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Assessing the Importance of Small Business in the Greater Cleveland Area

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FINAL REPORT

**Assessing the Importance of Small Business
in the Greater Cleveland Area**

Submitted to

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Greater Cleveland Growth Association
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Importance of Small Business in the Greater Cleveland Area

W.E. Upjohn Institute for Employment Research

Executive Summary

In their ongoing effort to assist business growth in the greater Cleveland area, the research department of the Greater Cleveland Growth Association requested that the W.E. Upjohn Institute assess the importance of small business to the greater Cleveland area. The purpose of this report is twofold. First, it provides a descriptive analysis of the relative employment growth of the Cleveland MSA's small business sector, compared to nine similar MSAs.¹ Second, the study offers a general profile of the area's self-employed. This analysis relies on two large databases. The first being a special tabulation of establishment-level employment statistics for the 1989-1992 period generated by the U.S. Census Bureau. The second is the Public Use Microdata Sample (PUMS) also generated by the U.S. Census Bureau, which provides individual records for 5 percent of the metropolitan areas' residents, who answered the 1990 "long form" census questionnaire.

The major findings of the report are:

- Establishments employing fewer than 20 workers generated all net jobs in the Cleveland MSA from 1989 to 1992. On average, small establishments generated all net jobs in the nine comparison MSAs, as well. However, it is important to note that much of this relative growth in small business employment was due to the economic downturn witnessed from 1989 to 1992. Overall, small businesses tend to account for a greater share of the limited job gains during recessions, while contributing to a smaller share of an area's employment declines.
- From 1989 to 1992, total employment growth in the Cleveland MSA was below average relative to the comparison areas, due to the subpar performance of its firms employing fewer than 20 workers.

¹The Cleveland MSA includes the counties of Astabula, Cuyahoga, Geauga, Lake, Lorain and Medina. The comparison MSAs are Buffalo, Charlotte, Chicago, Cincinnati, Detroit, Milwaukee, Minneapolis, Pittsburgh, and St. Louis and were selected by the Greater Cleveland Growth Association.

- During this three-year period, employment in establishments employing 20 or fewer workers in the Cleveland MSA increased by 38.6 percent, ranking the MSA seventh among the comparison MSAs. The average percentage growth of the comparison metropolitan areas, excluding the Cleveland MSA, was 44.2 percent. Employment growth in Cleveland's small establishments was below average due solely to its limited number of new jobs gained through start-ups or firms moving into the area.
- An industry component analysis further revealed that the relatively poor performance of the Cleveland's small business sector in generating jobs through start-ups from 1989 to 1992 was concentrated in its nondurable goods producing; finance, insurance, and real estate (FIRE), and services sectors.
- In the Cleveland MSA, self-employed workers are older than wage and salary workers; are less likely to be working in a base industries, such as, manufacturing; are slightly better educated; and are found to earn less money. Males accounted for 67.7 percent of the area's self-employed individuals, compared to only 47.6 percent of its wage and salary workers in 1990. Only 4.6 percent of the area's self-employed were African-American in 1990 compared to 10.9 percent of the area's wage and salary workers.
- In general, the profile of self-employed individuals in the Cleveland MSA are very similar to those residing in the comparison group of MSAs.
- As of 1990, only 2.4 percent of African-American workers were self-employed while 5.9 percent of all white workers were self-employed. In 1990, 30.1 percent of self-employed African Americans did not have a high-school degree compared to 12.7 percent of self-employed whites. Moreover, only 18.5 percent of self-employed African Americans held a four-year degree or higher, compared to 31.0 percent for self-employed whites.
- The Cleveland and Akron MSAs share similar economic growth trends and profiles of self-employed residents, which is not surprising given their close proximity to one another. Employment trends of establishments employing fewer than 100 workers were very similar in the two MSAs. The profile characteristics of self-employed individuals in the two MSAs are very similar, as well. However, self-employed individuals residing in the larger Cleveland MSA were slightly better educated and earned 16.8 percent greater income than their counterparts living in the Akron MSA in 1990.
- An analysis of employment growth trends of larger employers revealed no clear trends between Cleveland MSA and the nine metropolitan areas. Although, the Cleveland MSA's wholesale and finance, insurance and real estate sectors proved to be robust employment generators, for establishments employing between 100 and 499 workers and those employing more than 500 workers.

Introduction

The research department of the Greater Cleveland Growth Association contracted the W.E. Upjohn Institute to conduct this comparison analysis of Cleveland's small business sector and to generate a profile of the area's self-employed persons. This study compares the Cleveland metropolitan area with the following nine metropolitan areas as a place for small businesses to grow:

Buffalo, NY	Charlotte, NC
Chicago, IL	Cincinnati, OH
Detroit, MI	Milwaukee, WI
Minneapolis, MN	Pittsburgh, PA
St. Louis, MO	

The analysis draws upon a special tabulation of employment statistics by the U.S. Census that allows the separate examination of the four components of employment growth: start-ups, expansions, closures and contractions in each of the above metropolitan areas.

In addition, this analysis compares the general profile of self-employed persons in the Cleveland MSA to the average for the comparison metropolitan areas using the 1990 Census Public Use Microdata Sample (PUMS).

In Appendix A, we present a brief comparison analysis of the Cleveland MSA with the neighboring, smaller Akron MSA. Finally, in Appendix B, we offer employment growth component analysis for the Cleveland MSA's larger firms that employ between 20 to 99 workers, 100 to 499 workers and 500 and more workers.

National Trends

The role of small business in job creation has been the focus of years of intense study by economists. Although disagreements still exist in several areas, a general consensus has been reached on the following:

- **Small businesses offer a counter cyclical stabilizing force to local economies.** Overall, small businesses tend to account for a greater share of the limited job gains during recessions, while contributing to a smaller share of an area's employment declines. However, the reverse is true in periods of expansion. This will become apparent in the data shown in this report that cover the peak-to-trough years of 1989 to 1992.

- **Metropolitan employment growth depends primarily upon the start-up of new firms and the expansion of existing businesses.** The failure and contraction rates for all sizes of establishments are fairly constant across metropolitan areas.
- **Most small businesses start small and stay small.** Employment growth is not uniform across all establishments, but instead is concentrated among a very small percentage of highly successful establishments. Moreover, it is impossible to identify these establishments beforehand.
- **Small businesses make up only a small part of an area's economic base.** Primarily, a local economy grows through the expansion of revenues that its base industries make to customers located outside its immediate area. An area's base industries can include, for example, manufacturing activities, tourism, speciality medical services and large financial/investment services. Small businesses, for the most large, are a part of the area's non-base sectors which service the needs of local consumers, businesses and residents. Overall growth in these sectors does not expand the local economy, unless it halts the outflow of purchases of goods and services to suppliers located outside the region.
- **Entrepreneurs do not move to a new area to start their business.** Most entrepreneurs depend upon the business contacts and market knowledge they have acquired in their local area for, at least, the initial period of their operations.
- **Small businesses pay lower wages, offer fewer benefits, and are less stable than larger firms; however, more small business employees feel that their jobs are more creative and interesting than in medium and large establishments and report significantly higher levels of job satisfaction.**

In addition, research has produced a profile of the typical self-employed individual. Research suggests that the typical new business owner is between 25 to 45 years old, has substantial industry experience, but is starting a business for the first time. The fact that the likelihood of becoming an entrepreneur grows with age breaks from the traditional job-shopping model where younger workers are deemed more likely to take employment risks than older workers. Two factors may contribute to this trend. First, some individuals may start a new business as a second career after retiring "early" from their first. Second, some of the older entrepreneurs started their businesses in the late 1950s when self-employment opportunities were more plentiful. Other general characteristics of male entrepreneurs (research on women entrepreneurs is not available) include:

- **The probability of an entrepreneur returning to wage or salary employment decreases with duration.** Approximately 10 percent leave self-employment during the first year and 50 percent during the first 7 years.

- **All things equal, men with greater assets are more likely to become self-employed than men with less financial resources, suggesting the existence of a possible financial constraint.**
- **At the same time, low-wage workers, unemployed workers and workers who have changed jobs frequently, are more likely to be self-employed.**

Comparison Growth Analysis of the Greater Cleveland Area

Establishment Analysis

Establishments of firms employing fewer than 20 workers generated all the jobs in the Cleveland MSA from 1989 to 1992, as shown in Chart 1. Small establishments generated 62,910 jobs, representing an increase of 6.8 percent of the MSAs total employment level. Employment declines in the area's larger establishments caused the total employment to increase in the MSA during the three-year period by only 9,441 workers or 1.0 percent. The average for the nine comparison areas, also shown in Chart 1, show similar trends.

These findings are not too surprising given the time period under study. Nationwide, the economy was moving from a business peak to a mild recessionary trough from 1989 to 1992. Nevertheless, the Cleveland MSA's overall below-average employment growth relative to the comparison areas during this time period can be fully accounted by the subpar performance of its firms employing fewer than 20 workers.

The relative performance of the Cleveland MSA's small businesses is presented in Chart 2, which shows employment growth during the 1989-to-1992 period as a percent of the 1989 employment base. During this three-year period, employment in small establishments in the Cleveland MSAs increased by 38.6 percent, ranking it seventh among the comparison MSAs. The average percent growth of the comparison MSAs, excluding the Cleveland MSA was 44.2 percent.

Charts 3 through 6 show the results of a component analysis of the areas' employment growth that separates the three-year period's employment growth into four components: employment gains due to start-ups or move, employment gains due to the expanding firms, employment losses due to closures or moves, and employment declines due to contractions. **In short, employment growth in small establishments in the Cleveland MSA was below the average of the comparison areas due solely to its limited employment gains through small business start-ups.** Employment growth in the MSAs small business establishments due to the expansion of existing firms, 30.0 percent, was very close to the average for the nine

comparison MSAs, 30.6 percent (Chart 3). In addition, small business establishments in the Cleveland MSA lost a smaller-than-average percent of their jobs due to closures (Chart 5). The percentage of jobs lost due to the contraction of existing small firms in the area, 14.1 percent (Chart 6), matched the average for all nine comparison metropolitan areas. However, the percentage increase in employment in the Cleveland MSA due to the start-up of new small businesses, 39.3 percent (Chart 3), was below the average 46.3 percent for the nine comparison areas.

