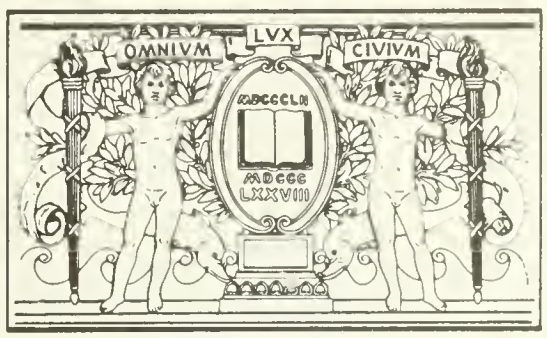

BOSTON
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CHARACTERISTICS AND TRENDS OF BOSTON'S LABOR FORCE

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SUMMARY OF FINDINGS

A. Employment in Boston, the Metropolitan Region and the State, 1958-1965

1. Trends in Major Employment Sectors

During the period 1958 through 1965 employment trends in the City of Boston were opposite those in the remainder of the metropolitan area, the State and the Country as a whole: Boston lost over 11,400 jobs, a decrease of 3%; employment in the metropolitan region (including Boston) increased by 70,600, up 8%; employment in the Commonwealth increased by 169,700, up 10%; comparable jobs in the nation increased by 15.3%.

The year 1965 differed from other years in the study period. While employment losses occurred in Boston during every year from 1958 through 1964, in 1965 the City gained over 17,000 jobs. This one year also accounted for 45% of the total employment gain registered in the metropolitan region and 40% of the State-wide increase. These 1965 gains, while heartening, were made during a period of record national prosperity and are therefore, considered atypical of long-term trends.

Over the eight year study period Boston, the metropolitan region and the State gained jobs in the service industries and finance, insurance and real estate. The City's growth rate was the slowest of the three. The metropolitan region and the State also demonstrated steady growth in wholesale and retail employment while the City lost this type of job.

Boston's largest absolute change in employment occurred in manufacturing: down 12,000 jobs or about 14%. There was little change in manufacturing employment within the metropolitan region as a whole, indicating a rapid redistribution of jobs, with losses in Boston offset by gains in the suburbs. The same phenomenon occurred in wholesale and retail trade.

2. The Major Employers in Boston

Eleven employment groups each accounts for over 3% of Boston's jobs; in total they represent over half the jobs in the City. During 1958 through 1965 only four of these major sectors increased their employment: 1) miscellaneous business services, 2) banking, 3) insurance carriers, and 4) retail trade - eating and drinking places.

3. Employment Trends in Manufacturing

From 1958 through 1965, Boston's share of all manufacturing employment in the metropolitan region fell from 30.8% to 26.5%. Of the seven manufacturing categories, each accounting for over 1% of Boston's jobs, only three - electrical machinery, non-electrical machinery and fabricated metals - increased their employment. The gains of these three industries (1,450 jobs) were far offset by the losses in the other major manufactoring categories; food processing, apparel, leather and printing, which demonstrated a loss of 10,550 jobs. Altogether only five of the 19 manufacturing categories in Boston, including the seven largest discussed above, increased employment.

In no instance was there an increase in the number of firms in any manufacturing category. Any job growth registered was the result of expansion of existing firms rather than new employers coming into the City. The larger the individual firm, the more likely it was to expand.

Over the study period, Boston's employment in non-durable (soft) goods industries fell by 19% while employment in the durable (hard) goods industries fell by only 3%. The larger durable goods firms were among the most viable in the City.

Boston demonstrated increases in employment in those industries showing very strong growth nationally. In industries showing nation-wide employment declines, Boston's losses were proportionately much greater than for the country as a whole. Boston's strengths were more likely the result of general growth trends than any specific factor affecting the economy of the City.

B. Major Employment Sectors: Job Location and Employees' Residence, 1960

1. Distribution of Jobs

In 1960, 45% (375,500) of the jobs in the Boston metropolitan region were located in the center city, the remainder (460,000) were in the suburbs.

Seventy-two percent of all the manufacturing jobs were outside of the Central City. On the other hand Boston had over 60% of all the jobs in transportation, communications and utilities, 65% of all the jobs in wholesale trade and over 75% of all the jobs in finance, insurance and real estate.

Boston could be characterized as having a much greater diversity of job types than the remainder of the metropolitan area. The City especially attracted office uses whose special requirements lend themselves to vertical stacking. On the other hand, the suburbs were heavily orientated to manufacturing operations and their incumbent horizontal space needs. For these kinds of firms, land cost is a major locational factor.

2. Distribution of Employee's Place of Residence

Only 27% of the metropolitan region's total labor force resided in Boston and each of the eight major employment sectors' labor force contained about 27% City of Boston residents.

The type of job was found to be more likely located in either the Center City or the suburbs than was the residence of the worker who filled the job.

C. <u>The Manufacturing Sector: Job Locations and Employees' Residence, 1960</u>

1. Distribution of Manufacturing Employment

Manufacturing jobs in the suburbs outnumber those in Boston 2.5 to 1 (216,000 and 86,000 respectively).

Only in textile and apparel products, food processing, and printing and publishing were there more jobs in Boston than in the suburbs.

2. Distribution of Manufacturing Employees' Place of Residence

Twenty-four percent of the metropolitan area's manufacturing labor force were Boston residents. However, 42% of the labor force in textile and apparel products and 33% in food and kindred products were City residents. Eighty-three percent of the labor force in machinery manufacturing were suburban residents. The industries with the highest percentages of City resident employees were among the lowest paying manufacturing sectors; those industries with the highest percentage of suburban resident employees were among the highest paying manufacturing industries. In 1960, the manufacturing industries employing the highest percentage of workers from outside Boston paid annual wages 18% greater than those industries employing the highest percentage of Boston residents.

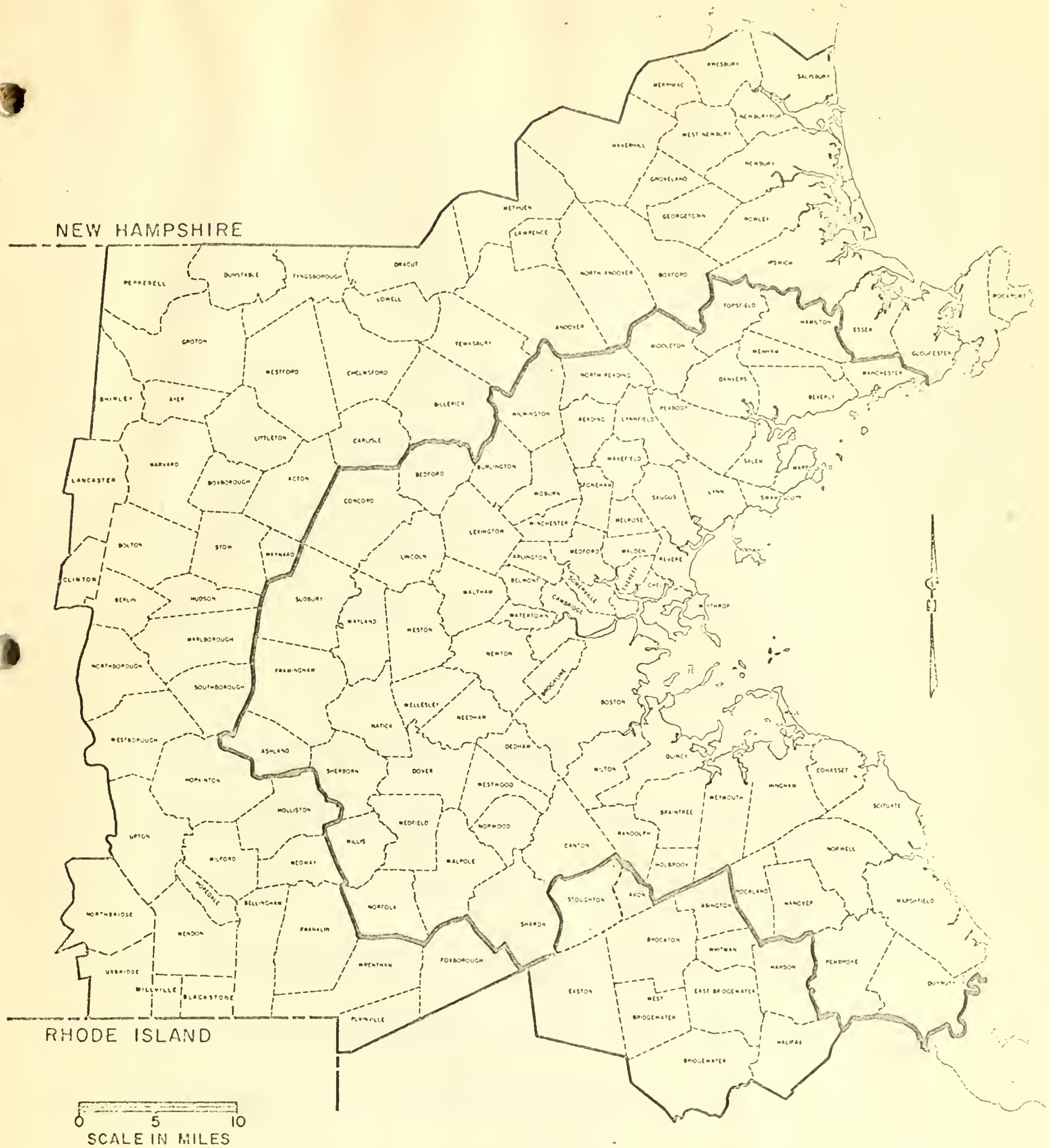
D. Employment Patterns in Boston Census Tracts with Over 50% Non-White Population, 1960

The heart of Boston's Negro residential area demonstrated significantly lower incomes, higher unemployment rates and a proportionately larger female labor force than did the remainder of the City. Residents of the area were very much more likely to be employed as blue collar operatives on an assembly line of a low paying manufacturing industry,

than in any other occupation. Chances were only one in four that they would hold a white collar job while chances were even that other City residents would.

The kinds of jobs most typically associated with the study area are the jobs most likely to be replaced through technological advancements. In addition, many of these jobs face the immediate reality of relocation due to public action. Clearly, this points to the urgency of expansion of those manpower training programs now underway as well as the initiation of new ones to meet future needs.

TABLE OF CONTENTS



THE BOSTON METROPOLITAN REGION

(BOSTON STANDARD METROPOLITAN AREA SMSA)

LIST OF TABLES

LIST OF FIGURES IN APPENDIX B

INTRODUCTION

Employment trends and other indexes of economic health are frequently analyzed for metropolitan areas, for individual states, and for the nation. Seldom, however, at least in the Boston area, has an analysis dealt with the trends of a particular city or town - trends which may be completely at variance with those of the metropolitan area as a whole.

To our knowledge, this report is the first study which deals specifically with the employment characteristics of the City of Boston. Using data from the Massachusetts Division of Employment Security (DES) and the U.S. Census, this study traces the changes that have occurred in seven major employment categories within Boston since 1958, and contrasts these changes with what has happened in the remainder of the metropolitan area and in the State.

The findings outlined in the summary are presented in more detail in the report itself. Simply stated, they show that generally, while jobs in the metropolitan area as a whole, as well as the State, have continued to increase, the City has lost jobs in most employment categories.

To a large extent, this geographic redistribution of jobs is a consequence of national and regional trends. Since the end of the second World War, most major cities of the United States have been subject to forces that have resulted in profound changes in the role and functions of these cities. One result has been a gradual shift in the location of both jobs and population.

Accompanying Boston's decline in population (the City lost over 22% of its residents between 1950 and 1965), there has been a corresponding outflow of jobs particularly in the fields of wholesale and retail trade and in manufacturing. Each has been subject to changes in technology requiring new space standards both in terms of building layout and site size. This report points out the changes that have occurred, and indicates some of the effects on Boston relative to the entire metropolitan region.

The Study's Setting

This is the third in a series of reports analyzing different aspects of Boston's industrial base. The first study, Industrial Development and Relocation Opportunities in the City of Boston, was an inventory of vacant land and buildings suitable for manufacturing. The second report in the series, Industrial and Commercial Business Relocation in the City of Boston, intensively analyzed the projected relocation caseload from urban renewal and highway projects proposed for the period 1966 through 1972.

This report presents information concerning job availability and structure of the resident labor force for the State, the Boston Standard Metropolitan Statistical Area (SMSA) and the City. Detailed analyses of manufacturing are presented at the metropolitan and City level.

Data Used and Limitations of This Study

Data from the Massachusetts Division of Employment Security (DES) have been used because it was deemed more accurate, detailed and readily available than information from any other possible source. Unfortunately, DES employment figures are incomplete in at least three areas of major concern to the City: all educational institutions, government employment and hospital employment. Other weaknesses in the data will be pointed out in the course of this text.

DES publishes employment figures by 7 major categories which correspond with the 9 Standard Industrial Classifications (SIC's) of the Bureau of the Budget. Two of the Bureau of the Budgets categories are combined by DES (Agriculture and Mining), and another (Government) does not report to DES.

It is not within the scope of this report to project future employment for the city. The Metropolitan Area Planning Council, (MAPC) a regional planning agency charged with coordinating planning for the Eastern Massachusetts region, is currently preparing a series of employment projections for the six-city regional core. These figures and other data will be used in future reports recommending specific programs for Boston's industrial and commercial development.

A. EMPLOYMENT IN THE CITY OF BOSTON, THE BOSTON STANDARD METROPOLITAN STATISTICAL AREAS (SMSA) AND THE STATE OF MASSACHUSETTS.

1. Trends in Major Employment Sectors

During the period 1958 through 1965, the City of Boston lost over 11,400 jobs, a decrease of 3%. On the other hand, employment within the Boston SMSA (including the City) increased by 70,600 or 8%. Employment in the State as a whole increased by 169,700 or over 10%. Tables IA, IB and IC and IIA, IIB and IIC relate these changes in the number and distribution of employment for six Standard Industrial Classifications (SIC's).

State and metropolitan increases in employment did not occur at an even rate. Forty-five percent of the SMSA gain and 40% of the State gain occurred in 1965.

Even the City gained over 17,000 jobs in 1965 cutting its overall 1958-1965 losses from 28,000 to only 11,400. These 1965 increases while heartening, were made during a period of record national prosperity and rapidly declining unemployment, and are therefore considered atypical of long-term trends.

Within the major employment classifications, the City has experienced a consistent growth over the eight-year study period in Federal, State and Local government employment, in service jobs, and jobs in finance, insurance and real estate. However, Boston's growth rate was considerably below that of the SMSA and the State.

The SMSA and the State have also demonstrated a steady growth in wholesale and retail employment. The City has lost jobs in this classification every year except 1964.

