KCCED COUNTY DATABASE MANUAL

A Guide to the Kansas County Profile Report: KCCED Summary

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FOREWORD

The Kansas Center for Community Economic Development (KCCED) is funded by a grant from the Economic Development Administration of the U.S. Department of Commerce. The KCCED is a joint university center staffed and operated by the Institute for Public Policy and Business Research at the University of Kansas and the Kansas Center for Rural Initiatives at Kansas State University. The statements, findings, and conclusions of this report are solely those of the authors and do not necessarily reflect the views of the United States Government, the University of Kansas, or any other individual or organization.

The purpose of the Kansas County Profile Report and the KCCED database is to provide communities and counties in Kansas with information that will enable them to better understand their economic and social environment. It should be noted that this data set is not exhaustive. The economic and social variables contained in the Report were selected to provide a picture of the overall trends for each county. Since funds were limited and did not allow for the generation of new data sources, the variables selected had already been collected, updated and maintained by either the University of Kansas or Kansas State University. This is the second edition of the KCCED County Database Manual, which was first published in May 1991. New variables have been added to the database and more will be included in future editions of the Report as collection procedures and funds permit.

We hope that the Kansas County Profile Report will serve as a useful source of information. Further reproduction of the data presented in the Kansas County Profile Report is permissible on condition that the source is cited. For those wishing to conduct a more exhaustive analysis of their county, additional information may be obtained by contacting the sources cited in this manual. The KCCED through the Institute for Public Policy and Business Research at the University of Kansas and the Kansas Center for Rural Initiatives at Kansas State University has access to additional data and can provide technical assistance, data analysis and survey support.

Special thanks to the staff at the Kansas Center for Community Economic Development who worked hard to make the Kansas County Profile Report and the KCCED County Database Manual possible: James D. Hamilton, Research Assistant, KCCED/KU; Jennifer Dam, Research Assistant, KCCED/KU; Arlene Slocum, Computer Programmer, IPPBR; Beth Tatarko, Assistant Director, KCCED/KSU; and Linda Simon, Research Assistant, KCCED/KSU. Guidance was also provided by the Co-Directors of KCCED: Dr. Charles Krider, KU and Dr. Marvin Kaiser, KSU.

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INTRODUCTION

The analysis of social and economic data is an essential part of strategic planning for community economic development. This information must be analyzed in order to identify a community's strengths, weaknesses, opportunities and threats. Changes in the socioeconomic make-up of a community are often quite subtle and unheralded, and may not be recognized by community leaders and other interested persons unless relevant data are available for examination. The variables included in the Kansas County Profile Report: KCCED Summary can help provide a picture of the social and economic environment in a county by revealing past trends, present conditions, and expectations for the future that are based on the continuation of current trends. These variables also provide indications of a county's position relative to other counties and the state as a whole. By understanding the factors contributing to change, a county or the communities therein can better position themselves to take action that will build on strengths and opportunities and minimize weaknesses and threats.

The KCCED County Database Manual is designed to assist users of the Kansas County Profile Report and help them acquire a better understanding of their counties' social and economic environments. This manual explains the economic and social data by subject area in the order that they appear in the Report: population; vital statistics and health; housing and construction; education; social environment; business and manufacturing; employment and earnings; income; banking and finance; state and local government finance and employment; courts, crime and public safety; and agriculture. These are the same categories that are used in the Kansas Statistical Abstract, a compendium of various descriptive statistics about Kansas published by the Institute for Public Policy and Business Research at the University of Kansas. Brief definitions or explanations of the variables are included in each section. Data sources are cited in footnotes in each section, and these citations can serve as references for further analysis. Additionally, in the section that follows this one, the subject areas for the Report are related to seven foundations of community economic development, in order to help clarify their usefulness.
in assisting community development planning efforts.

Examples of graphic capabilities using the KCCED database, Lotus™, and WordPerfect™ can be found throughout the manual.¹ (Appendix A is included for the user who wants more technical guidance on how to make a graph using Lotus™ and WordPerfect™.) This information enables a user to turn data into intelligence.

**The Seven Foundations of Economic Development as the Basis for Analysis.** The analysis of the social and economic data about a community is not especially meaningful outside of the context of some theoretical framework or perspective. Such a framework should integrate knowledge of the values, vision, location and other characteristics of a community with the quantitative data. One such model for enhancing understanding and analysis of the data is that of the seven foundations of economic development. These seven foundations are as follows:

- **Human Capital** (education, work force training/retraining programs, etc.);
- **Infrastructure Capital** (roads, utilities, industrial parks, etc.);
- **Financial Capital** (access to money at all stages of development);
- **Innovation/Technology Capital** (development, coordination, application and transfer);
- **Commitment/Capacity Capital** (business support and assistance, agencies, organizations, etc.);
- **Business Environment** (taxes, grant programs, incentives, etc.); and
- **Quality of Life** (culture, arts, recreation, environment, history, etc.).

Appendix B contains further definition of these concepts. Because the foundations are interrelated, data needed to analyze one area may also be needed for another area. For example, the distribution, size and composition of the population as well as levels of education and work skills directly affect the strength of the area’s human capital. These variables are also indicative of aspects of the area’s quality of life, such as the strength of the educational system and the ability to retain new entrants into the work force.

Reliance on the seven foundations as the basis for analysis places emphasis on

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¹Lotus™ was developed by the Lotus Development Corporation. WordPerfect™ is a trademark of the WordPerfect Corporation.
information gathered at the local community level. For example, the condition and availability of industrial parks, utilities and roads must be determined at this level. The commitment of local elected, civic, and business leaders as well as that of the community as a whole can only be determined at the local level. The Kansas County Profile Report does not provide this information. These data must be gathered through community surveys, interviews and other mechanisms.

A community’s or county’s strengths and weaknesses in these seven foundations must also be looked at in terms of how they affect business development. The three basic forms of business development are: the creation of new business, the retention and expansion of existing business, and the attraction of outside business into the community. By using the seven foundations as a structure to encourage business development, a community can identify the areas in which investment is necessary and the areas in which investment is strong. It is then possible to create strategies that will strengthen and balance all seven areas.