A further comparative industry analysis of the four components of employment growth in small firms reveals that Cleveland's small establishments in non-durable goods; finance, insurance, real estate; and services performed below par during the three-year period due to weak employment growth through start-ups, as shown in Tables 1 through 6. For example, as shown in Table 6, small service firms which employed 37.2 percent of the Cleveland MSA's total employment in small firms, increased their employment by 40.5 percent due to start-ups, ranking it last among all of the comparison MSAs. The Cleveland MSA also ranked last in terms of employment growth due to the start-up of small finance, insurance and real estate (FIRE) firms and second to last among the comparison MSAs in terms of the employment growth due to start-ups in small non-durable good producing companies.

While the above component analysis indicates that the relatively poor performance of the Cleveland's small business sector can be traced, in part, to the below-average employment growth in start-up among its non-durable goods producing, FIRE, and services firms, it is not capable of identifying the reasons for the area's relatively weak performance. The list of possible reasons could include:

- an industrial structure in these sectors that is dominated by larger firms creating an inhospitable climate for small business start-ups.
- the lack of financial assistance suitable to meet the needs of small businesses in these sectors, and /or
- the limited pool of would-be entrepreneurs in these sectors to draw from.

Without further research it is virtually impossible to eliminate any of these possible explanations. Moreover, the following profile of self-employed individuals in the Cleveland MSA's provides little light as to the possible problem because it is very similar to that found in the other comparison MSAs.

Economic Profile of the Self-employed

In Table 7, we contrast the profile of self-employed individuals to wage and salary workers in the Cleveland MSA. PUMS offers individual records for a five percent sample of residents who answered the "long form" of the 1990 Census. In this analysis we separated

individuals who are self-employed from wage and salary workers. This analysis is based upon a sample of 27,668 self-employed persons and 533,360 wage and salary workers.

Many of the national trends and characteristics, listed above, hold true for the Cleveland MSA. Self-employed workers are older than wage and salary workers, are less likely to be working in base industries such as manufacturing, are better educated, but, on average, earn less money. 67.7 percent of the area's self-employed are males, compared to only 47.6 percent of the wage and salary workers. Only 4.6 percent of the area's self-employed are African-American compared to 10.9 percent of the area's wage and salary workers.

In Table 8, we present a summary profile of self-employed individuals in the Cleveland MSA and for the average of the nine comparison MSAs. In general, the demographics of the Cleveland MSA are very similar to that of the average for the nine metropolitan areas. In the Cleveland MSA, self-employed persons accounted for a smaller fraction of all workers, were slightly more likely to be male and African American, but were nearly the same age as those in the comparison group.

Self-employed individuals in the Cleveland MSA achieved higher education levels, on average than their counterparts in the comparison group. On average 30.8 percent of the Cleveland MSAs self-employed hold a bachelor degree or higher, compared to 29.7 percent of the self-employed, on average, in the comparison group. The percentage of the Cleveland MSA self-employed in professional occupations in professional services is slightly higher than in the comparison group. Still, self-employed individuals earned 1.6 percent lower income than the average for the nine comparison MSAs.

Profile of Self-employed African Americans

In Table 9, we contrast the profile of the average self-employed African American to the average for a self-employed white. First, a lower percentage of African-American workers entered self-employment, 2.4 percent, than white workers, 5.9 percent. In 1990, African-American, self-employed workers were slightly more likely to be women and to be slightly older than white self-employed workers. A higher percentage of self-employed African Americans did not have a high-school degree, 30.1 percent, than self-employed whites, 12.7 percent in 1990. Moreover, only 18.5 percent of self-employed African Americans held a four-year degree or higher, compared to 31.0 percent for self-employed whites.

In 1990, self-employed African Americans were more likely to be in personal or professional service industries than self-employed whites; however, only 4.8 percent of self-employed African Americans were in FIRE, compared to 9.2 percent of self-employed whites. Table 9 also presents an occupational breakdown of self-employed African Americans and

whites. Self-employed African Americans were less likely to hold executive, administrative, managerial or professional speciality occupations than self-employed whites.

Finally, African Americans earned less through self-employment activities than self-employed whites, \$15,712 to \$21,972, respectively.

Conclusions

This report commissioned by the Greater Cleveland Growth Association's research department offers a descriptive analysis of job growth in small establishments in the Cleveland MSA relative to a comparison group of similar MSAs, and it presents a general profile of the area's self-employed workers. Establishments employing fewer than 20 workers generated all net jobs in the Cleveland MSA, as well as in the nine comparison MSAs from 1989 to 1992.

However, it is important to note that much of this relative growth in small business employment was due to the economic downturn witnessed from 1989 to 1992. Overall, small businesses tend to account for a greater share of the limited job gains during recessions, while contributing to a smaller share of an area's employment declines. Nevertheless, since most small establishments are not among Cleveland's base industries, their growth does not insure the growth of the entire economy.

From 1989 to 1992, total employment growth in the Cleveland MSA was below-average relative to the comparison areas, due to the subpar performance of its firms employing fewer than 20 workers. Employment in these smaller establishments in the Cleveland MSA grew by 38.6 percent, ranking the MSA seventh among the comparison areas. Employment growth in Cleveland's small establishments was below average due to the limited number of new jobs gained through start-ups or firms moving into the area. An industry component analysis further revealed that employment growth among small businesses due to start-ups in its non-durable goods producing, finance, insurance, and real estate (FIRE), and services sectors was below average during the period.

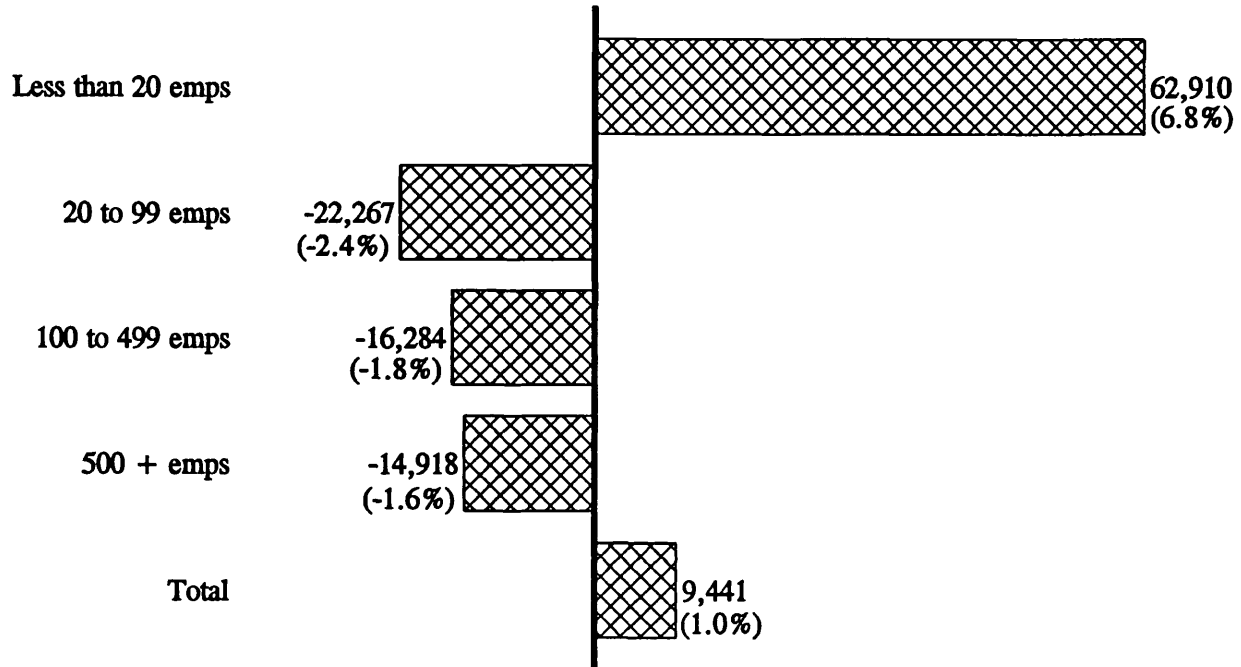
In the Cleveland MSA as well as the nation, self-employed workers are older than wage and salary workers; are less likely to be working base industries, such as manufacturing; are slightly better educated; but earn less money. In addition, the profile of self-employed individuals in the Cleveland MSA are very similar to those residing in the comparison group of MSAs.

In 1990, fewer African American workers were self-employed than white workers. Moreover, self-employed African Americans have less schooling and earn less than self-employed whites.

The relatively poor ranking of small business employment growth in the Cleveland MSA relative to the comparison metropolitan areas is worrisome. However, the ability to identify the reasons for the area's below-average performance falls outside the limits of this

report. Additional research including conducting focus groups of area small businesses and a follow-up survey of small businesses in the metropolitan area may be the most direct and effective means of identifying the problems limiting the growth of small business.