Manufacturing employment in the SMSA and the State remained almost unchanged between 1958 and 1965. However, the City lost manufacturing jobs in every year except in 1965. The City's manufacturing jobs fell by over 12,000 or about 14% during the eight year period. This loss represents the largest absolute change in employment, and very nearly the largest percentage change in any employment sector. Comparatively, if manufacturing employment were not included in the total, the City of Boston would demonstrate a small net increase in jobs over the eight year study period.

Although there was little change in manufacturing employment within the SMSA as a whole, clearly there has been a rapid redistribution of this employment with losses in Boston offset by gains in the suburbs. The same phenomenon occurred in wholesale and retail trade where the City lost almost 7% of its jobs (8,800) while the SMSA -- including Boston -- gained 23,400 jobs, an increase of nearly 10%.

About 55% of the SMSA's increase in finance, insurance and real estate jobs occurred, as would be expected, in Boston. Increases in service jobs were substantial throughout the State. Boston was up 18%, the SMSA 38% and the State 32%.

Employment trends in construction show no clear pattern. The number and location of jobs vary greatly from year to year and are dependent on numerous external factors such as urban renewal, mortgage rates, and general business conditions.

The only other major job sector where trend information is available is transportation, communications and public utilities. The City's loss in this secotr was 3,100 jobs (down 8%). The SMSA (including Boston) gained 500 jobs (an increase of less than 1%) while the State lost 1,100 jobs (down 1%).

TABLE IA

DISTRIBUTION OF JOBS IN COMMERCE AND INDUSTRY
WITHIN THE CITY OF BOSTON -- 1958 and 1965

DES Grouping (SIC)	1965 No. Employees	1965 % Total Employees	1958 No. Employees	1958 % Total Employees
Construction (15 - 17)	17,663	4.8	18,478	4.9
Manufacturing (19 - 39)	76,659	21.0	88,830	23.5
Transportation, Communications & Utilities (40 - 49)	35,966	9.8	39,076	10.3
Wholesale & Retail (50 - 59)	117,997	32.2	126,804	33.6
Finance, Insurance and Real Estate (60 - 67)	56,682	15.4	52,321	13.8
Service Industries (70 - 89) and Agriculture and Mining (01 - 14)	61,746	16.8	52,623	13.9
TOTALS	366,711	100.0	378,141	100.0

Source: Massachusetts Division of Employment Security (DES)

NOTE: In addition to the jobs not covered by DES mentioned in the introduction, there were about 6,400 civilians employed at the Charlestown Naval Shipyard in 1965 and probably over 9,700 in 1958.

TABLE IB

DISTRIBUTION OF JOBS IN COMMERCE AND INDUSTRY WITHIN THE BOSTON SMSA (INCLUDES BOSTON) - 1958 and 1965

DES Grouping (SIC)	1965 No. Employees	1965 % Total Employees	1958 No. Employees	1958 % Total Employees
Construction (15 - 17)	52,000	6.0	49,800	6.1
Manufacturing (19 - 39)	296,500	33.1	295,100	36.4
Transportation, Communications & Utilities (40 - 49)	64,000	7.3	63,500	7.8
Wholesale & Retail (50 - 59)	263,400	30.1	240,000	29.6
Finance, Insurance and Real Estate (60 - 67)	76,200	8.7	68,300	8.4
Service Industries (70 - 89) and Agriculture & Mining (01 - 14)	129,800	14.8	94,600	11.7
TOTALS	881,900	100.0	811,300	100.0

Source: Massachusetts Division of Employment Security (DES)

TABLE IC

DISTRIBUTION OF JOBS IN COMMERCE AND INDUSTRY WITHIN MASSACHUSETTS (INCLUDES THE BOSTON SMSA) - 1958 and 1965

DES Grouping (SIC)	1965 No. Employees	1965 % Total Employees	1958 No. Employees	1958 % Total Employees
Construction (15 - 17)	97,000	5.3	80,600	5.0
Manufacturing (19 - 39)	682,300	38.0	679,700	41.9
Transportation, Communications & Utilities (40 - 49)	108,200	6.0	109,300	6.7
Wholesale & Retail (50 - 59)	424,800	24.0	379,000	23.4
Finance, Insurance and Real Estate (60 - 67)	110,100	6.2	95,300	5.9
Service Industries (70 - 89) and Agriculture & Mining (01 - 14)	368,800	20.5	277,600	17.1
TOTALS	1,791,200	100.0	1,621,500	100.0

Source: Massachusetts Division of Employment Security (DES)

TABLE IIA

PERCENTAGE AND ABSOLUTE CHANGES IN THE SIX MAJOR EMPLOYMENT GROUPS, CITY OF BOSTON 1958 THROUGH 1965

	% Change	Absolute Change
Construction	- 4.41	- 815
Manufacturing	-13.70	-12,173
Transportation, Communications and Utilities	- 7.95	- 3,110
Wholesale and Retail	- 6.94	- 8,807
Finance, Insurance and Real Estate	+ 8.33	+ 4,361
Service Industries and Agriculture & Mining	+17.90	+ 9,123
TOTALS	- 3.02%	-11,420

Source: Calculated from DES data in Table IA.

TABLE IIB

PERCENTAGE AND ABSOLUTE CHANGES IN THE
SIX MAJOR EMPLOYMENT GROUPS, BOSTON SMSA (INCLUDES BOSTON)
1958 THROUGH 1965

	% Change	Absolute Change
Construction	+ 4.42	+ 2,200
Manufacturing	+ 0.50	+ 1,400
Transportation, Communications and Utilities	+ 0.78	+ 500
Wholesale and Retail	+ 9.75	+23,400
Finance, Insurance and Real Estate	+11.57	+ 7,900
Service Industries and Agriculture & Mining	+38.40	+35,200
TOTALS	+ 8.00%	+70,600

Source: Calculated from DES data in Table IB.

TABLE IIC

PERCENTAGE AND ABSOLUTE CHANGES IN THE
SIX MAJOR EMPLOYMENT GROUPS, STATE OF MASSACHUSETTS
(INCLUDES THE BOSTON SMSA)
1958 THROUGH 1965

	% Change	Absolute Change
Construction	+20.34	+ 16,400
Manufacturing	+ 0.38	+ 2,600
Transportation, Communications and Utilities	- 1.00	- 1,100
Wholesale and Retail	+12.08	+45,800
Finance, Insurance and Real Estate	+15.52	+14,800
Service Industries and Agriculture & Mining	+32.85	+91,200
TOTALS	+10.46%	+169,700

Source: Calculated from DES data in Table IC.

2. Impact of Public Programs on the Loss of Jobs, City of Boston.

The displacement and relocation of businesses which have been necessitated by renewal and other public programs in the City have, inevitably, led to the loss of some employment. Of the 2,298 firms displaced between 1950 and 1965, nearly one-quarter were displaced by the Central Artery and the remaining three-quarters by renewal programs. Table III indicates that, while the majority of displaced businesses have been relocated within the City of Boston (66.9%), some have relocated outside the City and others have liquidated.

TABLE III

RELOCATION OF BUSINESSES DUE TO PUBLIC PROGRAMS -- 1950-1965

Project	No. Firms Displaced	Relocated		Liqui-dated	Unknown
		In Bos.	Outside Bos.		
Waterfront	87	55	17	12	3
Washington Park	273	173	18	71	11
Castle Square	166	117	6	38	5
West End	292	135	40	75	42
Government Center	786	553	74	137	22
Central Artery	573	420	35	118	0
New York Streets	121	85	14	22	0
TOTALS	2,298	1,538	204	473	83
	100%	66.9%	8.9%	20.6%	3.6%

Source: Unpublished BRA data.

Of the 2,298 businesses which were displaced, 331 were manufacturing firms employing 5,090 persons. Table IV indicates that 76% of these firms were relocated in the City of Boston.

This analysis would indicate that employment losses during the study period may have increased slightly because of the effect of public programs. It is believed an analysis of the jobs gained because of public programs would indicate that the minor loss has been more than offset by the number of jobs created.

TABLE IV

RELOCATIONS OF MANUFACTURING FIRMS DUE TO PUBLIC PROGRAMS
1950-1965

Project	No. Firms Displaced	Relocated		Liquidated	Unknown
		In Bos.	Outside Bos.		
Waterfront	20	11	9	0	0
Washington Park	6	4	1	1	0
Castle Square	12	8	1	2	1
West End	22	11	5	4	2
Government Center	114	91	13	9	1
Central Artery	157	125	10	22	0
New York Streets		(No Separate Breakdown Available)			
TOTALS	331	250	39	38	4
	100%	76%	11%	11%	2%

Source: Unpublished BRA data.

3. The Major Employers in Boston, 1958 and 1965

Of the 74 two-digit SIC's within categories collected by the Division of Employment Security, eleven account for over half of the City's total labor force. Each of the eleven categories have over 3% of the total labor force in the City.

As indicated in Table V, these major categories contained 56.08% of Boston's total labor force in 1965, or 205,870 employees. During the period 1958 through 1965, only four of these major job sectors increased their employment: insurance carriers, retail trade -- eating and drinking places, miscellaneous business services, and banking. Two others, retail trade -- general merchandise, and printing and publishing increased their percentage of the total labor force because they lost employment at a slower rate than did total employment in the eleven major categories.

TABLE V

MAJOR EMPLOYMENT CATEGORIES HAVING OVER 3% OF THE LABOR FORCE IN THE CITY OF BOSTON 1958 AND 1965

Rank in 1965	SIC	Percent of Total Employment 1965	Percent of Total Employment 1958	# of Employees 1965	# of Employees 1958
1.	50 Wholesale Trade	11.39	12.51	41,796	47,121
2.	63 Insurance Carriers	7.18	6.48	26,353	24,512
3.	53 Retail Trade - Gen. Merchandise	5.96	5.80	21,860	21,915
4.	73 Misc. Business Services	5.15	3.07	18,918	11,605
5.	58 Retail Trade - Eating and Drinking Places	4.87	4.46	17,876	16,897
6.	23 Apparel, etc.	4.17	5.00	15,313	18,694
7.	27 Printing, Pub., etc.	3.77	3.74	13,854	14,187
8.	60 Banking*	3.56	2.71	13,061	10,259
9.	54 Retail Trade - Food	3.37	3.43	12,371	12,967
10.	48 Communications	3.36	3.60	12,332	13,596
11.	20 Food and Kindred Products	3.30	4.50	12,136	17,014
	TOTALS	56.08	55.30	205,870	208.967

*Part of this increase is due to the addition of categories not included in 1958. It is estimated that employment in this category may have been increased by 1,000 because of this addition.

Source: Massachusetts Division of Employment Security.

4. Employment Trends in Manufacturing

It was noted above that the largest absolute change in employment at any level occurred in Boston in the manufacturing sector. This change amounted to a loss of almost 14% of the available manufacturing jobs, a drop from 88,800 to 76,600. The following table compares the changes in manufacturing for the City, the SMSA and the State.

TABLE VI

COMPARATIVE CHANGES OF EMPLOYMENT IN MANUFACTURING, CITY, SMSA, STATE -- 1958-1965

	Boston	SMSA (includes Boston)	State
1958-1964	-12,500 (-14.0%)	-14,100 (-4.9%)	-16,000 (-2.5%)
1958-1965	-12,173 (-13.7%)	+ 1,400 (+0.5%)	+ 2,600 (+0.38%)
1964-1965	+ 327 (+ 0.4%)	+15,500 (+5.3%)	+25,900 (+3.8%)

Source: Massachusetts Division of Employment Security.

Manufacturing employment in the country as a whole rose 11.3% over the period 1958-1965. From 1958 through 1965 Boston's share of all manufacturing employment in the SMSA fell from 30.8% to 26.5%.

a. Major Manufacturing Industries

The seven largest categories of manufacturing employment in Boston (those with more than 1% of the City's jobs) are shown in the following

table. In order of size of employment, these are: (1) apparel, (2) printing, (3) food, (4) electrical machinery, (5) fabricated metals, (6) machinery (except electrical) and (7) leather. These seven categories constituted 82% of all manufacturing employment in Boston in 1965. During the study period, only three gained in employment: (4) electrical machinery, (5) fabricated metals and (6) machinery (except electrical).

TABLE VII

MAJOR MANUFACTURING INDUSTRIES, CITY OF BOSTON
1958 and 1965

Rank in 1965	SIC	% Total City Emplmt. 1965	% Total City Emplmt. 1958	#of Employees 1965	#of Employees 1958	Employmt. Change 1958-65
1	23 Apparel	4.17	5.00	15,313	18,894	-3,581
2	27 Printing	3.77	3.74	13,854	14,187	- 333
3	20 Food	3.30	4.50	12,136	17,014	-4,878
4	36 Electrical Machinery	1.81	1.16	6,600	5,825	+ 835
5	34 Fabricated Metals	1.74	1.68	6,389	6,342	+ 47
6	35 Machinery, except Elec.	1.20	1.01	4,403	3,832	+ 571
7	31 Leather	1.12	1.56	4,140	5,898	-1,758
	TOTALS	17.11%	18.65%	62,835	71,992	-9,097

Source: Massachusetts Division of Employment Security.

b. Increases in Manufacturing Employment

During the period 1958 through 1965, only five of the 19 manufacturing categories in Boston, including the seven largest discussed above, demonstrated an increase in employment.

As indicated in Table VIII, net increases for these five totalled 1,811 employees or 9.8%. This growth sector of manufacturing employment represents about 27% of the manufacturing jobs in Boston.

There was, however, no increase in the number of firms in any manufacturing category. Any job growth registered is the result of the expansion of existing firms rather than the result of new employers coming into the City.

TABLE VIII

MANUFACTURING INDUSTRIES SHOWING AN INCREASE IN EMPLOYMENT, CITY OF BOSTON -- 1958 THROUGH 1965

SIC	Employment 1964	% of Total Boston Employment 1965	% of Boston Manufacturing Employment 1965	Employment Increase 1958-65	% Increase 1958 - 65
36 Electrical Machinery	6,600	1.81	8.68	835	14
34 Fabricated Metal Products	6,389	1.74	8.33	47	0.7
35 Machinery, except Electrical	4,403	1.20	5.74	571	15
39 Misc. Manufact.	2,030	.55	2.64	157	8
32 Stone, Clay & Glass	760	.20	.99	201	36
TOTALS	20,242	5.50%	26.83%	1,811	-- net increase 9.8%

Source: Massachusetts Division of Employment Security.

c. Losses in Manufacturing Employment

Table IX shows the 14 manufacturing classifications that lost employment from 1958 through 1965. The greatest numerical losses occurred in food processing, a loss of 4, 878 jobs; apparel, a loss of 3,581 jobs; instruments, a loss of 2,187 jobs; and leather, a loss of 1,758 jobs. The total job loss in all categories between 1958 and 1965 was 14,095, a net decrease of 20%.

