FACTORS CONTRIBUTING TO ECONOMIC GROWTH IN PITTSBURGH AND ALLEGHENY COUNTY:

A Survey of Companies in High Growth Manufacturing Industries

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CHAPTER ONE

OVERVIEW

Introduction

In the last five years, forces which had been gathering momentum for several decades came to a climax, transforming the economy of the Pittsburgh region. Steel production and metal fabrication, which for a century had been the heart of the regional economy, declined precipitously. In their place has risen a core complex of office, financial, medical, and educational services.

Much has been written of the suffering and dislocation that this transformation has wrought. There also has been good news of growing industries and opportunities. This study attempts to analyze the brighter side of this transition by interviewing Allegheny County firms in high-growth manufacturing industries in order to ascertain the strengths of the region as a manufacturing location and work toward establishing a broader basis for local economic development policies.

Regional Structural Change and Southwestern Pennsylvania

Economic development strategies will be most effective in creating new jobs if they build upon the strengths of the region and/or remove obstacles to business activity. Accordingly, a better understanding of the strengths and weaknesses of the region ensure the development of more cost-effective approaches to economic development. Pittsburgh and Allegheny County, however, are a part of a larger economic area--Southwestern Pennsylvania. A description of the region follows in order to provide a context in which to interpret the results of this study.

The 10 counties in Southwestern Pennsylvania--a region of about 3 million people--suffered a population decline of three percent during the 1970s. This was in contrast to an 11 percent increase nationally, and a 1 percent gain in Pennsylvania. (See Table 1.1)

The region's population loss was a result of changes in the structure of its economic base. This restructuring has directly affected people in terms of their employment opportunities and disposable income. Likewise, places have felt the brunt of economic adjustments through changes in their tax base.

The structure of Southwestern Pennsylvania's economy has changed in recent decades. A region which was heavily manufacturing-oriented has gradually shifted to one in which trade, services and finance predominate. In 1950, manufacturing accounted for 36 percent of total employment; by 1980 its share had declined to 26 percent; and by 1984--as a result of the recession of the early 1980s--the share declined to its current level of approximately 20 percent. (See Table 1.2)

The changes which have occurred in recent decades have brought this region's economy closer in line with the structure of the national economy. One of the major factors underlying this shift is the decline in the primary metals industry, which now accounts for 5 percent of total employment in the region, down from 15 percent two decades ago. During the last two decades, employment in the primary metals industry has declined from approximately 135,000 to about 55,000. While it is likely that some of these workers will be called back, it is unlikely that employment in this industry will rise significantly above its current level.

Despite the restructuring of the region's economy, the manufacturing sector is still critical to the region's employment base and to its future.

Until the recent recession, manufacturing was the major employer, and it still employs almost 200,000 people. (See Table 1.3)

Employment losses in manufacturing have been more than offset by increases in the services sector. During the 1970s, services provided almost 75,000 new jobs, and an additional 50,000 jobs were added in the wholesale and retail trade, finance, insurance, and real estate sectors. Although the growth rate of the nonmanufacturing industries has declined in the 1980s as a result of the economic downturn, many of these industries have still gained employment.

Allegheny County has shown trends similar to those for the region (Table 1.4). Manufacturing employment declined by 22 percent during the 1970s (compared to a 16 percent loss for the region), while employment in services rose 44 percent (a 50 percent increase for the region). Employment gains in services were sufficient to offset the decline in manufacturing until the 1980 recession. During the period 1980-83, Allegheny County lost 46,000 manufacturing jobs (55 percent of the total lost in the region); and like the region, Allegheny County continued to post slight employment gains during this period in services, finance, insurance and real estate, and recently in retail trade, but these increases did not offset the large decline in manufacturing. (See Tables 1.5 and 1.6)

Prior to the recession, the aggregate employment statistics for the region masked some very positive trends. During the 1970s, there were a number of manufacturing industries which not only grew but did so at rates well in excess of their national average. These included advanced technology industries in the broad categories of chemical and allied products; medical instruments and supplies; special dies, tools, jigs and fixtures; industrial controls; electric lighting and wiring equipment;

electronic computing equipment; and special industry machinery.

Within Allegheny County, the growth rate of most of these high technology industries (excluding medical instruments and supplies and special dies, tools, jigs and fixtures) exceeded their national counterparts. There were also other high technology manufacturing companies that outperformed their industry norms, including pharmaceutical preparations, radio and TV communication equipment, and measuring and controlling devices.

The recent recession curtailed these positive trends at both the County and regional levels. During the period 1980-84, most of the advanced technology industries lost employment. The reversal of the positive growth trends in a number of advanced technology industries is of concern. However, there is no reason to believe that the region has lost the comparative advantages that it showed during the 1970s. The employment losses are most likely the result of the effects of the recession--locally and nationally--on companies purchasing products from these industries. Therefore, it is probable that employment in these industries will again show advances in the near future.

The region has lagged the national recovery by a considerable margin as witnessed by an unemployment rate that has remained approximately 50 percent above the national average. The solution to the adverse impacts of economic change is job creation and job retention. One of the essential ingredients in helping to strengthen the region's economic base is a healthy national economy. This is crucial to strengthening the heavy manufacturing industries which form the core of the region's manufacturing base. Every recession further erodes employment in these industries, as less efficient plants are closed or

partially shut down; therefore, a strong national economy is the best hope for stabilizing employment in this sector.

The structure of the region's economic base, however, will continue to change in the same direction as in the past, with employment in services outpacing that in manufacturing. However, manufacturing employment in the region could stabilize around its 1980 level. This would require only a moderate decline in steel employment over the decade, and the continuation of the birth and expansion of advanced technology companies in a number of industries.

The region has many strengths which can be built upon, including:

- the availability of a highly skilled work force;
- major research universities
- an economic base that has diversified in recent decades—it is no longer dependent upon the health of one or two industries;
- a manufacturing base that, up until the most recent recession, showed rapid employment gains in a number of advanced technology industries;
- a strong financial sector; and
- a strong services sector.

These assets bode well for the ability of the region to grow in emerging high technology industries by fostering the development of new advanced technology industries and transferring advanced technologies to existing manufacturing companies.

The main economic development issues facing this region are the revitalization of existing industry and the spawning of new industry. Particularly essential is the creation of new companies in order to provide the environment in which future growth is assured. The success of any

economic development program depends upon the merits of the strategies employed. In order to provide insights which may prove useful, the study described in the remainder of the report was undertaken.

The Study

This study involved four steps: identification of high-growth industries, identification of local establishments within these industries, interviewing, and data analysis. High-growth industries were defined as those where, in 1975-1980, employment growth in Allegheny County exceeded the national growth rate by at least five percent, according to data in County Business Patterns (CBP). The local firms were identified by SIC codings in the Dun and Bradstreet "Dun's Market Identifiers" database. The survey design, interviewing, and data analysis were done by a team of University of Pittsburgh, City of Pittsburgh, and Allegheny County personnel.

The survey, while simple enough in design, proved difficult to carry out in practice, and readers should be aware that the establishments interviewed do not constitute a scientific random sample of firms in high-growth manufacturing industries. The difficulties arose due to the lack of a detailed system for classifying industries (the Standard Industrial Code rarely corresponds precisely to the establishment's own definition of its industry); the absence of a recent, precise enumeration of County employment by industry (CBP 1980 was the best available); and the lack of a comprehensive, reliable directory of Allegheny County manufacturing establishments. Finally, the sample is small: only 66 interviews were completed, at least in part because a comprehensive coverage of the issues required an interview of 60-90 minutes. Nevertheless, after review of the interviews, the survey team felt that the useful material in the interviews

outweighed the defects of the sample. The analysis to follow rests on this judgment.

This report has three main sections. Chapter Two describes the establishments interviewed and discusses their locations in terms of market access, access to transportation, local production costs, state and local government policies and practices, and community environment and amenities. Chapter Three discusses the larger context in which these responses occurred, including the impact of national economic trends, shifts in locational pattern, economic ownership, key supply and demand sectors, and composition of production costs. Chapter Four presents the policy implications drawn from the analysis of Chapters Two and Three. A methodological appendix details the survey method and contains the questionnaire used during the interviews.

CHAPTER TWO

EVALUATION OF ALLEGHENY COUNTY AS A MANUFACTURING LOCATION

Introduction

Discussion of the Pittsburgh region's "business climate" frequently evokes a number of negative stereotypes: poor labor relations, high taxes, and drab surroundings. The survey results described in this and the following chapter indicate that, for this sample at least, these stereotypes do not describe the area accurately.

Characteristics of Surveyed Companies

Sixty-six firms were surveyed: 45 in the City of Pittsburgh and 21 in the remainder of Allegheny County. By and large, the sample consists of well-established firms. Thirty-one (31) of the total were founded prior to World War II, while only 17 date their founding since 1970. The sample might suggest that growth is occurring mainly in manufacturing industries composed of relatively small firms: only 20 percent of the companies employ more than 100 workers. Respondents listing 100 or fewer workers were spread fairly evenly across this employment range. (See Table 2.1)

Most of the firms surveyed were local companies. Thirty-nine (39) of the 66 are single-site operations, and another 10 are either headquarters, branches, or subsidiaries of companies doing business only in Western Pennsylvania. Thus, only one-quarter of the companies surveyed are part of corporations whose operations extend beyond this region.

From their products, suppliers and customers, the firms can be grouped into three main sectors: traditional heavy industries, such as steel, chemicals, and mining equipment; "high-tech" industries, such as

computer components, data processing and scientific instruments; and direct suppliers of service and consumption industries, such as home construction suppliers. Table 2.2 shows the number of firms interviewed in each classification.

The initial intent of the survey was to draw a sample of firms in high-growth industries. However, a significant number of firms contacted, including 21 of the firms in this sample, reported decline over the past few years. As the bulk of these firms were in the heavy industry sector, this would seem to result from using 1975-1980 data to identify growth sectors. Given the depth of the recession, it would have been remarkable if some decline was not noted among the sample firms.

Reasons for Locating in Allegheny County

Factors which have influenced the locational decisions of the surveyed firms are many and varied. Some have to do with characteristics inherent in the County, and others do not. As indicated in Table 2.3, however, different patterns emerge, depending on the time period examined.

Before World War II, 65 percent of the companies in this study located to be near the steel-related industrial complex and specific markets centered here; less than a fifth of the firms founded after the War cite such a reason. Given the economic history of our region, the decline in the steel complex as a locational criterion is not unexpected. What is surprising is the sharp decline after 1940 in the percentage of firms stating proximity to any specific market as an important factor affecting their locational decision. The data also underscore the importance of the founders' place of residence to the initial decision of where to locate the firm. Since 1940, 69 percent of the companies in this

sample were founded by residents of the region.

Customers

An examination of the respondents' main customers shows that most firms are not in the Pittsburgh area because of any special market attraction. While one might expect many high-growth manufacturers to be supplying key service sectors, such as health care, in fact, only construction and transportation (17%) and decorative arts and printing (11%) are mentioned as important to their growth. No other local consuming sector stands out.

While 12 percent of the companies responding see their customers changing mainly in terms of declining markets, 17 percent describe customer changes as the opening of new markets and the expansion of existing ones in the Pittsburgh area. Indeed, despite the partial lack of customer industries held in common, the local economy in total does provide an important market for the firms interviewed. As indicated in Table 2.4, almost half obtain most of their sales from the Pittsburgh area, the rest being "export"-oriented (i.e., oriented toward national or international markets).