Chart 1
Employment Growth by Establishment Size
Cleveland MSA
 (% of 1989 Total Base)



Average of Comparison Group

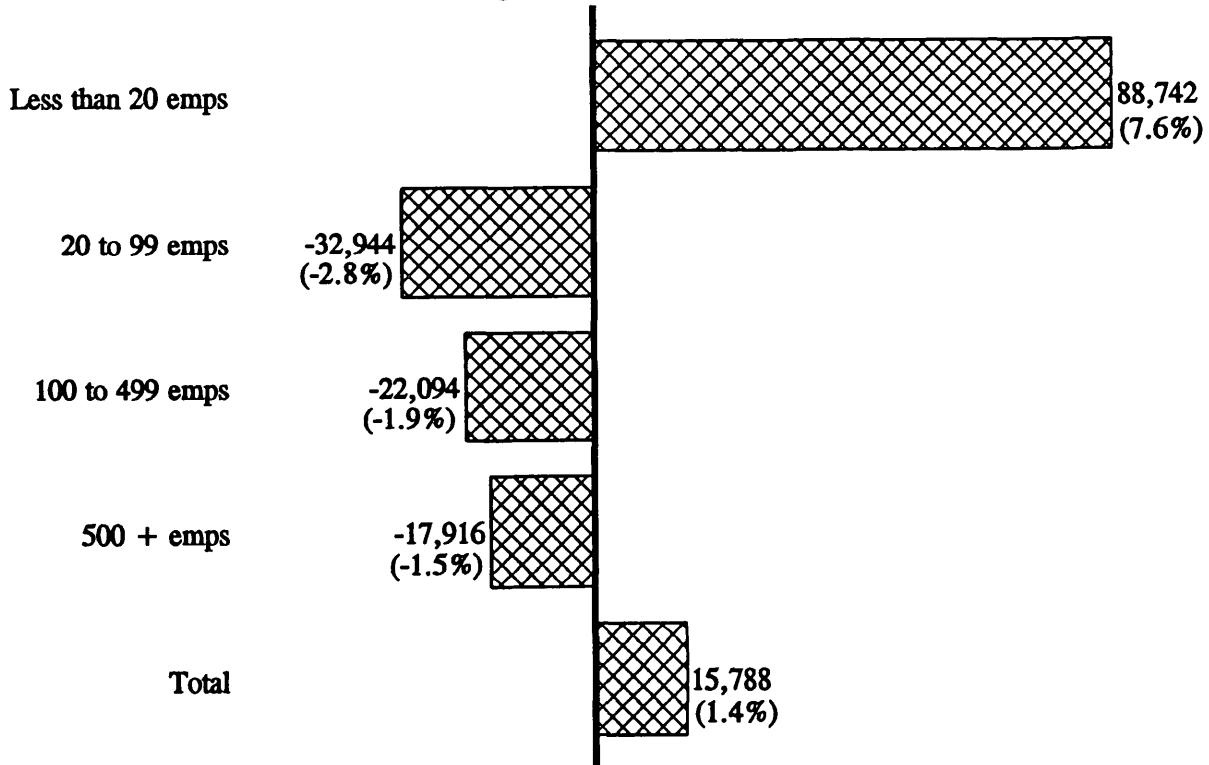


Chart 2
Total Employment Change All Industries
Small Establishments (Fewer than 20 workers)
(Percent of 1989 Base)

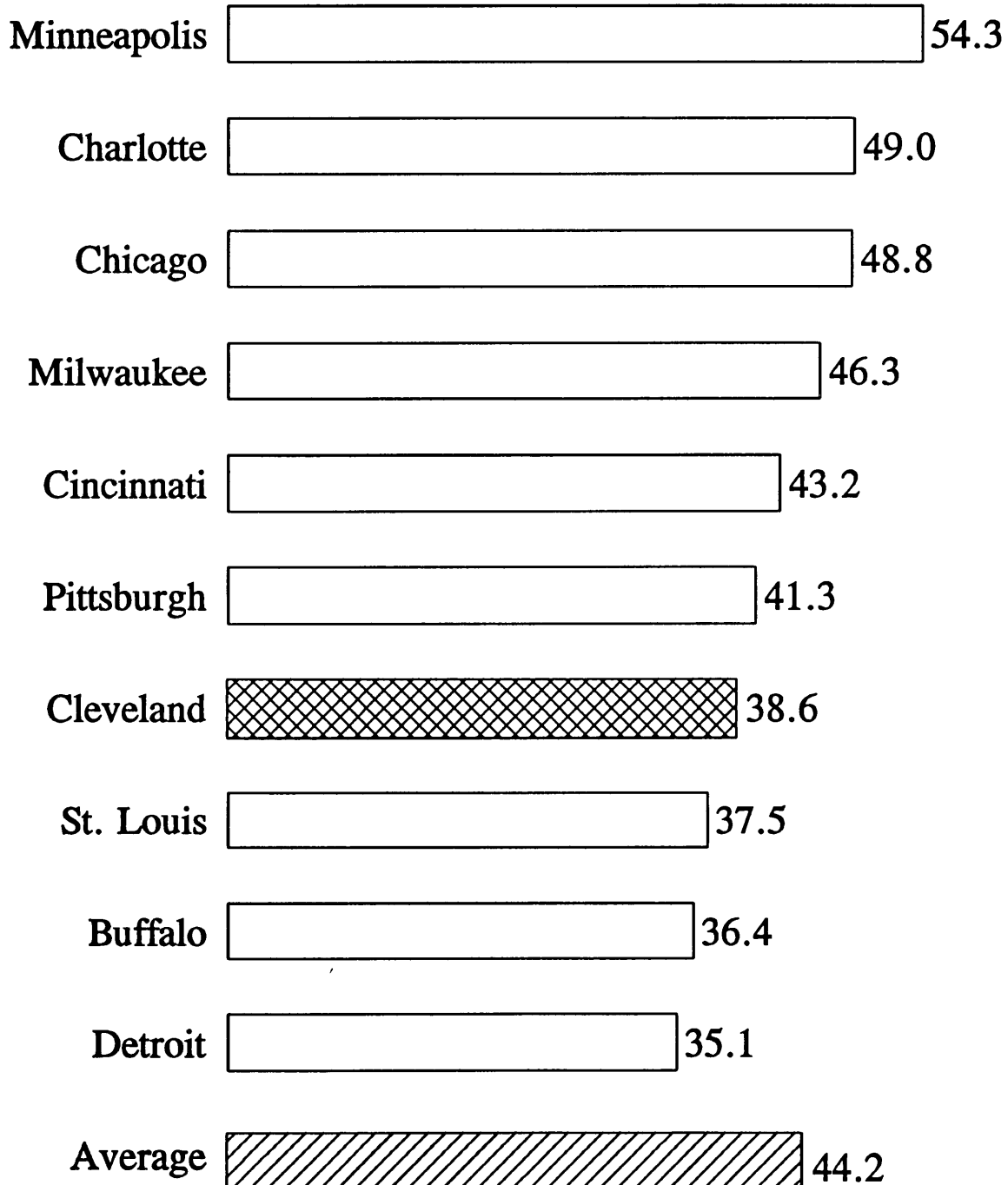


Chart 3
Component Analysis
Small Establishments (Fewer than 20 workers)
Employment Growth Due to Expansions

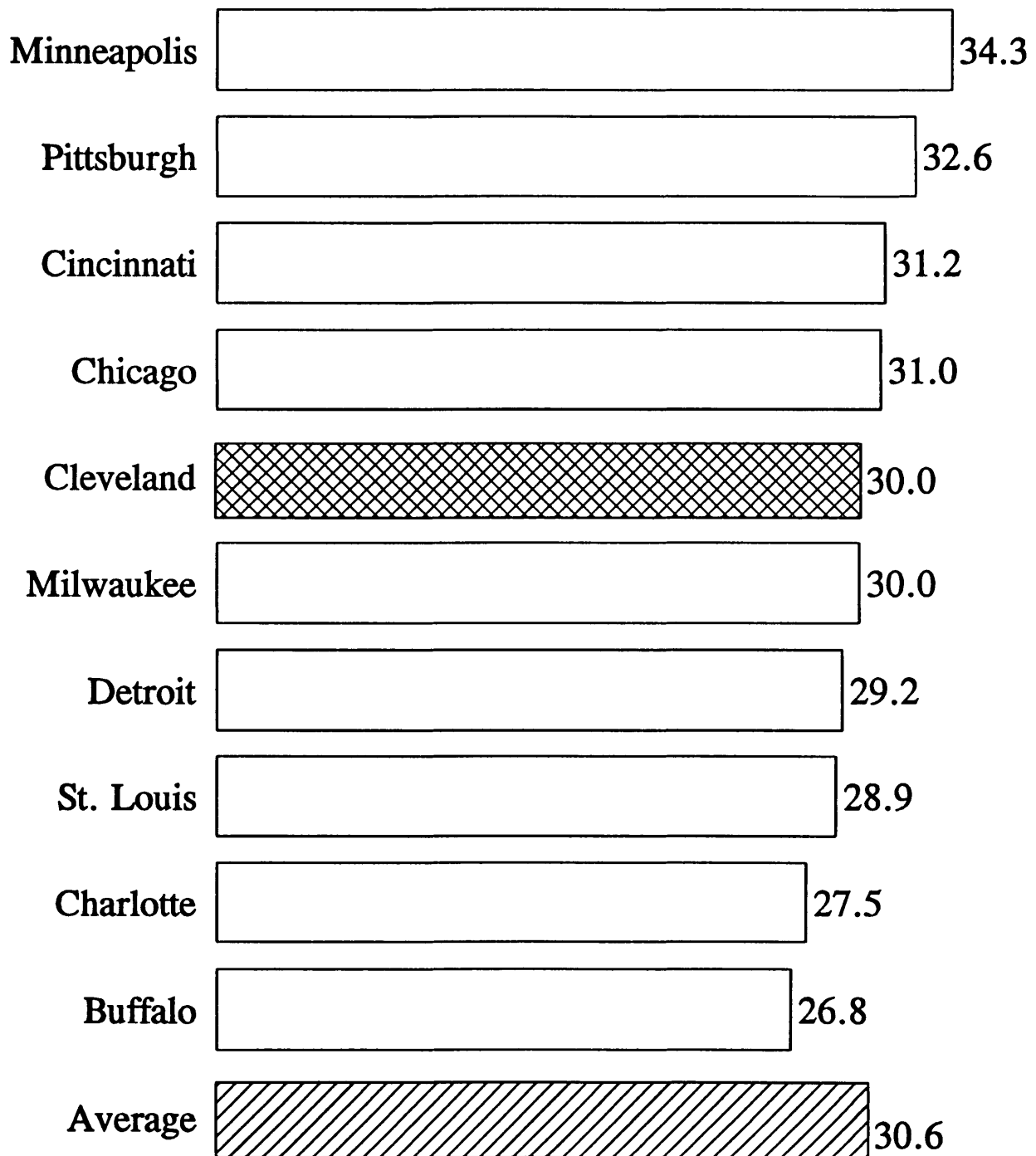


Chart 4
Component Analysis
Small Establishments (Fewer than 20 workers)
Employment Growth Due to Start-Ups