TABLE IX

MANUFACTURING INDUSTRIES SHOWING A DECREASE IN EMPLOYMENT, CITY OF BOSTON -- 1958 THROUGH 1965

SIC		Employment 1965	% of Total Boston Employment 1965	% of Boston Mfg. Employment 1965	Employment Decrease 1958-65	% Decrease 1958-65
23	Apparel	15,313	4.17	19.98	3,581	19
27	Printing & Pub.	13,854	3.77	18.07	333	2
20	Food & Kindred	12,136	3.30	15.83	4,878	29
31	Leather	4,140	1.12	5.40	1,758	30
26	Paper	1,874	.51	2.44	189	9
33	Primary Metals	1,850	.50	2.41	76	4
38	Instruments	1,755	.48	2.28	2,187	55
25	Furniture & Fixtures	1,468	.40	1.91	146	9
22	Textile Mill Products	1,185	.32	1.54	166	12
28	Chemicals	1,012	.28	1.32	50	5
37	Transportation Equipment	914	.25	1.19	91	9
30	Rubber	556	.15	.73	399	42
24	Lumber	265	.07	.34	49	15
21	Tobacco	0	.00	.00	192	100
	TOTALS	56,322	15.32%	73.44%	14,095	-- net decrease 20.0%

Source: Massachusetts Division of Employment Security.

d. Durable and Non-durable Goods Employment

For purposes of more detailed analysis of Boston's trends in employment, manufacturing firms have been sub-divided into two categories: durable goods industries and non-durable goods industries. Durables are "hard goods" of relatively long usefulness while non-durables are "soft" and have a shorter life span. A list of durables and non-durables by their Standard Industrial Classification (SIC) can be found in Appendix A.

Manufacturing employment and the number of firms in Boston are divided approximately 2/3 in non-durable goods industries and 1/3 in durable goods industries. During the period 1958 through 1965, employment in non-durable goods industries fell by 19% while employment in the durable goods industries fell by only 3%. The number of firms in each class fell by 24% and 20% respectively. The average non-durable goods firm had 37 employees in 1958 and 39 in 1965. The average durable goods firm increased from 34 employees in 1958 to 41 in 1965.

Trends indicate that more non-durable goods manufacturing firms have left the City or gone out of business than durable goods firms, and that the departure of non-durable goods firms has resulted in more job losses than the durable goods firms. Generally, it has been smaller employers, especially those in non-durable goods production, who either left the City or went out of business.

e. Employment Trends in the Manufacturing Sector, Boston and the Country Compared.

As indicated previously in Table VIII, only five of the 19 manufacturing classifications in the Ctiy gained employment during the period 1958 through 1965. In the country as a whole, 15 demonstrated increases. Boston's gains

occurred in those industries where increases in employment in the country as a whole were generally above the all manufacturing average. This indicates that Boston's strengths were more likely the result of general growth trends than any specific factor affecting the economy of the City. In only one instance (stone, clay and glass products, which represented less than 1% of the City's manufacturing jobs) was Boston's growth rate above that of the country. In those industries showing a nationwide employment drop, Boston's losses were proportionately much greater than for the country. As illustrated in the following table, some of the largest differences in rates of growth for the City compared to the country occurred in areas of major local employment, particularly in apparel, food and leather manufacturing.

TABLE X

PERCENTAGE CHANGE IN MANUFACTURING EMPLOYMENT, UNITED STATES AND CITY OF BOSTON -- 1958-1965

SIC	City of Boston	U.S.A.
32 Stone, Clay and Glass	+ 36	+ 10
35 Machinery, except Electrical	+ 15	+ 21
36 Electrical Machinery	+ 14	+ 25
39 Miscellaneous Manufacturers	+ 8	+ 12
34 Fabricated Metal Products	+ .07	+ 15
27 Printing and Publishing	- 2	+ 11
33 Primary Metals	- 4	+ 11
28 Chemicals	- 5	+ 13
26 Paper	- 9	+ 12
25 Furniture and Fixtures	- 9	+ 16
37 Transportation Equipment	- 9	+ 8
22 Textile Mill Products	- 12	+ 0.1
24 Lumber and Wood Products	- 15	- 2
23 Apparel	- 19	+ 14
20 Food and Kindred	- 29	- 2
31 Leather	- 30	- 2
30 Rubber	- 42	+ 26
38 Instruments	- 55	+ 16
21 Tobacco	-100	- 12
TOTALS	- 13.7%	+ 11.3%

Source: Massachusetts Division of Employment Security; and Statistical Tables on Manpower, U.S. Dept. of Labor, 1966

B. MAJOR EMPLOYMENT SECTORS: JOB LOCATION AND EMPLOYEES' RESIDENCE, BOSTON AND REMAINDER OF SMSA, 1960

This chapter analyzes two interrelated factors: (1) the distribution of jobs among major employment sectors and (2) the residence patterns of employees holding these jobs. The analysis indicates those jobs that are most likely to be located in the City or the remainder of the SMSA, and the jobs most typically filled by City or suburban SMSA residents.

This chapter, as well as the two following, depart from the format of the preceeding section. The major thrust of Chapter A, "Employment in The City of Boston, the Boston SMSA and the State of Massachusetts," as well as the supporting graphs in the appendix, was to present comparable long term trend data concerning employment in major job sectors. From here on the emphasis will center on information gained by relating data from two different sources: (1) job location data available yearly from the Massachusetts Division of Employment Security (DES), and (2) employee residence data available at ten year intervals from the U.S. Bureau of the Census. Because census data is available for only one of the eight years studies in Chapter A, the following chapters are limited to analysis of 1960.

Three other limitations and assumptions should be understood: (1) The Census lists the total number of employed persons living in the Metropolitan area, but it does not record the number of persons who work in, but live outside of this area. This factor was assumed to be negligible. (2) In assigning the location of jobs to residents of the City and the remainder of the SMSA, it was assumed that people would chose to work near where they live. (3) There is an understatement in DES employment figures; Census data was factored to make the two sources comparable.

1. Distribution of Jobs

In 1960, according to the Massachusetts Division of Employment Security (DES), there were 835,526 jobs* within the Boston Metropolitan Area. Nearly 45% (375,491) of these were located within the City of Boston.

Although the total number of jobs in the Metropolitan region was divided 55% in the suburbs and 45% in the City, there were major differences in the distribution of jobs in the region among the eight major employment sectors. The most unusual distribution occurred in manufactoring where a very heavy concentration (71.6% of all the manufacturing jobs) were located outside of Boston. The jobs in this one sector represented 47% (over 216,000) of all the jobs in the suburbs and, in absolute numbers, represented more than twice the number of jobs as any other sector in the city or the suburbs. While manufacturing was the largest single employer in the City, it represented only 22.9% of all the jobs in Boston.

Of the eight major job sectors in the Boston metropolitan region, only six were very large employers; the two relatively small employers, agriculture - forestry - fisheries - mining and construction, did not account for anywhere near as many jobs as the other six sectors. Of the remaining six, one manufacturing, as demonstrated above, was very heavily orientated toward the suburbs. Jobs in the service industries and in retail trade were split about half to the Central City and half to the suburbs.

On the other hand, jobs in the three remaining major job sectors were heavily orientated toward Boston. Seventy-five percent of all the jobs in

*This figure does not represent a complete count of jobs within the region, but rather those jobs enumerated by DES.

finance, insurance and real estate were located in the City comprising 14% of all Boston's jobs. Sixty-five percent of all the wholesale trade jobs were in the city, representing 12% of Boston's jobs. Sixty-one percent of the transportation, communications and utilities jobs were also in the City, and these comprised 10% of all of Boston jobs.

The major locational force in the region was for manufacturing jobs to locate beyond the central city. Only in the suburbs was there available the vast amount of open land needed for modern efficient one story plant layout. The jobs that orientated toward Boston proper were those that lent themselves to conglomerations of scale in high rise buildings with relatively small amounts of space per employee - for example the office jobs of finance, insurance and real estate. Also Boston orientated were the distributive types of jobs (wholesale trade and transportation - communications - utilities) where central locations were necessary for efficient servicing of the entire metropolitan region.

In summary, the City of Boston could be characterized as having a much greater diversity of job types than the remainder of the metropolitan area, while the suburbs were heavily orientated toward the land consuming manufacturing industries. Almost one of every two suburban jobs was in manufacturing, Boston showed no such unusual concentration of its jobs.

2. Distribution of Employee's Place of Residence

Of the 786,730 persons covered in 1960 by the Massachusetts Division of Employment Security who lived and worked in the Metropolitan Area, 27% resided in Boston - the remainder in the suburbs. However, as noted

previously, 45% of the jobs were in Boston, indicating that many persons commuted from the suburbs to reach work. People travelled to the jobs, jobs didn't necessarily move to the people. Other factors bear on why jobs move.

Analysis of the data shows there is little difference in the type of job held by Boston and suburban residents. The percentage of persons living in either area and employed, for example, in manufacturing, retail trade or finance - insurance - real estate was nearly the same. However, it is suggested that an analysis of the occupational levels within the various major employment sectors would show a strong differential in wages, with City residents tending generally toward the lower paying and less skilled occupations in each job category.

Unlike the pattern of job distribution, there is little difference between the employment categories in which City residents are employed and the categories which employ residents of the rest of the SMSA. Whenever differences occur, they are always in the same direction as the differences in job distributions. Thus, it can be seen that there is some, but an unexpectedly small amount of correlation between location of jobs and residence of employees. As indicated in a later section (Chapter D) where such a correlation does exist, it is likely to occur among those categories employing large numbers of non-whites. In summary, the type of job was found to be more likely to have a specialized location (i.e., Central City or elsewhere in the SMSA) than was the location of the residence of the worker who filled the job.

TABLE XI

DISTRIBUTION OF JOBS IN BOSTON AND THE SMSA -- 1960

SIC	Major Sectors	Boston Number	Boston % Distribution	SMSA (excluding Boston) Number	SMSA (excluding Boston) % Distribution
01-14	Agriculture, Forestry, Fisheries & Mining	1,272	0.3	2,468	0.5
15-17	Construction	17,045	4.6	31,716	6.9
19-39	Manufacturing	85,972	22.9	216,415	47.0
40-44	Transportation, Communication & Utilities	37,580	10.0	24,326	5.3
50	Wholesale Trade	45,587	12.1	24,956	5.4
52-59	Retail Trade	79,502	21.2	96,016	20.9
60-67	Finance, Insurance, & Real Estate	53,812	14.3	17,368	3.8
70-89	Service Industries	54,721	14.6	46,770	10.2
	TOTALS	375,491	100.0	460,035	100.0

Jobs in the SMSA (excluding Boston)	460,035	55%
Jobs in Boston	375,491	45%
Total Jobs in the SMSA	835,526	100%

Source: Division of Employment Security, 1960

TABLE XIA

JOBS IN BOSTON AND THE REMAINDER OF THE SMSA:
PERCENTAGE DISTRIBUTION BY
1) TOTAL JOBS IN EITHER GEOGRAPHIC AREA
2) GEOGRAPHIC BREAKDOWN OF JOBS WITHIN EACH MAJOR SECTOR

		1. (Read Vertically) % Of Total Jobs In		2. (Read Horizontally) % Of All Jobs Within Specific Sectors		
SIC	Major Sectors	Boston	Remain. SMSA	Boston	Remain. SMSA	Total-
01-14	Agriculture, Forestry, Fisheries & Mining	0.3	0.5	34.0	66.0	100.0
15-17	Construction	4.6	6.9	35.0	65.0	100.0
19-39	Manufacturing	22.9	47.0	28.4	71.6	100.0
40-49	Transportation, Communications & Utilities	10.0	5.3	60.7	39.3	100.0
50	Wholesale Trade	12.1	5.4	64.7	35.3	100.0
52-59	Retail Trade	21.2	20.9	45.3	54.7	100.0
60-67	Finance, Insurance & Real Estate	14.3	3.8	75.5	24.5	100.0
70-89	Service Industries	14.6	10.2	53.9	46.1	100.0
	TOTAL	100.0%	100.0%	45.0%	55.0%	100.0%
	Numerical Equivalents	375,491	460,035	375,491	460,035	835,526

TABLE XII

EMPLOYMENT CATEGORIES OF BOSTON AND SMSA RESIDENTS --1960

SIC	Major Sectors	Boston Number	Boston % Distribution	SMSA (excluding Boston) Number	SMSA (excluding Boston) % Distribution
01-14	Agriculture, Forestry, Fisheries & Mining	1,019	0.5	5,989	1.0
15-17	Construction	12,390	5.9	38,652	6.7
19-39	Manufacturing	70,326	33.3	224,108	38.9
40-49	Transportation, Communications & Utilities	20,278	9.6	41,124	7.1
50	Wholesale Trade	11,695	5.5	30,534	5.3
52-59	Retail Trade	41,793	19.8	106,904	18.6
60-67	Finance, Insurance & Real Estate	18,224	8.6	44,586	7.8
70-89	Service Industries	35,345	16.8	83,763	14.5
	TOTALS	211,070	100.0	575,660	99.9

Source: U.S. Bureau of Census, U.S. Census of Population, 1960 Characteristics of the Population -- Part 23

Note: The U.S. Census classifies a number of jobs that are not covered by the Massachusetts Division of Employment Security (See Table VII). In order to correlate these two sources, the following employment groups were excluded from the Census figures above:

	Boston	SMSA
Total Employment of Residents	288,246	1,023,725
Categories Excluded from Table XII		
Hospitals	14,592	36,617
Educational Services	14,251	64,089
Public Administration	19,282	56,668
Not Reported	22,499	55,361
Railroad & Railway Express	2,531	6,961
Private Households	4,021	17,289
Total Excluded	-77,176	-236,995
ADJUSTED TOTAL EMPLOYMENT	211,070	786,730 (575,660 excluding Boston)

TABLE XIII
THE RELATIONSHIP OF JOB LOCATIONS AND RESIDENCE OF EMPLOYEES, BOSTON AND THE SMSA -- 1960

SIC	Major Sectors	Jobs: % In Boston	Jobs: % In Remain. Of SMSA	Employees: % Living In: Boston	Employees: % Living In: Remain. SMSA
01-14	Agriculture, Forestry, Fisheries & Mining	34.0	66.0	14.5	85.5
15-17	Construction	35.0	65.0	24.3	75.7
19-39	Manufacturing	28.4	71.6	24.9	75.1
40-49	Transportation, Communications & Utilities	60.7	39.3	33.1	66.9
50	Wholesale Trade	64.7	35.3	27.7	72.3
52-59	Retail Trade	45.3	54.7	28.1	71.9
60-67	Finance, Insurance & Real Estate	75.5	24.5	29.0	71.0
70-89	Service Industries	53.9	46.1	29.6	70.4
	All Industries	45.0	55.0	26.8	73.2
	Numerical Equivalents	375,491	460,035	211,070	575,660

Source: Massachusetts Division of Employment Security and the U.S. Census

The distribution of employees by place of residence (Columns 3 and 4) to the major employment sectors corresponds exactly with the 1960 ratio of Boston to non-Boston Population within the SMSA.