These figures also show that only 40 percent buy most of their supplies locally. This tendency to go outside the area for supplies is particularly strong for the larger firms--those employing more than 100 workers. In addition, there are two industry groups in which a substantial majority of firms purchase supplies mainly outside the SMSA: chemicals and noncomputer electronic and scientific instruments. In this case, further investigation certainly might reveal cases where better market information could enable firms to utilize local supplies to a greater extent.

Transportation Access to Markets and Suppliers

The great majority (nearly 90%) of the respondents find Pittsburgh to be well-located and easily accessible to markets and suppliers. Approximately 10 percent of the respondents feel that their distance from suppliers or customers is inconvenient. In addition, the adequacy and accessibility of the local transportation facilities are rated highly by users. Of the companies responding, less that 16 percent find the area's highways, airports, railroads, river transport, and public transit to be inconvenient. (See Table 2.5)

Production Costs

Sales and market considerations are not the only key elements involved in a firm's evaluation of its locational environment. To the extent that they may vary from one area to another, costs of the firm's factors of production, or inputs, are of great importance. Due to the availability of accessible, relatively cheap transportation, raw materials are not likely to vary substantially from one locale to the next. Significant local input costs about which the firms were questioned included land, energy, financial capital, and labor.

Land. Of those responding, 31 percent find land costs to be a significant advantage in doing business in the Pittsburgh area, compared to 18 percent who see these costs as a disadvantage (51% had no opinion). Among those seeing local land costs in a favorable light, a sizable number cite nonindustrial park locations, such as Swissvale, Etna and the Southside.

Energy. Energy expenditures are seen by sample firms as a locational problem. Fifty-three percent of those responding see these costs as disadvantageous (3% see these as an advantage, while 44% had no opinion). In particular, West Penn Power's peak or optimal pricing schedule for industry is a frequently-cited grievance. It must be noted, however,

that record-high energy costs are not limited to the Pittsburgh area. While these expenses undoubtedly do constitute a problem for local firms--even those in high-growth industries--they may in fact be no higher than similar costs in other regions. Evaluation of Pittsburgh's standing will require analysis of comparable data from other cities, and such comparisons are readily made on the basis of published data.

Financial capital. Access to affordable financial capital for expansion, modernization, or start-up costs is an important part of the firms' economic environment. Of those answering, a strong majority (61%) see such capital as readily available in the Pittsburgh area. That 35 percent do not is, nonetheless, significant (4% had no opinion). However, cross-referencing these responses with other variables shows little clear correlation of difficulty in obtaining access to capital with size or type of firm. It may be noteworthy that four of the five computer or data processing companies answering this question reported problems in capital availability.

Labor relations and wages. Labor is not only a critical component cost of doing business; it is also a frequently mentioned problem area of Pittsburgh's business climate. In general, survey results do not support this claim. Of those answering, 70 percent feel that labor relations are either not a problem or are advantageous (29% reported them to be problemsome). It is true that two-thirds of the unionized firms see labor relations as disadvantageous, but only 25 firms indicate union status; thus, for the sample as a whole, a strong majority--almost all of the nonunionized firms--are satisfied with Pittsburgh's labor situation in general and theirs in particular.

Fifty-four percent of those answering view local wages as higher

than those faced by competitors elsewhere; however, 24 percent see higher productivity as compensating for higher wages. Only 9 percent see productivity as being lower than other areas. About one-third of those answering consider area wages and productivity to be about average. (See Table 2.6) In addition, when asked about local factors encouraging economic growth for them, as many firms cite the presence of skilled, motivated labor as mention any other factor (6 firms).

State and Local Government: Services, Regulations and Taxes

State and local government attitudes toward business are another frequently-cited locational disadvantage of mature industrial areas, such as Pittsburgh. Once again, the results of this survey do not support this view. Eighty-one percent of respondents find local government services to be adequate.

Although there are very few significant differences in the responses to the survey questions by firms in the City and those in the County, this is not true for this question. All but one of the respondents dissatisfied with services were located in the City (10 out of 11 firms), and all of the companies dissatisfied with police protection were located in the City (9 companies).

Seventy-seven percent of those responding do not view environmental or safety regulations locally as a problem, although several respondents listed regulations of the Occupational Safety and Health Administration as undesirable. The only concern listed that related to the Pittsburgh area is the regulation of air pollution, which five firms cited as too restrictive.

When asked whether state and local taxes are higher than those faced by their competitors in other areas, one-third of the respondents indicated that they did not have sufficient information to respond. Of the

remainder, 41 percent find taxes here to be higher than elsewhere, compared to 17 percent who do not. Of those reporting higher taxes, almost 50 percent feel that this differential is steep enough to put them at a competitive disadvantage (these firms represent approximately 20% of the sample).

As in the case of energy costs, evaluation of the Pittsburgh area's relative tax burden requires a national comparison. While recent figures on state and local business taxes are difficult to come by, two separate studies for 1975 put Pennsylvania state and local business taxation at about the national average (see Appendix C). One of these studies is part of a series for which the U.S. Advisory Commission on Intergovernmental Relations provides more recent figures. These more recent results suggest that as late as 1980, Pennsylvania had stayed close to the national average.

Academic Institutions

In the eyes of the firms surveyed, Pittsburgh area educational institutions are one of the region's prime assets. Two-thirds state that local colleges, universities, junior colleges, and technical schools are important to their business success. The institutions are important for a variety of reasons, as Table 2.7 shows.

Local Amenities

The survey results indicate that Pittsburgh's image as a drab place to live and work—if it ever was accurate--is far from true today. Respondents viewed the following local attributes as advantageous(disadvantageous) in recruiting staff:

school systems--54%(4%);
housing costs--49%(7%);
neighborhood attributes--54%(11%); and
recreational and cultural facilities--63%(4%).

Not surprisingly, 90 percent of those firms that recruit personnel from outside the area report no problems in attracting employees. Only four respondents experienced recruiting problems as a result of Pittsburgh's reputation as a place to live.

Locational Plans

It might be expected that firms whose industries have experienced faster-than-average growth in the Pittsburgh area would view this locale as a continued site for operations in the future. Firms sampled for this study do, in fact, give evidence of their satisfaction with Pittsburgh as a business location. As shown in Table 2.8, 50 percent of the respondents are planning to expand within Pittsburgh or Allegheny County, while 12 percent do not expect any changes. Two companies (3%) plan to open new branches in the SMSA, 6 firms (10%) plan to open new branches outside of the SMSA, 6 (10%) firms plan to move within the SMSA, 6 (10%) plan to move outside of the SMSA, and 3 (5%) plan to close.

Of particular concern for this study are the reasons that the firms in faster-than-average growth industries are planning to close or move out of the SMSA. The three firms that are closing are classified as heavy industry and originally located in the region because of proximity to steel and steel-related markets. All three firms reported energy costs to be disadvantageous, two reported financing to be difficult to obtain, and one thought that local taxes were a disadvantage. None of the firms reported labor relations to be problemsome. It was not possible to generalize or pinpoint a specific reason for the decision to close. The firms were linked to declining industries, and most likely had inefficient plants. The respondents could not identify ways in which state or local government could help them. All three firms are located in the City of Pittsburgh.

The six firms that are planning to move out of the SMSA are also located in Pittsburgh. The firms were spread across the SIC codes. There was not strong uniformity in the reasons given for the move or the problems reported by the firms. Three saw energy costs as disadvantageous, two thought capital was difficult to obtain, two described labor relations as disadvantageous, two reported high wages and low labor productivity, three reported changes in ownership, two saw environmental safety regulations as a problem, one thought taxes were uncompetitive, and three reported they were moving to reduce costs and enjoy a better environment.

The reasons for the movement out of the SMSA are diverse. Cost considerations dominate the responses, but the specificity varies from one firm to another. It is possible to conclude, however, that the City of Pittsburgh is more at-risk than the rest of Allegheny County to plant closings and to the movement of companies in high growth manufacturing industries to locations perceived to be more desirable.

Summary

The following conclusions are derived from the analysis presented in this chapter.

- Most of the companies within the high growth manufacturing industries are smaller firms with fewer than 100 employees.
- Locational decisions of the firms are heavily dependent upon the place of residence of the founder.
- Proximity to markets is not a driving force for the location of these firms.
- The local economy provides an important market for the firms, about half sell more than 50 percent of their output in the region.
- A high percentage of the purchases of the firms are made from outside of the region.

- The region has a number of advantages:
  - It is well served by various modes of transportation
  - Labor relations are not considered to be a problem for most firms.
  - Land costs are low, particularly in areas outside of industrial parks.
  - Financing is available for most firms.
  - Local government services are generally adequate.
  - Local amenities--including schools, housing, neighborhoods, recreation and cultural facilities--are viewed as an advantage.
  - Academic institutions--particularly colleges and universities--are viewed as a significant strength.
- Problems mentioned include:
  - Energy costs. This was the most frequently cited problem.
  - Taxes. Although mentioned as a problem by a large percentage of the respondents, only 20 percent see it as a competitive disadvantage.
  - Capital availability. Although most respondents did not report difficulty, four of the five computer companies surveyed reported problems in obtaining financing.
- Differences between responses of firms in the City and those in the County:
  - There were no significant differences except in the areas of satisfaction with public services and plans to close or move out of the SMSA.
  - Most of the dissatisfaction expressed with public services was by firms located in the City and, in practically all cases, related to police protection.
  - All of the firms planning to close (3 companies) and all of those planning to move out of the SMSA (6 companies) were located in the City. The reasons varied. For the closures, the reasons related to declining markets; for the movers, costs and environmental quality were the dominant considerations.

The implications of these conclusions for economic development

policy will be discussed in Chapter Four. One general observation is that the problems expressed by individual firms and their perceptions of the advantages and disadvantages of the region varied from one company to another. All firms saw their environment somewhat differently. Although respondents were generally supportive of the region's business climate, all firms were not satisfied with all aspects of it, but the reasons for their dissatisfaction varied from one firm to another. This was illustrated by the diversity in the reasons given by specific firms for closing or moving out of the region.

CHAPTER THREE

INDUSTRIAL TRENDS INFLUENCING ALLEGHENY COUNTY MANUFACTURERS

Introduction

This chapter analyzes the respondents' answers to questions about trends and changes in the industries of which they consider themselves to be a part. The responses show a variety of industrial trends and countertrends that influence these local firms. The respondents' reasons for their firms' growth in the study area show the footloose nature of many of the firms.

Local Factors and Manufacturers' Growth

Sixteen firms said that their growth was due to superior products or management and had nothing to do with their location. Another five served narrowly specialized markets in which they had no competitors. Only 16 firms cited local conditions as contributing to their growth.

The only local condition contributing to growth that was mentioned with any frequency was presence of a skilled and motivated labor pool (6 firms). Other local factors, mentioned by at least one firm, were the stock of old homes requiring repair and remodeling, the number of new office buildings requiring services and accessories, the number of affluent residents, the growth of Pittsburgh medical facilities, the university complex, and the high unemployment rate.

Impact of National Economic Trends on Local Growth

Twenty-two firms said their growth was due primarily to long-term, nationwide economic trends and conditions, such as inflation, recession, the shift to Sun Belt locations or a services/information economy, and the

decline of the steel industry. This group included half of the firms mentioning local factors, suggesting in another way the secondary significance of local conditions as growth stimuli.