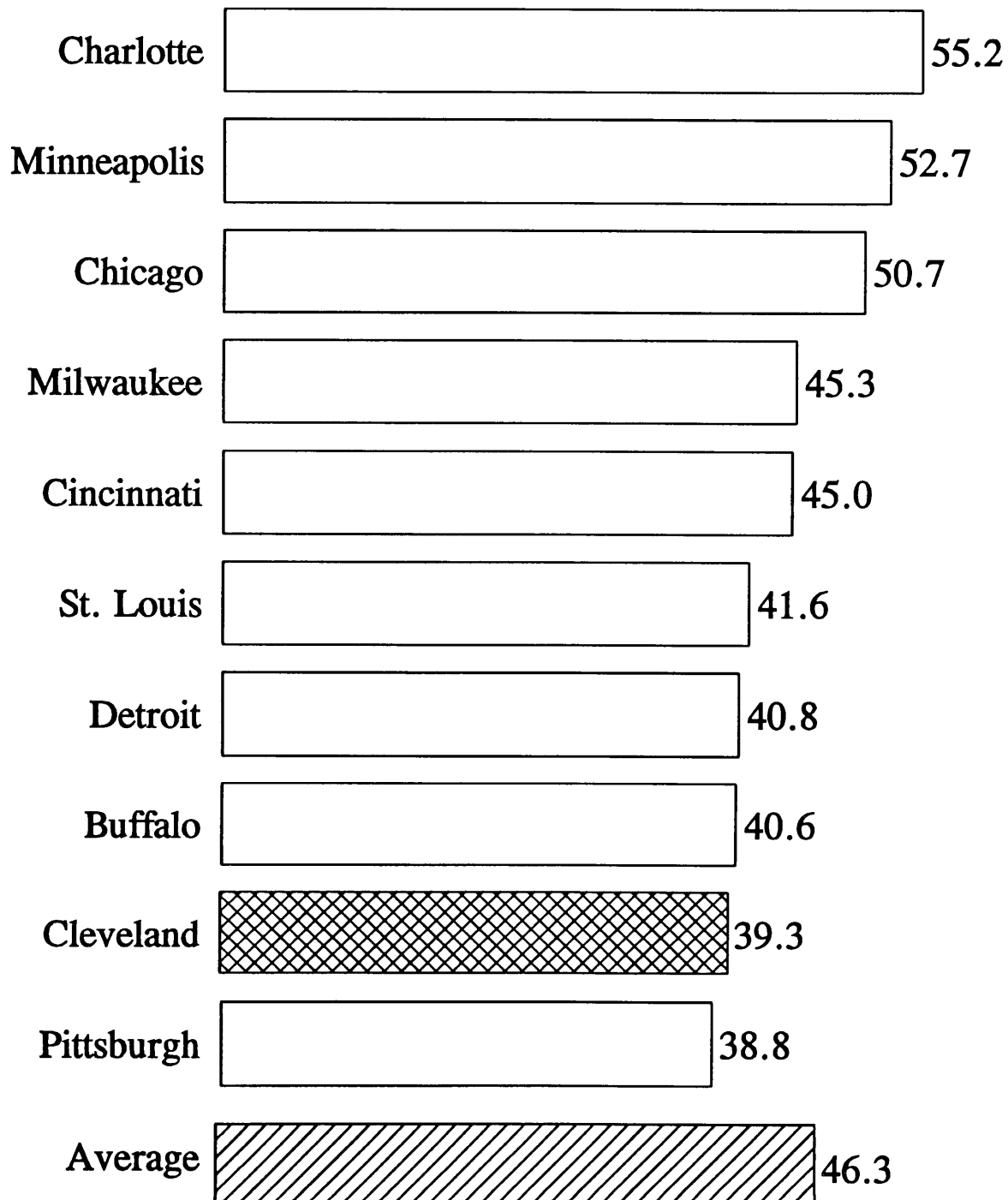


Chart 5
Component Analysis
Small Establishments (Fewer than 20 workers)
Employment Growth Due to Closures

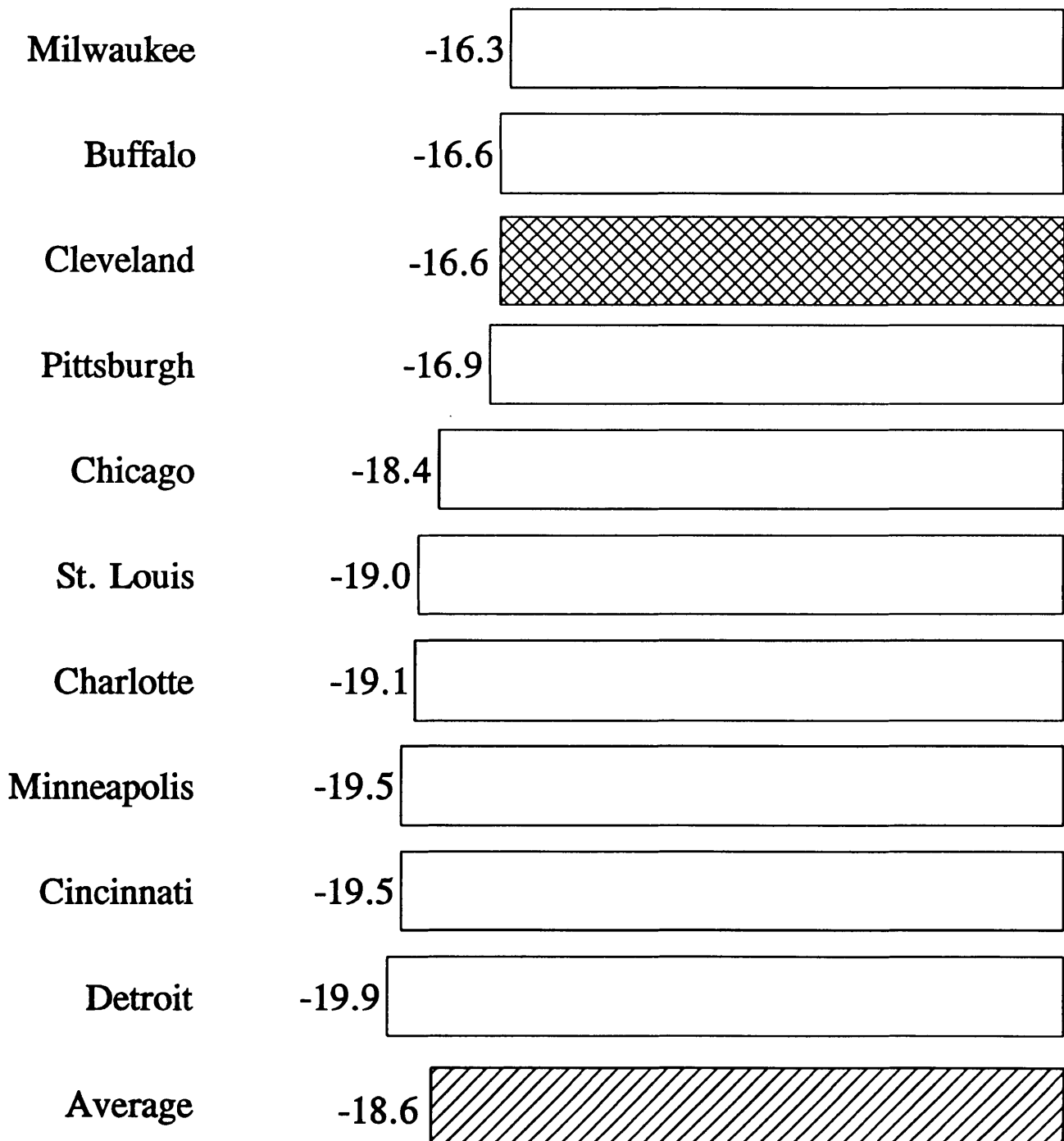


Chart 6
Component Analysis
Small Establishments (Fewer than 20 workers)
Employment Growth Due to Contractions