1960 City of Boston Population	697,197	27%
1960 Remainder of SMSA Population	1,898,284	73%
1960 Total SMSA Population	2,595,481	100%

C. THE MANUFACTURING SECTOR: JOB LOCATION AND EMPLOYEES' RESIDENCE -- BOSTON AND REMAINDER OF SMSA, 1960

This section continues the analysis of Chapter B, but concentrates entirely on manufacturing employment. The limitations cited previously also apply here.

In 1960, there were 302,400 manufacturing jobs in the metropolitan area with 294,400 residents employed therein. The 8,000 manufacturing jobs not filled by metropolitan area residents can be assumed to be held by people commuting in.

The findings in the previous chapter indicated that in 1960, approximately 72% of the manufacturing jobs were located in the suburbs and 28% were in the City (a 2.5 to 1 ratio). The actual figures in 1960, according to the Massachusetts Division of Employment Security, were 216,400 and 86,000, respectively. Conversely, only 70,300 (24%) of the total labor force employed in these jobs lived within the City. This indicates, on balance, a small migration of non-City residents to City-based manufacturing employment.

1. Distribution of Manufacturing Employment

Table XIV indicates that the largest single sector of manufacturing jobs in Boston was textile and apparel products. They comprised 23% of all the City's manufacturing jobs in 1960, but only 5% of the manufacturing jobs in the remainder of the SMSA.

Of all the region's jobs in textile and apparel products, 67% were in Boston, compared to 28% for all manufacturing jobs.

Food and kindred products represented 18% of the City's manufacturing jobs, but only 6% of those in the suburbs. Of all the jobs in this classification, 55% were in Boston.

Jobs in printing and publishing represented 17% of the manufacturing jobs in the City, but only 4% of those in the suburbs. Of all the jobs in this classification, 63% were in Boston.

The three groups above (textile and apparel products, food, printing and publishing) were the only manufacturing sectors where a majority of the available jobs were located within the City of Boston. These City jobs exceeded, both absolute numbers and percentages, the City's resident labor force employed therein. This indicated a net inflow of suburban residents to fill these City-based jobs.

At the other extreme in 1960, there were almost 7 times as many jobs in machinery in the suburbs as there were in the City. They comprised 36% of all the manufacturing jobs in the suburbs, but only 14% of Boston's manufacturing jobs. However, 20% of the City's manufactruing labor force was employed in this classification, indicating a net outflow of City residents to these jobs.

There were also 21 times as many jobs in transportation equipment in the suburbs as in the City. These jobs comprised 10% of the manufacturing jobs in the suburbs, but only 1% of the jobs in Boston. Here again, City residents traveled to outlying areas for employment. The same situation occurred in other non-durable manufacturing, principal among which are leather, paper and chemicals; and other durable manufacturing, the major elements being scientific instruments, stone, clay and glass products and miscellaneous manufacturing industries.

In each of the above instances, the ratio of jobs in the suburban SMSA relative to jobs in Boston greatly exceeded the average 2.5 to 1 ratio of total manufacturing jobs.

2. Distribution of Manufacturing Employees' Place of Residence

Table XVI indicates that, in 1960, 24% of the total metropolitan area population employed in manufacturing lived in the City of Boston, the remaining 76% resided in the suburbs. It would be expected, therefore, that the employment distribution for any specific manufacturing category would conform approximately to this distribution.

There are two instances where a significantly higher percentage of City residents were employed in a particular manufacturing category than would have been expected from the average distribution of City and suburban employees. In textile and apparel products, 42% of the total metropolitan labor force were Boston residents in 1960.

Division of Employment Security figures indicated that the weighted average annual wage for these two employment categories was the lowest of the 21 manufacturing classifications, $4,090 versus an average of $5,250.

The City's share of the distribution of workers in textile and apparel products was very heavily weighted towards textiles. Textile workers are paid significantly less than apparel workers. As indicated in Table XI, employment in textile and apparel products represented 16% of Boston's resident manufacturing labor force in 1960, but only 7% of the suburbs. Clearly a large section of the City's labor force was employed in very low paying manufacturing jobs.

The second sector where City residents comprised an abnormally large part of the total SMSA labor force occurred in food and kindred products. Thirty-three percent of the labor force in this sector were Boston residents compared to the expected all-manufacturing average of 24%.

Employees in food and kindred products represented 13% of the City's total manufacturing labor force, but only 9% of that in the suburban SMSA. Wages in this industry in 1960 were slightly below the average of all manufacturing employment.

Conversely, there are two manufacturing groups where the employment of non-City residents greatly exceeded the average distribution for all manufacturing industries. Eighty-three percent of all the workers in machinery lived in the suburbs. As indicated in Table XV, machinery workers comprised 32% of the total suburban manufacturing labor force and 20% of the City's. In both instances, this represented the largest number of workers in any classification.

Transportation equipment employed 8% of the suburban manufacturing labor force and 6% of Boston's. However, 81% of the workers in this classification lived outside the City, while only 19% were City residents.

3. Summary

Of the nine manufacturing sectors which have been examined above, two indicated a percentage of suburban resident workers significantly exceeding the percentage of Boston resident workers: Machinery, and Transportation Equipment. The average wage in these two sectors was greater than the overall average manufacturing wage by $300 per year in 1960, ($5,500 and $5,250 respectively).

Conversely, the findings indicated that two other sectors of manufacturing employment contained percentages of suburban resident workers

significantly less than the percentages of Boston resident workers: Textile and Apparel Products, and Food and Kindred Products. The average wage in these sectors was less than the overall average manufacturing wage by $675. This wage was almost $1,000, or 18% less than comparable figures for manufacturing workers living in the SMSA excluding Boston.

In summary, the manufacturing industries employing the highest percentage of workers from outside Boston paid, in 1960, annual wages 18% greater than those industries employing the highest percentage of Boston residents.

TABLE XIV

DISTRIBUTION OF MANUFACTURING JOBS IN BOSTON AND THE SMSA -- 1960

SIC	Major Sectors	Boston		SMSA (excluding Boston)	
		Number	% Distribution	Number	% Distribution
24-25	Furniture, Lunber & Wood Products	1,782	2.1	3,967	1.8
33-34	Metal Industries	7,701	9.0	12,798	5.9
35-36	Machinery	11,599	13.5	77,421	35.7
37	Transportation Equipment	1,062	1.2	22,462	10.4
19,32, 38-39	Other Durable Goods	4,977	3.8	20,540	9.5
20	Food & Kindred Products	15,620	18.2	12,612	5.8
22-23	Textile & Apparel Products	19,635	22.8	10,035	4.6
27	Printing, Publishing & Allied Industries	14,363	16.6	8,411	3.9
21,26 28-31	Other Non-Durables	9,293	10.8	48,169	22.2
19-39	Total Employment in Manuf.	85,972	100.0	216,415	99.8

Jobs in the SMSA (excluding Boston)..... 216,415
Jobs in Boston 85,972
Total Manufacturing Jobs in the SMSA 302,387

Source: Massachusetts Division of Employment Security, 1960

TABLE XV

MANUFACTURING INDUSTRIES IN WHICH BOSTON & SMSA RESIDENTS WERE EMPLOYED -- 1960

SIC	Major Sector	Boston Number	Boston % Distribution	SMSA (excluding Boston) Number	SMSA (excluding Boston) % Distribution
24-25	Furniture, Lumber & Wood Products	1,401	2.0	4,250	1.9
33-34	Metal Industries	6,808	9.7	17,171	7.7
35-36	Machinery	14,381	20.4	71,207	31.8
37	Transportation Equipment	3,982	5.7	17,307	7.7
19,32, 38-39	Other Durable Goods	3,103	7.2	15,926	7.1
20	Food & Kindred Products	9,439	13.4	19,416	8.7
22-23	Textile & Apparel Products	11,312	16.1	15,849	7.1
27	Printing & Publishing	6,954	9.9	17,402	7.8
21,26, 28-31	Other Non-Durables	10,946	15.6	45,580	20.3
19-39	Total Employment in Manufacturing	70,326	100.0	224,108	100.1

Employment of SMSA Residents (excluding Boston) 224,108
Employment of Boston Residents 70,326

Total Manufacturing Employment SMSA Residents 294,434

Source: 1960 Census of Population and Housing PHC (1)-18

TABLE XVI

THE RELATIONSHIP OF MANUFACTURING JOB LOCATIONS AND RESIDENCE OF EMPLOYEES, BOSTON AND THE SMSA -- 1960

		Manufacturing Jobs in Boston and SMSA 1960		Manufacturing Employment of Boston and SMSA Residnets 1960	
SIC	Major Sector	% In Boston	% In Rest of SMSA	% Living In Boston	% Living in Remain. of SMSA
24-25	Furniture, Lumber & Wood Products	31.0	69.0	24.8	75.2
33-34	Metal Industries	37.5	62.5	28.4	71.6
35-36	Machinery	13.0	87.0	16.8	83.2
37	Transportation Equipment	4.5	95.5	18.7	81.3
19,36, 38-39	Other Durable Goods	19.5	80.5	24.2	75.8
20	Food & Kindred Prod.	55.3	44.7	32.7	67.3
22-23	Textile & Apparel Products	66.2	33.8	41.7	58.3
27	Printing, Publishing & Allied Industries	63.0	37.0	28.6	71.4
21,26, 28-31	Other Non-Durables	16.2	83.8	19.4	80.6
19-39	All Manufacturing Industries	28.4	71.6	23.9	76.1
	Numerical Equivalent	85,972	216,415	70,326	224,108

Source: Massachusetts Division of Employment Security and the U.S. Census

D. EMPLOYMENT PATTERNS IN BOSTON CENSUS TRACTS WITH OVER 50% NONWHITE POPULATION, 1960

There are marked variations between the average distribution of jobs held by residents of the City of Boston as a whole and the jobs held by residents of the 15 census tracts where, in 1960, over 50% of the population was nonwhite.

The 15 census tracts that form the heart of Boston's Negro area had in 1960 nonwhite populations ranging from 50.7% to 95.7% of their total population. Seventy-two percent of the area was nonwhite compared to the city-wide average of 9.8%. Over 65% of Boston's total nonwhite population lived in these fifteen tracts.* The City contains 164 census tracts.

1. Population Characteristics of the 15 Census Tracts

In 1959, the city-wide median family income was $5,747; in the 15 census tracts it was $4,542 or 20% lower. Thirty-eight percent of the population of the 15 tracts were employed in 1960 compared to 42% of the population in the remainder of the City, a difference of over 10%. The labor force of the 15 tracts was 58% male and 42% female. For the remainder of the City it was 60% male and 40% female. The U.S. Census

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* The 15-tract study area does not include the two census tracts, G-1 and G-2 that comprise Boston's Chinatown. Although the nonwhite population of these two tracts exceeds 50%, this chapter is an attempt to define the problems of the Negro area, the population of which accounts for practically all of the nonwhite population in the 15-tract study area. The study area includes the following census tracts: J-2, L-2, L-3, P-5, R-1, R-3, T-6, U-1, U-2, U-3, U-4, U-5, U-6A and U-6B.

of 1960 indicated a male unemployment rate of 7.4% in the 15 tracts, and 5.4% in the remainder of the City, a difference of over 37%. The female unemployment rate was 6.1% in the study area and 3.6% in the remainder of the City, a difference of almost 70%. This, coupled with the higher rate of Negro female employment, indicates an enormous difference in the size of the female labor force for the 15 tracts compared to the remainder of the City.

Historically, nonwhite unemployment for the country as a whole has been almost twice that of white unemployment. In 1960, the national unemployment rate was 4.7% among whites and 8.7% among nonwhites. However, locally there was less difference; white unemployment was higher and nonwhite lower than for the nation as a whole.

As of August 1966, national white unemployment stood at 3.1% and nonwhite employment at 8.3% -- 2-2/3 times the white rate. This relative increase in nonwhite unemployment occurred during a period of record productivity. Comparable figures for the City are not available, but a local study* estimated that at the end of 1964 the nonwhite unemployment rate in Boston remained at the 1960 level of 7.5%. This represented, according to the estimate, about 3000 unemployed in a nonwhite labor force of 36,000.

2. Distribution of Employment

Table XVII relates the types of jobs held by residents of the 15 tracts in 1960 to those held by residents of the remainder of the City.

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* See Puma, John J., Negro Employment in the Boston Labor Market, unpublished M.S. Thesis, MIT, June 1965.

A resident of the 15 tracts was more than 5-1/3 times as likely to be employed as a private household worker than was a resident of the rest of the City. A resident of the 15-tract study area was also twice as likely as a resident of the remainder of the City to be employed in other personal service industries (laundries, beauty and barber shops, funeral services, garages, etc.). A resident of the study area was 38% more likely to be a hospital employee, 22% more likely to be a railroad or railway express employee, 19% more likely to be employed in business and repair services, and 9% more likely to be employed in eating and drinking places than a resident of the rest of the City.

On the other hand, a City resident living outside of the study area was 3-1/2 times as likely to be employed in communications, utilities and sanitary services, and twice likely to be employed in educational services as a resident of the 15 tracts. Other City residents were almost 75% more likely to be employed in public administration, more than 50% as likely to be employed in transportation (other than railroad), 50% more likely in wholesale trade and retail trade (other than eating and drinking places), 37% more likely in professional and related services (other than education), and almost 10% more likely to be employed in construction as a resident of the 15-tract study area.

3. Distribution of Employment in the Manufacturing Sector

As indicated in Table XVIII, the average wage for the manufacturing classifications ($102) was higher than the all industry average ($92). This fact, coupled with the higher median family income for the City as

compared to the study tracts, would suggest that the major nonwhite tracts would, therefore, show proportionally less employment in manufacturing than other residential areas of Boston. In fact, just the opposite is true. A higher percentage of the labor force employed in manufacturing lived in the 15 tracts (28.5%) than in the City (24.0%).

Upon analysis of the individual manufacturing categories the reason for the contradiction becomes apparent -- the study area's manufacturing jobs were concentrated in the low wage textile, apparel, and leather industries. A resident of the study area was 47% more likely to be employed in textiles and apprel than were other city-wide residents. As shown in Table XIV, the textile and apparel industry is the lowest paying manufacturing operation in the metropolitan area with an average weekly payroll more than 25% below the all manufacturing average. Over 22% of the residents of the 15 tracts employed in manufacturing were in this field, while 15.4% of the manufacturing workers in the remainder of the City were so employed.

The second lowest paying manufacturing group is leather and leather products; this comprised over 1/2 of the employment in the "other non-durable goods" classification. Average mauufacturing employment in other areas of the City for this group was 15.2%; that in the 15-tract study area was 19.4%. The two lowest paying manufacturing classifications (textile and apparel, and other non-durables) accounted for 42.1% of the manufacturing labor force of the study area. They accounted for 30.6% of the manufacturing labor force in the remainder of the City, a difference of over 35%.

