increases on the level of production, the households sector is treated like a processing sector, i.e., a balanced row and column of household coefficients is added to the technical coefficients table to produce a new Leontief's inverse.

By applying this procedure, a new set of multipliers (called Type II multipliers) is obtained. These multipliers reflect the impact on level of production as a result of direct, indirect and induced changes in requirements on processing sectors.

The income multipliers (Type II) indicate how expansion in the level of production in different sectors will affect the regional economy through the combined effect of increased direct and indirect requirements in industries and the impact of the resulting increase in household incomes through a rise in employment levels. A high multiplier indicates strong intraregional linkages with other local industries, while a low multiplier indicates dependence on imports or a low level of purchases from the local industries.

The unweighted average of Type II multipliers is 2.52 which is higher than both the average sectoral or simple income multiplier because it includes the impact of household increased expenditures on the processing sectors. The distribution pattern of Type II multipliers largely follows the distribution pattern of the simple income multipliers. Wholesale livestock sector has the highest multiplier - 3.64; followed by the livestock, dairy and poultry sector - 3.10. Cement and concrete has the third highest multiplier - 3.05. Banking and credit institutions have the lowest multiplier - 1.49, followed by the mining sector - 1.50, and the telephone and telegraph - 1.54.

The reasons for the variation in the multipliers is a function of the pattern of inputs for the industry and its payments to households.

ANALYSIS OF THE RESULTS[23]

The region has a small proportion of its area devoted to agriculture due to its arid and mountainous nature. Agriculture contributes less than 4 percent to the total output of the region. The most important crop produced is cotton followed by alfalfa and truck vegetables and fruit for local markets. Since rainfall in the region is minimal, agriculture depends on irrigation, thus if more water is available at a reasonable cost, agricultural production could presumably increase.

Agricultural sectors on the whole are exporters, i.e., they help bring in more money (thus more income and employment) to the region than they leak out of it. Looking at the interdependence coefficients table (in the appendix) it is noted that an increase in final demand for agricultural products will enhance the level of economic activity in more local processing sectors than any other industry due to the fact that agriculture is more dependent for its input on local industry than other sectors. With the exception of heavy machinery and some specialized products like insecticides and certain fertilizers, agriculture is almost wholly dependent on local markets. Therefore an increase in the level of output in agriculture will lead to a healthy increase in the economic welfare of the region.

Simple income multipliers and Type II multipliers for agriculture are above average for all local processing sectors. Thus, all things being equal, a policy plan to increase the water supply in the region should give more priority to agriculture than industrial usage. However, further research is needed to find out the value of agricultural versus industrial output per gallon of water.

Mining Sectors

Mining activities in the region are mostly confined to quarrying and sulfur extraction. A small amount of crude petroleum and natural gas is also extracted in the region. The mining industry contributes less than 3 percent to the total output of the region. The industry exports the bulk of its output. Due to the low volume of output of the industry, its export activity has an insignificant impact on the overall economic welfare of the region, especially as the output cannot be expanded significantly by a mere increase in investment.

The table of interdependence coefficients indicates that an increase in final demand for the mining industry will generate an insignificant increase in the level of economic activity in other local processing sectors, with the exception of the gas utility and intercity freight transportation sectors. The low impact of changes in demand for mining

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[23]The detailed results, namely, all figures related to transactions flows for all processing sectors, technical coefficients and interdependence coefficients are in Appendix C.

output on other processing sectors is due to the weak intraregional linkages that the industry has with other local industries.

The sectoral and simple income multipliers for mining are quite lo relative to other sectors. However, the Type II multiplier of the industry is slightly above the average for the regional processing sectors because the industry pays to households about 60 percent of the value of its output.

Construction Industry

The value of all construction put-in-place (New and Maintenance Repair Construction, Regional Sectors 6 through 10) in the region was $219,952 thousand, which is about 12.18 percent of the total output of all processing sectors. This value does not include "force-account" construction nor "do-it-yourself" construction. Construction was performed by 422 establishments in the region, which gave employment on the average (between peak and slack seasons) to 8,798 persons. Households derived from the construction industry about $80 million in wages, salaries and profits.

Government agencies bought almost half of all construction output, (44.42 percent) and export markets bought about 10 percent of the output. The bulk of the remainder of the output was delivered to private capital formation and 7.0 percent was sold to intermediate demand.

Approximately $93 million of the amount of total output was value added, which included wages and salaries, taxes, rent, interest, profit and capital consumption. The industry added almost $80 million to the capital formation sector of the region.

For every dollar worth of construction put-in-place, the industry paid to local manufacturers 14.6 cents, 1.8 cents to wholesalers and retailers in trade margins, 2.8 cents to financial institutions, and almost 32.0 cents to foreign suppliers (imports).

About 90 percent of the output of the construction industry was in new construction. Only 9.61 percent of the total value of construction put-in-place in the region was maintenance and repair.

The low share of Maintenance and Repair construction in the region is in contrast with the national average, which was estimated in the 1963 National Input-Output tables at 25 percent. The large difference between regional and national share may be attributed to the following factors:

    1.   Unusual boom in new construction activity in Texas in 1967.[24]

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[24]The annual issue of Building Construction in Texas issued by the Bureau of Business Research, the University of Texas at Austin, Feb. 1968, maintains, "Building authorizations in Texas during 1967 rose 20 percent to a record level as both residential and non-residential authorization reached new highs. Strong gains in most individual categories of building

2. Residential buildings in Texas (and especially in the region) are relatively younger than their counterparts in the rest of the nation.

3. The National Input-Output Study covered force-account construction and included an estimate for do-it-yourself construction. Both factors are absent in the regional model.

If the lower share of maintenance and repair in the region represents a long-term trend, then the impact of construction in the region economy should be expected to be higher than that of the nation because new construction has a lower value added to the cost of materials ratio than maintenance and repair. In other words, new construction creates more economic activities and linkages with other processing sectors than maintenance and repair.

The value of all construction put-in-place in the region during 1967 ranks the fourth highest among major industrial groups in the regional processing sectors. The industry produced almost as much output as the service industry, even though employment in construction is only about 14 percent of the employment in the service industry, but construction paid to households approximately 70 percent of what the service industry paid.

The interdependence coefficients table indicates that the construction industry as a whole has strong intraregional linkages. An increase in final demand for construction is expected to significantly increase the level of regional economic activity and benefit all processing sectors in the region.

All multipliers for the construction industry are above average for all regional processing sectors with the exception of residential construction which depends quite heavily on imports for household appliances and specialized lumber products. It is to be noted here that other than residential construction which constitutes about 25 percent of the total output of construction, a high proportion of construction output is sold to government agencies, especially the Federal government, while a small proportion of output is sold to industrial firms for the building of new plants and equipment. Thus, the industry and thereby its impact on the rest of the economy is vulnerable to the vagaries of Federal policy. Planning programs leading to a rise in construction activity will be extremely helpful to the region by raising the level of economic activity and thereby income and employment in all regional sectors.

Manufacturing

The manufacturing sector comprises sixteen sectors. All manufacturing sectors follow two-digit Standard Industrial Classification codes.

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(24 cont'd) made the 1967 increase the largest thus far in the nineteen-sixties." The boom in New Construction activity may have led to a decline in the significance of Maintenance and Repair Construction percentage-wise.

because of the lack of diversification of manufacturing activities in the region, it was impossible to classify manufacturing industries by four-digit Standard Industrial Classification codes. Due to specialization of the region, the scarcity of natural resources, and its distance from national activity nodes, heavy manufacturing industries are lacking in the region. Thus, it was not possible to have significant representation in all of the twenty major Standard Industrial Classification manufacturing categories.

Regional manufacturing sectors total output amounted to $704,160 thousand which represented 39.02 percent of total output by all processing sectors. The industry imported goods and services valued at $385,840 thousand which amounts to 61.95 percent of all goods and services imported by all processing sectors but delivered $488,149 thousand or 70.57 percent of all products sold by the region to export markets, thus bringing into the region about $103 million. Value added by the industry amounted to $229,042 thousand. This amount was 32.53 percent of the value of all manufacturing products and represented 15.34 percent of the gross regional product. Manufacturing industry in the region employed about 34,000 persons and paid to households approximately $189 million.

The analysis of the model tables for manufacturing industries indicates that the impact of the various sectors is far from being uniform. A close look at the interdependence coefficients table and the multiplie table reveals a disappointing paradox. The sectors having the highest output, namely, petroleum with $193 million of output, apparel with $188 million of output and primary metals with $140 million, have the lowest multipliers among all manufacturing sectors. The three sectors above combined produced 74 percent of all the output of the regional manufacturing sectors. They imported 82 percent of all goods and services imported by all manufacturing industry in the region, but they contributed 91 percent of all manufacturing products sold to the export markets. Unfortunately, however, as will be explained later, the region did not reap the full value of the favorable trade balance of the three sectors.

Both the petroleum and the primary metal industries in the region are just one step removed from extractive industries. The raw materials for each of the two industries, the crude oil and the ore, are imported from outside the region. The petroleum sector is confined to refining the crude oil but does not extend to further steps such as the production of petrochemicals. The primary metals industry is confined to smelting and refining but does not extend to further steps such as production of metal cables or metal sheets. The firms producing in both sectors are branches of parent companies headquartered outside the region. Thus both sectors import their raw materials from their parent firms and are simply paid the cost of the conversion operation occuring in the region. The profits and the proceeds of the quasi-exporting operation that takes place are denied the region. In other words, the region benefits only from the employment needed by the two sectors for the conversion processes but not from the full amount of the value added by the processes or the actual value of the exports. The problem is compounded by the fact that the region has not developed a mature supportive industry to provide the two sectors with the machinery, parts, or chemicals needed for the conversion processes. Therefore, the intraregional

linkages for the two sectors are extremely weak. An increase in the final demand for either sector will have a minimal impact on the level of economic activity of the other processing sectors in the region. As a matter of fact the only processing sectors that will experience an increase in requirements higher than one-third of one percent when final demand rises for the petroleum sector are the gas utility, electric utility, maintenance and repair construction, intercity freight transportation and the chemical sector. If final demand for primary metals rises, the only processing sectors that will experience an increase in requirements higher than one-third of one percent are railroad transportation, gas utility and intercity transportation sectors.

Some firms in the apparel sector are in the same position as the firms in the above two sectors, namely they are branches of parent companies outside the region. The other firms, while they benefit the region by being labor intensive and therefore high employers, they are highly dependent on outside markets for a major proportion of their imports from raw materials to machinery to machine parts. Thus the apparel industry also has weak intraregional linkages. If final demand for the industry increases, the only sectors that will experience an increase higher than one-third of one percent are maintenance and repair construction, gas utility, electric utility, financial institutions, legal and accounting and other professional service sectors.

The discussion of the above three sectors make it clear that the region has a sound potential for economic development if satellite supportive industries are encouraged to develop to support the primary metal, petroleum and apparel sectors. The region will also benefit economically if any or all these sectors expand both horizontally and vertically, i.e., by addition of new plant and equipment and by extending their processing to further stages of production.

The glass, clay and stone sector and the cement and concrete sector have the highest multiplier among all manufacturing sectors. These two sectors have high intraregional linkages with almost all other processing sectors. If the final demand for either sector increases more than eleven processing sectors will experience an increase in their requirements higher than one percent.

The output of both of the above sectors combined is less than one percent of the total output of all processing sectors. They are dependent on their level of activity on other processing sectors since they sell the bulk of their output to intermediate demand. Thus an increase in construction activities or in manufacturing activities will have a beneficial impact on the level of activity of these two sectors.

The rest of the manufacturing sectors, with the exception of food processing, contribute less than 5.0 percent to the total output of all regional processing sectors. They have slightly average multipliers which means that an expansion in these sectors will raise the economic welfare of the region especially as most of the industries represented by these sectors fall in the category of supportive industry for other basic or export industry.

The food processing industry has a significant position in the region. It contributes almost 5.0 percent of the value of total output of all regional processing industries and is one of the highest employing industries in the region. It employs slightly less than 13 percent of the total labor force in the region and pays households approximately 4.0 percent of the total income earned by households from all processing sectors. The industry is labor intensive and pays relatively low wages because of its dependence on unskilled labor. The multipliers for the industry are below average for other processing sectors because of its high dependence on imports.

Transportation

Total output of the industry was valued at $52,896 thousand, which represented 2.93 percent of the output of all local processing sectors. The industry contributed $27,225 thousand to gross regional product. However, it purchased 1.38 percent of all imports and delivered only 1.48 percent of all regional exports. The industry bought $17,044 thousand from local processing sectors and sold them $27,943 thousand worth of services.

The table of interdependence coefficients indicates that the transportation industry on the whole has strong intraregional linkages. The multipliers for the industry are above average for the regional processing sectors. The output of the industry is expected to expand through the improvement of railroad transportation as a result of the maturity and success of Amtrack, the expansion in the new movement of building refrigerated warehouses and the expansion of airport facilities in El Paso. Such expansion movements will enhance the level of economic activity in other local sectors, especially construction, petroleum, primary metal, communications, gas utility, electric utility, wholesale automotive parts, wholesale machinery, financial institutions and professional services sectors.

The total output of the industry was valued at $31,675 thousand, which amounted to 1.75 percent of the total production of all local processing sectors. The industry did not contribute to the regional export trade, but bought 1.39 percent of all imports. Value added by the industry amounted to $19,222 thousand, which was equivalent to approximately 1.0 percent of Gross Regional Product.

The telephone and telegraph sector has very weak intraregional linkages with other regional processing sectors. The multipliers for the industry are very low relative to other sectors. An increase in final demand can come only from an increase in household or government expenditures on the industry's services. Such an increase will lead to an increase of about one-third of one percent to few sectors, namely: scientific instruments, electric utility, wholesale auto parts, financial institutions and advertising. The other processing sectors will experience extremely insignificant increases. In spite of the low impact of the industry, it plays an important role in the economy in providing all local processing sectors with a needed service.

The radio and television sector is quite insignificant in terms of its contribution to total output in the region. The introduction of cable TV may raise the output of the sector significantly. The industry, however, is highly dependent on other processing sectors. Its multipliers, therefore, are above average for all processing sectors.

Utilities

Utilities were represented in the regional model by three sectors. The total output of utilities in the region was estimated to be $77,492 thousand, which amounted to 4.29 percent of the output of all local processing sectors. The industry had a value added of $47,019 thousand or 3.14 percent of Gross Regional Product. Utility sectors bought 19.47 percent of all imports and contributed 10.20 percent of export trade by all local processing sectors.

The data pertaining to gas and electric utilities in the survey combines both private and public utilities. These two sectors have below average multipliers. Their highest proportion of inputs from local processors are from other utilities.

The utility sectors play an important role in the regional economy by providing a needed service to all processing sectors. Since the region has a long border with Mexico, regional utilities enjoy a thriving export market to border areas. An increase in final demand for both sectors will lead to an insignificant increase in the requirements of other processing sectors.

The data pertaining to water utilities in the survey does not cover all water used in the region since most farmers use sources other than water utilities for irrigation, like water improvement districts and private wells.

Even though water utilities, like gas and electric utilities, purchase a high proportion of their imports from other utilities, this sector has relatively good intraregional linkages. Its multipliers are slightly above average. At least sixteen other processing sectors will experience significant increases in their requirements as a result of an increase in final demand for water utilities.

Wholesale/Retail Trade

Wholesale/retail trade and services traditionally play a significant role in regional economies. In the region, however, the proportionate output share of all wholesale/retail trade and service sectors combined is lower than the share of manufacturing activities. The output of wholesale/retail trade sector which was valued at $298,890 thousand constituted only 16.56 percent of total output by all local processing sectors. El Paso, which is the major city in the region, and which enjoys more than 80 percent of the economic activity in the region, is supposed to be in an excellent position to supply the region and the

areas surrounding it by trades and services. However, while El Paso[25] "will continue as an important center of distribution for both wholesale and retail trading activities, this function within its economic base will remain subject to pressures exerted by external competition (resulting from the faster growth in Tucson, Phoenix, Albuquerque, Lubbock and Amarillo) and to the slower growth resulting from the relatively sparse population in portions of its outlying trading area in Southern New Mexico and West Texas."[26]

Being located directly on the border with Mexico is a mixed blessing. While Mexican nationals buy between 20 percent and 30 percent of the trades' output in El Paso, El Pasoans and American tourists passing through El Paso buy on the average $18 worth of goods and services from Juarez, Mexico, in every visit.[27] Many El Pasoans shop regularly for primary commodities and services in Juarez. This fact tends somewhat to depress the growth of the trades' economic activities in the region.

Wholesale/retail trade sectors bought 21.6 percent of its imports from local markets, purchased 8.55 percent of all imports by local processing sectors and delivered to the export markets the equivalent of 9.30 percent of the total output by regional sectors. Value added by wholesale/retail trade sectors amounted to $181,000 thousand, which was approximately 12.12 percent of gross regional product. The sectors paid about 50 percent of their output to households - namely $151,750 thousand.

The unweighted average multiplier for the wholesale/retail trade sectors is above average for all local processing sectors. The average sectoral multiplier is 1.338; the average simple income multiplier is 1.61 and the average income (Type II) multiplier is 2.646. Among all the trade sectors the wholesale livestock sector has the highest sectoral multiplier but the lowest Type II multiplier. The former two multipliers are quite high because the sector is almost wholly dependent on other regional processing sectors for all its inputs other than livestock. The latter multiplier is low because the sector has a low household coefficient. It pays households only $102 thousand out of a total output of $1,111 thousand. The whole region will benefit from an expanded operation in this sector.

The eating and drinking sector has the highest Type II multiplier but it has low sectoral and simple income multipliers. This sector pays almost 64 percent of the value of its total output to households (more

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[25]Community Economic Analysis--Chamizal Planning Program in El Paso, Texas, prepared for the City of El Paso, Texas, August 1966, by Real Estate Research Corporation, pp. v - 15.

[26]While the growth of trade activities had been very modest, the cities mentioned above experienced a growth rate in trade activities between 1958 and 1963 of 21.6 percent to 57.2 percent.

[27]Ibid, pp. 11-17 and VIII-24

than $13 million) but buys only 18 percent of its inputs locally.

As the region grows and as urban development projects expand, the trade sectors are expected to play a more important role in the economic welfare of the region. Such a role will be beneficial because of the relatively high level of multipliers. The impact of the trade sectors will be even more important as the industrial base of the region matures and becomes more diversified by establishing substitute production for some of the imports.

Finance, Insurance and Real Estate

Financial, insurance and real estate sectors' output was estimated to be $78,157 thousand, which represented 4.33 percent of the total output of all regional processing sectors. Financial, insurance and real estate sectors bought about 2.0 percent of all imports and did not contribute to the regional export trade. Value added by the three financial sectors amounted to $51,812 thousand, which represented 3.47 percent of gross regional product. The sectors paid about $41 million to households. This amount represented 53 percent of the value of the sectors' output.

The bank and credit sector and the insurance carrier sector have lower than average sectoral, simple income and Type II multipliers. The banking sector buys only 8.81 percent of its input requirements from the other regional processing sectors while the insurance sector buys about 15 percent of its input requirements locally. Both sectors, however, pay substantial proportions of the value of their output to households. The financial and real estate sector has above average multipliers. This sector depends more on local processing sectors than the other two sectors. However, the table of interdependence coefficients indicates that an increase in final demand for the financial and real estate sector will benefit mainly the banking, utility, communications and auto rental sectors. All of these sectors but the auto rental have low multipliers. Thus an expansion in the financial sector, while desirable in and by itself does not necessarily benefit the rest of the region as an expansion in some of the other sectors that induce substantial increases in industrial sectors.

Services

The output for the services sector amounted to $228,765 thousand, which represented 12.67 percent of the output of all local processing sectors. The service industry bought 5.79 percent of all products imported by the regional processing sectors, and delivered 3.85 percent of all exports.

Value added by the services sectors amounted to $134,979 thousand, which represented 9.04 percent of Gross Regional Products. Households' share of value added was $113,932 thousand, which amounted to 49.80 cents per dollar of output for the service industry. Government received 3.92 cents per dollar of output of the industry.

Due to the closeness of the border and the free crossing of residents of the region to Mexican border cities as well as the free crossing of

Mexican nationals into El Paso and other regional cities, it is extremely difficult to consider the import and export trade figures collected for the service industry in the survey to be highly reliable. It is known that many El Pasoans, for example, cross over to Juarez, Mexico, to get services done (at a cheaper price than prevails in El Paso). It is also known that, due to the excellent medical, educational, and professional facilities and services available in El Paso, many Mexican nationals come to El Paso to avail themselves of these services. However, a special survey should be conducted to collect accurate data regarding the exchange of services between El Paso and Juarez. Such a survey was not feasible to conduct under this project because of time and budgetary constraints.

Again, because of the proximity of the border and the unavailability of accurate data on exported services, the share of the services sector in the gross regional product is lower than the national average (according to the current survey).

The multipliers for the services sectors are barely equal to the unweighted multipliers average for all regional processing sectors. The auto rental sector which includes passenger car rentals, leasing trucks, leasing utility and house trailers, parking lots and parking structures, has the highest overall multipliers. Among all service sectors, this sector has the highest intraregional linkages with other local processing sectors. It buys almost 40 percent of all its input requirements locally but pays only 29 percent of the value of its output to households. An increase in the final demand for this sector will induce substantial increases in requirements for several local sectors such as construction, petroleum, utilities, all other manufacturing, auto dealers, financial and real estate, lodging, advertising and other professional services.

The electrical and miscellaneous repair sector has the lowest sectoral multiplier, and relatively low simple income and Type II multipliers. This sector buys only 16 percent of its input requirements locally, but buys twice as much from outside the region.

The educational sector contributes almost one-third of the total output of all the services sectors and pays households about $36 million. However, the sector's multipliers are below average because of its weak linkages to other regional sectors. An increase in final demand for the educational sector will induce increases in the requirements for the construction, food processing, printing and publishing, furniture, chemicals, petroleum, transportation, wholesale machinery, gas services, financial institutions, utilities and professional services.

The educational sector can play a major role in the region - especially after the opening of a junior college in El Paso - in providing the skilled manpower needed for sustained economic growth in the region.

FINAL PAYMENTS

Final payments for the regional economy were represented by six

sectors. Five sectors in the final payments sector (Quadrant III in the transactions flow matrix) represented the components of value added. The sixth sector, which represents imports, was put in this quadrant to segregate it from the processing sectors (Quadrant I), even though it represents cost of materials, but such costs were paid to foreign processors and have no impact on local transactions.

Total final payments by all sectors amounted to $1,492,969 thousand which was equal to the total final demand and also equal to the gross regional product. Value added by the processing sectors alone amounted to $385,667 thousand. In other words, every dollar's worth of output of all processing sectors in the regional economy produced on the average 46.30 cents in value added. The amount of 46.30 cents was distributed as follows: 37.34 cents to households, 3.33 cents to the Federal government, 1.22 cents to local government, 0.91 cents to State government and 3.49 cents in capital consumption allowance. Table 9 represents the components of final payments sector by sector for all regional processing sectors.

Components of Final Payments

Federal Government: Total payments by processing sectors in various taxes to the Federal government amounted to $60,182 thousand, which was approximately 3.33 percent of total adjusted gross output of all processing sectors. Among all sectors the communications sectors paid the highest proportion of their output in taxes. They paid 11.98 percent of the value of their output to the Federal government, while the construction industry paid the lowest proportion, namely only 1.65 percent of the value of its output. Agricultural sectors paid 1.69 percent of their total expenditures to the Federal government. Payments by all other processing sectors to the Federal government were on the average lower than 10 percent of the value of output for each sector.

State Government: Payments by processing sectors to the State government amounted to $16,435 thousand, which was less than one percent of the total value of output. The highest share was paid by the mining sectors, which paid 2.66 percent, and the lowest share was paid by the agricultural sectors, which paid 0.07 percent of the value of their output.

Local Government: Processing sectors paid $22,045 thousand to local governments in the region. This sum amounted to 1.22 percent of the value of their total output. The highest proportion was paid by the agricultural sectors, namely 5.96 percent, while the mining sectors paid only 0.24 percent of the value of their output to local governments.

Households: Processing sectors paid $675,997 thousand to households. Payments to households amounted to 37.34 percent of total expenditures by the processing sectors. These payments were not all just wages and salaries. They also included interest payments, profits and other income payments.

The manufacturing sectors contributed the highest share of household incomes. They paid 26.84 percent of the total sum of their expenditures

Table 9. Final Payments for the Region - Upper Rio Grande Valley - Texas 1967
(Transactions shown in Thousand Dollars)

Sector Name & Number	Total Final Payment	Federal	Federal as % Gr.Out.	State	State as % Gr.Out.	Local	Local as % Gr.Out.	Household	H. H. as % Gr.Out.	Deprec-iation	Deprec. as % Gr.Out.
AGRICULTURE											
01-Irrigated Crops	$ 9,762	$ 307	1.17	$ 18	0.06	$2,713	10.39	$ 4,986	19.10	$1,738	6.65
02-Livk/Dairy/Poultry	10,249	766	1.90	21	0.05	1,486	3.70	5,468	13.63	2,508	6.25
03-Agri. Supply	179	18	4.69	2	0.52	4	1.04	133	34.72	22	5.74
04-Agri. Service	1,409	112	2.61	15	0.35	23	0.53	997	23.29	262	6.12
Agriculture Total	21,599	1,203	1.69	56	0.07	4,226	5.96	11,584	16.34	4,530	6.39
MINING											
05-All Mining	31,082	3,021	7.24	1,113	2.66	101	0.24	25,048	60.04	1,799	4.31
CONSTRUCTION											
06-Resd. Const.	17,235	787	1.45	165	0.30	307	0.56	14,208	26.23	1,768	3.26
07-Comm. Const.	24,074	745	0.48	341	0.22	222	0.14	21,884	14.28	882	0.57
08-Ind. Const.	6,657	343	1.84	122	0.65	59	0.31	5,983	32.10	150	0.80
09-Facil. Const.	30,790	1,340	1.83	199	0.27	445	0.61	24,667	33.85	4,139	5.68
10-M. & R.	13,922	432	2.04	55	0.26	57	0.26	13,181	62.31	197	0.93
Construction Total	92,678	3,647	1.65	882	0.40	1,090	0.49	79,923	28.54	7,136	3.24

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Sector Name & Number	Total Final Payment	Federal	Federal as % Gr.Out.	State	State as % Gr.Out.	Local	Local as % Gr.Out.	Household	H. H. as % Gr.Out.	Deprec- iation	Deprec. as % Gr.Out.
MANUFACTURING											
11-Food Process	29,530	1,677	1.95	117	0.13	274	0.31	26,030	30.28	1,432	1.66
12-Textile/Apparel	74,460	4,995	2.65	1,276	0.67	1,042	0.55	66,130	35.11	1,017	0.54
13-Lumber	2,665	102	1.51	7	0.10	36	0.53	2,389	35.39	131	1.94
14-Furniture	821	92	3.83	15	0.62	10	0.41	621	25.87	83	3.45
15-Boxes/Paper	165	17	2.42	3	0.42	5	0.71	135	19.28	5	0.71
16-Printing/Publish.	7,775	288	2.14	126	0.92	84	0.62	6,599	49.24	678	5.05
17-Chemicals	2,117	40	0.65	34	0.55	50	0.81	1,648	26.88	345	5.62
18-Petroleum	34,554	6,355	3.29	3,670	1.90	226	0.11	20,193	10.46	4,110	2.13
19-Rubber/Leather	3,666	342	4.07	72	0.85	59	0.70	3,182	37.88	11	0.13
20-Glass/Clay/Stone	2,373	118	2.33	59	1.16	79	1.56	2,102	41.62	15	0.29
21-Cement/Concrete	5,489	304	2.19	154	1.10	229	1.64	3,566	25.69	1,236	8.90
22-Primary Metal	48,091	2,153	1.53	187	0.13	573	0.40	42,290	30.10	2,888	2.05
23-Fabri. Metal	7,890	639	3.02	112	0.53	120	0.56	6,448	30.55	571	2.70
24-Machinery	1,152	67	3.08	15	0.69	22	1.01	1,017	46.86	31	1.42
25-Scientific Inst.	7,761	702	4.49	60	0.38	79	0.50	6,338	40.55	582	3.72
26-All Other Mfg.	533	41	4.42	7	0.72	5	0.51	319	34.88	161	16.59
Total Manufacturing	229,042	17,932	2.54	5,914	0.83	2,893	0.41	189,007	26.84	13,296	1.88
TRANSPORTATION											
27-Railroad Trans.	7,720	610	4.52	24	0.17	246	1.82	6,037	44.73	803	5.95
28-Intercity/Freight	13,721	830	3.22	933	3.62	116	0.45	11,581	44.95	261	1.01
29-Truck/Warehouse	784	62	4.82	10	0.77	36	2.79	631	49.06	45	3.49
30-Air Trans.	3,104	313	3.70	5	0.05	15	0.17	2,744	32.48	27	0.31
31-All Other Trans.	1,896	82	2.09	18	0.46	48	1.22	1,540	39.40	208	5.32
Total Transportation	27,225	1,896	3.58	990	1.87	464	0.87	22,533	42.59	1,344	2.54

Sector Name & Number	Total Final Payment	Federal	Federal as % Gr.Out.	State	State as % Gr.Out.	Local	Local as % Gr.Out.	Household	H. H. as % Gr.Out.	Deprec- iation	Deprec. as % Gr.Out.
COMMUNICATIONS											
32-Telephone & Tel.	16,955	3,560	13.32	610	2.28	1,083	4.05	7,643	28.60	4,059	15.19
33-Radio/TV/Etc.	2,267	235	4.73	36	0.72	45	0.90	1,692	34.11	259	5.22
Total Communications	19,222	3,795	11.98	646	2.03	1,128	3.56	9,335	29.47	4,318	13.63
UTILITIES											
34-Gas Utility	21,533	1,819	4.68	507	1.30	1,261	3.24	15,071	88.77	2,875	7.39
35-Electric Utility	21,306	4,392	14.33	540	1.76	1,894	6.18	11,602	37.86	2,878	9.39
36-Water Utility	4,180	59	0.73	0	0.00	0	0.00	2,924	36.60	1,197	14.98
Total Utilities	47,019	6,270	8.09	1,047	1.35	3,155	4.07	29,597	38.19	6,950	8.96
WHOLESALE/RETAIL TRADES											
37-Whsle. Auto Parts	17,755	323	1.05	276	0.89	376	1.22	15,904	51.84	876	2.85
38-Whsle. Grocery	1,589	153	3.49	39	0.89	55	1.25	1,243	28.37	99	2.26
39-Whsle. Farm Prod.	1,884	61	1.05	12	0.20	17	0.29	1,789	31.04	5	0.08
40-Whsle. Livestock	154	0	0.00	5	0.45	7	0.63	142	12.78	0	0.00
41-Whsle. Machinery	9,836	1,332	8.99	212	1.46	251	1.69	7,735	52.25	306	2.06
42-Whsle. Petroleum	5,963	346	4.03	85	0.99	130	1.51	4,775	55.71	627	7.31
43-General Whsle.	34,598	2,431	4.93	817	1.65	875	1.77	29,865	60.57	610	1.23
44-Lumber Yds/Hdwre.	3,992	237	3.53	26	0.38	117	1.74	3,323	49.53	289	4.30
45-Dept. Store/Mail Ord.	28,643	4,252	8.72	99	0.20	737	1.51	21,807	44.76	1,748	3.58
46-Food Stores	18,244	679	2.67	218	0.85	248	0.97	16,403	64.59	696	2.74
47-Auto Dealers	11,204	626	2.16	13	0.04	110	0.38	9,967	34.50	488	1.68
48-Gas Serv. Stations	5,681	507	5.40	59	0.62	139	1.48	4,706	50.13	270	2.87
49-Apparel/Accessories	5,391	447	4.35	75	0.73	82	0.79	4,592	44.73	195	1.89
50-Furniture	7,953	305	1.87	57	0.35	186	1.14	6,840	42.07	565	3.47
51-Eat & Drink	15,621	521	2.53	154	0.74	194	0.94	13,159	63.94	1,593	7.74
52-All Other Retail	12,496	399	2.20	1,073	5.92	1,212	6.69	9,500	52.42	312	1.72
Total W. R. T.	181,004	12,619	4.22	3,220	1.07	4,736	1.58	151,750	50.77	8,679	2.90

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Sector Name & Number	Total Final Payment	Federal	Federal as % Gr.Out.	State	State as % Gr.Out.	Local	Local as % Gr.Out.	Household	H. H. as % Gr.Out.	Deprec- iation	Deprec. as % Gr.Out.
F.I.R.E.											
53-Bank & Credit	28,509	2,949	8.05	294	0.80	1,137	3.10	23,195	63.32	934	2.54
54-Insr. Carriers	10,074	360	1.95	783	4.25	69	0.37	8,831	47.97	31	0.16
55-F.I.R.E. n.e.c.	13,229	232	1.00	222	0.96	1,597	6.90	9,262	40.05	1,916	8.28
Total F.I.R.E.	51,812	3,541	4.53	1,299	1.66	2,803	3.58	41,288	52.82	2,881	3.68
SERVICES											
56-Legal, Accounting	12,579	160	1.01	20	0.12	118	0.74	12,030	75.94	251	1.58
57-Lodging	6,591	342	2.35	624	4.29	299	2.05	3,853	26.51	1,473	10.13
58-Personal.Photog.	14,421	397	1.93	103	0.50	143	0.69	12,329	60.12	1,449	7.06
59-Advertising	2,523	76	1.33	38	0.66	48	0.84	2,239	39.23	122	2.13
60-Motion Pic./Recrea.	3,932	66	0.92	51	0.71	254	3.57	2,953	41.55	608	8.55
61-Auto Rental	2,912	76	1.24	37	0.60	27	0.44	1,786	29.18	986	16.11
62-Elec./Msc. Repair	3,358	143	2.18	42	0.64	59	0.89	2,930	44.69	184	2.80
63-Medical	22,930	1,547	4.12	51	0.13	114	0.30	19,628	52.29	1,590	4.23
63-Educational	41,481	1,665	2.27	3	0.00	69	0.09	35,660	49.07	4,084	5.62
65-Engineering/Arch.	1,651	79	3.34	14	0.59	8	0.33	1,511	63.97	39	1.65
66-All Other Profess.	22,601	1,706	4.28	285	0.71	313	0.78	19,013	47.72	1,284	3.22
Total Services	134,979	6,257	2.73	1,268	0.55	1,452	0.63	113,932	49.80	12,070	5.27
GRAND TOTAL	$835,662	$60,182	3.33	$16,435	0.91	$22,045	1.22	$673,997	37.34	$63,003	3.49

to local households. Payments by the manufacturing sectors amounted to 28.04 percent of total household income from the processing sectors. Wholesale/retail trade sectors were the second highest contributors to household income. They paid 50.77 percent of their total expenditures to households. This payment amounted to 22.51 percent of total household income from the processing sectors. The lowest contribution came from the communications sectors, which paid 29.47 percent of their expenditures to households, but this amounted to only 1.38 percent of total household income from the processing sectors. Among all processing sectors, mining sectors paid the highest proportion of their expenditures to households, namely 60.04 percent. But because of the low output of mining sectors in the regional economy, their contribution was only 3.71 percent of total household income. Financial institutions paid 52.82 percent of the value of their output. This payment amounted to only 6.12 percent of household income from the processing sectors.

Depreciation: Depreciation, or capital consumption allowance, amounted to $63,003 thousand, or 3.49 percent of the total expenditures by the processing sectors. It is felt that the amount of depreciation cited in the survey is not fully reliable, since in most cases it was based on an estimate given by the officers of the interviewed firms. Further research is needed if the results are to be used for dynamic analysis of the regional economic structure.

FINAL DEMAND

Final demand for the regional economy was represented by seven sectors, namely Federal government, State government, local government, households, exports, net inventory change and capital formation. The total value of final demand, which was equivalent to gross regional product in 1967, was $1,492,969 thousand. Households constituted the largest users of goods and services in the region. Their demand was valued at $816,488 thousand or 54.68 percent of the total final demand. Federal government was a close second to households. It pumped $494,786 thousand into final demand, i.e., it contributed 33.14 percent to gross regional product. Local government consumed 6.07 percent of final demand, and State government only 3.11 percent. The export trade in the region showed a deficit of 2.56 percent of final demand. Inventory additions during 1967 amounted to $2,170 thousand, or 0.14 percent of final demand. Inventory change in the model was assumed to represent only finished goods valued at 1967 producers' prices. Capital formation amounted to $80,615 thousand, or 5.39 percent of total final demand. However, further research is needed in the areas of inventory change and capital formation if the model is to be used for dynamic structural analysis. It is felt that the data concerning these two sectors are not completely reliable, and lack too much detail to be useful for detailed dynamic analysis. Table 10 shows the components of final demand sector by sector for all regional processing sectors.

Components of Final Demand

Agriculture: Agriculture delivered more than half its output to

TABLE 10. Final Demand for the Region - Upper Rio Grande Valley - Texas 1967
(Transactions shown in Thousand Dollars)

Sector Name & Number	Total Final Demand	Federal	Federal % of Gr.Out.	State	State % of Gr. Out.	Local	Local % of Gr.Out.	House-hold	H.H. % of Gr.Out.	Inven-tory	Inv. % of Gr.Out.	Capital Form.	Capital % of Gr. Out.
AGRICULTURE													
01-Irrigated Crops	$ 16,615	$12,630	48.39	$ 0	0.00	$ 0	0.00	$ 656	2.51	0	0.00	$ 0	0.00
02-Livk/Dairy/Poultry	39,069	3,320	8.27	1	0.00	0	0.00	1,548	3.85	0	0.00	0	0.00
03-Agri.Supply	383	0	0.00	0	0.00	0	0.00	383	100.00	0	0.00	0	0.00
04-Agri. Service	2,086	0	0.00	0	0.00	0	0.00	434	10.14	0	0.00	0	0.00
Total Agriculture	58,153	15,950	22.50	1	0.00	0	0.00	3,021	4.26	0	0.00	0	0.00
MINING													
05-All Mining	33,668	0	0.00	95	0.22	0	0.00	0	0.00	0	0.00	0	0.00
CONSTRUCTION													
06-Res. Const.	54,149	3,947	7.28	0	0.00	0	0.00	0	0.00	0	0.00	39,486	72.92
07-Comm. Const.	53,146	11,329	21.31	3,526	6.63	8,599	16.17	0	0.00	0	0.00	23,454	44.13
08-Ind. Const.	18,638	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	14,660	78.65
09-Facil. Const.	72,866	45,948	63.05	15,431	21.17	8,469	11.52	0	0.00	0	0.00	2,374	3.25
10-M. & R.	5,914	337	1.59	55	0.26	61	0.28	5,461	25.81	0	0.00	0	0.00
Total Construction	204,713	61,561	27.98	19,012	8.64	17,129	7.78	5,461	2.48	0	0.00	79,974	36.35

Sector Name & Number	Total Final Demand	Federal	Federal % of Gr.Out.	State	State % of Gr.Out.	Local	Local % of Gr.Out.	House- hold	H.H. % of Gr.Out.	Inven- tory	Inv. % of Gr.Out.	Capital Form.	Capital % of Gr.Out.
MANUFACTURING													
11-Food Process	79,498	2,775	3.22	78	0.09	0	0.00	61,678	71.76	-860	-1.00	0	0.00
12-Textile, Apparel	182,279	4,846	2.57	20	0.01	0	0.00	6,712	3.56	2,956	1.56	0	0.00
13-Lumber	1,075	108	2.66	30	0.44	0	0.00	253	3.74	322	4.77	362	5.36
14-Furniture	1,971	200	8.33	99	4.12	26	1.08	255	10.62	-7	-0.29	97	4.04
15-Boxes/Paper	414	79	11.28	5	0.71	0	0.00	42	6.00	3	0.42	58	8.28
16-Print./Publishing	10,732	0	0.00	26	0.19	60	0.44	5,789	43.20	-44	-0.32	0	0.00
17-Chemicals	2,579	1,083	17.66	130	2.12	216	3.52	581	9.47	35	0.57	0	0.00
18-Petroleum	171,312	1,088	0.56	211	0.10	0	0.00	14,513	7.52	-1,589	-0.82	0	0.00
19-Rubber/Leather	7,615	40	0.47	185	2.20	0	0.00	2,026	24.11	530	6.32	0	0.00
20-Glass/Clay/Stone	1,261	740	14.65	107	2.11	100	1.98	610	12.07	-296	-5.86	0	0.00
21-Cement/Concrete	1,646	0	0.00	31	0.22	0	0.00	0	00.00	-33	-0.23	0	0.00
22-Primary Metal	122,953	1,421	1.01	116	0.08	100	0.07	3,000	2.13	80	0.05	0	0.00
23-Fabri. Metal	14,174	1,587	7.52	15	0.07	10	0.04	5,000	23.69	681	3.22	124	0.58
24-Machinery	1,140	655	30.18	116	5.34	0	0.00	321	14.79	48	2.21	0	0.00
25-Scientific Inst.	13,638	2,158	13.80	22	0.14	46	0.29	2,362	15.11	0	0.00	0	0.00
26-All Other Mfg.	378	62	6.39	12	1.23	0	0.00	300	30.92	4	0.41	0	0.00
Total Manufacturing	612,665	16,842	2.39	1,203	0.17	558	0.07	103,442	14.69	1,830	0.25	641	0.09
TRANSPORTATION													
27-Railroad Trans.	1,660	427	3.16	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
28-Intercity/Freight	15,877	4,132	16.03	20	0.07	0	0.00	2,671	10.36	0	0.00	0	0.00
29-Truck/Warehouse	0	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
30-Air Trans.	4,952	2,045	24.21	11	0.13	40	0.47	2,857	33.82	0	0.00	0	0.00
31-All Other Trans.	2,465	265	6.78	0	0.00	0	0.00	2,200	56.29	0	0.00	0	0.00
Total Transportation	24,954	6,869	12.98	31	0.05	40	0.07	7,728	14.60	0	0.00	0	0.00

Table 10, Page 3

Sector Name & Number	Total Final Demand	Federal	Federal % of Gr.Out.	State	State % of Gr.Out.	Local	Local % of Gr.Out.	House-hold	H.H. % of Gr.Out.	Inven-tory	Inv. % of Gr.Out.	Capital Form.	Capital % of Gr.Out.
COMMUNICATIONS													
32-Tel. & Tel.	14,534	3,809	14.25	206	0.77	325	1.21	10,194	38.15	0	0.00	0	0.00
33-Radio/RV/Etc.	2,945	2,815	56.76	70	1.41	60	1.20	0	0.00	0	0.00	0	0.00
Total Communications	17,479	6,624	20.91	276	0.87	385	1.21	10,194	32.18	0	0.00	0	0.00
UTILITIES													
34-Gas Utility	17,514	2,530	6.50	17	0.04	172	0.44	8,695	22.37	0	0.00	0	0.00
35-Electric Utility	14,649	2,336	7.62	111	0.36	599	1.95	9,795	31.96	0	0.00	0	0.00
36-Water Utility	5,247	1,191	14.90	16	0.20	880	11.01	3,160	39.55	0	0.00	0	0.00
Total Utilities	37,410	6,057	7.81	144	0.18	1,651	2.03	21,650	27.95	0	0.00	0	0.00
WHOLESALE/RETAIL TRADE													
37-Whsle. Auto Parts	22,545	2,500	8.14	25	0.08	945	3.08	13,143	42.84	0	0.00	0	0.00
38-Whsle. Groceries	3,817	565	12.89	0	0.00	0	0.00	3,252	74.24	0	0.00	0	0.00
39-Whsle. Farm Prod.	5,282	0	0.00	0	0.00	0	0.00	500	8.67	0	0.00	0	0.00
40-Whsle. Livestock	920	100	9.00	0	0.00	0	0.00	200	18.00	0	0.00	0	0.00
41-Whsle. Machines	8,958	1,430	9.66	77	0.52	225	1.52	2,180	14.72	0	0.00	0	0.00
42-Whsle. Petroleum	6,161	1,072	12.51	111	1.29	102	1.19	2,548	29.74	0	0.00	0	0.00
43-Whsle. General	39,763	2,594	5.26	54	0.10	1,030	2.08	13,213	26.80	0	0.00	0	0.00
44-Lumber Yrds., Etc.	5,778	500	7.45	0	0.00	49	0.73	4,701	70.08	0	0.00	0	0.00
45-Dept. Stores, Etc.	48,694	0	0.00	0	0.00	0	0.00	28,738	58.99	0	0.00	0	0.00
46-Food Stores	25,217	0	0.00	0	0.00	0	0.00	25,217	99.30	0	0.00	0	0.00
47-Auto Dealers	26,593	0	0.00	0	0.00	150	0.51	26,443	91.55	0	0.00	0	0.00
48-Gas Serv. Stations	6,311	0	0.00	0	0.00	563	5.99	5,748	61.24	0	0.00	0	0.00
49-Apparel/Acces.	10,265	0	0.00	0	0.00	0	0.00	10,265	100.00	0	0.00	0	0.00
50-Furniture	16,258	0	0.00	0	0.00	0	0.00	14,058	86.46	0	0.00	0	0.00
51-Eat & Drink	19,423	0	0.00	0	0.00	10	94.32	19,413	0.04	0	0.00	0	0.00
52-All Other Retail	17,330	0	0.00	1	0.00	0	95.00	17,207	0.00	0	0.00	0	0.00
Total W. R. T.	263,315	8,761	2.93	268	0.08	3,074	1.02	186,826	62.50	0	0.00	0	0.00

Sector Name & Number	Total Final Demand	Federal	Federal % of Gr.Out.	State	State % of Gr.Out.	Local	Local % of Gr.Out.	House-hold	H. H. % of Gr.Out.	Inven-tory	Inv. % of Gr.Out.	Capital Form.	Capital % of Gr.Out.
F.I.R.E.													
53-Bank & Credit	10,866	0	0.00	0	1.07	395	1.07	10,471	28.58	0	0.00	0	0.00
54-Ins. Carriers	5,976	495	2.68	6	0.03	116	0.63	5,359	29.11	0	0.00	0	0.00
55-F.I.R.E. n.e.c.	10,063	0	0.00	0	0.00	131	0.56	9,932	42.95	0	0.00	0	0.00
Total F.I.R.E.	26,905	495	0.63	6	0.00	642	0.82	25,762	32.96	0	0.00	0	0.00
SERVICES													
56-Legal and Accounting	6,544	1,660	10.47	23	0.14	251	1.58	4,610	29.10	0	0.00	0	0.00
57-Lodging	12,352	0	0.00	0	0.00	25	0.17	1,878	12.92	82	0.56	0	0.00
58-Personal Services	18,646	174	0.84	0	0.00	0	0.00	18,343	89.45	0	0.00	0	0.00
59-Advertising	608	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
60-Motion Pictures	5,902	0	0.00	0	0.00	0	0.00	5,902	79.68	0	0.00	0	0.00
61-Auto Rentals	1,206	203	3.31	0	0.00	10	0.16	993	16.22	0	0.00	0	0.00
62-Electric & Misc	4,431	156	2.37	18	0.27	0	0.00	3,094	47.19	223	3.40	0	0.00
63-Medical	37,272	2,061	5.49	7	0.01	0	0.00	29,913	79.69	35	0.09	0	0.00
64-Educational	72,659	7,329	10.08	0	0.00	0	0.00	61,686	84.89	0	0.00	0	0.00
65-Engineering/Arch.	1,199	556	23.53	31	1.31	250	10.58	72	3.04	0	0.00	0	0.00
66-All Other Profess.	18,336	4,125	10.35	133	0.33	895	2.25	7,775	19.51	0	0.00	0	0.00
Total Services	179,155	16,264	7.10	212	0.09	1,431	0.62	134,266	58.69	340	0.14	0	0.00
QUADRANT IV													
67-Imports	0	4,399	0.00	525	0.00	0	0.00	102,363	0.00	0	0.00	0	0.00
68-Federal	0	0	0.00	0	0.00	0	0.00	154,526	0.00	0	0.00	0	0.00
69-State	0	10,064	0.00	0	0.00	0	0.00	15,347	0.00	0	0.00	0	0.00
70-Local	0	5,494	0.00	13,659	0.00	0	0.00	22,500	0.00	0	0.00	0	0.00
71-Household	0	335,407	0.00	11,062	0.00	65,848	0.00	23,400	0.00	0	0.00	0	0.00
72-Depreciation	0	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Total Quadrant IV	0	350,965	0.00	24,721	0.00	65,848	0.00	215,773	0.00	0	0.00	0	0.00
GRAND TOTAL	$179,155	$494,786	27.41	$46,494	2.57	$90,758	5.02	$816,488	45.24	$2,170	0.12	$80,615	4.46

export markets. Federal government paid for 22.5 percent of agricultural output. Households bought only 4.26 percent of the production of agricultural sectors.

Mining: Mining sectors exported the bulk of their output. Export markets bought 80.48 percent of all mining production.

Construction: Construction sectors delivered 93.03 percent of their output to ultimate users. Capital formation received the highest share, namely 36.35 percent of total construction. Federal government purchased 27.98 percent of all construction output. State and local government purchased about 8.0 percent each of total production. Households bought 2.48 percent of output. It is to be noted, however, that households actually bought about 20 percent of all construction output through buying new residential homes. According to the conventions followed by national income accounts, new residential construction was charged to the capital formation sector. The value shown as purchased by households in final demand actually represents only payments for maintenance and repair construction.

Manufacturing: Manufacturing sectors delivered more than two-thirds of their output to export markets (69.32 percent). Households bought 14.69 percent from the manufacturing sectors. The Federal government paid for 2.39 percent of manufacturing output. The rest of final demand sectors contributed less than one percent to the sales of the manufacturing sectors.

Transportation: Transportation sectors delivered 47.14 percent of their output to final demand sectors. The largest user of transportation in final demand was the export market, which consumed 19.44 percent of the output of the industry. Households used 14.6 percent of the output and the Federal government paid for 12.98 percent of the output. State and local governments bought insignificant amounts of transportation.

Communications: Communications sectors delivered 55.17 percent of their output to final demand sectors. Households purchased 32.18 percent of the output of the industry, mostly for telephones. The Federal government purchased 20.91 percent. Again, State and local governments bought insignificant amounts from the industry.

Utilities: Utilities sectors delivered slightly less than half their output to final demand sectors. The largest purchaser of utilities was the households sector, which purchased 27.95 percent of the industry's output. Because of the geographical location of the region, the utilities were able to export to border communities 10.2 percent of their output. The Federal government purchased 7.81 percent of utilities' output, while the State government bought an insignificant amount. Local government purchased 2.13 percent of utilities' output.

Wholesale and Retail Trade: Wholesale/retail trade sectors delivered 88.07 percent of their output to final demand sectors. Households bought 62.50 percent of the industry's output. Again, due to the proximity to the border, the trade delivered 21.54 percent of its output to the export markets. Public agencies bought only 4.0 percent of the industry's

output.