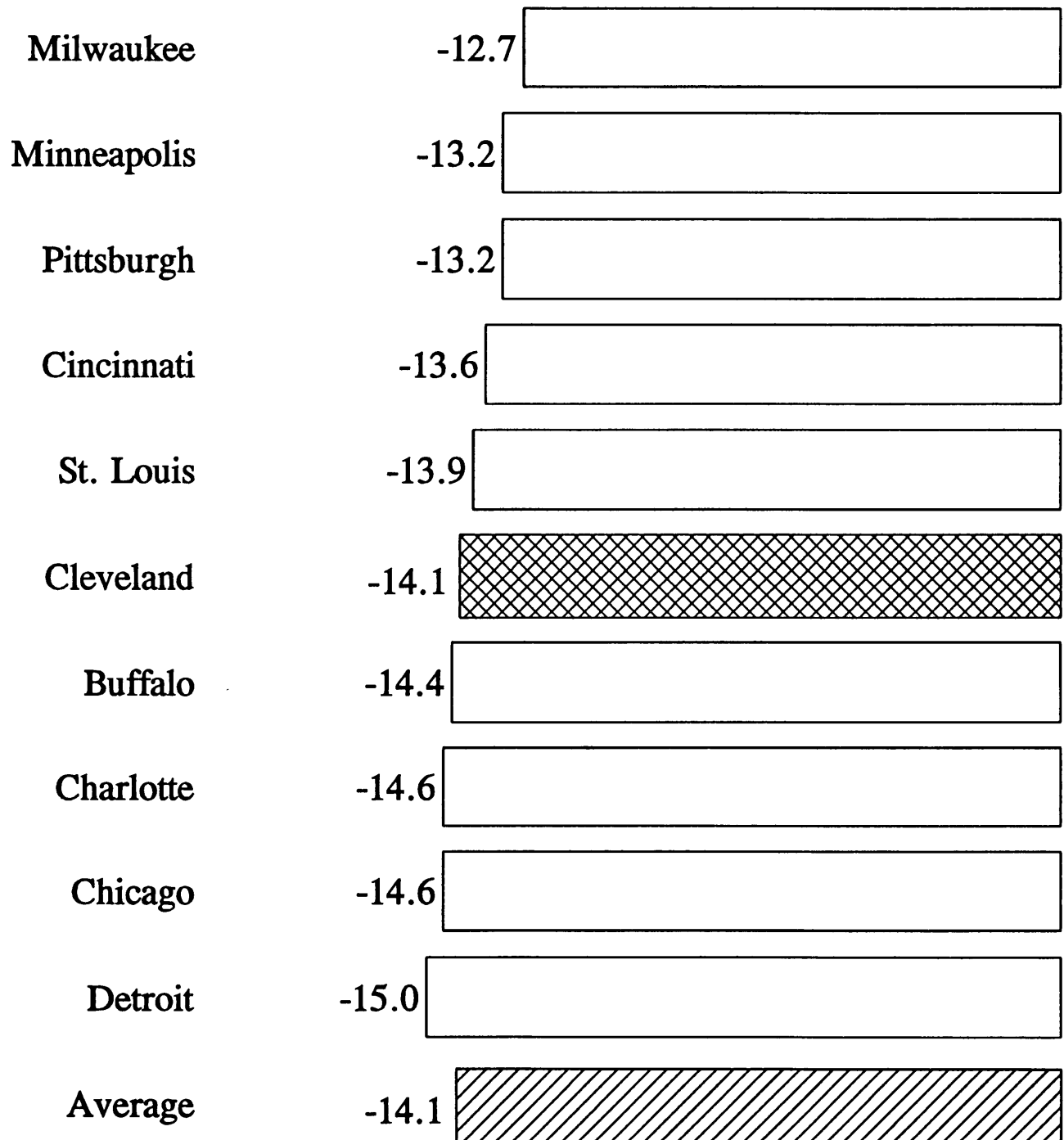


TABLE 1
Component of Growth
Durable Goods Manufacturing
Small Establishments (Fewer than 20 workers)
(Percent of 1989 Base)

	Durable Goods Employment	Percent Of Total	Start-Ups	Closures	Expansions	Contractions	Net
Milwaukee	7,832	6.9	N.A.	N.A.	23.6	-13.3	83.7
Minneapolis	10,523	5.3	53.7	-15.7	34.9	-12.2	60.7
Pittsburgh	7,200	4.2	32.3	-15.9	38.6	-12.6	42.4
Cincinnati	4,823	4.4	36.8	-16.4	34.0	-12.2	42.2
St. Louis	6,629	3.6	35.3	-13.7	31.7	-14.1	39.2
Cleveland	12,573	7.7	34.3	-13.0	26.6	-15.2	32.7
Chicago	30,769	5.6	34.5	-13.2	25.4	-14.6	32.1
Charlotte	4,418	4.7	35.7	-17.0	25.9	-13.9	30.7
Buffalo	3,718	4.4	29.6	-14.0	20.2	-15.6	20.2
Detroit	24,284	8.0	30.9	-15.5	21.5	-17.4	19.5
AVERAGE		5.5	35.6	-14.7	27.2	-14.8	33.3

TABLE 2
Component of Growth
Non-Durable Goods Manufacturing
Small Establishments (Employing fewer than 20 workers)
(Percent of 1989 Base)

	Non-Durable Goods Employment	Percent Of Total	Start-Ups	Closures	Expansions	Contractions	Net
Cincinnati	3,332	3.0	96.0	-17.6	25.4	-13.4	90.4
Charlotte	3,395	3.6	74.6	-20.5	35.3	-11.5	77.9
Minneapolis	6,113	3.1	60.4	-16.7	32.9	-12.5	64.1
St. Louis	5,321	2.9	49.8	-15.3	29.4	-12.5	51.4
Pittsburgh	3,425	2.0	48.6	-11.9	24.4	-12.9	48.2
Detroit	7,119	2.4	49.7	-20.1	28.5	-13.1	45.0
Buffalo	2,369	2.8	N.A	N.A	22.7	-14.5	42.1
Chicago	18,962	3.4	N.A	N.A	28.5	-12.6	40.3
Milwaukee	3,732	3.3	23.5	-14.5	29.4	-11.5	26.9
Cleveland	5,137	3.2	27.3	-15.6	23.8	-13.4	22.1
AVERAGE		3.0	56	-16.9	29.5	-12.5	56.1

TABLE 3
Component of Growth
Wholesale
Establishment employing fewer than 20 workers
(Percent of 1989 Base)

	Wholesale Employment	Percent Of Total	Start-Ups	Closures	Expansions	Contractions	Net
Charlotte	10,812	11.4	38.2	-13.9	28.0	-14.2	38.1
Minneapolis	19,099	9.7	30.2	-16.1	32.1	-11.3	34.9
Chicago	54,337	9.8	33.5	-15.0	28.4	-13.0	33.9
Cleveland	15,461	9.5	28.5	-13.0	26.8	-12.6	29.7
St. Louis	16,964	9.1	29.1	-15.0	23.8	-12.1	25.8
Cincinnati	8,854	8.1	25.0	-15.7	28.9	-12.8	25.4
Milwaukee	10,709	9.4	24.5	-14.2	25.1	-11.1	24.3
Detroit	25,790	8.5	24.4	-15.9	24.5	-13.6	19.4
Pittsburgh	14,340	8.4	17.9	-16.2	29.3	-11.8	19.2
Buffalo	7,203	8.6	20.9	-14.7	21.4	-13.2	14.4
AVERAGE		9.3	28.7	-15.3	27.3	-12.6	28.1

TABLE 4
 Component of Growth
 Retail
 Small Establishments (Employing fewer than 20 workers)
 (Percent of 1989 Base)

	Retail Employment	Percent of Total	Start-Ups	Closures	Expansions	Contractions	Net
Minneapolis	40,941	20.8	57.5	-25.0	29.7	-12.6	49.6
Cincinnati	23,974	21.9	54.5	-25.1	26.1	-13.9	41.6
Cleveland	35,710	21.9	49.8	-21.5	26.0	-14.5	39.8
St. Louis	40,743	21.9	49.2	-24.5	27.9	-13.5	39.1
Chicago	120,713	21.9	48.7	-23.7	26.0	-14.6	36.4
Buffalo	21,901	26.2	45.4	-20.7	24.6	-13.8	35.5
Pittsburgh	41,011	24.1	42.4	-20.4	25.6	-13.6	34.0
Charlotte	19,415	20.5	50.4	-23.4	22.2	-15.3	33.9
Milwaukee	24,318	21.4	41.0	-21.7	27.1	-12.6	33.8
Detroit	68,607	22.7	44.5	-23.6	27.0	-14.4	33.5
AVERAGE		22.2	48.1	-23.4	26.5	-14	37.2

TABLE 5
Component of Growth
Finance, Insurance, Real Estate
Small Establishments (Employing fewer than 20 workers)
(Percent of 1989 Base)

	F.I.R.E. Employment	Percent of Total	Start-Ups	Closures	Expansions	Contractions	Net
Chicago	40,004	7.2	80.1	-18.7	30.6	-13.9	78.1
Milwaukee	6,749	5.9	68.9	-17.2	35.3	-12.0	75.0
Charlotte	4,875	5.2	77.8	-21.1	26.3	-13.7	69.3
Pittsburgh	10,328	6.1	54.3	-12.3	39.4	-13.6	67.8
Minneapolis	14,301	7.3	64.3	-21.6	37.3	-14.3	65.7
Cincinnati	6,822	6.2	52.2	-16.4	36.6	-13.3	59.1
St. Louis	11,950	6.4	52.5	-18.5	27.4	-13.8	47.6
Buffalo	4,942	5.9	45.9	-12.4	25.5	-13.4	45.6
Detroit	16,521	5.5	50.3	-17.4	26.1	-14.3	44.7
Cleveland	9,679	5.9	37.6	-15.6	30.9	-12.8	40.1
AVERAGE		6.4	65	-17.9	31.4	-13.8	64.7

TABLE 6
Component of Growth
Services
Establishment employing fewer than 20 workers
(Percent of 1989 Base)

	Services Employment	Percent Of Total	Start-Ups	Closures	Expansions	Contractions	Net
Charlotte	33,166	35.1	74.2	-15.1	31.7	-12.8	78.0
Minneapolis	75,787	38.4	61.0	-16.9	37.4	-12.5	69.0
Chicago	202,070	36.6	61.6	-15.7	34.3	-13.6	66.6
Milwaukee	42,984	37.9	49.4	-13.9	31.7	-12.3	54.9
Cincinnati	41,065	37.5	47.8	-15.8	34.0	-12.5	53.5
Pittsburgh	65,035	38.3	41.7	-14.0	33.9	-11.5	50.1
Buffalo	29,895	35.8	45.9	-13.2	29.2	-12.4	49.5
Detroit	114,942	38.1	44.3	-17.1	32.6	-13.6	46.2
Cleveland	60,595	37.2	40.5	-14.4	32.5	-12.5	46.1
St. Louis	71,756	38.7	41.9	-15.7	29.8	-12.9	43.1
AVERAGE		37.4	52.9	-15.7	33.3	-13	57.5

TABLE 7
 Characteristics of Self-Employed vs. Wage and Salary Workers
 Cleveland Area

	<u>Self-Employed</u>	<u>Wage & Salary</u>
Demographics:		
Women	32.3	47.6
African American	4.6	10.9
Age	45.1	38.2
Education:		
Without High School Diploma	13.5	14.6
High School Diploma	30.0	33.4
Bachelor Degree	15.1	14.8
Graduate Degree	15.7	7.3
Industry:		
Manufacturing	6.4	24.7
Retail	15.0	16.5
Finance, Insurance & Real Estate	8.9	5.9
Business Services	10.1	3.9
Personal Services	5.7	2.2
Professional Services	24.6	24.6
Occupations:		
Executive, Administration Mgr.	14.3	12.0
Professional Specialty	19.0	13.8
Technician	1.1	4.2
Sales	19.7	11.2
Administration, Support, Clerical	4.5	18.1
Other Services	11.8	12.5
Precision Crafts	17.6	10.9
Machine Operators	2.1	8.6
Transp, Material Moving	5.2	8.0
Income	\$21,850	\$23,223