**Population**

Population variables are used to determine the distribution, size and composition of population shifts. The population variables contained in this database are: total population from 1950 to 1990; estimated population from 1981 to 1991; urban and rural population from 1970 to 1990; net migration for the decades ending in 1970, 1980 and 1990; median age of the population from 1960 to 1990; and population by age for 1980 and 1990, including population under eighteen years of age, over sixty-five years of age, and by five-year age cohorts.\(^2\)

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**Total Population.** Total population should be examined over a time series in order to determine the trends that a county has experienced. The rate of change in values from 1950 to 1990 illustrates long-term trends. It is helpful to express the data for county and state graphically so that trends are visually comprehensible. Graph 1 is an example of how to illustrate population trends. It shows the percent change in population from 1950 to 1990 and allows comparisons in population growth between the county and state. Important issues regarding population are: (1) whether the county’s population is increasing, decreasing, or stable; (2) how the county’s trend in population growth or decline compares with the statewide trend; (3) how the county ranks in population and how this has changed; and (4) if the population is increasing, at what rate is it growing, if it is leveling out, and at what point this occurred.

**Estimated Population.** Population estimates for each year within the decade of the 1980s help to illustrate short-term trends that lie behind the longer-term decennial (ten-year) trends of population growth or decline. It is necessary to rely on estimates since the actual population is enumerated only once every ten years during the national census. By examining the trends indicated by these estimates, relationships between population change and changes in other social and economic conditions may be found. The rate of change in values from 1981 to 1990 is indicative of more recent trends.

**Urban and Rural Population.** Data on the proportions of the population of a county living in urban or rural areas (as defined by the U.S. Bureau of the Census) can help in creating a profile of the social, economic, and environmental conditions and needs of that county. Persons living outside of incorporated places or in places with populations of less than 10,000 are considered to be rural residents. Persons living in places with populations of 10,000 or greater are designated as urban residents. It is important to note that, with these definitions, an urban area is not the same as a metropolitan area. "Urban" is defined here more broadly to include not just densely populated metropolitan areas, but any town of a defined, significant size--in this case, towns of 10,000 people or more. By examining trends in urban and rural population growth, changes in the composition of a county’s people can be revealed. Generally, rural areas are losing population to urban areas, although some of the older, central areas of large cities are losing population, as well.

Net Migration. Net migration for a county indicates to what extent the change in a county's population is due to people moving into or out of the county. This variable also needs to be analyzed in comparison with net migration for the state and other counties in the state. Out-migration has been a problem for Kansas and other rural states.³

Median Age. Median age is an indicator of the general age of the population. That is, it is a very general indication of how much of the population is older, middle-aged, or younger.

³Many rural communities consider the retention of youth as a problem for their community. Population data by age groups (five year cohorts) can be used by the county to see which age groups are growing, declining or remaining about the same. By comparing the 1980 population count for the 15-19 cohort with the 1990 population count for the 25-29 cohort, the county will be able to see if indeed the youth have left or if local communities have been able to "keep them home" and even attract other young people to the county.
The median age is that age relative to which half of the population are older and half are younger. The median age is different from the average age (the sum of the age of all persons divided by the number of persons) in that the average could be affected by a small number of extremely old persons whereas the median would not.

Population by Age Groups. Population by age group is needed to determine the structure of the population. Ages 0-4 are typically referred to as the "preschool" population. The number in this age group provides some indication of child care needs. The groups aged 5-14 years are defined as the "school age" population, and the numbers in these groups present implications for education in a county. Those in the group aged 15-24 are referred to as the "new entrants" into the work force. This is the labor pool for many of the new jobs that may be created. Those in the groups aged 25-44 can be classified as the "prime working age" population. In a further breakdown of prime workers, those in the groups aged 25-34 are considered to be establishing careers and families and are more likely to move due to promotions or better job opportunities. The group aged 35-44 years is becoming more established in their careers and its members' earnings are generally increasing. People 45-64 years of age could be labeled the "established working group" population. A breakdown of the established work force shows that the 45-54 year olds are in their peak earning years. Those who are in the 55-64 year-old group are also least likely to change jobs and are beginning to make plans for retirement. Those over 65 can be considered the "retirement age" population and the trends for this group, as for other groups, have implications for social and health care services.

The needs of each of these age groupings are different. For example, a large preschool population, as previously mentioned, may indicate a great need for child care. The characteristics of the groups between the ages of 15 and 64 meet different labor force supply needs. A large established working population may indicate needs for adult education and retraining programs. Once the trends for these age groupings have been defined, additional information needs to be considered for a balanced view. For example, some of the variables in this database that impact different age groupings include level of educational attainment, number of child care facilities, and the number of nursing home facilities.
VITAL STATISTICS AND HEALTH

The quality of health care services for the county influences the quality of life for the county. Health-related statistics in the database include information on numbers of: physicians (both M.D. and D.O.), dentists, hospitals, hospital beds, adult care homes, and licensed beds in adult care homes. An examination of vital statistics commonly collected by state and local governments can provide information on some of the basic social variables necessary for projecting and planning for the needs of a community. The vital statistics included in the Report are: live births, deaths, marriages, and divorces and annulments.4

Physicians and Dentists. The number of physicians and dentists provides a general idea of the availability of health care in the county. The number of persons per physician or dentist can be calculated by dividing the number of physicians in the county by the county’s population. The figures provided in the Report are for number of physicians (or dentists) per 1,000 population. This can be used to determine the size of caseloads of local medical professionals in order to assess accessibility to health care.

Number of Hospitals/Hospital Beds. The number of hospitals in a county also provides some indication of the availability of health care resources. More specifically, the number of hospital beds serves as a measure of the level of public medical infrastructure available to assist in delivering high quality health care.

It is also important to be aware of the influence of population demographics on health care needs. An aging population will require more health care facilities appropriate for addressing the health problems of older persons. Since health care facilities are expensive to maintain, a county may want to consider a regional health care center as population decreases and resources become limited.

Live Births and Deaths. Calculation of the difference between these two variables for a county will provide the "natural" increase in population for that county. This is the change in

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4Data Source List: 1) Number of Physicians and Dentists, Number of Adult Care Homes and Beds: Kansas Department of Health and Environment, Office of Research and Analysis; 2) Number of Hospitals and Beds: American Hospital Association, American Hospital Association Guide to the Health Care Field; and 3) Live Births, Deaths, Marriages, Divorces and Annulments: Kansas Department of Health and Environment, Office of Information Systems and Computing.