Patterns of Local Change

Half of the firms noted locational changes in their industry. Most prominent among the heavy-industry firms was the shift of demand to the Sunbelt and Midwestern states and the corresponding decline of Pittsburgh's steel industry. Within the electronics industries, dispersion was the most common pattern, as new firms are constantly entering the local and national market. (Some of the local dispersion has been a shift to the suburbs to avoid Pittsburgh's taxes.) Other patterns included local and national centralization and expansion.

Changes in Ownership Patterns

Roughly 40 percent of the respondents noted changes in the structure of ownership in their industry. Concentration was noted in all sectors, as larger firms bought up smaller ones. Specialization was also frequent. In the service and electronics sectors, specialization has resulted from the proliferation of narrow, new market niches. In the heavy industries, specialization seems to be arising from the decline of the giant integrated producers, as several smaller firms replace one large firm. Other patterns include plant closings (in heavy industry), expansion and public stock offerings, and competition from firms in related businesses seeking to expand their product line.

Changes Caused by Management Decisions in Key Firms

To assess the significance of reported changes, respondents were asked whether the changes could be traced to decisions in one or two powerful firms. Among the heavy-industry firms, this was frequently the

case, as several firms mentioned the decisions of the major steel and coal companies to close production facilities in the region. Aside from this and an occasional purchase of a company, no other major decisions were reported.

Changes in Key Supply and Demand Sectors

Once again, the major changes in the structure of supply and demand sectors centered on the decline of the regional steel industry and associated reductions in demand and in suppliers' inventories. A few firms reported demand-induced changes in the composition of their product lines. About 80 percent of the firms reported no change in the structure of key supply sectors, and two-thirds mentioned no change in demand sectors.

Changes in the Composition of Production Costs

Three-fourths of the firms reported increased production costs, led by energy costs. Costs of transportation, labor, taxes, and inventory/supplies also increased for many firms. Changes in the composition of these costs are hard to assess though, because most firms spoke simply of rising costs without specifically addressing changes in their relative importance.

Response to Technological Innovations

About half the firms reported critical innovations in production or distribution technology during the past few years. Two-thirds of the innovations affected production processes and technology, and one-third were changes in products and their applications. Both the occurrence and types of innovations were evenly distributed among the heavy industry, electronics, and service supplier sectors.

Two-thirds of the firms (45 total) reported that they, or firms in their sector, have put to use recent advances in electronics, computers,

and communications. The majority applied the new technology to recordkeeping and clerical functions or sales and inventory management (20 firms). Most of the rest applied it to production processes.

Overall Performance of Sample Firms

In comparison with the performance of other firms in their industry, about half the firms said they followed the trend, 5 percent said they did worse, and 20 percent did better. Surprisingly, one-eighth did not know how they compared. The reasons given for superior performance include better management, better products, economies of scale, and diversification--none of which is closely related to any particular local conditions or locational advantages.

Summary

The analysis presented in this chapter supports the following conclusions:

- Local conditions and locational advantages have been of secondary significance to national economic trends in determining the growth of local firms.
- The decline of Pittsburgh's steel industry has had serious consequences for virtually every firm in the heavy industry sector.
- Advances in electronics, computers, and communications have affected all sectors, but not all firms. More often than not the advances have been applied to clerical and recordkeeping functions rather than products of production process.

Although the discussion in this chapter underscores the importance of national economic trends for our local economy, this does not mean that what happens here cannot be influenced by local initiatives. It does suggest, however, that local economic development strategies, to be most effective, must be tailored to local conditions; and as indicated in the previous chapter, success will be enhanced if the circumstances of

individual firms are taken into account. The next chapter examines these issues in more detail.

CHAPTER FOUR

IMPLICATIONS FOR LOCAL ECONOMIC DEVELOPMENT POLICY

Introduction

This chapter discusses the local policy implications of the data presented in the last two chapters. As a starting point, survey data on the impact of state and local investment incentives are analyzed. Then conclusions from the preceding chapters are summarized, and their policy implications explored.

Impact of State and Local Investment Incentive Programs

About 25 percent of the firms have benefitted from state or local investment incentive programs. The beneficiaries have come from all sectors and types of firms. The most frequently used programs were Industrial Development Authority (IDA) programs (7 cases) and the Urban Redevelopment Authority of Pittsburgh (2 cases). The Regional Industrial Development Corporation benefitted one respondent. The Ben Franklin Partnership Program was noted as a beneficial program but was too new at the time of the survey to have helped any of the respondents.

When asked what programs might be helpful, 34 persons responded. Suggestions ranged from high-tech venture capital programs to fewer government handouts, but the most common response was to lower various kinds of taxes (16 respondents). Most of the others suggested various subsidies (e.g., low cost business loans, equipment subsidies, etc.). A few concerned regulatory matters, such as air quality standards. There was a natural tendency for the suggestions to reflect the specific interests of the particular firm.

Of these recommendations, incentives that can be provided on an individual firm basis--such as low interest rate loans--probably make the most sense and are the most cost-effective. Although lower taxes are preferred by the largest number of respondents, it is unlikely that this would be an effective strategy. State and local taxes, although reportedly high, are in very few cases high enough to significantly affect competitiveness, and in fact are probably close to the national average. Furthermore, lower taxes, if applied across the board to all companies, would not be cost-effective. All firms would benefit, and these benefits would not be tied to specific economic development objectives.

Policy Implications

The survey results show that Pittsburgh and Allegheny County have strengths which can be built upon. Transportation access to customers and suppliers is good; labor relations--at least for many of the small nonunionized companies in this survey--are positive; land costs are low; the universities and colleges provide a valuable asset; local public services and amenities are advantageous; skilled labor is plentiful; and financing is available for most companies. The lack of any major impediment to business activity in the region--with the possible exception of energy costs--means that it is not necessary to remedy City-wide, County-wide, or region-wide impediments to the economic development of firms in high growth industries.

The lack of an obvious disincentive to economic development means that attention can be directed toward creating incentives to stimulate economic growth. The study provides the following insights which may prove useful in charting a direction.

. Encourage company formation. New firms locate in the area in

which the founder lives and with which the founder is familiar; therefore, policies which assist entrepreneurs to establish and build a company will develop new jobs. Such policies could include the provision of technical assistance, help in securing financing, increasing the availability of high-risk seed capital, provision of low rent incubator space with shared services, assistance in locating available land or vacant buildings, assistance in working with local government agencies to obtain necessary permits, etc. The key is to have a focal point in local government for providing some of these services directly and for referring the entrepreneur to other organizations capable of assisting in other ways. Local government must be flexible and creative in order to determine how best to meet the needs of a business start-up or a small existing company. Follow-up is essential.

- Encourage companies to stay and grow. A critical part of an economic development strategy is to work with existing companies, to help them grow, and to ensure that they do not move or expand elsewhere because local government has been unresponsive to their needs. This requires an extensive outreach effort. The survey results show that companies are unique and that their problems vary. It is not possible to generalize about the needs of companies within a given industry, let alone across industries. This requires individualized contact with companies. A program of contacting all of the companies within a given political unit with some frequency--perhaps once a year or every other year--is essential. This survey also suggests that firms in

high growth industries warrant regular contact--contact should not be limited to firms with problems.

- Encourage import substitution. The survey shows that 60 percent of the surveyed companies purchase less than half of their supplies (products and services) from companies located in the region. This suggests that it may be possible to encourage local companies to produce products to meet local needs. This would require detailed market survey work to pinpoint the types of products which would be most susceptible to being replaced by regional production. Once identified, local companies would have to be contacted and encouraged to compete.
- Develop a flexible approach. Given the need to individualize economic development assistance, a flexible approach, one which utilizes a variety of programs, is required. These programs should include more than just financial assistance.
- Develop a comprehensive approach. A company's ability to grow and its willingness to do so in a given location depend upon the availability of financing; the availability and quality of the workforce; the quality of the environment in which it is located; and the responsiveness of local government to its perceived, as well as real, needs. This requires government to approach economic development in broad terms. Infrastructure upgrading, manpower training, and crime prevention may be just as important to the firm's decision to remain as low-cost financing. Local economic development agencies should be equipped to address all of these needs, either directly or indirectly, by involving other agencies.

The survey results suggest an approach to economic development that focuses upon the needs of individual companies. This requires governmental agencies to identify these companies' needs, and then to be flexible enough to respond.

Conclusion

The overall impression from the analysis of the data in this study is one of optimism: Pittsburgh and Allegheny County have strengths on which to build. Economic development strategies which are targeted to the needs of individual existing firms and new start-ups will be the most effective means of supporting economic development in the years ahead.

This analysis also suggests that Pittsburgh may have a more difficult time than the rest of Allegheny County in retaining its existing companies. It is therefore critical for the City to work with these companies to ensure that problems are identified and resolved as they arise. Although the sample was small, the results show that crime is perceived to be a problem by a significant number of surveyed firms in the City. This can be addressed most effectively by identifying the companies and locations where special attention is required.

Readers of this study should keep in mind its limitations. It focused only on industries that showed local growth greater than their national counterparts during the last half of the 1970s; it involved a relatively small sample; it focused only on Pittsburgh and Allegheny County; and it was not designed to address economic development issues that were not focused on the needs of the companies surveyed. Therefore, issues such as targeting economic development assistance to small, well-defined geographic areas versus spreading it over a much larger area were not addressed. This is a crucial issue from an implementation standpoint, and

the authors feel compelled to comment on it.

Given that resources are scarce, targeting is the most cost-effective strategy for achieving a positive long-term result when a neighborhood or a municipality is declining. Isolated, spot improvements or assistance in deteriorated communities will not be seen and will not produce positive spillovers to the rest of the community. Likewise, when the problems of a firm extend beyond financial assistance to include infrastructure needs, police protection and the like, targeting resources to an area larger than the firm is critical to achieving the necessary impact.

In order to address the geographic targeting issues, estimates of the amount of resources required is a necessary starting point. This requires contact with individual firms, as well as the involvement of agencies beyond the economic development organization. This study suggests that this process is a prerequisite for establishing an effective, long-term economic development policy.