Financial, Insurance and Real Estate: Financial, insurance and real estate sectors delivered about one-third of their output to final demand sectors. Most of ultimate use was consumed by the households sector, which bought 32.96 percent of the industry's output.

Service Sectors: Service sectors delivered 78.28 percent of their output to final demand sectors. Households bought 58.69 percent of the industry's output. The export market, through border communities, bought 11.64 percent of the service sector's output. The Federal government bought about 7.0 percent of the industry's output, while the State and local governments bought insignificant amounts.

Imports: The largest importer in the final demand sectors was the households sector, which imported 14.02 percent of total imports by the region. Household imports were computed by a judicious combination of judgment and the residual method. It is not unreasonable for residents of El Paso (which lies directly across the border from Juarez, Mexico) and residents of the border cities in the region to spend approximately 10 percent of their disposable income in Mexico, i.e., on imports.

Since imports represent a leakage outside the region they are usually considered as negative exports, i.e., the trade balance between the region and the outside world is reduced by the amounts of exports. Therefore the sum total of the amounts paid by the regional processing sector is entered in the export column as a negative number, thereby allowing the total of the entries in the final demand columns to become a realistic and true representation of the gross regional product.

Federal Government: Households paid to the Federal government in 1967 an amount estimated at $154,526 thousand. This amount, which is approximately 14 percent of total household income, as indicated by the regional household study, was computed by the residual method. It is, however, very close to the national average, taking into consideration the preponderance of low-income groups and migratory Mexican Nationals in the regional work force.

State Government: The State government row in the fourth quadrant of the transactions flow matrix includes a payment by Federal government of $5,494 thousand, and payment by the State of $13,659 thousand, and a payment by households of $22,500 thousand, which largely represents property and school district taxes.

Households: The Federal government pays households in the region the amount of $355,407 thousand, which is more than 50 percent of household income from all processing sectors in the region. This fact shows the high degree of dependency of the region on Federal expenditures. The households row in final demand shows the amount of $23,400 thousand paid by households to households. This amount reflects the predominance of domestic servants in the region's households.

IMPORTS AND EXPORTS

The region, like most regional (sub-national) economies, is an open, specialized economy. Its economic structurs is much less diversified than the national economy. It is highly dependent on export trade--as the moving force behind the economy--and on imports to meet the needs of production that do not exist locally. Regional imports, however, are not confined to goods and services that are not produced locally. Like many other regional economies in the nation, a substantial amount of crosshauling of products does occur in this region. The contents of the import trade in the region include many products that are also produced locally.

Imports were divided in the survey into competitive and non-competitive imports. Competitive imports comprise the goods and services that do have a local counterpart produced in the region. Non-competitive imports have no counterpart produced locally. It is admitted here that the designation of a product as competitive is somewhat arbitrary. As an example, textile mills in the region produce less than $3 million worth of cloth, while the local apparel industry imported in 1967 approximately $84 million of cloth to meet its production needs. Oil wells in the region produced approximately $5 million worth of crude oil, while the local petroleum industry imported about $145 million worth of petroleum for its refineries. In both cases, it can be argued that both cloth and petroleum cannot be considered as competitive imports because the locally-produced portions of both products constitute an insignificant proportion of the amount needed by the local industry to meet its demand. It was decided here, however, to consider both of the above products as competitive imports for the following reasons: (1) to maintain a consistent definition of competitive imports throughout the survey-- namely, all goods and services that have a locally-produced counterpart; (2) to provide the means to build a transactions flow matrix that shows the actual production functions of the regional processing sections; such a matrix can be helpful to industries that are interested in comparing their production functions with their national counterparts; (3) to be able to show the actual potential of growth in the local economy for products that do have an existing local market and existing production facilities--albeit small. In other words, the transactions matrix built this way indicates quite forcefully to local policy makers in the business community and to government planners the areas where industrial development can expand endogenously, wherever natural resources permit, without waiting for or depending on changes in final demand sectors which fall outside the control of local decision makers.

However, to be consistent with other traditional regional input-output tables--including the Texas State and other regional models--the transactions flow matrix developed here was based on locally-produced goods and services. Imports, both competitive and non-competitive, are combined together for this matrix in one row outside the processing sectors. Such a matrix has the advantage of showing the realistic local input coefficients for the regional processing sectors. Multipliers derived from this matrix would show the direct plus indirect requirements from the local sectors as a result of an increase in final demand, regardless of

the impact on imports, provided that local industry expanded to meet only the increase in its local share of the increase in final demand.

The analysis of the results in this report was confined to the regional tables based on strictly locally-produced goods and services. To make the analysis complete, this sector is added to show the content of the import and export trade. It is to be noted here that exports are charged to the producing industry as a part of its output, while imports are charged to the purchasing industry as a part of its cost of material.[28] Table 11 shows the components of imports and exports sector by sector for all regional processing sectors.

The Components of Imports and Exports

Agriculture: Agriculture sectors imported goods and services valued at $27,247 thousand. Imports constituted 37.03 percent of the total value of agricultural products in the region. The imports included $5,250 thousand worth of non-competitive products and $20,997 thousand worth of competitive goods and services. Agricultural sectors sold 55.28 percent of their output to export markets, bringing the region to $39,181 thousand.

Mining: Mining sectors imported $6,524 thousand, which included $1,215 thousand of non-competitive products and $5,309 thousand of competitive products. The mining industry exported 80.49 percent of its output at a value of $33,573 thousand.

Construction: The construction industry paid 31.75 percent of all its expenditures to foreign processors. Its imports comprised $43,099 thousand for non-competitive imports and $26,735 for competitive imports. Exports of construction activities in 1967 were valued at $21,576 thousand.

Manufacturing: The manufacturing sectors imported 61.95 percent of all goods and services imported by all processing sectors. The industry imported 54.79 percent of its input requirements from non-local processors. Manufacturing imports included $97,226 thousand of non-competitive products and $283,616 thousand of competitive products. The industry contributed 70.57 percent of all export trade by processing sectors. Manufacturing sectors exports were valued at $488,149 thousand.

Transportation: The transportation sectors imported 16.3 percent of their input requirements. Imports were composed of $4,635 thousand of non-competitive products and $3,992 thousand of competitive products. Exports by the industry amounted to 19.46 percent of its output and were valued at $10,287 thousand.

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[28]The data for import trade under the convention of treating competitive imports like secondary products and charging them as purchases by the importing industry from the counterpart producing industry are available (unpublished results of the survey) for further study.

TABLE 11 Imports and Exports by Processing Sector for the Region - Upper Rio Grande Valley - Texas 1967

SECTOR NAME & NUMBER	GROSS OUTPUT	GR. OUT. % OF TOT. PROCESSING SECTS.OUT.	IMPORTS	IMPORTS AS % OF GR. OUT.	IMPORTS % OF TOT PROCESS	NON-COMP IMPORTS	NON-COMP AS % OF GR. OUT.	NON-COMP % OF TOT PROCESS	COMPET. IMPORTS	COMPET. AS % OF GR. OUT.	COMPET. % OF TOT PROCESS	EXPORTS	EXPORTS AS % OF GR. OUT.	EXPORTS % OF TOT PROCESS
AGRICULTURE														
01-Irr. Crops	$ 26,100	1.44	$ 9,641	36.94	1.54	$ 2,829	10.84	1.19	$ 6,812	26.09	1.76	$ 3,329	12.75	0.48
02-Livk./Dairy/Poultry	40,110	2.22	15,003	37.40	2.40	1,079	2.69	0.45	13,924	34.71	3.61	34,200	85.27	4.94
03-Agri. Supply	383	0.02	55	14.36	0.00	11	2.87	0.00	44	11.48	0.00	0	00.00	0.00
04-Agri. Service	4,280	0.23	1,568	36.64	0.25	1,331	31.10	0.56	237	5.53	0.06	1,652	38.60	0.23
Total Agriculture	70,873	3.92	26,247	37.03	4.21	5,250	7.40	2.21	20,997	29.62	5.45	39,181	55.28	5.66
MINING														
05-All Mining	41,713	2.31	6,524	15.64	1.04	1,215	2.91	0.51	5,309	12.72	1.37	33,573	80.49	4.85
CONSTRUCTION														
06-Resd.Const.	54,149	3.00	24,172	44.64	3.88	17,420	32.17	7.33	6,752	12.46	1.75	10,716	19.79	1.54
07-Comm.Const.	53,146	2.94	17,917	33.71	2.87	9,717	18.28	4.09	8,200	15.42	2.12	6,238	11.74	0.90
08-Ind.Const.	18,638	1.03	7,501	40.25	1.20	4,307	23.11	1.81	3,194	17.13	0.82	3,978	21.34	0.57
09-Facil.Const.	72,866	4.03	16,914	23.21	2.71	10,014	13.74	4.21	6,900	9.46	1.79	644	0.88	0.09
10-M. & R.	21,153	1.17	3,341	15.79	0.53	1,641	7.76	0.69	1,700	8.03	0.44	0	0.00	0.00
Total Construction	219,952	12.18	69,845	31.75	11.21	43,099	19.59	18.14	26,746	12.15	6.94	21,576	9.80	3.11

SECTOR NAME & NUMBER	GROSS OUTPUT	GR. OUT. % OF TOT. PROCESSING SECTS.OUT.	IMPORTS	IMPORTS AS % OF GR. OUT.	IMPORTS % OF TOT PROCESS	NON-COMP IMPORTS	NON-COMP AS % OF GR. OUT.	NON-COMP % OF TOT PROCESS	COMPET. IMPORTS	COMPET. AS % OF GR. OUT.	COMPET. % OF TOT PROCESS	EXPORTS	EXPORTS AS % OF GR. OUT.	EXPORTS % OF TOT PROCESS
MANUFACTURING														
11-Food Process	85,940	4.76	43,925	51.11	7.05	19,828	23.07	8.34	24,097	28.03	6.25	15,827	18.41	2.28
12-Textile/Apparel	188,300	10.43	97,014	51.52	15.57	12,410	6.59	5.22	84,604	44.93	21.96	167,745	89.08	24.25
13-Lumber	6,750	0.37	2,232	33.06	0.35	201	2.96	0.08	2,031	30.08	0.52	0	0.00	0.00
14-Furniture	2,400	0.13	500	20.83	0.08	220	9.16	0.09	280	11.66	0.07	1,301	54.20	0.18
15-Boxes/Paper	700	0.03	333	47.57	0.05	333	47.57	0.14	0	0.00	0.00	227	32.42	0.03
16-Print/Publishing	13,400	0.74	3,784	28.23	0.60	2,304	17.19	0.97	1,480	11.04	0.38	4,901	36.57	0.70
17-Chemicals	6,130	0.33	2,833	46.22	0.45	635	10.35	0.26	2,198	35.85	0.57	534	8.71	0.07
18-Petroleum	192,880	10.68	146,698	76.05	23.55	1,168	0.60	0.49	145,530	75.45	37.77	157,089	81.44	22.71
19-Rubber/Leather	8,400	0.46	3,314	39.45	0.53	528	6.28	0.22	2,786	33.16	0.72	4,834	57.54	0.69
20-Glass/Clay/Stone	5,050	0.27	275	5.44	0.04	254	5.02	0.10	21	0.41	0.00	0	0.00	0.00
21-Cement/Concrete	13,880	0.76	1,122	8.08	0.18	172	1.23	0.07	950	6.84	0.24	1,648	11.87	0.23
22-Primary Metal	140,460	7.78	71,583	50.96	11.49	55,269	39.34	23.26	16,314	11.61	4.23	118,236	84.17	17.09
23-Fabri. Metal	21,100	1.16	7,296	34.57	1.17	1,573	7.45	0.66	5,723	27.12	1.48	6,757	32.02	0.97
24-Machinery	2,170	0.12	350	16.12	0.05	250	11.52	0.10	100	4.60	0.02	0	0.00	0.00
25-Scientific Inst.	15,630	0.86	4,526	28.95	0.72	2,025	12.96	0.85	2,500	15.99	0.64	9,050	57.90	1.30
26-All Other Mfg.	970	0.05	55	5.67	0.00	55	5.67	0.02	0	0.00	0.00	0	0.00	0.00
Total Manufacturing	704,160	39.02	385,840	54.79	61.95	97,226	13.80	40.93	288,614	40.98	74.92	488,149	69.32	70.57
TRANSPORTATION														
27-Railroad Trans.	13,494	0.74	925	6.85	0.14	305	2.26	0.12	620	4.59	0.16	1,233	9.13	0.17
28-Intercity/Freight	25,762	1.42	5,446	21.13	0.87	4,046	15.70	1.70	1,400	5.43	0.36	9,054	35.14	1.30
29-Truck/Warehouse	1,286	0.07	17	1.32	0.00	17	1.32	0.00	0	0.00	0.00	0	0.00	0.00
30-Air Transportation	8,446	0.46	1,925	22.95	0.30	53	0.62	0.02	1,872	22.16	0.48	0	0.00	0.00
31-All Other Trans.	3,908	0.21	314	8.03	0.05	214	5.47	0.09	100	2.55	0.02	0	0.00	0.00
Total Transportation	52,896	2.93	8,627	16.30	1.38	4,635	8.76	1.95	3,992	7.54	1.03	10,287	19.44	1.48

SECTOR NAME & NUMBER	GROSS OUTPUT	GR. OUT. % OF TOT. PROCESSING SECTS.OUT.	IMPORTS	IMPORTS AS % OF GR. OUT.	IMPORTS % OF TOT PROCESS	NON-COMP IMPORTS	NON-COMP AS % OF GR. OUT.	NON-COMP % OF TOT PROCESS	COMPET. IMPORTS	COMPET. AS % OF GR. OUT.	COMPET. % OF TOT PROCESS	EXPORTS	EXPORTS AS % OF GR. OUT.	EXPORTS % OF TOT PROCESS
COMMUNICATIONS														
32-Tel. & Tel.	26,716	1.48	8,212	30.73	1.31	7,912	29.61	3.33	300	1.12	0.07	0	0.00	0.00
33-Radio/TV/Etc.	4,959	0.27	486	9.80	0.07	56	1.12	0.02	430	8.67	0.11	0	0.00	0.00
Total Communications	31,675	1.75	8,698	27.46	1.39	7,968	25.15	3.35	730	2.30	0.18	0	0.00	0.00
UTILITIES														
34-Gas Utility	38,865	2.15	9,291	23.90	1.49	3,221	8.28	1.35	6,070	15.61	1.57	6,100	15.69	0.88
35-Electric Utility	30,639	1.69	4,564	14.89	0.73	1,016	3.31	0.42	3,548	11.58	0.92	1,808	5.90	0.26
36-Water Utility	7,988	0.44	1,239	15.51	0.19	439	5.49	0.18	800	10.01	0.20	0	0.00	0.00
Total Utilities	77,492	4.29	15,094	19.47	2.42	4,676	6.03	1.96	10,418	13.44	2.70	7,908	10.20	1.14
WHOLESALE/RETAIL TRADE														
37-Whsle. Auto Parts	30,676	1.69	9,218	30.04	1.48	9,048	29.49	3.80	170	0.55	0.04	5,932	19.33	0.85
38-Whsle. Grocery	4,380	0.24	858	19.58	0.13	518	11.82	0.21	340	7.76	0.08	0	0.00	0.00
39-Whsle. Farm Prod.	5,762	0.31	1,550	26.90	0.24	6	0.10	0.00	1,544	26.79	0.40	4,782	82.99	0.69
40-Whsle. Livestock	1,111	0.06	440	39.60	0.07	53	4.77	0.02	387	34.83	0.10	620	55.80	0.08
41-Whsle. Machinery	14,801	0.82	1,625	10.97	0.26	1,525	10.31	0.64	100	0.67	0.02	5,046	34.09	0.72
42-Whsle. Petroleum	8,566	0.47	554	6.46	0.08	554	6.46	0.23	0	0.00	0.00	2,328	27.17	0.33
43-General Whsle.	49,300	2.73	4,034	8.18	0.64	2,044	4.14	0.86	1,990	4.03	0.51	22,870	46.38	3.30
44-Lumber Yds/Hdwre.	6,708	0.37	718	10.70	0.11	290	4.32	0.12	428	6.38	0.11	528	7.87	0.07
45-Dept. Store/Mail Ord.	48,710	2.69	12,411	25.47	1.99	9,491	19.48	3.99	2,920	5.99	0.75	19,956	40.96	2.88
46-Food Stores	25,393	1.40	2,748	10.82	0.44	335	1.31	0.14	2,413	9.50	0.62	0	0.00	0.00
47-Auto Dealers	28,883	1.60	8,562	29.64	1.37	8,062	27.91	3.39	500	1.73	0.12	0	0.00	0.00
48-Gas Service Stations	9,386	0.52	186	1.98	0.02	132	1.44	0.05	50	0.53	0.01	0	0.00	0.00
49-Apparel/Accessories	10,265	0.56	2,721	26.50	0.43	2,261	22.02	0.95	460	4.48	0.11	0	0.00	0.00
50-Furniture	16,258	0.90	4,284	26.35	0.68	3,295	20.26	1.38	989	6.08	0.25	2,200	13.53	0.31
51-Eat & Drink	20,580	1.14	1,101	5.34	0.17	721	3.50	0.30	380	1.84	0.09	0	0.00	0.00
52-All Other Retail	18,111	1.00	2,296	12.67	0.36	1,196	6.60	0.50	1,100	6.07	0.28	122	0.67	0.01
Total Wholesale/Retail	298,890	16.56	53,306	17.83	8.55	39,535	13.22	16.64	13,771	4.60	3.57	64,384	21.54	9.30

SECTOR NAME & NUMBER	GROSS OUTPUT	GR. OUT. % OF TOT. PROCESSING SECTS.OUT.	IMPORTS	IMPORTS AS % OF GR. OUT.	IMPORTS % OF TOT PROCESS	NON-COMP IMPORTS	NON-COMP AS % OF GR. OUT.	NON-COMP % OF TOT PROCESS	COMPET. IMPORTS	COMPET. AS % OF GR. OUT.	COMPET. % OF TOT PROCESS	EXPORTS	EXPORTS AS % OF GR. OUT.	EXPORTS % OF TOT PROCESS
F.I.R.E.														
53-Bank & Credit	36,629	2.02	4,894	13.36	0.78	4,694	12.81	1.97	200	0.54	0.05	0	0.00	0.00
54-Insurance Carriers	18,407	1.02	5,639	30.63	0.90	4,589	24.93	1.93	1,050	5.70	0.27	0	0.00	0.00
55-F.I.R.E. n.e.c.	23,121	1.28	1,903	8.23	0.30	1,903	8.23	0.80	0	0.00	0.00	0	0.00	0.00
F.I.R.E. Total	78,157	4.33	12,436	15.91	1.99	11,186	14.31	4.70	1,250	1.59	0.32	0	0.00	0.00
SERVICES														
56-Legal, Accounting	15,841	0.87	188	1.18	0.03	188	1.18	0.07	0	0.00	0.00	0	0.00	0.00
57-Lodging	14,534	0.80	2,771	19.06	0.44	421	2.89	0.17	2,350	16.16	0.61	10,367	71.32	1.49
58-Personal/Photography	20,505	1.13	1,947	9.47	0.31	1,867	9.10	0.78	80	0.39	0.02	129	0.62	0.01
59-Advertising	5,706	0.31	2,095	36.71	0.33	495	8.67	0.20	1,600	28.04	0.41	608	10.65	0.08
60-Motion Pic./Recreation	7,107	0.39	1,395	19.62	0.22	1,078	15.17	0.45	317	4.46	0.08	0	0.00	0.00
61-Auto Rental	6,120	0.33	783	12.79	0.12	698	11.40	0.29	85	1.38	0.02	0	0.00	0.00
62-Elec. & Misc. Rep.	6,556	0.36	2,093	31.92	0.33	893	13.62	0.37	1,200	18.30	0.31	940	14.33	0.13
63-Medical	37,536	2.08	5,473	14.58	0.87	4,137	11.02	1.74	1,336	3.55	0.34	5,256	14.00	0.75
64-Educational	72,659	4.02	14,314	19.70	2.29	9,914	13.64	4.17	4,400	6.05	1.14	3,644	5.01	0.52
65-Engineering/Arch.	2,362	0.13	209	8.84	0.03	209	8.84	0.08	0	0.00	0.00	9	12.27	0.04
66-All Other Professional	39,839	2.20	4,850	12.17	0.77	2,830	7.10	1.19	2,020	5.07	0.52	5,408	13.57	0.78
Total Services	228,765	12.67	36,118	15.78	5.79	22,730	9.93	9.56	13,388	5.85	3.47	26,642	11.64	3.85
GRAND TOTALS	$1,804,573	99.69	$622,755	34.50	99.93	$237,520	13.16	99.73	$388,215	21.34	99.72	$691,700	38.33	99.75

Communications: The communications industry imported 27.46 percent of their input requirements. Imports comprised $7,968 thousand of non-competitive products and $3,992 thousand of competitive products. The industry reported no exports.

Utilities: The utilities sectors imported 19.47 percent of their input requirements. Imports comprised $4,676 thousand of non-competitive products and $10,418 thousand of competitive products. The industry exported 10.20 percent of its output at a value of $7,908 thousand.

Wholesale and Retail Trade: The wholesale and retail trade sector imported 17.83 percent of their input requirements at a value of $53,306 thousand. This amount does not include the value of the goods imported by the industry for resale. Imports included $39,535 thousand of non-competitive imports and $13,771 thousand of competitive products. This industry exported 21.54 percent of its total output valued at $64,384 thousand.

Financial Sectors: The financial, real estate and banking sectors imported 15.91 percent of their input requirements at a value of $12,436 thousand. Imports comprised $11,186 thousand of non-competitive products and $1,250 thousand of competitive products. The industry reported no exports.

Services: The services sector imported 15.78 percent of their input requirements valued at $36,118 thousand. Imports comprised $22,730 thousand of non-competitive products and $13,388 thousand of competitive products. The industry exported 11.64 percent of its output at a value of $26,642 thousand.

MANPOWER AND WATER REQUIREMENTS

Data related to manpower requirements were collected in the regional surveys. The questionnaires used for various sectors included a set of questions regarding employment and its structure for every firm inter-viewed. Employment data were then transformed into coefficients of man/year per dollar output, following the same methodology for deriving regular input coefficients.

The Project Director's office at Austin provided manpower data for the sectors which were not surveyed. All coefficients were extended using the corresponding sectors' control totals. Table 12 represents the manpower data obtained.

No regional surveys were conducted regarding water requirements. The Project Director's office at Austin provided a set of coefficients for fresh and saline water requirements per sector, based on data sup-plied by the Texas Water Development Board. Table 13 represents water requirements in million gallons by sector.

Table 12. Manpower Requirements Per Sector for the Region
           Upper Rio Grande Valley - Texas 1967

Sector Name	Manpower Required	Sector Number	Manpower Required
Irr. Crops Reg 1	1,625	34	2,025
Livstk. Dry. Plty.	4,066	35	602
Agri. Supply	N/A	36	542
Agri. Service	N/A	37	521
All Mining	N/A	38	35
Resd. Constructn.	941	39	16
Comcl. Construct.	1,608	40	N/A
Ind. Construction	300	41	305
Facil. Construct.	588	42	42
Maint. and Repair	1,213	43	774
Food Process	14,620	44	798
Textile and Appar	10,201	45	3,107
Lumber	449	46	683
Furniture	464	47	395
Boxes and Paper	27	48	2,386
Print and Publish	1,083	49	201
Chemicals	132	50	800
Petroleum	623	51	1,803
Rubber and Leather	404	52	610
Glass/Clay/Stone	789	53	2,230
Cement/Concrete	580	54	47
Primary Metal	394	55	101
Fabri. Metal	845	56	1,438
Machinery	147	57	1,089
Scientific Instr.	2,755	58	3,268
All Other Mfg.	81	59	227
Railroad Trans	904	60	687
Intercity Freight	1,961	61	299
Truck Warehouse	168	62	780
Air Trans	397	63	8,931
All Other Trans	335	64	22,415
Telephone and Telegraph	1,189	65	187
Radio and TV	448	66	3,804

Table 13.   Water Requirements in Million Gallons Per Sector for the Region
Upper Rio Grande Valley - Texas 1967

| Sector Name | Water Required (Millions of Gallons) | |
	Fresh	Saline
Agri. Service	8,439.17	794.83
Food Process	37,160.31	799.61
Textile and Apparel	9,380.00	0
Boxes and Paper	2,778.00	0
Print and Publish	928.00	0
Chemicals	24,350.67	65,866.89
Petroleum	7,960.00	5,013.33
Rubber and Leather	1,688.50	0
Glass/Clay/Stone	1,480.50	682.50
Cement/Concrete	1,125.00	1,605.00
Primary Metal	31,620.00	329,569.71
Fabri. Metal	1,430.00	0
Machinery	1,163.17	0
Scientific Instr.	461.25	0
All Other Mfg.	18.00	0
Electric Utility	9,435.00	0

CONCLUSION

The interindustry study for the region--the Upper Rio Grande Valley in Texas--seems to indicate that the region is under-developed industri- ally, even though it has a significant export base that is capable of delivering $691,700 thousand worth of goods and services to the outside world. The secondary industry, i.e., the non-exporting supportive in- dustry, is not developed enough to support the requirements of the export base industries. Thus the processing sectors in the regional economy import $385,215 worth of competitive goods and services to sat- isfy the intermediate demand. Total imports by the region amount to almost 40 percent of the gross regional product.

As a result of the weakness of the supportive (the service industry in the region) and the lack of diversification, the inter-industry link- ages are much weaker than they otherwise could be if supportive indus- tries were diversified and expanded enough to meet the already existing market, which is being satisfied by imports. The weakness of the inter- industry linkages is quite obvious in the low level of the processing sectors' multipliers--whether sectoral or simple income multipliers. The sectoral multipliers for the region range from a low of 1.074 for petroleum to a high of 1.695 for the cement and concrete industry. The simple income multipliers for the region range from a low of 1.081 for the banking and credit sector to a high of 2.250 for the livestock, dairy and poultry sector. The average multiplier is quite below the national average for both sectoral and Type I multipliers.

The analysis of the survey results shows that the local processing sectors, which had an above average multiplier, had a very low adjusted gross output relative to all other processing sectors. In other words, the regional economy does not benefit much from the sectors with high multipliers because their level of economic activity constitutes an in- significant portion of the overall economic activity within the region. However, the construction industry, which ranked third after manufac- turing and wholesale/retail trade in adjusted gross output, had above average multipliers reflecting the industry's relatively high dependence on the local processing sectors. It is revealing, however, that almost half of the volume of construction put-in-place was purchased by public agencies, especially the Federal government, while expenditures on new plants constituted only a small proportion of total construction output.

It is also significant to notice that the major industry in the region--namely apparel--had a low sectoral multiplier of 1.150 due to its high dependence on imports. The same conclusion is true for the petroleum and the primary metal refining industries in the region.

The regional economy seems to be highly dependent on Federal govern- ment expenditures. The total outlays of the Federal government in the region amounted in 1967 to almost 27 percent of the total output of all the local processing sectors. The Federal government provided

approximately one-third of the total payments to households in the region.[29]

The regional transactions flow matrix indicates that households spent $815,488 thousand on goods and services, including various types of payment to all government levels. The matrix also indicates, however, that total payments to households amounted in 1967 to $1,109,714 thousand. This fact means that households withheld $293,226 thousand from the regional economy.[30] If one adds the amount of money withheld by households to the amount of money spent on imports, the result will be almost equivalent to more than 50 percent of the total gross production in the region by all processing sectors.

It is true that the region cannot be completely self-sufficient because of the lack of natural resources. However, the extent of imports, the existence of a market, and the availability of money capital--as represented by the difference between household expenditures and income-- reveal the potentials for real economic growth in the region.

The survey reveals that the region is more dependent on manufacturing than service activities both for income and employment. The manufacturing sectors of the region contributed in 1967 almost 40 percent of total output in the region. Due to natural and historic developments, most manufacturing industries in the region are labor intensive. However, the region does not reap the full benefit of the prevailing manufacturing activities because the sectors with highest outputs are more dependent on imports than other manufacturing sectors and/or are branches of parent firms located outside the region so the value added of their export trade does not benefit the region. The underdevelopment of supportive industries is hurting the region by forcing most processing sectors to depend on imports to such an extent that the region has a deficit balance of trade.

The trades sectors and the service sectors contribute to the region an output share lower than the corresponding sectors in the nation. Actually, one would have expected the reverse of this phenomenon. However, the region suffers from the pressure of other urban centers in the Southwest which are experiencing an aggressive and fast rate of economic growth. The region also suffers from the proximity of a long border

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[29]Roger Riefler and Paul B. Downing, "Regional Effect of Defense Effort on Employment," Monthly Labor Review, XCI, No. 7 (July, 1968), pp. 1-8. The author maintained that the Dependency Ratio of Texas in 1967 was 4.5 percent, while the national average was 3.6 percent. The dependency ratio for the region seems to be much higher than the rest of the nation and the state.

[30]Payments to households--as was explained above--include interest and dividents (or profits); thus part of the difference between consumption expenditures by households and their receipts could presumably be leaked out of the region in the form of profits paid to "parent" companies elsewhere in the country.

with Mexico where available labor, services and some consumer products are cheaper than their counterparts in the region.

In spite of the arid nature of the region, it seems that agriculture and trades based on agriculture products should be encouraged since they have high multipliers and strong linkages with other local processing sectors.

The study also indicates that the prime movers of the regional economy can be ranked as follows: households who bought $817 million worth of goods and services, the export markets which bought $692 million worth of local products and the Federal government which spent $495 million in the region.

It is interesting to notice that households paid to local governments in the region almost as much as all regional processing sectors put together. In spite of the high level of expenditures by households, they have achieved a substantial volume of gross savings. Such savings can - with proper planning - be channeled to areas of investments in the region that may lead to sound and sustained growth.

The interindustry study indicates very strongly that the region is far from being self-sufficient, and that its service (supporting) industry is not able--because of its limited output--to satisfy the existing demand of the primary (exporting) industries. The regional economy has a tremendous potential for growth if only by eliminating competitive imports, i.e., by expanding the existing facilities for producing local substitutes of competitive imports wherever natural resources or favorable transportation costs permit.

The entire region benefits from developments over the long run on a per capita income basis, if a significant proportion of any new investment capital (for new industries or for expanding existing ones) is spent on locally-produced inputs rather than being allowed to leak out to other regions. Changes in activity levels are also important in the short run, since they affect per capita personal income. Activity changes that result from investment in new plants and equipment will be extremely beneficial for the region, since the construction industry has on the whole strong linkages with other local processing sectors and has relatively higher multipliers than other sectors.

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APPENDIX A

Input-Output Techniques

APPENDIX A

INPUT-OUTPUT TECHNIQUES

Conceptual Framework

During the past two decades, input-output has grown into an accepted method of economic planning and decision making. It is primarily concerned with the methods of analysing interdependence among the industries or sectors of an economy. Input-output techniques as developed by Wassily W. Leontief provide a special form of general-equilibrium analysis for an economy.[31] By dividing an economy into a set of sectors (or industries) and recording the flow of goods and services among the sectors systematically, the analyst can trace the degree and extent of interdependency that pertain among the different sectors of an economy.[32]

The Transactions Flow Matrix

The basic tool for input-output analysis is the Transactions Flow Matrix, a simplified form of which is shown in Figure 2.

The transactions flow matrix is a system of double entry bookkeeping which indicates in a systematic way the flow of raw materials, semi-finished products, services and final products among various industries and to ultimate users within the economy over a certain period of time. To display the flows systematically, the economy is broken down into a set of homogeneous sectors, each representing an industry (or a set of industries), a final market or final payment. As Figure 1 shows, the transactions flow matrix has four major quadrants. The first quadrant at the upper left hand side of the table is called the intermediate demand sector and includes the processing sectors in the economy. Each sector is represented here by a row and a column. The entries in each row indicate the sales (or outputs) of the industry at the left of the row to every industry cited at the top of the table (including itself) and to the final demand sectors. The entries in each column indicate the purchases (or inputs) by the industry at the top of the column from every industry cited at the left of the table (including itself) and its payments to the owners of primary factors of production and foreigners (imports). Each entry x_{ij} represents an amount of purchases (x) by industry j from industry i, or a sale by industry i to industry j; i.e., x_{ij} represents an output of industry i that is absorbed as an input by industry j.

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[31]Interindustry models were first introduced by the French economist Francois Quesnay in his "Tableau Economique" which was published in 1758. Leon Walras (1877) elaborated on the concept and introduced the Walrasian system which stated the interdependencies among productive sectors of the economy and the competing demand of each industry for factors of production and the substitutability among their outputs in consumption.

[32]The classical general equilibrium theory referred to as the Input-

Figure 2. Transactions Flow Matrix--An Illustration

PURCHASING SECTORS

| | | Intermediate Demand | | | | | | Final Demand | | | |
Output to Input from	Agri.	Const.	Mfg.	Trade	Serv.	Gov't	HH	Capital formation	Exports	Gross Outputs
AGRICULTURE										
CONSTRUCTION										
MANUFACTURING		QUADRANT I						QUADRANT II		
TRADE		x_{ij}						y_i		
SERVICES										
		Final Payments								
GOVERNMENT										
HOUSEHOLDS										
DEPRECIATION										
IMPORTS										
GROSS OUTLAYS										

SELLING SECTORS

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Quadrant I is usually termed the endogeneous segment of the economy because it does not initiate any changes in the economy. It rather responds in a proportionate way to changes in final demand. It comprises all local transactions involved in producing, servicing, or marketing a product. All activities in this sector are of a "current-account" nature.

The second quadrant in the upper right-hand side of the matrix is called the final demand sector. It contains the ultimate use of produced commodities and services displayed by major types of uses such as government, households, investors, net inventory changes, and foreign markets. The quantity of the product of sector i delivered to final demand is usually identified as y_i. Since final demand sectors represent the ultimate consumers of the economy, they are considered to be autonomous in their purchasing decisions. Their behavior does not respond proportionately to the output of the processing industries, but rather, they determine the levels of output of the processing sector.

The third quadrant in the lower left hand side of the matrix represents the final payments sector. It includes payments to the primary factors of production (namely, land, labor and capital) made by the processing industries. Payments to households in this sector represent wages, salaries, dividends, interests and similar payments made to households by each of the industries and other sectors listed at the top of the table. This sector also includes payments to government, even though taxes do not represent a part of the production process, but they are necessary for that process to take place. This sector also includes depreciation charges or capital consumption allowances. Usually imports which represent payments to foreign owners of production, are included in this sector even though they do not constitute a basic part of the model but they are considered as a cost of materials paid to non-local industries. The total sum of final payments (excluding imports) represents the value added in the local economy and is equivalent to the gross regional product (GRP).

The fourth quadrant represents the sales by the primary factor owners to final demand sectors. It includes payments by government agencies to households, payments by households to households (domestic servants). The sum total of imports is entered in this quadrant as a negative number in the export sector to balance the matrix.

Every row and its corresponding column for the processing sectors must be balanced, i.e., the total value of inputs for each processing sector must be equal to the total value of its outputs. The total value for every individual row in the final payments quadrant need not be the same since there is no reason to expect regional household expenditures (inputs) to be equal to their incomes (outputs). The same is true for

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(32 cont'd)Output approach and its actual application to the study of the American economy has been described in considerable detail in Wassily W. Leontief, The Structure of the American Economy, 1919-1939 second edition, revised, Oxford University Press, N.Y., 1951

the government and imports/exports sectors. However, the total sum of all final payments in the matrix should be equal to the total sum of all final demand since both are equal to the gross regional product.

Assumptions of Input-Output Analysis

Input-Output analysis is essentially a method of analysis that takes advantage of the relatively stable pattern of the flow of goods and services among the elements of an economy to bring a much more detailed statistical picture of the system into the range of manipulation by economic theory. The input-output model used in this study is an open, static model. It gives a snapshot of the structural interrelationships in the Texas economy over a year's period, 1967. The model which is essentially a simplified general theory of production is based on the following assumptions:[33]

1. The model specifically excludes substitution among the outputs of different sectors, either in final uses or as inputs to other sectors and non-market interdependence in the forms of external economies and diseconomies.

2. Each commodity or group of commodities is assumed to be supplied by a single industry or sector of production. As a result, there is only one method used for producing each group of commodities and each sector has only a single primary output.

3. The inputs purchased by each sector are a function only of the level of output of that sector, i.e., the input function is lineally homogeneous.

4. The total effect of carrying on several types of production is the sum of the separate effects, ruling out external economies or diseconomies.

The model further assumes that supply and demand in each market are equated not through changes in price and resulting movements along supply and demand curves, but through a horizontal shift in the demand function of each industry resulting from changes in production levels in other sectors. The reliability of input-output analysis is thus predicated on the soundness of the basic assumptions of proportionality, stability, and non-substitutability, i.e., it is assumed that the production function and/or technology utilized in production is stable over time. When a firm expands its production, it is assumed that it will use the same types of inputs in proportionate amounts. In other words, if the demand for the firm's product doubles, the firm will double all its inputs without changing the proportion used of any of them. These assumptions do not seem unreasonable in the short run, but will need adjustments for the long run, especially at times of rapid

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[33]Hollis B. Chenery and Paul G. Clark, Interindustry Economics, (N.Y., John Wiley & Sons, Inc., 1959), pp. 33,34.

technological changes.

Technical Coefficients

While the transactions flow matrix gives an actual picture of the
flow of goods and services in the economy in dollar (or physical amounts)
at a given period of time, it is not helpful by itself alone in showing
what will happen to the economy if the demand for any product expands
or diminishes. The technical coefficients table, which is derived from
the transactions flow matrix, reflects a more helpful abstract form of
the latter. It enables the analyst to find out at a glance the amounts
an industry needs from every other industry to produce one dollar worth
of its own output. By applying the principles of proportionality and
stability of production functions, then the direct requirements from
all other industries for various levels of final demand can be readily
computed.

Technical coefficients are expressed as direct purchases per dollar
of output. They are computed for all sectors in the processing sector
of the transactions matrix by dividing the entry in each column cell for
every sector by the output of the same sector. Each of these coeffi-
cients shows direct purchases which will be required by the sector at
the top of the column from the industries at the left of the table to
sustain and deliver its output to any other processing industry or to
final demand.

Technical coefficients are expressed as a_{ij} which is defined as
the amount of product from industry i required by industry j to produce
one dollar worth of output for industry j.

$$a_{ij} = \frac{x_{ij}}{X_j}$$
where x_{ij} is the dollar amount of input
for sector j from sector i and X_j is the
adjusted (for inventory change) gross
output of sector j.

The complete set of technical coefficients (or input coefficients)
of all sectors of the regional economy arranged in the form of a table
is called the structural matrix of the economy. This is because each
column of the matrix reflects the direct dependence that exists between
the level of output and the input requirements of every productive sec-
tor of the economy. Thus, each column in the direct requirements table
reflects the production function of the industry named at the top of
the column.

According to Professor Harmston, the direct coefficients matrix
for a regional economy reflects trading relationships rather than tech-
nical structures.[34] A major change in technical requirements may or

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[34] Harmston, F.K., "Use of an Intersectoral Model in Developing Region-
al Multipliers", The Annals of Regional Science, June,1969;also Hewings,
G.J.D.,"Regional Planning: Problems in the Application of Interregional
I/O Analysis to State Planning and Program Activities", paper delivered
at the Western Regional Science Association Conference, San Diego,Feb.1970.

may not upset these relationships. However, for all practical purposes the regional input coefficients' table even though it does not strictly represent technical coefficients, it does represent a regional structural matrix and a set of functional and stable local production functions because of the stability of regional trade patterns.[35]

The Interdependency Coefficients Matrix

The interdependency coefficients matrix, or the total requirements matrix, or the direct and indirect requirements matrix, represents the overall requirements on each industry by an increment of one dollar in final demand. As was explained above, the direct requirements table represents all the purchases required by proportionate amounts from other industries. These other industries, in turn, will increase their direct requirements to meet the new demand and part of their requirements will act to increase again the requirements for the first industry whose output was expanded, thus amplifying its requirements. This chain of effects will go on till the increments of proportionate requirements diminish. In other words, an increment in final demand will start a chain reaction that affects several sectors in the economy. This reaction will generate several rounds as every sector attempts to meet the new demand, thereby generating a new round of changes. These rounds will continue one and on, getting weaker and weaker until they taper off and come to an end. To measure these increments, the total requirements table which combines all the direct and indirect requirements by various sector of the economy is used. Indirect requirements represent the demand for a firm's products that is generated by the sales of the firm's customers to their customers. The coefficients in the total requirements table can be computed by a simple iterative procedure using the direct requirements table by multiplying the percentage increase in requirements times the input coefficients over and over again, till the percentage increase becomes infinitesimal, or by using the matrix inversion procedure.[36] The total requirements table illustrates the extent of economic interdependence for an economy. It shows how a change in demand for the output of one sector stimulates production in other sectors and shows the end result after all of the feedback effects have been completed.

Mathematically, the table represents the general solution for the set of simultaneous equations that represent the initial input-output table. Each entry in the total requirements table represents the output required, directly and indirectly, from the industry named at the

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[35]L. N. Moses, "The Stability of Interregional Trading Patterns and I/O Analysis", American Economic Review, Vol. XLV, Dec.1955, No. 5, pp.803-833.

[36]For an explanation of the matrix inversion procedure used for input-output analysis, please see William H. Miernyk, The Elements of Input-Output Analysis, Random House, N.J., 1965, pp. 26-28 and Chapter 7

beginning of the row for each dollar of delivery to final demand by the industry named at the head of the column. Once this table is computed, the input-output model can then be used for impact analysis and various simulation procedures.

Mathematical Formulation

The Transactions Flow Table can be represented by the following set of simultaneous equations:

$$x_{11} + x_{12} + x_{13} \ldots \ldots \ldots \ldots \ldots \ldots x_{1n} + y_1 = X_1$$

$$x_{21} + x_{22} + x_{23} \ldots \ldots \ldots \ldots \ldots \ldots x_{2n} + y_2 = X_2$$

$$x_{i1} \ldots \ldots \ldots \ldots \ldots \ldots x_{ij} \ldots x_{in} + y_i = X_i$$

$$x_{n1} + x_{n2} + \ldots \ldots \ldots \ldots \ldots \ldots x_{nn} + y_n = X_n$$

or in abbreviated form:

$$\sum_{j=1}^{n} x_{ij} + y_i = X_i \qquad (i = 1 \ldots n)$$

(1)

$$a_{ij} = \frac{x_{ij}}{X_j}$$

Equation (1) can then be written:

$$\sum_{j=1}^{n} a_{ij} X_j + y_1 = X_1 \qquad (i = 1 \ldots n)$$

(2)

In matrix notation equation (2) can be written:

$$
\begin{bmatrix}
a_{11} & a_{12} & \cdot & \cdot & a_{1n} \\
\cdot & \cdot & \cdot & \cdot & \cdot \\
\cdot & \cdot & \cdot & a_{ij} & \cdot \\
\cdot & \cdot & \cdot & \cdot & \cdot \\
a_{n1} & a_{n2} & \cdot & \cdot & a_{nn}
\end{bmatrix}
\begin{bmatrix}
X_1 \\
X_2 \\
X_i \\
\cdot \\
X_n
\end{bmatrix}
+
\begin{bmatrix}
y_1 \\
y_2 \\
y_i \\
\cdot \\
y_n
\end{bmatrix}
=
\begin{bmatrix}
X_1 \\
X_2 \\
X_i \\
\cdot \\
X_n
\end{bmatrix}
\qquad (3)
$$

or $AX +'Y = X$ (3) where A is a square matrix of input coefficients, X is a column vector of total output, and Y is a column vector of final demand. Equation (3) can be solved for any level of final demand as follows:

$$X = (I - A)^{-1} Y \qquad\qquad (4)$$

where $(I - A)^{-1}$ is the Leontief inverse.

Thus, assuming a certain level of final demand and given a square matrix of technical coefficients, the system can be solved to determine the total requirements of production for every sector in the economy to meet the final demand.

APPENDIX B

Conceptual Treatment of Imports

APPENDIX B

CONCEPTUAL TREATMENT OF IMPORTS

In the national input-output models, imports for ultimate use--whether competitive or non-competitive--are directly charged to the appropriate final demand sectors. Imports for intermediate use are treated according to their type. Non-competitive imports are entered as inputs of the purchasing industries and thus, are considered as part of the cost materials for production. In other words, non-competitive imports for intermediate demand are treated exactly the same as any imports purchased for final demand.

Competitive imports are treated like secondary products. They are charged to consuming industries through sales by the domestic industries where the counterpart production occurs. They are thus considered an addition to domestic supply as though there were an inventory depletion. This method inflates the gross outputs of domestic industries wherever substitution occurs.[37]

Chenery discussed various methods of dealing with imports.[38] He maintained that in most earlier input-output applications analysts calculated a proportional input coefficient relating competitive imports to the total availability of domestic and imported products from the competing domestic industry to which they are allocated. Another approach mentioned was to estimate competitive imports autonomously and to enter them as negative items in final demand, thereby avoiding the use of input coefficients for competitive imports.[39] According to Chenery, "European input-output analysts introduce a variable import coefficient for each sector which faces competitive imports. The value adopted is an explicit estimate of the function of requirements for an industry's products which will be met from imports as opposed to domestic production". This method allows for varying import coefficients according to dynamic substitution trends.

In their study of the Utah economy, Moore and Petersen used a residual method for estimating import coefficients.[40] After constructing

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[37]W. Duane Evans & Marvin Hoffenberg, "The Interindustry Relations Study for 1947", The Review of Economics & Statistics,Vol.XXXIV,May 1952, No.2,pp.97-142; also "Input/Output Structure of the U.S.Economy: 1963", Survey of Current Business, Nov. 1969, p.25

[38]Hollis B. Chenery and Paul G. Clark, Interindustry Economics, (N.Y., John Wiley and Sons, Inc.,1959) pp. 153-154.

[39]This method was used in the 'U.S.Emergency Model' in 1952. See Chenery, Ibid., pp. 271-276

[40]Frederick T. Moore and James W. Petersen, "Regional Analysis: An Interindustry Model of Utah", Review of Economics and Statistics,Vol. XXXVII, No. 4 (Nov. 1955) pp. 368-383.

the transactions flow matrix without regard for imports, they summed
the row distributions for each industrial sector. The row sums were
then subtracted from the estimates of gross output. They then assumed
that a positive difference indicated export activities, while a negative
one indicated competitive imports. In the latter case, the row distri-
butions were reduced proportionately so as to reduce exports to zero.
The amounts subtracted were added to the row of non-competitive imports.
This technique seems to assume that a regional economy will not import
a product as long as it has adequate production facilities for it. There
is no reason to believe in the validity of this assumption.

Isard and Langford maintain that the total requirements matrix
should be based on adjusted technical coefficients by subtracting out
import proportions so that the matrix would reflect only the locally
supplied technical requirements.[41] They argued that his method allows
for a reliable estimate of the impact of changes in exogeneous factors
on a regional economy. They, however, found it difficult to attain
valid estimates of import proportions especially as it is unreasonable
to expect all firms in a sector to purchase local and imported products
in the same ratio. In their input-output study of the Philadelphia
Region, Isard and Langford estimated imports by a residual method using
the following balancing equation:[42]

Intermediate demand + Personal Consumption + Capital Formation

Requirements + Federal Government Requirements + Exports =

Total Demand

Regional Production + Imports = Total Supply

Assuming that net inventory changes are equal to zero, an inequal-
ity of the total demand and total supply will be an indication of import
activity. When local sales of local producers exceeded total local de-
mand (excluding exports) for any industrial sector, the excess was as-
signed to an "unallocated" sector and the level of imports for that
industrial sector was arbitrarily set at zero except when sufficient
data were available to determine reliably the import values. The authors
of the study felt, however, that import data for their region were in-
adequate.

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[41]Walter Isard and Thomas W. Langford, Jr., "Impact of Vietnam War
Expenditure on the Philadelphia Economy: Some Initial Experiments with
the Inverse of the Philadelphia I/O Table", The Regional Science Asso-
ciation Papers, Vol. XXXIII (23) 1969, p.255.

[42] Walter Isard and Thomas W. Langford, Jr. Philadelphia Region Input-
Output Study, Part III, Regional Science Research Institute, Philadelphia
1967, pp. 17-1, 17-3

The preliminary study of the economic structure of the region and the information gained from the survey indicated that firms have various reasons for importing a particular product. In some cases, they were obligated to import certain products from a parent company in some other part of the country or they imported because of a special trading relationship with some other firms in other regions. It was also noticed that even though the El Paso area (which carries about 85 percent of the volume of economic activity in the region) specializes in the apparel industry, yet the area imports a substantial volume of apparel goods for local consumption. Therefore, it is believed that treating imports as a residual may give a distorted picture of the economy. Since estimates of import proportions are not infallible if they are based on pure judgment and since the survey conducted in the region provided reliable estimates of imports, it was decided to prepare (for further study) a special matrix which treats imports in the following manner: All imports purchased for final demand are treated in the same way as the national model, namely, charged to the appropriate final demand sector.

Goods and services that were not being produced in the region in 1967 were considered non-competitive imports. Since changes in exogenous factors do not have any impact on such imports, except to increase or decrease their volume, there was no need to have non-competitive imports together with the processing sectors of the matrix. They were entered in a separate row at the bottom of the matrix and charged directly to the purchasing industries, thereby the production functions would not be disturbed.

Goods and services that were being imported even though they had local counterpart production were considered competitive imports. These imports were treated as if they were produced by the local counterpart industry and distributed as inputs to the purchasing industries; but to avoid inflating the gross output of the local industry, all competitive imports for each sector were summed and entered as negative exports in the final demand sector.

By adopting this methodology, it is felt that the production functions displayed by the associated direct requirements matrix will not be distorted but will rather give a realistic picture of the actual requirements by local firms to product one dollar worth of their output, not simply the trade requirements which are displayed by a transactions matrix based on strictly local transactions. The sectoral and simple income multiplier resulting from manipulating the direct requirements matrix in this case are quite high. Such high multipliers should not give a false impression of the structure of the regional economy if they are studied along with the table of imports and exports provided in this report.

The set of matrices resulting from using this method of treating imports can prove to be quite useful for indicating areas of potential growth where a market does already exist and where some investors have already made a start. This method also enhances the usefulness of the regional input-output model for forecasting and projection purposes.