TABLE 8
Characteristics of Self-Employed Individuals
Cleveland and Comparison MSAs

Metropolitan Statistical Areas:	<u>Cleveland</u>	<u>Comparison MSAs</u>
Demographics:		
Percent of total employment, self-employed	5.5	6.0
Women	32.3	33.1
African Americans	4.6	3.9
Age	45.1	44.0
Education:		
Without High School Diploma	13.5	14.7
High School Diploma	30.0	29.3
Bachelor Degree	15.1	16.8
Graduate Degree	15.7	12.9
Industry:		
Manufacturing	6.4	5.5
Retail	15.0	14.2
Finance, Insurance & Real Estate	8.9	8.3
Business Services	10.1	11.1
Personal Services	5.7	6.9
Professional Services	24.6	22.2
Occupation		
Executive, Administration Mgr.	14.6	12.9
Professional Specialty	19.0	17.1
Technician	1.1	1.1
Sales	19.7	19.0
Administration, Support, Clerical	4.5	3.5
Other Services	11.8	14.1
Precision Crafts	17.6	17.7
Machine Operators	2.1	2.3
Transp, Material Moving	5.2	4.4
Income	\$21,850	\$22,196

TABLE 9
Comparison Analysis of Self-Employed Individuals
by Race in the Cleveland MSA

	<u>Blacks</u>	<u>Whites</u>
Demographics:		
Percent of total employment, self-employed	2.4	5.9
Women	39.7	31.9
Age	46.4	45.0
Education:		
Without High School Diploma	30.1	12.7
High School Diploma	22.6	30.5
Bachelor Degree	9.6	15.4
Graduate Degree	8.9	15.6
Industry:		
Manufacturing	3.5	6.6
Retail	16.4	14.8
Finance, Insurance & Real Estate	4.8	9.2
Business Services	9.6	10.2
Personal Services	11.6	5.3
Professional Services	28.8	24.1
Occupation		
Executive, Administration Mgr.	13.0	14.4
Professional Specialty	13.7	19.0
Technician	2.1	1.0
Sales	15.1	20.1
Administration, Support, Clerical	4.0	4.1
Other Services	25.3	11.1
Precision Crafts	13.7	18.0
Machine Operators	3.4	1.9
Transp, Material Moving	8.9	5.1
Income	\$15,712	\$21,972

APPENDIX A

Comparison of the Cleveland and Akron MSAs

The Cleveland and Akron MSAs share similar economic growth trends and profiles of self-employed residents, which is not too surprising given their close proximity to one another. As shown in Chart A1, for small establishments employing fewer than 20 workers the percentage change in the four components of growth, as well as, the net change in employment are very similar in the two MSAs. Small business start-ups performed slightly better in the larger Cleveland MSA; however, expanding existing establishments in the smaller Akron MSA created a slightly higher percentage of new jobs.

For business establishments employing 20 to 99 workers, employment change in the two MSA were also very similar. However, among the areas' larger employers there was more of a variation between the two areas during the 1989-to-1992 period. Among establishments employing 100 to 499 workers, the Akron MSA witnessed stronger overall employment growth due to a higher percentage increase in openings and slightly lower percentage of failures. For establishments employing 500 or more workers, the establishments in the Cleveland MSA outperformed their counterparts in the smaller neighboring MSA due to existing establishments creating a higher percentage of new jobs and, at the same time, letting go a small percentage of their workforce.

In Table A2, the profile characteristics of self-employed individuals in the two MSAs are shown. The profiles are very similar in 1990. However, self-employed residents of the larger Cleveland MSA achieved slightly higher education levels and earned 16.8 percent greater income than their counterparts living in the Akron MSA.

CHART A1
 Cleveland - Akron Comparison Analysis
 Growth Components by Establishment Size
 (Percent of 1989 Base)

	<u>Start-ups</u>	<u>Closures</u>	<u>Expansions</u>	<u>Contractions</u>	<u>Net</u>
<u>Firms employing less than 20 workers</u>					
Akron	36.2	-17.1	32.6	-13.0	38.7
Cleveland	39.3	-16.6	30.0	-14.1	38.6
<u>Firms employing 20-99 workers</u>					
Akron	1.1	-12.6	12.5	-14.8	-13.8
Cleveland	1.5	-12.7	13.4	-15.1	-12.9
<u>Firms employing 100-499 workers</u>					
Akron	7.4	-11.0	13.2	-16.5	-6.9
Cleveland	4.7	-13.6	13.7	-16.2	-11.4
<u>Firms employing 500 or more workers</u>					
Akron	8.7	-7.8	9.8	-19.4	-8.7
Cleveland	7.6	-8.8	12.1	-14.2	-3.3

TABLE A2
 Characteristics of Self-Employed
 Cleveland and Akron MSAs

	<u>Cleveland</u>	<u>Akron</u>
Demographics:		
Women	32.3	35.8
African American	4.6	3.1
Age	45.1	43.2
Education:		
Without High School Diploma	13.5	11.9
High School Diploma	30.0	32.7
Bachelor Degree	15.1	14.4
Graduate Degree	15.7	11.5
Industry:		
Manufacturing	6.4	6.6
Retail	15.0	16.0
Finance, Insurance & Real Estate	8.9	7.1
Business Services	10.1	11.7
Personal Services	5.7	7.1
Professional Services	24.6	21.6
Occupations:		
Executive, Administration Mgr.	14.3	13.2
Professional Specialty	19.0	16.0
Technician	1.1	1.0
Sales	19.7	20.1
Administration, Support, Clerical	4.5	4.0
Other Services	11.8	13.8
Precision Crafts	17.6	20.5
Machine Operators	2.1	2.5
Transp, Material Moving	5.2	5.5
Income	\$21,850	\$18,705

CHART B1
All Industries
Establishments Employing 20 - 99 Workers
(Percent of 1989 Base)

	<u>Start-ups</u>	<u>Closures</u>	<u>Expansions</u>	<u>Contractions</u>	<u>Net</u>
Milwaukee	0.9	-11.8	14.4	-13.8	-10.2
Pittsburgh	1.4	-13.0	16.2	-15.7	-11.0
Cleveland	1.5	-12.7	13.4	-15.1	-12.9
St. Louis	1.4	-13.7	14.9	-16.2	-13.6
Minneapolis	1.1	-14.7	14.9	-15.0	-13.7
Cincinnati	1.4	-13.4	13.8	-15.7	-13.9
Buffalo	1.3	-13.3	12.4	-15.7	-15.3
Chicago	0.9	-13.7	13.1	-16.3	-16.0
Charlotte	2.2	-15.9	12.0	-17.3	-19.1
Detroit	1.2	-15.1	12.4	-17.9	-19.4
AVERAGE	1.2	-13.9	13.7	-16.2	-15.2

CHART B2
 Component of Growth
Durable Goods Manufacturing
 Establishments Employing 20 - 99 Workers
 (Percent of 1989 Base)

	Percent of 1989 Total Employment	Start-ups	Closures	Expansions	Contractions	Net
Minneapolis	11.2	0.4	-9.0	14.8	-12.7	-6.5
Buffalo	9.5	0.0	N/A	11.8	-15.8	-10.1
Cleveland	17.3	0.5	-7.7	11.5	-14.6	-10.3
Cincinnati	9.4	0.0	N/A	12.5	-12.3	-10.3
Pittsburgh	9.5	N/A	-6.3	11.8	-16.8	-10.4
St. Louis	8.2	0.1	N/A	10.3	-15.9	-12.5
Chicago	13.1	0.1	-8.8	10.4	-15.1	-13.4
Milwaukee	14.7	N/A	N/A	9.5	-15.1	-14.0
Detroit	17.1	0.7	-11.2	11.8	-17.1	-15.8
Charlotte	9.7	N/A	N/A	10.1	-15.3	-15.9
AVERAGE	12.3	0.2	-6.9	11.4	-15.4	-12.8

CHART B3
 Component of Growth
 Non-Durable Goods Manufacturing
 Establishments Employing 20 - 99 Workers
 (Percent of 1989 Base)

	Percent of 1989 Total Employment	Start-ups	Closures	Expansions	Contractions	Net
Milwaukee	8.0	N/A	-8.1	15.9	-9.9	-1.9
St. Louis	5.9	0.7	-8.9	17.3	-11.3	-2.3
Minneapolis	6.2	0.3	-11.3	18.3	-10.1	-2.7
Cincinnati	6.7	N/A	N/A	19.7	-13.6	-3.7
Pittsburgh	4.8	N/A	-9.3	14.0	-10.1	-4.9
Cleveland	6.3	N/A	-8.6	14.2	-12.5	-6.8
Chicago	7.8	N/A	N/A	12.2	-12.3	-10.9
Detroit	5.0	N/A	-13.4	16.1	-16.5	-13.4
Buffalo	5.8	N/A	N/A	9.3	-12.7	-14.0
Charlotte	8.5	0.0	-15.8	13.4	-12.4	-14.8
AVERAGE	6.6	0.1	-5.9	14.6	-12.3	-8.3

CHART B4
Component of Growth
Wholesale
Establishment Employing 20 - 99 Workers
(Percent of 1989 Base)

	Percent of 1989 Total Employment	Start-ups	Closures	Expansions	Contractions	Net
St. Louis	10.3	1.6	-8.7	17.7	-13.6	-3.0
Minneapolis	10.1	1.8	-11.1	17.9	-12.2	-3.6
Charlotte	13.1	6.5	-10.1	13.1	-15.0	-5.6
Buffalo	10.4	2.0	-9.8	17.3	-15.7	-6.2
Milwaukee	9.8	0.6	-9.8	13.8	-11.6	-6.9
Cleveland	10.1	0.8	-10.7	16.0	-13.4	-7.3
Pittsburgh	9.8	1.6	-9.0	12.8	-14.9	-9.5
Chicago	9.6	1.1	-11.3	15.4	-14.8	-9.6
Cincinnati	9.9	1.3	-11.5	12.3	-15.3	-13.1
Detroit	8.7	0.9	-11.7	12.5	-16.7	-14.9
AVERAGE	9.8	1.6	-10.6	14.9	-14.5	-8.6