Table 1.1

Southwestern Pennsylvania
Population Trends

Area	1960	1970	1980	Change 1970-1980	% Change 1970-1980
Allegheny County	1,628,587	1,605,133	1,450,085	-155,048	-9.7
(Pittsburgh City)	(604,332)	(520,117)	(423,938)	(-96,176)	(-18.5)
Beaver County	206,948	208,418	204,441	-3,977	-1.9
Washington County	217,271	210,876	217,074	6,198	2.9
Westmoreland County	352,629	376,935	392,294	15,359	4.1
Pittsburgh SMSA	2,405,435	2,401,362	2,263,894	-137,468	-5.7
Armstrong County	79,524	75,590	77,768	2,178	2.9
Butler County	114,639	127,941	147,912	19,971	15.6
Fayette County	169,340	154,667	159,417	4,750	3.1
Greene County	39,424	36,090	40,476	4,386	12.2
Indiana County	75,366	79,451	92,281	12,830	16.1
Lawrence County	112,965	107,374	107,150	-224	-0.2
Six-county Region	591,258	581,113	625,004	43,891	7.6
SW PENNSYLVANIA REGION	2,996,693	2,982,475	2,888,898	-93,577	-3.1
Pennsylvania	11,319,366	11,800,766	11,863,895	63,129	0.5
United States	179,323,175	203,302,031	226,504,825	23,202,794	11.4

Table 1.2

Southwestern Pennsylvania

Employment Trends

Manufacturing vs Non-Manufacturing Industries

	Percent of Total Employment (1)			
	1960	1970	1980	1984
Manufacturing	36	32	26	20
Non-Manufacturing	64	68	74	80

Sources: U. S. Department of Commerce, Bureau of the Census, U. S. Census of Population: 1960, 1970 and 1980; U. S. Department of Labor, Bureau of Labor Statistics, 1984 (March)

Table 1.3

Southwestern Pennsylvania

Non-Agriculture

Employment by Industry

Industry Classification	Total Employed 1969	1975	1980	1984
Mining	16,574	31,670	27,025	18,600
Construction	51,142	53,942	61,894	37,600
Manufacturing	349,987	299,151	293,452	195,100
Primary Metals	113,871	97,509	87,992	55,000 (E)
Transportation and Public Utilities	55,285	52,951	60,208	62,900
Wholesale and Retail Trade	209,056	215,529	246,854	236,300
Finance, Insurance and Real Estate	42,242	48,169	55,703	53,900
Services	149,296	178,509	223,315	260,300
Government	132,700(E)	155,600(E)	150,700	138,000
Total	1,006,282	1,035,521	1,119,151	1,002,700

Source: U. S. Department of Commerce, Bureau of the Census, County Business Patterns 1969, 1975 and 1980; U. S. Department of Commerce, Bureau of Labor Statistics, 1984 (March)

E - Estimate

Table 1.4

NUMBER OF NON-AGRICULTURE EMPLOYEES IN ALLEGHENY COUNTY
BY MAJOR INDUSTRIAL GROUP, 1969 to 1980

Industrial Classification	NUMBER OF EMPLOYEES		
	1969	1975	1980
Manufacturing	200,288	162,111	155,180
Mining	2,898	12,198	5,658
Contract construction	33,447	40,344	45,108
Transportation and public utilities	36,429	34,083	37,642
Wholesale trade	42,646	37,646	41,562
Retail trade	98,632	96,754	112,823
Finance, insurance, and real estate	32,626	37,076	41,711
Services	109,740	125,889	158,142
Unclassified establishments	704	2,410	2,620
Total	557,410	548,511	600,446

Sources: U. S. Department of Commerce, Bureau of the Census, County Business Patterns, 1969, 1975 and 1980.

Table 1.5

NUMBER OF NON-AGRICULTURAL EMPLOYEES IN ALLEGHENY COUNTY

IN CALENDAR-QUARTERS 1980-1, 1981-1, 1982-1, 1983-1, 1983-2 & 1983-3 (1)

Industrial Classification	NUMBER OF EMPLOYEES					
	1980-1	1981-1	1982-1	1983-1	1983-2	1983-3
Manufacturing	155,746	146,213	131,983	111,136	110,595	109,515
Mining	3,545	3,328	3,310	2,737	2,510	2,385
Contract construction	29,917	27,048	28,093	25,098	29,627	29,464
Transporation and public utilities	39,434	38,194	37,205	30,512	31,172	31,509
Wholesale trade	40,682	40,630	40,477	36,822	37,589	37,455
Retail trade	110,640	110,869	110,497	109,072	113,645	115,203
Finance, insurance, and real estate	38,144	38,749	38,807	39,565	40,861	40,959
Services	196,252	196,783	199,323	200,168	199,823	202,349
Governmental services	24,197	20,858	19,501	19,337	20,122	20,236
Total	638,557	622,672	609,196	574,438	585,944	589,075

(1) Sources: The data were obtained from the Commonwealth of Pennslyvania, Department of Labor and Industry, ES-202 file. This data are not directly comparable to the data contained in Table 4.

Table 1.6

Number of Non-Agricultural Employees in SW Pennsylvania

In Calendar-Quarters 1980-1, 1981-1, 1982-1, 1983-1, 1983-2 & 1983-3 (1)

Industrial Classification	NUMBER OF EMPLOYEES					
	1980-1	1981-1	1982-1	1983-1	1983-2	1983-3
Manufacturing	268,773	250,898	225,303	185,112	185,595	184,033
Mining	24,784	23,532	23,889	18,593	18,835	18,988
Contract construction	47,050	43,242	41,690	37,542	46,236	47,306
Transportation and public utilities	63,298	62,060	61,079	54,099	55,161	55,307
Wholesale trade	56,868	56,293	56,149	51,884	53,021	53,126
Retail trade	181,367	180,254	179,774	177,176	185,316	187,665
Finance, insurance, and real estate	50,504	50,914	50,824	51,879	53,661	53,765
Services	295,074	296,587	298,434	299,438	300,266	301,875
Governmental services	37,192	33,152	30,902	30,670	32,409	32,262
Total	1,024,910	996,932	968,044	906,393	930,500	934,927

(1) Source: The data was obtained from the Commonwealth of Pennsylvania, Department of Labor and Industry, ES-202 files. The data was not directly comparable to the data contained in Table 3.

Table 2.1

Firm Employment in 1983

Number of Employees	Percentage of Firms
1-10	24
11-20	30
21-50	16
51-100	11
101+	19
	100%

Table 2.2

Industry Groups of Sample Firms

		Number	Percent
A.	Heavy Industry	36	55
	Chemicals	9	14
	Metal, Glass, Rubber	16	24
	Mining, Industrial safety, Transport equipment	11	17
B.	Electronics and Instruments	15	23
	Computer components and systems, Data processing	5	8
	Other electronic and scientific instruments	10	15
C.	Service and Consumption	12	18
	Home construction supplies, Home furnishings, and Decoration	10	15
	Personal services, Entertainment products	2	3
	No answer	3	4
	Total	**66**	**100%**

Table 2.3

Locational Reason by Date Founded

Reason Located in Pittsburgh/ Allegheny County	Percentage of Respondents			
	Before 1940	1940-1969	After 1969	Total
Founder's local residence	22	69	69	47
Proximity to markets	35	8	15	22
Steel industry center	30	8	8	19
Miscellaneous	13	15	8	12
Total	**100%**	**100%**	**100%**	**100%**

Table 2.4

Percentage of Respondents by Proportion of Sales and Supplies in the Pittsburgh SMSA

	Percentage of Total Respondents		
	% Sales/Supplies	% Sales/Supplies	
Within SMSA	0-50%	51-100%	Total
Sales	54	46	100
Supplies purchased	60	40	100

Table 2.5

Access to Markets and Transportation Networks

Access to:	Percentage of Respondents		
	Convenient	Inconvenient	Not Relied On/ No Opinion
Customers	87	10	3
Suppliers	86	11	3
Highways	94	3	3
Airport	55	16	29
Railroad	32	9	59
Rivers	23	4	73
Public Transit	48	11	41

Table 2.6

Wages and Labor Productivity
Relative to Industry Norms

Company Wages and Productivity Relative to the Industry	Percentage of Respondents
Higher wages, higher productivity	24
Higher wages, average productivity	21
Higher wages, lower productivity	9
Average wages, higher productivity	0
Average wages, average productivity	6
Average wages, lower productivity	0
Lower wages, higher productivity	6
Lower wages, average productivity	6
Lower wages, lower productivity	0
No significant difference	28
Total	**100%**

Table 2.7

Reason for Importance of Academic Institutions

Reason	Percent of Respondents
University complex for R&D training	17
University complex for recruitment, consultants	28
Combination of above	11
Technical schools, junior colleges for skilled workers	25
Other	19
Total	**100%**

Table 2.8

Future Plans

Future Plans	Number of Firms	Percentage of Respondents
No change	7	12
Expand in Pittsburgh/Allegheny County	29	50
New branch in SMSA	2	3
New branch outside SMSA	6	10
Moving within SMSA	6	10
Moving outside SMSA	3	5
Closing	3	5
Total	**59**	**100%**

APPENDIX A

SURVEY METHODOLOGY

This survey was designed to find out why employment in certain industries is growing faster in Allegheny County than in the United States as a whole. The high-growth industries were identified from data in the U.S. Census Bureau's annual County Business Patterns (CBP) (1975 and 1980). Local firms in these industries were located through the Dun & Bradstreet (D&B) "Duns Market Identifiers" tape, a computerized data base listing business establishments for selected industries in Allegheny County. Knowledgeable officials from these firms were interviewed and their responses coded, computer-processed, and analyzed. Appendix Table A shows which industries were included in the survey and why the others were excluded. Appendix B shows the interview questionnaire.

Sample Selection

Selection of Industries. The high-growth industries were selected, for lack of a better source, using the annual County Business Patterns (CBP) survey. The CBP shows, for each county, SMSA, and state, the number of establishments and total employment for each industry to the four-digit level of the Standard Industrial Code (SIC), as well as the industry payroll and the size of the establishments. ("Establishment" in the CBP means a single physical location where business is done. For multiplant firms, each plant is counted separately.) The Census Bureau compiles the data from first-quarter Social Security tax returns and (for multi-establishment employers) its Annual Company Organization Survey. The University of Pittsburgh Center for Social and Urban Research (UCSUR) has made computer tapes of the 1969, 1975, 1979, and 1980 reports. The 1975 and 1980 reports were used for this survey.

Industries were included in the survey if:

1. 1975-1980 employment growth in Allegheny County exceeded employment growth nationwide by at least 5% for the industry ("high-growth industries"); or
2. if no employment was shown for 1975, when employment exceeded 50 persons in 1980 ("new industries").

In industries where employment declined nationwide, the industry was included if the rate of decline in Allegheny County was at least 5% slower than the national rate.

Growth rates were computed for industry, for Allegheny County and the United States, by the following formula:

$$100 \times \frac{\text{1980 Employment - 1975 employment}}{\text{1975 employment}}$$

The compelling reason for using the CBP is that it is the only source providing recent, comprehensive information on individual counties. It is an imperfect source, however, in that it omits all industries employing less than 50 people. Also, for most Allegheny County industries it does not show a count of the industry workforce, but simply classifies it into one of twelve size ranges. (Data for the U.S. as a whole is detailed enough to show exact counts for all industries.) In that case the employment can only be estimated, and the best estimate is simply the midpoint of the range. The ranges and their midpoints are:

0-19 employees	(omitted)
20-99 employees	60
100-249 employees	175
250-499 employees	375
500-999 employees	750
1000-2499 employees	1750
2500-4999 employees	3750
5000-9999 employees	7500
10000-24999 employees	17500
25000-49999 employees	37500
50000-99999 employees	75000
100,000 and over	(No cases)

Thus, in an extreme case, if an Allegheny County industry workforce increased from 99 to 100, the CBP would show an apparent growth rate of 206% (60 to 175), while an industry whose workforce increased from 100 to 249 (a 149% increase) would appear to be static. The growth rates for the U.S. as a whole, on the other hand, were calculated from exact counts, and so are much more precise. Thus there is a considerable possibility for error in relying on a comparison of growth rates for Allegheny County and the U.S. as a whole. This error had to be tolerated, though, as the only other source of sufficient scope and detail (the 1972 and 1977 Census of Manufactures) was too old to be useful.

Selection of Firms. To select firms in the high-growth and new industries, the survey team used a print-out of the Dun & Bradstreet (D&B) Duns Market Indicators computer tape. Although incomplete and imperfect, this tape is the most complete business directory available for Allegheny County, listing approximately 2500 establishments. To reduce costs only the following manufacturing SIC Codes were included: 28-30, 32-38, 3944. Thus 28 of the 70 industries of interest were precluded from consideration, including all in the food processing, tobacco, textile, garment, lumber, furniture, paper, printing and publishing sectors. Another two were excluded because D&B listed no firms in the industry (see Appendix Table A).