4. Occupational Classifications

In addition to knowing the industry in which a person is employed, it is important to know his occupational classification. As indicated in Table XIX, only 24% of the labor force living in the 15 tracts was employed in white collar jobs, while 46% of the labor force in the remainder of the City was so employed. In other words, a City resident living outside of the study area was almost twice as likely to hold a white collar job as a resident of the area. At the white collar level, a City resident living outside of the 15-tract area was more than twice as likely to be a manager, official, proprietor or sales worker, 90% more likely to be a clerical worker, and 75% more likely to be a professional, technical or kindred worker than a resident of the study area.

On the other hand, a worker residing in the 15 tracts was 40% more likely to be employed in a blue collar position than was a worker living elsewhere in the City. The only blue collar job at which a resident of the rest of the City was more likely to be employed was in the highly skilled, and highly paid craftsmen and foremen occupations. Otherwise, residents of the 15 tracts were five times as likely to be private household workers, 56% more likely to be operatives, 40% more likely to be service workers, and 35% more likely to be laborers than were other City residents.

* * *

National trends point to a rising demand for workers with high levels of education and skill coupled with declining opportunities for the unskilled. Operatives and kindred workers, the largest blue collar category

in the City, and the largest single category of employment in the 15 tracts, will show a below average increase in employment in the coming decade. Automation of production processes will continue to eliminate many operative jobs, especially in manufacturing.

The second largest occupational classification in the study area is service workers. This is a very broad classification and study area residents seem to be employed in the menial jobs. Nationally, the number of workers in this category is expected to increase at a rate considerably above the average for the entire work force, reflecting the shift away from goods-producing activity.

5. Effect of Public Actions on Job Availability

Another factor that could influence employment in the study area remains to be discussed. Table XVII shows that 28.5% of all the jobs held by residents of the area were in manufacturing. Table XVIII breaks this figure into specific industries. Boston Redevelopment Authority records* indicate that during the period of 1966 through 1972, 13.5% of all the manufacturing firms in the City will face relocation due to some form of public action. Among the types of firms most heavily affected will be apparel (22.3% of all of these firms in the City), leather (18.9% of all of these firms in the City), and textile (17.3% of all of these firms in the City). These three manufacturing operations employ about 35% of all the residents of the 15 tracts employed in manufacturing, or about 10%

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* See Industrial and Commercial Business Relocation in the City of Boston, Boston Redevelopment Authority, August 1966.

of the total labor force of the area. Other manufacturing operations scheduled for displacement also employ study area residents, but the three listed above are among the most heavily affected and among the largest employers of residents of the 15 tracts.

6. Summary

In summary, the 15 census tracts analyzed in this section represent the heart of Boston's Negro residential area. They demonstrate significantly lower incomes, higher unemployment rates, and a proportionately larger female labor force than does the remainder of the City. Residents of the area are very much more likely to be employed as blue collar operatives on a manufacturing assembly line than in any other occupation. Chances are only one in four that they will hold a white collar job, while chances are even that other City residents will. The kinds of jobs most typically associated with the 15-tract study area are the jobs most likely to be replaced through technological advancements. In addition, many of these jobs face the immediate reality of relocation due to public action. Clearly, this points to the urgency of expanding manpower training programs now underway.

Table XVII

EMPLOYMENT OF RESIDENT LABOR FORCE
FIFTEEN CENSUS TRACTS WITH THE HIGHEST PERCENTAGE
OF NONWHITE POPULATION, AND THE REMAINDER OF BOSTON, 1960

Ave. Metro. Area Weekly Wage*		Number in 15 Tracts	Percent of: 15 Tracts	Percent of: Remainder of City
$111	Construction	953	4.0%	4.3%
$102	Manufacturing	6,806	28.5%	24.0%
N.A.	Railroad & Railway Exp.	259	1.1%	0.9%
N.A.	Other Transportation	647	2.7%	4.2%
$100	Commun., Util. & San. Serv.	217	0.9%	3.1%
$115	Wholesale Trade	666	2.8%	4.2%
$ 42	Eating & Drinking Places	891	3.8%	3.5%
$ 52	Other Retail Trade	1,787	7.5%	11.3%
)	Business & Repair Service	729	3.1%	2.6%
)	Private Households	1,280	5.3%	1.0%
)	Other Personal Service	1,787	7.5%	3.7%
$ 80	Hospitals	1,629	6.8%	4.9%
)	Educational Service	616	2.6%	5.2%
)	Other Prof. & Related Serv.	880	3.7%	5.1%
N.A.	Public Administration	948	4.0%	6.9%
N.A.	Other Industries Not Reported	3,715	15.7%	15.1%
$ 92	Totals	23,810	100.0%	100.0%

* Employment and Wages in Massachusetts and SMSA's, 1958-1964, Commonwealth of Massachusetts, Division of Employment Security.

Source: U.S. Census of Population and Housing: 1960, Census Tracts.

Table XVIII

MANUFACTURING EMPLOYMENT OF THE RESIDENT LABOR FORCE
FIFTEEN CENSUS TRACTS WITH THE HIGHEST PERCENTAGE
OF NONWHITE POPULATION, AND THE REMAINDER OF BOSTON, 1960

Ave. Metro. Area Weekly Wage*		Number in 15 Tracts	Percent of: 15 Tracts	Percent of: Remainder of City
$ 91	Furniture, Lumber & Wood Prod.	174	2.6%	1.9%
$105	Metal Industries	616	9.1%	9.7%
$107	Machinery	1,261	18.5%	20.6%
$133	Transportation Equipment	334	4.9%	5.7%
N.A.	Other Durable Goods	548	8.0%	7.2%
$ 97	Food & Kindred Products	722	10.6%	13.8%
$ 76	Textile & Apparel Industries	1,545	22.7%	15.4%
$107	Printing, Publishing & Allied Industries	289	4.2%	10.5%
$ 82**	Other Non-Durable Goods	1,317	19.4%	15.2%
$102	Totals	6,806	100.0%	100.0%

* Employment and Wages in Massachusetts and SMSA's, 1958-1964, Commonwealth of Massachusetts, Division of Employment Security.

** Leather and Leather Products only.

Source: U.S. Census of Population and Housing: 1960, Census Tracts.

Table XIX

OCCUPATIONAL CHARACTERISTICS OF THE RESIDENT LABOR FORCE
FIFTEEN CENSUS TRACTS WITH THE HIGHEST PERCENTAGE OF
NONWHITE POPULATION, AND THE REMAINDER OF BOSTON, 1960

	Number in 15 Tracts	Percent of:	
		15 Tracts	Remainder of City
Professional, Technical & Kindred Workers--	1,171	6.9%	12.1%
Managers, Officials & Proprietors----------	639	2.6%	5.7%
Clerical & Kindred Workers----------	2,770	11.2%	21.3%
Sales Workers----------	789	3.2%	6.7%
Craftsmen, Foremen & Kindred Workers-------	2,253	9.1%	11.4%
Operatives & Kindred Workers----------	6,728	27.1%	17.3%
Private & Household Workers----------	1,127	4.5%	0.9%
Service Workers----------	4,042	16.3%	11.6%
Laborers----------	1,358	5.4%	4.0%
Occupation Not Reported----------	3,419	13.7%	9.0%
Totals----------	24,836	100.0%	100.0%

Source: U.S. Census of Population and Housing: 1960, Census Tracts

A P P E N D I C E S

APPENDIX A

DURABLE AND NON-DURABLE GOODS BY STANDARD INDUSTRIAL CLASSIFICATION (SIC)

DURABLE GOODS

19	Ordnance & Accessories
24	Lumber & Wood Products, except Furniture
25	Furniture & Fixtures
32	Stone, Clay & Glass Products
33	Primary Metal Industries
34	Fabricated Metal Products, except Ordnance Machinery, & Transportation Equipment
35	Machinery, except Electrical
36	Electrical Machinery, Equipment & Supplies
37	Transportation Equipment
38	Professional, Scientific & Controlling Instruments; Photographic & Optical Goods; Watches & Clocks
39	Miscellaneous Manufacturing Industries

NON-DURABLE GOODS

20	Food & Kindred Products
21	Tobacco Manufacturers
22	Textile Mill Products
23	Apparel & Other Finished Products made from Fabrics, etc.
26	Paper & Allied Products
27	Printing, Publishing & Allied Industries
28	Chemicals & Allied Products
29	Petroleum Refining & Related Industries
30	Rubber & Miscellaneous Plastics Products
31	Leather & Leather Products