APPENDIX C

TABLE 1. TRANSACTIONS TABLE :   UPPER RIO GRANDE ,TEXAS, 1967   (THOUSAND DOLLARS)

	1	2	3	4	5	6	7	8
1 IRR. CROPS	285.000	3763.000	2.000	4.000	0	0	0	0
2 LVSTK. DRY. PLTY.	5.000	248.000	2.000	2.000	0	0	0	0
3 AGRI. SUPPLY	0	0	0	0	0	0	0	0
4 AGRI. SERVICE	958.000	873.000	56.000	281.000	0	5.000	3.000	0
5 ALL MINING	0	0	0	2.000	0	107.000	32.000	24.000
6 RESD. CONSTRUCTN.	0	0	0	0	0	0	0	0
7 COMCL. CONSTRUCT.	0	0	0	0	0	0	0	0
8 IND. CONSTRUCTION	0	0	0	0	0	0	0	0
9 FACIL. CONSTRUCT.	0	0	0	0	0	0	0	0
10 MAINT. AND REPAIR	91.000	469.000	3.000	24.000	11.000	829.000	86.000	72.000
11 FOOD PROCESS	0	1714.000	0	4.000	0	3.000	3.000	1.000
12 TEXTILE AND APPAR	144.000	133.000	0	1.000	0	500.000	575.000	0
13 LUMBER	0	679.000	0	5.000	30.000	1602.000	286.000	453.000
14 FURNITURE	0	0	0	0	9.000	19.000	0	17.000
15 BOXES AND PAPER	0	46.000	0	0	0	0	0	0
16 PRINT AND PUBLISH	0	2.000	4.000	3.000	2.000	5.000	3.000	3.000
17 CHEMICALS	300.000	100.000	0	20.000	44.000	160.000	75.000	90.000
18 PETROLEUM	563.000	435.000	2.000	112.000	87.000	441.000	559.000	500.000
19 RUBBER AND LEATHE	0	0	0	0	0	2.000	9.000	0
20 GLASS CLAY STONE	0	0	0	1.000	36.000	620.000	172.000	62.000
21 CEMENT CONCRETE	0	0	0	0	0	1901.000	2758.000	1145.000
22 PRIMART METAL	122.000	125.000	0	0	403.000	171.000	539.000	372.000
23 FABRI. METAL	0	57.000	0	0	11.000	852.000	1965.000	253.000
24 MACHINERY	24.000	10.000	0	1.000	7.000	36.000	50.000	31.000
25 SCIENTIFIC INSTR.	0	114.000	0	0	201.000	0	0	18.000
26 ALL OTHER MFG.	0	0	0	0	0	3.000	1.000	3.000
27 RAILROAD TRANSPOR	0	0	1.000	0	0	9.000	4.000	12.000
28 INTERCITY FREIGHT	100.000	250.000	22.000	54.000	512.000	250.000	173.000	157.000
29 TRUCK WAREHOUSE	7.000	7.000	11.000	0	8.000	45.000	76.000	78.000
30 AIR TRANSPORTATIO	0	0	0	11.000	9.000	10.000	8.000	3.000
31 ALL OTHER TRANS.	0	0	0	0	119.000	0	0	0
32 TLPHNE AND TLGRPH	76.000	596.000	4.000	23.000	20.000	129.000	151.000	40.000
33 RADIO AND T.V.	50.000	25.000	0	3.000	0	41.000	9.000	3.000
34 GAS UTILITY	630.000	602.000	2.000	12.000	1301.000	66.000	45.000	7.000
35 ELECTRIC UTILITY	540.000	72.000	6.000	82.000	49.000	103.000	64.000	10.000
36 WATER UTILITY	0	25.000	2.000	6.000	7.000	60.000	41.000	6.000
37 WHLSE. AUTO PARTS	66.000	13.000	5.000	1.000	160.000	5.000	5.000	10.000
38 WHLSE. GROCERY	0	0	0	0	0	1.000	1.000	2.000
39 WHLSE. FARM PROD.	49.000	245.000	0	5.000	0	0	0	0
40 WHLSE. LVESTK.	0	121.000	0	0	0	0	0	0
41 WHLSE. MACHINERY	50.000	12.000	0	34.000	441.000	95.000	109.000	165.000
42 WHLSE. PETROLEUM	205.000	175.000	0	106.000	255.000	6.000	51.000	5.000
43 GENERAL WHLSE.	467.000	1115.000	1.000	62.000	3.000	101.000	773.000	142.000
44 LUMBER YDS.HDWRE.	94.000	125.000	0	32.000	50.000	159.000	215.000	73.000
45 DEPT. STORE	0	0	0	0	0	0	0	0
46 FOOD STORES	0	0	0	1.000	0	0	0	9.000
47 AUTO DEALERS	299.000	562.000	1.000	20.000	175.000	31.000	28.000	7.000
48 GAS SERVICE STS.	229.000	451.000	2.000	7.000	13.000	162.000	149.000	55.000
49 APPAREL ACCE SOR.	0	0	0	0	0	0	0	0
50 FURNITURE	0	0	0	0	0	0	0	0
51 EAT AND DRNKNG	0	0	0	0	0	34.000	26.000	13.000
52 ALL OTHER RETAIL	0	0	0	1.000	1.000	31.000	7.000	5.000
53 BANK AND CREDIT	1010.000	1097.000	6.000	42.000	14.000	1831.000	101.000	59.000
54 INSURANCE CARRIER	150.000	'463.000	6.000	64.000	33.000	583.000	937.000	294.000
55 F.I.R.E. NEC	100.000	0	6.000	1.000	5.000	536.000	231.000	80.000
56 LEGAL AND ACCTING	0	0	3.000	14.000	15.000	213.000	229.000	55.000
57 LODGING	0	0	0	13.000	5.000	43.000	27.000	12.000

58 PERSNAL AND PHOTO	0	0	0	0	2.000	0	0	0
59 ADVERTISING	0	0	0	0	0	105.000	41.000	30.000
60 RECREATION	0	0	0	0	0	0	0	0
61 AUTO RENTAL	0	0	0	0	24.000	252.000	152.000	26.000
62 ELEC. AND MSC. RP	65.000	56.000	1.000	18.000	1.000	0	30.000	0
63 MEDICAL	0	0	0	0	0	0	0	0
64 EDUCATIONAL	0	0	0	0	0	0	0	0
65 ENGINEERING ARCH.	0	0	0	0	36.000	325.000	89.000	19.000
66 ALL OTHER PROFES.	18.000	78.000	1.000	231.000	8.000	260.000	267.000	59.000
67 HOUSEHOLDS	4986.000	5468.000	133.000	997.000	25048.000	14208.000	21884.000	5983.000
68 FEDERAL GOV'T.	307.000	766.000	18.000	112.000	3021.000	787.000	745.000	343.000
69 STATE GOV'T.	18.000	21.000	2.000	15.000	1113.000	165.000	341.000	122.000
70 LOCAL GOV'T.	2713.000	1486.000	4.000	23.000	101.000	307.000	222.000	59.000
71 IMPORTS	9641.000	15003.000	55.000	1568.000	6524.000	24172.000	17917.000	7501.000
72 DEPRECIATION	1738.000	2508.000	22.000	262.000	1799.000	1768.000	882.000	150.000
73 GROSS SAVINGS	0	0	0	0	0	0	0	0
TOTAL INPUTS	26100.000	40110.000	383.000	4280.000	41713.000	54149.000	53146.000	18638.000

TRANSACTIONS TABLE : UPPER RIO GRANDE ,TEXAS, 1967   (THOUSAND DOLLARS)

	9	10	11	12	13	14	15	16
1 IRR. CROPS	0	0	3233.000	755.000	2.000	4.000	5.000	1.000
2 LVSTK. DRY. PLTY.	0	0	528.000	57.000	1.000	0	0	7.000
3 AGRI. SUPPLY	0	0	0	0	0	0	0	0
4 AGRI. SERVICE	0	0	0	18.000	0	0	0	0
5 ALL MINING	5000.000	21.000	0	0	0	0	0	1.000
6 RESD. CONSTRUCTN.	0	0	0	0	0	0	0	0
7 COMCL. CONSTRUCT.	0	0	0	0	0	0	0	0
8 IND. CONSTRUCTION	0	0	0	0	0	0	0	0
9 FACIL. CONSTRUCT.	0	0	0	0	0	0	0	0
10 MAINT. AND REPAIR	81.000	85.000	1490.000	2454.000	5.000	50.000	75.000	120.000
11 FOOD PROCESS	2.000	2.000	2138.000	0	0	0	0	1.000
12 TEXTILE AND APPAR	0	0	1.000	2460.000	5.000	35.000	5.000	0
13 LUMBER	77.000	473.000	3.000	2.000	1265.000	130.000	0	5.000
14 FURNITURE	0	16.000	0	0	0	6.000	0	0
15 BOXES AND PAPER	0	4.000	108.000	50.000	0	0	50.000	0
16 PRINT AND PUBLISH	0	0	195.000	243.000	0	26.000	0	137.000
17 CHEMICALS	22.000	104.000	32.000	7.000	25.000	8.000	1.000	45.000
18 PETROLEUM	6651.000	66.000	11.000	5.000	0	1.000	0	0
19 RUBBER AND LEATHE	0	6.000	4.000	11.000	0	13.000	0	0
20 GLASS CLAY STONE	62.000	535.000	85.000	3.000	0	21.000	0	7.000
21 CEMENT CONCRETE	5258.000	0	0	0	0	0	0	0
22 PRIMART METAL	269.000	678.000	1.000	0	0	156.000	0	0
23 FABRI. METAL	1556.000	211.000	6.000	0	0	0	0	0
24 MACHINERY	5.000	0	27.000	12.000	5.000	1.000	0	9.000
25 SCIENTIFIC INSTR.	0	0	0	0	0	0	0	29.000
26 ALL OTHER MFG.	1.000	7.000	5.000	20.000	1.000	4.000	0	54.000
27 RAILROAD TRANSPOR	9.000	4.000	81.000	126.000	260.000	0	0	24.000
28 INTERCITY FREIGHT	322.000	164.000	565.000	489.000	23.000	101.000	0	0
29 TRUCK WAREHOUSE	13.000	54.000	25.000	12.000	21.000	46.000	0	22.000
30 AIR TRANSPORTATIO	48.000	5.000	12.000	76.000	1.000	0	0	11.000
31 ALL OTHER TRANS.	0	0	0	0	0	0	0	2.000
32 TLPHNE AND TLGRPH	157.000	53.000	174.000	571.000	13.000	5.000	4.000	17.000
33 RADIO AND T.V.	2.000	4.000	223.000	150.000	0	10.000	0	150.000
34 GAS UTILITY	81.000	7.000	170.000	429.000	9.000	17.000	1.000	27.000
35 ELECTRIC UTILITY	239.000	20.000	426.000	451.000	0	59.000	10.000	88.000
36 WATER UTILITY	150.000	8.000	73.000	75.000	4.000	8.000	5.000	39.000
37 WHLSE. AUTO PARTS	250.000	10.000	10.000	495.000	0	10.000	0	0
38 WHLSE. GROCERY	1.000	1.000	47.000	2.000	0	0	0	0
39 WHLSE. FARM PROD.	0	0	119.000	32.000	0	1.000	0	0
40 WHLSE. LVESTK.	0	0	40.000	0	0	0	0	0
41 WHLSE. MACHINERY	653.000	0	25.000	0	0	1.000	10.000	56.000
42 WHLSE. PETROLEUM	226.000	4.000	3.000	0	0	0	0	0
43 GENERAL WHLSE.	114.000	24.000	400.000	152.000	4.000	21.000	1.000	365.000
44 LUMBER YDS.HDWRE.	28.000	35.000	0	0	0	7.000	0	0
45 DEPT. STORE	0	0	0	0	0	0	0	0
46 FOOD STORES	0	0	0	0	0	0	0	0
47 AUTO DEALERS	7.000	17.000	10.000	75.000	0	0	1.000	0
48 GAS SERVICE STS.	63.000	105.000	373.000	57.000	1.000	0	3.000	12.000
49 APPAREL ACCE SOR.	0	0	0	0	0	0	0	0
50 FURNITURE	0	0	0	0	0	0	0	0
51 EAT AND DRNKNG	15.000	16.000	14.000	70.000	1.000	0	0	1.000
52 ALL OTHER RETAIL	67.000	10.000	0	0	0	0	0	0
53 BANK AND CREDIT	1191.000	92.000	388.000	3132.000	49.000	44.000	5.000	341.000
54 INSURANCE CARRIER	141.000	131.000	495.000	270.000	70.000	50.000	8.000	14.000
55 F.I.R.E. NEC	23.000	106.000	258.000	676.000	52.000	201.000	12.000	148.000
56 LEGAL AND ACCTING	184.000	78.000	75.000	932.000	17.000	3.000	3.000	19.000
57 LODGING	76.000	17.000	27.000	85.000	3.000	0	0	4.000

58 PERSNAL AND PHOTO	0	0	0	0	0	0	0	0
59 ADVERTISING	69.000	40.000	97.000	209.000	4.000	7.000	0	8.000
60 RECREATION	0	0	0	0	0	0	0	0
61 AUTO RENTAL	601.000	6.000	340.000	362.000	0	0	3.000	16.000
62 ELEC. AND MSC. RP	0	0	0	105.000	0	0	0	0
63 MEDICAL	0	0	0	0	0	0	0	0
64 EDUCATIONAL	0	0	0	0	0	0	0	0
65 ENGINEERING ARCH.	593.000	0	0	0	0	0	0	0
66 ALL OTHER PROFES.	855.000	671.000	148.000	1696.000	12.000	33.000	0	61.000
67 HOUSEHOLDS	24667.000	13181.000	26030.000	66130.000	2389.000	621.000	135.000	6599.000
68 FEDERAL GOV'T.	1340.000	432.000	1677.000	4995.000	102.000	92.000	17.000	288.000
69 STATE GOV'T.	199.000	55.000	117.000	1276.000	7.000	15.000	3.000	126.000
70 LOCAL GOV'T.	445.000	57.000	274.000	1042.000	36.000	10.000	5.000	84.000
71 IMPORTS	16914.000	3341.000	43925.000	97014.000	2232.000	500.000	333.000	3784.000
72 DEPRECIATION	4139.000	197.000	1432.000	1017.000	131.000	83.000	5.000	678.000
73 GROSS SAVINGS	0	0	0	0	0	0	0	0
TOTAL INPUTS	72866.000	21153.000	85940.000	188300.000	6750.000	2400.000	700.000	13400.000

TRANSACTIONS TABLE : UPPER RIO GRANDE ,TEXAS, 1967   (THOUSAND DOLLARS)

	17	18	19	20	21	22	23	24
1 IRR. CROPS	5.000	2.000	2.000	0	1.000	2.000	0	0
2 LVSTK. DRY. PLTY.	3.000	1.000	24.000	0	0	0	0	0
3 AGRI. SUPPLY	0	0	0	0	0	0	0	0
4 AGRI. SERVICE	0	0	0	0	0	0	0	0
5 ALL MINING	0	0	0	276.000	2274.000	0	188.000	0
6 RESD. CONSTRUCTN.	0	0	0	0	0	0	0	0
7 COMCL. CONSTRUCT.	0	0	0	0	0	0	0	0
8 IND. CONSTRUCTION	0	0	0	0	0	0	0	0
9 FACIL. CONSTRUCT.	0	0	0	0	0	0	0	0
10 MAINT. AND REPAIR	325.000	550.000	410.000	375.000	350.000	920.000	295.000	160.000
11 FOOD PROCESS	2.000	5.000	1.000	0	1.000	4.000	1.000	1.000
12 TEXTILE AND APPAR	0	0	30.000	0	0	12.000	0	0
13 LUMBER	20.000	5.000	14.000	0	3.000	7.000	0	0
14 FURNITURE	0	0	0	0	0	4.000	0	0
15 BOXES AND PAPER	0	10.000	10.000	0	0	0	0	0
16 PRINT AND PUBLISH	0	9.000	2.000	0	8.000	16.000	27.000	0
17 CHEMICALS	200.000	610.000	15.000	0	106.000	496.000	49.000	47.000
18 PETROLEUM	200.000	5551.000	0	0	213.000	1.000	1.000	0
19 RUBBER AND LEATHE	0	0	365.000	0	0	0	0	0
20 GLASS CLAY STONE	10.000	54.000	0	415.000	625.000	201.000	434.000	63.000
21 CEMENT CONCRETE	0	0	0	0	1156.000	0	0	0
22 PRIMART METAL	0	0	17.000	0	28.000	10512.000	3523.000	56.000
23 FABRI. METAL	0	0	0	0	0	314.000	437.000	40.000
24 MACHINERY	2.000	1.000	1.000	30.000	37.000	11.000	15.000	28.000
25 SCIENTIFIC INSTR.	10.000	148.000	20.000	1.000	100.000	21.000	0	0
26 ALL OTHER MFG.	1.000	2.000	1.000	1.000	3.000	8.000	4.000	1.000
27 RAILROAD TRANSPOR	9.000	1.000	3.000	543.000	153.000	3117.000	0	0
28 INTERCITY FREIGHT	38.000	670.000	55.000	59.000	636.000	521.000	65.000	71.000
29 TRUCK WAREHOUSE	6.000	464.000	0	0	17.000	0	0	0
30 AIR TRANSPORTATIO	6.000	6.000	2.000	0	2.000	5.000	0	6.000
31 ALL OTHER TRANS.	0	238.000	59.000	0	0	0	6.000	0
32 TLPHNE AND TLGRPH	29.000	92.000	16.000	25.000	49.000	75.000	108.000	12.000
33 RADIO AND T.V.	0	55.000	20.000	0	2.000	0	0	0
34 GAS UTILITY	14.000	842.000	22.000	71.000	567.000	3239.000	216.000	4.000
35 ELECTRIC UTILITY	52.000	992.000	14.000	168.000	388.000	0	57.000	12.000
36 WATER UTILITY	8.000	92.000	2.000	16.000	6.000	0	10.000	2.000
37 WHLSE. AUTO PARTS	0	4.000	0	0	95.000	1.000	0	0
38 WHLSE. GROCERY	0	0	0	0	0	0	0	0
39 WHLSE. FARM PROD.	0	0	0	0	0	0	0	0
40 WHLSE. LVESTK.	0	0	0	0	0	0	0	0
41 WHLSE. MACHINERY	0	0	50.000	0	100.000	0	0	89.000
42 WHLSE. PETROLEUM	0	5.000	0	0	0	0	0	0
43 GENERAL WHLSE.	8.000	14.000	5.000	8.000	19.000	397.000	30.000	6.000
44 LUMBER YDS.HDWRE.	0	0	0	0	0	5.000	0	0
45 DEPT. STORE	0	0	0	0	0	0	0	0
46 FOOD STORES	0	0	0	0	0	0	80.000	1.000
47 AUTO DEALERS	0	55.000	0	0	0	0	0	0
48 GAS SERVICE STS.	14.000	18.000	3.000	0	36.000	10.000	0	5.000
49 APPAREL ACCE SOR.	0	0	0	0	0	0	0	0
50 FURNITURE	0	0	0	0	0	0	0	0
51 EAT AND DRNKNG	7.000	6.000	2.000	0	2.000	6.000	0	0
52 ALL OTHER RETAIL	0	51.000	0	0	0	0	0	0
53 BANK AND CREDIT	4.000	44.000	50.000	118.000	50.000	202.000	26.000	14.000
54 INSURANCE CARRIER	50.000	389.000	50.000	0	0	368.000	70.000	10.000
55 F.I.R.E. NEC	72.000	10.000	72.000	227.000	139.000	171.000	197.000	19.000
56 LEGAL AND ACCTING	23.000	83.000	15.000	49.000	22.000	45.000	28.000	3.000
57 LODGING	19.000	25.000	7.000	0	6.000	16.000	1.000	0

58 PERSNAL AND PHOTO	0	0	0	0	0	0	0	0
59 ADVERTISING	26.000	27.000	47.000	0	6.000	9.000	18.000	4.000
60 RECREATION	0	0	0	0	0	0	0	0
61 AUTO RENTAL	6.000	5.000	7.000	0	2.000	5.000	2.000	3.000
62 ELEC. AND MSC. RP	0	66.000	0	0	0	0	0	0
63 MEDICAL	0	0	0	0	0	33.000	0	0
64 EDUCATIONAL	0	0	0	0	0	0	0	0
65 ENGINEERING ARCH.	0	0	0	0	0	0	0	0
66 ALL OTHER PROFES.	11.000	180.000	7.000	20.000	67.000	32.000	26.000	11.000
67 HOUSEHOLDS	1648.000	20193.000	3182.000	2102.000	3566.000	42290.000	6448.000	1017.000
68 FEDERAL GOV'T.	40.000	6355.000	342.000	118.000	304.000	2153.000	639.000	67.000
69 STATE GOV'T.	34.000	3670.000	72.000	59.000	154.000	187.000	112.000	15.000
70 LOCAL GOV'T.	50.000	226.000	59.000	79.000	229.000	573.000	120.000	22.000
71 IMPORTS	2833.000	146698.000	3314.000	275.000	1122.000	71583.000	7296.000	350.000
72 DEPRECIATION	345.000	4110.000	11.000	15.000	1236.000	2888.000	571.000	31.000
73 GROSS SAVINGS	0	0	0	0	0	0	0	0
TOTAL INPUTS	6130.000	192634.000	8400.000	5050.000	13880.000	140460.000	21100.000	2170.000

TRANSACTIONS TABLE : UPPER RIO GRANDE ,TEXAS, 1967   (THOUSAND DOLLARS)

	25	26	27	28	29	30	31	32
1 IRR. CROPS	1.000	5.000	0	0	0	0	0	0
2 LVSTK. DRY. PLTY.	2.000	0	0	0	0	0	0	0
3 AGRI. SUPPLY	0	0	0	0	0	0	0	0
4 AGRI. SERVICE	0	0	0	0	0	0	0	0
5 ALL MINING	0	0	0	0	0	0	12.000	0
6 RESD. CONSTRUCTN.	0	0	0	0	0	0	0	0
7 COMCL. CONSTRUCT.	0	0	0	0	0	0	0	0
8 IND. CONSTRUCTION	0	0	0	0	0	0	0	0
9 FACIL. CONSTRUCT.	0	0	0	0	0	0	0	0
10 MAINT. AND REPAIR	395.000	115.000	720.000	201.000	32.000	14.000	23.000	95.000
11 FOOD PROCESS	6.000	0	22.000	0	0	0	1.000	0
12 TEXTILE AND APPAR	0	0	0	0	0	0	0	0
13 LUMBER	1.000	0	50.000	2.000	0	0	0	50.000
14 FURNITURE	0	0	0	0	0	0	0	0
15 BOXES AND PAPER	0	0	0	0	0	0	0	0
16 PRINT AND PUBLISH	0	0	19.000	2.000	3.000	2.000	202.000	43.000
17 CHEMICALS	10.000	26.000	0	0	0	0	100.000	20.000
18 PETROLEUM	0	0	881.000	129.000	0	2093.000	420.000	0
19 RUBBER AND LEATHE	231.000	52.000	0	1.000	0	0	0	0
20 GLASS CLAY STONE	3.000	8.000	0	0	0	0	14.000	0
21 CEMENT CONCRETE	0	0	0	0	0	0	0	0
22 PRIMART METAL	182.000	0	138.000	0	0	0	0	0
23 FABRI. METAL	204.000	60.000	60.000	0	0	0	0	0
24 MACHINERY	13.000	5.000	23.000	0	0	0	10.000	0
25 SCIENTIFIC INSTR.	297.000	0	0	0	0	0	0	200.000
26 ALL OTHER MFG.	17.000	0	0	0	0	0	0	0
27 RAILROAD TRANSPOR	0	0	625.000	0	0	0	0	26.000
28 INTERCITY FREIGHT	50.000	20.000	102.000	0	0	0	0	28.000
29 TRUCK WAREHOUSE	35.000	0	0	0	0	95.000	0	0
30 AIR TRANSPORTATIO	17.000	0	35.000	0	1.000	100.000	2.000	17.000
31 ALL OTHER TRANS.	0	0	310.000	0	0	0	200.000	0
32 TLPHNE AND TLGRPH	162.000	6.000	100.000	1264.000	18.000	4.000	32.000	0
33 RADIO AND T.V.	0	0	41.000	0	0	100.000	0	0
34 GAS UTILITY	66.000	11.000	16.000	394.000	3.000	95.000	13.000	125.000
35 ELECTRIC UTILITY	158.000	4.000	34.000	552.000	71.000	251.000	38.000	207.000
36 WATER UTILITY	22.000	1.000	43.000	36.000	1.000	75.000	4.000	25.000
37 WHLSE. AUTO PARTS	22.000	0	19.000	1031.000	14.000	0	65.000	85.000
38 WHLSE. GROCERY	1.000	0	0	0	0	0	0	0
39 WHLSE. FARM PROD.	0	0	0	0	0	0	0	0
40 WHLSE. LVESTK.	0	0	0	0	0	0	0	0
41 WHLSE. MACHINERY	11.000	0	750.000	0	0	0	0	0
42 WHLSE. PETROLEUM	0	0	70.000	225.000	0	497.000	77.000	0
43 GENERAL WHLSE.	61.000	1.000	167.000	250.000	2.000	1.000	31.000	15.000
44 LUMBER YDS.HDWRE.	1.000	0	0	0	0	0	0	0
45 DEPT. STORE	0	0	0	0	0	0	0	0
46 FOOD STORES	0	0	0	0	0	0	0	0
47 AUTO DEALERS	4.000	0	0	0	0	0	0	25.000
48 GAS SERVICE STS.	22.000	0	0	166.000	1.000	0	12.000	0
49 APPAREL ACCE SOR.	0	0	0	0	0	0	0	0
50 FURNITURE	0	0	0	0	0	0	0	0
51 EAT AND DRNKNG	19.000	0	0	0	3.000	2.000	8.000	0
52 ALL OTHER RETAIL	1.000	0	0	0	0	0	0	0
53 BANK AND CREDIT	234.000	34.000	57.000	15.000	5.000	5.000	10.000	0
54 INSURANCE CARRIER	26.000	1.000	23.000	867.000	33.000	11.000	172.000	51.000
55 F.I.R.E. NEC	195.000	30.000	287.000	457.000	276.000	10.000	48.000	291.000
56 LEGAL AND ACCTING	43.000	2.000	95.000	915.000	9.000	50.000	54.000	125.000
57 LODGING	55.000	1.000	0	0	3.000	1.000	8.000	25.000

58 PERSNAL AND PHOTO	737.000	0	111.000	0	0	0	0	0
59 ADVERTISING	18.000	0	17.000	34.000	0	11.000	35.000	96.000
60 RECREATION	0	0	0	0	0	0	0	0
61 AUTO RENTAL	20.000	0	0	0	0	0	37.000	0
62 ELEC. AND MSC. RP	0	0	0	0	0	0	0	0
63 MEDICAL	0	0	0	0	0	0	0	0
64 EDUCATIONAL	0	0	0	0	0	0	0	0
65 ENGINEERING ARCH.	0	0	22.000	0	0	0	0	0
66 ALL OTHER PROFES.	1.000	0	12.000	54.000	10.000	0	70.000	0
67 HOUSEHOLDS	6338.000	319.000	6037.000	11581.000	631.000	2744.000	1540.000	7643.000
68 FEDERAL GOV'T.	702.000	41.000	610.000	830.000	62.000	313.000	82.000	3560.000
69 STATE GOV'T.	60.000	7.000	24.000	933.000	10.000	5.000	18.000	610.000
70 LOCAL GOV'T.	79.000	5.000	246.000	116.000	36.000	15.000	48.000	1083.000
71 IMPORTS	4526.000	55.000	925.000	5446.000	17.000	1925.000	314.000	8212.000
72 DEPRECIATION	582.000	161.000	803.000	261.000	45.000	27.000	208.000	4059.000
73 GROSS SAVINGS	0	0	0	0	0	0	0	0
TOTAL INPUTS	15630.000	970.000	13494.000	25762.000	1286.000	8446.000	3908.000	26716.000

	33	34	35	36	37	38	39	40
1 IRR. CROPS	0	0	0	0	1.000	50.000	510.000	240.000
2 LVSTK. DRY. PLTY.	0	0	0	0	3.000	11.000	16.000	13.000
3 AGRI. SUPPLY	0	0	0	0	0	0	0	0
4 AGRI. SERVICE	0	0	0	0	0	0	0	0
5 ALL MINING	0	0	0	0	0	0	0	0
6 RESD. CONSTRUCTN.	0	0	0	0	0	0	0	0
7 COMCL. CONSTRUCT.	0	0	0	0	0	0	0	0
8 IND. CONSTRUCTION	0	0	0	0	0	0	0	0
9 FACIL. CONSTRUCT.	0	0	0	0	0	0	0	0
10 MAINT. AND REPAIR	25.000	59.000	52.000	394.000	85.000	50.000	70.000	9.000
11 FOOD PROCESS	0	0	0	0	8.000	212.000	10.000	0
12 TEXTILE AND APPAR	0	4.000	8.000	5.000	4.000	0	0	0
13 LUMBER	0	0	0	3.000	8.000	4.000	20.000	0
14 FURNITURE	0	0	0	0	2.000	0	0	0
15 BOXES AND PAPER	0	0	0	0	0	0	0	0
16 PRINT AND PUBLISH	27.000	21.000	34.000	16.000	13.000	13.000	0	0
17 CHEMICALS	0	20.000	0	82.000	16.000	4.000	0	0
18 PETROLEUM	21.000	10.000	42.000	56.000	1.000	0	0	0
19 RUBBER AND LEATHE	0	0	0	0	2.000	0	0	0
20 GLASS CLAY STONE	0	0	0	265.000	1.000	1.000	0	0
21 CEMENT CONCRETE	0	2.000	7.000	2.000	0	0	0	0
22 PRIMART METAL	0	0	0	13.000	51.000	0	0	0
23 FABRI. METAL	0	0	0	0	31.000	0	0	0
24 MACHINERY	6.000	0	1.000	11.000	21.000	11.000	0	0
25 SCIENTIFIC INSTR.	97.000	20.000	25.000	14.000	3.000	0	13.000	0
26 ALL OTHER MFG.	17.000	0	0	2.000	32.000	8.000	13.000	0
27 RAILROAD TRANSPOR	11.000	10.000	77.000	0	0	72.000	951.000	0
28 INTERCITY FREIGHT	2.000	25.000	34.000	0	210.000	250.000	426.000	50.000
29 TRUCK WAREHOUSE	0	9.000	12.000	0	64.000	48.000	0	0
30 AIR TRANSPORTATIO	2.000	0	0	0	91.000	29.000	5.000	0
31 ALL OTHER TRANS.	0	0	9.000	0	0	0	0	0
32 TLPHNE AND TLGRPH	766.000	82.000	88.000	20.000	400.000	56.000	23.000	19.000
33 RADIO AND T.V.	133.000	118.000	64.000	0	0	0	0	0
34 GAS UTILITY	14.000	6084.000	2022.000	663.000	53.000	17.000	10.000	1.000
35 ELECTRIC UTILITY	69.000	32.000	1565.000	502.000	193.000	48.000	69.000	16.000
36 WATER UTILITY	8.000	8.000	74.000	0	11.000	15.000	20.000	3.000
37 WHLSE. AUTO PARTS	5.000	0	3.000	50.000	300.000	0	0	0
38 WHLSE. GROCERY	0	0	0	0	1.000	0	3.000	0
39 WHLSE. FARM PROD.	0	0	0	0	0	0	29.000	0
40 WHLSE. LVESTK.	0	0	0	0	0	0	0	30.000
41 WHLSE. MACHINERY	1.000	105.000	6.000	111.000	7.000	0	0	0
42 WHLSE. PETROLEUM	0	1.000	2.000	8.000	0	0	0	0
43 GENERAL WHLSE.	16.000	24.000	21.000	17.000	47.000	19.000	10.000	28.000
44 LUMBER YDS.HDWRE.	0	0	2.000	0	0	0	0	0
45 DEPT. STORE	0	0	0	0	0	0	0	0
46 FOOD STORES	0	0	0	0	0	0	0	0
47 AUTO DEALERS	10.000	69.000	76.000	250.000	0	0	0	0
48 GAS SERVICE STS.	0	10.000	8.000	0	69.000	6.000	1.000	0
49 APPAREL ACCE SOR.	0	0	0	0	0	0	0	0
50 FURNITURE	0	0	0	0	0	0	0	0
51 EAT AND DRNKNG	12.000	0	0	0	27.000	4.000	1.000	23.000
52 ALL OTHER RETAIL	0	0	0	0	0	1.000	0	0
53 BANK AND CREDIT	49.000	624.000	121.000	0	815.000	395.000	13.000	10.000
54 INSURANCE CARRIER	75.000	201.000	47.000	50.000	362.000	403.000	50.000	26.000
55 F.I.R.E. NEC	205.000	115.000	179.000	0	156.000	51.000	0	31.000
56 LEGAL AND ACCTING	80.000	164.000	92.000	25.000	101.000	61.000	7.000	4.000
57 LODGING	0	60.000	15.000	10.000	143.000	15.000	4.000	0

58 PERSNAL AND PHOTO	21.000	0	0	0	0	0	0	0
59 ADVERTISING	353.000	37.000	24.000	0	114.000	0	0	5.000
60 RECREATION	121.000	0	0	0	0	0	0	0
61 AUTO RENTAL	0	0	1.000	0	29.000	0	0	0
62 ELEC. AND MSC. RP	2.000	108.000	34.000	0	0	48.000	47.000	0
63 MEDICAL	0	0	0	0	0	0	0	0
64 EDUCATIONAL	0	0	0	0	0	0	0	0
65 ENGINEERING ARCH.	4.000	0	0	0	0	0	0	0
66 ALL OTHER PROFES.	54.000	19.000	24.000	0	228.000	31.000	20.000	9.000
67 HOUSEHOLDS	1692.000	15071.000	11602.000	2924.000	15904.000	1243.000	1789.000	142.000
68 FEDERAL GOV'T.	235.000	1819.000	4392.000	59.000	323.000	153.000	61.000	0
69 STATE GOV'T.	36.000	507.000	540.000	0	276.000	39.000	12.000	5.000
70 LOCAL GOV'T.	45.000	1261.000	1894.000	0	376.000	55.000	17.000	7.000
71 IMPORTS	486.000	9291.000	4564.000	1239.000	9218.000	858.000	1550.000	440.000
72 DEPRECIATION	259.000	2875.000	2878.000	1197.000	876.000	99.000	5.000	0
73 GROSS SAVINGS	0	0	0	0	0	0	0	0
TOTAL INPUTS	4959.000	38865.000	30639.000	7988.000	30676.000	4380.000	5762.000	1111.000

		41	42	43	44	45	46	47	48
1	IRR. CROPS	1.000	0	101.000	0	1.000	499.000	0	0
2	LVSTK. DRY. PLTY.	2.000	1.000	6.000	0	6.000	17.000	1.000	0
3	AGRI. SUPPLY	0	0	0	0	0	0	0	0
4	AGRI. SERVICE	0	0	0	0	0	0	0	0
5	ALL MINING	0	0	0	100.000	3.000	0	0	0
6	RESD. CONSTRUCTN.	0	0	0	0	0	0	0	0
7	COMCL. CONSTRUCT.	0	0	0	0	0	0	0	0
8	IND. CONSTRUCTION	0	0	0	0	0	0	0	0
9	FACIL. CONSTRUCT.	0	0	0	0	0	0	0	0
10	MAINT. AND REPAIR	35.000	4.000	80.000	38.000	277.000	419.000	10.000	195.000
11	FOOD PROCESS	25.000	16.000	317.000	26.000	232.000	0	10.000	35.000
12	TEXTILE AND APPAR	4.000	3.000	206.000	3.000	531.000	0	0	0
13	LUMBER	3.000	1.000	23.000	212.000	39.000	0	1.000	1.000
14	FURNITURE	1.000	1.000	5.000	4.000	15.000	0	1.000	1.000
15	BOXES AND PAPER	0	0	3.000	0	0	5.000	0	0
16	PRINT AND PUBLISH	35.000	1.000	55.000	62.000	289.000	17.000	17.000	0
17	CHEMICALS	6.000	12.000	38.000	12.000	37.000	0	11.000	65.000
18	PETROLEUM	0	0	2.000	119.000	12.000	0	0	1605.000
19	RUBBER AND LEATHE	1.000	1.000	6.000	1.000	53.000	0	1.000	1.000
20	GLASS CLAY STONE	0	0	4.000	3.000	8.000	0	0	1.000
21	CEMENT CONCRETE	0	0	0	5.000	0	0	0	0
22	PRIMART METAL	1.000	1.000	3.000	10.000	109.000	0	0	10.000
23	FABRI. METAL	501.000	21.000	3.000	64.000	216.000	0	21.000	19.000
24	MACHINERY	13.000	8.000	53.000	14.000	42.000	0	7.000	40.000
25	SCIENTIFIC INSTR.	1.000	3.000	39.000	57.000	27.000	0	13.000	7.000
26	ALL OTHER MFG.	13.000	8.000	25.000	21.000	21.000	0	10.000	38.000
27	RAILROAD TRANSPOR	303.000	0	2013.000	0	612.000	0	2680.000	0
28	INTERCITY FREIGHT	721.000	160.000	194.000	359.000	556.000	500.000	298.000	82.000
29	TRUCK WAREHOUSE	17.000	0	5.000	0	44.000	0	0	0
30	AIR TRANSPORTATIO	65.000	110.000	189.000	20.000	65.000	0	56.000	0
31	ALL OTHER TRANS.	0	0	0	0	0	0	0	0
32	TLPHNE AND TLGRPH	307.000	70.000	950.000	90.000	392.000	92.000	189.000	59.000
33	RADIO AND T.V.	0	0	12.000	21.000	0	0	150.000	55.000
34	GAS UTILITY	12.000	18.000	380.000	13.000	192.000	91.000	22.000	50.000
35	ELECTRIC UTILITY	86.000	126.000	1002.000	66.000	935.000	489.000	95.000	295.000
36	WATER UTILITY	24.000	36.000	244.000	6.000	28.000	113.000	25.000	30.000
37	WHLSE. AUTO PARTS	0	0	13.000	0	0	0	4352.000	0
38	WHLSE. GROCERY	1.000	1.000	2.000	0	1.000	95.000	0	0
39	WHLSE. FARM PROD.	0	0	0	0	0	0	0	0
40	WHLSE. LVESTK.	0	0	0	0	0	0	0	0
41	WHLSE. MACHINERY	0	0	12.000	0	0	0	0	0
42	WHLSE. PETROLEUM	0	0	0	18.000	2.000	0	0	319.000
43	GENERAL WHLSE.	22.000	29.000	135.000	9.000	267.000	125.000	27.000	46.000
44	LUMBER YDS.HDWRE.	0	0	0	104.000	0	0	0	0
45	DEPT. STORE	0	0	0	3.000	0	0	0	0
46	FOOD STORES	0	0	0	0	0	0	0	0
47	AUTO DEALERS	0	0	3.000	12.000	12.000	0	5.000	0
48	GAS SERVICE STS.	33.000	22.000	63.000	30.000	54.000	0	11.000	25.000
49	APPAREL ACCE SOR.	0	0	0	0	0	0	0	0
50	FURNITURE	0	0	0	0	0	0	0	0
51	EAT AND DRNKNG	23.000	16.000	53.000	13.000	23.000	0	8.000	0
52	ALL OTHER RETAIL	12.000	35.000	11.000	13.000	0	0	31.000	0
53	BANK AND CREDIT	207.000	125.000	891.000	87.000	108.000	545.000	579.000	0
54	INSURANCE CARRIER	51.000	147.000	638.000	212.000	424.000	419.000	127.000	80.000
55	F.I.R.E. NEC	291.000	0	142.000	0	311.000	325.000	0	330.000
56	LEGAL AND ACCTING	90.000	91.000	570.000	30.000	183.000	184.000	86.000	47.000
57	LODGING	52.000	82.000	183.000	5.000	124.000	0	42.000	59.000

58 PERSNAL AND PHOTO	0	0	0	1.000	0	0	0	0
59 ADVERTISING	50.000	104.000	174.000	14.000	632.000	341.000	164.000	0
60 RECREATION	0	0	0	0	0	0	0	0
61 AUTO RENTAL	0	0	782.000	15.000	575.000	125.000	0	0
62 ELEC. AND MSC. RP	42.000	232.000	226.000	0	119.000	0	67.000	0
63 MEDICAL	0	0	0	45.000	0	0	0	0
64 EDUCATIONAL	0	0	0	0	0	0	0	0
65 ENGINEERING ARCH.	0	0	0	0	0	0	0	0
66 ALL OTHER PROFES.	289.000	564.000	812.000	61.000	79.000	0	0	24.000
67 HOUSEHOLDS	7735.000	4775.000	29865.000	3323.000	21807.000	16403.000	9967.000	4706.000
68 FEDERAL GOV'T.	1332.000	346.000	2431.000	237.000	4252.000	679.000	626.000	507.000
69 STATE GOV'T.	212.000	85.000	817.000	26.000	99.000	218.000	13.000	59.000
70 LOCAL GOV'T.	251.000	130.000	875.000	117.000	737.000	248.000	110.000	139.000
71 IMPORTS	1625.000	554.000	4034.000	718.000	12411.000	2748.000	8562.000	186.000
72 DEPRECIATION	306.000	627.000	610.000	289.000	1748.000	696.000	488.000	270.000
73 GROSS SAVINGS	0	0	0	0	0	0	0	0
TOTAL INPUTS	14801.000	8566.000	49300.000	6708.000	48710.000	25393.000	28883.000	9386.000

TRANSACTIONS TABLE :   UPPER RIO GRANDE ,TEXAS, 1967   (THOUSAND DOLLARS)

	49	50	51	52	53	54	55	56
1 IRR. CROPS	0	0	0	0	0	0	0	0
2 LVSTK. DRY. PLTY.	2.000	0	5.000	1.000	0	0	0	2.000
3 AGRI. SUPPLY	0	0	0	0	0	0	0	0
4 AGRI. SERVICE	0	0	0	0	0	0	0	0
5 ALL MINING	0	0	0	0	0	0	0	0
6 RESD. CONSTRUCTN.	0	0	0	0	0	0	0	0
7 COMCL. CONSTRUCT.	0	0	0	0	0	0	0	0
8 IND. CONSTRUCTION	0	0	0	0	0	0	0	0
9 FACIL. CONSTRUCT.	0	0	0	0	0	0	0	0
10 MAINT. AND REPAIR	150.000	205.000	36.000	33.000	167.000	190.000	204.000	90.000
11 FOOD PROCESS	43.000	0	123.000	25.000	3.000	21.000	150.000	4.000
12 TEXTILE AND APPAR	1.000	980.000	4.000	21.000	0	1.000	0	0
13 LUMBER	13.000	25.000	45.000	6.000	3.000	2.000	1.000	1.000
14 FURNITURE	1.000	30.000	2.000	1.000	2.000	0	0	0
15 BOXES AND PAPER	0	0	0	0	0	0	0	0
16 PRINT AND PUBLISH	34.000	60.000	2.000	1.000	51.000	94.000	150.000	104.000
17 CHEMICALS	13.000	0	43.000	114.000	0	0	0	4.000
18 PETROLEUM	1.000	0	2.000	0	0	0	0	0
19 RUBBER AND LEATHE	1.000	0	3.000	1.000	1.000	3.000	0	0
20 GLASS CLAY STONE	2.000	0	8.000	1.000	0	0	0	1.000
21 CEMENT CONCRETE	0	0	0	0	0	0	0	0
22 PRIMART METAL	1.000	0	3.000	11.000	0	0	0	0
23 FABRI. METAL	0	0	1.000	1.000	0	0	0	0
24 MACHINERY	42.000	0	17.000	22.000	0	0	0	18.000
25 SCIENTIFIC INSTR.	0	0	0	22.000	0	0	0	0
26 ALL OTHER MFG.	33.000	40.000	39.000	24.000	0	0	0	19.000
27 RAILROAD TRANSPOR	7.000	0	0	0	0	0	0	0
28 INTERCITY FREIGHT	52.000	150.000	0	20.000	0	0	0	0
29 TRUCK WAREHOUSE	0	0	0	45.000	0	0	0	0
30 AIR TRANSPORTATIO	68.000	0	0	71.000	38.000	63.000	70.000	82.000
31 ALL OTHER TRANS.	0	0	0	0	0	0	0	0
32 TLPHNE AND TLGRPH	120.000	290.000	54.000	92.000	343.000	30.000	306.000	275.000
33 RADIO AND T.V.	25.000	35.000	0	0	12.000	0	200.000	4.000
34 GAS UTILITY	17.000	32.000	69.000	599.000	71.000	50.000	192.000	2.000
35 ELECTRIC UTILITY	94.000	194.000	481.000	84.000	347.000	150.000	1094.000	13.000
36 WATER UTILITY	10.000	19.000	118.000	23.000	22.000	11.000	76.000	4.000
37 WHLSE. AUTO PARTS	0	0	0	3.000	0	0	0	0
38 WHLSE. GROCERY	0	0	0	0	1.000	8.000	0	0
39 WHLSE. FARM PROD.	0	0	0	0	0	0	0	0
40 WHLSE. LVESTK.	0	0	0	0	0	0	0	0
41 WHLSE. MACHINERY	0	0	0	1.000	0	0	0	2.000
42 WHLSE. PETROLEUM	0	0	0	0	0	0	0	0
43 GENERAL WHLSE.	70.000	0	232.000	48.000	217.000	159.000	43.000	76.000
44 LUMBER YDS.HDWRE.	0	0	0	0	0	0	0	0
45 DEPT. STORE	0	0	0	0	0	13.000	0	0
46 FOOD STORES	0	0	0	0	0	83.000	0	0
47 AUTO DEALERS	0	0	0	6.000	0	0	0	0
48 GAS SERVICE STS.	26.000	0	66.000	24.000	9.000	69.000	9.000	17.000
49 APPAREL ACCE SOR.	0	0	0	0	0	0	0	0
50 FURNITURE	0	0	0	0	0	0	0	0
51 EAT AND DRNKNG	10.000	0	0	10.000	28.000	215.000	8.000	12.000
52 ALL OTHER RETAIL	0	0	0	25.000	0	0	0	5.000
53 BANK AND CREDIT	405.000	604.000	145.000	208.000	342.000	92.000	3452.000	486.000
54 INSURANCE CARRIER	222.000	398.000	796.000	371.000	236.000	108.000	289.000	15.000
55 F.I.R.E. NEC	183.000	234.000	416.000	101.000	320.000	146.000	324.000	50.000
56 LEGAL AND ACCTING	46.000	275.000	163.000	114.000	249.000	194.000	230.000	834.000
57 LODGING	51.000	0	0	53.000	29.000	75.000	10.000	62.000

58 PERSNAL AND PHOTO	0	0	145.000	0	0	0	0	0
59 ADVERTISING	349.000	172.000	145.000	134.000	218.000	93.000	152.000	2.000
60 RECREATION	0	0	0	0	0	0	0	0
61 AUTO RENTAL	0	0	0	109.000	347.000	138.000	220.000	0
62 ELEC. AND MSC. RP	32.000	278.000	369.000	10.000	0	0	0	38.000
63 MEDICAL	0	0	0	0	0	49.000	0	0
64 EDUCATIONAL	0	0	0	0	0	0	0	0
65 ENGINEERING ARCH.	0	0	0	0	0	0	0	0
66 ALL OTHER PROFES.	29.000	0	326.000	884.000	170.000	637.000	809.000	852.000
67 HOUSEHOLDS	4592.000	6840.000	13159.000	9500.000	23195.000	8831.000	9262.000	12030.000
68 FEDERAL GOV'T.	447.000	305.000	521.000	399.000	2949.000	360.000	232.000	160.000
69 STATE GOV'T.	75.000	57.000	154.000	1073.000	294.000	783.000	222.000	20.000
70 LOCAL GOV'T.	82.000	186.000	194.000	1212.000	1137.000	69.000	1597.000	118.000
71 IMPORTS	2721.000	4284.000	1101.000	2296.000	4894.000	5639.000	1903.000	188.000
72 DEPRECIATION	195.000	565.000	1593.000	312.000	934.000	31.000	1916.000	251.000
73 GROSS SAVINGS	0	0	0	0	0	0	0	0
TOTAL INPUTS	10265.000	16258.000	20580.000	18111.000	36629.000	18407.000	23121.000	15841.000

TRANSACTIONS TABLE :   UPPER RIO GRANDE ,TEXAS, 1967   (THOUSAND DOLLARS)

	57	58	59	60	61	62	63	64
1 IRR. CROPS	0	0	0	0	0	0	1.000	5.000
2 LVSTK. DRY. PLTY.	3.000	7.000	1.000	0	0	3.000	26.000	12.000
3 AGRI. SUPPLY	0	0	0	0	0	0	0	0
4 AGRI. SERVICE	0	0	0	0	0	0	0	0
5 ALL MINING	0	1.000	0	0	0	0	3.000	0
6 RESD. CONSTRUCTN.	0	0	0	0	0	0	0	0
7 COMCL. CONSTRUCT.	0	0	0	0	0	0	0	0
8 IND. CONSTRUCTION	0	0	0	0	0	0	0	0
9 FACIL. CONSTRUCT.	0	0	0	0	0	0	0	0
10 MAINT. AND REPAIR	241.000	114.000	20.000	173.000	25.000	7.000	35.000	610.000
11 FOOD PROCESS	263.000	2.000	1.000	7.000	1.000	0	509.000	413.000
12 TEXTILE AND APPAR	200.000	0	0	5.000	0	0	50.000	80.000
13 LUMBER	2.000	5.000	1.000	10.000	0	2.000	18.000	46.000
14 FURNITURE	50.000	0	0	10.000	0	0	50.000	182.000
15 BOXES AND PAPER	0	0	0	0	0	0	0	0
16 PRINT AND PUBLISH	59.000	32.000	192.000	5.000	0	3.000	28.000	183.000
17 CHEMICALS	7.000	24.000	1.000	2.000	1.000	7.000	173.000	68.000
18 PETROLEUM	0	296.000	0	0	454.000	0	0	22.000
19 RUBBER AND LEATHE	1.000	2.000	0	1.000	0	1.000	6.000	2.000
20 GLASS CLAY STONE	3.000	7.000	1.000	0	0	3.000	29.000	8.000
21 CEMENT CONCRETE	0	0	0	0	0	0	0	0
22 PRIMART METAL	0	0	1.000	0	0	0	0	1.000
23 FABRI. METAL	0	0	0	20.000	0	0	0	1.000
24 MACHINERY	15.000	91.000	15.000	2.000	1.000	41.000	57.000	32.000
25 SCIENTIFIC INSTR.	0	1.000	1.000	8.000	0	1.000	294.000	159.000
26 ALL OTHER MFG.	13.000	12.000	21.000	10.000	5.000	6.000	7.000	3.000
27 RAILROAD TRANSPOR	0	0	0	0	0	0	0	15.000
28 INTERCITY FREIGHT	55.000	70.000	17.000	0	25.000	9.000	8.000	22.000
29 TRUCK WAREHOUSE	0	0	0	0	0	0	0	0
30 AIR TRANSPORTATIO	76.000	11.000	33.000	17.000	28.000	5.000	87.000	864.000
31 ALL OTHER TRANS.	0	0	0	0	0	0	0	500.000
32 TLPHNE AND TLGRPH	293.000	40.000	39.000	24.000	63.000	204.000	600.000	940.000
33 RADIO AND T.V.	0	100.000	7.000	5.000	0	3.000	27.000	35.000
34 GAS UTILITY	151.000	60.000	8.000	86.000	4.000	28.000	252.000	819.000
35 ELECTRIC UTILITY	402.000	423.000	17.000	265.000	25.000	50.000	288.000	915.000
36 WATER UTILITY	111.000	86.000	5.000	56.000	7.000	13.000	70.000	301.000
37 WHLSE. AUTO PARTS	0	0	0	0	429.000	0	0	550.000
38 WHLSE. GROCERY	0	0	0	50.000	0	0	45.000	248.000
39 WHLSE. FARM PROD.	0	0	0	0	0	0	0	0
40 WHLSE. LVESTK.	0	0	0	0	0	0	0	0
41 WHLSE. MACHINERY	2.000	308.000	26.000	0	0	195.000	487.000	1539.000
42 WHLSE. PETROLEUM	0	56.000	0	0	86.000	0	0	2.000
43 GENERAL WHLSE.	141.000	371.000	60.000	12.000	1.000	130.000	1241.000	472.000
44 LUMBER YDS.HDWRE.	0	0	0	0	0	0	0	0
45 DEPT. STORE	0	0	0	0	0	0	0	0
46 FOOD STORES	0	0	0	0	0	0	0	1.000
47 AUTO DEALERS	12.000	0	2.000	1.000	191.000	23.000	1.000	250.000
48 GAS SERVICE STS.	16.000	74.000	7.000	3.000	6.000	0	18.000	246.000
49 APPAREL ACCE SOR.	0	0	0	0	0	0	0	0
50 FURNITURE	0	0	0	0	0	0	0	0
51 EAT AND DRNKNG	11.000	2.000	5.000	2.000	4.000	0	12.000	201.000
52 ALL OTHER RETAIL	4.000	10.000	0	129.000	2.000	22.000	1.000	99.000
53 BANK AND CREDIT	676.000	400.000	77.000	17.000	0	93.000	36.000	2284.000
54 INSURANCE CARRIER	276.000	10.000	42.000	45.000	115.000	35.000	200.000	76.000
55 F.I.R.E. NEC	1540.000	266.000	19.000	57.000	507.000	93.000	221.000	1167.000
56 LEGAL AND ACCTING	125.000	92.000	31.000	21.000	109.000	46.000	307.000	963.000
57 LODGING	57.000	8.000	182.000	24.000	21.000	0	65.000	166.000