Table 1 shows the 40 industries included in the survey, plus the number of establishments in each industry according to CBP (1980) and D&B. A glance at the table shows that the two sources give different numbers for almost every industry. These differences may exist because the D&B and CBP records are incomplete, or contain wrong information, or give different SIC classifications to the same establishment, or because D&B (in several cases, for unknown reasons) listed establishments twice.

TABLE 1. HIGH-GROWTH AND NEW INDUSTRIES IN ALLEGHENY COUNTY

SIC Code	Industry	Type	Number of Establishments* CBP 80	D&B
2813	Industrial Gases	H	7	4
2816	Inorganic Pigments	H	1	2
2819	Industrial Inorganic Chemicals, nec	H	4	13
2834	Pharmaceutical Preparations	H	2	5
2844	Toilet Preparations	N	2	4
3069	Fabricated Rubber Products, nec	N	2	8
3231	Products of Purchased Glass	H	12	18
3241	Cement, Hydraulic	H	4	2
3271	Concrete Block and Brick	H	6	3
3299	Nonmetallic Mineral Products, nec	N	3	5
3317	Steel Pipe and Tubes	N	1	5
3321	Gray Iron Foundries	H	7	10
3325	Steel Foundries, nec	H	4	7
3341	Secondary Nonferrous Metals	N	6	5
3351	Copper Rolling and Drawing	H	3	3
3361	Aluminum Foundries	H	4	4
3399	Primary Metal Products, nec	H	3	10
3412	Metal Barrels, Drums, and Pails	H	3	3
3423	Hand and Edge Tools, nec	H	5	10
3469	Metal Stampings, nec	N	5	8
3471	Plating and Polishing	H	13	15
3499	Fabricated Metal Products, nec	H	14	20
3511	Turbines and Turbine Generator Sets	H	1	1
3531	Construction Machinery	H	1	2
3532	Mining Machinery	N	5	17
3546	Power Driven Hand Tools	N	3	2
3552	Textile Machinery	N	2	3
3555	Printing Trades Machinery	H	3	5
3559	Special Industry Machinery, nec	N	9	16
3573	Electronic Computing Equipment	H	5	15
3622	Industrial Controls	H	13	17
3648	Lighting Equipment, nec	H	3	4
3662	Radio and TV Communication Equipment	H	8	16
3713	Truck and Bus Bodies	H	3	3
3811	Engineering and Scientific Instruments	H	5	12
3824	Fluid Meters and Counting Devices	N	1	3
3825	Instruments to Measure Electricity	H	6	6
3829	Measuring & Controlling Devices, nec	N	2	5
3861	Photographic Equipment and Supplies	H	8	3
	Total Establishments		189	294

* As classified by their primary SIC Codes only.

Sources: U.S. Bureau of the Census, County Business Patterns, 1980.
Dun & Bradstreet, Duns Market Identifiers tape, June 1983.

The survey sample comprised all the establishments listed by D&B under the 40 SIC categories of interest. Establishments were included on the basis of secondary as well as primary SIC codes (D&B lists up to six for each establishment), but establishments in two categories of interest were listed only once. The survey was restricted to manufacturing units; sales offices and company headquarters offices were excluded. D&B listed 349 establishments in the 40 industries of interest, 55 by virtue of their secondary SIC codes, of which 120 were in the city of Pittsburgh and 229 in the balance of the county.

The D&B records give, for each firm, the address, line of business, SIC code(s), status (headquarters, branch, subsidiary), type of operations (manufacturing or non-manufacturing), chief executive officer, year of founding, employment, sales, and date of record. Unfortunately, this information was found to be unreliable. A quick check of the 120 firms in Pittsburgh turned up 41 for which the SIC codes or manufacturing codes were wrong, or the establishment itself no longer existing. While it was easy to discard the erroneous records, it is of course impossible to know how many establishments were missed because D&B misclassified them into SIC categories that were not examined, or missed them entirely.

Interviewing

All information about the firms in the sample was gathered by personal interviews of knowledgeable officers in the establishments, using the questionnaire shown in Appendix B. The interviewing was done by personnel of the Allegheny County Department of Development and the City of Pittsburgh Department of Development. The city personnel covered establishments within the City of Pittsburgh; county personnel covered the balance of the county.

Training Sessions

A supplemental objective of this project was to train interviewers so that they might have a more complete understanding of the survey's objectives and, by definition, a better understanding of how businesses work. After two introductory presentations about high-growth industries and efforts by RIDC and Penn's Southwest to encourage the development of new enterprises, a classroom interviewer training session was conducted.

Exhibit A is the agenda of that training session and includes an outline of the procedure that was to be used in making contact with the firms in the high-growth manufacturing industries.

After each interviewer had completed two or three interviews, another workshop was convened to discuss progress and to troubleshoot any problems with the questionnaire. In the URA workshop, relatively few problems were revealed and progress was positive.

EXHIBIT A

University of Pittsburgh
UNIVERSITY CENTER FOR SOCIAL AND URBAN RESEARCH

INTERVIEWER TRAINING SESSION

Survey of Firms in High
Growth Manufacturing Industries in
Allegheny County and the City of Pittsburgh

July 19, 1983

AGENDA

- Brief Review of Survey's Objectives
- Description of Survey Procedure
  (see attachment A)
- Principles for Conducting a Successful Interview
  (see attachment B)
- Review of Video (Wells interviews Silberman)
- Review of Interview Schedule
- Summary of Training Session

Note: A follow-up training workshop is scheduled for August 23, 1983 at 1:00 P.M. at the UCSUR Conference Room (4A50 Forbes Quadrangle). By this time each interviewer will be expected to have contacted all firms, scheduled interviews, and conducted at least three (3) interviews.

4A01 FORBES QUADRANGLE PITTSBURGH PA 15260

ATTACHMENT A

Survey Procedure

1. Listing of firms in high growth industries generated from Dun & Bradstreet (D&B)/County Business Patterns (CBP) data bases.

2. Listings of firms reviewed by City and County staffs.

3. Firms selected to receive letter from Mayor or Commissioner; letters mailed.

4. Listings of selected firms given to each interviewer.

5. Interviewers make phone call to contact person in each firm on his/her list to schedule an interview between now and mid-November.

6. Confirm date, time, and place of interview by letter. Enclose one page questionnaire with the letter. Notify appropriate supervisor of schedule.

7. Conduct the interview.

   a. Prepare by reviewing D&B data sheet and CBP summaries.

   b. Conduct interview.

   c. Complete interview schedule (make necessary follow-ups).

   d. Submit completed interview to appropriate supervisor.

8. Mail "thank-you" letter to interviewee.

ATTACHMENT B

Principles for Conducting a Successful Interview of a Key Person in a Firm that is in a High Growth Industry

Each of us has a communications style that has been developed through trial and error. Most of us communicate on the basis of our preconceptions about the person or audience with whom we are seeking to share information. It is important to the success of this research effort that each interviewer adapt his or her communications style to the interview schedule that has been prepared. In this way the variation among the 250-300 interviews will be minimized. However, much of the information that is sought in this research effort requires that the interviewer use his or her proven communications skills. These skills should elicit information that might not be offered if the respondent were writing answers on a questionnaire. What follows are a few tips for conducting a successful interview. These will be elaborated as the video taped interview is reviewed.

1. BE PREPARED TO CONDUCT THE INTERVIEW

   a. By understanding the objectives of the survey and the basis of the questions.

   b. By having practiced using the interview schedule with at least two colleagues and one personal acquaintance.

   c. By knowing about the firm whose employee you will be interviewing before you make contact. REVIEW D&B

   d. By knowing about the industry of which the firm is a member before conducting the interview. REVIEW CSP

   e. By reviewing your prior interviewing experience to identify techniques that worked and those that need to be improved--i.e., AIM FOR IMPROVEMENT.

2. ESTABLISH RAPPORT WITH THE RESPONDENT

   a. During the initial telephone contact by explaining the nature of the research, the extent of the interview, and the importance of the respondent's information/insights.

   b. At the interview by reminding the respondent of the telephone conversation's key points.

   c. By choosing a comfortable place to converse, if available.

   d. By answering frankly any questions the respondent may have about the survey, its sources, or how the information will be used.

   e. By using the interview schedule's first four questions as "warm-ups"--i.e., you should already know these answers.

f. By making an early judgement about how much time has "really" been set aside for the interview.

g. By pacing your conduct of the interview in accordance with the amount of time that has been set aside.

h. By not referring to information from prior interviews in a way that reveals the source of the information.

3. MAINTAIN FIRM BUT FRIENDLY CONTROL OF THE INTERVIEW

a. By asking each question in a clear fashion--don't talk too fast!

b. By listening carefully to each response and alerting the respondent to your attentiveness by such non-verbal techniques as nodding or eye-contact or verbal prompts such as repeating key elements of the response, etc.

c. By providing a few moments for the respondent to respond--after all, the respondent may need time to think--be patient!

d. By relating a question to an earlier response--but avoid suggesting answers!

e. By keeping the respondent on the topic.

f. By encouraging/discouraging the respondent's elaboration depending on the point at which you are in the interview schedule--i.e., "These points will be covered in a few moments," or "That's an interesting point. It's related to your comment a few moments ago."

g. By controlling the interview's pace.

4. RECORD RESPONSES AND EDIT FOR CLARITY

a. By developing your own system of notation to be used during the interview.

b. By using the "key words" that are included on the interview schedule.

c. By making certain that the respondent has answered multiple-part questions completely.

d. By reviewing your notes as soon as possible after completing the interview to clarify and edit responses--don't wait until the next day!

e. By following-up the interview with a telephone call, if essential.

f. By reviewing your completed interview schedule with a colleague or supervisor.

APPENDIX TABLE A: Growth Rate, Number of Firms, and Survey Status of Each Industry (Four-digit SIC Code)*

SIC Code	Industry	CBP (% Growth)	D&B (N of Firms)	Survey Status
2011	Meat packing plants	No	X	X
2013	Sausages and other prepared meats	No	X	X
2016	Poultry dressing plants	ND	X	X
2017	Poultry and egg processing	ND	X	X
2021	Creamery butter	ND	X	X
2022	Cheese	ND	X	X
2023	Condensed milk	ND	X	X
2024	Ice cream and frozen desserts	No	X	X
2026	Fluid milk	No	X	X
2032	Canned specialties	(High)	X	X
2033	Canned fruits and vegetables	High	X	X
2034	Dried fruits and vegetables	ND	X	X
2035	Pickled fruits and vegetables	ND	X	X
2038	Frozen specialties	No	X	X
2041	Flour	ND	X	X
2043	Cereal breakfast foods	ND	X	X
2044	Rice milling	ND	X	X
2045	Blended and prepared flour	New	X	X
2046	Wet corn milling	ND	X	X
2047	Dog, cat, and other pet food	No*	X	X
2048	Other prepared animal feeds	ND	X	X
2051	Bread, cake, and related products	No	X	X
2052	Cookies and crackers	No	X	X
2061	Cane sugar except refining	ND	X	X
2062	Cane sugar refining	ND	X	X
2063	Beet sugar	ND	X	X
2065	Confectionery products	No	X	X
2066	Chocolate and cocoa products	No*	X	X
2067	Chewing gum	ND	X	X
2074	Cottonseed oil mills	ND	X	X
2075	Soybean oil mills	New	X	X
2076	Vegetable oil mills, nec	ND	X	X
2077	Animal and marine fats and oils	No	X	X
2079	Shortening and cooking oils	No*	X	X
2082	Malt beverages	No	X	X
2083	Malt	ND	X	X
2084	Wines and brandies	ND	X	X
2085	Distilled liquors	ND	X	X
2086	Bottled and canned soft drinks	High	X	X
2087	Flavoring extracts and syrups, nec	New	X	X

* See note at the end of the table.