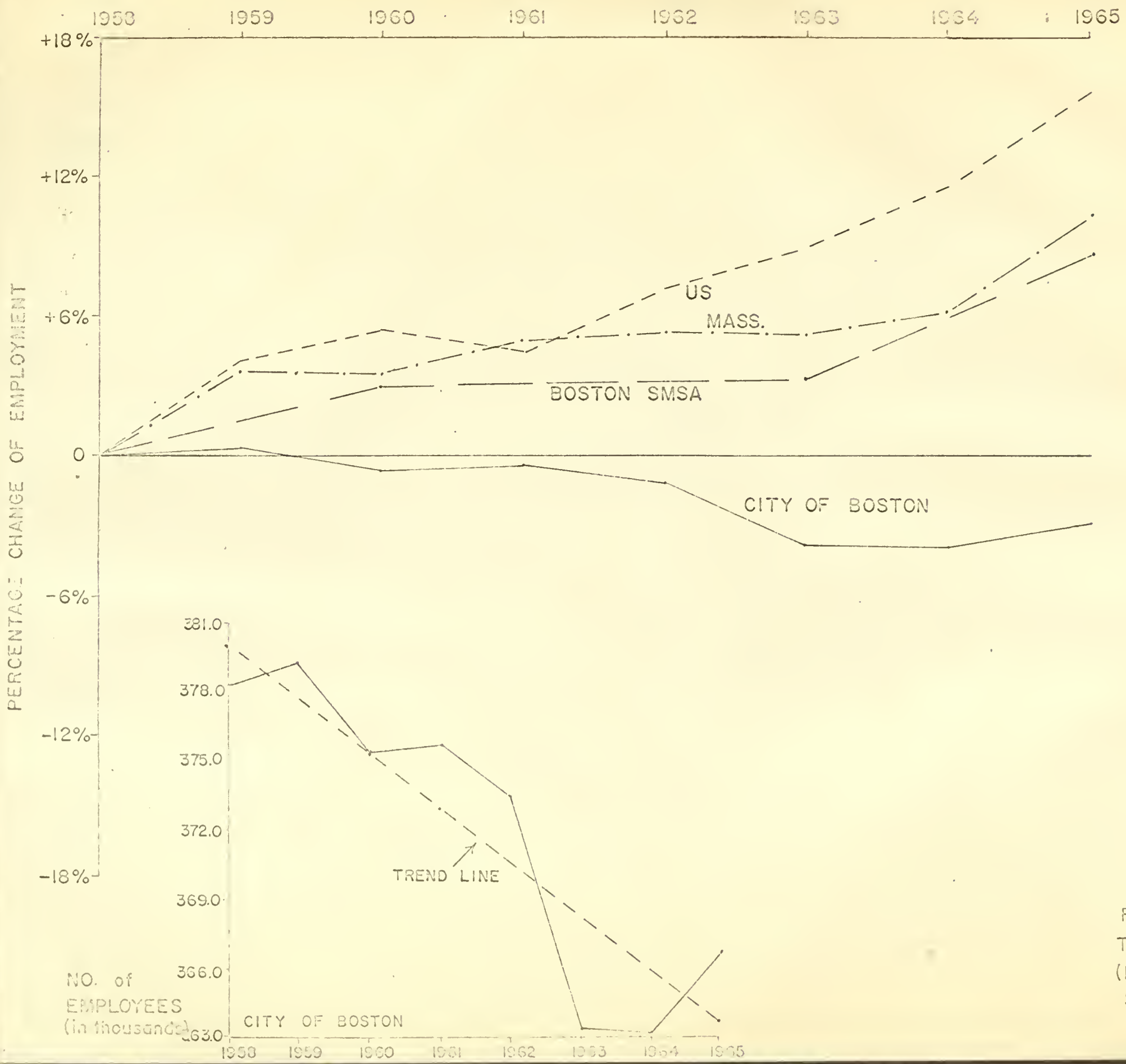

FIGURE I
TOTAL EMPLOYMENT
(Except Gov't. & U.S. Farm)
SIC 1-17, 19-67, 70-89

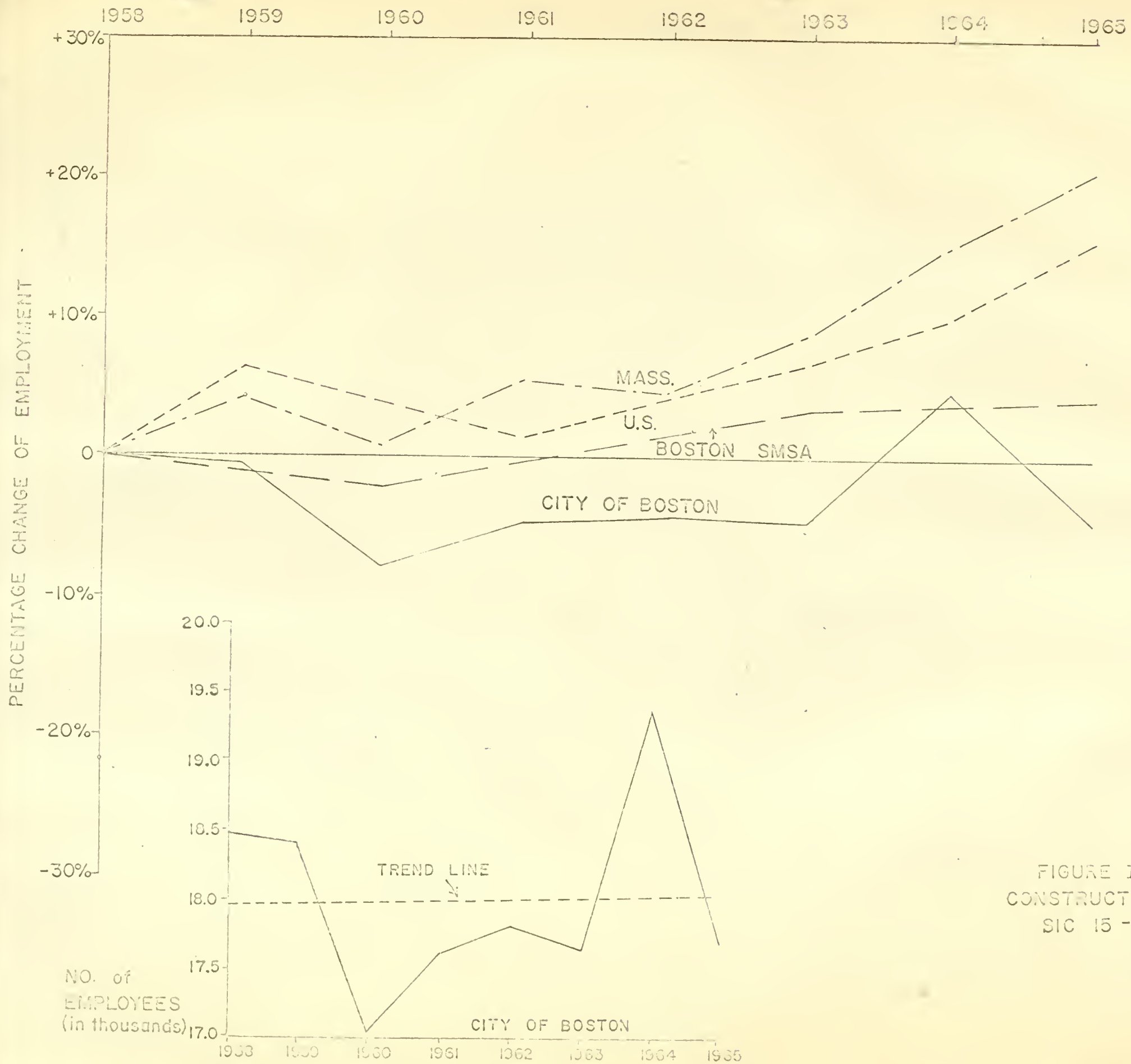

FIGURE II
CONSTRUCTION
SIC 15 - 17

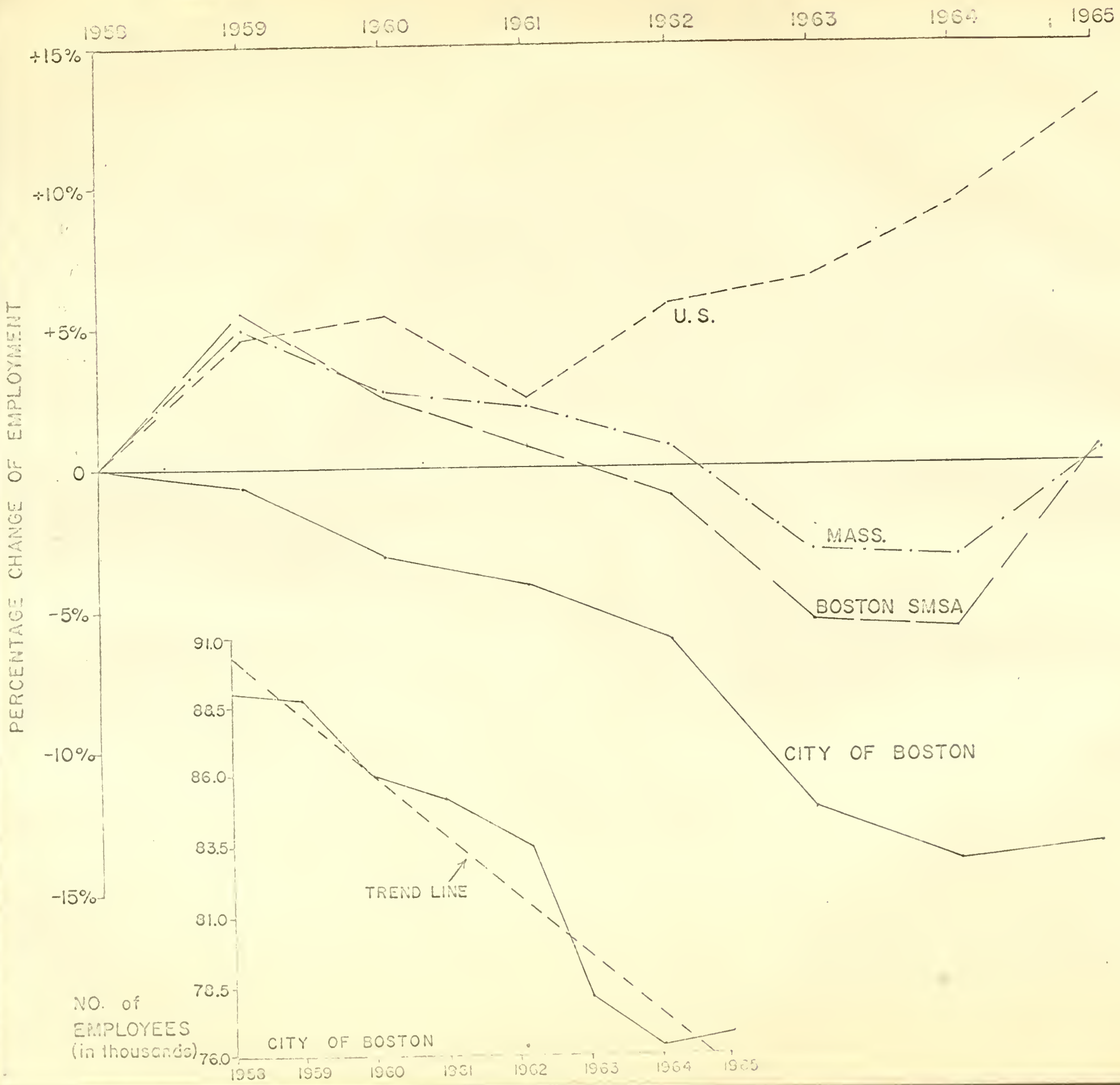

FIGURE III
MANUFACTURING
SIC 19 – 39

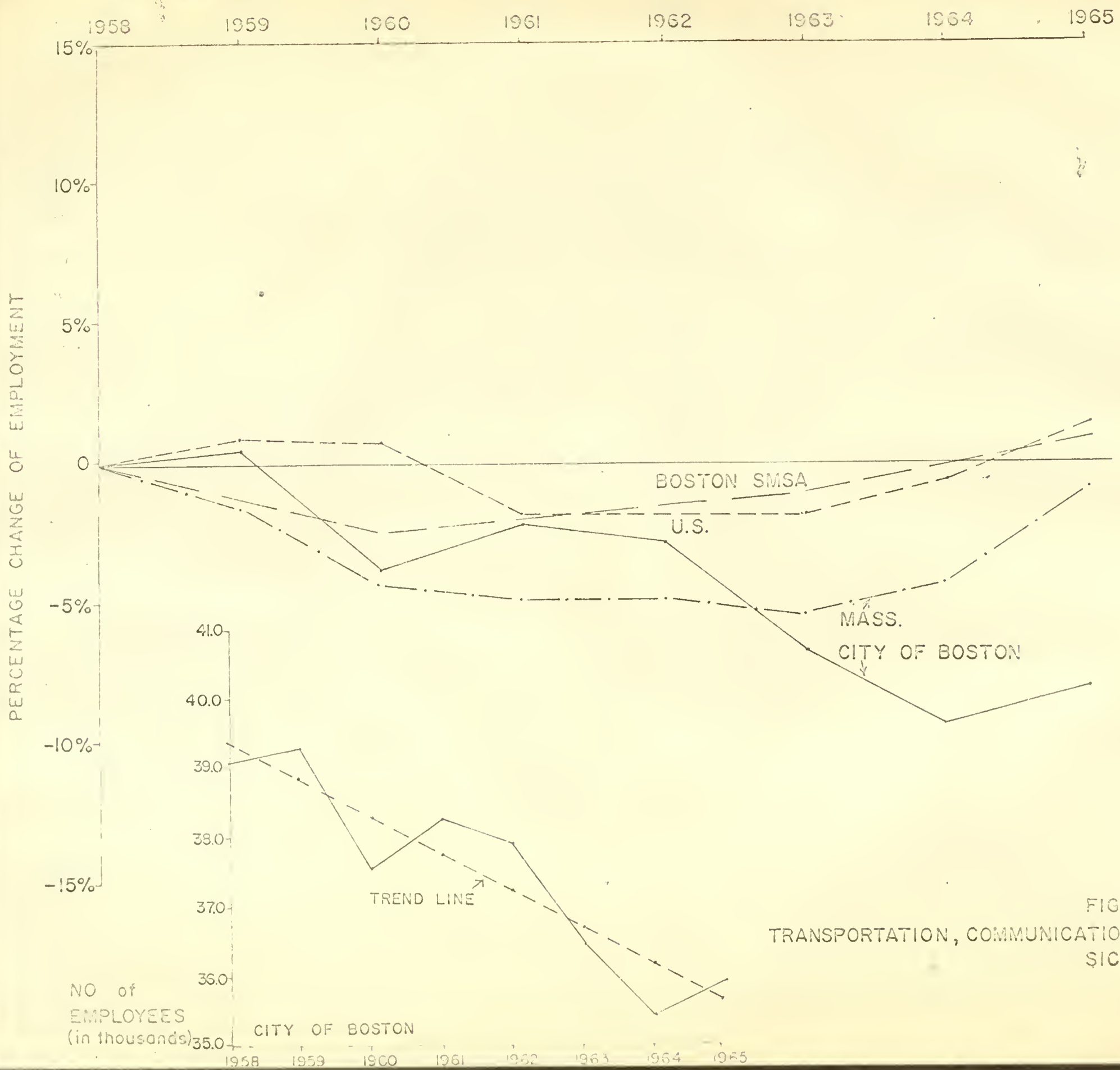

FIGURE IV