CHART B5
 Component of Growth
 Retail
 Establishments Employing 20 - 99 Workers
 (Percent of 1989 Base)

	Percent of 1989 Total Employment	Start-ups	Closures	Expansions	Contractions	Net
Pittsburgh	27.2	1.4	-17.7	11.8	-14.3	-18.8
Milwaukee	25.0	1.6	-16.4	9.5	-14.0	-19.2
Cincinnati	24.3	2.1	-18.1	10.4	-14.9	-20.5
Buffalo	29.2	2.1	-17.8	9.0	-13.9	-20.7
Cleveland	23.4	2.2	-16.7	8.9	-16.5	-22.1
St. Louis	23.5	2.1	-20.9	10.8	-14.5	-22.4
Chicago	22.9	1.2	-17.3	8.4	-16.1	-23.8
Detroit	25.4	1.5	-18.9	8.6	-16.2	-25.0
Minneapolis	23.1	1.7	-20.4	8.3	-15.1	-25.5
Charlotte	19.0	3.4	-24.7	6.9	-18.0	-32.4
AVERAGE	24.1	1.6	-18.6	9.1	-15.4	-23.2

CHART B6
 Component of Growth
Finance, Insurance, Real Estate
 Establishments Employing 20 - 99 Workers
 (Percent of 1989 Base)

	Percent of 1989 Total Employment	Start-ups	Closures	Expansions	Contractions	Net
Cincinnati	4.9	1.5	-11.5	20.2	-23.6	-13.4
Milwaukee	4.1	1.0	-16.4	19.4	-20.0	-16.0
Buffalo	3.4	N/A	N/A	12.6	-17.7	-19.2
Pittsburgh	4.0	2.5	-11.4	10.9	-21.8	-19.7
St. Louis	5.1	1.9	-16.9	14.7	-20.6	-20.9
Cleveland	4.1	1.0	-16.8	9.8	-16.4	-22.4
Chicago	6.4	0.8	-16.8	10.9	-18.6	-23.7
Detroit	3.9	3.3	-17.8	12.3	-22.9	-25.1
Minneapolis	5.9	0.3	-19.4	8.5	-21.1	-31.7
Charlotte	4.2	0.6	-17.2	7.0	-27.1	-36.7
AVERAGE	5.1	1.3	-16.1	12	-20.6	-23.8

CHART B7
 Component of Growth
Services
 Establishments Employing 20 - 99 Workers
 (Percent of 1989 Base)

	Percent of 1989 <u>Total Employment</u>	<u>Start-ups</u>	<u>Closures</u>	<u>Expansions</u>	<u>Contractions</u>	<u>Net</u>
Milwaukee	28.1	1.1	-9.4	20.4	-12.6	-0.5
Pittsburgh	28.7	2.0	-11.9	23.8	-14.5	-0.6
Cleveland	28.2	2.5	-11.8	17.3	-13.2	-5.1
St. Louis	32.3	1.5	-11.4	17.9	-15.4	-7.3
Chicago	27.8	1.4	-12.6	19.0	-15.0	-7.3
Cincinnati	30.6	1.3	-11.0	16.5	-14.4	-7.7
Charlotte	26.2	2.2	-14.7	19.7	-15.0	-7.8
Minneapolis	32.9	1.4	-13.0	18.5	-15.2	-8.3
Buffalo	29.1	1.6	-12.6	15.6	-13.5	-8.9
Detroit	29.3	1.4	-13.4	15.3	-17.4	-14.1
AVERAGE	29.3	1.5	-12.4	18.4	-15.2	-7.7

CHART B8
All Industries
Establishments Employing 100 - 499 Workers
(Percent of 1989 Base)

	<u>Start-ups</u>	<u>Closures</u>	<u>Expansions</u>	<u>Contractions</u>	<u>Net</u>
Milwaukee	4.7	-8.9	11.4	-17.0	-9.7
Buffalo	3.6	-10.2	11.6	-14.9	-9.8
Pittsburgh	4.0	-11.3	12.6	-15.9	-10.6
Minneapolis	4.4	-12.8	13.2	-15.8	-11.0
Cleveland	4.7	-13.6	13.7	-16.2	-11.4
Cincinnati	4.3	-12.2	11.9	-16.5	-12.4
Chicago	3.5	-12.5	13.0	-16.9	-12.9
St. Louis	2.9	-12.2	12.7	-16.5	-13.1
Charlotte	5.5	-12.4	12.6	-19.4	-13.6
Detroit	5.6	-14.2	11.3	-19.4	-16.8
AVERAGE	4.1	-12.3	12.5	-17.0	-12.7

CHART B9
 Component of Growth
Durable Goods Manufacturing
 Establishments Employing 100 - 499 Workers
 (Percent of 1989 Base)

	Percent of 1989 <u>Total Employment</u>	<u>Start-ups</u>	<u>Closures</u>	<u>Expansions</u>	<u>Contractions</u>	<u>Net</u>
Minneapolis	14.8	1.6	-6.5	15.4	-15.3	-4.9
Buffalo	14.1	N/A	N/A	7.5	-12.2	-9.3
St. Louis	11.1	0.4	-8.3	13.9	-17.0	-11.0
Cincinnati	16.6	1.2	N/A	8.7	-16.1	-11.5
Cleveland	20.7	2.2	-8.6	8.1	-15.3	-13.5
Milwaukee	20.4	2.0	-7.7	8.0	-17.7	-15.3
Chicago	17.6	1.6	-9.5	7.9	-16.4	-16.4
Pittsburgh	12.7	2.9	-12.0	8.6	-16.2	-16.6
Charlotte	11.0	N/A	N/A	8.2	-18.3	-17.1
Detroit	18.1	2.6	-14.7	10.6	-18.1	-19.6
AVERAGE	16.0	1.7	-8.5	9.7	-16.6	-14.5

CHART B10
 Component of Growth
Non-Durable Goods Manufacturing
 Establishments Employing 100 - 499 Workers
 (Percent of 1989 Base)

	Percent of 1989 Total Employment	Start-ups	Closures	Expansions	Contractions	Net
Milwaukee	10.0	N/A	-2.2	10.8	-10.2	-1.2
Pittsburgh	6.1	N/A	-3.8	11.9	-16.4	-5.0
Cincinnati	10.4	2.3	-10.1	14.8	-12.5	-5.5
Chicago	11.0	N/A	N/A	11.0	-13.0	-11.3
Cleveland	9.2	N/A	-6.9	11.2	-18.2	-12.8
Buffalo	11.6	0.0	N/A	10.4	-10.3	-12.9
Charlotte	19.3	4.7	-17.6	9.4	-11.2	-14.6
Minneapolis	8.2	1.8	-18.6	10.1	-8.8	-15.5
St. Louis	9.2	0.7	-15.5	9.8	-13.3	-18.3
Detroit	7.1	N/A	-14.5	10.3	-18.3	-19.7
AVERAGE	9.9	0.9	-7.4	10.9	-12.8	-12.1

CHART B11
 Component of Growth
Wholesale
 Establishments Employing 100 - 499 Workers
 (Percent of 1989 Base)

	Percent of 1989 <u>Total Employment</u>	<u>Start-ups</u>	<u>Closures</u>	<u>Expansions</u>	<u>Contractions</u>	<u>Net</u>
Cleveland	8.0	7.3	-17.9	39.1	-15.1	13.5
Milwaukee	7.6	9.6	-9.1	12.4	-10.5	2.4
Minneapolis	8.5	1.9	-7.1	20.4	-14.9	0.4
Buffalo	5.6	12.2	N/A	8.8	-15.8	-0.6
Pittsburgh	6.0	3.7	-8.9	16.1	-16.3	-5.4
Chicago	8.8	6.4	-11.6	15.1	-15.6	-5.6
Cincinnati	8.1	6.2	-11.9	15.5	-18.6	-8.8
St. Louis	8.7	3.4	-10.3	15.1	-17.2	-9.0
Charlotte	11.5	9.5	-9.6	9.7	-23.1	-13.4
Detroit	7.8	3.1	-10.9	8.3	-17.3	-16.8
AVERAGE	7.7	5.5	-10.2	14.3	-16.3	-6.7

CHART B12
Component of Growth
Retail
Establishments Employing 100 - 499 Workers
(Percent of 1989 Base)

	Percent of 1989 <u>Total Employment</u>	<u>Start-ups</u>	<u>Closures</u>	<u>Expansions</u>	<u>Contractions</u>	<u>Net</u>
Milwaukee	13.7	12.6	-17.2	12.4	-12.0	-4.2
Pittsburgh	17.6	6.7	-12.2	10.6	-14.0	-9.0
Buffalo	13.2	14.9	-21.2	12.4	-15.7	-9.7
Cincinnati	15.5	9.0	-12.3	9.8	-19.5	-12.9
Minneapolis	18.7	8.8	-18.6	9.4	-15.1	-15.5
Detroit	16.2	10.3	-12.4	7.3	-21.0	-15.9
Charlotte	12.6	14.9	-14.5	5.1	-22.4	-17.0
Cleveland	12.4	7.4	-16.8	11.4	-20.1	-18.1
St. Louis	16.1	8.5	-16.5	9.0	-20.1	-19.0
Chicago	11.8	7.5	-20.6	9.4	-18.1	-21.8
AVERAGE	14.6	9.2	-16.8	9.3	-17.6	-15.8

CHART B13
 Component of Growth
Finance, Insurance, Real Estate
 Establishments Employing 100 - 499 Workers
 (Percent of 1989 Base)