58 PERSNAL AND PHOTO	102.000	223.000	0	65.000	0	0	82.000	217.000
59 ADVERTISING	26.000	227.000	121.000	60.000	54.000	54.000	14.000	241.000
60 RECREATION	0	0	0	188.000	0	0	225.000	522.000
61 AUTO RENTAL	0	90.000	6.000	0	0	0	144.000	75.000
62 ELEC. AND MSC. RP	87.000	0	1.000	22.000	0	0	0	0
63 MEDICAL	0	0	0	0	0	0	137.000	0
64 EDUCATIONAL	0	0	0	0	0	0	0	0
65 ENGINEERING ARCH.	0	0	0	0	0	0	0	75.000
66 ALL OTHER PROFES.	152.000	616.000	128.000	378.000	261.000	28.000	3279.000	1232.000
67 HOUSEHOLDS	3853.000	12329.000	2239.000	2953.000	1786.000	2930.000	19628.000	35660.000
68 FEDERAL GOV'T.	342.000	397.000	76.000	66.000	76.000	143.000	1547.000	1665.000
69 STATE GOV'T.	624.000	103.000	38.000	51.000	37.000	42.000	51.000	3.000
70 LOCAL GOV'T.	299.000	143.000	48.000	254.000	27.000	59.000	114.000	69.000
71 IMPORTS	2771.000	1947.000	2095.000	1395.000	783.000	2093.000	5473.000	14314.000
72 DEPRECIATION	1473.000	1449.000	122.000	608.000	986.000	184.000	1590.000	4084.000
73 GROSS SAVINGS	0	0	0	0	0	0	0	0
TOTAL INPUTS	14534.000	20505.000	5706.000	7107.000	6120.000	6556.000	37536.000	72659.000

TRANSACTIONS TABLE : UPPER RIO GRANDE ,TEXAS, 1967   (THOUSAND DOLLARS)

	65	66
1 IRR. CROPS	0	4.000
2 LVSTK. DRY. PLTY.	1.000	22.000
3 AGRI. SUPPLY	0	0
4 AGRI. SERVICE	0	0
5 ALL MINING	0	1.000
6 RESD. CONSTRUCTN.	0	0
7 COMCL. CONSTRUCT.	0	0
8 IND. CONSTRUCTION	0	0
9 FACIL. CONSTRUCT.	0	0
10 MAINT. AND REPAIR	5.000	207.000
11 FOOD PROCESS	3.000	71.000
12 TEXTILE AND APPAR	0	10.000
13 LUMBER	0	18.000
14 FURNITURE	0	0
15 BOXES AND PAPER	0	0
16 PRINT AND PUBLISH	2.000	112.000
17 CHEMICALS	1.000	78.000
18 PETROLEUM	0	3.000
19 RUBBER AND LEATHE	0	3.000
20 GLASS CLAY STONE	0	12.000
21 CEMENT CONCRETE	0	0
22 PRIMART METAL	0	0
23 FABRI. METAL	0	1.000
24 MACHINERY	1.000	55.000
25 SCIENTIFIC INSTR.	1.000	40.000
26 ALL OTHER MFG.	3.000	12.000
27 RAILROAD TRANSPOR	76.000	0
28 INTERCITY FREIGHT	0	93.000
29 TRUCK WAREHOUSE	0	0
30 AIR TRANSPORTATIO	69.000	887.000
31 ALL OTHER TRANS.	0	0
32 TLPHNE AND TLGRPH	23.000	818.000
33 RADIO AND T.V.	2.000	118.000
34 GAS UTILITY	11.000	154.000
35 ELECTRIC UTILITY	3.000	340.000
36 WATER UTILITY	1.000	65.000
37 WHLSE. AUTO PARTS	0	50.000
38 WHLSE. GROCERY	0	51.000
39 WHLSE. FARM PROD.	0	0
40 WHLSE. LVESTK.	0	0
41 WHLSE. MACHINERY	45.000	345.000
42 WHLSE. PETROLEUM	0	1.000
43 GENERAL WHLSE.	5.000	657.000
44 LUMBER YDS.HDWRE.	0	0
45 DEPT. STORE	0	0
46 FOOD STORES	0	1.000
47 AUTO DEALERS	3.000	47.000
48 GAS SERVICE STS.	18.000	166.000
49 APPAREL ACCE SOR.	0	0
50 FURNITURE	0	0
51 EAT AND DRNKNG	9.000	180.000
52 ALL OTHER RETAIL	10.000	197.000
53 BANK AND CREDIT	7.000	1600.000
54 INSURANCE CARRIER	27.000	28.000
55 F.I.R.E. NEC	1.000	341.000
56 LEGAL AND ACCTING	11.000	271.000
57 LODGING	49.000	57.000

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58 PERSNAL AND PHOTO        0       153.000
59 ADVERTISING          1.000        65.000
60 RECREATION               0       149.000
61 AUTO RENTAL              0       389.000
62 ELEC. AND MSC. RP    5.000        16.000
63 MEDICAL                  0             0
64 EDUCATIONAL              0             0
65 ENGINEERING ARCH.        0             0
66 ALL OTHER PROFES.    109.000    4500.000
67 HOUSEHOLDS          1511.000   19013.000
68 FEDERAL GOV'T.        79.000    1706.000
69 STATE GOV'T.          14.000     285.000
70 LOCAL GOV'T.           8.000     313.000
71 IMPORTS              209.000    4850.000
72 DEPRECIATION          39.000    1284.000
73 GROSS SAVINGS            0             0
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   TOTAL INPUTS        2362.000   39839.000
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	HOUSEHOLDS	FED GOV	STATE GOV	LOCAL GOV		
1 IRR. CROPS	656.000	12630.000	0	0	0	0
2 LVSTK. DRY. PLTY.	1548.000	3320.000	1.000	0	0	0
3 AGRI. SUPPLY	383.000	0	0	0	0	0
4 AGRI. SERVICE	434.000	0	0	0	0	0
5 ALL MINING	0	0	95.000	0	0	0
6 RESD. CONSTRUCTN.	0	3947.000	0	0	0	0
7 COMCL. CONSTRUCT.	0	11329.000	3526.000	8599.000	0	0
8 IND. CONSTRUCTION	0	0	0	0	0	0
9 FACIL. CONSTRUCT.	0	45948.000	15431.000	8469.000	0	0
10 MAINT. AND REPAIR	5461.000	337.000	55.000	61.000	0	0
11 FOOD PROCESS	61678.000	2775.000	78.000	0	0	0
12 TEXTILE AND APPAR	6712.000	4846.000	20.000	0	0	0
13 LUMBER	253.000	108.000	30.000	0	0	0
14 FURNITURE	255.000	200.000	99.000	26.000	0	0
15 BOXES AND PAPER	42.000	79.000	5.000	0	0	0
16 PRINT AND PUBLISH	5789.000	0	26.000	60.000	0	0
17 CHEMICALS	581.000	1083.000	130.000	216.000	0	0
18 PETROLEUM	14513.000	1088.000	211.000	0	0	0
19 RUBBER AND LEATHE	2026.000	40.000	185.000	0	0	0
20 GLASS CLAY STONE	610.000	740.000	107.000	100.000	0	0
21 CEMENT CONCRETE	0	0	31.000	0	0	0
22 PRIMART METAL	3000.000	1421.000	116.000	100.000	0	0
23 FABRI. METAL	5000.000	1587.000	15.000	10.000	0	0
24 MACHINERY	321.000	655.000	116.000	0	0	0
25 SCIENTIFIC INSTR.	2362.000	2158.000	22.000	46.000	0	0
26 ALL OTHER MFG.	300.000	62.000	12.000	0	0	0
27 RAILROAD TRANSPOR	0	427.000	0	0	0	0
28 INTERCITY FREIGHT	2671.000	4132.000	20.000	0	0	0
29 TRUCK WAREHOUSE	0	0	0	0	0	0
30 AIR TRANSPORTATIO	2857.000	2044.000	11.000	40.000	0	0
31 ALL OTHER TRANS.	2200.000	265.000	0	0	0	0
32 TLPHNE AND TLGRPH	10194.000	3809.000	206.000	325.000	0	0
33 RADIO AND T.V.	0	2815.000	70.000	60.000	0	0
34 GAS UTILITY	8695.000	2530.000	17.000	172.000	0	0
35 ELECTRIC UTILITY	9795.000	2336.000	111.000	599.000	0	0
36 WATER UTILITY	3160.000	1191.000	16.000	880.000	0	0
37 WHLSE. AUTO PARTS	13143.000	2500.000	25.000	945.000	0	0
38 WHLSE. GROCERY	3252.000	565.000	0	0	0	0
39 WHLSE. FARM PROD.	500.000	0	0	0	0	0
40 WHLSE. LVESTK.	200.000	100.000	0	0	0	0
41 WHLSE. MACHINERY	2180.000	1430.000	77.000	225.000	0	0
42 WHLSE. PETROLEUM	2548.000	1072.000	111.000	102.000	0	0
43 GENERAL WHLSE.	13215.000	2594.000	54.000	1030.000	0	0
44 LUMBER YDS.HDWRE.	4701.000	500.000	0	49.000	0	0
45 DEPT. STORE	28738.000	0	0	0	0	0
46 FOOD STORES	25217.000	0	0	0	0	0
47 AUTO DEALERS	26443.000	0	0	150.000	0	0
48 GAS SERVICE STS.	5748.000	0	0	563.000	0	0
49 APPAREL ACCE SOR.	10265.000	0	0	0	0	0
50 FURNITURE	14058.000	0	0	0	0	0
51 EAT AND DRNKNG	19413.000	0	0	10.000	0	0
52 ALL OTHER RETAIL	17207.000	0	1.000	0	0	0
53 BANK AND CREDIT	10471.000	0	0	395.000	0	0
54 INSURANCE CARRIER	5359.000	495.000	6.000	116.000	0	0
55 F.I.R.E. NEC	9932.000	0	0	131.000	0	0
56 LEGAL AND ACCTING	4610.000	1660.000	23.000	251.000	0	0
57 LODGING	1878.000	0	0	25.000	0	0

58 PERSNAL AND PHOTO	18343.000	174.000	0	0	0	0
59 ADVERTISING	0	0	0	0	0	0
60 RECREATION	5902.000	0	0	0	0	0
61 AUTO RENTAL	993.000	203.000	0	10.000	0	0
62 ELEC. AND MSC. RP	3094.000	156.000	18.000	0	0	0
63 MEDICAL	29913.000	2061.000	7.000	0	0	0
64 EDUCATIONAL	61686.000	7329.000	0	0	0	0
65 ENGINEERING ARCH.	72.000	556.000	31.000	250.000	0	0
66 ALL OTHER PROFES.	7775.000	4125.000	133.000	895.000	0	0
67 HOUSEHOLDS	23400.000	335407.000	11062.000	65848.000	0	0
68 FEDERAL GOV'T.	154526.000	0	0	0	0	0
69 STATE GOV'T.	15347.000	10064.000	0	0	0	0
70 LOCAL GOV'T.	22500.000	5494.000	13659.000	0	0	0
71 IMPORTS	102363.000	-4399.000	-525.000	0	0	0
72 DEPRECIATION	0	0	0	0	0	0
73 GROSS SAVINGS	293226.000	0	0	0	0	0
TOTAL INPUTS	1109714.000	485988.000	45444.000	90758.000	0.0	0.0

	EXPORT	NET INV CHANGE	CAPITAL FORMATION	TOTAL FINAL DEMAND	TOTAL OUTPUTS
1 IRR. CROPS	3329.000	0	0	16615.000	26100.000
2 LVSTK. DRY. PLTY.	34200.000	0	0	39069.000	40110.000
3 AGRI. SUPPLY	0	0	0	383.000	383.000
4 AGRI. SERVICE	1652.000	0	0	2086.000	4280.000
5 ALL MINING	33573.000	0	0	33668.000	41713.000
6 RESD. CONSTRUCTN.	10716.000	0	39486.000	54149.000	54149.000
7 COMCL. CONSTRUCT.	6238.000	0	23454.000	53146.000	53146.000
8 IND. CONSTRUCTION	3978.000	0	14660.000	18638.000	18638.000
9 FACIL. CONSTRUCT.	644.000	0	2374.000	72866.000	72866.000
10 MAINT. AND REPAIR	0	0	0	5914.000	21153.000
11 FOOD PROCESS	15827.000	-860.000	0	79498.000	85940.000
12 TEXTILE AND APPAR	167745.000	2956.000	0	182279.000	188300.000
13 LUMBER	0	322.000	362.000	1075.000	6750.000
14 FURNITURE	1301.000	-7.000	97.000	1971.000	2400.000
15 BOXES AND PAPER	227.000	3.000	58.000	414.000	700.000
16 PRINT AND PUBLISH	4901.000	-44.000	0	10732.000	13400.000
17 CHEMICALS	534.000	35.000	0	2579.000	6130.000
18 PETROLEUM	157089.000	-1589.000	0	171312.000	192634.000
19 RUBBER AND LEATHE	4834.000	530.000	0	7615.000	8400.000
20 GLASS CLAY STONE	0	-296.000	0	1261.000	5050.000
21 CEMENT CONCRETE	1648.000	-33.000	0	1646.000	13880.000
22 PRIMART METAL	118236.000	80.000	0	122953.000	140460.000
23 FABRI. METAL	6757.000	681.000	124.000	14174.000	21100.000
24 MACHINERY	0	48.000	0	1140.000	2170.000
25 SCIENTIFIC INSTR.	9050.000	0	0	13638.000	15630.000
26 ALL OTHER MFG.	0	4.000	0	378.000	970.000
27 RAILROAD TRANSPOR	1233.000	0	0	1660.000	13494.000
28 INTERCITY FREIGHT	9054.000	0	0	15877.000	25762.000
29 TRUCK WAREHOUSE	0	0	0	0	1286.000
30 AIR TRANSPORTATIO	0	0	0	4952.000	8446.000
31 ALL OTHER TRANS.	0	0	0	2465.000	3908.000
32 TLPHNE AND TLGRPH	0	0	0	14534.000	26716.000
33 RADIO AND T.V.	0	0	0	2945.000	4959.000
34 GAS UTILITY	6100.000	0	0	17514.000	38865.000
35 ELECTRIC UTILITY	1808.000	0	0	14649.000	30639.000
36 WATER UTILITY	0	0	0	5247.000	7988.000
37 WHLSE. AUTO PARTS	5932.000	0	0	22545.000	30676.000
38 WHLSE. GROCERY	0	0	0	3817.000	4380.000
39 WHLSE. FARM PROD.	4782.000	0	0	5282.000	5762.000
40 WHLSE. LVESTK.	620.000	0	0	920.000	1111.000
41 WHLSE. MACHINERY	5046.000	0	0	8958.000	14801.000
42 WHLSE. PETROLEUM	2328.000	0	0	6161.000	8566.000
43 GENERAL WHLSE.	22870.000	0	0	39763.000	49300.000
44 LUMBER YDS.HDWRE.	528.000	0	0	5778.000	6708.000
45 DEPT. STORE	19956.000	0	0	48694.000	48710.000
46 FOOD STORES	0	0	0	25217.000	25393.000
47 AUTO DEALERS	0	0	0	26593.000	28883.000
48 GAS SERVICE STS.	0	0	0	6311.000	9386.000
49 APPAREL ACCE SOR.	0	0	0	10265.000	10265.000
50 FURNITURE	2200.000	0	0	16258.000	16258.000
51 EAT AND DRNKNG	0	0	0	19423.000	20580.000
52 ALL OTHER RETAIL	122.000	0	0	17330.000	18111.000
53 BANK AND CREDIT	0	0	0	10866.000	36629.000
54 INSURANCE CARRIER	0	0	0	5976.000	18407.000
55 F.I.R.E. NEC	0	0	0	10063.000	23121.000
56 LEGAL AND ACCTING	0	0	0	6544.000	15841.000
57 LODGING	10367.000	82.000	0	12352.000	14534.000

58 PERSNAL AND PHOTO	129.000	0	0	18646.000	20505.000
59 ADVERTISING	608.000	0	0	608.000	5706.000
60 RECREATION	0	0	0	5902.000	7107.000
61 AUTO RENTAL	0	0	0	1206.000	6120.000
62 ELEC. AND MSC. RP	940.000	223.000	0	4431.000	6556.000
63 MEDICAL	5256.000	35.000	0	37272.000	37536.000
64 EDUCATIONAL	3644.000	0	0	72659.000	72659.000
65 ENGINEERING ARCH.	290.000	0	0	1199.000	2362.000
66 ALL OTHER PROFES.	5408.000	0	0	18336.000	39839.000
67 HOUSEHOLDS	0	0	0	435717.000	1109714.000
68 FEDERAL GOV'T.	0	0	0	154526.000	214708.000
69 STATE GOV'T.	0	0	0	25411.000	41846.000
70 LOCAL GOV'T.	0	0	0	41653.000	63698.000
71 IMPORTS	-629941.000	0	0	-532502.000	90253.000
72 DEPRECIATION	0	0	0	0	63003.000
73 GROSS SAVINGS	0	0	0	293226.000	293226.000
TOTAL INPUTS	61759.000	2170.000	80615.000	1876448.000	3680775.000

TABLE 2. DIRECT INPUT REQUIREMENTS : UPPER RIO GRANDE ,TEXAS, 1967

	1	2	3	4	5	6	7	8
1 IRR. CROPS	0.01091954	0.09381700	0.00522193	0.00093458	0	0	0	0
2 LVSTK. DRY. PLTY.	0.00019157	0.00618300	0.00522193	0.00046729	0	0	0	0
3 AGRI. SUPPLY	0	0	0	0	0	0	0	0
4 AGRI. SERVICE	0.03670498	0.02176515	0.14621410	0.06565421	0	0.00009234	0.00005645	0
5 ALL MINING	0	0	0	0.00046729	0	0.00197603	0.00060211	0.00128769
6 RESD. CONSTRUCTN.	0	0	0	0	0	0	0	0
7 COMCL. CONSTRUCT.	0	0	0	0	0	0	0	0
8 IND. CONSTRUCTION	0	0	0	0	0	0	0	0
9 FACIL. CONSTRUCT.	0	0	0	0	0	0	0	0
10 MAINT. AND REPAIR	0.00348659	0.01169284	0.00783290	0.00560748	0.00026371	0.01530961	0.00161818	0.00386308
11 FOOD PROCESS	0	0.04273249	0	0.00093458	0	0.00005540	0.00005645	0.00005365
12 TEXTILE AND APPAR	0.00551724	0.00331588		0.00023364	0	0.00923378	0.01081925	0
13 LUMBER	0	0.01692845	0	0.00116822	0.00071920	0.02958503	0.00538140	0.02430518
14 FURNITURE	0	0	0	0	0.00021576	0.00035088	0	0.00091212
15 BOXES AND PAPER	0	0.00114685	0	0	0	0	0	0
16 PRINT AND PUBLISH	0	0.00004986	0.01044386	0.00070093	0.00004795	0.00009234	0.00005645	0.00016096
17 CHEMICALS	0.01149425	0.00249314	0	0.00467290	0.00105483	0.00295481	0.00141121	0.00482884
18 PETROLEUM	0.02157088	0.01084518	0.00522193	0.02616822	0.00208568	0.00814419	0.01051820	0.02682691
19 RUBBER AND LEATHE	0	0	0	0	0	0.00003694	0.00016934	0
20 GLASS CLAY STONE	0	0	0	0.00023364	0.00086304	0.01144989	0.00323637	0.00332654
21 CEMENT CONCRETE	0	0	0	0	0	0.03510683	0.05189478	0.06143363
22 PRIMART METAL	0.00467433	0.00311643	0	0	0.00966126	0.00315795	0.01014187	0.01995922
23 FABRI. METAL	0	0.00142109	0	0	0.00026371	0.01573436	0.03697362	0.01357442
24 MACHINERY	0.00091954	0.00024931	0	0.00023364	0.00016781	0.00066483	0.00094080	0.00166327
25 SCIENTIFIC INSTR.	0	0.00284218	0	0	0.00481864	0	0	0.00096577
26 ALL OTHER MFG.	0	0	0	0	0	0.00005540	0.00001882	0.00016096
27 RAILROAD TRANSPOR	0	0	0.00261097	0	0	0.00016621	0.00007526	0.00064385
28 INTERCITY FREIGHT	0.00383142	0.00623286	0.05744125	0.01261682	0.01227435	0.00461689	0.00325518	0.00842365
29 TRUCK WAREHOUSE	0.00026820	0.00017452	0.02872063	0	0.00019179	0.00083104	0.00143002	0.00418500
30 AIR TRANSPORTATIO	0	0	0	0.00257009	0.00021576	0.00018468	0.00015053	0.00016096
31 ALL OTHER TRANS.	0	0	0	0	0.00285283	0	0	0
32 TLPHNE AND TLGRPH	0.00291188	0.01485914	0.01044386	0.00537383	0.00047947	0.00238232	0.00284123	0.00214615
33 RADIO AND T.V.	0.00191571	0.00062329	0	0.00070093	0	0.00075717	0.00016934	0.00016096
34 GAS UTILITY	0.02413793	0.01500873	0.00522193	0.00280374	0.03118932	0.00121886	0.00084672	0.00037558
35 ELECTRIC UTILITY	0.02068966	0.00179506	0.01566580	0.01915888	0.00117469	0.00190216	0.00120423	0.00053654
36 WATER UTILITY	0	0.00062329	0.00522193	0.00140187	0.00016781	0.00110805	0.00077146	0.00032192
37 WHLSE. AUTO PARTS	0.00252874	0.00032411	0.01305483	0.00023364	0.00383573	0.00009234	0.00009408	0.00053654
38 WHLSE. GROCERY	0	0	0	0	0	0.00001847	0.00001882	0.00010731
39 WHLSE. FARM PROD.	0.00187739	0.00610820	0	0.00116822	0	0	0	0
40 WHLSE. LVESTK.	0	0.00301670	0	0	0	0	0	0
41 WHLSE. MACHINERY	0.00191571	0.00029918	0	0.00794393	0.01057224	0.00175442	0.00205095	0.00885288
42 WHLSE. PETROLEUM	0.00785441	0.00436300	0	0.02476636	0.00611320	0.00011081	0.00095962	0.00026827
43 GENERAL WHLSE.	0.01789272	0.02779855	0.00261097	0.01448598	0.00007192	0.00186522	0.01454484	0.00761884
44 LUMBER YDS.HDWRE.	0.00360153	0.00311643	0	0.00747664	0.00119867	0.00293634	0.00404546	0.00391673
45 DEPT. STORE	0	0	0	0	0	0	0	0
46 FOOD STORES	0	0	0	0.00023364	0	0	0	0.00048288
47 AUTO DEALERS	0.01145594	0.01401147	0.00261097	0.00467290	0.00419533	0.00057249	0.00052685	0.00037558
48 GAS SERVICE STS.	0.00877395	0.01124408	0.00522193	0.00163551	0.00031165	0.00299174	0.00280360	0.00295096
49 APPAREL ACCE SOR.	0	0	0	0	0	0	0	0
50 FURNITURE	0	0	0	0	0	0	0	0
51 EAT AND DRNKNG	0	0	0	0	0	0.00062790	0.00048922	0.00069750
52 ALL OTHER RETAIL	0	0	0	0.00023364	0.00002397	0.00057249	0.00013171	0.00026827
53 BANK AND CREDIT	0.03869732	0.02734979	0.01566580	0.00981308	0.00033563	0.03381411	0.00190043	0.00316558
54 INSURANCE CARRIER	0.00574713	0.01154326	0.01566580	0.01495327	0.00079112	0.01076659	0.01763068	0.01577422
55 F.I.R.E. NEC	0.00383142	0	0.01566580	0.00023364	0.00011987	0.00989861	0.00434652	0.00429231
56 LEGAL AND ACCTING	0	0	0.00783290	0.00327103	0.00035960	0.00393359	0.00430888	0.00295096
57 LODGING	0	0	0	0.00303738	0.00011987	0.00079411	0.00050803	0.00064385

58 PERSNAL AND PHOTO	0	0	0	0	0.00004795	0	0	0
59 ADVERTISING	0	0	0	0	0	0.00193909	0.00077146	0.00160961
60 RECREATION	0	0	0	0	0	0	0	0
61 AUTO RENTAL	0	0	0	0	0.00057536	0.00465383	0.00286005	0.00139500
62 ELEC. AND MSC. RP	0.00249042	0.00139616	0.00261097	0.00420561	0.00002397	0	0.00056448	0
63 MEDICAL	0	0	0	0	0	0	0	0
64 EDUCATIONAL	0	0	0	0	0	0	0	0
65 ENGINEERING ARCH.	0	0	0	0	0.00086304	0.00600196	0.00167463	0.00101942
66 ALL OTHER PROFES.	0.00068966	0.00194465	0.00261097	0.05397196	0.00019179	0.00480157	0.00502390	0.00316558
67 HOUSEHOLDS	0.19103448	0.13632511	0.34725849	0.23294393	0.60048426	0.26238712	0.41177135	0.32101084
68 FEDERAL GOV'T.	0.01176245	0.01909748	0.04699739	0.02616822	0.07242347	0.01453397	0.01401799	0.01840326
69 STATE GOV'T.	0.00068966	0.00052356	0.00522193	0.00350467	0.02668233	0.00304715	0.00641629	0.00654577
70 LOCAL GOV'T.	0.10394636	0.03704812	0.01044386	0.00537383	0.00242131	0.00566954	0.00417717	0.00316558
71 IMPORTS	0.36938697	0.37404637	0.14360313	0.36635514	0.15640208	0.44639790	0.33712791	0.40245735
72 DEPRECIATION	0.06659004	0.06252805	0.05744125	0.06121495	0.04312804	0.03265065	0.01659579	0.00804807
73 GROSS SAVINGS	0	0	0	0	0	0	0	0
TOTAL	1.00000000	1.00000000	1.00000000	1.00000000	1.00000000	1.00000000	1.00000000	1.00000000

DIRECT INPUT REQUIREMENTS :   UPPER RIO GRANDE ,TEXAS, 1967

	9	10	11	12	13	14	15	16
1 IRR. CROPS	0	0	0.03761927	0.00400956	0.00029630	0.00166667	0.00714286	0.00007463
2 LVSTK. DRY. PLTY.	0	0	0.00614382	0.00030271	0.00014815	0	0	0.00052239
3 AGRI. SUPPLY	0	0	0	0	0	0	0	0
4 AGRI. SERVICE	0	0	0	0.00009559	0	0	0	0
5 ALL MINING	0.06861911	0.00099277	0	0	0	0	0	0.00007463
6 RESD. CONSTRUCTN.	0	0	0	0	0	0	0	0
7 COMCL. CONSTRUCT.	0	0	0	0	0	0	0	0
8 IND. CONSTRUCTION	0	0	0	0	0	0	0	0
9 FACIL. CONSTRUCT.	0	0	0	0	0	0	0	0
10 MAINT. AND REPAIR	0.00111163	0.00401834	0.01733768	0.01303240	0.00074074	0.02083333	0.10714286	0.00895522
11 FOOD PROCESS	0.00002745	0.00009455	0.02487782	0	0	0	0	0.00007463
12 TEXTILE AND APPAR	0	0	0.00001164	0.01306426	0.00074074	0.01458333	0.00714286	0
13 LUMBER	0.00105673	0.02236089	0.00003491	0.00001062	0.18740741	0.05416667	0	0.00037313
14 FURNITURE	0	0.00075639	0	0	0	0.00250000	0	0
15 BOXES AND PAPER	0	0.00018910	0.00125669	0.00026553	0	0	0.07142857	0
16 PRINT AND PUBLISH	0	0	0.00226902	0.00129049	0	0.01083333	0	0.01022388
17 CHEMICALS	0.00030192	0.00491656	0.00037235	0.00003717	0.00370370	0.00333333	0.00142857	0.00335821
18 PETROLEUM	0.09127714	0.00312012	0.00012800	0.00002655	0	0.00041667	0	0
19 RUBBER AND LEATHE	0	0.00028365	0.00004654	0.00005842	0	0.00541667	0	0
20 GLASS CLAY STONE	0.00085088	0.02529192	0.00098906	0.00001593	0	0.00875000	0	0.00052239
21 CEMENT CONCRETE	0.07215986	0	0	0	0	0	0	0
22 PRIMART METAL	0.00369171	0.03205219	0.00001164	0	0	0.06500000	0	0
23 FABRI. METAL	0.02135427	0.00997494	0.00006982	0	0	0	0	0
24 MACHINERY	0.00006862	0	0.00031417	0.00006373	0.00074074	0.00041667	0	0.00067164
25 SCIENTIFIC INSTR.	0	0	0	0	0	0	0	0.00216418
26 ALL OTHER MFG.	0.00001372	0.00033092	0.00005818	0.00010621	0.00014815	0.00166667	0	0.00402985
27 RAILROAD TRANSPOR	0.00012351	0.00018910	0.00094252	0.00066914	0.03851852	0	0	0.00179104
28 INTERCITY FREIGHT	0.00441907	0.00775304	0.00657435	0.00259692	0.00340741	0.04208333	0	0
29 TRUCK WAREHOUSE	0.00017841	0.00255283	0.00029090	0.00006373	0.00311111	0.01916667	0	0.00164179
30 AIR TRANSPORTATIO	0.00065874	0.00023637	0.00013963	0.00040361	0.00014815	0	0	0.00082090
31 ALL OTHER TRANS.	0	0	0	0	0	0	0	0.00014925
32 TLPHNE AND TLGRPH	0.00215464	0.00250555	0.00202467	0.00303240	0.00192593	0.00208333	0.00571429	0.00126866
33 RADIO AND T.V.	0.00002745	0.00018910	0.00259483	0.00079660	0	0.00416667	0	0.01119403
34 GAS UTILITY	0.00111163	0.00033092	0.00197812	0.00227828	0.00133333	0.00708333	0.00142857	0.00201493
35 ELECTRIC UTILITY	0.00327999	0.00094549	0.00495695	0.00239511	0	0.02458333	0.01428571	0.00656716
36 WATER UTILITY	0.00205857	0.00037820	0.00084943	0.00039830	0.00059259	0.00333333	0.00714286	0.00291045
37 WHLSE. AUTO PARTS	0.00343096	0.00047275	0.00011636	0.00262878	0	0.00416667	0	0
38 WHLSE. GROCERY	0.00001372	0.00004727	0.00054689	0.00001062	0	0	0	0
39 WHLSE. FARM PROD.	0	0	0.00138469	0.00016994	0	0.00041667	0	0
40 WHLSE. LVESTK.	0	0	0.00046544	0	0	0	0	0
41 WHLSE. MACHINERY	0.00896166	0	0.00029090	0	0	0.00041667	0.01428571	0.00417910
42 WHLSE. PETROLEUM	0.00310158	0.00018910	0.00003491	0	0	0	0	0
43 GENERAL WHLSE.	0.00156452	0.00113459	0.00465441	0.00080722	0.00059259	0.00875000	0.00142857	0.02723881
44 LUMBER YDS.HDWRE.	0.00038427	0.00165461	0	0	0	0.00291667	0	0
45 DEPT. STORE	0	0	0	0	0	0	0	0
46 FOOD STORES	0	0	0	0	0	0	0	0
47 AUTO DEALERS	0.00009607	0.00080367	0.00011636	0.00039830	0	0	0.00142857	0
48 GAS SERVICE STS.	0.00086460	0.00496383	0.00434024	0.00030271	0.00014815	0	0.00428571	0.00089552
49 APPAREL ACCE SOR.	0	0	0	0	0	0	0	0
50 FURNITURE	0	0	0	0	0	0	0	0
51 EAT AND DRNKNG	0.00020586	0.00075639	0.00016290	0.00037175	0.00014815	0	0	0.00007463
52 ALL OTHER RETAIL	0.00091950	0.00047275	0	0	0	0	0	0
53 BANK AND CREDIT	0.01634507	0.00434926	0.00451478	0.01663303	0.00725926	0.01833333	0.00714286	0.02544776
54 INSURANCE CARRIER	0.00193506	0.00619297	0.00575983	0.00143388	0.01037037	0.02083333	0.01142857	0.00104478
55 F.I.R.E. NEC	0.00031565	0.00501111	0.00300209	0.00359002	0.00770370	0.08375000	0.01714286	0.01104478
56 LEGAL AND ACCTING	0.00252518	0.00368742	0.00087270	0.00494955	0.00251852	0.00125000	0.00428571	0.00141791
57 LODGING	0.00104301	0.00080367	0.00031417	0.00045141	0.00044444	0	0	0.00029851

58 PERSNAL AND PHOTO	0	0	0	0	0	0	0	0
59 ADVERTISING	0.00094694	0.00189098	0.00112869	0.00110993	0.00059259	0.00291667	0	0.00059701
60 RECREATION	0	0	0	0	0	0	0	0
61 AUTO RENTAL	0.00824802	0.00028365	0.00395625	0.00192246	0	0	0.00428571	0.00119403
62 ELEC. AND MSC. RP	0	0	0	0.00055762	0	0	0	0
63 MEDICAL	0	0	0	0	0	0	0	0
64 EDUCATIONAL	0	0	0	0	0	0	0	0
65 ENGINEERING ARCH.	0.00813823	0	0	0	0	0	0	0
66 ALL OTHER PROFES.	0.01173387	0.03172127	0.00172213	0.00900690	0.00177778	0.01375000	0	0.00455224
67 HOUSEHOLDS	0.33852551	0.62312674	0.30288573	0.35119490	0.35392593	0.25875000	0.19285714	0.49246269
68 FEDERAL GOV'T.	0.01838992	0.02042264	0.01951361	0.02652682	0.01511111	0.03833333	0.02428571	0.02149254
69 STATE GOV'T.	0.00273104	0.00260010	0.00136141	0.00677642	0.00103704	0.00625000	0.00428571	0.00940299
70 LOCAL GOV'T.	0.00610710	0.00269465	0.00318827	0.00553372	0.00533333	0.00416667	0.00714286	0.00626866
71 IMPORTS	0.23212472	0.15794450	0.51111240	0.51520977	0.33066667	0.20833333	0.47571429	0.28238806
72 DEPRECIATION	0.05680290	0.00931310	0.01666279	0.00540096	0.01940741	0.03458333	0.00714286	0.05059701
73 GROSS SAVINGS	0	0	0	0	0	0	0	0
TOTAL	1.00000000	1.00000000	1.00000000	1.00000000	1.00000000	1.00000000	1.00000000	1.00000000

	17	18	19	20	21	22	23	24
1 IRR. CROPS	0.00081566	0.00001038	0.00023810	0	0.00007205	0.00001424	0	0
2 LVSTK. DRY. PLTY.	0.00048940	0.00000519	0.00285714	0	0	0	0	0
3 AGRI. SUPPLY	0	0	0	0	0	0	0	0
4 AGRI. SERVICE	0	0	0	0	0	0	0	0
5 ALL MINING	0	0	0	0.05465347	0.16383285	0	0.00890995	0
6 RESD. CONSTRUCTN.	0	0	0	0	0	0	0	0
7 COMCL. CONSTRUCT.	0	0	0	0	0	0	0	0
8 IND. CONSTRUCTION	0	0	0	0	0	0	0	0
9 FACIL. CONSTRUCT.	0	0	0	0	0	0	0	0
10 MAINT. AND REPAIR	0.05301794	0.00285516	0.04880952	0.07425743	0.02521614	0.00654991	0.01398104	0.07373272
11 FOOD PROCESS	0.00032626	0.00002596	0.00011905	0	0.00007205	0.00002848	0.00004739	0.00046083
12 TEXTILE AND APPAR	0	0	0.00357143	0	0	0.00008543	0	0
13 LUMBER	0.00326264	0.00002596	0.00166667	0	0.00021614	0.00004984	0	0
14 FURNITURE	0	0	0	0	0	0.00002848	0	0
15 BOXES AND PAPER	0	0.00005191	0.00119048	0	0	0	0	0
16 PRINT AND PUBLISH	0	0.00004672	0.00023810	0	0.00057637	0.00011391	0.00127962	0
17 CHEMICALS	0.03262643	0.00316663	0.00178571	0	0.00763689	0.00353125	0.00232227	0.02165899
18 PETROLEUM	0.03262643	0.02881630	0	0	0.01534582	0.00000712	0.00004739	0
19 RUBBER AND LEATHE	0	0	0.04345238	0	0	0	0	0
20 GLASS CLAY STONE	0.00163132	0.00028032	0	0.08217822	0.04502882	0.00143101	0.02056872	0.02903226
21 CEMENT CONCRETE	0	0	0	0	0.08328530	0	0	0
22 PRIMART METAL	0	0	0.00202381	0	0.00201729	0.07483981	0.16696682	0.02580645
23 FABRI. METAL	0	0	0	0	0	0.00223551	0.02071090	0.01843318
24 MACHINERY	0.00032626	0.00000519	0.00011905	0.00594059	0.00266571	0.00007831	0.00071090	0.01290323
25 SCIENTIFIC INSTR.	0.00163132	0.00076830	0.00238095	0.00019802	0.00720461	0.00014951	0	0
26 ALL OTHER MFG.	0.00016313	0.00001038	0.00011905	0.00019802	0.00021614	0.00005696	0.00018957	0.00046083
27 RAILROAD TRANSPOR	0.00146819	0.00000519	0.00035714	0.10752475	0.01102305	0.02219137	0	0
28 INTERCITY FREIGHT	0.00619902	0.00347810	0.00654762	0.01168317	0.04582133	0.00370924	0.00308057	0.03271889
29 TRUCK WAREHOUSE	0.00097879	0.00240871	0	0	0.00122478	0	0	0
30 AIR TRANSPORTATIO	0.00097879	0.00003115	0.00023810	0	0.00014409	0.00003560	0	0.00276498
31 ALL OTHER TRANS.	0	0.00123550	0.00702381	0	0	0	0.00028436	0
32 TLPHNE AND TLGRPH	0.00473083	0.00047759	0.00190476	0.00495050	0.00353026	0.00053396	0.00511848	0.00552995
33 RADIO AND T.V.	0	0.00028552	0.00238095	0	0.00014409	0	0	0
34 GAS UTILITY	0.00228385	0.00437098	0.00261905	0.01405941	0.04085014	0.02305995	0.01023697	0.00184332
35 ELECTRIC UTILITY	0.00848287	0.00514966	0.00166667	0.03326733	0.02795389	0	0.00270142	0.00552995
36 WATER UTILITY	0.00130506	0.00047759	0.00023810	0.00316832	0.00043228	0	0.00047393	0.00092166
37 WHLSE. AUTO PARTS	0	0.00002076	0	0	0.00684438	0.00000712	0	0
38 WHLSE. GROCERY	0	0	0	0	0	0	0	0
39 WHLSE. FARM PROD.	0	0	0	0	0	0	0	0
40 WHLSE. LVESTK.	0	0	0	0	0	0	0	0
41 WHLSE. MACHINERY	0	0	0.00595238	0	0.00720461	0	0	0.04101382
42 WHLSE. PETROLEUM	0	0.00002596	0	0	0	0	0	0
43 GENERAL WHLSE.	0.00130506	0.00007268	0.00059524	0.00158416	0.00136888	0.00282643	0.00142180	0.00276498
44 LUMBER YDS.HDWRE.	0	0	0	0	0	0.00003560	0	0
45 DEPT. STORE	0	0	0	0	0	0	0	0
46 FOOD STORES	0	0	0	0	0	0	0.00379147	0.00046083
47 AUTO DEALERS	0	0.00028552	0	0	0	0	0	0
48 GAS SERVICE STS.	0.00228385	0.00009344	0.00035714	0	0.00259366	0.00007119	0	0.00230415
49 APPAREL ACCE SOR.	0	0	0	0	0	0	0	0
50 FURNITURE	0	0	0	0	0	0	0	0
51 EAT AND DRNKNG	0.00114192	0.00003115	0.00023810	0	0.00014409	0.00004272	0	0
52 ALL OTHER RETAIL	0	0.00026475	0	0	0	0	0	0
53 BANK AND CREDIT	0.00065253	0.00022841	0.00595238	0.02336634	0.00360231	0.00143813	0.00123223	0.00645161
54 INSURANCE CARRIER	0.00815661	0.00201937	D.00595238	0	0	0.00261996	0.00331754	0.00460829
55 F.I.R.E. NEC	0.01174551	0.00005191	0.00857143	0.04495050	0.01001441	0.00121743	0.00933649	0.00875576
56 LEGAL AND ACCTING	0.00375204	0.00043087	0.00178571	0.00970297	0.00158501	0.00032038	0.00132701	0.00138249
57 LODGING	0.00309951	0.00012978	0.00083333	0	0.00043228	0.00011391	0.00004739	0

58 PERSNAL AND PHOTO	0	0	0	0	0	0	0	0
59 ADVERTISING	0.00424144	0.00014016	0.00559524	0	0.00043228	0.00006408	0.00085308	0.00184332
60 RECREATION	0	0	0	0	0	0	0	0
61 AUTO RENTAL	0.00097879	0.00002596	0.00083333	0	0.00014409	0.00003560	0.00009479	0.00138249
62 ELEC. AND MSC. RP	0	0.00034262	0	0	0	0	0	0
63 MEDICAL	0	0	0	0	0	0.00023494	0	0
64 EDUCATIONAL	0	0	0	0	0	0	0	0
65 ENGINEERING ARCH.	0	0	0	0	0	0	0	0
66 ALL OTHER PROFES.	0.00179445	0.00093441	0.00083333	0.00396040	0.00482709	0.00022782	0.00123223	0.00506912
67 HOUSEHOLDS	0.26884176	0.10482573	0.37880952	0.41623762	0.25691643	0.30108216	0.30559242	0.46866359
68 FEDERAL GOV'T.	0.00652529	0.03299002	0.04071429	0.02336634	0.02190202	0.01532821	0.03028436	0.03087558
69 STATE GOV'T.	0.00554649	0.01905167	0.00857143	0.01168317	0.01109510	0.00133134	0.00530806	0.00691244
70 LOCAL GOV'T.	0.00815661	0.00117321	0.00702381	0.01564356	0.01649856	0.00407945	0.00568720	0.01013825
71 IMPORTS	0.46215334	0.76153742	0.39452381	0.05445545	0.08083573	0.50963264	0.34578199	0.16129032
72 DEPRECIATION	0.05628059	0.02133580	0.00130952	0.00297030	0.08904899	0.02056101	0.02706161	0.01428571
73 GROSS SAVINGS	0	0	0	0	0	0	0	0
TOTAL	1.00000000	1.00000000	1.00000000	1.00000000	1.00000000	1.00000000	1.00000000	1.00000000

	25	26	27	28	29	30	31	32
1 IRR. CROPS	0.00006398	0.00515464	0	0	0	0	0	0
2 LVSTK. DRY. PLTY.	0.00012796	0	0	0	0	0	0	0
3 AGRI. SUPPLY	0	0	0	0	0	0	0	0
4 AGRI. SERVICE	0	0	0	0	0	0	0	0
5 ALL MINING	0	0	0	0	0	0	0.00307062	0
6 RESD. CONSTRUCTN.	0	0	0	0	0	0	0	0
7 COMCL. CONSTRUCT.	0	0	0	0	0	0	0	0
8 IND. CONSTRUCTION	0	0	0	0	0	0	0	0
9 FACIL. CONSTRUCT.	0	0	0	0	0	0	0	0
10 MAINT. AND REPAIR	0.02527191	0.11855670	0.05335705	0.00780219	0.02488336	0.00165759	0.00588536	0.00355592
11 FOOD PROCESS	0.00038388	0	0.00163035	0	0	0	0.00025589	0
12 TEXTILE AND APPAR	0	0	0	0	0	0	0	0
13 LUMBER	0.00006398	0	0.00370535	0.00007763	0	0	0	0.00187154
14 FURNITURE	0	0	0	0	0	0	0	0
15 BOXES AND PAPER	0	0	0	0	0	0	0	0
16 PRINT AND PUBLISH	0	0	0.00140803	0.00007763	0.00233281	0.00023680	0.05168884	0.00160952
17 CHEMICALS	0.00063980	0.02680412	0	0	0	0	0.02558854	0.00074862
18 PETROLEUM	0	0	0.06528828	0.00500738	0	0.24780961	0.10747185	0
19 RUBBER AND LEATHE	0.01477927	0.05360825	0	0.00003882	0	0	0	0
20 GLASS CLAY STONE	0.00019194	0.00824742	0	0	0	0	0.00358240	0
21 CEMENT CONCRETE	0	0	0	0	0	0	0	0
22 PRIMART METAL	0.01164427	0	0.01022677	0	0	0	0	0
23 FABRI. METAL	0.01305182	0.06185567	0.00444642	0	0	0	0	0
24 MACHINERY	0.00083173	0.00515464	0.00170446	0	0	0	0.00255885	0
25 SCIENTIFIC INSTR.	0.01900192	0	0	0	0	0	0	0.00748615
26 ALL OTHER MFG.	0.00108765	0	0	0	0	0	0	0
27 RAILROAD TRANSPOR	0	0	0.04631688	0	0	0	0	0.00097320
28 INTERCITY FREIGHT	0.00319898	0.02061856	0.00755892	0	0	0	0	0.00104806
29 TRUCK WAREHOUSE	0.00223928	0	0	0	0	0.01124793	0	0
30 AIR TRANSPORTATIO	0.00108765	0	0.00259375	0	0.00077760	0.01183992	0.00051177	0.00063632
31 ALL OTHER TRANS.	0	0	0.02297317	0	0	0	0.05117707	0
32 TLPHNE AND TLGRPH	0.01036468	0.00618557	0.00741070	0.04906451	0.01399689	0.00047360	0.00818833	0
33 RADIO AND T.V.	0	0	0.00303839	0	0	0.01183992	0	0
34 GAS UTILITY	0.00422265	0.01134021	0.00118571	0.01529384	0.00233281	0.01124793	0.00332651	0.00467884
35 ELECTRIC UTILITY	0.01010877	0.00412371	0.00251964	0.02142691	0.05520995	0.02971821	0.00972364	0.00774817
36 WATER UTILITY	0.00140755	0.00103093	0.00318660	0.00139741	0.00077760	0.00887994	0.00102354	0.00093577
37 WHLSE. AUTO PARTS	0.00140755	0	0.00140803	0.04002018	0.01088647	0	0.01663255	0.00318161
38 WHLSE. GROCERY	0.00006398	0	0	0	0	0	0	0
39 WHLSE. FARM PROD.	0	0	0	0	0	0	0	0
40 WHLSE. LVESTK.	0	0	0	0	0	0	0	0
41 WHLSE. MACHINERY	0.00070377	0	0.05558026	0	0	0	0	0
42 WHLSE. PETROLEUM	0	0	0.00518749	0.00873379	0	0.05884442	0.01970317	0
43 GENERAL WHLSE.	0.00390275	0.00103093	0.01237587	0.00970422	0.00155521	0.00011840	0.00793245	0.00056146
44 LUMBER YDS.HDWRE.	0.00006398	0	0	0	0	0	0	0
45 DEPT. STORE	0	0	0	0	0	0	0	0
46 FOOD STORES	0	0	0	0	0	0	0	0
47 AUTO DEALERS	0.00025592	0	0	0	0	0	0	0.00093577
48 GAS SERVICE STS.	0.00140755	0	0	0.00644360	0.00077760	0	0.00307062	0
49 APPAREL ACCE SOR.	0	0	0	0	0	0	0	0
50 FURNITURE	0	0	0	0	0	0	0	0
51 EAT AND DRNKNG	0.00121561	0	0	0	0.00233281	0.00023680	0.00204708	0
52 ALL OTHER RETAIL	0.00006398	0	0	0	0	0	0	0
53 BANK AND CREDIT	0.01497121	0.03505155	0.00422410	0.00058225	0.00388802	0.00059200	0.00255885	0
54 INSURANCE CARRIER	0.00166347	0.00103093	0.00170446	0.03365422	0.02566096	0.00130239	0.04401228	0.00190897
55 F.I.R.E. NEC	0.01247601	0.03092784	0.02126871	0.01773931	0.21461897	0.00118399	0.01228250	0.01089235
56 LEGAL AND ACCTING	0.00275112	0.00206186	0.00704017	0.03551743	0.00699844	0.00591996	0.01381781	0.00467884
57 LODGING	0.00351887	0.00103093	0	0	0.00233281	0.00011840	0.00204708	0.00093577