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population found when the migration of people into or out of the county is excluded from consideration. By comparing natural increase and net migration, a county’s increasing population can be attributed to one factor or the other, or both. A decreasing population is almost certainly due to out-migration since a natural decrease is very unlikely.

**Adult Care Homes (and Licensed Beds).** Two variables are included in this category: number of adult care homes and number of licensed beds available in those facilities. These data should be examined relative to the population aged 65 and over in order to assess the adequacy of resources for care of the elderly. This is an important consideration since that segment of the population is growing and is expected to continue to grow throughout the foreseeable future.

**Marriages, Divorces and Annulments.** These variables are common vital statistics that are affected to some extent by the age of the population in a county. Their significance as indicators of the quality of life in a county are subject to value-based interpretations.

**HOUSING AND CONSTRUCTION**

There are four variables in the database that provide information on housing availability and cost. These are: occupied housing units, vacant housing units, median value of owner occupied housing units, and median contract rent.\(^5\)

**Occupied Housing Units.** The number of occupied housing units is important for examining the change over time in available housing stock in a community. It is important to know if a county is losing or gaining housing units in relation to the rate of population growth or decline. This information can give some indication as to whether a community’s residents are being adequately housed.

**Vacant Housing Units.** The number of vacant housing units helps to indicate the condition of the housing market in an area. Careful interpretation of this variable is necessary since rental vacancies have different implications than vacancies in owner-occupied units. A vacancy rate of 5 percent is considered the norm for rental units, 4 percent and below is

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considered low and 7 percent and above is considered high. The norm for owner-occupied units is a 1.75 percent vacancy rate, with 1.5 percent and below considered low and 2.5 percent above considered to be a high rate of vacancy. In any case, vacancy rates at 7 percent and above or at 1.5 percent and below should be considered indicators of relatively slack or tight markets, respectively.

**Median Value of Owner-Occupied Housing Units / Median Contract Rent.** Change is also the important factor in evaluating the data regarding median housing costs. Growth or decline in the median value of owner-occupied housing units and median contract rent is most meaningful when compared with increases or decreases in income and inflation. This will indicate if housing in a county is becoming more or less affordable in real terms.

**EDUCATION**

Education variables found in the database include: education attainment by females and males 25 years of age and over, total public school enrollment, high school dropouts, high school graduates, and pupil/teacher ratios. These data are helpful in developing human capital and quality of life strategies. Additional information about education and training needs can be obtained by surveying local businesses about the needs and challenges they are facing. The resulting information could assist development of strategies to create a competitive labor force and meet the needs of the county.

**Educational Attainment of the 25+ Population.** The educational attainment of men and women over 25 years old (elementary school, high school, college) indicates the skill level and professional capabilities of a county’s population. These variables provide some indication of the higher education and job training needs of the local work force. For example, if a high percentage of a county’s population has attained a high school and/or less than high school level

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of education, then training programs might be appropriate in order to attract high-skill, high-paying jobs to the county. A high proportion of the population with some college and/or an associate degree would indicate that many residents have completed some type of post-secondary technical training and that the county would be in a position to meet the needs of high-skill firms.

Graph 2 is a pie chart illustration of the years of school completed by the county’s population 25 years of age and over at the time of the 1990 Census. From the chart, the user can quickly see that about one-third of the county’s over-25 population (approximately 36 percent) had a high school education or less. This has implications for training and retraining programs, particularly if this work force is needed to fill high-skill, technology-oriented jobs.

Graph 2.
Source: KCCED/IPPBR, University of Kansas, 1993.

**Total Public School Enrollment.** From these data one can determine what proportion of the population is currently of school age and will be entering the work force over time. This information can assist in determining the community’s needs for employment opportunities and
post-secondary education and job training. This variable can also give some idea of the burden local communities must bear in financing their public schools adequately.

**Dropout and Graduation Rates.** It is important to look at dropout rates in comparison with graduation rates. These variables have a significant impact on the skill levels and competitiveness of the future labor force. This in turn will impact the types of businesses that will remain, locate or expand in the community. The quality of life of the community and the levels of public assistance will also be impacted.

**Pupil/Teacher Ratio.** By comparing this ratio for the county with the state’s ratio and the county’s rank, an indication of the quality of education can be determined for the county. If the ratio is below the state average, for example, the county can use this as an asset indicating the presence of high-quality educational resources. However, it can also be argued that a pupil/teacher ratio that is considerably lower than the state average may indicate that consideration needs to be given to school consolidation. Therefore, further information may be needed to determine which direction the community should be going.

**SOCIAL ENVIRONMENT**

The variables in this section are important in assessing a community’s social service needs or the adequacy of existing services. These variables include: the numbers of various types of child care facilities, the number of persons with disabilities, the number of people with incomes below the poverty level, and the number of persons receiving food stamps.\(^7\)

**Child Care Centers, Day Care Centers (Group Licensed, Licensed, and Registered), and Preschools.** It is important to be aware of how increased participation by women in the workforce influences demand for child care. Therefore, comparisons of female population trends and workforce participation rates with available child care facilities could help determine if the

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child care needs of working mothers are being met in a county.

Each of the five various types of facilities included in this section holds a different status under state law. Child care centers are facilities permitted to care for 13 or more children from the age of 2 weeks to 16 years on a full-time basis. Group licensed day care centers may care for up to 12 children of less than 16 years of age on a full-time basis. There are additional limitations on the number of pre-kindergarten children enrolled at such a facility. Licensed day care centers are residences allowed a maximum of ten children under the age of 16, with additional limitations on pre-kindergarten children and those under 18 months of age. Preschools are part-time care facilities allowed 13 or more children from the age of 2½ years to kindergarten age. They are usually in session no more than 3 hours at a time in mornings and/or afternoons. Registered day care centers are family residences providing care for no more than 6 children ranging in age from birth to 16 years. No more than 3 may be under 18 months of age and inspection visits from licensing agencies are made only upon complaint.

**Disability Status.** Disability status is represented in this database by the percentage of persons over the age of 65 who have limitations on their mobility or ability to care for themselves. The number of persons with disability status who reside in a community serves as an indicator of the need and demand for services that enhance economic opportunity and the quality of life for this particular group. Such services may include transportation services and the provision of special health care needs.