SIC Code	Industry	CBP (% Growth)	D&B (N of Firms)	Survey Status
2091	Canned fish and seafoods	ND	X	X
2092	Fresh or frozen fish and seafoods	ND	X	X
2095	Roasted coffee	ND	X	X
2097	Ice	ND	X	X
2098	Macaroni and spaghetti	No	X	X
2099	Food preparations, nec	No	X	X
21	Tobacco manufacturers	ND	X	X
22	Textile mill products (exc. 2298)	ND	X	X
2298	Cordage and twine	New	X	X
2311	Men's and boys' suits, coats	No	X	X
2321	Men's and boys' shirts	ND	X	X
2322	Men's and boys' underwear	ND	X	X
2323	Men's and boys' neckwear	ND	X	X
2327	Men's and boys' separate trousers	No*	X	X
2328	Men's and boys' work clothing	New	X	X
2329	Men's and boys' clothing, nec	No*	X	X
2331-2389	Women's and girls' wear, furs, misc. apparel	ND	X	X
2391	Curtains and draperies	No	X	X
2392	House furnishings, nec	Low	X	X
2393	Textile bags	ND	X	X
2394	Canvas and related products	High	X	X
2395	Trade pleating and stitching	ND	X	X
2396	Other trimmings and findings	ND	X	X
2397	Schiffli machine embroideries	ND	X	X
2399	Fabricated textile products, nec	No*	X	X
2411	Logging camps logging contractors	No*	X	X
2421	Sawmills and planing mills	ND	X	X
2426	Hardwood dimension mills	ND	X	X
2429	Special product sawmills, nec	ND	X	X
2431	Millwork	No	X	X
2434	Wood kitchen cabinets	Low	X	X
2435	Hardwood veneer and plywood	ND	X	X
2436	Softwood veneer and plywood	ND	X	X
2439	Structural wood members, nec	ND	X	X
2441	Wood boxes	ND	X	X
2448	Wood pallets and skids	New	X	X
2449	Wood containers, nec	ND	X	X
2451	Mobile homes	ND	X	X
2452	Prefabricated wood buildings	ND	X	X

SIC Code	Industry	CBP (% Growth)	D&B (N of Firms)	Survey Status
2491	Wood preserving	ND	X	X
2492	Particle board	ND	X	X
2499	Wood products, nec	No*	X	X
2511	Wood household furniture, except 2512	High	X	X
2512	Wood household furniture, upholstered	ND	X	X
2514	Metal household furniture	ND	X	X
2515	Mattresses and bedsprings	ND	X	X
2517	Wood cabinets, nec	ND	X	X
2519	Household furniture, nec	ND	X	X
2521	Wood office furniture	ND	X	X
2522	Metal office furniture	No	X	X
2531	Public building furniture	ND	X	X
2541	Wood partitions and fixtures	High	X	X
2542	Metal partitions and fixtures	New	X	X
2591	Drapery hardware and window blinds	ND	X	X
2599	Furniture and fixtures, nec	New	X	X
2611-2631	Pulp, paper, paperboard mills	ND	X	X
2641	Paper coating	ND	X	X
2642	Envelopes	No	X	X
2643	Bags, except textile bags	High	X	X
2645	Die-cut paper and cardboard	ND	X	X
2646	Pressed and molded pulp goods	ND	X	X
2647	Sanitary paper products	ND	X	X
2648	Stationery, tablets, etc.	ND	X	X
2649	Converted paper products, nec	High	X	X
2651	Folding paperboard boxes	No	X	X
2652	Set-up paperboard boxes	ND	X	X
2653	Corrugated and solid fiber boxes	High	X	X
2654	Sanitary food containers	No	X	X
2655	Fiber cans, tubes, etc.	ND	X	X
2661	Building-paper and -board mills	ND	X	X
2711	Newspapers	ND	X	X
2721	Periodicals	New	X	X
2731	Book publishing	No	X	X
2732	Book printing	New	X	X
2741	Miscellaneous publishing	ND	X	X
2751	Commercial printing, letterpress	High	X	X
2752	Commercial printing, lithographic	Low	X	X
2753	Engraving and plate printing	New	X	X
2754	Commercial printing, gravure	High	X	X

SIC Code	Industry	CBP (% Growth)	D&B (N of Firms)	Survey Status
2761	Manifold business forms	High	X	X
2771	Greeting card publishing	ND	X	X
2782	Blankbooks and looseleaf binders	High	X	X
2789	Bookbinding and related work	No	X	X
2791	Typesetting	High	X	X
2793	Photoengraving	ND	X	X
2794	Electrotyping	ND	X	X
2795	Lithographic platemaking services	High	X	X
2812	Alkalies and chlorine	ND	1	X
2813	Industrial gases	High	4 + 1	In
2816	Inorganic pigments	(High)	2 + 1	In
2819	Industrial inorganic chemicals, nec	High	13 + 5	In
2821	Plastics materials and resins	No	10	X
2822	Synthetic rubber	ND	0	X
2823	Synthetic cellulose fibers	ND	0	X
2824	Other synthetic organic fibers	ND	0	X
2831	Biological products	No*	0	X
2833	Medicinal chemicals	ND	0	X
2834	Pharmaceutical preparations	High	5 + 1	In
2841	Soap and detergents except 2842	ND	4	X
2842	Polishes and sanitation goods	No	11	X
2843	Surface active agents, etc.	ND	0	X
2844	Toilet preparations	New	4 + 0	In
2851	Paints and allied products	Low	12	X
2861	Gum and wood chemicals	ND	1	X
2865	Cyclic crudes and organic dyes	ND	3	X
2869	Industrial organic chemicals, nec	No	10	X
2873	Nitrogen fertilizers	ND	1	X
2874	Phosphatic fertilizers	ND	0	X
2875	Mixing fertilizers	ND	1	X
2879	Pesticides and ag. chem., nec	ND	1	X
2891	Adhesives and sealants	No	4	X
2892	Explosives	New	0	X
2893	Printing ink	ND	1	X
2895	Carbon black	ND	0	X
2899	Chemical preparations, nec	No	20	X
2911	Petroleum refining	ND	5	X
2951	Paving mixtures and blocks	No*	4	X
2952	Asphalt felts and coating	ND	9	X
2992	Lubricating oils and greases	No	8	X
2999	Petroleum and coal products, nec	No	3	X

SIC Code	Industry	CBP (% Growth)	D&B (N of Firms)	Survey Status
3011	Tires and inner tubes	ND	1	X
3021	Rubber and plastics footwear	ND	0	X
3031	Reclaimed rubber	ND	0	X
3041	Rubber and plastic hose and belting	ND	1	X
3069	Fabricated rubber products, nec	New	8 + 0	In
3079	Miscellaneous plastics products	Low	48	X
31	Leather and leather products (exc. 3199)	ND	X	X
3199	Leather goods, nec	No*	X	X
3211	Flat glass	ND	5	X
3221	Glass containers	High	0	X
3229	Pressed and blown glass, nec	ND	4	X
3231	Products of purchased glass	High	18 + 1	In
3241	Cement, hydraulic	High	2 + 1	In
3251	Brick and structural clay tile	No	2	X
3253	Ceramic tile	ND	0	X
3255	Clay refractories	No	11	X
3259	Structural clay products, nec	ND	0	X
3261-64	China, porcelain, whiteware	ND	0	X
3269	Pottery products, nec	ND	6	X
3271	Concrete block and brick	High	3 + 0	In
3272	Concrete products, nec	Low	15	X
3273	Ready-mixed concrete	Low	15	X
3274	Lime	ND	3	X
3275	Gypsum products	ND	0	X
3281	Cut stone, stone products	ND	7	X
3291	Abrasive products	Low	7	X
3292	Asbestos products	ND	2	X
3293	Gaskets, sealing devices, etc.	ND	2	X
3295	Minerals, ground or treated	No	10	X
3296	Mineral wool	ND	1	X
3297	Nonclay refractories	No	11	X
3299	Nonmetallic mineral products, nec	New	5 + 0	In
3312	Blast furnaces and steel mills	No	35	X
3313	Electrometallurgical products	ND	6	X
3315	Steel wire and related products	No*	4	X
3316	Cold finishing of steel shapes	No	4	X
3317	Steel pipe and tubes	New	5 + 4	In
3321	Gray iron foundries	High	10 + 1	In
3322	Malleable iron foundries	No*	1	X
3324	Steel investment foundries	No*	0	X
3325	Steel foundries, nec	High	7 + 3	In

SIC Code	Industry	CBP (% Growth)	D&B (N of Firms)	Survey Status
3331-34	Primary copper, lead, zinc, alum. smelting	ND	0	X
3339	Primary nonferrous metal smelting, nec	ND	1	X
3341	Secondary nonferrous metals	New	5 + 1	In
3351	Copper rolling and drawing	High	3 + 1	In
3353	Aluminum sheet and foil	ND	2	X
3354	Aluminum extruded products	ND	0	X
3355	Aluminum rolling and drawing, nec	ND	0	X
3356	Nonferrous rolling and drawing, nec	ND	3	X
3357	Drawing, insulating nonferrous wire	ND	1	X
3361	Aluminum foundries	High	4 + 4	In
3362	Brass, bronze, and copper foundries	No	7	X
3369	Nonferrous foundries, nec	ND	3	X
3398	Metal heat treating	No	4	X
3399	Primary metal products, nec	High	10 + 0	In
3411	Metal cans	No*	0	X
3412	Metal barrels, drums, and pails	High	3 + 0	In
3421	Cutlery	ND	0	X
3423	Hand and edge tools, nec	High	10 + 2	In
3425	Hand saws and saw blades	No	2	X
3429	Hardware, nec	ND	6	X
3431	Enamelled metal plumbing	ND	1	X
3432	Plumbing fixture fittings	ND	1	X
3433	Heating equipment, except electric	No	3	X
3441	Fabricated structural metal	No	56	X
3442	Metal doors, sash, and trim	No*	13	X
3443	Fabricated plate work (boiler shops)	No	20	X
3444	Sheet metal work	Low	33	X
3446	Architectural metal work	No	27	X
3448	Pre-fab metal buildings and parts	ND	4	X
3449	Miscellaneous metal work	Low	3	X
3451	Screw machine products	Low	8	X
3452	Bolts, nuts, rivets, and washers	No	6	X
3462	Iron and steel forgings	No	10	X
3463	Nonferrous forgings	ND	0	X
3465	Automotive stampings	No	0	X
3466	Crowns and closures	ND	1	X
3469	Metal stampings, nec	New	8 + 5	In
3471	Plating and polishing	High	15 + 0	In
3479	Metal coating and allied services	No	15	X