	Col1	Col2	Col3	Col4	Col5	Col6	Col7	Col8
58 PERSNAL AND PHOTO	0.04715291	0	0.00822588	0	0	0	0	0
59 ADVERTISING	0.00115163	0	0.00125982	0.00131977	0	0.00130239	0.00895599	0.00359335
60 RECREATION	0	0	0	0	0	0	0	0
61 AUTO RENTAL	0.00127959	0	0	0	0	0	0.00946776	0
62 ELEC. AND MSC. RP	0	0	0	0	0	0	0	0
63 MEDICAL	0	0	0	0	0	0	0	0
64 EDUCATIONAL	0	0	0	0	0	0	0	0
65 ENGINEERING ARCH.	0	0	0.00163035	0	0	0	0	0
66 ALL OTHER PROFES.	0.00006398	0	0.00088928	0.00209611	0.00777605	0	0.01791198	0
67 HOUSEHOLDS	0.40550224	0.32886598	0.44738402	0.44953808	0.49066874	0.32488752	0.39406346	0.28608325
68 FEDERAL GOV'T.	0.04491363	0.04226804	0.04520528	0.03221800	0.04821151	0.03705896	0.02098260	0.13325348
69 STATE GOV'T.	0.00383877	0.00721649	0.00177857	0.03621613	0.00777605	0.00059200	0.00460594	0.02283276
70 LOCAL GOV'T.	0.00505438	0.00515464	0.01823032	0.00450276	0.02799378	0.00177599	0.01228250	0.04053751
71 IMPORTS	0.28957134	0.05670103	0.06854898	0.21139663	0.01321928	0.22791854	0.08034800	0.30738134
72 DEPRECIATION	0.03723608	0.16597938	0.05950793	0.01013120	0.03499222	0.00319678	0.05322416	0.15193143
73 GROSS SAVINGS	0	0	0	0	0	0	0	0
TOTAL	1.00000000	1.00000000	1.00000000	1.00000000	1.00000000	1.00000000	1.00000000	1.00000000

	33	34	35	36	37	38	39	40
1 IRR. CROPS	0	0	0	0	0.00003260	0.01141553	0.08851093	0.21602160
2 LVSTK. DRY. PLTY.	0	0	0	0	0.00009780	0.00251142	0.00277681	0.01170117
3 AGRI. SUPPLY	0	0	0	0	0	0	0	0
4 AGRI. SERVICE	0	0	0	0	0	0	0	0
5 ALL MINING	0	0	0	0	0	0	0	0
6 RESD. CONSTRUCTN.	0	0	0	0	0	0	0	0
7 COMCL. CONSTRUCT.	0	0	0	0	0	0	0	0
8 IND. CONSTRUCTION	0	0	0	0	0	0	0	0
9 FACIL. CONSTRUCT.	0	0	0	0	0	0	0	0
10 MAINT. AND REPAIR	0.00504134	0.00151808	0.00169718	0.04932399	0.00277090	0.01141553	0.01214856	0.00810081
11 FOOD PROCESS	0	0	0	0	0.00026079	0.04840183	0.00173551	0
12 TEXTILE AND APPAR	0	0.00010292	0.00026111	0.00062594	0.00013040	0	0	0
13 LUMBER	0	0	0	0.00037556	0.00026079	0.00091324	0.00347102	0
14 FURNITURE	0	0	0	0	0.00006520	0	0	0
15 BOXES AND PAPER	0	0	0	0	0	0	0	0
16 PRINT AND PUBLISH	0.00544465	0.00054033	0.00110970	0.00200300	0.00042378	0.00296804	0	0
17 CHEMICALS	0	0.00051460	0	0.01026540	0.00052158	0.00091324	0	0
18 PETROLEUM	0.00423472	0.00025730	0.00137080	0.00701052	0.00003260	0	0	0
19 RUBBER AND LEATHE	0	0	0	0	0.00006520	0	0	0
20 GLASS CLAY STONE	0	0	0	0.03317476	0.00003260	0.00022831	0	0
21 CEMENT CONCRETE	0	0.00005146	0.00022847	0.00025038	0	0	0	0
22 PRIMART METAL	0	0	0	0.00162744	0.00166254	0	0	0
23 FA8RI. METAL	0	0	0	0	0.00101056	0	0	0
24 MACHINERY	0.00120992	0	0.00003264	0.00137707	0.00068457	0.00251142	0	0
25 SCIENTIFIC INSTR.	0.01956040	0.00051460	0.00081595	0.00175263	0.00009780	0	0	0
26 ALL OTHER MFG.	0.00342811	0	0	0.00025038	0.00104316	0.00182648	0.00225616	0
27 RAILROAD TRANSPOR	0.00221819	0.00025730	0.00251314	0	0	0.01643836	0.16504686	0
28 INTERCITY FREIGHT	0.00040331	0.00064325	0.00110970	0	0.00684574	0.05707763	0.07393266	0.04500450
29 TRUCK WAREHOUSE	0	0.00023157	0.00039166	0	0.00208632	0.01095890	0	0
30 AIR TRANSPORTATIO	0.00040331	0	0	0	0.00296649	0.00662100	0.00086775	0
31 ALL OTHER TRANS.	0	0	0.00029374	0	0	0	0	0
32 TLPHNE AND TLGRPH	0.15446663	0.00210987	0.00287216	0.00250376	0.01303951	0.01278539	0.00399167	0.01710171
33 RADIO AND T.V.	0.02681992	0.00303615	0.00208884	0	0.00172774	0.00388128	0.00173551	0.00090009
34 GAS UTILITY	0.00282315	0.15654188	0.06599432	0.08299950	0.00172774	0.00388128	0.00173551	0.00090009
35 ELECTRIC UTILITY	0.01391410	0.00082336	0.05107869	0.06284427	0.00629156	0.01095890	0.01197501	0.01440144
36 WATER UTILITY	0.00161323	0.00020584	0.00241522	0	0.00035859	0.00342466	0.00347102	0.00270027
37 WHLSE. AUTO PARTS	0.00100827	0	0.00009791	0.00625939	0.00977963	0	0	0
38 WHLSE. GROCERY	0	0	0	0	0.00003260	0	0.00052065	0
39 WHLSE. FARM PROD.	0	0	0	0	0	0	0.00503297	0
40 WHLSE. LVESTK.	0	0	0	0	0	0	0	0.02700270
41 WHLSE. MACHINERY	0.00020165	0.00270166	0.00019583	0.01389584	0.00022819	0	0	0
42 WHLSE. PETROLEUM	0	0.00002573	0.00006528	0.00100150	0	0	0	0
43 GENERAL WHLSE.	0.00322646	0.00061752	0.00068540	0.00212819	0.00153214	0.00433790	0.00173551	0.02520252
44 LUM8ER YDS.HDWRE.	0	0	0.00006528	0	0	0	0	0
45 DEPT. STORE	0	0	0	0	0	0	0	0
46 FOOD STORES	0	0	0	0	0	0	0	0
47 AUTO DEALERS	0.00201654	0.00177538	0.00248050	0.03129695	0	0	0	0
48 GAS SERVICE STS.	0	0.00025730	0.00026111	0	0.00224932	0.00136986	0.00017355	0
49 APPAREL ACCE SOR.	0	0	0	0	0	0	0	0
50 FURNITURE	0	0	0	0	0	0	0	0
51 EAT AND DRNKNG	0.00241984	0	0	0	0.00088017	0.00091324	0.00017355	0.02070207
52 ALL OTHER RETAIL	0	0	0	0	0	0.00022831	0	0
53 BANK AND CREDIT	0.00988102	0.01605558	0.00394922	0	0.02656800	0.09018265	0.00225616	0.00900090
54 INSURANCE CARRIER	0.01512402	0.00517175	0.00153399	0.00625939	0.01180076	0.09200913	0.00867754	0.02340234
55 F.I.R.E. NEC	0.04133898	0.00295896	0.00584223	0	0.00508541	0.01164384	0	0.02790279
56 LEGAL AND ACCTING	0.01613228	0.00421973	0.00300271	0.00312969	0.00329248	0.01392694	0.00121486	0.00360036
57 LODGING	0	0.00154381	0.00048957	0.00125188	0.00466162	0.00342466	0.00069420	0

58 PERSNAL AND PHOTO	0.00423472	0	0	0	0	0	0	0
59 ADVERTISING	0.07118371	0.00095201	0.00078332	0	0.00371626	0	0	0.00450045
60 RECREATION	0.02440008	0	0	0	0	0	0	0
61 AUTO RENTAL	0	0	0.00003264	0	0.00094536	0	0	0
62 ELEC. AND MSC. RP	0.00040331	0.00277885	0.00110970	0	0	0.01095890	0.00815689	0
63 MEDICAL	0	0	0	0	0	0	0	0
64 EDUCATIONAL	0	0	0	0	0	0	0	0
65 ENGINEERING ARCH.	0.00080661	0	0	0	0	0	0	0
66 ALL OTHER PROFES.	0.01088929	0.00048887	0.00078332	0	0.00743252	0.00707763	0.00347102	0.00810081
67 HOUSEHOLDS	0.34119782	0.38777821	0.37866771	0.36604907	0.51845091	0.28378995	0.31048247	0.12781278
68 FEDERAL GOV'T.	0.04738859	0.04680304	0.14334671	0.00738608	0.01052940	0.03493151	0.01058660	0
69 STATE GOV'T.	0.00725953	0.01304516	0.01762460	0	0.00899726	0.00890411	0.00208261	0.00450045
70 LOCAL GOV'T.	0.00907441	0.03244565	0.06181664	0	0.01225714	0.01255708	0.00295036	0.00630063
71 IMPORTS	0.09800363	0.23905828	0.14896048	0.15510766	0.30049550	0.19589041	0.26900382	0.39603960
72 DEPRECIATION	0.05222827	0.07397401	0.09393257	0.14984977	0.02855653	0.02260274	0.00086775	0
73 GROSS SAVINGS	0	0	0	0	0	0	0	0
TOTAL	1.00000000	1.00000000	1.00000000	1.00000000	1.00000000	1.00000000	1.00000000	1.00000000

	41	42	43	44	45	46	47	48
1 IRR. CROPS	0.00006756	0	0.00204868	0	0.00002053	0.01965108	0	0
2 LVSTK. DRY. PLTY.	0.00013513	0.00011674	0.00012170	0	0.00012318	0.00066948	0.00003462	0
3 AGRI. SUPPLY	0	0	0	0	0	0	0	0
4 AGRI. SERVICE	0	0	0	0	0	0	0	0
5 ALL MINING	0	0	0	0.01490757	0.00006159	0	0	0
6 RESD. CONSTRUCTN.	0	0	0	0	0	0	0	0
7 COMCL. CONSTRUCT.	0	0	0	0	0	0	0	0
8 IND. CONSTRUCTION	0	0	0	0	0	0	0	0
9 FACIL. CONSTRUCT.	0	0	0	0	0	0	0	0
10 MAINT. AND REPAIR	0.00236471	0.00046696	0.00162272	0.00566488	0.00568672	0.01650061	0.00034622	0.02077562
11 FOOD PROCESS	0.00168908	0.00186785	0.00643002	0.00387597	0.00476288	0	0.00034622	0.00372896
12 TEXTILE AND APPAR	0.00027025	0.00035022	0.00417850	0.00044723	0.01090125	0	0	0
13 LUMBER	0.00020269	0.00011674	0.00046653	0.03160405	0.00080066	0	0.00003462	0.00010654
14 FURNITURE	0.00006756	0.00011674	0.00010142	0.00059630	0.00030794	0	0.00003462	0.00010654
15 BOXES AND PAPER	0	0	0.00006085	0	0	0.00019690	0	0
16 PRINT AND PUBLISH	0.00236471	0.00011674	0.00111562	0.00924270	0.00593307	0.00066948	0.00058858	0
17 CHEMICALS	0.00040538	0.00140089	0.00077079	0.00178891	0.00075960	0	0.00038085	0.00692521
18 PETROLEUM	0	0	0.00004057	0.01774001	0.00024636	0	0	0.17099936
19 RUBBER AND LEATHE	0.00006756	0.00011674	0.00012170	0.00014908	0.00108807	0	0.00003462	0.00010654
20 GLASS CLAY STONE	0	0	0.00008114	0.00044723	0.00016424	0	0	0.00010654
21 CEMENT CONCRETE	0	0	0	0.00074538	0	0	0	0
22 PRIMART METAL	0.00006756	0.00011674	0.00006085	0.00149076	0.00223773	0	0	0.00106542
23 FABRI. METAL	0.03384906	0.00245155	0.00006085	0.00954085	0.00443441	0	0.00072707	0.00202429
24 MACHINERY	0.00087832	0.00093392	0.00107505	0.00208706	0.00086225	0	0.00024236	0.00426167
25 SCIENTIFIC INSTR.	0.00006756	0.00035022	0.00079108	0.00849732	0.00055430	0	0.00045009	0.00074579
26 ALL OTHER MFG.	0.00087832	0.00093392	0.00050710	0.00313059	0.00043112	0	0.00034622	0.00404858
27 RAILROAD TRANSPOR	0.02047159	0	0.04083164	0	0.01256416	0	0.09278815	0
28 INTERCITY FREIGHT	0.04871292	0.01867850	0.00393509	0.05351819	0.01141449	0.01969047	0.01031749	0.00873642
29 TRUCK WAREHOUSE	0.00114857	0	0.00010142	0	0.00090331	0	0	0
30 AIR TRANSPORTATIO	0.00439160	0.01284147	0.00383367	0.00298151	0.00133443	0	0.00193886	0
31 ALL OTHER TRANS.	0	0	0	0	0	0	0	0
32 TLPHNE AND TLGRPH	0.02074184	0.00817184	0.01926978	0.01341682	0.00804763	0.00362305	0.00654364	0.00628596
33 RADIO AND T.V.	0	0	0.00024341	0.00313059	0	0	0.00519337	0.00585979
34 GAS UTILITY	0.00081076	0.00210133	0.00770791	0.00193798	0.00394170	0.00358366	0.00076169	0.00532708
35 ELECTRIC UTILITY	0.00581042	0.01470932	0.02032454	0.00983900	0.01919524	0.01925728	0.00328913	0.03142979
36 WATER UTILITY	0.00162151	0.00420266	0.00494929	0.00089445	0.00057483	0.00445005	0.00086556	0.00319625
37 WHLSE. AUTO PARTS	0	0	0.00026369	0	0	0	0.15067687	0
38 WHLSE. GROCERY	0.00006756	0.00011674	0.00004057	0	0.00002053	0.00374119	0	0
39 WHLSE. FARM PROD.	0	0	0	0	0	0	0	0
40 WHLSE. LVESTK.	0	0	0	0	0	0	0	0
41 WHLSE. MACHINERY	0	0	0.00024341	0	0	0	0	0
42 WHLSE. PETROLEUM	0	0	0	0.00268336	0.00004106	0	0	0.03398679
43 GENERAL WHLSE.	0.00148639	0.00338548	0.00273834	0.00134168	0.00548142	0.00492262	0.00093481	0.00490092
44 LUMBER YDS.HDWRE.	0	0	0	0.01550388	0	0	0	0
45 DEPT. STORE	0	0	0	0.00044723	0	0	0	0
46 FOOD STORES	0	0	0	0	0	0	0	0
47 AUTO DEALERS	0	0	0.00006085	0.00178891	0.00024636	0	0.00017311	0
48 GAS SERVICE STS.	0.00222958	0.00256829	0.00127789	0.00447227	0.00110860	0	0.00038085	0.00266354
49 APPAREL ACCE SOR.	0	0	0	0	0	0	0	0
50 FURNITURE	0	0	0	0	0	0	0	0
51 EAT AND DRNKNG	0.00155395	0.00186785	0.00107505	0.00193798	0.00047218	0	0.00027698	0
52 ALL OTHER RETAIL	0.00081076	0.00408592	0.00022312	0.00193798	0	0	0.00107330	0
53 BANK AND CREDIT	0.01398554	0.01459258	0.01807302	0.01296959	0.00221720	0.02146261	0.02004639	0
54 INSURANCE CARRIER	0.00344571	0.01716087	0.01294118	0.03160405	0.00870458	0.01650061	0.00439705	0.00852333
55 F.I.R.E. NEC	0.01966083	0	0.00288032	0	0.00638473	0.01279880	0	0.03515875
56 LEGAL AND ACCTING	0.00608067	0.01062339	0.01156187	0.00447227	0.00375693	0.00724609	0.00297753	0.00500746
57 LODGING	0.00351328	0.00957273	0.00371197	0.00074538	0.00254568	0	0.00145414	0.00628596

58 PERSNAL AND PHOTO	0	0	0	0.00014908	0	0	0	0
59 ADVERTISING	0.00337815	0.01214102	0.00352941	0.00208706	0.01297475	0.01342890	0.00567808	0
60 RECREATION	0	0	0	0	0	0	0	0
61 AUTO RENTAL	0	0	0.01586207	0.00223614	0.01180456	0.00492262	0	0
62 ELEC. AND MSC. RP	0.00283765	0.02708382	0.00458418	0	0.00244303	0	0.00231970	0
63 MEDICAL	0	0	0	0.00670841	0	0	0	0
64 EDUCATIONAL	0	0	0	0	0	0	0	0
65 ENGINEERING ARCH.	0	0	0	0	0	0	0	0
66 ALL OTHER PROFES.	0.01952571	0.06584170	0.01647059	0.00909362	0.00162184	0	0	0.00255700
67 HOUSEHOLDS	0.52259982	0.55743638	0.60578093	0.49537865	0.44769041	0.64596542	0.34508188	0.50138504
68 FEDERAL GOV'T.	0.08999392	0.04039225	0.04931034	0.03533095	0.08729214	0.02673965	0.02167365	0.05401662
69 STATE GOV'T.	0.01432336	0.00992295	0.01657201	0.00387597	0.00203244	0.00858504	0.00045009	0.00628596
70 LOCAL GOV'T.	0.01695831	0.01517628	0.01774848	0.01744186	0.01513036	0.00976647	0.00380847	0.01480929
71 IMPORTS	0.10978988	0.06467429	0.08182556	0.10703637	0.25479368	0.10821880	0.29643735	0.01981675
72 DEPRECIATION	0.02067428	0.07319636	0.01237323	0.04308289	0.03588586	0.02740913	0.01689575	0.02876625
73 GROSS SAVINGS	0	0	0	0	0	0	0	0
TOTAL	1.00000000	1.00000000	1.00000000	1.00000000	1.00000000	1.00000000	1.00000000	1.00000000

DIRECT INPUT REQUIREMENTS : UPPER RIO GRANDE ,TEXAS, 1967

	49	50	51	52	53	54	55	56
1 IRR. CROPS	0	0	0	0	0	0	0	0
2 LVSTK. DRY. PLTY.	0.00019484	0	0.00024295	0.00005522	0	0	0	0.00012625
3 AGRI. SUPPLY	0	0	0	0	0	0	0	0
4 AGRI. SERVICE	0	0	0	0	0	0	0	0
5 ALL MINING	0	0	0	0	0	0	0	0
6 RESD. CONSTRUCTN.	0	0	0	0	0	0	0	0
7 COMCL. CONSTRUCT.	0	0	0	0	0	0	0	0
8 IND. CONSTRUCTION	0	0	0	0	0	0	0	0
9 FACIL. CONSTRUCT.	0	0	0	0	0	0	0	0
10 MAINT. AND REPAIR	0.01461276	0.01260918	0.00174927	0.00182210	0.00455923	0.01032216	0.00882315	0.00568146
11 FOOD PROCESS	0.00418899	0	0.00597668	0.00138038	0.00008190	0.00114087	0.00648761	0.00025251
12 TEXTILE AND APPAR	0.00009742	0.06027802	0.00019436	0.00115952	0	0.00005433	0	0
13 LUMBER	0.00126644	0.00153770	0.00218659	0.00033129	0.00008190	0.00010865	0.00004325	0.00006313
14 FURNITURE	0.00009742	0.00184525	0.00009718	0.00005522	0.00005460	0	0	0
15 BOXES AND PAPER	0	0	0	0	0	0	0	0
16 PRINT AND PUBLISH	0.00331223	0.00369049	0.00009718	0.00005522	0.00139234	0.00510675	0.00648761	0.00656524
17 CHEMICALS	0.00126644	0	0.00208941	0.00629452	0	0	0	0.00025251
18 PETROLEUM	0.00009742	0	0.00009718	0	0	0	0	0
19 RUBBER AND LEATHE	0.00009742	0	0.00014577	0.00005522	0.00002730	0.00016298	0	0
20 GLASS CLAY STONE	0.00019484	0	0.00038873	0.00005522	0	0	0	0.00006313
21 CEMENT CONCRETE	0	0	0	0	0	0	0	0
22 PRIMART METAL	0.00009742	0	0.00014577	0.00060737	0	0	0	0
23 FABRI. METAL	0	0	0.00004859	0.00005522	0	0	0	0
24 MACHINERY	0.00409157	0	0.00082604	0.00121473	0	0	0	0.00113629
25 SCIENTIFIC INSTR.	0	0	0	0.00121473	0	0	0	0
26 ALL OTHER MFG.	0.00321481	0.00246033	0.00189504	0.00132516	0	0	0	0.00119942
27 RAILROAD TRANSPOR	0.00068193	0	0	0	0	0	0	0
28 INTERCITY FREIGHT	0.00506576	0.00922623	0	0.00110430	0	0	0	0
29 TRUCK WAREHOUSE	0	0	0	0.00248468	0	0	0	0
30 AIR TRANSPORTATIO	0.00662445	0	0	0.00392027	0.00103743	0.00342261	0.00302755	0.00517644
31 ALL OTHER TRANS.	0	0	0	0	0	0	0	0
32 TLPHNE AND TLGRPH	0.01169021	0.01783737	0.00262391	0.00507979	0.00936417	0.00162981	0.01323472	0.01736002
33 RADIO AND T.V.	0.00243546	0.00215279	0	0	0.00032761	0	0.00865014	0.00025251
34 GAS UTILITY	0.00165611	0.00196826	0.00335277	0.03307382	0.00193835	0.00271636	0.00830414	0.00012625
35 ELECTRIC UTILITY	0.00915733	0.01193259	0.02337221	0.00463807	0.00947337	0.00814907	0.04731629	0.00082066
36 WATER UTILITY	0.00097418	0.00116866	0.00573372	0.00126995	0.00060062	0.00059760	0.00328706	0.00025251
37 WHLSE. AUTO PARTS	0	0	0	0.00016565	0	0	0	0
38 WHLSE. GROCERY	0	0	0	0	0.00002730	0.00043462	0	0
39 WHLSE. FARM PROD.	0	0	0	0	0	0	0	0
40 WHLSE. LVESTK.	0	0	0	0	0	0	0	0
41 WHLSE. MACHINERY	0	0	0	0.00005522	0	0	0	0.00012625
42 WHLSE. PETROLEUM	0	0	0	0	0	0	0	0
43 GENERAL WHLSE.	0.00681929	0	0.01127308	0.00265032	0.00592427	0.00863802	0.00185978	0.00479768
44 LUMBER YDS.HDWRE.	0	0	0	0	0	0	0	0
45 DEPT. STORE	0	0	0	0	0	0.00070625	0	0
46 FOOD STORES	0	0	0	0	0	0.00450915	0	0
47 AUTO DEALERS	0	0	0	0.00033129	0	0	0	0
48 GAS SERVICE STS.	0.00253288	0	0.00320700	0.00132516	0.00024571	0.00374857	0.00038926	0.00107316
49 APPAREL ACCE SOR.	0	0	0	0	0	0	0	0
50 FURNITURE	0	0	0	0	0	0	0	0
51 EAT AND DRNKNG	0.00097418	0	0	0.00055215	0.00076442	0.01168034	0.00034601	0.00075753
52 ALL OTHER RETAIL	0	0	0	0.00138038	0	0	0	0.00031564
53 BANK AND CREDIT	0.03945446	0.03715094	0.00704568	0.01148473	0.00933686	0.00499810	0.14930150	0.03067988
54 INSURANCE CARRIER	0.02162689	0.02448026	0.03867833	0.02048479	0.00644298	0.00586733	0.01249946	0.00094691
55 F.I.R.E. NEC	0.01782757	0.01439291	0.02021380	0.00557672	0.00873625	0.00793177	0.01401323	0.00315637
56 LEGAL AND ACCTING	0.00448125	0.01691475	0.00792031	0.00629452	0.00679789	0.01053947	0.00994767	0.05264819
57 LODGING	0.00496834	0	0	0.00292640	0.00079172	0.00407454	0.00043251	0.00391389

58 PERSNAL AND PHOTO	0	0	0.00704568	0	0	0	0	0
59 ADVERTISING	0.03399903	0.01057941	0.00704568	0.00739882	0.00595157	0.00505243	0.00657411	0.00012625
60 RECREATION	0	0	0	0	0	0	0	0
61 AUTO RENTAL	0	0	0	0.00601844	0.00947337	0.00749715	0.00951516	0
62 ELEC. AND MSC. RP	0.00311739	0.01709927	0.01793003	0.00055215		0	0	0.00239884
63 MEDICAL	0	0	0	0	0	0.00266203	0	0
64 EDUCATIONAL	0	0	0	0	0	0	0	0
65 ENGINEERING ARCH.	0	0	0	0	0	0	0	0
66 ALL OTHER PROFES.	0.00282513	0	0.01584062	0.04881012	0.00464113	0.03460640	0.03498984	0.05378448
67 HOUSEHOLDS	0.44734535	0.42071596	0.63940719	0.52454310	0.63324142	0.47976313	0.40058821	0.75942175
68 FEDERAL GOV'T.	0.04354603	0.01876000	0.02531584	0.02203081	0.08050998	0.01955778	0.01003417	0.01010037
69 STATE GOV'T.	0.00730638	0.00350597	0.00748299	0.05924576	0.00802643	0.04253816	0.00960166	0.00126255
70 LOCAL GOV'T.	0.00798831	0.01144052	0.00942663	0.06692066	0.03104098	0.00374857	0.06907141	0.00744902
71 IMPORTS	0.26507550	0.26350105	0.05349854	0.12677378	0.13360998	0.30635084	0.08230613	0.01186794
72 DEPRECIATION	0.01899659	0.03475212	0.07740525	0.01722710	0.02549892	0.00168414	0.08286839	0.01584496
73 GROSS SAVINGS	0	0	0	0	0	0	0	0
TOTAL	1.00000000	1.00000000	1.00000000	1.00000000	1.00000000	1.00000000	1.00000000	1.00000000

DIRECT INPUT REQUIREMENTS : UPPER RIO GRANDE ,TEXAS, 1967

	57	58	59	60	61	62	63	64
1 IRR. CROPS	0	0	0	0	0	0	0.00002664	0.00006881
2 LVSTK. DRY. PLTY.	0.00020641	0.00034138	0.00017525	0	0	0.00045760	0.00069267	0.00016516
3 AGRI. SUPPLY	0	0	0	0	0	0	0	0
4 AGRI. SERVICE	0	0	0	0	0	0	0	0
5 ALL MINING	0	0.00004877	0	0	0	0	0.00007992	0
6 RESD. CONSTRUCTN.	0	0	0	0	0	0	0	0
7 COMCL. CONSTRUCT.	0	0	0	0	0	0	0	0
8 IND. CONSTRUCTION	0	0	0	0	0	0	0	0
9 FACIL. CONSTRUCT.	0	0	0	0	0	0	0	0
10 MAINT. AND REPAIR	0.01658181	0.00555962	0.00350508	0.02434220	0.00408497	0.00106772	0.00093244	0.00839538
11 FOOD PROCESS	0.01809550	0.00009754	0.00017525	0.00098494	0.00016340	0	0.01356032	0.00568409
12 TEXTILE AND APPAR	0.01376084	0	0	0.00070353	0	0	0.00133205	0.00110103
13 LUMBER	0.00013761	0.00024384	0.00017525	0.00140706	0	0.00030506	0.00047954	0.00063309
14 FURNITURE	0.00344021	0	0	0.00140706	0	0	0.00133205	0.00250485
15 BOXES AND PAPER	0	0	0	0	0	0	0	0
16 PRINT AND PUBLISH	0.00405945	0.00156059	0.03364879	0.00070353	0	0.00045760	0.00074595	0.00251861
17 CHEMICALS	0.00048163	0.00117045	0.00017525	0.00028141	0.00016340	0.00106772	0.00460891	0.00093588
18 PETROLEUM	0	0.01443550	0	0	0.07418301	0	0	0.00030278
19 RUBBER AND LEATHE	0.00006880	0.00009754	0	0.00014071	0	0.00015253	0.00015985	0.00002753
20 GLASS CLAY STONE	0.00020641	0.00034138	0.00017525	0	0	0.00045760	0.00077259	0.00011010
21 CEMENT CONCRETE	0	0	0	0	0	0	0	0
22 PRIMART METAL	0	0	0.00017525	0	0	0	0	0.00001376
23 FABRI. METAL	0	0	0	0.00281413	0	0	0	0.00001376
24 MACHINERY	0.00103206	0.00443794	0.00262881	0.00028141	0.00016340	0.00625381	0.00151854	0.00044041
25 SCIENTIFIC INSTR.	0	0.00004877	0.00017525	0.00112565	0	0.00015253	0.00783248	0.00218830
26 ALL OTHER MFG.	0.00089445	0.00058522	0.00368034	0.00140706	0.00081699	0.00091519	0.00018649	0.00004129
27 RAILROAD TRANSPOR	0	0	0	0	0	0	0	0.00020644
28 INTERCITY FREIGHT	0.00378423	0.00341380	0.00297932	0	0.00408497	0.00137279	0.00021313	0.00030278
29 TRUCK WAREHOUSE	0	0	0	0	0	0	0	0
30 AIR TRANSPORTATIO	0.00522912	0.00053645	0.00578339	0.00239201	0.00457516	0.00076266	0.00231777	0.01189116
31 ALL OTHER TRANS.	0	0	0	0	0	0	0	0.00688146
32 TLPHNE AND TLGRPH	0.02015963	0.00195074	0.00683491	0.00337695	0.01029412	0.03111653	0.01598465	0.01293714
33 RADIO AND T.V.	0	0.00487686	0.00122678	0.00070353	0	0.00045760	0.00071931	0.00048170
34 GAS UTILITY	0.01038943	0.00292612	0.00140203	0.01210075	0.00065359	0.00427090	0.00671355	0.01127183
35 ELECTRIC UTILITY	0.02765928	0.02062911	0.00297932	0.03728718	0.00408497	0.00762660	0.00767263	0.01259307
36 WATER UTILITY	0.00763726	0.00419410	0.00087627	0.00787956	0.00114379	0.00198292	0.00186488	0.00414264
37 WHLSE. AUTO PARTS	0	0	0	0	0.07009804	0	0	0.00756961
38 WHLSE. GROCERY	0	0	0	0.00703532	0	0	0.00119885	0.00341320
39 WHLSE. FARM PROD.	0	0	0	0	0	0	0	0
40 WHLSE. LVESTK.	0	0	0	0	0	0	0	0
41 WHLSE. MACHINERY	0.00013761	0.01502073	0.00455661	0	0	0.02974375	0.01297421	0.02118113
42 WHLSE. PETROLEUM	0	0.00273104	0	0	0.01405229	0	0	0.00002753
43 GENERAL WHLSE.	0.00970139	0.01809315	0.01051525	0.00168848	0.00016340	0.01982916	0.03306159	0.00649610
44 LUMBER YDS.HDWRE.	0	0	0	0	0	0	0	0
45 DEPT. STORE	0	0	0	0	0	0	0	0
46 FOOD STORES	0	0	0	0	0	0	0	0.00001376
47 AUTO DEALERS	0.00082565	0	0.00035051	0.00014071	0.03120915	0.00350824	0.00002664	0.00344073
48 GAS SERVICE STS.	0.00110087	0.00360888	0.00122678	0.00042212	0.00098039	0	0.00047954	0.00338568
49 APPAREL ACCE SOR.	0	0	0	0	0	0	0	0
50 FURNITURE	0	0	0	0	0	0	0	0
51 EAT AND DRNKNG	0.00075685	0.00009754	0.00087627	0.00028141	0.00065359	0	0.00031969	0.00276635
52 ALL OTHER RETAIL	0.00027522	0.00048769	0	0.01815112	0.00032680	0.00335570	0.00002664	0.00136253
53 BANK AND CREDIT	0.04651163	0.01950744	0.01349457	0.00239201	0	0.01418548	0.00095908	0.03143451
54 INSURANCE CARRIER	0.01898995	0.00048769	0.00736067	0.00633179	0.01879085	0.00533862	0.00532822	0.00104598
55 F.I.R.E. NEC	0.10595844	0.01297245	0.00332983	0.00802026	0.08284314	0.01418548	0.00588768	0.01606133
56 LEGAL AND ACCTING	0.00860052	0.00448671	0.00543288	0.00295483	0.01781046	0.00701647	0.00817882	0.01325369
57 LODGING	0.00392184	0.00039015	0.03189625	0.00337695	0.00343137	0	0.00173167	0.00228464

58 PERSNAL AND PHOTO	0.00701803	0.01087540	0	0.00914591	0	0	0.00218457	0.00298655
59 ADVERTISING	0.00178891	0.01107047	0.02120575	0.00844238	0.00882353	0.00823673	0.00037298	0.00331686
60 RECREATION	0	0	0	0.02645279	0	0	0.00599425	0.00718424
61 AUTO RENTAL	0	0.00438917	0.00105152	0	0	0	0.00383632	0.00103222
62 ELEC. AND MSC. RP	0.00598596	0	0.00017525	0.00309554	0	0	0	0
63 MEDICAL	0	0	0	0	0	0	0.00364983	0
64 EDUCATIONAL	0	0	0	0	0	0	0	0
65 ENGINEERING ARCH.	0	0	0	0	0	0	0	0.00103222
66 ALL OTHER PROFES.	0.01045824	0.03004145	0.02243253	0.05318700	0.04264706	0.00427090	0.08735614	0.01695592
67 HOUSEHOLDS	0.26510252	0.60126798	0.39239397	0.41550584	0.29183007	0.44691885	0.52291134	0.49078573
68 FEDERAL GOV'T.	0.02353103	0.01936113	0.01331931	0.00928662	0.01241830	0.02181208	0.04121377	0.02291526
69 STATE GOV'T.	0.04293381	0.00502317	0.00665966	0.00717602	0.00604575	0.00640635	0.00135870	0.00004129
70 LOCAL GOV'T.	0.02057245	0.00697391	0.00841220	0.03573941	0.00441176	0.00899939	0.00303708	0.00094964
71 IMPORTS	0.19065639	0.09495245	0.36715738	0.19628535	0.12794118	0.31924954	0.14580669	0.19700244
72 DEPRECIATION	0.10134856	0.07066569	0.02138100	0.08554946	0.16111111	0.02806589	0.04235934	0.05620777
73 GROSS SAVINGS	0	0	0	0	0	0	0	0
TOTAL	1.00000000	1.00000000	1.00000000	1.00000000	1.00000000	1.00000000	1.00000000	1.00000000

	65	66	HOUSEHOLDS
1 IRR. CROPS	0	0.00010040	0.00059114
2 LVSTK. DRY. PLTY.	0.00042337	0.00055222	0.00139495
3 AGRI. SUPPLY	0	0	0.00034513
4 AGRI. SERVICE	0	0	0.00039109
5 ALL MINING	0	0.00002510	0
6 RESD. CONSTRUCTN.	0	0	0
7 COMCL. CONSTRUCT.	0	0	0
8 IND. CONSTRUCTION	0	0	0
9 FACIL. CONSTRUCT.	0	0	0
10 MAINT. AND REPAIR	0.00211685	0.00519591	0.00492109
11 FOOD PROCESS	0.00127011	0.00178217	0.05558009
12 TEXTILE AND APPAR	0	0.00025101	0.00604841
13 LUMBER	0	0.00045182	0.00022799
14 FURNITURE	0	0	0.00022979
15 BOXES AND PAPER	0	0	0.00003785
16 PRINT AND PUBLISH	0.00084674	0.00281132	0.00521666
17 CHEMICALS	0.00042337	0.00195788	0.00052356
18 PETROLEUM	0	0.00007530	0.01307814
19 RUBBER AND LEATHE	0	0.00007530	0.00182570
20 GLASS CLAY STONE	0	0.00030121	0.00054969
21 CEMENT CONCRETE	0	0	0
22 PRIMART METAL	0	0	0.00270340
23 FABRI. METAL	0	0.00002510	0.00450567
24 MACHINERY	0.00042337	0.00138056	0.00028926
25 SCIENTIFIC INSTR.	0.00042337	0.00100404	0.00212848
26 ALL OTHER MFG.	0.00127011	0.00030121	0.00027034
27 RAILROAD TRANSPOR	0.03217612	0	0
28 INTERCITY FREIGHT	0	0.00233440	0.00240693
29 TRUCK WAREHOUSE	0	0	0
30 AIR TRANSPORTATIO	0.02921253	0.02226462	0.00257454
31 ALL OTHER TRANS.	0	0	0.00198249
32 TLPHNE AND TLGRPH	0.00973751	0.02053264	0.00918615
33 RADIO AND T.V.	0.00084674	0.00296192	0
34 GAS UTILITY	0.00465707	0.00386556	0.00783535
35 ELECTRIC UTILITY	0.00127011	0.00853435	0.00882660
36 WATER UTILITY	0.00042337	0.00163157	0.00284758
37 WHLSE. AUTO PARTS	0	0.00125505	0.01184359
38 WHLSE. GROCERY	0	0.00128015	0.00293048
39 WHLSE. FARM PROD.	0	0	0.00045057
40 WHLSE. LVESTK.	0	0	0.00018023
41 WHLSE. MACHINERY	0.01905165	0.00865986	0.00196447
42 WHLSE. PETROLEUM	0	0.00002510	0.00229609
43 GENERAL WHLSE.	0.00211685	0.01649138	0.01190847
44 LUMBER YDS.HDWRE.	0	0	0.00423623
45 DEPT. STORE	0	0	0.02589676
46 FOOD STORES	0	0.00002510	0.02272387
47 AUTO DEALERS	0.00127011	0.00117975	0.02382866
48 GAS SERVICE STS.	0.00762066	0.00416677	0.00517971
49 APPAREL ACCE SOR.	0	0	0.00925013
50 FURNITURE	0	0	0.01266813
51 EAT AND DRNKNG	0.00381033	0.00451819	0.01749370
52 ALL OTHER RETAIL	0.00423370	0.00494490	0.01550580
53 BANK AND CREDIT	0.00296359	0.04016165	0.00943576
54 INSURANCE CARRIER	0.01143099	0.00070283	0.00482917
55 F.I.R.E. NEC	0.00042337	0.00855945	0.00895005
56 LEGAL AND ACCTING	0.00465707	0.00680238	0.00415422
57 LODGING	0.02074513	0.00143076	0.00169233

58 PERSNAL AND PHOTO	0	0.00384046	0.01652948
59 ADVERTISING	0.00042337	0.00163157	0
60 RECREATION	0	0.00374005	0.00531849
61 AUTO RENTAL	0	0.00976430	0.00089483
62 ELEC. AND MSC. RP	0.00211685	0.00040162	0.00278811
63 MEDICAL	0	0	0.02695559
64 EDUCATIONAL	0	0	0.05558730
65 ENGINEERING ARCH.	0	0	0.00006488
66 ALL OTHER PROFES.	0.04614733	0.11295464	0.00700631
67 HOUSEHOLDS	0.63971211	0.47724591	0.02108651
68 FEDERAL GOV'T.	0.03344623	0.04282236	0.13924849
69 STATE GOV'T.	0.00592718	0.00715379	0.01382969
70 LOCAL GOV'T.	0.00338696	0.00785662	0.02027549
71 IMPORTS	0.08848434	0.12174000	0.09224269
72 DEPRECIATION	0.01651143	0.03222972	0
73 GROSS SAVINGS	0	0	0.26423565
TOTAL	1.00000000	1.00000000	1.00000000

TABLE 3. INTERDEPENDENCE COEFFICIENTS (EXCLUDING HOUSEHOLDS) :   UPPER RIO GRANDE ,TEXAS, 1967

	1	2	3	4	5	6	7	8
1 IRR. CROPS	1.01136684	0.09856896	0.00601288	0.00129904	0.00000851	0.00008102	0.00010711	0.00006994
2 LVSTK. DRY. PLTY.	0.00024002	1.00660307	0.00535876	0.00057202	0.00000713	0.00002358	0.00001899	0.00001962
3 AGRI. SUPPLY	0	0	1.00000000	0	0	0	0	0
4 AGRI. SERVICE	0.03973687	0.02732096	0.15684927	1.07033197	0.00000050	0.00010352	0.00006620	0.00000322
5 ALL MINING	0.00010459	0.00013612	0.00014384	0.00067558	1.00009342	0.00930395	0.01069177	0.01288374
6 RESD. CONSTRUCTN.	0	0	0	0	0	1.00000000	0	0
7 COMCL. CONSTRUCT.	0	0	0	0	0	0	1.00000000	0
8 IND. CONSTRUCTION	0	0	0	0	0	0	0	1.00000000
9 FACIL. CONSTRUCT.	0	0	0	0	0	0	0	0
10 MAINT. AND REPAIR	0.00581273	0.01527062	0.01193968	0.00802566	0.00107484	0.01942351	0.00563132	0.00829911
11 FOOD PROCESS	0.00035192	0.04453070	0.00074697	0.00154922	0.00007382	0.00029598	0.00033142	0.00030827
12 TEXTILE AND APPAR	0.00577635	0.00412263	0.00015804	0.00044060	0.00002478	0.00943126	0.01105916	0.00010189
13 LUMBER	0.00049394	0.02172946	0.00082423	0.00222271	0.00100275	0.03717376	0.00702575	0.03046843
14 FURNITURE	0.00001677	0.00002466	0.00001845	0.00003263	0.00022178	0.00037846	0.00001566	0.00093309
15 BOXES AND PAPER	0.00000640	0.00131093	0.00001132	0.00000759	0.00000064	0.00000800	0.00000684	0.00000462
16 PRINT AND PUBLISH	0.00040771	0.00056811	0.01135376	0.00139860	0.00033677	0.00062103	0.00053176	0.00064613
17 CHEMICALS	0.01253618	0.00438318	0.00120113	0.00565368	0.00129824	0.00383657	0.00230711	0.00606634
18 PETROLEUM	0.02620096	0.01741707	0.01208624	0.03136552	0.00298705	0.01090438	0.01323426	0.03037814
19 RUBBER AND LEATHE	0.00002266	0.00007782	0.00002905	0.00003549	0.00008457	0.00006936	0.00020343	0.00005624
20 GLASS CLAY STONE	0.00027942	0.00061248	0.00062550	0.00066011	0.00104379	0.01538616	0.00744962	0.00764545
21 CEMENT CONCRETE	0.00001153	0.00000664	0.00000984	0.00001387	0.00000375	0.03830102	0.05661483	0.06702007
22 PRIMART METAL	0.00546263	0.00490280	0.00061924	0.00047531	0.01073599	0.00736625	0.01835983	0.02497393
23 FABRI. METAL	0.00030627	0.00185828	0.00028948	0.00060675	0.00079449	0.01647313	0.03806821	0.01450143
24 MACHINERY	0.00109218	0.00055073	0.00019851	0.00050936	0.00022938	0.00099090	0.00127418	0.00203586
25 SCIENTIFIC INSTR.	0.00024968	0.00321320	0.00028150	0.00034654	0.00497946	0.00046185	0.00060648	0.00168633
26 ALL OTHER MFG.	0.00011389	0.00014810	0.00014435	0.00014644	0.00004449	0.00015806	0.00011324	0.00026345
27 RAILROAD TRANSPOR	0.00269435	0.00517678	0.00373665	0.00197336	0.00113078	0.00454076	0.00317896	0.00483125
28 INTERCITY FREIGHT	0.00576404	0.00918999	0.06030156	0.01570698	0.01324069	0.00764041	0.00704888	0.01321257
29 TRUCK WAREHOUSE	0.00040542	0.00040580	0.02887257	0.00020152	0.00026073	0.00110675	0.00159526	0.00451690
30 AIR TRANSPORTATIO	0.00065041	0.00068463	0.00128047	0.00505258	0.00048159	0.00087396	0.00070445	0.00065326
31 ALL OTHER TRANS.	0.00010786	0.00015208	0.00011684	0.00009909	0.00303985	0.00015951	0.00014095	0.00020170
32 TLPHNE AND TLGRPH	0.00566549	0.01817846	0.01692246	0.00993004	0.00189838	0.00472815	0.00491078	0.00449822
33 RADIO AND T.V.	0.00243757	0.00135455	0.00074380	0.00127688	0.00018867	0.00107505	0.00039586	0.00039521
34 GAS UTILITY	0.03217495	0.02295566	0.01171545	0.00730131	0.03792595	0.00573768	0.00646130	0.00652381
35 ELECTRIC UTILITY	0.02542703	0.00784625	0.02620837	0.02509558	0.00220242	0.00596196	0.00516974	0.00507033
36 WATER UTILITY	0.00046349	0.00118028	0.00596220	0.00212634	0.00030125	0.00144514	0.00108898	0.00065505
37 WHLSE. AUTO PARTS	0.00478563	0.00354765	0.01678198	0.00195915	0.00518910	0.00132358	0.00127825	0.00191490
38 WHLSE. GROCERY	0.00001696	0.00004856	0.00003611	0.00010782	0.00000508	0.00003946	0.00004143	0.00012823
39 WHLSE. FARM PROD.	0.00195795	0.00646039	0.00022948	0.00126492	0.00000026	0.00000260	0.00000275	0.00000109
40 WHLSE. LVESTK.	0.00000091	0.00314220	0.00001697	0.00000251	0.00000006	0.00000021	0.00000022	0.00000021
41 WHLSE. MACHINERY	0.00270979	0.00128418	0.00191393	0.00949081	0.01080633	0.00267869	0.00298367	0.00995573
42 WHLSE. PETROLEUM	0.00937772	0.00646573	0.00482454	0.02710605	0.00635694	0.00052504	0.00132446	0.00069106
43 GENERAL WHLSE.	0.01957610	0.03146883	0.00713578	0.01764242	0.00047752	0.00288214	0.01543267	0.00857226
44 LUMBER YDS.HDWRE.	0.00401421	0.00378130	0.00125221	0.00815118	0.00122104	0.00302953	0.00413370	0.00401250
45 DEPT. STORE	0.00000769	0.00001247	0.00001640	0.00001669	0.00000198	0.00001039	0.00001539	0.00001437
46 FOOD STORES	0.00004871	0.00008266	0.00013940	0.00033762	0.00001230	0.00012087	0.00023161	0.00061926
47 AUTO DEALERS	0.01199425	0.01557353	0.00385910	0.00536062	0.00431249	0.00090960	0.00078498	0.00057576
48 GAS SERVICE STS.	0.00924947	0.01282429	0.00636866	0.00249152	0.00052201	0.00347391	0.00325274	0.00348463
49 APPAREL ACCE SOR.	0	0	0	0	0	0	0	0
50 FURNITURE	0	0	0	0	0	0	0	0
51 EAT AND DRNKNG	0.00025065	0.00040960	0.00049913	0.00067812	0.00009182	0.00094425	0.00083520	0.00103465
52 ALL OTHER RETAIL	0.00012729	0.00012294	0.00017795	0.00078005	0.00008103	0.00067431	0.00021588	0.00034336
53 BANK AND CREDIT	0.04306043	0.03516096	0.02452098	0.01609397	0.00197528	0.03843729	0.00515774	0.00654417
54 INSURANCE CARRIER	0.00834216	0.01525617	0.02242801	0.01846355	0.00202716	0.01279558	0.01917278	0.01780605
55 F.I.R.E. NEC	0.00603345	0.00313090	0.02529333	0.00308402	0.00125100	0.01383014	0.00751521	0.00844292
56 LEGAL AND ACCTING	0.00185301	0.00216265	0.01280461	0.00625233	0.00144396	0.00598289	0.00605436	0.00483728
57 LODGING	0.00064184	0.00066964	0.00105903	0.00399191	0.00039988	0.00130741	0.00091121	0.00107772

58 PERSNAL AND PHOTO	0.00007543	0.00023895	0.00012617	0.00034683	0.00030576	0.00011780	0.00010526	0.00016481
59 ADVERTISING	0.00103280	0.00103358	0.00097322	0.00114650	0.00033915	0.00275352	0.00131518	0.00218093
60 RECREATION	0.00008401	0.00006202	0.00008465	0.00030079	0.00001064	0.00006271	0.00004414	0.00003593
61 AUTO RENTAL	0.00094366	0.00126875	0.00096796	0.00133207	0.00069202	0.00544370	0.00352008	0.00192879
62 ELEC. AND MSC. RP	0.00322807	0.00227937	0.00359272	0.00551167	0.00035813	0.00012710	0.00075982	0.00016611
63 MEDICAL	0.00005060	0.00006738	0.00006850	0.00010432	0.00001617	0.00005632	0.00008339	0.00008048
64 EDUCATIONAL	0	0	0	0	0	0	0	0
65 ENGINEERING ARCH.	0.00000645	0.00000965	0.00000682	0.00000483	0.00086512	0.00601826	0.00168936	0.00103874
66 ALL OTHER PROFES.	0.00588475	0.00719919	0.01707312	0.06979790	0.00151404	0.00922026	0.00877408	0.00664475
TOTAL	1.32173415	1.47424453	1.51701315	1.39695254	1.12599277	1.31682872	1.29004786	1.33122031