**Income and Poverty Status.** This variable includes totals and percentages for persons of all ages, related children under 18, related children ages 5 to 17, persons 65 and older, and families. It provides a more straightforward indicator of the extent of poverty in a community than the number of food stamp recipients. These data show the numbers of persons with incomes under a level defined by the federal government as the threshold of poverty. Persons with incomes under this level are officially considered to be poor. In 1989, the poverty thresholds were $12,674 for a family of five and $6,310 for a person living alone. This does not include support from income maintenance programs or other public welfare services. The figures should be viewed with some caution, since they are occasionally distorted by other variables. In Douglas County, for example, there are a large number of college students with incomes
officially below the poverty level but who receive support from families or financial aid programs. These persons are counted among the poor, even though it is doubtful that many of them are actually impoverished. In cases such as this, food stamp data may be a more reliable source of information on the actual numbers of the poor. However, in most areas and in most cases the poverty status variable is a good indicator of how many people fall below an officially-defined minimum level of income.

Graph 3.
Source: KCCED/IPPBR, University of Kansas, 1993.

**Food Stamp Recipients.** The data regarding food stamp recipients provide some indication of the prevalence of poverty in a county. They are an indicator of the distribution of income and opportunity. It is critical to identify where a county ranks, where it stands in comparison to the state, and what the trends are indicating. It is also important to examine this variable in terms of educational attainment and employment level. Graph 3 shows that,
proportionally, the county had more persons receiving food stamps than the state for the selected years 1986, 1988 and 1990. Graph 3 also shows that the percent of the total population receiving food stamps had risen in the 1980’s. This could be an indication of increasing poverty for the county and a decreasing quality of life.

**BUSINESS AND MANUFACTURING**

The variables found in this section are: the number of business establishments (total, by number of employees, and by industry); payroll (total and by industry), nominal taxable retail sales; and retail pull factors.⁸

**Establishments: Total, by Number of Employees, and by Industry.** The total number of establishments, the number of establishments by number of employees, and the number of establishments by industry were compiled from *County Business Patterns*, published by the U.S. Census Bureau, which includes annual mid-March data for private, non-farm firms. The categories for establishments by industry are based on the one digit SIC (Standard Industrial Code) designation. This numerical code provides a means of identifying the productive activities of firms by specified industrial categories. These categories include: agricultural services; mining; construction; manufacturing; transportation and public utilities; wholesale trade; retail trade; finance, insurance, and real estate; services; and unclassified. These data indicate the relative strengths and weaknesses of categories of firms by size, of particular industries, and of the county as a whole. By examining the size of firms in terms of the number of persons employed by each firm, some assessment can be made of the extent to which the county relies on smaller or larger businesses for the generation of jobs and income. These data can also provide information on whether growth or decline has occurred in small firms and in large firms. Analysis of trends indicated by these data can indicate if there is a tendency toward the

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⁸**Data Source List:** 1) Establishments (Total, by Number of Employees, and by Industry): U.S. Bureau of the Census, *County Business Patterns*, various issues; 2) Payroll (Total and by Industry): U.S. Bureau of the Census, *County Business Patterns: Kansas*, 1980, 1990; 3) Nominal Taxable Retail Sales: CEDBR Data Base, Center for Economic Development and Business Research, W. Frank Barton School of Business, Wichita State University (Derived from county sales tax collected by the Kansas Department of Revenue.); and 4) Retail Pull Factors: Kansas DIRECT Program, Kansas State University Cooperative Extension Service.
downsizing or the expansion of area firms.

By looking at specific industries, the strengths and needs of the county can be identified. This will, in turn, impact strategies for import substitution and value-added\(^9\) business development, as well as those regarding the availability of financial and human capital. Some things to examine are: 1) the change in the number of establishments to indicate net business growth or decline; 2) the trends for business growth/decline over the last 10 years; and 3) how the county compares with the state and other counties. Net business formation can be calculated by subtracting the number of establishments of a previous time period from the current time period (e.g., Net Business Formation 1980 to 1990 = Number of Establishments 1990 - Number of Establishments 1980).

Sectors such as agriculture, mining, manufacturing, wholesale trade, and some services are often referred to as export industries. The products of these industries are exported to meet external demands.\(^10\) Since one of the primary goals of economic development is to increase the levels of employment and income of the locality, one strategy is to strengthen export industries. This can be done by expanding and retaining existing industries, recruiting new industries, or by encouraging the start-up of new industries. An additional strategy is to examine ways in which the community can add value to local products. For example, one strategy may be to become involved in food processing in order to add value to agricultural products. Another strategy may be to promote tourism.

While export base theory is useful in identifying strategies for development, the importance of the other sectors to economic growth should not be minimized. Retail trade, services, and construction all have a definite impact on the local economy. Furthermore, changes in technology and the skill level and productivity of the labor force must be considered. The

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\(^9\)Import substitution is an economic strategy that decreases local imports. By producing or buying goods locally that were previously purchased outside the community, a community can retain income. "Value-added" means taking raw material and processing it locally (adding value) before exporting the product out of the community.

\(^10\)Export base theory contends that local employment and income are determined by the external demand for the products of these export industries. The income generated by these industries is said to generate local demand, employment and income in the other sectors. Thus, theoretically, an area that has a strong export base should have higher levels of employment and income.
structure of the county’s industrial base and the strengths and weaknesses a county has in terms of the seven foundations will impact the strategies developed.\footnote{If a community has a small or unskilled labor force, then a human capital investment in the training or retention of the labor force is a strategy that would help strengthen the labor force as well as increase the competitiveness of existing industries. The availability of financing for industry expansion or modernization is also critical in strengthening an area’s industrial base. A balanced approach must be taken that involves looking at all the foundations for economic development as well as looking at all three forms of business development.}

Graph 4.
Source: KCCED/IPPBR, University of Kansas, 1993.

Graph 4 illustrates the percent change in the number of establishments for selected industries from 1980 to 1990. This type of graph allows the user to quickly see if any sector or sectors stand out for the county. Graph 4 shows that the county’s establishment growth rate under-performed the state’s rate. While the state experienced growth in the number of construction, manufacturing and wholesale trade establishments, the county experienced a loss
Graph 5.
Source: KCCED/IPPB, University of Kansas, 1993.