TRANSPORTATION, COMMUNICATIONS AND UTILITIES
SIC 40-49

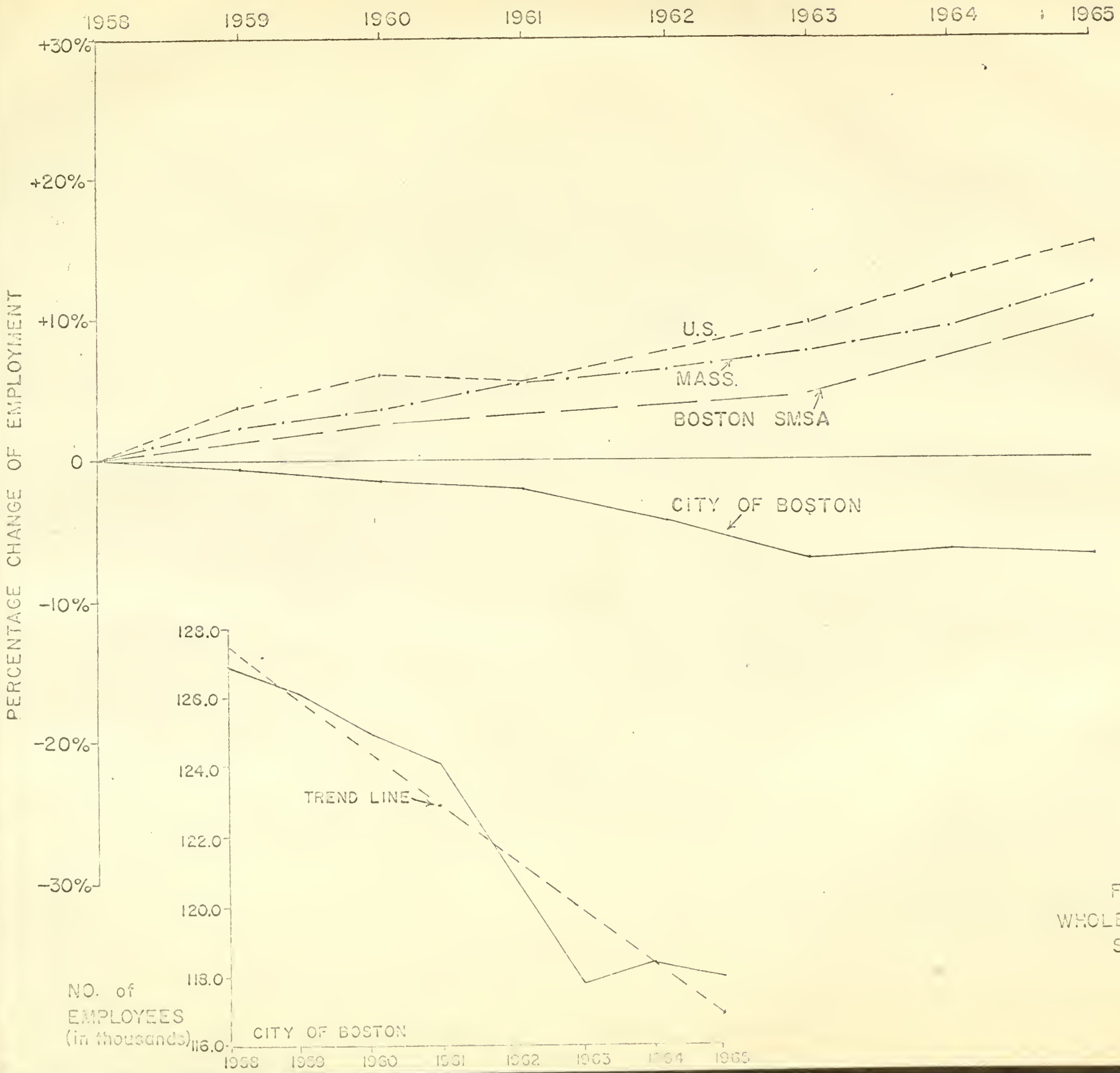

FIGURE V
WHOLESALE AND RETAIL
SIC 50 - 59

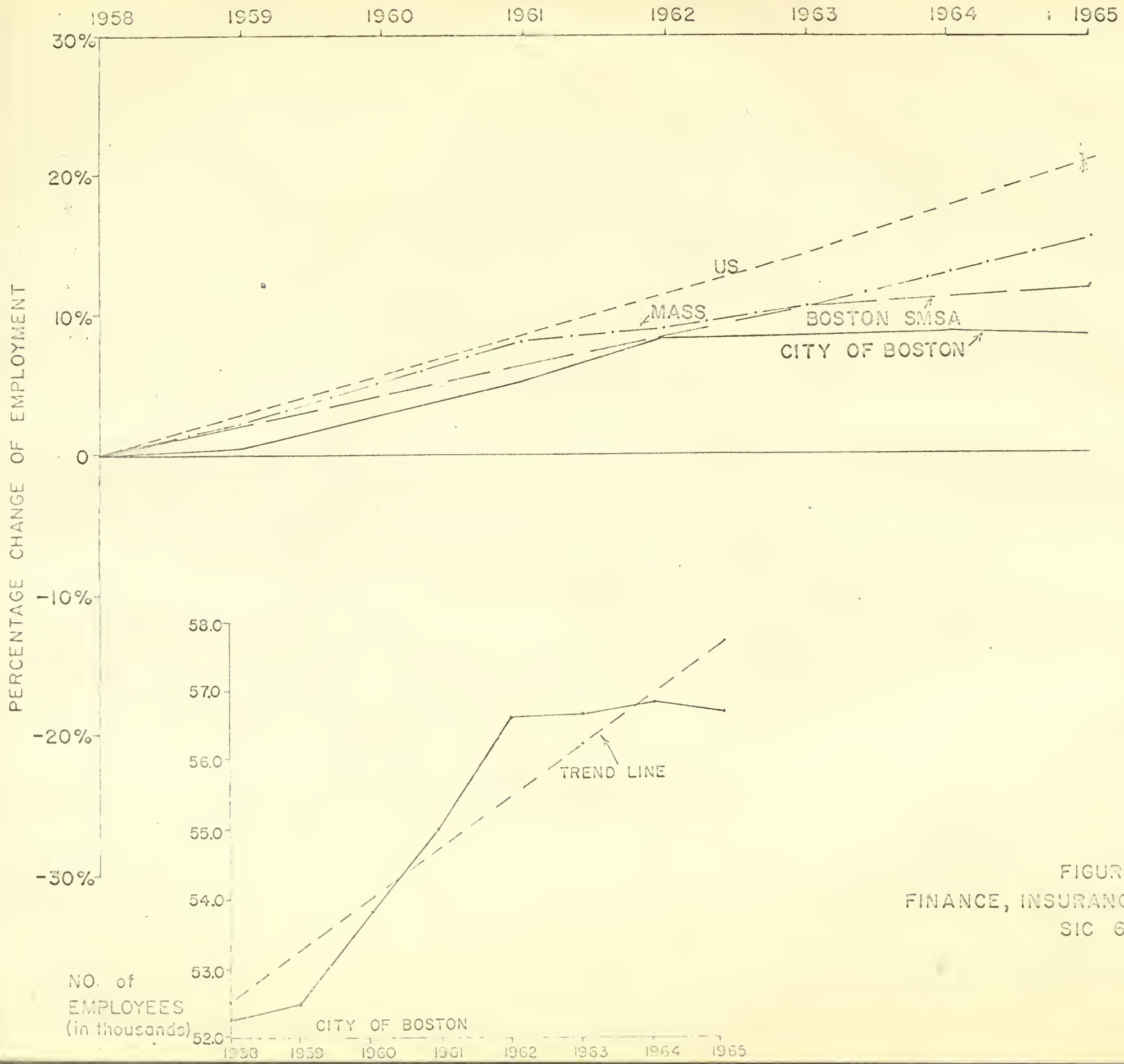

FIGURE VI
FINANCE, INSURANCE AND REAL ESTATE
SIC 60 - 67

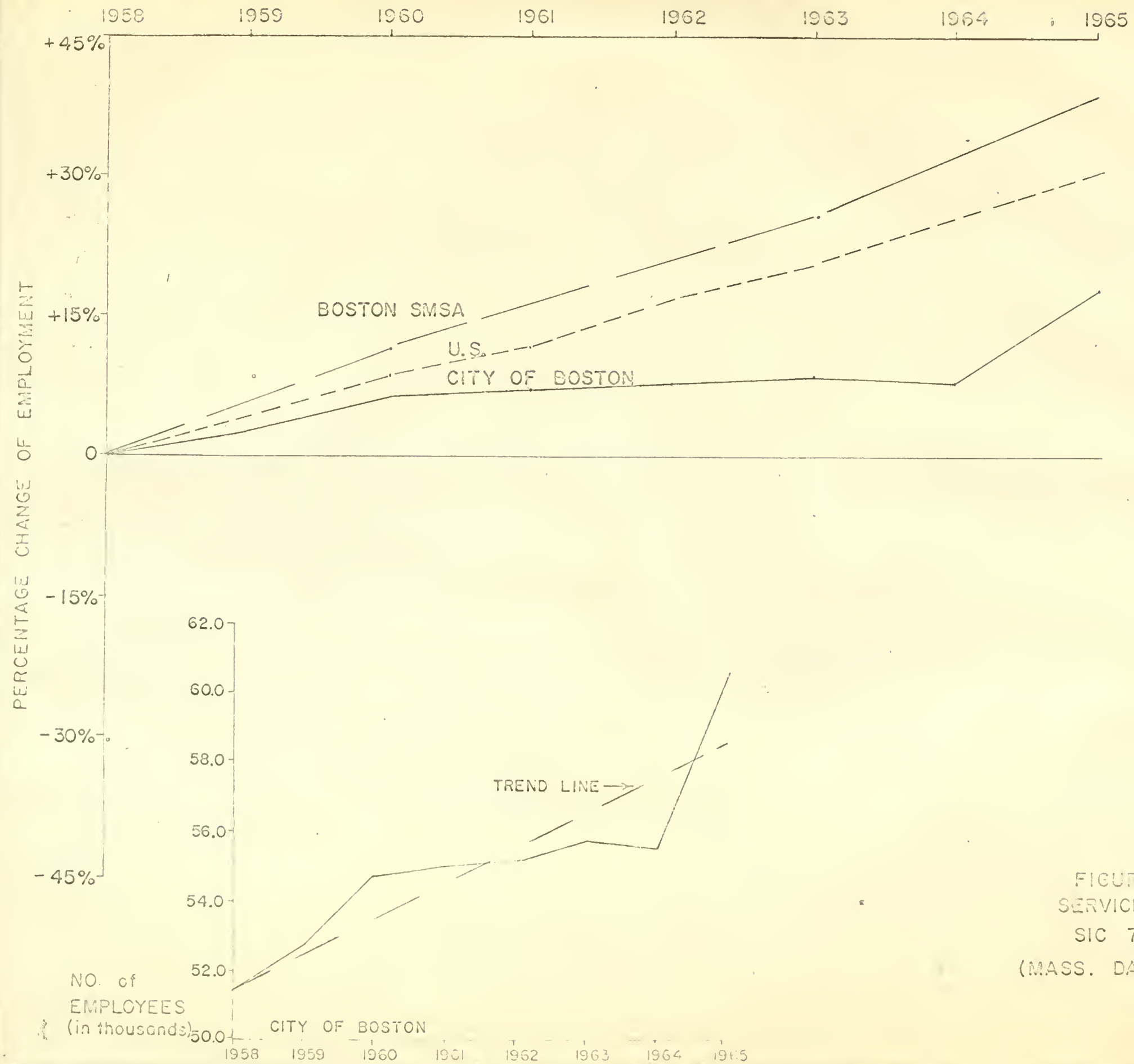

FIGURE III
SERVICE INDUCTRIES
SIC 70-89
(MASS. DATA UNAVAILABLE)