		9	10	11	12	13	14	15	16
1	IRR. CROPS	0.00002992	0.00004660	0.03991157	0.00416733	0.00041150	0.00189262	0.00783537	0.00023149
2	LVSTK. DRY. PLTY.	0.00002043	0.00003394	0.00636939	0.00032080	0.00019257	0.00006444	0.00001581	0.00054678
3	AGRI. SUPPLY	0	0	0	0	0	0	0	0
4	AGRI. SERVICE	0.00000166	0.00000263	0.00171630	0.00027485	0.00002075	0.00007738	0.00030898	0.00002185
5	ALL MINING	0.08203944	0.00265997	0.00012024	0.00004058	0.00002494	0.00066318	0.00033453	0.00015325
6	RESD. CONSTRUCTN.	0	0	0	0	0	0	0	0
7	COMCL. CONSTRUCT.	0	0	0	0	0	0	0	0
8	IND. CONSTRUCTION	0	0	0	0	0	0	0	0
9	FACIL. CONSTRUCT.	1.00000000	0	0	0	0	0	0	0
10	MAINT. AND REPAIR	0.00523732	1.00810859	0.01917944	0.01385039	0.00463038	0.02651253	0.11772142	0.01099726
11	FOOD PROCESS	0.00020881	0.00033265	1.02595893	0.00010715	0.00024075	0.00084084	0.00026983	0.00043559
12	TEXTILE AND APPAR	0.00005187	0.00007910	0.00030811	1.01328518	0.00094989	0.01498470	0.00787702	0.00014218
13	LUMBER	0.00161703	0.02795626	0.00075973	0.00043507	1.23102884	0.06781287	0.00331205	0.00085291
14	FURNITURE	0.00003110	0.00077293	0.00001872	0.00001441	0.00000741	1.00253712	0.00009399	0.00001605
15	BOXES AND PAPER	0.00000705	0.00020671	0.00140101	0.00029336	0.00000216	0.00001923	1.07695005	0.00000583
16	PRINT AND PUBLISH	0.00039445	0.00043085	0.00257781	0.00154534	0.00042377	0.01230166	0.00044366	1.01074590
17	CHEMICALS	0.00159974	0.00558469	0.00110766	0.00022815	0.00485615	0.00440794	0.00249690	0.00381514
18	PETROLEUM	0.09713969	0.00526296	0.00279323	0.00076236	0.00397484	0.00215471	0.00233491	0.00122913
19	RUBBER AND LEATHE	0.00003119	0.00033573	0.00006944	0.00007843	0.00001803	0.00580620	0.00004972	0.00028246
20	GLASS CLAY STONE	0.00567010	0.02815106	0.00170621	0.00043573	0.00022800	0.01063511	0.00359680	0.00109033
21	CEMENT CONCRETE	0.07871943	0.00000275	0.00000264	0.00000127	0.00000087	0.00001329	0.00000744	0.00000354
22	PRIMART METAL	0.00931177	0.03698538	0.00101230	0.00055781	0.00082402	0.07162839	0.00449525	0.00060070
23	FABRI. METAL	0.02234902	0.01047136	0.00034662	0.00017419	0.00041255	0.00068128	0.00178660	0.00060814
24	MACHINERY	0.00043162	0.00032015	0.00043779	0.00011849	0.00104541	0.00067858	0.00011526	0.00081043
25	SCIENTIFIC INSTR.	0.00115372	0.00015418	0.00014570	0.00007869	0.00006022	0.00035251	0.00013030	0.00256238
26	ALL OTHER MFG.	0.00011034	0.00041660	0.00013495	0.00015021	0.00020777	0.00183413	0.00010612	0.00416308
27	RAILROAD TRANSPOR	0.00270357	0.00560436	0.00194894	0.00097077	0.04993639	0.00639639	0.00139847	0.00347052
28	INTERCITY FREIGHT	0.01045748	0.00893014	0.00755263	0.00291677	0.00489843	0.04377577	0.00204447	0.00070787
29	TRUCK WAREHOUSE	0.00059966	0.00271814	0.00039288	0.00012629	0.00386985	0.01957442	0.00035956	0.00173174
30	AIR TRANSPORTATIO	0.00158900	0.00127616	0.00040076	0.00080913	0.00059358	0.00118747	0.00048996	0.00129822
31	ALL OTHER TRANS.	0.00044815	0.00015746	0.00005457	0.00002660	0.00121518	0.00021568	0.00044482	0.00025032
32	TLPHNE AND TLGRPH	0.00462786	0.00474013	0.00383368	0.00420434	0.00376769	0.00865515	0.00801352	0.00475041
33	RADIO AND T.V.	0.00027127	0.00050473	0.00299650	0.00098605	0.00031970	0.00557805	0.00038433	0.01186599
34	GAS UTILITY	0.01079043	0.00323631	0.00488197	0.00352946	0.00273380	0.01637002	0.00515946	0.00428986
35	ELECTRIC UTILITY	0.00821943	0.00395203	0.00763606	0.00358434	0.00173017	0.03517542	0.01918677	0.00955168
36	WATER UTILITY	0.00239753	0.00072767	0.00106925	0.00052356	0.00102104	0.00416751	0.00800106	0.00328157
37	WHLSE. AUTO PARTS	0.00558568	0.00117781	0.00102826	0.00311904	0.00040560	0.00657310	0.00098341	0.00032806
38	WHLSE. GROCERY	0.00003962	0.00010144	0.00057264	0.00002889	0.00001304	0.00004740	0.00002308	0.00001634
39	WHLSE. FARM PROD.	0.00000050	0.00000110	0.00154430	0.00018338	0.00000248	0.00042762	0.00001700	0.00000446
40	WHLSE. LVESTK.	0.00000016	0.00000026	0.00051052	0.00000105	0.00000071	0.00000060	0.00000018	0.00000190
41	WHLSE. MACHINERY	0.01095021	0.00072632	0.00063269	0.00022987	0.00289872	0.00124914	0.01569182	0.00460991
42	WHLSE. PETROLEUM	0.00399250	0.00059455	0.00076330	0.00017483	0.00038749	0.00058702	0.00041789	0.00018653
43	GENERAL WHLSE.	0.00250665	0.00241209	0.00621445	0.00143937	0.00181759	0.01123265	0.00241427	0.02819573
44	LUMBER YDS.HDWRE.	0.00050024	0.00170173	0.00021219	0.00004198	0.00001026	0.00302814	0.00023104	0.00002228
45	DEPT. STORE	0.00000280	0.00000621	0.00000525	0.00000151	0.00000969	0.00001999	0.00001009	0.00000170
46	FOOD STORES	0.00010179	0.00007557	0.00003492	0.00001041	0.00006401	0.00012251	0.00007082	0.00001367
47	AUTO DEALERS	0.00090099	0.00094785	0.00090832	0.00059715	0.00007829	0.00041711	0.00221841	0.00026411
48	GAS SERVICE STS.	0.00144060	0.00533076	0.00512618	0.00052981	0.00036658	0.00081861	0.00546703	0.00110911
49	APPAREL ACCE SOR.	0	0	0	0	0	0	0	0
50	FURNITURE	0	0	0	0	0	0	0	0
51	EAT AND DRNKNG	0.00044104	0.00107148	0.00033193	0.00049821	0.00041103	0.00061845	0.00035115	0.00025914
52	ALL OTHER RETAIL	0.00110167	0.00067918	0.00004165	0.00007364	0.00003235	0.00014843	0.00011400	0.00006301
53	BANK AND CREDIT	0.01929545	0.00886281	0.00810823	0.01898150	0.01180706	0.03683740	0.01319938	0.02964371
54	INSURANCE CARRIER	0.00364787	0.00771203	0.00729576	0.00211438	0.01371677	0.02639312	0.01413721	0.00239459
55	F.I.R.E. NEC	0.00383802	0.00886320	0.00489799	0.00470034	0.01232347	0.09370919	0.02135470	0.01359672
56	LEGAL AND ACCTING	0.00430343	0.00547054	0.00194710	0.00595010	0.00444922	0.00604037	0.00649940	0.00285322
57	LODGING	0.00160127	0.00112926	0.00056433	0.00063576	0.00075243	0.00068593	0.00041440	0.00063005

58 PERSNAL AND PHOTO	0.00016147	0.00022020	0.00005911	0.00007070	0.00044509	0.00019632	0.00005255	0.00024066
59 ADVERTISING	0.00155187	0.00236792	0.00170637	0.00151447	0.00117590	0.00486449	0.00078510	0.00201429
60 RECREATION	0.00006981	0.00015785	0.00009090	0.00007019	0.00002504	0.00022983	0.00003674	0.00032661
61 AUTO RENTAL	0.00878493	0.00094666	0.00439754	0.00234067	0.00043049	0.00193613	0.00521466	0.00217682
62 ELEC. AND MSC. RP	0.00028071	0.00010378	0.00022809	0.00063893	0.00006512	0.00021768	0.00016179	0.00019720
63 MEDICAL	0.00001531	0.00004078	0.00002116	0.00000606	0.00003691	0.00010780	0.00004039	0.00000669
64 EDUCATIONAL	0	0	0	0	0	0	0	0
65 ENGINEERING ARCH.	0.00821366	0.00001184	0.00000570	0.00000241	0.00008169	0.00001550	0.00000288	0.00001536
66 ALL OTHER PROFES.	0.01637817	0.03773125	0.00407753	0.01182849	0.00437304	0.02326099	0.00699022	0.00759345
TOTAL	1.44396650	1.24860667	1.18817146	1.11038044	1.37582674	1.58678012	1.37226403	1.17727792

	17	18	19	20	21	22	23	24
1 IRR. CROPS	0.00093630	0.00001806	0.00059255	0.00004381	0.00011530	0.00003417	0.00009852	0.00008110
2 LVSTK. DRY. PLTY.	0.00052148	0.00000906	0.00301836	0.00001790	0.00001993	0.00000521	0.00000956	0.00003200
3 AGRI. SUPPLY	0	0	0	0	0	0	0	0
4 AGRI. SERVICE	0.00004894	0.00000092	0.00009398	0.00000214	0.00000500	0.00000148	0.00000410	0.00000394
5 ALL MINING	0.00025599	0.00003274	0.00016940	0.05983409	0.18177222	0.00014736	0.01042547	0.00218465
6 RESD. CONSTRUCTN.	0	0	0	0	0	0	0	0
7 COMCL. CONSTRUCT.	0	0	0	0	0	0	0	0
8 IND. CONSTRUCTION	0	0	0	0	0	0	0	0
9 FACIL. CONSTRUCT.	0	0	0	0	0	0	0	0
10 MAINT. AND REPAIR	0.05640152	0.00342732	0.05247836	0.09029570	0.03520933	0.00914635	0.01846015	0.08085128
11 FOOD PROCESS	0.00060311	0.00005043	0.00041595	0.00068310	0.00035088	0.00013844	0.00018905	0.00076509
12 TEXTILE AND APPAR	0.00007838	0.00000822	0.00383978	0.00005314	0.00005673	0.00011854	0.00003666	0.00005201
13 LUMBER	0.00576604	0.00014766	0.00369586	0.00317181	0.00161134	0.00046529	0.00060096	0.00241449
14 FURNITURE	0.00005634	0.00000350	0.00004592	0.00008676	0.00007294	0.00003985	0.00002315	0.00006940
15 BOXES AND PAPER	0.00001521	0.00005840	0.00135665	0.00002027	0.00000928	0.00000247	0.00000511	0.00001822
16 PRINT AND PUBLISH	0.00043745	0.00018131	0.00110459	0.00108655	0.00114178	0.00028920	0.00159730	0.00050954
17 CHEMICALS	1.03426644	0.00344650	0.00250880	0.00096376	0.00093261	0.00406505	0.00332390	0.02342844
18 PETROLEUM	0.03615604	1.03005737	0.00169789	0.00985715	0.02077100	0.00211033	0.00095632	0.00332360
19 RUBBER AND LEATHE	0.00006276	0.00001610	1.04549821	0.00006039	0.00017765	0.00001231	0.00002343	0.00006879
20 GLASS CLAY STONE	0.00350350	0.00044389	0.00153782	1.09253888	0.05488466	0.00202488	0.02377694	0.03493226
21 CEMENT CONCRETE	0.00000362	0.00000201	0.00000129	0.00001362	1.09086557	0.00000195	0.00000255	0.00000342
22 PRIMART METAL	0.00215656	0.00014367	0.00433000	0.00569857	0.00616378	1.08200312	0.18527865	0.03506373
23 FABRI. METAL	0.00065766	0.00005239	0.00083294	0.00196059	0.00113838	0.00274587	1.02185508	0.02151480
24 MACHINERY	0.00042972	0.00002412	0.00021508	0.00688866	0.00343408	0.00016215	0.00093206	1.01341850
25 SCIENTIFIC INSTR.	0.00183332	0.00083943	0.00265545	0.00070375	0.00912346	0.00021401	0.00016969	0.00018568
26 ALL OTHER MFG.	0.00024245	0.00002062	0.00020544	0.00030709	0.00033880	0.00007717	0.00023696	0.00059277
27 RAILROAD TRANSPOR	0.00243651	0.00013614	0.00107317	0.12403551	0.01964464	0.02564140	0.00718925	0.00604985
28 INTERCITY FREIGHT	0.00724242	0.00367533	0.00779038	0.01605246	0.05446069	0.00448664	0.00467410	0.03686507
29 TRUCK WAREHOUSE	0.00129073	0.00250234	0.00017960	0.00033009	0.00162383	0.00004795	0.00007094	0.00034631
30 AIR TRANSPORTATIO	0.00136842	0.00010151	0.00056833	0.00106776	0.00077107	0.00020173	0.00021745	0.00351896
31 ALL OTHER TRANS.	0.00011109	0.00134672	0.00776964	0.00321053	0.00106276	0.00062520	0.00051487	0.00016758
32 TLPHNE AND TLGRPH	0.00626343	0.00094751	0.00381789	0.00977982	0.00887946	0.00140397	0.00633678	0.00988883
33 RADIO AND T.V.	0.00026878	0.00035609	0.00274951	0.00116928	0.00076859	0.00021582	0.00024118	0.00032152
34 GAS UTILITY	0.00475856	0.00603151	0.00430924	0.02587493	0.06539315	0.02998154	0.01909121	0.00632845
35 ELECTRIC UTILITY	0.01134755	0.00607486	0.00339260	0.04330725	0.03780415	0.00069716	0.00497356	0.01022360
36 WATER UTILITY	0.00160533	0.00054305	0.00044351	0.00436463	0.00115245	0.00016090	0.00072204	0.00145735
37 WHLSE. AUTO PARTS	0.00051846	0.00029329	0.00063665	0.00143040	0.01081443	0.00027724	0.00034300	0.00178692
38 WHLSE. GROCERY	0.00001561	0.00000350	0.00001381	0.00002448	0.00001875	0.00000444	0.00002233	0.00002838
39 WHLSE. FARM PROD.	0.00000590	0.00000016	0.00002101	0.00000119	0.00000087	0.00000033	0.00000053	0.00000146
40 WHLSE. LVESTK.	0.00000191	0.00000005	0.00000956	0.00000038	0.00000023	0.00000008	0.00000012	0.00000047
41 WHLSE. MACHINERY	0.00028116	0.00006348	0.00641813	0.00810070	0.01134561	0.00154251	0.00065825	0.04208963
42 WHLSE. PETROLEUM	0.00030139	0.00010183	0.00034065	0.00134855	0.00190599	0.00021105	0.00018415	0.00073458
43 GENERAL WHLSE.	0.00200072	0.00023141	0.00136351	0.00440550	0.00304001	0.00359347	0.00245992	0.00410762
44 LUMBER YDS.HDWRE.	0.00010167	0.00000637	0.00010153	0.00022822	0.00028455	0.00005501	0.00005125	0.00014114
45 DEPT. STORE	0.00000699	0.00000177	0.00000557	0.00000227	0.00000268	0.00000249	0.00000335	0.00000543
46 FOOD STORES	0.00004720	0.00001151	0.00003864	0.00002474	0.00002243	0.00002624	0.00389610	0.00058311
47 AUTO DEALERS	0.00022445	0.00034880	0.00018639	0.00068408	0.00109579	0.00007977	0.00015352	0.00024597
48 GAS SERVICE STS.	0.00282305	0.00017689	0.00086291	0.00077739	0.00363981	0.00020629	0.00020921	0.00325371
49 APPAREL ACCE SOR.	0	0	0	0	0	0	0	0
50 FURNITURE	0	0	0	0	0	0	0	0
51 EAT AND DRNKNG	0.00139800	0.00008829	0.00046636	0.00025742	0.00035807	0.00011823	0.00011382	0.00032872
52 ALL OTHER RETAIL	0.00007206	0.00028519	0.00005937	0.00013154	0.00010060	0.00001538	0.00002941	0.00013904
53 BANK AND CREDIT	0.00425221	0.00071797	0.00923604	0.03706579	0.01091577	0.00289733	0.00483567	0.01174625
54 INSURANCE CARRIER	0.00983436	0.00249774	0.00781703	0.00306555	0.00361161	0.00348760	0.00471467	0.00759287
55 F.I.R.E. NEC	0.01435378	0.00095376	0.01073452	0.05490420	0.01727491	0.00251078	0.01186367	0.01417215
56 LEGAL AND ACCTING	0.00528296	0.00081266	0.00321611	0.01466138	0.00597934	0.00113007	0.00253528	0.00469506
57 LODGING	0.00357660	0.00020496	0.00128914	0.00043860	0.00098756	0.00025417	0.00024013	0.00055231

	58 PERSNAL AND PHOTO	0.00016735	0.00005085	0.00017851	0.00112684	0.00065839	0.00023239	0.00008499	0.00011227
58	PERSNAL AND PHOTO	0.00016735	0.00005085	0.00017851	0.00112684	0.00065839	0.00023239	0.00008499	0.00011227
59	ADVERTISING	0.00490919	0.00026823	0.00663989	0.00132636	0.00127038	0.00029059	0.00125619	0.00276599
60	RECREATION	0.00002950	0.00001485	0.00008674	0.00007701	0.00005678	0.00001166	0.00001901	0.00005256
61	AUTO RENTAL	0.00138433	0.00010170	0.00130661	0.00120479	0.00076663	0.00020227	0.00041416	0.00194770
62	ELEC. AND MSC. RP	0.00012303	0.00038711	0.00008723	0.00025547	0.00036778	0.00011889	0.00008951	0.00021546
63	MEDICAL	0.00002747	0.00000675	0.00002259	0.00001107	0.00001302	0.00026483	0.00005663	0.00002950
64	EDUCATIONAL	0	0	0	0	0	0	0	0
65	ENGINEERING ARCH.	0.00000441	0.00000054	0.00000411	0.00025480	0.00018952	0.00004211	0.00002091	0.00001201
66	ALL OTHER PROFES.	0.00588230	0.00153043	0.00460415	0.01240013	0.00974391	0.00120213	0.00328496	0.01153573
	TOTAL	1.23875166	1.06985887	1.21413497	1.64768888	1.69262487	1.18604481	1.34957776	1.40355723

	25	26	27	28	29	30	31	32
1 IRR. CROPS	0.00013828	0.00529738	0.00013041	0.00004555	0.00008083	0.00001753	0.00010153	0.00001016
2 LVSTK. DRY. PLTY.	0.00020483	0.00018630	0.00003950	0.00002080	0.00003004	0.00001736	0.00007789	0.00000694
3 AGRI. SUPPLY	0	0	0	0	0	0	0	0
4 AGRI. SERVICE	0.00001022	0.00021247	0.00000605	0.00000228	0.00000388	0.00000110	0.00000582	0.00000056
5 ALL MINING	0.00024024	0.00148715	0.00032415	0.00003268	0.00008405	0.00003947	0.00351498	0.00001585
6 RESD. CONSTRUCTN.	0	0	0	0	0	0	0	0
7 COMCL. CONSTRUCT.	0	0	0	0	0	0	0	0
8 IND. CONSTRUCTION	0	0	0	0	0	0	0	0
9 FACIL. CONSTRUCT.	0	0	0	0	0	0	0	0
10 MAINT. AND REPAIR	0.02843983	0.12707190	0.05850883	0.00952856	0.02830457	0.00383230	0.01083962	0.00425796
11 FOOD PROCESS	0.00067889	0.00036566	0.00221012	0.00035618	0.00165980	0.00020862	0.00076390	0.00012193
12 TEXTILE AND APPAR	0.00014770	0.00027923	0.00010545	0.00008282	0.00008780	0.00005985	0.00012625	0.00002750
13 LUMBER	0.00097700	0.00380318	0.00649361	0.00052348	0.00088270	0.00015408	0.00053969	0.00244016
14 FURNITURE	0.00003798	0.00010555	0.00005475	0.00001653	0.00003574	0.00001434	0.00002746	0.00000787
15 BOXES AND PAPER	0.00002779	0.00009894	0.00002019	0.00000369	0.00000843	0.00001567	0.00001094	0.00000129
16 PRINT AND PUBLISH	0.00046567	0.00061690	0.00349570	0.00094107	0.00439362	0.00070601	0.05611208	0.00192177
17 CHEMICALS	0.00114968	0.02896480	0.00152494	0.00028402	0.00029604	0.00111501	0.02880587	0.00084839
18 PETROLEUM	0.00186955	0.00228163	0.07516051	0.00683107	0.00132304	0.25886503	0.11991568	0.00041014
19 RUBBER AND LEATHE	0.01583688	0.05609697	0.00004176	0.00007299	0.00002885	0.00002741	0.00005067	0.00012355
20 GLASS CLAY STONE	0.00148207	0.01425048	0.00215311	0.00035380	0.00087989	0.00055129	0.00472752	0.00016873
21 CEMENT CONCRETE	0.00000457	0.00000382	0.00000318	0.00000811	0.00001888	0.00001273	0.00000480	0.00000296
22 PRIMART METAL	0.01645489	0.01643376	0.01509553	0.00047501	0.00108471	0.00021604	0.00062489	0.00029987
23 FABRI. METAL	0.01408762	0.06465789	0.00751626	0.00021003	0.00033458	0.00022444	0.00031986	0.00016648
24 MACHINERY	0.00115628	0.00542344	0.00207791	0.00015779	0.00009547	0.00013914	0.00298921	0.00004179
25 SCIENTIFIC INSTR.	1.01955578	0.00032111	0.00028630	0.00047780	0.00030118	0.00057737	0.00046991	0.00066366
26 ALL OTHER MFG.	0.00119623	1.00010390	0.00016078	0.00015620	0.00009657	0.00014028	0.00039538	0.00004687
27 RAILROAD TRANSPOR	0.00097848	0.00243125	1.05145202	0.00069653	0.00058111	0.00031053	0.00134862	0.00131853
28 INTERCITY FREIGHT	0.00420754	0.02301107	0.01206427	1.00083166	0.00059448	0.00220301	0.00176771	0.00122416
29 TRUCK WAREHOUSE	0.00239780	0.00039326	0.00048060	0.00015842	1.00016893	0.01205344	0.00051582	0.00006263
30 AIR TRANSPORTATIO	0.00146709	0.00051419	0.00365777	0.00094260	0.00226790	1.01304006	0.00214841	0.00081189
31 ALL OTHER TRANS.	0.00015274	0.00050383	0.02556222	0.00003457	0.00003902	0.00035632	1.05415089	0.00003662
32 TLPHNE AND TLGRPH	0.01216147	0.00982864	0.01201249	0.05152605	0.01904971	0.00404003	0.01161462	1.00068074
33 RADIO AND T.V.	0.00055487	0.00063849	0.00376104	0.00041976	0.00233301	0.01262810	0.00106891	0.00020105
34 GAS UTILITY	0.00786591	0.01737045	0.00449850	0.02136383	0.01133738	0.01911237	0.00758390	0.00165414
35 ELECTRIC UTILITY	0.01408911	0.00898297	0.00712652	0.02571910	0.07095335	0.03624302	0.01548361	0.00118066
36 WATER UTILITY	0.00190191	0.00149702	0.00391202	0.00179844	0.00190418	0.00956930	0.00182339	0.00106212
37 WHLSE. AUTO PARTS	0.00194464	0.00120419	0.00264905	0.04075080	0.01142393	0.00043379	0.01878198	0.00146058
38 WHLSE. GROCERY	0.00007544	0.00002042	0.00002390	0.00003139	0.00004557	0.00001964	0.00006520	0.00000379
39 WHLSE. FARM PROD.	0.00000252	0.00001199	0.00000361	0.00000073	0.00000268	0.00000045	0.00000177	0.00000024
40 WHLSE. LVESTK.	0.00000096	0.00000075	0.00000118	0.00000023	0.00000089	0.00000015	0.00000061	0.00000008
41 WHLSE. MACHINERY	0.00175706	0.00087062	0.05888539	0.00025916	0.00033847	0.00034899	0.00085989	0.00016236
42 WHLSE. PETROLEUM	0.00036970	0.00038808	0.00636541	0.00905397	0.00024414	0.05967387	0.02124317	0.00007604
43 GENERAL WHLSE.	0.00547096	0.00240181	0.01434290	0.01076587	0.00325757	0.00082271	0.01148942	0.00087194
44 LUMBER YDS.HDWRE.	0.00011722	0.00023848	0.00010058	0.00001811	0.00005296	0.00000911	0.00002432	0.00000838
45 DEPT. STORE	0.00000225	0.00000338	0.00000376	0.00002509	0.00002108	0.00000280	0.00003469	0.00000169
46 FOOD STORES	0.00006811	0.00026876	0.00005337	0.00016124	0.00013629	0.00001890	0.00022474	0.00001148
47 AUTO DEALERS	0.00048542	0.00032812	0.00028811	0.00025837	0.00042646	0.00055313	0.00057729	0.00002114
48 GAS SERVICE STS.	0.00188844	0.00103760	0.00078766	0.00689049	0.00131995	0.00030560	0.00394641	0.00009232
49 APPAREL ACCE SOR.	0	0	0	0	0	0	0	0
50 FURNITURE	0	0	0	0	0	0	0	0
51 EAT AND DRNKNG	0.00137792	0.00029446	0.00037226	0.00057536	0.00294293	0.00051500	0.00303401	0.00006798
52 ALL OTHER RETAIL	0.00013401	0.00010456	0.00018640	0.00010511	0.00013000	0.00036196	0.00028679	0.00001337
53 BANK AND CREDIT	0.02013203	0.04349737	0.01139680	0.00746533	0.03986523	0.00372071	0.01064533	0.00260164
54 INSURANCE CARRIER	0.00311716	0.00463082	0.00525677	0.03551747	0.02981704	0.00395443	0.04910509	0.00239453
55 F.I.R.E. NEC	0.01602971	0.03589233	0.02612513	0.02020494	0.22034147	0.00518408	0.01742116	0.01164846
56 LEGAL AND ACCTING	0.00431970	0.00511622	0.01039573	0.03921731	0.01128380	0.00803427	0.01781770	0.00536922
57 LODGING	0.00389930	0.00150907	0.00072050	0.00087741	0.00293413	0.00100758	0.00341992	0.00117944

58 PERSNAL AND PHOTO	0.04866909	0.00008013	0.00881574	0.00007529	0.00015466	0.00012234	0.00019807	0.00039108
59 ADVERTISING	0.00236637	0.00149680	0.00284181	0.00235104	0.00241152	0.00325579	0.01101193	0.00387444
60 RECREATION	0.00003095	0.00004432	0.00012680	0.00004472	0.00014031	0.00034049	0.00013866	0.00000999
61 AUTO RENTAL	0.00205219	0.00103865	0.00103199	0.00083689	0.00299606	0.00021113	0.01122580	0.00020453
62 ELEC. AND MSC. RP	0.00014195	0.00012890	0.00049831	0.00050070	0.00024285	0.00184857	0.00084468	0.00006028
63 MEDICAL	0.00001300	0.00001785	0.00001828	0.00009513	0.00008028	0.00001068	0.00013151	0.00000652
64 EDUCATIONAL	0	0	0	0	0	0	0	0
65 ENGINEERING ARCH.	0.00000225	0.00000576	0.00171755	0.00000150	0.00000290	0.00001073	0.00000609	0.00000233
66 ALL OTHER PROFES.	0.00441547	0.00734329	0.00843905	0.00874907	0.02117317	0.00622798	0.02891051	0.00127702
TOTAL	1.26882269	1.50120838	1.46138451	1.30890417	1.50104607	1.47348612	1.53937660	1.07462784

	33	34	35	36	37	38	39	40
1 IRR. CROPS	0.00006926	0.00000974	0.00000850	0.00003233	0.00007865	0.01378536	0.09036993	0.22581444
2 LVSTK. DRY. PLTY.	0.00004710	0.00000657	0.00000483	0.00001742	0.00011299	0.00286624	0.00286062	0.01218258
3 AGRI. SUPPLY	0	0	0	0	0	0	0	0
4 AGRI. SERVICE	0.00000383	0.00000055	0.00000048	0.00000175	0.00000574	0.00060834	0.00361680	0.00915487
5 ALL MINING	0.00004738	0.00002000	0.00006024	0.00218201	0.00002868	0.00008511	0.00011196	0.00006150
6 RESD. CONSTRUCTN.	0	0	0	0	0	0	0	0
7 COMCL. CONSTRUCT.	0	0	0	0	0	0	0	0
8 IND. CONSTRUCTION	0	0	0	0	0	0	0	0
9 FACIL. CONSTRUCT.	0	0	0	0	0	0	0	0
10 MAINT. AND REPAIR	0.00949625	0.00232037	0.00256417	0.05439759	0.00394477	0.01718628	0.02407544	0.01157083
11 FOOD PROCESS	0.00057615	0.00010261	0.00008940	0.00017238	0.00049580	0.05025870	0.00242809	0.00122512
12 TEXTILE AND APPAR	0.00010699	0.00015976	0.00030609	0.00071262	0.00022408	0.00020615	0.00058315	0.00147611
13 LUMBER	0.00076307	0.00008955	0.00010630	0.00208096	0.00049911	0.00186220	0.00590353	0.00080763
14 FURNITURE	0.00005698	0.00001050	0.00000551	0.00005194	0.00008895	0.00003565	0.00002526	0.00001993
15 BOXES AND PAPER	0.00000425	0.00000080	0.00000095	0.00001232	0.00000211	0.00007620	0.00001346	0.00002205
16 PRINT AND PUBLISH	0.00925401	0.00089802	0.00143969	0.00242562	0.00087132	0.00431652	0.00083224	0.00087433
17 CHEMICALS	0.00053092	0.00067736	0.00013107	0.01112250	0.00070512	0.00155380	0.00163000	0.00306952
18 PETROLEUM	0.00560451	0.00056689	0.00194916	0.00872956	0.00159574	0.00478355	0.01583805	0.00687799
19 RUBBER AND LEATHE	0.00057516	0.00001788	0.00002017	0.00007320	0.00014180	0.00014762	0.00015210	0.00003441
20 GLASS CLAY STONE	0.00050393	0.00009182	0.00019073	0.03780037	0.00024116	0.00107068	0.00094264	0.00049895
21 CEMENT CONCRETE	0.00000659	0.00006715	0.00026834	0.00029643	0.00000249	0.00000637	0.00000674	0.00000896
22 PRIMART METAL	0.00086376	0.00013171	0.00016370	0.00408222	0.00220887	0.00107171	0.00356504	0.00168790
23 FABRI. METAL	0.00081062	0.00016125	0.00008848	0.00123583	0.00119821	0.00052175	0.00159439	0.00023265
24 MACHINERY	0.00163548	0.00005398	0.00007889	0.00171058	0.00076580	0.00279277	0.00055084	0.00036499
25 SCIENTIFIC INSTR.	0.02187026	0.00073939	0.00102348	0.00202919	0.00024774	0.00024618	0.00018281	0.00033784
26 ALL OTHER MFG.	0.00396575	0.00004453	0.00003535	0.00034908	0.00110610	0.00193774	0.00234165	0.00013424
27 RAILROAD TRANSPOR	0.00329297	0.00069247	0.00319143	0.00822910	0.00026444	0.01805850	0.17516372	0.00203135
28 INTERCITY FREIGHT	0.00142903	0.00103672	0.00140471	0.00250971	0.00718917	0.05829981	0.07722555	0.04802889
29 TRUCK WAREHOUSE	0.00014940	0.00029432	0.00045338	0.00028528	0.00217284	0.01115801	0.00020460	0.00015253
30 AIR TRANSPORTATIO	0.00199275	0.00019324	0.00015107	0.00042772	0.00348129	0.00788623	0.00181982	0.00090475
31 ALL OTHER TRANS.	0.00009987	0.00001848	0.00040696	0.00023981	0.00001276	0.00045140	0.00426964	0.00006691
32 TLPHNE AND TLGRPH	0.16193520	0.00385861	0.00416598	0.00476180	0.01458774	0.01919745	0.01108231	0.02328679
33 RADIO AND T.V.	1.02844105	0.00379384	0.00264753	0.00077723	0.00021737	0.00073244	0.00097333	0.00099673
34 GAS UTILITY	0.00797281	1.18605239	0.08305231	0.10515437	0.00352991	0.00955404	0.00901953	0.01235261
35 ELECTRIC UTILITY	0.02177869	0.00190725	1.05485203	0.06893235	0.00853766	0.01858230	0.01882547	0.02622621
36 WATER UTILITY	0.00256566	0.00034740	0.00265238	1.00052690	0.00059371	0.00413765	0.00443942	0.00348644
37 WHLSE. AUTO PARTS	0.00218465	0.00042368	0.00067315	0.01136836	1.01039053	0.00293119	0.00401835	0.00324667
38 WHLSE. GROCERY	0.00022035	0.00000728	0.00000468	0.00001344	0.00005379	1.00009705	0.00054398	0.00003790
39 WHLSE. FARM PROD.	0.00000127	0.00000023	0.00000023	0.00000055	0.00000161	0.00011432	1.00525425	0.00051359
40 WHLSE. LVESTK.	0.00000042	0.00000007	0.00000006	0.00000014	0.00000059	0.00003293	0.00001003	1.02779044
41 WHLSE. MACHINERY	0.00123940	0.00338323	0.00072666	0.01482748	0.00041736	0.00176940	0.01041898	0.00094441
42 WHLSE. PETROLEUM	0.00020653	0.00007436	0.00013654	0.00115036	0.00037966	0.00135167	0.00267274	0.00266881
43 GENERAL WHLSE.	0.00574314	0.00117000	0.00108854	0.00293876	0.00231973	0.00810987	0.00720750	0.03225347
44 LUMBER YDS.HDWRE.	0.00001951	0.00000420	0.00007446	0.00009927	0.00000828	0.00009450	0.00040918	0.00095558
45 DEPT. STORE	0.00001282	0.00000469	0.00000177	0.00000580	0.00000918	0.00006858	0.00000973	0.00002153
46 FOOD STORES	0.00008618	0.00003062	0.00001153	0.00004231	0.00006375	0.00044141	0.00006828	0.00013830
47 AUTO DEALERS	0.00249215	0.00216231	0.00287622	0.03175734	0.00013347	0.00057182	0.00139018	0.00310868
48 GAS SERVICE STS.	0.00048017	0.00039217	0.00036185	0.00051055	0.00248746	0.00277108	0.00182601	0.00288163
49 APPAREL ACCE SOR.	0	0	0	0	0	0	0	0
50 FURNITURE	0	0	0	0	0	0	0	0
51 EAT AND DRNKNG	0.00297399	0.00013253	0.00006666	0.00023284	0.00113984	0.00229560	0.00045418	0.02180396
52 ALL OTHER RETAIL	0.00060429	0.00003216	0.00002383	0.00010387	0.00006041	0.00037522	0.00011259	0.00011900
53 BANK AND CREDIT	0.02169158	0.02060505	0.00716353	0.00565206	0.02944685	0.09802794	0.00968829	0.02619419
54 INSURANCE CARRIER	0.01814564	0.00663976	0.00246370	0.00814865	0.01299534	0.09704625	0.01351470	0.02987803
55 F.I.R.E. NEC	0.04753812	0.00458212	0.00719348	0.00414179	0.00746867	0.01951599	0.00719807	0.03312010
56 LEGAL AND ACCTING	0.02040779	0.00583223	0.00412826	0.00539049	0.00464401	0.02000373	0.00658622	0.00783850
57 LODGING	0.00310450	0.00200392	0.00076222	0.00182267	0.00505361	0.00429295	0.00106192	0.00070560

58 PERSNAL AND PHOTO	0.00583733	0.00008087	0.00010075	0.00019841	0.00009933	0.00027561	0.00151089	0.00025837
59 ADVERTISING	0.07645798	0.00172124	0.00130573	0.00084548	0.00431189	0.00185244	0.00098620	0.00596561
60 RECREATION	0.02585723	0.00010258	0.00007381	0.00003430	0.00004516	0.00008170	0.00005419	0.00008455
61 AUTO RENTAL	0.00125289	0.00033340	0.00023713	0.00029432	0.00155312	0.00236042	0.00052780	0.00148141
62 ELEC. AND MSC. RP	0.00073189	0.00335170	0.00143770	0.00056300	0.00011034	0.01125346	0.00867471	0.00134111
63 MEDICAL	0.00004882	0.00001780	0.00000712	0.00002340	0.00003530	0.00026018	0.00003970	0.00008666
64 EDUCATIONAL	0	0	0	0	0	0	0	0
65 ENGINEERING ARCH.	0.00083496	0.00000421	0.00000739	0.00001593	0.00000063	0.00003011	0.00028646	0.00000417
66 ALL OTHER PROFES.	0.02109435	0.00192325	0.00192979	0.00381906	0.01028000	0.01607207	0.00769107	0.01536723
TOTAL	1.54571763	1.25938079	1.19437012	1.41536081	1.14866203	1.54557425	1.55286436	1.61279954

	41	42	43	44	45	46	47	48
1 IRR. CROPS	0.00018825	0.00014737	0.00239258	0.00022268	0.00030102	0.02001753	0.00005116	0.00021912
2 LVSTK. DRY. PLTY.	0.00017186	0.00019989	0.00018980	0.00006020	0.00017623	0.00069866	0.00006350	0.00004766
3 AGRI. SUPPLY	0	0	0	0	0	0	0	0
4 AGRI. SERVICE	0.00001144	0.00001050	0.00009886	0.00001021	0.00001707	0.00080266	0.00000350	0.00000973
5 ALL MINING	0.00038016	0.00005323	0.00004528	0.01545045	0.00014825	0.00006098	0.00004849	0.00012116
6 RESD. CONSTRUCTN.	0	0	0	0	0	0	0	0
7 COMCL. CONSTRUCT.	0	0	0	0	0	0	0	0
8 IND. CONSTRUCTION	0	0	0	0	0	0	0	0
9 FACIL. CONSTRUCT.	0	0	0	0	0	0	0	0
10 MAINT. AND REPAIR	0.00589280	0.00270404	0.00571992	0.00888924	0.00791650	0.01799831	0.00700890	0.02422891
11 FOOD PROCESS	0.00212532	0.00241280	0.00693019	0.00435049	0.00512849	0.00042077	0.00070781	0.00438187
12 TEXTILE AND APPAR	0.00036102	0.00056875	0.00434995	0.00056740	0.01114147	0.00016654	0.00007997	0.00015851
13 LUMBER	0.00062267	0.00035683	0.00103287	0.03991992	0.00134464	0.00056192	0.00078492	0.00090299
14 FURNITURE	0.00008850	0.00015861	0.00012337	0.00063466	0.00032756	0.00001877	0.00006179	0.00015529
15 BOXES AND PAPER	0.00000504	0.00000520	0.00007845	0.00001005	0.00001410	0.00021773	0.00000327	0.00002178
16 PRINT AND PUBLISH	0.00309501	0.00118628	0.00185422	0.01007347	0.00679240	0.00155297	0.00143265	0.00064729
17 CHEMICALS	0.00079449	0.00188977	0.00113613	0.00257660	0.00100906	0.00044671	0.00071521	0.00827668
18 PETROLEUM	0.00381472	0.00483284	0.00611184	0.02137895	0.00305179	0.00141887	0.00799584	0.17755545
19 RUBBER AND LEATHE	0.00014040	0.00021323	0.00018836	0.00050843	0.00118963	0.00001916	0.00009799	0.00038134
20 GLASS CLAY STONE	0.00109879	0.00042164	0.00053544	0.00123434	0.00060562	0.00068778	0.00033769	0.00125402
21 CEMENT CONCRETE	0.00000339	0.00000647	0.00000820	0.00083019	0.00000620	0.00000762	0.00000218	0.00001131
22 PRIMART METAL	0.00687852	0.00079508	0.00092682	0.00426538	0.00378667	0.00079426	0.00193995	0.00267476
23 FABRI. METAL	0.03489702	0.00271378	0.00051844	0.01044373	0.00478938	0.00021532	0.00168056	0.00279778
24 MACHINERY	0.00107957	0.00134809	0.00130386	0.00233927	0.00101020	0.00011383	0.00061433	0.00446942
25 SCIENTIFIC INSTR.	0.00033628	0.00060755	0.00106825	0.00924161	0.00071213	0.00010646	0.00071220	0.00120046
26 ALL OTHER MFG.	0.00096850	0.00110245	0.00060487	0.00332960	0.00055603	0.00010200	0.00059151	0.00416748
27 RAILROAD TRANSPOR	0.02204382	0.00051071	0.04340535	0.00233806	0.01387009	0.00061025	0.09775194	0.00069550
28 INTERCITY FREIGHT	0.04947546	0.01938390	0.00493842	0.05553336	0.01205783	0.02036931	0.01264751	0.01076228
29 TRUCK WAREHOUSE	0.00125966	0.00022721	0.00022323	0.00031904	0.00099405	0.00012180	0.00041160	0.00054093
30 AIR TRANSPORTATIO	0.00535418	0.01516750	0.00487562	0.00380330	0.00182192	0.00046520	0.00299446	0.00099246
31 ALL OTHER TRANS.	0.00055499	0.00002735	0.00106832	0.00014375	0.00035841	0.00002445	0.00238081	0.00026402
32 TLPHNE AND TLGRPH	0.02529143	0.01289562	0.02184767	0.01849024	0.00998422	0.00601761	0.01177831	0.00985088
33 RADIO AND T.V.	0.00053803	0.00060809	0.00075858	0.00365736	0.00038178	0.00032965	0.00581015	0.00663490
34 GAS UTILITY	0.00442045	0.00631498	0.01256017	0.00648262	0.00744035	0.00800713	0.00281963	0.01191320
35 ELECTRIC UTILITY	0.01022796	0.01922466	0.02402314	0.01412017	0.02213709	0.02322063	0.00647325	0.03829206
36 WATER UTILITY	0.00212528	0.00483506	0.00544933	0.00137079	0.00091576	0.00473024	0.00144974	0.00386851
37 WHLSE. AUTO PARTS	0.00227822	0.00113202	0.00202775	0.00297636	0.00159600	0.00144550	0.15301611	0.00065903
38 WHLSE. GROCERY	0.00010605	0.00022963	0.00008163	0.00004952	0.00003551	0.00375686	0.00001613	0.00002696
39 WHLSE. FARM PROD.	0.00000448	0.00000504	0.00001624	0.00000722	0.00001085	0.00004362	0.00000152	0.00000691
40 WHLSE. LVESTK.	0.00000155	0.00000177	0.00000390	0.00000227	0.00000300	0.00000237	0.00000054	0.00000224
41 WHLSE. MACHINERY	1.00166559	0.00173928	0.00321189	0.00074395	0.00107795	0.00029468	0.00568633	0.00045725
42 WHLSE. PETROLEUM	0.00098951	1.00120563	0.00089878	0.00377632	0.00056198	0.00049837	0.00088944	0.03428619
43 GENERAL WHLSE.	0.00334500	0.00621275	1.00449395	0.00348214	0.00659021	0.00628902	0.00314639	0.00589713
44 LUMBER YDS.HDWRE.	0.00001290	0.00000767	0.00002183	1.01578644	0.00001790	0.00011349	0.00001298	0.00004507
45 DEPT. STORE	0.00000452	0.00001360	0.00001031	0.00047951	1.00000725	0.00001331	0.00000545	0.00000803
46 FOOD STORES	0.00016224	0.00009967	0.00006890	0.00020208	0.00006501	1.00008579	0.00004148	0.00006408
47 AUTO DEALERS	0.00020726	0.00047586	0.00094227	0.00213338	0.00077766	0.00067159	1.00031019	0.00038100
48 GAS SERVICE STS.	0.00280017	0.00322610	0.00164496	0.00529510	0.00140354	0.00057395	0.00096203	1.00316453
49 APPAREL ACCE SOR.	0	0	0	0	0	0	0	0
50 FURNITURE	0	0	0	0	0	0	0	0
51 EAT AND DRNKNG	0.00180367	0.00251849	0.00142385	0.00253835	0.00067818	0.00031481	0.00059601	0.00033436
52 ALL OTHER RETAIL	0.00096214	0.00459205	0.00037552	0.00208370	0.00004980	0.00003926	0.00112154	0.00026051
53 BANK AND CREDIT	0.02004359	0.02071278	0.02219172	0.01659420	0.00550697	0.02643762	0.02655904	0.00836761
54 INSURANCE CARRIER	0.00638775	0.01925306	0.01458152	0.03571089	0.01025853	0.01877175	0.00770490	0.01134770
55 F.I.R.E. NEC	0.02372580	0.00389661	0.00734781	0.00393121	0.00961143	0.01503046	0.00473797	0.03845542
56 LEGAL AND ACCTING	0.00963939	0.01380490	0.01420252	0.00840460	0.00560605	0.00960487	0.00573332	0.00755244
57 LODGING	0.00390968	0.01044148	0.00423719	0.00132978	0.00323155	0.00073540	0.00259161	0.00698901

58 PERSNAL AND PHOTO	0.00033994	0.00043195	0.00054233	0.00073170	0.00019749	0.00003380	0.00090924	0.00018229
59 ADVERTISING	0.00422184	0.01334634	0.00445781	0.00320978	0.01379529	0.01432499	0.00738829	0.00158572
60 RECREATION	0.00010920	0.00031347	0.00010427	0.00019135	0.00002802	0.00002285	0.00015893	0.00020303
61 AUTO RENTAL	0.00080116	0.00129774	0.01660637	0.00305247	0.01225510	0.00562245	0.00063383	0.00077229
62 ELEC. AND MSC. RP	0.00300287	0.02737314	0.00480981	0.00025286	0.00259699	0.00022640	0.00243974	0.00116887
63 MEDICAL	0.00001878	0.00005168	0.00003932	0.00693569	0.00002842	0.00005111	0.00002113	0.00003125
64 EDUCATIONAL	0	0	0	0	0	0	0	0
65 ENGINEERING ARCH.	0.00003670	0.00000137	0.00007142	0.00002010	0.00002305	0.00000131	0.00016410	0.00000659
66 ALL OTHER PROFES.	0.02488448	0.07754818	0.02213001	0.01483208	0.00475785	0.00371647	0.00343092	0.00951413
TOTAL	1.29570945	1.31086172	1.28091740	1.37734859	1.20075753	1.21904722	1.39773000	1.44926739

	49	50	51	52	53	54	55	56
1 IRR. CROPS	0.00024620	0.00028508	0.00032799	0.00011376	0.00002728	0.00019258	0.00029201	0.00007121
2 LVSTK. DRY. PLTY.	0.00024617	0.00003973	0.00031625	0.00010882	0.00001082	0.00005234	0.00007715	0.00018286
3 AGRI. SUPPLY	0	0	0	0	0	0	0	0
4 AGRI. SERVICE	0.00001543	0.00001838	0.00002028	0.00000713	0.00000133	0.00000880	0.00001328	0.00000707
5 ALL MINING	0.00007504	0.00004985	0.00005588	0.00002666	0.00001693	0.00003759	0.00004392	0.00003339
6 RESD. CONSTRUCTN.	0	0	0	0	0	0	0	0
7 COMCL. CONSTRUCT.	0	0	0	0	0	0	0	0
8 IND. CONSTRUCTION	0	0	0	0	0	0	0	0
9 FACIL. CONSTRUCT.	0	0	0	0	0	0	0	0
10 MAINT. AND REPAIR	0.01709126	0.01511207	0.00393950	0.00382006	0.00519243	0.01155792	0.01111737	0.00733906
11 FOOD PROCESS	0.00470594	0.00020124	0.00651200	0.00174130	0.00025917	0.00165049	0.00696884	0.00059502
12 TEXTILE AND APPAR	0.00024026	0.06113373	0.00029002	0.00127298	0.00005217	0.00019497	0.00006955	0.00011208
13 LUMBER	0.00212874	0.00251615	0.00288578	0.00061729	0.00029220	0.00054429	0.00046815	0.00039742
14 FURNITURE	0.00013705	0.00186682	0.00010564	0.00007313	0.00006443	0.00003204	0.00002266	0.00002434
15 BOXES AND PAPER	0.00001136	0.00002126	0.00001142	0.00000430	0.00000199	0.00000674	0.00001228	0.00000325
16 PRINT AND PUBLISH	0.00507009	0.00477851	0.00099579	0.00083923	0.00187912	0.00576250	0.00768694	0.00740061
17 CHEMICALS	0.00172879	0.00027675	0.00248314	0.00682105	0.00009439	0.00029570	0.00028679	0.00060663
18 PETROLEUM	0.00289507	0.00047637	0.00143667	0.00261574	0.00127925	0.00271538	0.00247958	0.00229363
19 RUBBER AND LEATHE	0.00031253	0.00017800	0.00028379	0.00017157	0.00003946	0.00019456	0.00003131	0.00009093
20 GLASS CLAY STONE	0.00094465	0.00054668	0.00085240	0.00032870	0.00018451	0.00040012	0.00048879	0.00039156
21 CEMENT CONCRETE	0.00000388	0.00000451	0.00000907	0.00000457	0.00000324	0.00000334	0.00001542	0.00000105
22 PRIMART METAL	0.00095821	0.00074231	0.00042004	0.00091626	0.00021057	0.00046264	0.00044756	0.00035077
23 FABRI. METAL	0.00051703	0.00035644	0.00029383	0.00027312	0.00007106	0.00017192	0.00016526	0.00023214
24 MACHINERY	0.00435221	0.00021168	0.00111542	0.00139156	0.00005791	0.00015849	0.00015100	0.00136924
25 SCIENTIFIC INSTR.	0.00022871	0.00025429	0.00013792	0.00142208	0.00012390	0.00014651	0.00046369	0.00027315
26 ALL OTHER MFG.	0.00342784	0.00259623	0.00200139	0.00142054	0.00006520	0.00013924	0.00015420	0.00134896
27 RAILROAD TRANSPOR	0.00140163	0.00041490	0.00094035	0.00041844	0.00040437	0.00063502	0.00057017	0.00044848
28 INTERCITY FREIGHT	0.00581487	0.00985410	0.00054247	0.00165423	0.00022454	0.00057998	0.00053436	0.00047372
29 TRUCK WAREHOUSE	0.00016459	0.00011257	0.00005825	0.00259995	0.00004695	0.00011782	0.00013358	0.00012687
30 AIR TRANSPORTATIO	0.00743914	0.00056112	0.00092354	0.00560075	0.00146616	0.00472886	0.00457583	0.00717633
31 ALL OTHER TRANS.	0.00004520	0.00001772	0.00003578	0.00001737	0.00001561	0.00002485	0.00003540	0.00001683
32 TLPHNE AND TLGRPH	0.01435134	0.02088006	0.00500413	0.00750682	0.01040979	0.00375512	0.01824195	0.02069902
33 RADIO AND T.V.	0.00300963	0.00260003	0.00048689	0.00052168	0.00055249	0.00044569	0.00960106	0.00074043
34 GAS UTILITY	0.00427378	0.00479698	0.00771122	0.04087827	0.00366700	0.00501113	0.01565943	0.00140322
35 ELECTRIC UTILITY	0.01292240	0.01528273	0.02786810	0.00733101	0.01129458	0.01107029	0.05407337	0.00316758
36 WATER UTILITY	0.00142280	0.00148595	0.00615152	0.00161966	0.00079180	0.00103667	0.00384325	0.00063602
37 WHLSE. AUTO PARTS	0.00042974	0.00077594	0.00026463	0.00100534	0.00082883	0.00076620	0.00114212	0.C0029545
38 WHLSE. GROCERY	0.00002635	0.00002168	0.00005201	0.00008783	0.00004159	0.00051599	0.00007501	0.00008848
39 WHLSE. FARM PROD.	0.00000864	0.00001231	0.00001174	0.00000356	0.00000052	0.00000304	0.00001076	0.00000212
40 WHLSE. LVESTK.	0.00000301	0.00000022	0.00000410	0.00000117	0.00000016	0.00000095	0.00000357	0.00000085
41 WHLSE. MACHINERY	0.00065093	0.00070764	0.00110137	0.00084884	0.00015886	0.00054850	0.00061894	0.00091622
42 WHLSE. PETROLEUM	0.00062196	0.00015654	0.00023803	0.00051518	0.00024687	0.00055439	0.00048824	0.00050379
43 GENERAL WHLSE.	0.00837907	0.00155172	0.01295376	0.00427462	0.00644812	0.01018548	0.00427245	0.00680783
44 LUMBER YDS.HDWRE.	0.00003193	0.00003335	0.00001123	0.00000810	0.00000985	0.00002126	0.00002385	0.00001358
45 DEPT. STORE	0.00001663	0.00001849	0.00002829	0.00001543	0.00000512	0.00071152	0.00001051	0.00000132
46 FOOD STORES	0.00011023	0.00011955	0.00018276	0.00010163	0.00003312	0.00454452	0.00006883	0.00001154
47 AUTO DEALERS	0.00019872	0.00026073	0.00042355	0.00078851	0.00039834	0.00040700	0.00076113	0.00018953
48 GAS SERVICE STS.	0.00293144	0.00035521	0.00361994	0.00178583	0.00038970	0.00414696	0.00085018	0.00151254
49 APPAREL ACCE SOR.	1.00000000	0	0	0	0	0	0	0
50 FURNITURE	0	1.00000000	0	0	0	0	0	0
51 EAT AND DRNKNG	0.00140560	0.00044002	1.00062846	0.00113741	0.00092994	0.01202206	0.00091585	0.00117436
52 ALL OTHER RETAIL	0.00006927	0.00010013	0.00018704	1.00168961	0.00005042	0.00023471	0.00024519	0.00068180
53 BANK AND CREDIT	0.04525704	0.04311785	0.01321085	0.01700338	1.01210711	0.00995858	0.15703104	0.03703319
54 INSURANCE CARRIER	0.02352295	0.02616359	0.04004534	0.02184446	0.00723706	1.00744637	0.01486419	0.00186008
55 F.I.R.E. NEC	0.02085254	0.01710433	0.02246503	0.00878631	0.01047656	0.01072161	1.01863608	0.00558816
56 LEGAL AND ACCTING	0.00662845	0.01993805	0.01000628	0.00828615	0.00800594	0.01247481	0.01331221	1.05685325
57 LODGING	0.00643438	0.00072034	0.00065827	0.00361204	0.00118653	0.00457685	0.00119976	0.00440171