SIC Code	Industry	CBP (% Growth)	D&B (N of Firms)	Survey Status
3482	Small arms ammunition	ND	1	X
3483	Other ammunition	ND	0	X
3484	Small arms	ND	0	X
3489	Other ordnance and accessories	ND	0	X
3493	Steel springs, except wire	No	8	X
3494	Valves and pipe fittings	Low	19	X
3495	Wire springs	No	4	X
3496	Misc. fabricated wire products	No	9	X
3497	Metal foil and leaf	ND	0	X
3498	Fabricated pipe and fittings	Low	11	X
3499	Fabricated metal products, nec	High	20 + 6	In
3511	Turbines and turbine generator sets	(High)	1 + 0	In
3519	Internal combustion engines, nec	ND	2	X
3523	Farm machinery and equipment	ND	0	X
3524	Garden tractors and equipment	ND	0	X
3531	Construction machinery	High	2 + 0	In
3532	Mining machinery	New	17 + 3	In
3533	Oil field machinery	No	1	X
3534	Elevators and moving stairways	No	2	X
3535	Conveyors	ND	4	X
3536	Hoists, cranes, and monorails	No*	4	X
3537	Industrial trucks, trailers, etc.	ND	4	X
3541	Machine tools, metal cutting types	No*	6	X
3542	Machine tools, metal forming types	No*	7	X
3544	Special dies, tools, jigs, fixtures	No	18	X
3545	Machine tool accessories	No	15	X
3546	Power driven hand tools	New	2 + 0	In
3547	Rolling mill machinery	No	14	X
3549	Metalworking machinery, nec	No	11	X
3551	Food products machinery	No	2	X
3552	Textile machinery	New	3 + 0	In
3553	Woodworking machinery	ND	1	X
3554	Paper industries machinery	ND	0	X
3555	Printing trades machinery	High	5 + 0	In
3559	Special industry machinery, nec	New	16 + 2	In
3561	Pumps and pumping equipment	No	7	X
3562	Ball and roller bearings	No	4	X
3563	Air and gas compressors	Low	2	X
3564	Blowers and fans	No	5	X
3565	Industrial patterns	No	13	X
3566	Speed changers, drives, and gears	Low	2	X
3567	Industrial furnaces and ovens	No	9	X
3568	Mech. power transmission equipment, nec	ND	1	X
3569	General industrial machinery, nec	No	17	X

SIC Code	Industry	CBP (% Growth)	D&B (N of Firms)	Survey Status
3572	Typewriters	ND	0	X
3573	Electronic computing equipment	High	15 + 1	In
3574	Other calculating machines	ND	0	X
3576	Scales and balances, except lab	ND	3	X
3579	Office machines, nec	ND	1	X
3581	Vending machines	ND	0	X
3582	Commercial laundry and cleaning machines	ND	0	X
3585	HVAC equipment	ND	7	X
3586	Measuring and dispensing pumps	ND	0	X
3589	Service industry machinery, nec	No	8	X
3592	Carburetors, pistons, rings, valves	ND	0	X
3599	Machinery, except electrical, nec	No	131	X
3612	Transformers	No*	4	X
3613	Switchgear and switchboard apparatus	No	8	X
3621	Motors and generators	No	6	X
3622	Industrial controls	High	17 + 1	In
3623	Welding apparatus, electric	No*	3	X
3624	Carbon and graphite products	ND	2	X
3629	Electrical industrial apparatus, nec	No	3	X
3631	Household cooking equipment	ND	1	X
3632	Household refrigerators and freezers	ND	0	X
3633	Household laundry equipment	ND	0	X
3634	Electric housewares and fans	ND	3	X
3635	Household vacuum cleaners	ND	1	X
3636	Sewing machines	ND	0	X
3639	Household appliances, nec	ND	2	X
3641	Electric lamps	ND	3	X
3643	Current-carrying wiring devices	No*	4	X
3644	Noncurrent-carrying wiring devices	No	4	X
3645	Residential lighting fixtures	ND	6	X
3646	Commercial lighting fixtures	ND	2	X
3647	Vehicular lighting equipment	ND	1	X
3648	Lighting equipment, nec	High	4 + 0	In
3651	Audio and TV receiving sets	ND	2	X
3652	Phonograph records and tapes	ND	5	X
3661	Telephone and telegraph apparatus	ND	5	X
3662	Radio and TV communication equipment	High	16 + 7	In
3671	Radio and TV tubes except 3672	ND	0	X
3672	Cathode-ray TV tubes	ND	0	X
3673	Transmitting/industrial electron tubes	ND	0	X

SIC Code	Industry	CBP (% Growth)	D&B (N of Firms)	Survey Status
3674	Semiconductors and related devices	No	8	X
3675	Electronic capacitors	ND	0	X
3676	Electronic resistors	ND	0	X
3677	Electronic coils, etc.	ND	0	X
3678	Connectors for electronics	ND	1	X
3679	Electronic components, nec	Low	10	X
3691	Storage batteries	ND	2	X
3692	Primary batteries	ND	1	X
3693	X-ray and electromedical apparatus	ND	1	X
3694	Engine electrical equipment	ND	1	X
3699	Electrical equipment supplies, nec	No	1	X
3711	Motor vehicles and automobile bodies	No	4	X
3713	Truck and bus bodies	High	3 + 0	In
3714	Motor vehicle parts and accessories	No	8	X
3715	Truck trailers	ND	0	X
3721	Aircraft	ND	0	X
3724	Aircraft engines and parts	ND	1	X
3728	Auxiliary aircraft equipment, nec	ND	2	X
3731	Ship building and repairing	No	2	X
3732	Boat building and repairing	ND	0	X
3743	Railroad equipment	No	7	X
3751	Motorcycles, bicycles, and parts	ND	0	X
3761	Guided missiles and space vehicles	ND	1	X
3764	Propulsion units and parts for 3761	ND	0	X
3769	Parts and aux. equipment for 3761, nec	ND	0	X
3792	Travel trailers and campers	ND	0	X
3795	Tanks and tank components	ND	0	X
3799	Transportation equipment, nec	ND	0	X
3811	Engineering scientific instruments	High	12 + 1	In
3822	Temperature control instruments	ND	4	X
3823	Process control instruments	No*	7	X
3824	Fluid meters and counting devices	New	3 + 0	In
3825	Instruments to measure electricity	High	6 + 1	In
3829	Measuring controlling devices, nec	New	5 + 3	In
3832	Optical instruments and lenses	No	6	X
3841	Surgical and medical instruments	Low	14	X
3842	Surgical appliances and supplies	No	18	X
3843	Dental equipment and supplies	ND	3	X
3851	Ophthalmic goods	No*	13	X
3861	Photographic equipment and supplies	High	3 + 0	In
3873	Watches, clocks, and parts	ND	0	X

SIC Code	Industry	CBP (% Growth)	D&B (N of Firms)	Survey Status
3911	Jewelry, precious metal	No*	X	X
3914	Silverware, etc.	ND	X	X
3915	Jewelers' findings and materials	ND	X	X
3931	Musical instruments	ND	X	X
3942	Dolls	ND	X	X
3944	Games, toys, and children's vehicles	ND	6	X
3949	Sporting and athletic goods, nec	No	X	X
3951	Pens and mechanical pencils	ND	X	X
3952	Lead pencils, crayons, art supplies	ND	X	X
3953	Marking devices	High	X	X
3955	Carbon paper and inked ribbons	High	X	X
3961-64	Costume novelties and misc. notions	ND	X	X
3991	Brooms and brushes	No	X	X
3993	Signs and advertising displays	No	X	X
3995	Burial caskets	ND	X	X
3996	Linoleum and other floor coverings	ND	X	X
3999	Manufacturing industries, nec	No*	X	X

*EXPLANATORY NOTE:

CBP (County Business Patterns) data show, for each industry, how the employment growth rate in Allegheny County compared to the U.S. growth rate:

HIGH - The Allegheny County rate exceeded the U.S. growth rate by 5% or more.

(HIGH) - The Allegheny County growth rate was zero or negative, but the U.S. rate was at least 5% lower.

LOW - Allegheny County employment grew, but the growth rate did not exceed the U.S. growth rate by 5%.

NEW - Employment in Allegheny County was less than 50 (zero in most cases) in 1975, and more than 50 in 1980.

NO - Employment in Allegheny County was static or falling, while employment in the U.S. was growing or at least not falling as quickly.

NO* - Employment in Allegheny County fell to less than 50.

ND - No data shown for 1975 or 1980 (employment less than 50 in both cases).

D&B (Dun & Bradstreet) data show the number of establishments listed for Allegheny County for each industry. For industries included in the survey the first number shows the number of firms in the industry by virtue of their primary SIC codes; the second number shows those included by virtue of their secondary SIC codes.

X - These industries are not included in the D&B data base.

Survey Status shows whether the industry was included (In) or excluded (X) from the survey. To be included, an industry had to be classified as HIGH, (HIGH), or NEW by the County Business Patterns data, and the Dun & Bradstreet records had to show at least one firm for the sector.

Other abbreviations: exc: except nec - not elsewhere classified

Data Sources:

1. U.S. Bureau of the Census. County Business Patterns 1980: Pennsylvania. (CBP-80-40) Table 2.

2. U.S. Bureau of the Census. County Business Patterns 1975: Pennsylvania. (CBP-75-40) Table 2.

3. Dun's Marketing Services (subsidiary of Dun & Bradstreet). Duns Market Indicators (DMI) magnetic tape for selected industries in Allegheny County. June 1983.

Form ID _____

Date _____

CITY/COUNTY ECONOMIC GROWTH STUDY
QUESTIONNAIRE

CONFIDENTIAL

Interviewer _____ Phone _____ ID# _____

Industry _____ SIC Code _____

Company name _____

Plant location _____

Respondent's name _____

Respondent's title _____ Phone _____

Pens, questionnaires, hard binder, road map (if needed), copy of D&B record

INTRODUCTION: We're doing this survey to find out what has encouraged high-growth industries in Allegheny County. The first questions I have focus on this facility; later I'll focus on your industry as a whole.

By the way, if any of the questions touch on information you consider proprietary, just let me know, and we'll skip the question.

Study ID _____

Form ID _____

Interviewer ID _____

1. SIC Code _____

2. Zip Code _____

I. INTRODUCTORY QUESTIONS

3. What are the main products/services produced here? (Please be specific)

4. What kinds of business activities are carried out here?

_____(1)	Product R&D	4a. _____
_____(2)	Production/Assembling/Shipping	4b. _____
_____(3)	Sales	4c. _____
_____(4)	Servicing/Repair	4d. _____
_____(5)	Consulting	4e. _____
_____(6)	Head office functions	4f. _____
_____(7)	Other (please specify)	4g. _____

5. Have these products and activities changed in the last five years? _____(1) Yes _____(0) No 5. _____
(If yes) How?

6. Do you foresee them changing in the next five years? 6. _____
_____(1) Yes _____(0) No
(If yes) How?

Form ID_____

7. Is this place of business a: 7a. _____

_____(1) Single-site operation 7b. _____

_____(2) Headquarters for a multi-branch operation
(2a) If so: Location of other branch(es):

_____(3) Branch office
(3a) If so: Location of headquarters:

_____(4) Subsidiary
(4a) If so: Parent company and location of its headquarters

8. (FOR MULTIPLANT COMPANIES ONLY)

How are the specific operations done here related to operations at other company plants? (e.g., a particular product line shipped over the division's entire domestic market area, a feeder plant to an assembly plant, etc.)