In establishments for those sectors from 1980 to 1990. Graph 4 also shows that the county did not grow as fast as the state for total number of establishments and for the retail trade and service sectors. Graph 5 illustrates how the data user can take a particular sector, in this case manufacturing, and display the change in that sector in more detail. Graph 5 shows that the annual percent change in manufacturing establishment growth was more dramatic for the county from 1980 to 1990 than it was for the state.

Payroll: Total and by Industry. Total payroll and payroll by industry indicate the level of wage and salary income that exists within the community. As with employment, those industries with the highest level of payroll are generally the leading industries in the area. Payroll growth is considered an indicator of businesses’ ability to maintain or increase growth or productivity. Generally, as profitability and productivity of firms increase, their payrolls...
increase.

Again, the position of the county needs to be examined with respect to the state and other counties in the state. Trends should be examined to determine whether or not particular industries are increasing or decreasing payrolls and how this reflects the structure of the county’s economy. If some industries are experiencing a decline in payroll while those in the state as a whole are increasing, then further research may be needed to determine why this is happening. If the payrolls of certain industries in the county are increasing more rapidly than the state as a whole, this may indicate that the county has a comparative advantage with respect to that industry. The identification of such trends will influence whether the county develops strategies such as those that assist industries to become more competitive, those that help industries remain competitive, those that ensure that adequate financial capital exists, or those that ensure that training and retraining programs are sufficient. The general goal is to increase or, at least, maintain payroll levels, and thus increase the amount of locally available income and the tax base.

**Nominal Taxable Retail Sales.** This variable provides information on the health of the retail sector in a given county. Total nominal retail sales for each year are reported in millions of dollars. These data should be viewed with some caution since nominal sales indicate the total dollar amount not adjusted for inflation. Thus, a nominal increase over a given period of years may yet, in fact, consist of a decrease in real sales, as measured by dollars adjusted to reflect inflation.

**Retail Pull Factors.** Pull factors can be used to measure the strength of a county’s retail sector and consumer trends. The pull factors were calculated by dividing the county’s per capita sales tax collection by the state’s per capita sales tax collection. This provides a ratio that indicates the amount of retail trade a county has captured. A pull factor of less than 1 indicates that individuals are going outside the county to spend a portion of their earnings. A pull factor equal to 1 indicates that the county is capturing the available retail dollars in that county. A pull factor greater than 1 indicates that the county is attracting dollars from elsewhere and is a regional trade center.

It should be noted that pull factors of less than 1 are not necessarily bad. For example,
it is necessary to have a relatively large population in the trade area to be able to support trade in particular goods such as furniture and specialty goods. Additionally, some agricultural products are exempt from sales taxes, so trade in these products is not reflected in the pull factor.

The pull factors in the database will help to identify trends over time. Pull factors that are declining over time indicate that the county’s economy is declining compared to the state’s. Pull factors that are steady over time indicate that the county’s economy is doing as well as the state’s. Pull factors that are increasing over time indicate that the county’s economy is out-performing the state’s.\textsuperscript{12}

**EMPLOYMENT AND EARNINGS**

Employment profiles are used to determine the structure of an area’s economy and allow for comparison of growth or decline in county and state employment across business sectors. Employment and earnings data included in the Report consist of data from KDHR (Kansas Department of Human Resources) for civilian labor force, employment, unemployment, and unemployment rates; and BEA (Bureau of Economic Analysis) for employment by industry and average wage per job.\textsuperscript{13} Employment by industry is based on the SIC (Standard Industrial Code) designation (see explanation in previous section). In addition to total employment, the categories for employment by industry include farm; non-farm; agricultural services, forestry and fisheries; mining; construction; manufacturing; transportation and public utilities; wholesale trade; retail trade; finance, insurance, and real estate; and government and government services.

**Civilian Labor Force, Employed, Unemployed, and Unemployment Rate.** Employment data indicate the total number of individuals employed or seeking employment. The civilian labor force includes all such persons outside of the armed forces who are at least sixteen


\textsuperscript{13}Data Source List: 1) Total Civilian Labor Force, Employed, Unemployed, and Unemployment Rate: Kansas Department of Human Resources, Labor Market Information Service; 2) Employment (Total and by Industry: U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System, Table CA25; and 3) Average Wage per Job: U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System, December 1990, Table CA30.
years of age. Unemployment is defined as the status of individuals who are not working but are actively seeking jobs. The rate of unemployment is determined by dividing the number of unemployed by the total civilian labor force. The total civilian labor force, employment, and unemployment figures come from the Kansas Department of Human Resources, which estimates employment by place of residence. KDHR employment figures are estimates based on ten variables, including the current population survey and unemployment insurance data.\(^{14}\)

**Graph 6.**
Source: KCCED/IPPBR, University of Kansas, 1993.

**Employment: Total and by Industry.** Changes in employment by industry indicate in which areas the greatest number of jobs are being created. Positive change may represent

\(^{14}\)BEA and KDHR employment figures are NOT compatible since different estimating procedures are used to calculate employment. Therefore, it is not possible to take BEA employment totals (place of work) and subtract KDHR employment totals (place of residence) to determine in-flow or out-flow of workers for the county.
expansion of existing business, attraction of new business, or creation of new firms. Negative change may indicate a decline of existing businesses in the county or the exodus of firms from the county.

The changes in employment for the county and state as well as for selected industries are illustrated in Graph 6. The most striking changes are the decrease in manufacturing employment and the increase in service employment from 1980 to 1990. Further analysis of the change in manufacturing employment can be seen in Graph 7. This displays the annual employment percent changes for manufacturing from 1980 to 1990 and shows that the county experienced its most difficult period from 1980 through 1983. The graph also illustrates that the county had marginal manufacturing employment growth since 1985.