58 PERSNAL AND PHOTO	0.00012193	0.00005516	0.00723589	0.00033458	0.00005636	0.00030462	0.00025790	0.00031564
59 ADVERTISING	0.03576113	0.01191806	0.00810713	0.00823987	0.00651598	0.00580942	0.00897670	0.00078570
60 RECREATION	0.00010520	0.00008466	0.00009793	0.00023609	0.00004290	0.00019064	0.00041010	0.00026953
61 AUTO RENTAL	0.00109046	0.00098591	0.00113857	0.00710534	0.00993211	0.00839431	0.01184663	0.00118725
62 ELEC. AND MSC. RP	0.00329427	0.01724449	0.01810519	0.00080326	0.00010891	0.00039129	0.00022266	0.00266812
63 MEDICAL	0.00006329	0.00007030	0.00010717	0.00005863	0.00001945	0.00269193	0.00003998	0.00000514
64 EDUCATIONAL	0	0	0	0	0	0	0	0
65 ENGINEERING ARCH.	0.00000478	0.00000282	0.00000197	0.00000113	0.00000112	0.00000143	0.00000871	0.00000136
66 ALL OTHER PROFES.	0.00764893	0.00496195	0.02214260	0.05795754	0.00753062	0.04240101	0.04404909	0.06532074
TOTAL	1.26185162	1.29459331	1.23724558	1.23866985	1.11156270	1.19215902	1.41906583	1.24650218

	57	58	59	60	61	62	63	64
1 IRR. CROPS	0.00088357	0.00010963	0.00012093	0.00019163	0.00007082	0.00011459	0.00078970	0.00041252
2 LVSTK. DRY. PLTY.	0.00035959	0.00038310	0.00023364	0.00007929	0.00005760	0.00047980	0.00086718	0.00024298
3 AGRI. SUPPLY	0	0	0	0	0	0	0	0
4 AGRI. SERVICE	0.00004453	0.00001324	0.00001025	0.00000947	0.00000414	0.00001569	0.00005139	0.00002200
5 ALL MINING	0.00009477	0.00011928	0.00004822	0.00013021	0.00003193	0.00006571	0.00015991	0.00008320
6 RESD. CONSTRUCTN.	0	0	0	0	0	0	0	0
7 COMCL. CONSTRUCT.	0	0	0	0	0	0	0	0
8 IND. CONSTRUCTION	0	0	0	0	0	0	0	0
9 FACIL. CONSTRUCT.	0	0	0	0	0	0	0	0
10 MAINT. AND REPAIR	0.02032979	0.00758844	0.00608730	0.02725279	0.00696213	0.00286982	0.00363328	0.01058934
11 FOOD PROCESS	0.01957376	0.00051643	0.00105228	0.00176178	0.00108210	0.00037739	0.01466107	0.00640237
12 TEXTILE AND APPAR	0.01414106	0.00012962	0.00053285	0.00089266	0.00011488	0.00012044	0.00161070	0.00126358
13 LUMBER	0.00108960	0.00059964	0.00048797	0.00272778	0.00033466	0.00059363	0.00098672	0.00136400
14 FURNITURE	0.00348562	0.00001569	0.00012192	0.00148688	0.00003159	0.00001022	0.00136608	0.00254598
15 BOXES AND PAPER	0.00003628	0.00000520	0.00000441	0.00000902	0.00000768	0.00000342	0.00002503	0.00001246
16 PRINT AND PUBLISH	0.00558095	0.00247868	0.03523608	0.00160642	0.00154357	0.00121511	0.00149917	0.00367387
17 CHEMICALS	0.00093900	0.00166627	0.00066481	0.00094891	0.00077515	0.00144282	0.00522082	0.00150023
18 PETROLEUM	0.00259243	0.01695705	0.00240956	0.00185718	0.07899119	0.00075190	0.00243979	0.00564659
19 RUBBER AND LEATHE	0.00017294	0.00016133	0.00024234	0.00029022	0.00008400	0.00023304	0.00034210	0.00010588
20 GLASS CLAY STONE	0.00122878	0.00095916	0.00060474	0.00122906	0.00034877	0.00091804	0.00119794	0.00071160
21 CEMENT CONCRETE	0.00001287	0.00000793	0.00000226	0.00001439	0.00000374	0.00000370	0.00000430	0.00000655
22 PRIMART METAL	0.00109074	0.00055417	0.00062295	0.00174367	0.00050488	0.00055945	0.00055701	0.00084450
23 FABRI. METAL	0.00034977	0.00079898	0.00057096	0.00341592	0.00033863	0.00128803	0.00073936	0.00098802
24 MACHINERY	0.00124420	0.00473284	0.00289649	0.00058219	0.00041845	0.00646397	0.00182438	0.00064570
25 SCIENTIFIC INSTR.	0.00032701	0.00032328	0.00043248	0.00142498	0.00031970	0.00048657	0.00837980	0.00247394
26 ALL OTHER MFG.	0.00101056	0.00074565	0.00398776	0.00159792	0.00103911	0.00102273	0.00032404	0.00019917
27 RAILROAD TRANSPOR	0.00105607	0.00147459	0.00093099	0.00081382	0.00330553	0.00210740	0.00218410	0.00173226
28 INTERCITY FREIGHT	0.00471954	0.00494879	0.00389072	0.00125934	0.00591595	0.00340342	0.00186514	0.00223455
29 TRUCK WAREHOUSE	0.00024362	0.00012565	0.00017725	0.00031920	0.00046134	0.00008556	0.00017893	0.00035339
30 AIR TRANSPORTATIO	0.00647058	0.00184353	0.00706527	0.00433591	0.00700552	0.00145459	0.00511363	0.01310352
31 ALL OTHER TRANS.	0.00004325	0.00006772	0.00003534	0.00003940	0.00018764	0.00005779	0.00006324	0.00730918
32 TLPHNE AND TLGRPH	0.02439790	0.00556700	0.00978466	0.00638150	0.01547808	0.03346006	0.02033312	0.01590255
33 RADIO AND T.V.	0.00150913	0.00552144	0.00200844	0.00137231	0.00133185	0.00077442	0.00138004	0.00116032
34 GAS UTILITY	0.01838471	0.00698098	0.00365870	0.02072672	0.00427090	0.00715633	0.01076122	0.01650321
35 ELECTRIC UTILITY	0.03798873	0.02506032	0.00647851	0.04346655	0.01190438	0.01061842	0.01198023	0.01728880
36 WATER UTILITY	0.00851033	0.00469051	0.00155654	0.00861847	0.00192706	0.00234854	0.00254968	0.00474373
37 WHLSE. AUTO PARTS	0.00081450	0.00078613	0.00047779	0.00044327	0.07611076	0.00090991	0.00081838	0.00873324
38 WHLSE. GROCERY	0.00005102	0.00005469	0.00004425	0.00731970	0.00009013	0.00001762	0.00139554	0.00350537
39 WHLSE. FARM PROD.	0.00003504	0.00000332	0.00000328	0.00000409	0.00000203	0.00000373	0.00002812	0.00001249
40 WHLSE. LVESTK.	0.00001048	0.00000143	0.00000123	0.00000109	0.00000070	0.00000167	0.00000970	0.00000382
41 WHLSE. MACHINERY	0.00095079	0.01596702	0.00529088	0.00113641	0.00083580	0.03031636	0.01427110	0.02175482
42 WHLSE. PETROLEUM	0.00056547	0.00315093	0.00054521	0.00037150	0.01463133	0.00015574	0.00047998	0.00115451
43 GENERAL WHLSE.	0.01177439	0.01964760	0.01295221	0.00371879	0.00228491	0.02061593	0.03561445	0.00791066
44 LUMBER YDS.HDWRE.	0.00005190	0.00001636	0.00001239	0.00005443	0.00001313	0.00000775	0.00001773	0.00002922
45 DEPT. STORE	0.00001575	0.00000148	0.00000647	0.00000622	0.00001582	0.00000470	0.00000499	0.00000244
46 FOOD STORES	0.00010279	0.00001556	0.00004547	0.00005445	0.00010384	0.00003808	0.00003801	0.00003391
47 AUTO DEALERS	0.00141259	0.00048203	0.00057877	0.00073458	0.03149511	0.00370829	0.00051482	0.00380253
48 GAS SERVICE STS.	0.00166821	0.00404443	0.00161059	0.00103536	0.00171525	0.00026573	0.00121289	0.00382068
49 APPAREL ACCE SOR.	0	0	0	0	0	0	0	0
50 FURNITURE	0	0	0	0	0	0	0	0
51 EAT AND DRNKNG	0.00126456	0.00041470	0.00122207	0.00077174	0.00136978	0.00023104	0.00098452	0.00306957
52 ALL OTHER RETAIL	0.00042551	0.00072930	0.00017199	0.01904022	0.00074213	0.00344107	0.00068816	0.00166770
53 BANK AND CREDIT	0.06702454	0.02544820	0.01989776	0.00951322	0.01985086	0.01890093	0.00882392	0.03827980
54 INSURANCE CARRIER	0.02226132	0.00208594	0.00914882	0.00877724	0.02238601	0.00665633	0.00704800	0.00343836
55 F.I.R.E. NEC	0.11097513	0.01590663	0.00895548	0.01119830	0.08690335	0.01640848	0.00935728	0.01937644
56 LEGAL AND ACCTING	0.01230887	0.00656352	0.00740288	0.00500916	0.02178471	0.00886534	0.01083767	0.01583920
57 LODGING	1.00452834	0.00117626	0.03300507	0.00418518	0.00473365	0.00066152	0.00236994	0.00294613

58 PERSNAL AND PHOTO	0.00724649	1.01120610	0.00039222	0.00987174	0.00031369	0.00008237	0.00312282	0.00336085
59 ADVERTISING	0.00373953	0.01250836	1.02237192	0.00975000	0.01087335	0.00916907	0.00133996	0.00446532
60 RECREATION	0.00011548	0.00028276	0.00016016	1.02745894	0.00025089	0.00005066	0.00660779	0.00749962
61 AUTO RENTAL	0.00240337	0.00556161	0.00196030	0.00115773	1.00187556	0.00083943	0.00574497	0.00211079
62 ELEC. AND MSC. RP	0.00625627	0.00032744	0.00053946	0.00349056	0.00066720	1.00026322	0.00040242	0.00039352
63 MEDICAL	0.00006008	0.00000582	0.00002467	0.00002423	0.00006002	0.00001797	1.00368228	0.00000958
64 EDUCATIONAL	0	0	0	0	0	0	0	1.00000000
65 ENGINEERING ARCH.	0.00000302	0.00000696	0.00000318	0.00000255	0.00000649	0.00000412	0.00000481	0.00103605
66 ALL OTHER PROFES.	0.02011864	0.03757300	0.02854650	0.06581496	0.05652103	0.00810714	0.10240564	0.02369539
TOTAL	1.45409579	1.25914375	1.24732692	1.32753127	1.50049049	1.21023795	1.32091504	1.29801798

		65	66
1	IRR. CROPS	0.00015416	0.00034266
2	LVSTK. DRY. PLTY.	0.00048374	0.00066286
3	AGRI. SUPPLY	0	0
4	AGRI. SERVICE	0.00001736	0.00002895
5	ALL MINING	0.00003723	0.00008533
6	RESD. CONSTRUCTN.	0	0
7	COMCL. CONSTRUCT.	0	0
8	IND. CONSTRUCTION	0	0
9	FACIL. CONSTRUCT.	0	0
10	MAINT. AND REPAIR	0.00581173	0.00777969
11	FOOD PROCESS	0.00207522	0.00253616
12	TEXTILE AND APPAR	0.00035027	0.00042843
13	LUMBER	0.00043260	0.00099262
14	FURNITURE	0.00008250	0.00002694
15	BOXES AND PAPER	0.00000579	0.00000795
16	PRINT AND PUBLISH	0.00152077	0.00374930
17	CHEMICALS	0.00087185	0.00261767
18	PETROLEUM	0.01202081	0.00890429
19	RUBBER AND LEATHE	0.00010491	0.00015138
20	GLASS CLAY STONE	0.00030928	0.00077322
21	CEMENT CONCRETE	0.00000209	0.00000471
22	PRIMART METAL	0.00083972	0.00048938
23	FABRI. METAL	0.00110576	0.00058627
24	MACHINERY	0.00070997	0.00173238
25	SCIENTIFIC INSTR.	0.00066858	0.00151737
26	ALL OTHER MFG.	0.00141055	0.00048744
27	RAILROAD TRANSPOR	0.03464727	0.00150352
28	INTERCITY FREIGHT	0.00190779	0.00379438
29	TRUCK WAREHOUSE	0.00044709	0.00040788
30	AIR TRANSPORTATIO	0.03131399	0.02598327
31	ALL OTHER TRANS.	0.00085761	0.00005455
32	TLPHNE AND TLGRPH	0.01309257	0.02605640
33	RADIO AND T.V.	0.00171152	0.00409051
34	GAS UTILITY	0.00776756	0.00814557
35	ELECTRIC UTILITY	0.00518012	0.01422551
36	WATER UTILITY	0.00128840	0.00253748
37	WHLSE. AUTO PARTS	0.00056643	0.00286033
38	WHLSE. GROCERY	0.00008183	0.00148643
39	WHLSE. FARM PROD.	0.00000626	0.00000836
40	WHLSE. LVESTK.	0.00000249	0.00000327
41	WHLSE. MACHINERY	0.02163162	0.01015172
42	WHLSE. PETROLEUM	0.00235496	0.00196378
43	GENERAL WHLSE.	0.00424240	0.01968405
44	LUMBER YDS.HDWRE.	0.00001270	0.00001789
45	DEPT. STORE	0.00000924	0.00000214
46	FOOD STORES	0.00006486	0.00004503
47	AUTO DEALERS	0.00149218	0.00190682
48	GAS SERVICE STS.	0.00811362	0.00499894
49	APPAREL ACCE SOR.	0	0
50	FURNITURE	0	0
51	EAT AND DRNKNG	0.00431139	0.00528989
52	ALL OTHER RETAIL	0.00456996	0.00572631
53	BANK AND CREDIT	0.00850759	0.04987649
54	INSURANCE CARRIER	0.01307490	0.00301660
55	F.I.R.E. NEC	0.00573577	0.01331595
56	LEGAL AND ACCTING	0.00689323	0.01012058
57	LODGING	0.02127575	0.00215861

58 PERSNAL AND PHOTO	0.00072512	0.00459012
59 ADVERTISING	0.00126395	0.00323542
60 RECREATION	0.00025453	0.00444977
61 AUTO RENTAL	0.00089491	0.01207020
62 ELEC. AND MSC. RP	0.00254632	0.00084231
63 MEDICAL	0.00003522	0.00000830
64 EDUCATIONAL	0	0
65 ENGINEERING ARCH.	1.00005790	0.00000582
66 ALL OTHER PROFES.	0.05503375	1.13158967
TOTAL	1.29098768	1.41012887

TABLE 4. INTERDEPENDENCE COEFFICIENTS (INCLUDING HOUSEHOLDS) : UPPER RIO GRANDE ,TEXAS, 1967

	1	2	3	4	5	6	7	8
1 IRR. CROPS	1.01298461	0.10012363	0.00878166	0.00328876	0.00331919	0.00209447	0.00275735	0.00231767
2 LVSTK. DRY. PLTY.	0.00106456	1.00739545	0.00676993	0.00158613	0.00169450	0.00104979	0.00136975	0.00116523
3 AGRI. SUPPLY	0.00015192	0.00014599	1.00026001	0.00018685	0.00031090	0.00018908	0.00024888	0.00021108
4 AGRI. SERVICE	0.04002799	0.02760073	0.15734751	1.07069002	0.00059626	0.00046584	0.00054311	0.00040769
5 ALL MINING	0.00019663	0.00022458	0.00030137	0.00078879	1.00028179	0.00941851	0.01084256	0.01301163
6 RESD. CONSTRUCTN.	0	0	0	0	0	1.00000000	0	0
7 COMCL. CONSTRUCT.	0	0	0	0	0	0	1.00000000	0
8 IND. CONSTRUCTION	0	0	0	0	0	0	0	1.00000000
9 FACIL. CONSTRUCT.	0	0	0	0	0	0	0	0
10 MAINT. AND REPAIR	0.01015285	0.01944143	0.01936767	0.01336363	0.00995663	0.02482515	0.01274131	0.01432926
11 FOOD PROCESS	0.02616120	0.06933322	0.04491888	0.03329246	0.05289099	0.03241780	0.04261229	0.03616763
12 TEXTILE AND APPAR	0.00906990	0.00728771	0.00579486	0.00449138	0.00676483	0.01353036	0.01645466	0.00467793
13 LUMBER	0.00097726	0.02219392	0.00165141	0.00281715	0.00199182	0.03777529	0.00781751	0.03113995
14 FURNITURE	0.00022593	0.00022566	0.00037642	0.00028988	0.00064981	0.00063878	0.00035831	0.00122370
15 BOXES AND PAPER	0.00006627	0.00136847	0.00011379	0.00008123	0.00012317	0.00008251	0.00010493	0.00008781
16 PRINT AND PUBLISH	0.00330122	0.00334874	0.01630592	0.00495737	0.00625816	0.00422224	0.00527191	0.00466636
17 CHEMICALS	0.01318247	0.00500427	0.00230725	0.00644857	0.00262084	0.00464094	0.00336587	0.00696430
18 PETROLEUM	0.03374800	0.02466971	0.02500279	0.04064773	0.01843161	0.02029730	0.02559784	0.04086396
19 RUBBER AND LEATHE	0.00092418	0.00094418	0.00157198	0.00114429	0.00192947	0.00119137	0.00168030	0.00130881
20 GLASS CLAY STONE	0.00086347	0.00117375	0.00162508	0.00137844	0.00223901	0.01611306	0.00840641	0.00845693
21 CEMENT CONCRETE	0.00001572	0.00001066	0.00001700	0.00001902	0.00001232	0.03830623	0.05662169	0.06702588
22 PRIMART METAL	0.00744564	0.00680845	0.00401310	0.00291424	0.01479409	0.00983427	0.02160840	0.02772912
23 FABRI. METAL	0.00260347	0.00406587	0.00422109	0.00343212	0.00549558	0.01933219	0.04183150	0.01769316
24 MACHINERY	0.00142614	0.00087166	0.00077008	0.00092010	0.00091282	0.00140655	0.00182128	0.00249987
25 SCIENTIFIC INSTR.	0.00149932	0.00441409	0.00242022	0.00188349	0.00753677	0.00201713	0.00265364	0.00342257
26 ALL OTHER MFG.	0.00037336	0.00039745	0.00058843	0.00046557	0.00057549	0.00048099	0.00053832	0.00062396
27 RAILROAD TRANSPOR	0.00450446	0.00691628	0.00683460	0.00419964	0.00483506	0.00679359	0.00614428	0.00734621
28 INTERCITY FREIGHT	0.00820079	0.01153168	0.06447199	0.01870397	0.01822734	0.01067315	0.01104076	0.01659818
29 TRUCK WAREHOUSE	0.00054933	0.00054410	0.02911887	0.00037852	0.00055524	0.00128587	0.00183102	0.00471685
30 AIR TRANSPORTATIO	0.00259186	0.00255034	0.00460321	0.00744039	0.00445465	0.00329026	0.00388494	0.00335071
31 ALL OTHER TRANS.	0.00126901	0.00126794	0.00210412	0.00152720	0.00541607	0.00160466	0.00204315	0.00181500
32 TLPHNE AND TLGRPH	0.01186765	0.02413869	0.02753729	0.01755818	0.01459074	0.01244727	0.01507119	0.01311549
33 RADIO AND T.V.	0.00286891	0.00176907	0.00148204	0.00180740	0.00107139	0.00161189	0.00110249	0.00099452
34 GAS UTILITY	0.03859671	0.02912692	0.02270613	0.01519954	0.05106771	0.01373011	0.01698146	0.01544620
35 ELECTRIC UTILITY	0.03259077	0.01473054	0.03846890	0.03390637	0.01686258	0.01487783	0.01690539	0.01502360
36 WATER UTILITY	0.00223784	0.00288542	0.00899895	0.00430864	0.00393235	0.00365347	0.00399573	0.00312033
37 WHLSE. AUTO PARTS	0.01215419	0.01062878	0.02939308	0.01102186	0.02026842	0.01049438	0.01334946	0.01215276
38 WHLSE. GROCERY	0.00148874	0.00146292	0.00255502	0.00191798	0.00301699	0.00187121	0.00245250	0.00217312
39 WHLSE. FARM PROD.	0.00220231	0.00669522	0.00064769	0.00156546	0.00050033	0.00030673	0.00040306	0.00034060
40 WHLSE. LVESTK.	0.00009735	0.00323487	0.00018202	0.00012112	0.00019741	0.00012024	0.00015820	0.00013420
41 WHLSE. MACHINERY	0.00468121	0.00317869	0.00528795	0.01191548	0.01484071	0.00513229	0.00621326	0.01269481
42 WHLSE. PETROLEUM	0.01072306	0.00775859	0.00712705	0.02876070	0.00911010	0.00219943	0.00352840	0.00256027
43 GENERAL WHLSE.	0.02649385	0.03811672	0.01897530	0.02615066	0.01463426	0.01149184	0.02676534	0.01818375
44 LUMBER YDS.HDWRE.	0.00592768	0.00562012	0.00452704	0.01050457	0.00513682	0.00541099	0.00726834	0.00667106
45 DEPT. STORE	0.01141086	0.01097083	0.01953263	0.01404163	0.02333790	0.01420260	0.01869611	0.01585791
46 FOOD STORES	0.01008045	0.00972307	0.01730844	0.01267581	0.02054164	0.01260620	0.01666563	0.01455733
47 AUTO DEALERS	0.02276750	0.02592653	0.02229722	0.01861080	0.02635929	0.01431781	0.01843374	0.01554407
48 GAS SERVICE STS.	0.01201117	0.01547826	0.01109523	0.00588818	0.00617366	0.00691107	0.00777697	0.00732173
49 APPAREL ACCE SOR.	0.00407172	0.00391289	0.00696864	0.00500787	0.00833254	0.00506760	0.00667031	0.00565724
50 FURNITURE	0.00557626	0.00535874	0.00954361	0.00685832	0.01141148	0.00694012	0.00913504	0.00774764
51 EAT AND ORNKNG	0.00818282	0.00803235	0.01407483	0.01043402	0.01632453	0.01081650	0.01382971	0.01205559
52 ALL OTHER RETAIL	0.00712257	0.00684535	0.01215018	0.00938365	0.01439645	0.00938052	0.01167557	0.01006258
53 BANK AND CREDIT	0.05177092	0.04353168	0.03942876	0.02680714	0.01980079	0.04927823	0.01942731	0.01864651
54 INSURANCE CARRIER	0.01270663	0.01945039	0.02989769	0.02383148	0.01095880	0.01822754	0.02632267	0.02387004
55 F.I.R.E. NEC	0.01239592	0.00924519	0.03618254	0.01090933	0.01427143	0.02174878	0.01793825	0.01728293
56 LEGAL AND ACCTING	0.00544928	0.00561865	0.01895954	0.01067545	0.00880353	0.01045876	0.01194579	0.00983394
57 LODGING	0.00181489	0.00179693	0.00306667	0.00543466	0.00280045	0.00276736	0.00283290	0.00270754

58 PERSNAL AND PHOTO	0.00772775	0.00759276	0.01322290	0.00975853	0.01596577	0.00964175	0.01264131	0.01079693
59 ADVERTISING	0.00227561	0.00222791	0.00310026	0.00267505	0.00288249	0.00430031	0.00335115	0.00390769
60 RECREATION	0.00278284	0.00265558	0.00470363	0.00362012	0.00553364	0.00342163	0.00446538	0.00378568
61 AUTO RENTAL	0.00216933	0.00244660	0.00306565	0.00283954	0.00320027	0.00696915	0.00552797	0.00363173
62 ELEC. AND MSC. RP	0.00491878	0.00390413	0.00648632	0.00759110	0.00381806	0.00223133	0.00352955	0.00251518
63 MEDICAL	0.01198439	0.01153565	0.02049286	0.01478188	0.02443796	0.01490892	0.01963337	0.01666126
64 EDUCATIONAL	0.02446842	0.02351395	0.04187704	0.03009408	0.05007315	0.03045299	0.04008425	0.03399635
65 ENGINEERING ARCH.	0.00006364	0.00006461	0.00010470	0.00007518	0.00098216	0.00608944	0.00178306	0.00111820
66 ALL OTHER PROFES.	0.01350553	0.01452270	0.03011589	0.07917082	0.01710951	0.01870496	0.02125847	0.01723304
67 HOUSEHOLDS	0.44018000	0.42300949	0.75335625	0.54138421	0.90080210	0.54784088	0.72110450	0.61158496
TOTAL	2.01094510	2.13657078	2.69657918	2.24462377	2.53642184	2.17460948	2.41911577	2.28880823

	9	10	11	12	13	14	15	16
1 IRR. CROPS	0.00257508	0.00372710	0.04180110	0.00621563	0.00295395	0.00446476	0.00964199	0.00316606
2 LVSTK. DRY. PLTY.	0.00131763	0.00190980	0.00733243	0.00136477	0.00148839	0.00137540	0.00093660	0.00204246
3 AGRI. SUPPLY	0.00023901	0.00034563	0.00017744	0.00019235	0.00023876	0.00024154	0.00016966	0.00027558
4 AGRI. SERVICE	0.00045966	0.00066494	0.00205632	0.00064344	0.00047826	0.00054024	0.00063408	0.00054992
5 ALL MINING	0.08218425	0.00286938	0.00022775	0.00015712	0.00016959	0.00080952	0.00043732	0.00032022
6 RESD. CONSTRUCTN.	0	0	0	0	0	0	0	0
7 COMCL. CONSTRUCT.	0	0	0	0	0	0	0	0
8 IND. CONSTRUCTION	0	0	0	0	0	0	0	0
9 FACIL. CONSTRUCT.	1.00000000	0	0	0	0	0	0	0
10 MAINT. AND REPAIR	0.01206541	1.01798254	0.02424861	0.01934551	0.01145119	0.03341301	0.12256817	0.01887005
11 FOOD PROCESS	0.04081331	0.05904993	1.05610369	0.03278490	0.04080195	0.04187584	0.02909188	0.04725258
12 TEXTILE AND APPAR	0.00523345	0.00757207	0.00415491	1.01745522	0.00612594	0.02022122	0.01155503	0.00611654
13 LUMBER	0.00237740	0.02905582	0.00132423	0.00104701	1.23178840	0.06858131	0.00385178	0.00172962
14 FURNITURE	0.00036016	0.00124878	0.00026301	0.00027923	0.00033612	1.00286967	0.00032757	0.00039546
15 BOXES AND PAPER	0.00010124	0.00034292	0.00147094	0.00036917	0.00009625	0.00011442	1.07701692	0.00011443
16 PRINT AND PUBLISH	0.00494666	0.00701371	0.00595738	0.00520887	0.00497113	0.01690214	0.00367493	1.01599460
17 CHEMICALS	0.00261652	0.00705503	0.00186252	0.00104644	0.00587185	0.00543550	0.00321863	0.00498749
18 PETROLEUM	0.10901307	0.02243279	0.01160802	0.01031783	0.01583556	0.01415398	0.01076292	0.01491914
19 RUBBER AND LEATHE	0.00144951	0.00238673	0.00112240	0.00121987	0.00143483	0.00723956	0.00105647	0.00191778
20 GLASS CLAY STONE	0.00658895	0.02947980	0.00238837	0.00117521	0.00114587	0.01156370	0.00424902	0.00214977
21 CEMENT CONCRETE	0.07872602	0.00001227	0.00000753	0.00000657	0.00000745	0.00001994	0.00001212	0.00001113
22 PRIMART METAL	0.01243153	0.04149681	0.00332841	0.00306854	0.00394046	0.07478123	0.00670973	0.00419779
23 FABRI. METAL	0.02596310	0.01569760	0.00302971	0.00308274	0.00402278	0.00433368	0.00435196	0.00477517
24 MACHINERY	0.00095703	0.00107993	0.00082786	0.00054133	0.00157026	0.00120956	0.00048820	0.00141623
25 SCIENTIFIC INSTR.	0.00311971	0.00299716	0.00160526	0.00166089	0.00202412	0.00233935	0.00152581	0.00482917
26 ALL OTHER MFG.	0.00051856	0.00100691	0.00043801	0.00047874	0.00061555	0.00224668	0.00039588	0.00463375
27 RAILROAD TRANSPOR	0.00555132	0.00972244	0.00406311	0.00326260	0.05278111	0.00927434	0.00341987	0.00675398
28 INTERCITY FREIGHT	0.01429109	0.01447384	0.01039871	0.00600199	0.00872796	0.04765003	0.00476566	0.00512802
29 TRUCK WAREHOUSE	0.00082607	0.00304555	0.00056097	0.00066373	0.00409602	0.01980323	0.00052027	0.00199279
30 AIR TRANSPORTATIO	0.00464338	0.00569305	0.00266833	0.00326724	0.00364471	0.00427424	0.00265804	0.00481993
31 ALL OTHER TRANS.	0.00227493	0.00279913	0.00141077	0.00149676	0.00304002	0.00206183	0.00134151	0.00235659
32 TLPHNE AND TLGRPH	0.01438543	0.01885033	0.01107769	0.01205705	0.01351485	0.01851617	0.01493968	0.01600089
33 RADIO AND T.V.	0.00099499	0.00148606	0.00350030	0.00153219	0.00099760	0.00626386	0.00086602	0.01264844
34 GAS UTILITY	0.02089348	0.01784611	0.01238247	0.01166021	0.01282608	0.02658019	0.01233085	0.01593868
35 ELECTRIC UTILITY	0.01948978	0.02024984	0.01600317	0.01265451	0.01298850	0.04656526	0.02718674	0.02254640
36 WATER UTILITY	0.00518903	0.00476440	0.00314166	0.00277011	0.00380957	0.00698861	0.00998253	0.00650017
37 WHLSE. AUTO PARTS	0.01717828	0.01794160	0.00963460	0.01244855	0.01198584	0.01828861	0.00921212	0.01369433
38 WHLSE. GROCERY	0.00235510	0.00344981	0.00229165	0.00189235	0.00232605	0.00238743	0.00166666	0.00268609
39 WHLSE. FARM PROD.	0.00038493	0.00055703	0.00182971	0.00049277	0.00038651	0.00081614	0.00028989	0.00044771
40 WHLSE. LVESTK.	0.00015188	0.00021966	0.00062316	0.00012315	0.00015227	0.00015393	0.00010787	0.00017684
41 WHLSE. MACHINERY	0.01405174	0.00521138	0.00293527	0.00272592	0.00599695	0.00438356	0.01789336	0.00818598
42 WHLSE. PETROLEUM	0.00610906	0.00365526	0.00233464	0.00187819	0.00250179	0.00272602	0.00192027	0.00262692
43 GENERAL WHLSE.	0.01339000	0.01815026	0.01429424	0.01019809	0.01268933	0.02223139	0.01013953	0.04074422
44 LUMBER YDS.HDWRE.	0.00351060	0.00605494	0.00244708	0.00246466	0.00301740	0.00607041	0.00236786	0.00349322
45 DEPT. STORE	0.01794286	0.02594894	0.01332394	0.01443934	0.01793062	0.01815026	0.01274438	0.02068659
46 FOOD STORES	0.01588423	0.02289821	0.01175179	0.01271203	0.01582962	0.01607228	0.01127358	0.01821083
47 AUTO DEALERS	0.01785001	0.02545746	0.01349126	0.01423741	0.01700923	0.01754583	0.01424924	0.01980632
48 GAS SERVICE STS.	0.00578545	0.01161375	0.00835179	0.00402647	0.00470680	0.00520952	0.00855111	0.00611872
49 APPAREL ACCE SOR.	0.00640584	0.00926335	0.00475570	0.00515530	0.00639901	0.00647376	0.00454702	0.00738594
50 FURNITURE	0.00877285	0.01268623	0.00651296	0.00706023	0.00876350	0.00886587	0.00622718	0.01011510
51 EAT AND DRNKNG	0.01292034	0.01911752	0.00959656	0.01054132	0.01287702	0.01323006	0.00920926	0.01464777
52 ALL OTHER RETAIL	0.01210700	0.01659374	0.00821200	0.00893053	0.01102595	0.01127044	0.00792585	0.01275216
53 BANK AND CREDIT	0.03299924	0.02867958	0.01828193	0.03001006	0.02549625	0.05068650	0.02292667	0.04544419
54 INSURANCE CARRIER	0.01051429	0.01764140	0.01239338	0.00764034	0.02057587	0.03333234	0.01901116	0.01031157
55 F.I.R.E. NEC	0.01384780	0.02333812	0.01232925	0.01275603	0.02232258	0.10382510	0.02845988	0.02513799
56 LEGAL AND ACCTING	0.00996128	0.01365223	0.00614749	0.01050344	0.01010104	0.01175820	0.01051548	0.00937672
57 LODGING	0.00344677	0.00379798	0.00193442	0.00212098	0.00259596	0.00255100	0.00172438	0.00275791

	58 PERSNAL AND PHOTO	0.01220049	0.01762956	0.00899687	0.00975948	0.01247127	0.01236298	0.00859814	0.01412165
59 ADVERTISING	0.00350713	0.00519537	0.00315795	0.00308802	0.00312907	0.00684048	0.00217299	0.00426870
60 RECREATION	0.00431575	0.00629781	0.00324308	0.00348725	0.00426645	0.00452079	0.00305061	0.00522218
61 AUTO RENTAL	0.01071321	0.00373510	0.00582910	0.00389251	0.00235671	0.00388485	0.00658340	0.00440013
62 ELEC. AND MSC. RP	0.00294062	0.00395021	0.00220281	0.00277958	0.00272219	0.00290579	0.00204986	0.00326408
63 MEDICAL	0.01879016	0.02719069	0.01395960	0.01511572	0.01879174	0.01908171	0.01336723	0.02165409
64 EDUCATIONAL	0.03849497	0.05566673	0.02857865	0.03098004	0.03845392	0.03890311	0.02732466	0.04438470
65 ENGINEERING ARCH.	0.00830364	0.00014196	0.00007250	0.00007483	0.00017158	0.00010644	0.00006675	0.00011911
66 ALL OTHER PROFES.	0.02836757	0.05506887	0.01297846	0.02147734	0.01634967	0.03537751	0.01550059	0.02141724
67 HOUSEHOLDS	0.69251379	1.00142908	0.51412199	0.55732231	0.69177539	0.69985615	0.49156301	0.79846840
TOTAL	2.52826857	2.81659224	1.99315692	1.98300673	2.45897266	2.68257847	2.14192782	2.42747820

	17	18	19	20	21	22	23	24
1 IRR. CROPS	0.00278640	0.00065240	0.00301202	0.00372894	0.00299906	0.00191659	0.00230178	0.00339142
2 LVSTK. DRY. PLTY.	0.00146443	0.00033236	0.00425150	0.00189612	0.00148971	0.00096464	0.00113251	0.00171918
3 AGRI. SUPPLY	0.00017374	0.00005957	0.00022721	0.00034606	0.00027081	0.00017677	0.00020690	0.00031086
4 AGRI. SERVICE	0.00038186	0.00011507	0.00052936	0.00066528	0.00052393	0.00034022	0.00040057	0.00059963
5 ALL MINING	0.00036126	0.00006884	0.00030706	0.06004376	0.18193630	0.00025446	0.01055083	0.00237299
6 RESD. CONSTRUCTN.	0	0	0	0	0	0	0	0
7 COMCL. CONSTRUCT.	0	0	0	0	0	0	0	0
8 IND. CONSTRUCTION	0	0	0	0	0	0	0	0
9 FACIL. CONSTRUCT.	0	0	0	0	0	0	0	0
10 MAINT. AND REPAIR	0.06136491	0.00512910	0.05896923	0.10018206	0.04294580	0.01419647	0.02437099	0.08973212
11 FOOD PROCESS	0.03011880	0.01017041	0.03901506	0.05947418	0.04635722	0.03016990	0.03533897	0.05357663
12 TEXTILE AND APPAR	0.00384490	0.00129964	0.00876545	0.00755552	0.00592765	0.00395088	0.00452217	0.00679134
13 LUMBER	0.00631876	0.00033717	0.00441868	0.00427275	0.00247287	0.00102767	0.00125919	0.00340346
14 FURNITURE	0.00029553	0.00008552	0.00035873	0.00056321	0.00044578	0.00028322	0.00030801	0.00049739
15 BOXES AND PAPER	0.00008368	0.00008188	0.00144619	0.00015666	0.00011601	0.00007213	0.00008665	0.00014073
16 PRINT AND PUBLISH	0.00374648	0.00131587	0.00553198	0.00767769	0.00629960	0.00365606	0.00553800	0.00643030
17 CHEMICALS	1.03500554	0.00369992	0.00347536	0.00243595	0.01048856	0.00481707	0.00420409	0.02475089
18 PETROLEUM	0.04478688	1.03301661	0.01298486	0.02704857	0.03422396	0.01089199	0.01123470	0.01876650
19 RUBBER AND LEATHE	0.00109374	0.00036959	1.04684647	0.00211396	0.00178465	0.00106131	0.00125121	0.00191350
20 GLASS CLAY STONE	0.00417142	0.00067289	0.00241130	1.09386928	0.05592576	0.00270447	0.02457236	0.03612735
21 CEMENT CONCRETE	0.00000840	0.00000365	0.00000755	0.00002316	1.09087303	0.00000682	0.00000825	0.00001198
22 PRIMART METAL	0.00442434	0.00092122	0.00729569	0.01021566	0.00969859	1.08431053	0.18797933	0.03912140
23 FABRI. METAL	0.00328476	0.00095314	0.00426852	0.00719341	0.00523326	0.00541888	1.02498366	0.02621539
24 MACHINERY	0.00081164	0.00015507	0.00071454	0.00764940	0.00402939	0.00055075	0.00138689	1.01410186
25 SCIENTIFIC INSTR.	0.00326242	0.00132942	0.00452435	0.00355031	0.01135100	0.00166808	0.00187158	0.00274271
26 ALL OTHER MFG.	0.00053918	0.00012236	0.00059350	0.00089814	0.00080133	0.00037909	0.00059034	0.00112371
27 RAILROAD TRANSPOR	0.00450656	0.00084589	0.00378028	0.12815876	0.02287125	0.02774763	0.00965445	0.00975373
28 INTERCITY FREIGHT	0.01002910	0.00463079	0.01143466	0.02160313	0.05880431	0.00732202	0.00799273	0.04185119
29 TRUCK WAREHOUSE	0.00145531	0.00255877	0.00039483	0.00065791	0.00188036	0.00021541	0.00026694	0.00064079
30 AIR TRANSPORTATIO	0.00358867	0.00086276	0.00347187	0.00549020	0.00423180	0.00246078	0.00286153	0.00749159
31 ALL OTHER TRANS.	0.00143898	0.00180201	0.00950620	0.00585552	0.00313257	0.00197631	0.00209625	0.00254355
32 TLPHNE AND TLGRPH	0.01335627	0.00337941	0.01309355	0.02390776	0.01993513	0.00862076	0.01478357	0.02257983
33 RADIO AND T.V.	0.00076207	0.00052523	0.00339461	0.00215184	0.00153748	0.00071773	0.00082863	0.00120415
34 GAS UTILITY	0.01210254	0.00854952	0.01391332	0.04050310	0.07684027	0.03745385	0.02783707	0.01946881
35 ELECTRIC UTILITY	0.01954005	0.00888381	0.01410003	0.05962555	0.05057386	0.00903282	0.01472991	0.02488219
36 WATER UTILITY	0.00363449	0.00123878	0.00309715	0.00840644	0.00431532	0.00222552	0.00313855	0.00508807
37 WHLSE. AUTO PARTS	0.00894520	0.00318255	0.01165671	0.01821528	0.02394925	0.00885124	0.01037832	0.01686464
38 WHLSE. GROCERY	0.00169874	0.00058059	0.00221493	0.00337706	0.00264227	0.00171699	0.00202676	0.00303997
39 WHLSE. FARM PROD.	0.00028535	0.00009598	0.00038646	0.00055782	0.00043646	0.00028466	0.00033332	0.00050147
40 WHLSE. LVESTK.	0.00011219	0.00003787	0.00015378	0.00022005	0.00017213	0.00011229	0.00013146	0.00019780
41 WHLSE. MACHINERY	0.00253568	0.00083648	0.00936648	0.01259140	0.01485975	0.00383644	0.00334314	0.04612358
42 WHLSE. PETROLEUM	0.00183993	0.00062935	0.00235267	0.00441310	0.00430413	0.00177648	0.00201638	0.00348744
43 GENERAL WHLSE.	0.00991190	0.00294390	0.01170935	0.02016346	0.01537123	0.01164289	0.01188126	0.01826286
44 LUMBER YDS.HDWRE.	0.00228992	0.00075665	0.00296321	0.00458690	0.00369539	0.00228149	0.00265721	0.00405650
45 DEPT. STORE	0.01304774	0.00447302	0.01705960	0.02597761	0.02032941	0.01327112	0.01553345	0.02333886
46 FOOD STORES	0.01151956	0.00394501	0.01504161	0.02287607	0.01790450	0.01169908	0.01755842	0.02111027
47 AUTO DEALERS	0.01254480	0.00457305	0.01629833	0.02522449	0.02029964	0.01261542	0.01482571	0.02229042
48 GAS SERVICE STS.	0.00598135	0.00125977	0.00499318	0.00706828	0.00856268	0.00341978	0.00397040	0.00890476
49 APPAREL ACCE SOR.	0.00465645	0.00159655	0.00608947	0.00927499	0.00725805	0.00473782	0.00554532	0.00833165
50 FURNITURE	0.00637705	0.00218648	0.00833958	0.01270218	0.00993996	0.00648848	0.00759436	0.01141026
51 EAT AND DRNKNG	0.01046929	0.00319854	0.01232932	0.01832615	0.01449756	0.00934803	0.01091671	0.01655970
52 ALL OTHER RETAIL	0.00807191	0.00302808	0.01052117	0.01606612	0.01257003	0.00815502	0.00955634	0.01445294
53 BANK AND CREDIT	0.01421359	0.00413341	0.02226303	0.05690747	0.02644267	0.01303279	0.01669858	0.02956986
54 INSURANCE CARRIER	0.01482560	0.00420908	0.01434433	0.01300741	0.01139151	0.00856606	0.01065869	0.01652356
55 F.I.R.E. NEC	0.02162995	0.00344852	0.02024993	0.06939731	0.02861634	0.00991410	0.02052879	0.02719120
56 LEGAL AND ACCTING	0.00939568	0.00222278	0.00859452	0.02285336	0.01238988	0.00531467	0.00743308	0.01205385
57 LODGING	0.00491810	0.00066492	0.00304349	0.00311068	0.00307857	0.00161911	0.00183771	0.00295262

58 PERSNAL AND PHOTO	0.00891859	0.00305137	0.01162294	0.01855808	0.01429902	0.00913656	0.01050676	0.01577061
59 ADVERTISING	0.00633048	0.00075554	0.00849858	0.00415736	0.00348575	0.00173671	0.00294878	0.00530906
60 RECREATION	0.00311591	0.00107307	0.00412298	0.00622469	0.00486758	0.00315199	0.00369458	0.00557497
61 AUTO RENTAL	0.00278601	0.00058229	0.00313966	0.00399674	0.00295144	0.00162845	0.00208340	0.00445569
62 ELEC. AND MSC. RP	0.00205654	0.00105004	0.00261578	0.00410674	0.00338155	0.00208619	0.00239210	0.00367502
63 MEDICAL	0.01367504	0.00468606	0.01787018	0.02719510	0.02128559	0.01415088	0.01630937	0.02444869
64 EDUCATIONAL	0.02798226	0.00959421	0.03659377	0.05573671	0.04361617	0.02847123	0.03332377	0.05006782
65 ENGINEERING ARCH.	0.00006982	0.00002296	0.00008965	0.00038509	0.00029148	0.00010866	0.00009881	0.00012904
66 ALL OTHER PROFES.	0.01459748	0.00451858	0.01600142	0.02975954	0.02332833	0.01006961	0.01366378	0.02712954
67 HOUSEHOLDS	0.50339299	0.17259724	0.65831169	1.00268784	0.78464279	0.51218960	0.59948535	0.90070616
TOTAL	2.02693822	1.34010265	2.24488517	3.21764535	2.92117773	1.98800465	2.28822074	2.81383608