8a._____

8b._____

II. LOCATION QUESTIONS

I'd like to ask some questions about the reasons why your operations are located here, and the advantages and disadvantages of staying here. I'll focus first on how this location fits into the general market network that this facility is part of; then on the transport network; then on local factor costs; then on state and local government policies; and finally on the community environment and amenities. I'm especially interested in learning about local conditions that encourage your growth, and conditions that hinder it.

9. What year were these operations begun in Allegheny County?_____ 9._____

10. Why was this facility originally located here? 10a._____

10b._____

10c._____

Form ID_____

A. MARKET NETWORK

11. What are the main industries and types of customers you sell to?

11a._____
11b._____
11c._____

12. Which industries are your main suppliers?

12a._____
12b._____
12c._____

13. Is this location a convenient distance from your suppliers and customers?

13a._____

Suppliers: _____(1) Convenient _____(0) Inconvenient

13b._____

Customers: _____(1) Convenient _____(0) Inconvenient

14. Is it too far, too near, or about the right distance from your competitors? Why?

14a._____

_____(1) Too near _____(2) Too far _____(3) About right

14b._____
14c._____

15. Are there any local firms with common or complementary needs whose presence is advantageous to you? How?

15a._____
15b._____
15c._____

16. Do you foresee any changes in the type or location of your main customers or suppliers?

16a._____
16b._____

Customers:

16c._____
16d._____

Suppliers:

Form ID_____

B. TRANSPORT NETWORK

17. Is this site conveniently accessible to the major transport services you rely on?

	Convenient	Inconvenient	Not Relied on	
Highway	1	0	7	17a._____
Airport	1	0	7	17b._____
Railroad	1	0	7	17c._____
River	1	0	7	17d._____
Public transit	1	0	7	17e._____
Comments:				17f._____
				17g._____

18. Do you think that will change in the next five years? If so, how? 18a._____ 18b._____

_____(0) Will not _____(1) Will. How:

C. FACTOR COSTS

Now I'd like to ask you a bit about local factor costs.

19. Are land costs a significant advantage or disadvantage to doing business here? 19._____

20. How about energy costs? 20._____

21. Is start-up or expansion capital readily obtainable here? 21._____

Form ID_____

22. Do labor relations affect the desirability of this location? How?

22._____

23. Are wages significantly higher or lower than at competing locations? Is labor productivity correspondingly higher or lower?

23a._____

23b._____

24. Do you foresee labor productivity changing in the next few years? How and why?

24._____

C. STATE AND LOCAL GOVERNMENT POLICIES

Next I'd like to ask a few questions about state and local government policies.

25. Are there any state or local government programs that make this a more desirable place for you to do business? Which and why?

25a._____

25b._____

25c._____

25d._____

26. Are there any that are detrimental or that impede your growth? Which and why?

26a._____

26b._____

26c._____

26d._____

Form ID_____

27. Are local government services adequate here? (police, sanitation, etc.)

27a._____

27b._____

28. Are state and local taxes higher here than at your competitors' locations?

28._____

_____(1) Yes _____(0) No _____(9) Don't know

29. Are they high enough to hinder your firm's competitiveness? If so, why is Allegheny County nevertheless a high-growth area for this industry?

29a._____

29b._____

29c._____

---

30. Do state or local environmental and safety regulations pose any significant advantages or constraints for you? Which and how?

30a._____

30b._____

30c._____

30d._____

31. Have you benefited from any state or local investment incentive programs in the past few years? Which and how? Were they crucial to the investment decision?

31a._____

31b._____

31c._____

31d._____

32. Can you suggest any specific state or local policies that would encourage the expansion of this facility, or your continued profitability here?

32a._____

32b._____

Form ID_____

D. COMMUNITY ENVIRONMENT AND AMENITIES

Now I'd like to ask some questions about the local community environment and amenities.

33. How would you describe the local attitude toward business here? 33a._____ 33b._____

34. Are local academic institutions important to your business (universities, tech schools)? Why? Are they adequate for your needs? If not, how could they be improved? 34a._____ 34b._____

_____(0) Unimportant _____(1) Important. Why: 34c._____ 34d._____

_____(1) Adequate _____(0) Inadequate. Improvements:

35. Do the local neighborhoods, schools, and housing costs give you an advantage in recruiting personnel, or are they detrimental? 35a._____ 35b._____

Neighborhoods: 35c._____

Schools:

Housing costs:

36. How about local recreational and cultural amenities? 36a._____ 36b._____

37. Have you had any difficulties recruiting staff to the Pittsburgh area? What kind of personnel and why? 37a._____ 37b._____

Form ID_____

III. INDUSTRY TRENDS

The previous questions have focused on this facility. Now I'd like to ask about your industry as a whole.

38. What local factors allowed growth in your sector to occur faster in Allegheny County than in the nation as a whole?

38a._____
38b._____
38c._____

39. Was it due primarily to long-term economic trends or fluctuations, such as inflation, recession, the shift to a services/information economy, expansion or contraction of overall market, and shift to the sunbelt states, etc.?

39a._____
39b._____
39c._____

40. If so, why were these trends beneficial to your sector when the general impacts have been negative to the area (population decline, dislocation, unemployment)?

40a._____
40b._____

41. In the past few years have there been any significant changes in the locational patterns of your sector (e.g., centralization, dispersion) on a national or regional scale?

41a._____
41b._____

Form ID_____

42. Has there been any change in the structure of economic ownership in this sector (e.g., concentration, establishment of new firms)?

42a._____

42b._____

43. Have there been any major management decisions within one or two key firms that affect the sector as a whole, such as a major new facility being started?

43a._____

43b._____

44. Have there been any changes in the structure of key supply or demand sectors?

44a._____

44b._____

44c._____

45. Have there been any changes in the composition of factor costs (energy, raw materials, labor, transport, inventory, plant overhead, land, marketing, taxes)?

45a._____

45b._____

45c._____

46. Have any critical innovations in production or distribution technology occurred during this time?

46a._____

46b._____

Form ID_____

47. How are firms in your sector responding to the recent advances in electronics, computers, and communications? Has your firm adopted any innovations?

47a._____
47b._____
47c._____
47d._____

48. Did your firm's performance differ from the overall trend in your industry? If so, how and why? (EXAMPLE: different efficiency; different trends in non-competitive fractions of the sector, etc.)

48a._____
48b._____

IV. LOCATION PLANS

To close, I'd like to ask a few questions about your location plans.

49. In the next few years, do you foresee closing, moving, expanding here, or opening a new branch? (IF NONE, SKIP 60 AND 61.)

49a._____
49b._____

_____(1) Closing
_____(2) Moving
_____(3) Expanding here
_____(4) Opening a new branch

50. Why? How soon?

50a._____
50b._____

51. (If moving or opening a new branch) Where do you think you will choose your new site? Why? Will the move be dictated by shifting markets or cost considerations?

51a._____
51b._____

THANK YOU VERY MUCH.

CITY/COUNTY ECONOMIC GROWTH STUDY

Confidential

EMPLOYMENT TRENDS, PRODUCTION TRENDS, AND MARKET AREA

A. EMPLOYMENT TRENDS

1. How have the size and composition of your full-time labor force changed since 1979, and how do you expect them to change by 1985? If possible, please give the total, and how it breaks down according to skill level.

1979 (av.)	1983 (av.)	1985 (est.)	
_____	_____	_____	Total
_____	_____	_____	Professional
_____	_____	_____	Managerial/Administrative
_____	_____	_____	Technical/Skilled Production/Maintenance
_____	_____	_____	Sales
_____	_____	_____	Clerical
_____	_____	_____	Unskilled/General
_____	_____	_____	Other (specify)

2. (For firms with multiple sites) Does the employment data above refer to:

   ☐ This site only ☐ All sites in Allegheny County ☐ Sites in and out of Allegheny County.
   (If possible, please restrict the data to cover this site only.)

3. Is there any pattern to the trend (seasonal, long-term cyclical, erratic, steady)

4. Please list the types of skills that are critical to your local operations at the following levels:

   Professional:

   Managerial/Administrative:

   Technical/Skilled production/Maintenance:

   Sales:

   Clerical:

(PLEASE TURN OVER)

B. PRODUCTION TRENDS

5. How have the following changed since 1979, and how do you expect them to change by 1985? (If possible, please give figures)

	1979	1983	1985
Value of sales ($)	_____	_____	_____
Production capacity	_____	_____	_____
% of capacity used	_____	_____	_____

6. Pattern of trend (seasonal, long-term cyclical, erratic, steady)

C. MARKET AREA

7. What percent of your sales are made

_____Within the Pittsburgh SMSA (four-county area)

_____Elsewhere in the U.S. and Canada

_____In other countries

8. What percent of your supplies are purchased

_____Within the Pittsburgh SMSA

_____Elsewhere in the U.S. and Canada

_____In other countries

9. (If more than 40% of your sales or purchases are made elsewhere in the U.S. and Canada) Are they made within a definable region or regions, or are they spread nationwide? If they are regionally concentrated, please specify the region(s).

Sales:

Supplies:

D. TAX RATE

10. What percent of your operating costs go to state and local taxes? _____%

APPENDIX C

Note on State and Local Tax Capacity and Tax Effort

This report utilized two independent studies of relative business taxation among the states for 1975:

1. Bluestone and Harrison (**The Deindustrialization of America,** Basic Books, 1982, p. 186), based partly on work by Roger Vaughn for the Council of State Planning Agencies, estimate "state and local effective business tax rates." They define this rate as follows:

$$\frac{\text{(corporate income tax revenue + business property taxes)}}{\text{(value of manufacturing shipments + total retail sales + total wholesale sales + total selected service industry receipts)}}$$

   Thus, their measure excludes unemployment insurance and workers' compensation. For 1975, this effective business tax rate nationally averaged 1.69% over all the states; in Pennsylvania, it was 1.66%.

2. D. Kent Halstead (**Tax Wealth in Fifty States,** USGPO, 1978), writing for the U.S. Department of Health, Education and Welfare, utilized a measure of "tax effort" of the various states. Very briefly, this measure starts from the state's "tax capacity"; that state's taxable wealth in a given category of taxation. Tax effort then measures the portion of tax capacity actually realized as tax revenue in the relevant category. Halstead's tax effort indices give each state's tax effort--total or in a particular tax category--as a proportion of the national average, which is fixed at 100.

For 1975, Pennsylvania's index of tax effort for all state and local taxes was 96--just below the national average. For corporate net income taxes, Pennsylvania's index stood at 151; the state index for commercial and industrial property tax effort was 71. But the income tax revenues represented only 40% of the two combined. So a weighted average of these two major business taxes for 1975 yields a state business tax effort index of 103. This finding of close-to-average appears to confirm Bluestone and Harrison's result for that year.

1979 figures continuing the above series are contained in **Tax Capacity of the 50 States,** by Robert Locke, for the U.S. Advisory Commission on Intergovernmental Relations (USGPO, 1982). In 1979, Pennsylvania's tax effort index over all state and local taxes had risen slightly to 105. But tax effort for corporate net income taxes had fallen to 128. Total property tax effort had risen somewhat, but this edition contains no breakout of commercial and industrial property taxes. Thus, it

is impossible to compute an average state business tax effort index as above. These figures, nonetheless, provide no indication that Pennsylvania's relative business tax standing worsened from its 1975 position.

Only preliminary summary figures from this series are available for 1980. For all state and local taxes in that year, Pennsylvania's tax effort index remained at 105. Again, an about-average business tax performance is at least suggested.