**Graph 7.**
Source: KCCED/IPPBR, University of Kansas, 1993.

**Average Wage per Job.** The average wage per job is a way to measure the income and
competitiveness of an area. If the average wage is lower than that of the state and/or surrounding areas, residents may seek employment elsewhere. If the average wage is higher, then residents from other areas are likely to seek employment in the county. Trends must also be considered. If the average wage per job is increasing or decreasing with respect to that of the state (in rank or as a share of the state’s average), then it is important to know why. Some possible explanations include: the gain/loss of a particular industry, cutbacks in order to make a firm more competitive, or a faster increase/decrease in overall wages than that for the state as a whole. These reasons have different implications for strategy formulation. The characteristics of the population and the skill levels of the labor force also need to be considered so that a strategy that is consistent with these realities can be implemented.

**INCOME**

Income variables in the KCCED Database include: per capita personal income and sources of personal income (total; wages and salaries; farm and non-farm proprietors; dividends, interest, and rent; and transfer payments). The source of this income data is the BEA, thus the industrial categories are the same as those listed in the *Employment and Earnings* section. One goal of economic development is to increase the income that flows into the community and to the individuals within. These data will help determine whether the flow has been increasing or decreasing. These variables also help illustrate the level of quality of jobs found in a county when compared with the change in employment levels for the county.

**Per Capita Income.** Per capita income measures the average income of each individual in a county. A county’s per capita income level needs to be considered in relation to the state and other counties. It is also important to examine the trends in growth or decline in relation to what is happening in other counties and statewide. Graph 8 illustrates a county’s income trend in relation to the state’s trend and shows that both have been increasing, with the state’s per capita income higher than that of the county.

Per capita income should also be compared with employment data. If the data show that

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15 Data Source List: Per Capita Personal Income and Sources of Personal Income: U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System, Table CA5.
employment is increasing while per capita income is decreasing, one may conclude that while the county is attracting or creating jobs, they are not high quality, high paying jobs. The county may then want to consider what strategies it should take to increase its per capita income.16

Sources of Personal Income. Data on sources of personal income can shed some light on the structure of the local economy. Although income from wages and salaries will almost

16It should be noted that strategies in this area should be carefully considered. If a locality recruits a firm that pays its employees at a rate that is considerably higher than that of existing firms, those existing firms' competitiveness will be affected. The structure of the labor force, existing business and community needs should all be considered when developing an earnings strategy. One county may have a large labor force with relatively low skills. Their strategy may be to increase the number of jobs suited to that labor force, although they may be lower paying. Another county may have a highly skilled labor force that is underemployed. Their strategy may be to increase the number of higher skilled, higher wage positions. Thus, while the general goal is to increase per capita income, the population characteristics and skill levels of the labor force must be kept in mind when formulating goals and strategies.
always account for the largest share of personal compensation, in a county where the economy is supported by only a few, very large employers, this type of income is likely to provide a larger than average share of the total. In an area that relies on a large number of smaller firms, non-farm proprietor income will likely be greater than what is typical. More affluent counties are likely to report a larger share of personal income from dividends, interest and rent, and less than average from transfer payments. The reverse will likely be true of poorer areas or counties experiencing slowdowns in economic activity. The examination of trends with regard to these variables can indicate temporary or long-term shifts in how income is generated in a county.

**Banking and Finance**

**Bank Deposits.** The total amount of bank deposits reported in a county (in thousands of dollars) is an indicator of the level of savings and wealth held by the county’s residents. It also provides some indication of the financial capital available within the community to support the creation and expansion of new business.\(^{17}\)

**State and Local Government Finance and Employment**

**Tangible Assessed Valuation.** This variable consists of the total dollar value (in millions) of all tangible property in the county assessed for the purpose of levying property taxes.\(^{18}\) This information can indicate if a county has a tax base large enough to support the infrastructure and services necessary to provide a social and physical environment conducive to economic development. An insufficient property tax base may indicate weakness in a county’s and local communities’ abilities to provide and maintain necessary infrastructure and public services. A growing economy and expanding tax base may present the opportunity for property tax reduction in the future.

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\(^{17}\)Data Source List: Bank Deposits: Federal Deposit Insurance Corporation, *Data Book, Operating Banks and Branches.*

\(^{18}\)Data Source List: Tangible Assessed Valuation: Kansas Department of Revenue, Division of Property Valuation, *Statistical Report of Property Assessment and Taxation.*
COURTS, CRIME AND PUBLIC SAFETY

Crime Index Offenses. Crime index offenses are reported by the total for each county as well as the rate per 1,000 residents. These offenses are a compilation of both violent crimes and non-violent crimes against property. They include: murder, non-negligent manslaughter, rape, robbery, aggravated assault, burglary, larceny, and motor vehicle theft. As an indicator of the quality of life of a county, these data should be compared with counties of similar population size and with the state as a whole. Typically, smaller, more rural counties will have lower rates of offenses than larger, more urban counties.

AGRICULTURE

The agricultural data provided in the KCCED Database include variables on the number of farms, total acres harvested, the value of field crops, the value of livestock and poultry, and the debt/asset ratio. With the exception of the debt/asset ratio, these variables are fairly self-explanatory with regard to their definition.

Number of Farms, Total Acres Harvested, and Value of Field Crops, Livestock and Poultry. These data will help determine whether or not the overall economic importance of agriculture in the county has been increasing or decreasing over the last 10 years, and how this compares with other counties and the state as a whole. Knowledge of such trends can help determine what initiatives are needed to improve the agricultural economy. Some agricultural strategies are: (1) reducing imports of agricultural products into the area by growing for local consumers (e.g., "pick-your-own" farms or local farmers’ markets); (2) adding value to existing

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19 Data Source List: Crime Index Offenses: Kansas Bureau of Investigation, Statistical Analysis Center, Crime in Kansas.

20 Data Source List: 1) Number of Farms, Total Acres Harvested, Value of Field Crops, and Value of Livestock and Poultry: Kansas Agricultural Statistics, Kansas Farm Facts; and 2) Debt/Asset Ratio: Kansas State University, Department of Agricultural Economics, Farm Management Association Program.

21 Other sections of the Report also contain certain data regarding agriculture. An additional agricultural variable that can be found in the Business and Manufacturing section of the Report is establishment data for agricultural service industries. The Employment and Earnings section provides data for the number of farm employees and data for employment in the agricultural service industry. Total annual payroll for agricultural services is contained in the Income section of the Report.
products in the area, such as milling products (e.g., a corn tortilla food processing plant); and (3) exploring new alternative products and new markets by such means as developing products for niche markets (e.g., the organic foods industry). Again, it is crucial to examine the data within the context of the other aspects of the economy as well as how they affect the seven foundations.