INTERDEPENDENCE COEFFICIENTS (INCLUDING HOUSEHOLDS) :   UPPER RIO GRANDE ,TEXAS, 1967

	25	26	27	28	29	30	31	32
1 IRR. CROPS	0.00283381	0.00812082	0.00338514	0.00306044	0.00369248	0.00230100	0.00313913	0.00163009
2 LVSTK. DRY. PLTY.	0.00157867	0.00162533	0.00169835	0.00155741	0.00187081	0.00118119	0.00162607	0.00083258
3 AGRI. SUPPLY	0.00025313	0.00026514	0.00030564	0.00028312	0.00033916	0.00021444	0.00028525	0.00015212
4 AGRI. SERVICE	0.00049528	0.00072055	0.00059174	0.00054481	0.00065380	0.00041201	0.00055243	0.00029207
5 ALL MINING	0.00039361	0.00164780	0.00050933	0.00020421	0.00028954	0.00016939	0.00368780	0.00010802
6 RESD. CONSTRUCTN.	0	0	0	0	0	0	0	0
7 COMCL. CONSTRUCT.	0	0	0	0	0	0	0	0
8 IND. CONSTRUCTION	0	0	0	0	0	0	0	0
9 FACIL. CONSTRUCT.	0	0	0	0	0	0	0	0
10 MAINT. AND REPAIR	0.03567132	0.13464654	0.06724053	0.01761682	0.03799382	0.00995833	0.01898880	0.00860388
11 FOOD PROCESS	0.04368228	0.04540965	0.05413480	0.04845450	0.05927869	0.03663819	0.04922452	0.02596576
12 TEXTILE AND APPAR	0.00563540	0.00602734	0.00673161	0.00622069	0.00744060	0.00470866	0.00631036	0.00332545
13 LUMBER	0.00178229	0.00464669	0.00746596	0.00142419	0.00196169	0.00083627	0.00144718	0.00292412
14 FURNITURE	0.00038648	0.00047059	0.00047555	0.00040632	0.00050268	0.00030957	0.00042019	0.00021731
15 BOXES AND PAPER	0.00012755	0.00020344	0.00014065	0.00011527	0.00014209	0.00010018	0.00012336	0.00006124
16 PRINT AND PUBLISH	0.00528682	0.00566683	0.00931703	0.00633343	0.01085334	0.00479017	0.06154506	0.00481915
17 CHEMICALS	0.00222653	0.03009275	0.00282519	0.00148846	0.00173888	0.00202725	0.03001938	0.00149555
18 PETROLEUM	0.01444440	0.01545318	0.09034409	0.02089576	0.01817169	0.26951760	0.13408631	0.00796728
19 RUBBER AND LEATHE	0.01733899	0.05767036	0.00185549	0.00175307	0.00204148	0.00129989	0.00174340	0.00102627
20 GLASS CLAY STONE	0.00245521	0.01526979	0.00332814	0.00144223	0.00218378	0.00137567	0.00582416	0.00075356
21 CEMENT CONCRETE	0.00001154	0.00001112	0.00001160	0.00001592	0.00002823	0.00001864	0.00001266	0.00000715
22 PRIMART METAL	0.01975897	0.01989462	0.01908506	0.00417055	0.00551174	0.00301504	0.00434826	0.00228553
23 FABRI. METAL	0.01791521	0.06866712	0.01213792	0.00449111	0.00546306	0.00346693	0.00463319	0.00246676
24 MACHINERY	0.00171272	0.00600629	0.00274980	0.00078017	0.00084103	0.00061052	0.00361627	0.00037620
25 SCIENTIFIC INSTR.	1.02163792	0.00250205	0.00280040	0.00280664	0.00309098	0.00234122	0.00281628	0.00891497
26 ALL OTHER MFG.	0.00162856	1.00055675	0.00068280	0.00063976	0.00067584	0.00050653	0.00088257	0.00030669
27 RAILROAD TRANSPOR	0.00399448	0.00559037	1.05509370	0.00406986	0.00462215	0.00286548	0.00474736	0.00313106
28 INTERCITY FREIGHT	0.00826764	0.02726383	0.01696666	1.00537279	0.00603449	0.00564246	0.00634304	0.00366417
29 TRUCK WAREHOUSE	0.00263759	0.00064443	0.00077014	0.00042662	1.00049021	0.01225657	0.00078604	0.00020674
30 AIR TRANSPORTATIO	0.00470193	0.00390252	0.00756369	0.00456070	0.00660215	1.01578039	0.00579376	0.00275594
31 ALL OTHER TRANS.	0.00208744	0.00253034	0.02789829	0.00219849	0.00263127	0.00199527	1.05633111	0.00119932
32 TLPHNE AND TLGRPH	0.02249550	0.02065304	0.02449038	0.06308443	0.03289596	0.01279433	0.02326007	1.00689121
33 RADIO AND T.V.	0.00127357	0.00139130	0.00462885	0.00122362	0.00329598	0.01323694	0.00187882	0.00063297
34 GAS UTILITY	0.01856584	0.02857811	0.01741819	0.03333146	0.02567389	0.02817663	0.01964168	0.01308450
35 ELECTRIC UTILITY	0.02602530	0.02148557	0.02153895	0.03906947	0.08694629	0.04635457	0.02893454	0.01635398
36 WATER UTILITY	0.00485833	0.00459373	0.00748177	0.00510513	0.00586540	0.01207378	0.00515498	0.00283884
37 WHLSE. AUTO PARTS	0.01422212	0.01406427	0.01747357	0.05448288	0.02787414	0.01083445	0.03261751	0.01083901
38 WHLSE. GROCERY	0.00252772	0.00258906	0.00298491	0.00277420	0.00333130	0.00209705	0.00282867	0.00147754
39 WHLSE. FARM PROD.	0.00040967	0.00043846	0.00049523	0.00045612	0.00054821	0.00034536	0.00046059	0.00024493
40 WHLSE. LVESTK.	0.00016164	0.00016906	0.00019520	0.00017995	0.00021618	0.00013627	0.00018168	0.00009665
41 WHLSE. MACHINERY	0.00504183	0.00431125	0.06285160	0.00393310	0.00473963	0.00313163	0.00456150	0.00213641
42 WHLSE. PETROLEUM	0.00261131	0.00273605	0.00907205	0.01156115	0.00324759	0.06157281	0.02376924	0.00142318
43 GENERAL WHLSE.	0.01699729	0.01447509	0.02826043	0.02365780	0.01870134	0.01058704	0.02447846	0.00779894
44 LUMBER YDS.HDWRE.	0.00330543	0.00357797	0.00395019	0.00358404	0.00432474	0.00270994	0.00361712	0.00192440
45 DEPT. STORE	0.01900220	0.01990491	0.02294535	0.02127610	0.02547852	0.01609828	0.02144578	0.01142013
46 FOOD STORES	0.01678297	0.01777678	0.02023582	0.01885643	0.02253201	0.01417860	0.01906075	0.01005664
47 AUTO DEALERS	0.01843577	0.01913026	0.02196237	0.02033544	0.02447758	0.01575946	0.02080559	0.01180880
48 GAS SERVICE STS.	0.00648998	0.00585749	0.00634382	0.01203721	0.00748541	0.00420372	0.00913190	0.00285771
49 APPAREL ACCE SOR.	0.00678430	0.00710623	0.00819174	0.00758808	0.00909007	0.00574720	0.00764524	0.00407717
50 FURNITURE	0.00929115	0.00973203	0.01121865	0.01039194	0.01244892	0.00787084	0.01047022	0.00558372
51 EAT AND DRNKNG	0.01459449	0.01413818	0.01633068	0.01535780	0.02065139	0.01171119	0.01792779	0.00801077
52 ALL OTHER RETAIL	0.01178953	0.01231315	0.01425992	0.01314154	0.01574686	0.01023573	0.01342143	0.00701801
53 BANK AND CREDIT	0.03464544	0.05869947	0.02892110	0.02369825	0.05931129	0.01601550	0.02700052	0.01132380
54 INSURANCE CARRIER	0.01038924	0.01224797	0.01403748	0.04365113	0.03956068	0.01011485	0.05730001	0.00176484
55 F.I.R.E. NEC	0.02663086	0.04699652	0.03892554	0.03206209	0.23454562	0.01416466	0.02936762	0.01801946
56 LEGAL AND ACCTING	0.01031181	0.01139267	0.01763094	0.04591935	0.01931244	0.01311038	0.02457022	0.00897031
57 LODGING	0.00585382	0.00355634	0.00308050	0.00306350	0.00555294	0.00266332	0.00562248	0.00235406

58 PERSNAL AND PHOTO	0.06141936	0.01343544	0.02421113	0.01433618	0.01723835	0.01092352	0.01456638	0.00805364
59 ADVERTISING	0.00443714	0.00366583	0.00534217	0.00466715	0.00518608	0.00501000	0.01334548	0.00511891
60 RECREATION	0.00452774	0.00475449	0.00555647	0.00507427	0.00616541	0.00414987	0.00520611	0.00271243
61 AUTO RENTAL	0.00409440	0.00317776	0.00349786	0.00312104	0.00573234	0.00194115	0.01352716	0.00143184
62 ELEC. AND MSC. RP	0.00295901	0.00307963	0.00389978	0.00365151	0.00401734	0.00423500	0.00401922	0.00175325
63 MEDICAL	0.01989706	0.02084545	0.02402740	0.02233500	0.02672230	0.01685511	0.02253890	0.01195629
64 EDUCATIONAL	0.04076923	0.04270382	0.04922704	0.04559946	0.05462541	0.03453695	0.04594294	0.02450117
65 ENGINEERING ARCH.	0.00009755	0.00010558	0.00183262	0.00010809	0.00013059	0.00009146	0.00011349	0.00005960
66 ALL OTHER PROFES.	0.01711320	0.02064356	0.02377099	0.02295119	0.03818646	0.01698464	0.04321962	0.00890800
67 HOUSEHOLDS	0.73342705	0.76822977	0.88558072	0.82032158	0.98269594	0.62131009	0.82650069	0.44076918
TOTAL	2.41718461	2.70406260	2.84798074	2.59332103	3.03970026	2.44630114	2.83346840	1.76476130

INTERDEPENDENCE COEFFICIENTS (INCLUDING HOUSEHOLDS) :   UPPER RIO GRANDE ,TEXAS, 1967

	33	34	35	36	37	38	39	40
1 IRR. CROPS	0.00289810	0.00252860	0.00232733	0.00279127	0.00305882	0.01651841	0.09306132	0.22752474
2 LVSTK. DRY. PLTY.	0.00148889	0.00129037	0.00118668	0.00142358	0.00163191	0.00425920	0.00423236	0.01305428
3 AGRI. SUPPLY	0.00026565	0.00023654	0.00021776	0.00025909	0.00027986	0.00025665	0.00025274	0.00016061
4 AGRI. SERVICE	0.00051288	0.00045382	0.00041775	0.00049822	0.00054203	0.00110015	0.00410112	0.00946263
5 ALL MINING	0.00020833	0.00016332	0.00019218	0.00233898	0.00019824	0.00024062	0.00026509	0.00015881
6 RESD. CONSTRUCTN.	0	0	0	0	0	0	0	0
7 COMCL. CONSTRUCT.	0	0	0	0	0	0	0	0
8 IND. CONSTRUCTION	0	0	0	0	0	0	0	0
9 FACIL. CONSTRUCT.	0	0	0	0	0	0	0	0
10 MAINT. AND REPAIR	0.01708540	0.00907790	0.00878507	0.06179919	0.01193988	0.02451841	0.03129583	0.01615916
11 FOOD PROCESS	0.04570638	0.04028754	0.03708312	0.04418735	0.04804019	0.09386057	0.04536546	0.02851050
12 TEXTILE AND APPAR	0.00586610	0.00528780	0.00502690	0.00632941	0.00629126	0.00577022	0.00606243	0.00495802
13 LUMBER	0.00160819	0.00084207	0.00079905	0.00290520	0.00138944	0.00267871	0.00670759	0.00131859
14 FURNITURE	0.00042272	0.00033616	0.00030531	0.00040864	0.00047426	0.00038900	0.00037323	0.00024105
15 BOXES AND PAPER	0.00010894	0.00009402	0.00008676	0.00011443	0.00011241	0.00017735	0.00011306	0.00008535
16 PRINT AND PUBLISH	0.01431361	0.00540322	0.00558709	0.00736018	0.00620157	0.00920477	0.00564600	0.00393332
17 CHEMICALS	0.00166103	0.00168363	0.00105744	0.01222468	0.00189568	0.00264564	0.00270520	0.00375277
18 PETROLEUM	0.01880128	0.01231758	0.01276670	0.02160021	0.01549845	0.01753341	0.02839360	0.01485665
19 RUBBER AND LEATHE	0.00215156	0.00142154	0.00131236	0.00161065	0.00180252	0.00167064	0.00165190	0.00098748
20 GLASS CLAY STONE	0.00152520	0.00100118	0.00102788	0.03879641	0.00131706	0.00205737	0.00191429	0.00111641
21 CEMENT CONCRETE	0.00001391	0.00007367	0.00027434	0.00030357	0.00001021	0.00001345	0.00001371	0.00001338
22 PRIMART METAL	0.00433125	0.00321924	0.00300604	0.00746402	0.00586185	0.00442178	0.00686405	0.00378432
23 FABRI. METAL	0.00482752	0.00373799	0.00338117	0.00515347	0.00542999	0.00440261	0.00541612	0.00266123
24 MACHINERY	0.00221945	0.00057395	0.00055757	0.00228012	0.00138101	0.00335696	0.00110643	0.00071806
25 SCIENTIFIC INSTR.	0.02405538	0.00268507	0.00281465	0.00416031	0.00254975	0.00235730	0.00226176	0.00165894
26 ALL OTHER MFG.	0.00441946	0.00044853	0.00040727	0.00079159	0.00158409	0.00237609	0.00277332	0.00040855
27 RAILROAD TRANSPOR	0.00645813	0.00351080	0.00578595	0.01131604	0.00359892	0.02111648	0.17817509	0.00394498
28 INTERCITY FREIGHT	0.00568993	0.00483072	0.00489742	0.00666531	0.01167800	0.06241642	0.08127942	0.05060500
29 TRUCK WAREHOUSE	0.00040104	0.00051839	0.00065966	0.00053071	0.00243795	0.01140114	0.00044402	0.00030467
30 AIR TRANSPORTATIO	0.00538757	0.00321606	0.00293384	0.00373866	0.00705771	0.01116609	0.00504969	0.00295724
31 ALL OTHER TRANS.	0.00213026	0.00182638	0.00207129	0.00222002	0.00215176	0.00241303	0.00620137	0.00129446
32 TLPHNE AND TLGRPH	0.17278033	0.01351535	0.01305585	0.01533892	0.02601301	0.02967530	0.02140048	0.02984367
33 RADIO AND T.V.	1.02919530	0.00446544	0.00326580	0.00151285	0.00101197	0.00146115	0.00169094	0.00145274
34 GAS UTILITY	0.01920193	1.19605105	0.09225694	0.11610600	0.01535971	0.02040289	0.01970304	0.01914165
35 ELECTRIC UTILITY	0.03430523	0.01306115	1.06512016	0.08114933	0.02173428	0.03068462	0.03074335	0.03379906
36 WATER UTILITY	0.00566830	0.00311006	0.00519565	1.00355286	0.00386232	0.00713522	0.00739131	0.00536227
37 WHLSE. AUTO PARTS	0.01506935	0.01189649	0.01123487	0.02393465	1.02396447	0.01537954	0.01627699	0.01103666
38 WHLSE. GROCERY	0.00279391	0.00229883	0.00211425	0.00252340	0.00276502	1.00258345	0.00299249	0.00159385
39 WHLSE. FARM PROD.	0.00042855	0.00038070	0.00035048	0.00041728	0.00045176	0.00052713	1.00566077	0.00077193
40 WHLSE. LVESTK.	0.00016905	0.00015022	0.00013828	0.00016460	0.00017824	0.00019585	0.00017047	1.02789239
41 WHLSE. MACHINERY	0.00468663	0.00645272	0.00355239	0.01818952	0.00404899	0.00509989	0.01369870	0.00302857
42 WHLSE. PETROLEUM	0.00255900	0.00216905	0.00206489	0.00344469	0.00285797	0.00362447	0.00491090	0.00409109
43 GENERAL WHLSE.	0.01783953	0.01194089	0.01100408	0.01473622	0.01506320	0.01979662	0.01871613	0.03956685
44 LUMBER YDS.HDWRE.	0.00336540	0.00298344	0.00281712	0.00336247	0.00353315	0.00332708	0.00359249	0.00297847
45 DEPT. STORE	0.01995246	0.01775938	0.01634651	0.01945269	0.02101546	0.01933296	0.01898051	0.01207688
46 FOOD STORES	0.01762771	0.01564999	0.01439051	0.01715036	0.01854364	0.01738889	0.01675747	0.01074377
47 AUTO DEALERS	0.02133028	0.01893620	0.01831804	0.05012995	0.01997931	0.01877199	0.01931298	0.01449807
48 GAS SERVICE STS.	0.00530929	0.00469213	0.00432033	0.00522034	0.00757491	0.00743666	0.00642049	0.00580128
49 APPAREL ACCE SOR.	0.00711983	0.00633965	0.00583620	0.00694388	0.00750069	0.00687871	0.00677388	0.00430459
50 FURNITURE	0.00975067	0.00868221	0.00799272	0.00950971	0.01027226	0.00942045	0.00927689	0.00589518
51 EAT AND DRNKNG	0.01684422	0.01248288	0.01143623	0.01376030	0.01575202	0.01569610	0.01365046	0.03018979
52 ALL OTHER RETAIL	0.01283626	0.01092377	0.01005050	0.01203357	0.01294671	0.01219295	0.01175022	0.00751436
53 BANK AND CREDIT	0.03692278	0.03416725	0.01964871	0.02050687	0.04549282	0.11274334	0.02417942	0.03540286
54 INSURANCE CARRIER	0.02577738	0.01343522	0.00871952	0.01559179	0.02103532	0.10441953	0.02077562	0.03449212
55 F.I.R.E. NEC	0.05866358	0.01448847	0.01631313	0.01499231	0.01918926	0.03026468	0.01778294	0.03984646
56 LEGAL AND ACCTING	0.02669625	0.01143161	0.00928298	0.01152355	0.01126886	0.02607923	0.01256913	0.01164046
57 LODGING	0.00515569	0.00383034	0.00244361	0.00382317	0.00721453	0.00627467	0.00301344	0.00194574

58 PERSNAL AND PHOTO	0.01921821	0.01199549	0.01106920	0.01324861	0.01419599	0.01320334	0.01424159	0.00834834
59 ADVERTISING	0.07863116	0.00365629	0.00308712	0.00296496	0.00660133	0.00395203	0.00305379	0.00727950
60 RECREATION	0.03057642	0.00430465	0.00394218	0.00463686	0.00501679	0.00464107	0.00454407	0.00293773
61 AUTO RENTAL	0.00339610	0.00224175	0.00199394	0.00238456	0.00381097	0.00443105	0.00256687	0.00277717
62 ELEC. AND MSC. RP	0.00368827	0.00598412	0.00386107	0.00344632	0.00322487	0.01410972	0.01148745	0.00312851
63 MEDICAL	0.02091629	0.01859865	0.01711241	0.02037520	0.02201904	0.02042096	0.01989324	0.01270297
64 EDUCATIONAL	0.04278557	0.03809721	0.03507179	0.04172825	0.04507431	0.04133662	0.04070664	0.02586782
65 ENGINEERING ARCH.	0.00093498	0.00009326	0.00008937	0.00011347	0.00010599	0.00012673	0.00038161	0.00006463
66 ALL OTHER PROFES.	0.03442008	0.01378877	0.01285303	0.01681548	0.02431856	0.02894652	0.02036931	0.02342387
67 HOUSEHOLDS	0.76970056	0.68535814	0.63093172	0.75067962	0.81087434	0.74363428	0.73230118	0.46535489
TOTAL	2.75087474	2.33247892	2.18225018	2.59073591	2.41828690	2.70991813	2.69946345	2.34142801

	41	42	43	44	45	46	47	48
1 IRR. CROPS	0.00347868	0.00368548	0.00608142	0.00355483	0.00299499	0.02378792	0.00276272	0.00347518
2 LVSTK. DRY. PLTY.	0.00184890	0.00200317	0.00206991	0.00175851	0.00154927	0.00262033	0.00144551	0.00170719
3 AGRI. SUPPLY	0.00030900	0.00033226	0.00034641	0.00031291	0.00025298	0.00035407	0.00025464	0.00030577
4 AGRI. SERVICE	0.00060355	0.00064719	0.00076266	0.00060983	0.00050185	0.00148114	0.00049144	0.00059566
5 ALL MINING	0.00056738	0.00025454	0.00025516	0.01564004	0.00030153	0.00027550	0.00020277	0.00030642
6 RESD. CONSTRUCTN.	0	0	0	0	0	0	0	0
7 COMCL. CONSTRUCT.	0	0	0	0	0	0	0	0
8 IND. CONSTRUCTION	0	0	0	0	0	0	0	0
9 FACIL. CONSTRUCT.	0	0	0	0	0	0	0	0
10 MAINT. AND REPAIR	0.01472026	0.01219599	0.01561624	0.01782863	0.01514380	0.02811340	0.01428340	0.03296418
11 FOOD PROCESS	0.05461943	0.05885843	0.06578051	0.05751019	0.04810692	0.06057201	0.04396694	0.05632775
12 TEXTILE AND APPAR	0.00705985	0.00777183	0.01185990	0.00735117	0.01662599	0.00784249	0.00560031	0.00678738
13 LUMBER	0.00160569	0.00141385	0.00213492	0.04091540	0.00214947	0.00168834	0.00159501	0.00187574
14 FURNITURE	0.00051392	0.00061605	0.00060030	0.00106547	0.00067586	0.00050624	0.00041236	0.00057626
15 BOXES AND PAPER	0.00012682	0.00013614	0.00021497	0.00013337	0.00011380	0.00035727	0.00010363	0.00014229
16 PRINT AND PUBLISH	0.00898018	0.00751446	0.00845200	0.01603326	0.01161076	0.00829659	0.00628248	0.00647100
17 CHEMICALS	0.00210900	0.00330322	0.00260980	0.00390777	0.00208529	0.00195297	0.00179846	0.00597746
18 PETROLEUM	0.01916481	0.02133841	0.02332058	0.03692366	0.01561935	0.01900802	0.02064547	0.19274522
19 RUBBER AND LEATHE	0.00197402	0.00218487	0.00224400	0.00236530	0.00269087	0.00212025	0.00160903	0.00219581
20 GLASS CLAY STONE	0.00228670	0.00169897	0.00186719	0.00243732	0.00157820	0.00204896	0.00131662	0.00242953
21 CEMENT CONCRETE	0.00001190	0.00001563	0.00001774	0.00083881	0.00001317	0.00001738	0.00000919	0.00001973
22 PRIMART METAL	0.01091180	0.00513197	0.00544847	0.00834980	0.00708884	0.00541587	0.00526368	0.00666592
23 FABRI. METAL	0.03956936	0.00773783	0.00575652	0.01517531	0.00861476	0.00556920	0.00553092	0.00742132
24 MACHINERY	0.00175883	0.00207848	0.00207136	0.00302714	0.00156633	0.00089216	0.00117409	0.00514158
25 SCIENTIFIC INSTR.	0.00287795	0.00334054	0.00391768	0.01181551	0.00279306	0.00301887	0.00280673	0.00371558
26 ALL OTHER MFG.	0.00149625	0.00166992	0.00119652	0.00386404	0.00098811	0.00070673	0.00102641	0.00468971
27 RAILROAD TRANSPOR	0.02572544	0.00446947	0.04753276	0.00606636	0.01688434	0.00482889	0.10078587	0.00433868
28 INTERCITY FREIGHT	0.05443161	0.02471313	0.01049468	0.06055236	0.01611558	0.02604840	0.01673175	0.01566668
29 TRUCK WAREHOUSE	0.00155237	0.00054195	0.00055138	0.00061546	0.00123370	0.00045720	0.00065282	0.00083058
30 AIR TRANSPORTATIO	0.00930293	0.01941351	0.00930251	0.00780213	0.00505488	0.00498995	0.00624854	0.00489998
31 ALL OTHER TRANS.	0.00291668	0.00256681	0.00371597	0.00253538	0.00229199	0.00273062	0.00432702	0.00260105
32 TLPHNE AND TLGRPH	0.03790616	0.02645993	0.03598984	0.03126492	0.02031226	0.02047240	0.02217380	0.02233387
33 RADIO AND T.V.	0.00141535	0.00155145	0.00174213	0.00454581	0.00110007	0.00133494	0.00653313	0.00750306
34 GAS UTILITY	0.01748183	0.02035955	0.02720307	0.01970961	0.01813407	0.02297372	0.01358320	0.02483817
35 ELECTRIC UTILITY	0.02479844	0.03489194	0.04035787	0.02887540	0.03406637	0.03991646	0.01848044	0.05271037
36 WATER UTILITY	0.00573417	0.00871561	0.00949521	0.00502545	0.00387046	0.00886555	0.00442374	0.00743971
37 WHLSE. AUTO PARTS	0.01726531	0.01724726	0.01882953	0.01815347	0.01386636	0.01861870	0.16536661	0.01548960
38 WHLSE. GROCERY	0.00309953	0.00344845	0.00343758	0.00308096	0.00248636	0.00718700	0.00248299	0.00298919
39 WHLSE. FARM PROD.	0.00050149	0.00053946	0.00057342	0.00051053	0.00041776	0.00061313	0.00041109	0.00049872
40 WHLSE. LVESTK.	0.00019769	0.00022162	0.00022380	0.00020090	0.00016359	0.00022712	0.00016217	0.00019634
41 WHLSE. MACHINERY	1.00567529	0.00605082	0.00770710	0.00480450	0.00436082	0.00488927	0.00899063	0.00442509
42 WHLSE. PETROLEUM	0.00372583	1.00414793	0.00396643	0.00654733	0.00280229	0.00363383	0.00314437	0.03699393
43 GENERAL WHLSE.	0.01741516	0.02134204	1.02026777	0.01773070	0.01810985	0.02241154	0.01474127	0.01982034
44 LUMBER YDS.HDWRE.	0.00390473	0.00419247	0.00438491	1.01972761	0.00320425	0.00457301	0.00322015	0.00389626
45 DEPT. STORE	0.02319770	0.02495266	0.02601182	0.02396677	1.01899618	0.02658960	0.01911839	0.02295900
46 FOOD STORES	0.02056602	0.02203936	0.02294325	0.02086456	0.01677016	1.02346580	0.01685574	0.02025477
47 AUTO DEALERS	0.02211920	0.02403724	0.02550741	0.02432316	0.01871760	0.02577976	1.01836729	0.02206411
48 GAS SERVICE STS.	0.00841726	0.00926602	0.00794218	0.01098341	0.00600241	0.00701039	0.00559093	1.00872295
49 APPAREL ACCE SOR.	0.00828157	0.00890497	0.00928434	0.00838658	0.00678036	0.00948957	0.00682464	0.00819508
50 FURNITURE	0.01134168	0.01219543	0.01271498	0.01148548	0.00928576	0.01299605	0.00934640	0.01122323
51 EAT AND DRNKNG	0.01793709	0.01986636	0.01951077	0.01887634	0.01388708	0.01880156	0.01389117	0.01629929
52 ALL OTHER RETAIL	0.01519000	0.01989091	0.01632614	0.01649196	0.01169855	0.01634248	0.01284637	0.01433978
53 BANK AND CREDIT	0.03776007	0.03976287	0.04205338	0.03453531	0.02001196	0.04673833	0.04115876	0.02589906
54 INSURANCE CARRIER	0.01526475	0.02879829	0.02453339	0.04470045	0.01752639	0.02894361	0.01502023	0.02013200
55 F.I.R.E. NEC	0.03666659	0.01781153	0.02185552	0.01703608	0.02020642	0.02985888	0.01540217	0.05126107
56 LEGAL AND ACCTING	0.01695394	0.02167005	0.02240274	0.01581189	0.01159469	0.01798637	0.01176107	0.01479060
57 LODGING	0.00629556	0.01300696	0.00691197	0.00374591	0.00518494	0.00346930	0.00455776	0.00934997

58 PERSNAL AND PHOTO	0.01590416	0.01716778	0.01799114	0.01649327	0.01294037	0.01786832	0.01373534	0.01558397
59 ADVERTISING	0.00674962	0.01606440	0.00729167	0.00576961	0.01586486	0.01722149	0.00947138	0.00408710
60 RECREATION	0.00559841	0.00621589	0.00625814	0.00575016	0.00452220	0.00631276	0.00468246	0.00563492
61 AUTO RENTAL	0.00329407	0.00397830	0.01940114	0.00557699	0.01429612	0.00847899	0.00268818	0.00323916
62 ELEC. AND MSC. RP	0.00644164	0.03107077	0.00866497	0.00373524	0.00541241	0.00416678	0.00527355	0.00457173
63 MEDICAL	0.02429119	0.02615121	0.02725074	0.03151586	0.01990094	0.02786405	0.02002344	0.02405017
64 EDUCATIONAL	0.04976688	0.05351310	0.05579286	0.05039789	0.04074557	0.05702619	0.04101168	0.04924713
65 ENGINEERING ARCH.	0.00015303	0.00012646	0.00020183	0.00013790	0.00011829	0.00013461	0.00025996	0.00012171
66 ALL OTHER PROFES.	0.04038456	0.09421504	0.03950691	0.03052869	0.01744822	0.02147750	0.01620417	0.02485234
67 HOUSEHOLDS	0.89529237	0.96268587	1.00369800	0.90664404	0.73300151	1.02588539	0.73778877	0.88594226
TOTAL	2.69751167	2.81818519	2.85245552	2.79692467	2.34845317	2.82532521	2.55292127	2.83642970

INTERDEPENDENCE COEFFICIENTS (INCLUDING HOUSEHOLDS) :   UPPER RIO GRANDE ,TEXAS, 1967

	49	50	51	52	53	54	55	56
1 IRR. CROPS	0.00313018	0.00310729	0.00412384	0.00331117	0.00349585	0.00310030	0.00339060	0.00459288
2 LVSTK. DRY. PLTY.	0.00171606	0.00147813	0.00225089	0.00173846	0.00177866	0.00153433	0.00165643	0.00248744
3 AGRI. SUPPLY	0.00027083	0.00026503	0.00035646	0.00030026	0.00032573	0.00027306	0.00029098	0.00042462
4 AGRI. SERVICE	0.00053440	0.00052624	0.00070334	0.00058251	0.00062550	0.00053205	0.00057087	0.00082074
5 ALL MINING	0.00023913	0.00021042	0.00027185	0.00020858	0.00021428	0.00020303	0.00022022	0.00029066
6 RESD. CONSTRUCTN.	0	0	0	0	0	0	0	0
7 COMCL. CONSTRUCT.	0	0	0	0	0	0	0	0
8 IND. CONSTRUCTION	0	0	0	0	0	0	0	0
9 FACIL. CONSTRUCT.	0	0	0	0	0	0	0	0
10 MAINT. AND REPAIR	0.02482830	0.02268341	0.01412288	0.01239797	0.01449781	0.01935869	0.01943020	0.01946967
11 FOOD PROCESS	0.05071567	0.04522559	0.06706936	0.05275148	0.05559536	0.04803919	0.05640261	0.07273193
12 TEXTILE AND APPAR	0.00611161	0.06687933	0.00801780	0.00778243	0.00711367	0.00611467	0.00637785	0.00931754
13 LUMBER	0.00299033	0.00335929	0.00401979	0.00157253	0.00132844	0.00141298	0.00139386	0.00174828
14 FURNITURE	0.00050992	0.00223170	0.00059640	0.00048652	0.00051288	0.00040798	0.00042328	0.00060894
15 BOXES AND PAPER	0.00011809	0.00012571	0.00015190	0.00012264	0.00013036	0.00011435	0.00012696	0.00017060
16 PRINT AND PUBLISH	0.01022829	0.00982624	0.00778494	0.00655803	0.00808292	0.01096319	0.01322901	0.01548796
17 CHEMICALS	0.00288092	0.00140420	0.00399956	0.00809840	0.00148007	0.00145732	0.00152466	0.00241302
18 PETROLEUM	0.01634993	0.01364218	0.01914457	0.01753190	0.01746040	0.01628015	0.01693477	0.02338757
19 RUBBER AND LEATHE	0.00191965	0.00175071	0.00239906	0.00195336	0.00197235	0.00181492	0.00175803	0.00261068
20 GLASS CLAY STONE	0.00198582	0.00156556	0.00222278	0.00148303	0.00143674	0.00144987	0.00160744	0.00202397
21 CEMENT CONCRETE	0.00001134	0.00001181	0.00001889	0.00001284	0.00001222	0.00001087	0.00002344	0.00001275
22 PRIMART METAL	0.00449327	0.00420167	0.00507285	0.00483553	0.00446222	0.00402683	0.00424571	0.00589326
23 FABRI. METAL	0.00461221	0.00436392	0.00568385	0.00481338	0.00499636	0.00430084	0.00456521	0.00665282
24 MACHINERY	0.00494756	0.00079428	0.00189901	0.00205161	0.00077394	0.00075874	0.00079065	0.00230267
25 SCIENTIFIC INSTR.	0.00245642	0.00243428	0.00307000	0.00389190	0.00280318	0.00239257	0.00285718	0.00376589
26 ALL OTHER MFG.	0.00389040	0.00304889	0.00261020	0.00193337	0.00062152	0.00060561	0.00065118	0.00207418
27 RAILROAD TRANSPOR	0.00462848	0.00357264	0.00518748	0.00399599	0.00428532	0.00388844	0.00403716	0.00550773
28 INTERCITY FREIGHT	0.01015881	0.01410501	0.00625991	0.00647028	0.00544902	0.00495970	0.00520158	0.00728442
29 TRUCK WAREHOUSE	0.00042114	0.00036363	0.00039592	0.00288439	0.00035550	0.00037649	0.00040922	0.00052910
30 AIR TRANSPORTATIO	0.01090012	0.00394798	0.00547883	0.00943788	0.00562871	0.00821835	0.00829438	0.01260267
31 ALL OTHER TRANS.	0.00211516	0.00204335	0.00276023	0.00231230	0.00250516	0.00211186	0.00225940	0.00326224
32 TLPHNE AND TLGRPH	0.02540782	0.03169975	0.01955651	0.01976495	0.02370749	0.01490267	0.03012125	0.03803406
33 RADIO AND T.V.	0.00377858	0.00335251	0.00149898	0.00137420	0.00147731	0.00122097	0.01042724	0.00194604
34 GAS UTILITY	0.01572174	0.01599976	0.02277887	0.05357042	0.01743554	0.01655338	0.02795935	0.01935204
35 ELECTRIC UTILITY	0.02569305	0.02777988	0.04467665	0.02148960	0.02665393	0.02394613	0.06779441	0.02319019
36 WATER UTILITY	0.00458590	0.00458131	0.01031475	0.00512654	0.00459608	0.00422583	0.00724175	0.00559533
37 WHLSE. AUTO PARTS	0.01356553	0.01363041	0.01755378	0.01556876	0.01662733	0.01401019	0.01525548	0.02089057
38 WHLSE. GROCERY	0.00265007	0.00258920	0.00350531	0.00299669	0.00319715	0.00316132	0.00289398	0.00420210
39 WHLSE. FARM PROD.	0.00044426	0.00043859	0.00058509	0.00048652	0.00052443	0.00044224	0.00047879	0.00068510
40 WHLSE. LVESTK.	0.00017493	0.00016845	0.00023037	0.00019177	0.00020692	0.00017428	0.00018828	0.00027039
41 WHLSE. MACHINERY	0.00416533	0.00414678	0.00572699	0.00474520	0.00438565	0.00409185	0.00439488	0.00642633
42 WHLSE. PETROLEUM	0.00302028	0.00250348	0.00339466	0.00317414	0.00313134	0.00297246	0.00306504	0.00426402
43 GENERAL WHLSE.	0.02071120	0.01361974	0.02918513	0.01794703	0.02128004	0.02261918	0.01752234	0.02614291
44 LUMBER YDS.HDWRE.	0.00344302	0.00337139	0.00450086	0.00378991	0.00411239	0.00346045	0.00368879	0.00536170
45 DEPT. STORE	0.02034485	0.01991135	0.02678401	0.02255298	0.02445400	0.02120719	0.02185156	0.03187317
46 FOOD STORES	0.01799361	0.01761993	0.02372062	0.01992862	0.02154157	0.02257521	0.01928309	0.02805022
47 AUTO DEALERS	0.01940397	0.01905467	0.02570124	0.02208104	0.02349662	0.01977045	0.02139564	0.03030072
48 GAS SERVICE STS.	0.00785467	0.00517301	0.01009983	0.00724413	0.00631090	0.00911074	0.00613980	0.00923148
49 APPAREL ACCE SOR.	1.00725858	0.00710313	0.00955365	0.00804746	0.00872994	0.00731837	0.00779877	0.01138046
50 FURNITURE	0.00994069	1.00972779	0.01308379	0.01102107	0.01195573	0.01002257	0.01068047	0.01558563
51 EAT AND DRNKNG	0.01554613	0.01427771	1.01924002	0.01681477	0.01793684	0.02627906	0.01610871	0.02334476
52 ALL OTHER RETAIL	0.01253962	0.01230341	0.01660034	1.01551526	0.01504858	0.01280777	0.01364358	0.02023359
53 BANK AND CREDIT	0.06078508	0.05831332	0.03364863	0.03421904	1.03078277	0.02561451	0.17371467	0.06137901
54 INSURANCE CARRIER	0.03130342	0.03377743	0.05028589	0.03047053	0.01659467	1.01529093	0.02332367	0.01405878
55 F.I.R.E. NEC	0.03219481	0.02820368	0.03739356	0.02136129	0.02411798	0.02215731	1.03082244	0.02337128
56 LEGAL AND ACCTING	0.01303946	0.02621176	0.01844436	0.01539393	0.01571651	0.01893863	0.02020033	1.06690484
57 LODGING	0.00852555	0.00276672	0.00341063	0.00593048	0.00370158	0.00668524	0.00344655	0.00768036

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58 PERSNAL AND PHOTO	0.01376357	0.01340464	0.02519083	0.01545883	0.01646325	0.01405863	0.01491475	0.02170386
59 ADVERTISING	0.03797667	0.01408614	0.01102318	0.01069619	0.00918062	0.00804320	0.01135711	0.00425935
60 RECREATION	0.00491636	0.00479278	0.00643030	0.00557013	0.00582930	0.00504142	0.00557930	0.00781276
61 AUTO RENTAL	0.00327543	0.00312409	0.00401440	0.00952778	0.01255999	0.01059728	0.01419421	0.00461299
62 ELEC. AND MSC. RP	0.00630826	0.02019394	0.02207217	0.00414482	0.00373386	0.00343011	0.00346096	0.00739365
63 MEDICAL	0.02133743	0.02088882	0.02810789	0.02364490	0.02560599	0.02414130	0.02289734	0.03336006
64 EDUCATIONAL	0.04361938	0.04268520	0.05741122	0.04836004	0.05246130	0.04397866	0.04686553	0.06838917
65 ENGINEERING ARCH.	0.00010674	0.00010259	0.00013617	0.00011417	0.00012375	0.00010423	0.00011826	0.00016122
66 ALL OTHER PROFES.	0.02123435	0.01825642	0.04002354	0.07301946	0.02386989	0.05609833	0.05864554	0.08662081
67 HOUSEHOLDS	0.78470058	0.76789484	1.03281188	0.86998369	0.94376425	0.79116396	0.84309791	1.23030225
TOTAL	2.49049498	2.49692310	2.85436869	2.60084507	2.58925968	2.43092239	2.73914468	3.17284544

INTERDEPENDENCE COEFFICIENTS (INCLUDING HOUSEHOLDS) : UPPER RIO GRANDE ,TEXAS, 1967

		57	58	59	60	61	62	63	64
1	IRR. CROPS	0.00326798	0.00375828	0.00266681	0.00304414	0.00258637	0.00287248	0.00418446	0.00360219
2	LVSTK. DRY. PLTY.	0.00157486	0.00224272	0.00153121	0.00153314	0.00133971	0.00188542	0.00259740	0.00186867
3	AGRI. SUPPLY	0.00022391	0.00034264	0.00023908	0.00026787	0.00023623	0.00025899	0.00031879	0.00029953
4	AGRI. SERVICE	0.00047361	0.00066982	0.00046838	0.00052278	0.00045681	0.00051197	0.00066228	0.00059598
5	ALL MINING	0.00023044	0.00032687	0.00019307	0.00029251	0.00017506	0.00022262	0.00035306	0.00026469
6	RESD. CONSTRUCTN.	0	0	0	0	0	0	0	0
7	COMCL. CONSTRUCT.	0	0	0	0	0	0	0	0
8	IND. CONSTRUCTION	0	0	0	0	0	0	0	0
9	FACIL. CONSTRUCT.	0	0	0	0	0	0	0	0
10	MAINT. AND REPAIR	0.02672662	0.01737693	0.01291732	0.03490544	0.01371078	0.01026861	0.01274065	0.01914648
11	FOOD PROCESS	0.05761366	0.05872554	0.04166824	0.04726969	0.04121415	0.04437564	0.06881971	0.05728897
12	TEXTILE AND APPAR	0.01899537	0.00755774	0.00571589	0.00669997	0.00523617	0.00573509	0.00852193	0.00775726
13	LUMBER	0.00180195	0.00168968	0.00124856	0.00357998	0.00108619	0.00141755	0.00200091	0.00231692
14	FURNITURE	0.00379390	0.00048742	0.00045108	0.00185568	0.00035682	0.00036679	0.00180499	0.00295837
15	BOXES AND PAPER	0.00012452	0.00014023	0.00009863	0.00011459	0.00010078	0.00010549	0.00015067	0.00013051
16	PRINT AND PUBLISH	0.00984565	0.00900457	0.03978958	0.00670836	0.00604281	0.00614780	0.00757095	0.00937882
17	CHEMICALS	0.00189156	0.00312388	0.00168188	0.00208848	0.00178010	0.00254458	0.00657701	0.00277448
18	PETROLEUM	0.01371589	0.03397829	0.01428629	0.01516440	0.09072641	0.01361766	0.01827661	0.02052661
19	RUBBER AND LEATHE	0.00150168	0.00219458	0.00166105	0.00187981	0.00148581	0.00176990	0.00223387	0.00188335
20	GLASS CLAY STONE	0.00208960	0.00227640	0.00152385	0.00225887	0.00125693	0.00191370	0.00242352	0.00186314
21	CEMENT CONCRETE	0.00001904	0.00001737	0.00000884	0.00002178	0.00001025	0.00001083	0.00001309	0.00001481
22	PRIMART METAL	0.00401346	0.00505656	0.00374290	0.00524018	0.00358835	0.00393996	0.00471819	0.00475427
23	FABRI. METAL	0.00373559	0.00598000	0.00418606	0.00746644	0.00391066	0.00520417	0.00555985	0.00551728
24	MACHINERY	0.00173642	0.00548605	0.00342204	0.00117105	0.00093774	0.00703330	0.00252517	0.00130415
25	SCIENTIFIC INSTR.	0.00216883	0.00314166	0.00239903	0.00362839	0.00226282	0.00261688	0.01100206	0.00493778
26	ALL OTHER MFG.	0.00139300	0.00133086	0.00439609	0.00205544	0.00144257	0.00146506	0.00086852	0.00071076
27	RAILROAD TRANSPOR	0.00372396	0.00555703	0.00377955	0.00400547	0.00612015	0.00519317	0.00598246	0.00530114
28	INTERCITY FREIGHT	0.00831102	0.01044451	0.00772542	0.00555590	0.00970496	0.00755745	0.00697844	0.00703894
29	TRUCK WAREHOUSE	0.00045573	0.00045022	0.00040373	0.00057295	0.00068511	0.00033090	0.00048092	0.00063713
30	AIR TRANSPORTATIO	0.00933205	0.00622218	0.01012052	0.00775914	0.01002437	0.00475547	0.00918760	0.01693135
31	ALL OTHER TRANS.	0.00175465	0.00268653	0.00186263	0.00208678	0.00199316	0.00203725	0.00249981	0.00959855
32	TLPHNE AND TLGRPH	0.03353918	0.01955508	0.01954498	0.01731739	0.02512211	0.04403317	0.03334784	0.02813098
33	RADIO AND T.V.	0.00214488	0.00649427	0.00268725	0.00213288	0.00200257	0.00150975	0.00228518	0.00201078
34	GAS UTILITY	0.02784965	0.02146434	0.01376461	0.03204982	0.01425640	0.01810380	0.02423676	0.02916462
35	ELECTRIC UTILITY	0.04854724	0.04121708	0.01775205	0.05609792	0.02304360	0.02283076	0.02701273	0.03141309
36	WATER UTILITY	0.01112551	0.00869230	0.00434882	0.01174707	0.00468608	0.00537336	0.00627301	0.00824211
37	WHLSE. AUTO PARTS	0.01167490	0.01740485	0.01207366	0.01343580	0.08756847	0.01347142	0.01628069	0.02326139
38	WHLSE. GROCERY	0.00222025	0.00337407	0.00236038	0.00991480	0.00237867	0.00252662	0.00448395	0.00640719
39	WHLSE. FARM PROD.	0.00039520	0.00055444	0.00038783	0.00043495	0.00038200	0.00042030	0.00054089	0.00049428
40	WHLSE. LVESTK.	0.00015261	0.00021893	0.00015299	0.00017113	0.00015065	0.00016607	0.00021207	0.00019395
41	WHLSE. MACHINERY	0.00385643	0.02041326	0.00839329	0.00461249	0.00390124	0.03367712	0.01840795	0.02564174
42	WHLSE. PETROLEUM	0.00254835	0.00613015	0.00266237	0.00274366	0.01672326	0.00244920	0.00330307	0.00380703
43	GENERAL WHLSE.	0.02197034	0.03524956	0.02383862	0.01591641	0.01304163	0.03240891	0.05013076	0.02154995
44	LUMBER YDS.HDWRE.	0.00287212	0.00433190	0.00302360	0.00342831	0.00298846	0.00326971	0.00403297	0.00380188
45	DEPT. STORE	0.01682270	0.02571969	0.01795159	0.02011273	0.01774714	0.01944420	0.02393360	0.02248539
46	FOOD STORES	0.01488841	0.02264068	0.01583237	0.01774278	0.01570264	0.01713509	0.02108877	0.01981287
47	AUTO DEALERS	0.01729110	0.02477952	0.01753258	0.01973037	0.04824692	0.02207392	0.02312157	0.02504348
48	GAS SERVICE STS.	0.00573864	0.01027305	0.00595666	0.00590490	0.00600954	0.00497372	0.00700809	0.00926576
49	APPAREL ACCE SOR.	0.00600125	0.00918318	0.00640765	0.00717941	0.00633131	0.00694125	0.00854417	0.00802797
50	FURNITURE	0.00821876	0.01257644	0.00877533	0.00983227	0.00867078	0.00950609	0.01170131	0.01099437
51	EAT AND DRNKNG	0.01295566	0.01830456	0.01370489	0.01475805	0.01370387	0.01375336	0.01762952	0.01870895
52	ALL OTHER RETAIL	0.01073574	0.01650613	0.01118043	0.03137455	0.01161940	0.01536623	0.01536716	0.01545986
53	BANK AND CREDIT	0.07986280	0.04509346	0.03360542	0.02487189	0.03339521	0.03375010	0.02710217	0.05545375
54	INSURANCE CARRIER	0.02869405	0.01192938	0.01601717	0.01647285	0.02917253	0.01409665	0.01620655	0.01204353
55	F.I.R.E. NEC	0.12035268	0.03025627	0.01896809	0.02241686	0.09679666	0.02725488	0.02270841	0.03192095
56	LEGAL AND ACCTING	0.01760936	0.01467440	0.01306232	0.01135025	0.02737673	0.01499607	0.01838416	0.02292977
57	LODGING	1.00625727	0.00382189	0.03485109	0.00625353	0.00655768	0.00266126	0.00483148	0.00525895

58 PERSNAL AND PHOTO	0.01852512	1.02846480	0.01243463	0.02336460	0.01221262	0.01312761	0.01918057	0.01844845
59 ADVERTISING	0.00557129	0.01531134	1.02432773	0.01194137	0.01280586	0.01128775	0.00394790	0.00691569
60 RECREATION	0.00409325	0.00636959	0.00440730	1.03221762	0.00444742	0.00465148	0.01227106	0.01282074
61 AUTO RENTAL	0.00420986	0.00832592	0.00388912	0.00331887	1.00378140	0.00292887	0.00831693	0.00452737
62 ELEC. AND MSC. RP	0.00874818	0.00414059	0.00320012	0.00647168	0.00329616	1.00314544	0.00395023	0.00372699
63 MEDICAL	0.01764911	0.02692075	0.01880483	0.02106634	0.01861641	0.02036203	1.02872435	0.02353871
64 EDUCATIONAL	0.03606361	0.05518496	0.03850584	0.04314363	0.03804706	0.04171240	0.05134493	1.04824289
65 ENGINEERING ARCH.	0.00008732	0.00013596	0.00009319	0.00010339	0.00009543	0.00010162	0.00012483	0.00114882
66 ALL OTHER PROFES.	0.03135079	0.05476057	0.04053929	0.07925221	0.06837093	0.02109863	0.11839721	0.03872082
67 HOUSEHOLDS	0.64877432	0.99276217	0.69270933	0.77614193	0.68445604	0.75039444	0.92368109	0.86787617
TOTAL	2.46991287	2.81355911	2.33193515	2.54277393	2.57217616	2.38516654	2.76716685	2.65689335

INTERDEPENDENCE COEFFICIENTS (INCLUDING HOUSEHOLDS) :   UPPER RIO GRANDE ,TEXAS, 1967

	65	66	HOUSEHOLDS
1 IRR. CROPS	0.00402686	0.00372662	0.00506763
2 LVSTK. DRY. PLTY.	0.00245755	0.00238757	0.00258284
3 AGRI. SUPPLY	0.00036368	0.00031778	0.00047589
4 AGRI. SERVICE	0.00071425	0.00063789	0.00091192
5 ALL MINING	0.00025758	0.00027787	0.00028833
6 RESD. CONSTRUCTN.	0	0	0
7 COMCL. CONSTRUCT.	0	0	0
8 IND. CONSTRUCTION	0	0	0
9 FACIL. CONSTRUCT.	0	0	0
10 MAINT. AND REPAIR	0.01620129	0.01685809	0.01359528
11 FOOD PROCESS	0.06385862	0.05652248	0.08084685
12 TEXTILE AND APPAR	0.00823451	0.00731768	0.01031694
13 LUMBER	0.00158958	0.00200359	0.00151397
14 FURNITURE	0.00058320	0.00046445	0.00065519
15 BOXES AND PAPER	0.00014911	0.00013319	0.00018755
16 PRINT AND PUBLISH	0.00844738	0.00980177	0.00906383
17 CHEMICALS	0.00241897	0.00396955	0.00202449
18 PETROLEUM	0.03008722	0.02469072	0.02364086
19 RUBBER AND LEATHE	0.00226301	0.00203713	0.00282398
20 GLASS CLAY STONE	0.00170741	0.00199490	0.00182952
21 CEMENT CONCRETE	0.00001211	0.00001347	0.00001311
22 PRIMART METAL	0.00558672	0.00463731	0.00621171
23 FABRI. METAL	0.00660491	0.00539142	0.00719593
24 MACHINERY	0.00150942	0.00243094	0.00104613
25 SCIENTIFIC INSTR.	0.00366001	0.00413129	0.00391445
26 ALL OTHER MFG.	0.00203169	0.00103019	0.00081279
27 RAILROAD TRANSPOR	0.03898039	0.00528980	0.00567011
28 INTERCITY FREIGHT	0.00774098	0.00889141	0.00763303
29 TRUCK WAREHOUSE	0.00079160	0.00070891	0.00045081
30 AIR TRANSPORTATIO	0.03596152	0.03004428	0.00608153
31 ALL OTHER TRANS.	0.00363721	0.00248337	0.00363726
32 TLPHNE AND TLGRPH	0.02793958	0.03902971	0.01942810
33 RADIO AND T.V.	0.00274409	0.00499278	0.00135118
34 GAS UTILITY	0.02314026	0.02157824	0.02011599
35 ELECTRIC UTILITY	0.02232898	0.02921017	0.02244019
36 WATER UTILITY	0.00553592	0.00624896	0.00555810
37 WHLSE. AUTO PARTS	0.01820561	0.01827344	0.02308181
38 WHLSE. GROCERY	0.00360504	0.00456501	0.00461030
39 WHLSE. FARM PROD.	0.00059122	0.00051950	0.00076545
40 WHLSE. LVESTK.	0.00023335	0.00020499	0.00030208
41 WHLSE. MACHINERY	0.02635089	0.01427541	0.00617540
42 WHLSE. PETROLEUM	0.00557550	0.00477788	0.00421424
43 GENERAL WHLSE.	0.02080239	0.03415417	0.02166963
44 LUMBER YDS.HDWRE.	0.00459323	0.00402035	0.00599386
45 DEPT. STORE	0.02730666	0.02385462	0.03572012
46 FOOD STORES	0.02407926	0.02102882	0.03142412
47 AUTO DEALERS	0.02728164	0.02444164	0.03374687
48 GAS SERVICE STS.	0.01472470	0.01077570	0.00865095
49 APPAREL ACCE SOR.	0.00974707	0.00851699	0.01275455
50 FURNITURE	0.01334869	0.01166408	0.01746746
51 EAT AND DRNKNG	0.02329976	0.02188193	0.02484729
52 ALL OTHER RETAIL	0.02131556	0.02035861	0.02191250
53 BANK AND CREDIT	0.02935915	0.06809658	0.02728537
54 INSURANCE CARRIER	0.02352277	0.01214595	0.01367159
55 F.I.R.E. NEC	0.02096655	0.02662460	0.01993028
56 LEGAL AND ACCTING	0.01550215	0.01764306	0.01126523
57 LODGING	0.02408384	0.00461232	0.00367453

58 PERSNAL AND PHOTO	0.01904357	0.02059678	0.02397066
59 ADVERTISING	0.00423904	0.00583506	0.00389307
60 RECREATION	0.00671512	0.01009503	0.00845401
61 AUTO RENTAL	0.00382896	0.01463397	0.00383936
62 ELEC. AND MSC. RP	0.00659361	0.00437883	0.00529610
63 MEDICAL	0.02860284	0.02497068	0.03738225
64 EDUCATIONAL	0.05857356	0.05118157	0.07664660
65 ENGINEERING ARCH.	1.00019482	0.00012546	0.00017916
66 ALL OTHER PROFES.	0.07327671	1.14753037	0.02387188
67 HOUSEHOLDS	1.05372208	0.92074217	1.37885110
TOTAL	2.94085091	2.85177907	2.15893334