	Percent of 1989 Total Employment	Start-ups	Closures	Expansions	Contractions	Net
Cleveland	5.0	12.3	-14.9	10.3	-10.8	-3.1
St. Louis	5.7	3.1	-11.2	11.8	-20.0	-16.3
Chicago	7.9	4.3	-16.4	15.3	-20.5	-17.3
Detroit	4.6	7.5	-12.0	9.7	-22.6	-17.4
Milwaukee	5.4	8.0	-19.9	12.7	-23.6	-22.8
Buffalo	3.7	N/A	N/A	4.2	-18.4	-24.1
Charlotte	5.6	6.2	-28.3	14.4	-21.2	-28.8
Minneapolis	5.2	4.4	-11.2	8.6	-21.1	-29.3
Cincinnati	3.7	9.7	-30.0	8.3	-19.1	-31.1
Pittsburgh	4.3	4.0	-20.4	5.2	-20.1	-31.2
AVERAGE		5.0	-16.0	12.2	-22.0	-21.1

CHART B14
Component of Growth
Services
Establishments Employing 100 - 499 Workers
(Percent of 1989 Base)

	Percent of 1989 <u>Total Employment</u>	<u>Start-ups</u>	<u>Closures</u>	<u>Expansions</u>	<u>Contractions</u>	<u>Net</u>
Charlotte	26.5	3.5	-8.4	23.5	-19.7	-1.1
Pittsburgh	42.4	4.1	-9.1	14.6	-14.8	-5.2
Chicago	34.2	2.8	-10.6	17.5	-16.0	-6.3
Buffalo	45.8	1.5	-7.8	13.7	-15.6	-8.3
Cincinnati	37.1	3.9	-13.6	13.2	-13.7	-10.2
Minneapolis	36.5	5.1	-13.5	12.6	-14.7	-10.5
St. Louis	39.4	1.9	-12.3	13.4	-13.5	-10.5
Milwaukee	36.0	3.4	-6.8	12.5	-20.4	-11.3
Cleveland	37.8	4.6	-16.6	13.6	-13.7	-12.1
Detroit	40.0	6.1	-15.4	14.5	-18.6	-13.4
AVERAGE	36.9	3.1	-11.4	15.1	-16.1	-8.7

CHART B15
All Industries
Establishments Employing 500 or More Workers
(Percent of 1989 Base)

	<u>Start-ups</u>	<u>Closures</u>	<u>Expansions</u>	<u>Contractions</u>	<u>Net</u>
Cincinnati	9.7	-8.1	11.5	-12.4	0.6
Charlotte	12.4	-14.4	14.5	-12.8	-0.4
Pittsburgh	8.2	-11.4	14.4	-11.8	-0.6
Minneapolis	9.6	-10.8	13.5	-14.2	-2.0
Milwaukee	6.9	-7.6	10.7	-12.8	-2.8
Cleveland	7.6	-8.8	12.1	-14.2	-3.3
Chicago	10.9	-11.3	11.5	-14.7	-3.6
St. Louis	9.2	-8.8	10.0	-14.3	-4.0
Buffalo	9.1	-10.9	9.7	-12.4	-4.6
Detroit	9.3	-9.1	11.1	-17.2	-5.9
Akron	8.7	-7.8	9.8	-19.4	-8.7
AVERAGE	9.8	-10.4	11.8	-14.3	-3.1

CHART B16
 Component of Growth
Durable Goods Manufacturing
 Establishments Employing 500 or More Workers
 (Percent of 1989 Base)

	Percent of 1989	Total Employment	Start-ups	Closures	Expansions	Contractions	Net
Cincinnati	14.7	4.5	N/A	7.3	-12.9	-4.0	
Charlotte	11.1	3.3	N/A	4.5	-12.5	-9.4	
Milwaukee	23.1	N/A	N/A	4.5	-15.2	-14.8	
Cleveland	22.0	4.1	-5.2	4.6	-19.6	-16.2	
Minneapolis	16.3	4.9	-9.7	7.0	-19.3	-17.1	
St. Louis	20.6	2.8	N/A	4.3	-16.9	-18.2	
Detroit	29.0	4.5	-5.1	5.4	-24.2	-19.4	
Chicago	13.0	5.0	-7.8	4.6	-21.4	-19.6	
Pittsburgh	16.1	N/A	-11.4	4.7	-15.6	-19.7	
Buffalo	19.6	N/A	-6.1	2.2	-17.6	-20.0	
AVERAGE	17.9	3.5	-5.2	5.1	-19.5	-17.6	

CHART B17
 Component of Growth
Non-Durable Goods Manufacturing
 Establishments Employing 500 or More Workers
 (Percent of 1989 Base)

	Percent of 1989 Total Employment	Start-ups	Closures	Expansions	Contractions	Net
Minneapolis	11.5	3.4	-5.3	11.5	-6.9	2.8
Cincinnati	14.7	N/A	N/A	10.8	-6.4	-1.0
Chicago	11.6	3.5	-8.5	12.2	-10.5	-3.2
Milwaukee	9.2	4.6	-3.0	6.5	-13.2	-5.1
Buffalo	10.2	N/A	N/A	6.5	-8.9	-5.8
Cleveland	9.8	2.8	-6.9	9.2	-11.8	-6.7
St. Louis	9.1	5.7	-3.9	6.2	-15.4	-7.3
Pittsburgh	4.6	N/A	-11.4	9.0	-7.2	-8.0
Detroit	6.2	N/A	-12.3	8.2	-18.0	-10.1
Charlotte	24.9	4.1	-7.1	5.7	-13.0	-10.2
AVERAGE	10.7	3.0	-6.6	9.5	-11.1	-4.7

CHART B18
Component of Growth
Wholesale
Establishment Employing 500 or More Workers
(Percent of 1989 Base)

	Percent of 1989					
	<u>Total Employment</u>	<u>Start-ups</u>	<u>Closures</u>	<u>Expansions</u>	<u>Contractions</u>	<u>Net</u>
Cleveland	5.8	9.8	-9.7	22.5	-14.0	8.6
Charlotte	5.1	13.5	-11.8	17.8	-14.8	4.8
Buffalo	2.8	7.1	-18.2	24.2	-10.0	3.1
Pittsburgh	4.7	11.8	-11.9	14.7	-12.6	2.0
Cincinnati	7.0	10.5	-14.1	14.5	-10.7	0.2
St. Louis	3.9	12.5	-12.0	12.4	-13.8	-0.9
Chicago	7.6	11.6	-16.1	19.5	-18.3	-3.3
Detroit	4.7	15.2	-16.5	13.0	-16.7	-4.9
Milwaukee	4.2	10.0	-16.3	16.6	-16.1	-5.8
Minneapolis	6.4	10.9	-13.1	8.6	-17.9	-11.5
AVERAGE	5.8	11.9	-14.8	15.9	-16.3	-3.3

CHART B19
 Component of Growth
Retail
 Establishments Employing 500 or More Workers
 (Percent of 1989 Base)

	Percent of 1989						
	<u>Total Employment</u>	<u>Start-ups</u>	<u>Closures</u>	<u>Expansions</u>	<u>Contractions</u>	<u>Net</u>	
Cincinnati	22.1	15.5	-10.4	12.2	-12.3	5.1	
Buffalo	21.0	17.4	-13.3	13.0	-12.8	4.3	
Detroit	19.1	13.9	-10.4	12.8	-14.7	1.6	
Charlotte	18.9	19.3	-15.3	11.7	-14.2	1.4	
Milwaukee	16.8	11.9	-13.4	12.7	-11.1	0.2	
Minneapolis	20.1	13.8	-10.8	12.8	-16.2	-0.3	
Chicago	19.0	14.1	-11.8	10.7	-15.3	-2.4	
St. Louis	20.1	14.6	-13.2	9.3	-13.6	-2.9	
Pittsburgh	20.9	10.6	-10.5	12.2	-15.6	-3.3	
Cleveland	18.9	13.7	-12.2	9.6	-15.7	-4.6	
AVERAGE	19.6	14.2	-11.8	11.6	-14.6	-0.5	

CHART B20
 Component of Growth
Finance, Insurance, Real Estate
 Establishments Employing 500 or More Workers
 (Percent of 1989 Base)

	Percent of 1989 Total Employment	Start-ups	Closures	Expansions	Contractions	Net
Pittsburgh	8.3	16.2	-10.3	13.8	-9.2	10.5
Detroit	8.3	14.1	-8.8	15.1	-15.2	5.2
Cleveland	9.7	9.5	-15.4	25.9	-14.9	5.1
Charlotte	9.2	15.6	-6.2	12.9	-19.5	2.8
St. Louis	7.9	14.3	-14.4	15.7	-15.9	-0.3
Chicago	11.4	17.7	-10.9	10.4	-18.3	-1.1
Minneapolis	11.0	12.4	-17.3	17.3	-15.4	-3.0
Milwaukee	12.0	10.2	-10.1	9.6	-12.9	-3.2
Cincinnati	7.8	13.0	-7.7	7.8	-23.8	-10.6
Buffalo	11.2	14.6	-21.3	8.4	-18.7	-17.1
AVERAGE	9.9	15.1	-11.7	12.4	-16.6	-0.8

CHART B21
Component of Growth
Services
Establishments Employing 500 or More Workers
(Percent of 1989 Base)

	Percent of 1989 Total Employment	Start-ups	Closures	Expansions	Contractions	Net
Charlotte	15.4	11.7	-9.4	21.2	-10.7	12.7
St. Louis	26.6	9.5	-6.2	14.2	-10.8	6.7
Milwaukee	26.7	5.2	-3.5	15.7	-10.8	6.5
Pittsburgh	33.0	6.7	-6.9	13.6	-7.1	6.4
Minneapolis	24.6	12.1	-11.8	17.1	-12.4	5.0
Cleveland	25.5	7.0	-6.7	12.5	-9.9	2.9
Buffalo	27.5	8.0	-6.5	10.1	-8.7	2.9
Detroit	24.4	9.3	-9.9	14.2	-10.9	2.7
Cincinnati	23.5	7.5	-7.0	13.3	-11.3	2.6
Chicago	26.9	11.4	-14.5	12.9	-10.4	-0.6
AVERAGE	25.8	9.7	-10.1	14.2	-10.4	3.3