**Debt/Asset Ratio.** The debt/asset ratio measures the total farm loans over total farm assets for the county. A healthy ratio would be below 40 percent. If the debt/asset ratio is increasing, it implies that farmers are increasing their borrowing to stay in business and/or their asset values are decreasing. If the ratio has been decreasing over time, it means that the value of farm assets is increasing and/or farmers are paying off their debts.

**CONCLUSION**

The use of quantitative data in community economic development is important for several reasons. First, data assist a community in "taking stock" and understanding its current situation across several different areas of economic performance. They also provide insight into the internal and external trends that affect a community by comparing economic performance to other areas, such as the state or other counties. Finally, by utilizing data in planning, planners, policymakers and community leaders can help to ensure the long-term success of strategic planning efforts and their eventual outcomes by:

- **Testing Assumptions** - the careful analysis of empirical data ("hard facts") can validate or challenge hypotheses or perceptions that members of a community might hold regarding the status quo;

- **Building Consensus** - comprehending the meaning of the data can foster a common understanding regarding trends and concerns affecting the community and, in turn, help to move the community toward solving common goals;

- **Establishing the Direction** - data can serve as a compass and help determine the next step a community needs to take on the road to healthy community economic development (i.e., a community may decide that it does not have the data needed to answer its questions and may wish to spend more time collecting additional data.); and,

- **Identifying Key Issues** - data analysis can identify important issues, in terms of relative strengths and weaknesses, that the community may wish to address.
It is important to remember that raw data alone do not lead to an understanding of the community. Data must be analyzed, taking into account the sense of the community about the overall trends. In other words, data serve as the foundation for an analysis that determines: (1) what is happening in the community, relative to other regions and over time; and (2) what do the data suggest, in terms of potential impact or consequences. From this point, the community can then address possible strategies and solutions.
APPENDIX A

HOW TO MAKE A GRAPH

An understanding of Lotus™ allows the Kansas County Profile Report user to manipulate the data in many ways. The user may calculate new variables, or develop tables or graphs. What follows is the step-by-step process used to create "Graph 1. Establishments: Selected Industries." This example may help the user to gain an understanding of the procedures necessary to create graphs representing data relevant to any county in the state.

Step 1. Manipulation of Data in the Report

The Report contains the percent change from 1980 to 1990 for establishments at both the county and state levels. Therefore, in order to develop Graph 1, little manipulation of the database is necessary. For convenience, a table is created that brings together all the information necessary to develop the graph (see Table 1). Table 1 consists of percent change for the county and state from 1980 to 1990 for the following parameters: total number of establishments, construction, manufacturing, wholesale trade, retail trade and services. Once this information is brought together in a table, the graph can be created.

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<th>U</th>
<th>V</th>
<th>W</th>
</tr>
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<td></td>
</tr>
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<td></td>
</tr>
<tr>
<td>2</td>
<td>Percent Change 1980-90</td>
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<td>3</td>
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<tr>
<td>4</td>
<td>County</td>
<td>State</td>
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</tr>
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<td>5</td>
<td>1980-90</td>
<td>1980-90</td>
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<td>6</td>
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<td>TOTAL</td>
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<td>19.7</td>
</tr>
<tr>
<td>8</td>
<td>CONSTR</td>
<td>-4.8</td>
<td>10.2</td>
</tr>
<tr>
<td>9</td>
<td>MFG</td>
<td>-11.9</td>
<td>15.3</td>
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<tr>
<td>10</td>
<td>WH TRADE</td>
<td>-1.4</td>
<td>8.5</td>
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<tr>
<td>11</td>
<td>RET TRADE</td>
<td>7.1</td>
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</tr>
<tr>
<td>12</td>
<td>SERVICES</td>
<td>27.5</td>
<td>46.4</td>
</tr>
</tbody>
</table>

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The Institute for Public Policy and Business Research at the University of Kansas employs the use of Lotus™ and WordPerfect™. Therefore, the KCCED County Database is available on diskette in Lotus™ spreadsheets and the steps on how to make a graph using the database are given with reference to these two computer programming products.
Appendix A

Step 2. Create, Name and Save Graph

To create a graph in Lotus™, the "Graph" command is used. This is accessed by typing: "/G" (for Graph). Under "Graph" the following secondary commands exist: Type, X, A, B, C, D, E, F, Reset, View, Save, Options, Name, and Quit. The following secondary commands are used to develop Graph 1:

**Type:** Bar

**X:** The X-range is used to label the x axis of the graph. In this example, the x-range will consist of the industry names: TOTAL, CONSTR, MFG, WH TRADE, RET TRADE, AND SERVICES; i.e., the range is: U7..U12.

**A:** A is used to designate the first data range. The first data range for Graph 1 is the percent change for the county; i.e., the range is: V7..V12.

**B:** B is used to designate the second data range. The second data range is percent change for the county; i.e., the range is: W7..W12.

**C, D, E, F:** These data ranges are not used for Graph 1.

**Reset:** This allows the user to cancel graph settings and is not used unless changes need to be made.

**View:** Once data ranges have been specified, this function can be used to view the graph that has been created. This helps determine if the graph shows the desired information.

**Options:** The following functions under "Options" are used to created Graph 1:

**Legend:** A Range: Type in "COUNTY."
B Range: Type in "STATE."

<table>
<thead>
<tr>
<th></th>
<th>U</th>
<th>V</th>
<th>W</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>Establishments: Selected Industries</td>
<td></td>
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<tr>
<td>2</td>
<td></td>
<td>Percent Change 1980-90</td>
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<tr>
<td>4</td>
<td></td>
<td>County</td>
<td>State</td>
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<td>1980-90</td>
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<td>6</td>
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<tr>
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<td>TOTAL</td>
<td>10.2</td>
</tr>
<tr>
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<td></td>
<td>CONSTR</td>
<td>-4.8</td>
</tr>
<tr>
<td>9</td>
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<tr>
<td>10</td>
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<td>WH TRADE</td>
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<tr>
<td>11</td>
<td></td>
<td>RET TRADE</td>
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</tr>
<tr>
<td>12</td>
<td></td>
<td>SERVICES</td>
<td>27.5</td>
</tr>
</tbody>
</table>
Appendix A

Titles: First: Type in "ESTABLISHMENTS: SELECTED INDUSTRIES."
Second: Type in "PERCENT CHANGE: 1980-90."
X-Axis: Type in "SELECTED INDUSTRIES."
Y-Axis: Type in "PERCENT CHANGE."

Scale\textsuperscript{23}: Y-Scale: Type in ",20" for Lower; ",60" for Upper. Format: Set it at "Fixed" with "0" decimal places.

Data-Labels\textsuperscript{24}: A: Type in the same range as initially indicated for the A range.
B: Type in the same range as initially indicated for the B range.

Quit: Use "Quit" when done with "Options."

Name: Once a graph is developed in the desired format, it must be named. The "Name" command is used in the following manner:

Create: Enter a relevant name for the graph, such as: ESTAB1.

Save: After a graph is created and named, it must be saved in order to be printed out. The "Save" command asks the user to enter a file name; in this case, "ESTAB1" (to correspond to the graph name) is entered. Lotus then saves the graph in a separate "PIC" file; in this case, the file is called "ESTAB1.PIC."

Quit: When all graphs have been created, or if further manipulation of the data is needed to create a graph, the "Quit" command is used to return to the spreadsheet.

In order to retain all the new information that has been created (data manipulation, named graphs, etc.), the worksheet must be saved before exiting Lotus\textsuperscript{TM}. This is done by typing: /FS (for File, Save). This will replace the previous worksheet. The "Quit" command is then used to exit Lotus\textsuperscript{TM} and end the session.

\textsuperscript{23}Scale options are usually set after viewing the graph. In this case, the upper and lower limits automatically established by the computer did not allow for the printing of the data labels. Therefore, the limits were changed. The format was also changed after viewing the graph. With a range of \(-20\) to \(60\), it was not necessary to have the two-decimal point detail automatically set by the computer program.

\textsuperscript{24}After viewing the graph, it was determined that labels would be helpful. The data-labels option prints the data values above the bars in the graph. For a graph with many ranges and data values, the use of labels would make the graph too congested. In this case, however, the data values helped clarify the graph.
Appendix A

Step 3. Retrieving Graph into a WordPerfect™ Document and Print

To print the graph using WordPerfect™ and/or retrieve the graph into a WordPerfect™ document, the "Graphics" function is used. This is accessed by simultaneously holding down the "ALT" and "F9" keys. Then, the "Figure" (type 1 or F) option is used, followed by "Create" (type 1 or C).

Graph 1.
Source: KCCED/IPPBR, University of Kansas, 1993.

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25It is assumed that the computer being used has graphic print capabilities. Please consult the user's manual for your printer. It should also be noted that the graph can be printed directly from Lotus™. This is done by using Lotus™ PrintGraph. Please consult a Lotus™ manual as well as the printer manual to use this method.
Appendix A

Under "Create", the following options are used to create Graph 1:

1 Filename: Type in the PIC file, for example: A:\ESTAB1.PIC.

3 Caption: WordPerfect™ automatically captions with "Figure 1"; however, this can be erased and a different caption typed in. In Graph 1, the following caption was typed in: "Source: KCCED/IPPBR, University of Kansas, 1993."

7 Size: This is used to change the size of the graph. The size of Graph 1 is: width=6.5" and height=4.5".

9 Edit: Edit allows for the viewing of the graph.

Press F7 Exit to leave "Graphics".

If changes are needed to the graph, use "Graphics" with the "2 Edit" option under "Figure". The graph is now part of the WordPerfect™ document and can be printed using the "Print" function.

Please consult a WordPerfect™ manual for details on all options.

As previously mentioned, consult the WordPerfect™ manual for the full range of options and capabilities available using the "Graphics" function.
APPENDIX B

WORKING DEFINITIONS FOR THE SEVEN FOUNDATIONS

HUMAN CAPITAL
Investment of human capital consists largely of state and local programs that assist in long-term investment in and development of labor resources. Central to this are programs that are efficient and responsive in the training, retraining, and general education of the labor force. This area includes programs that target and assist new, expanding or existing businesses in the areas of training, or utilizing new processes and technologies. Programs may offer training/retraining to adults who may be unemployed or have skill deficiencies. Business and education linkages should be provided and encouraged.

INFRASTRUCTURE CAPITAL
Investment in infrastructure capital means the development and maintenance of public infrastructure systems including highways, roads, bridges, airports, utilities, and business and industrial sites or parks.

FINANCIAL CAPITAL
Having adequate financial capital lies in the availability of money to provide adequate financing to businesses in different stages of growth and development. Financial capital is necessary for a variety of needs, such as: purchasing facilities and equipment, general operations, working capital, development of a prototype, or start-up needs. Capital may be made available to target specific programs such as small business development, export assistance, or high technology. Types of financial capital include venture capital, seed capital, mezzanine capital, and revolving loan funds.

INNOVATION/TECHNOLOGY CAPITAL
This type of capital consists of programs that stimulate the development, coordination, application, and transfer of technology. The goal should be to improve the competitiveness and efficiency of existing manufacturing and service industries, as well as to diversify and build on the economic base. Examples of programs of this sort include those that foster linkages between industry and education with a focus on improving the research and development of new products and technologies, as well as technology centers or offices to assist small businesses and entrepreneurs in the development, production and utilization of new and/or higher levels of technology.

COMMITMENT/CAPACITY CAPITAL
This is organizational capital; more specifically, it is a commitment to economic development expressed through agencies and organizations that provide assistance and support for businesses and economic development.

BUSINESS ENVIRONMENT
Improving and enhancing the business environment requires programs that are focused or targeted to create businesses, create business opportunities, or improve business competitiveness. This category includes such programs as industrial recruitment, business retention or expansion, tourism promotion, and support for major industries.

QUALITY OF LIFE
Creating or maintaining a desirable quality of life in a community can include programs that seek to develop and maintain a positive cultural milieu. Such programs may increase the availability and diversity of cultural, artistic, recreational, environmental, educational and historical activities in order to improve the quality of life and economic potential of the community's individuals and families.

Source: IPPBR/University of Kansas, 1990.