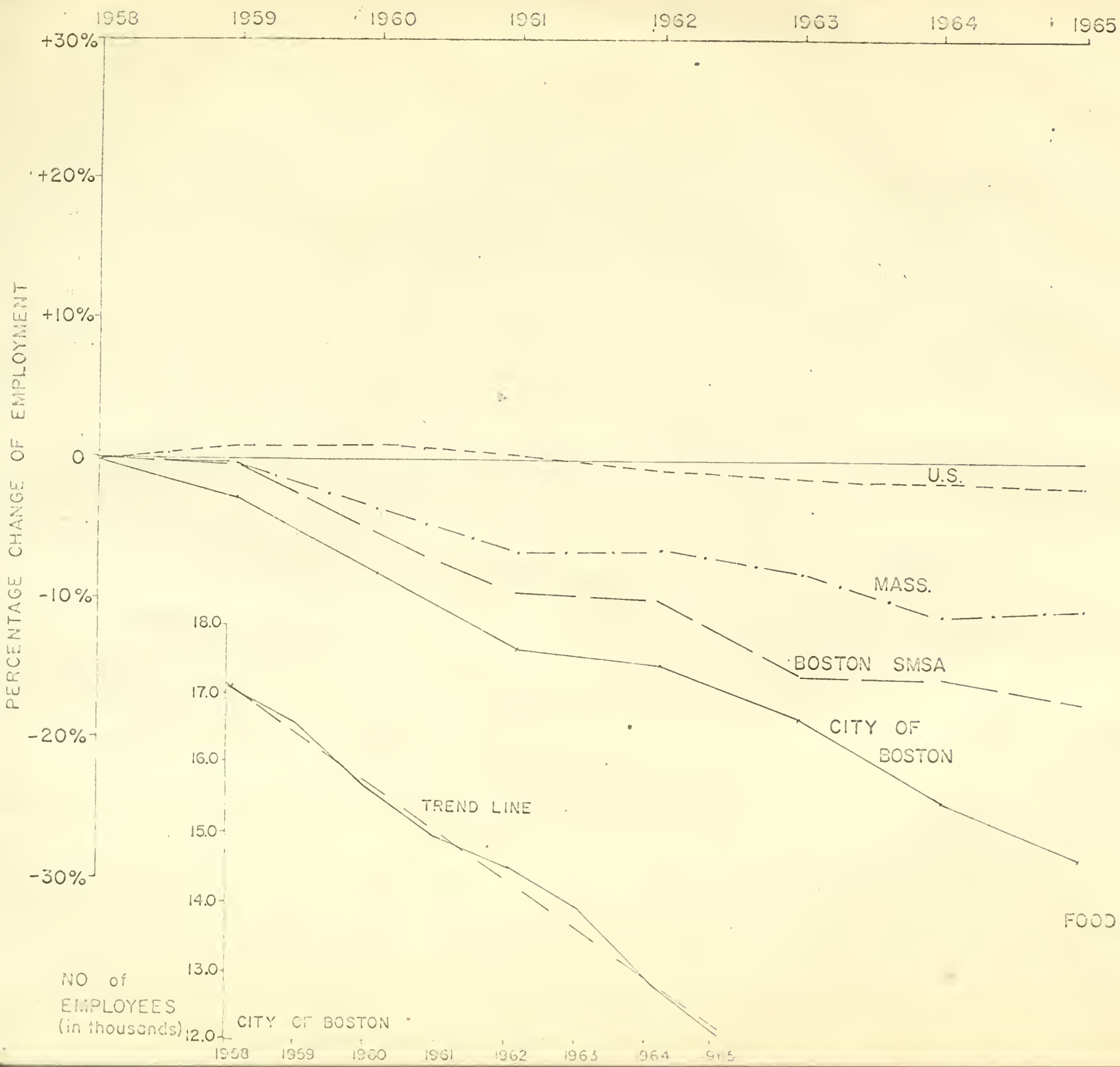

FIGURE VII
FOOD AND KINDRED PRODUCTS
SIC 20

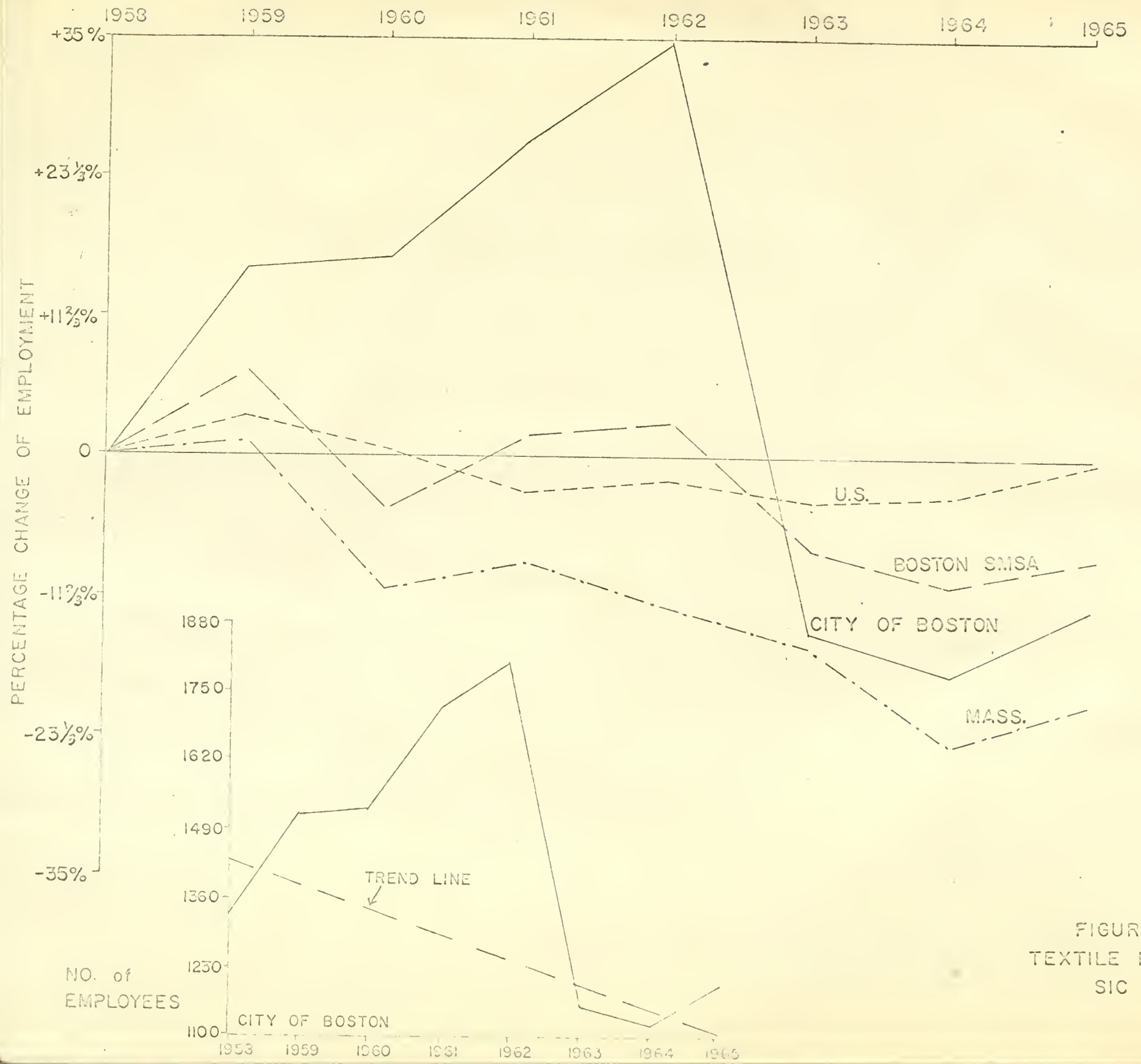

FIGURE IX
TEXTILE MILL PRODUCTS
SIC 22

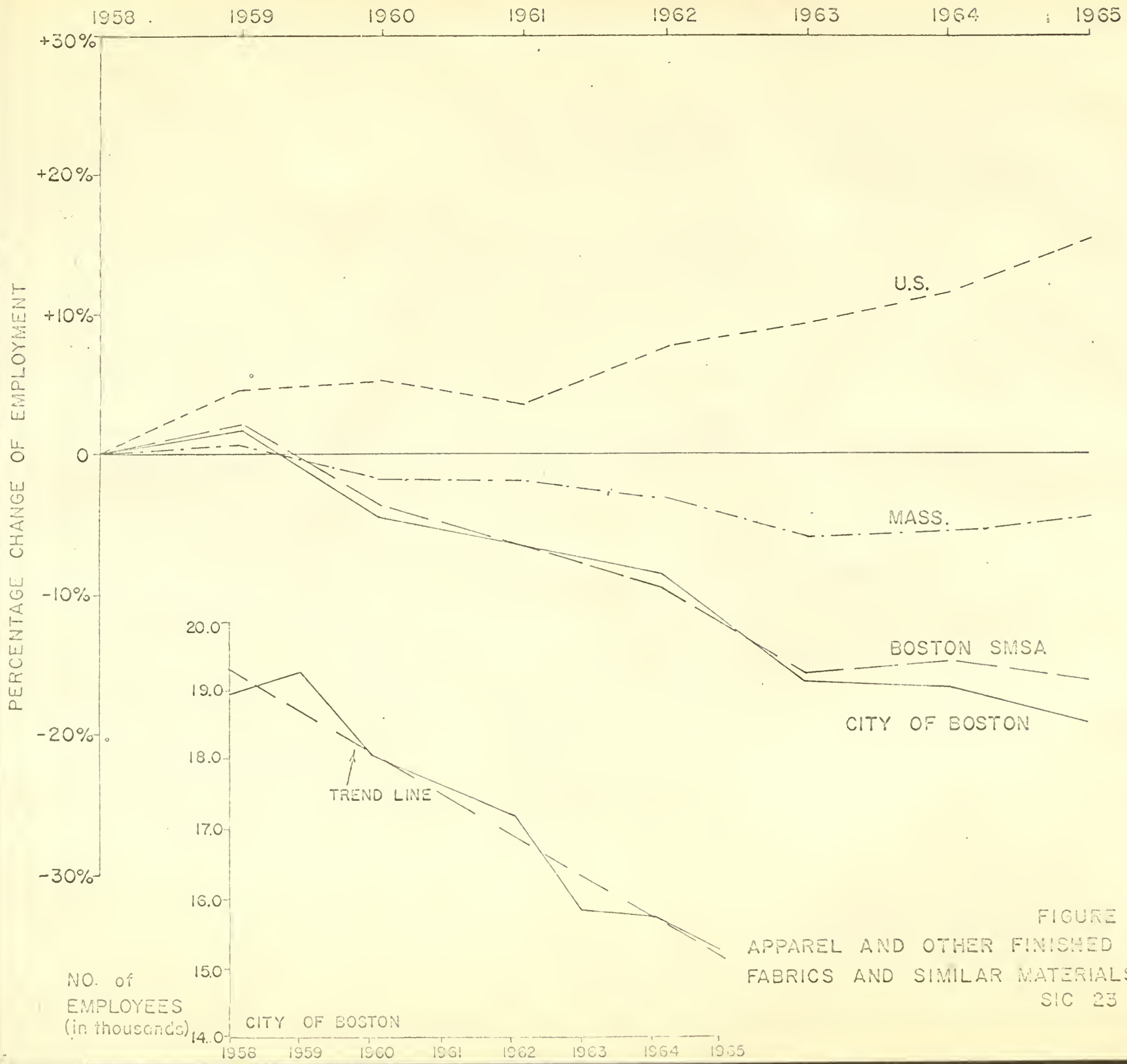

FIGURE XI

APPAREL AND OTHER FINISHED PRODUCTS MADE FROM FABRICS AND SIMILAR MATERIALS

SIC 23

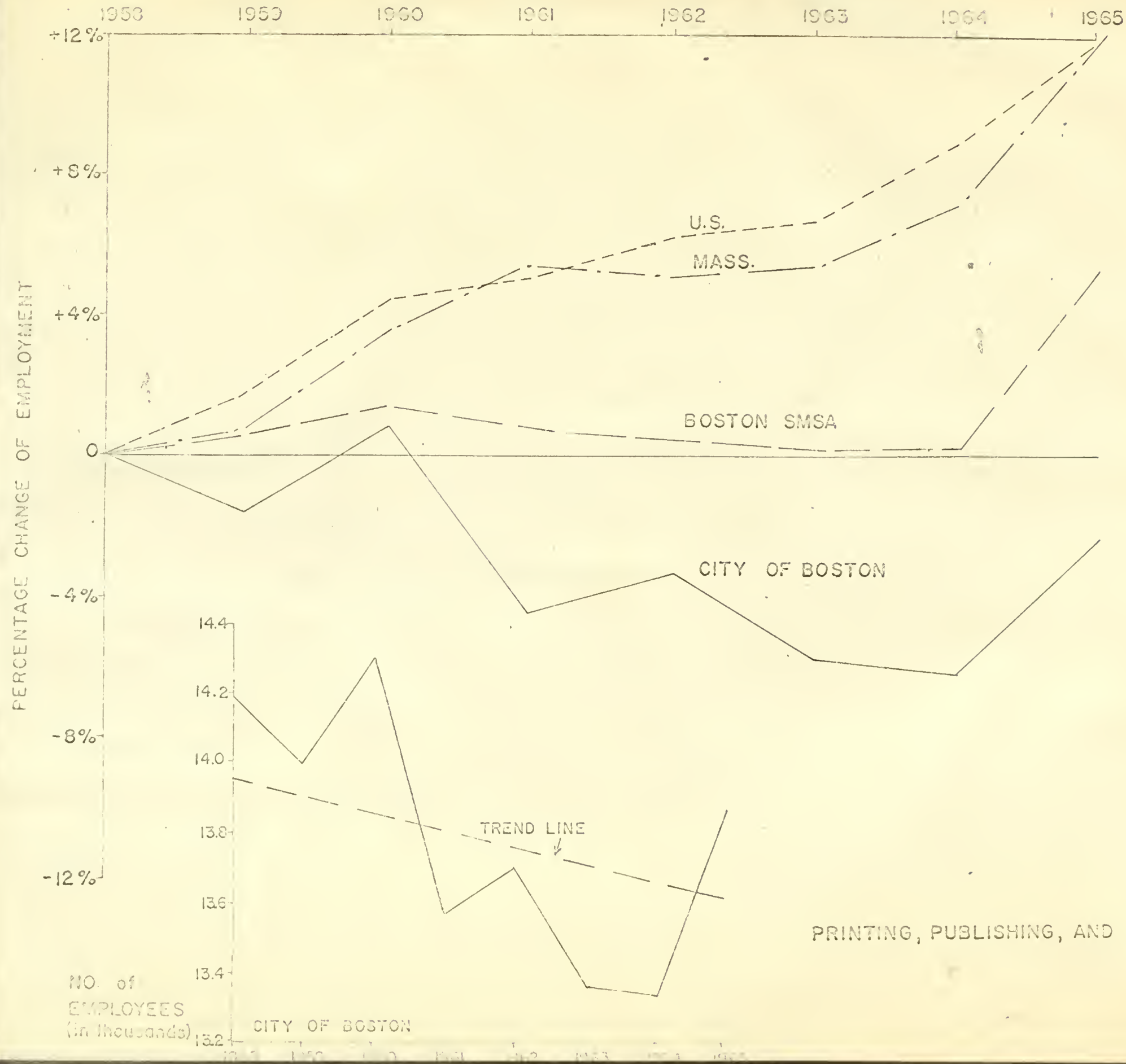

FIGURE XII.
PRINTING, PUBLISHING, AND ALLIED INDUSTRIES
SIC 27

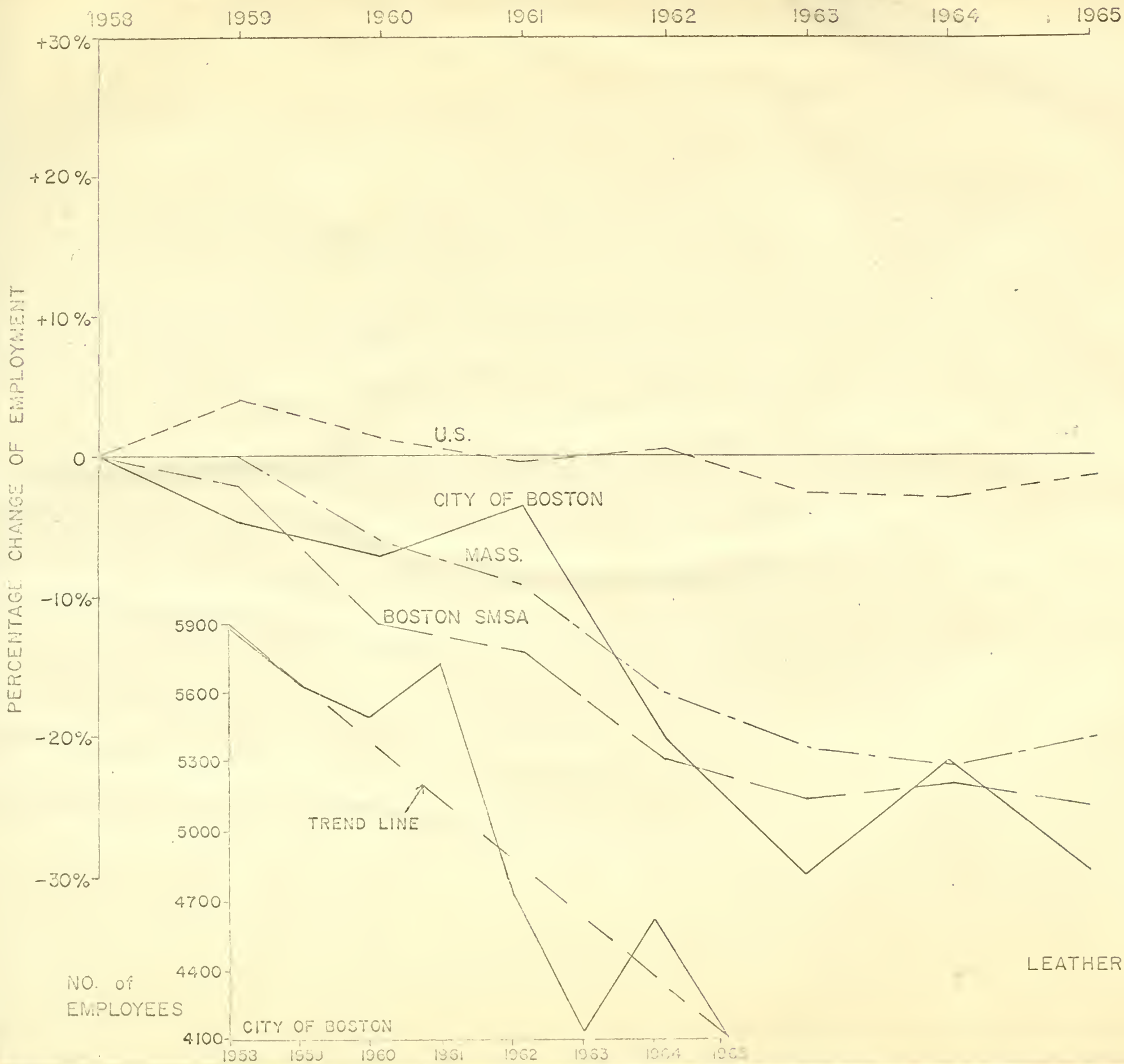

FIGURE XII
LEATHER AND LEATHER PRODUCTS
SIC 31

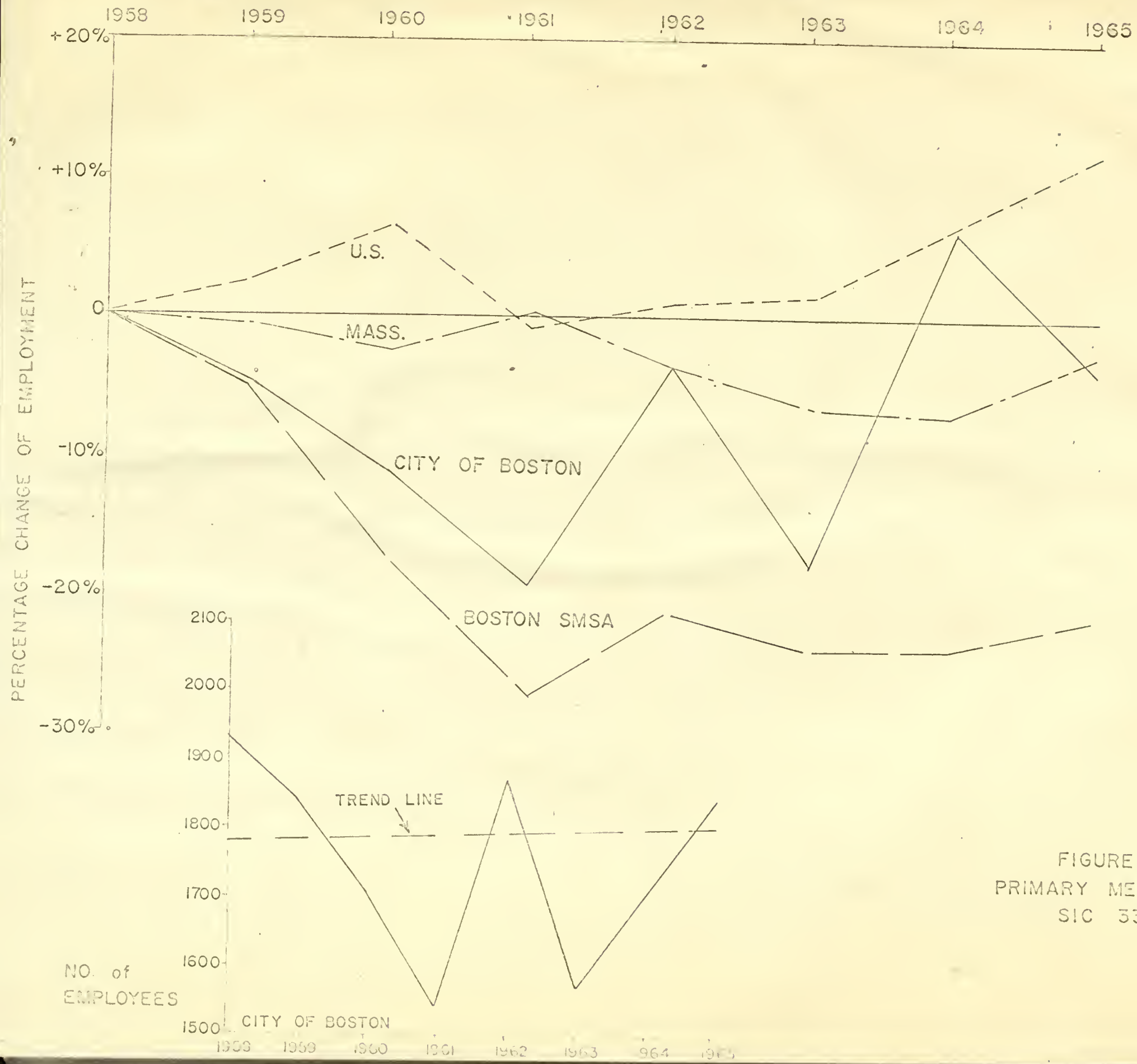

FIGURE XIII
PRIMARY METAL INDUSTRIES
SIC 33

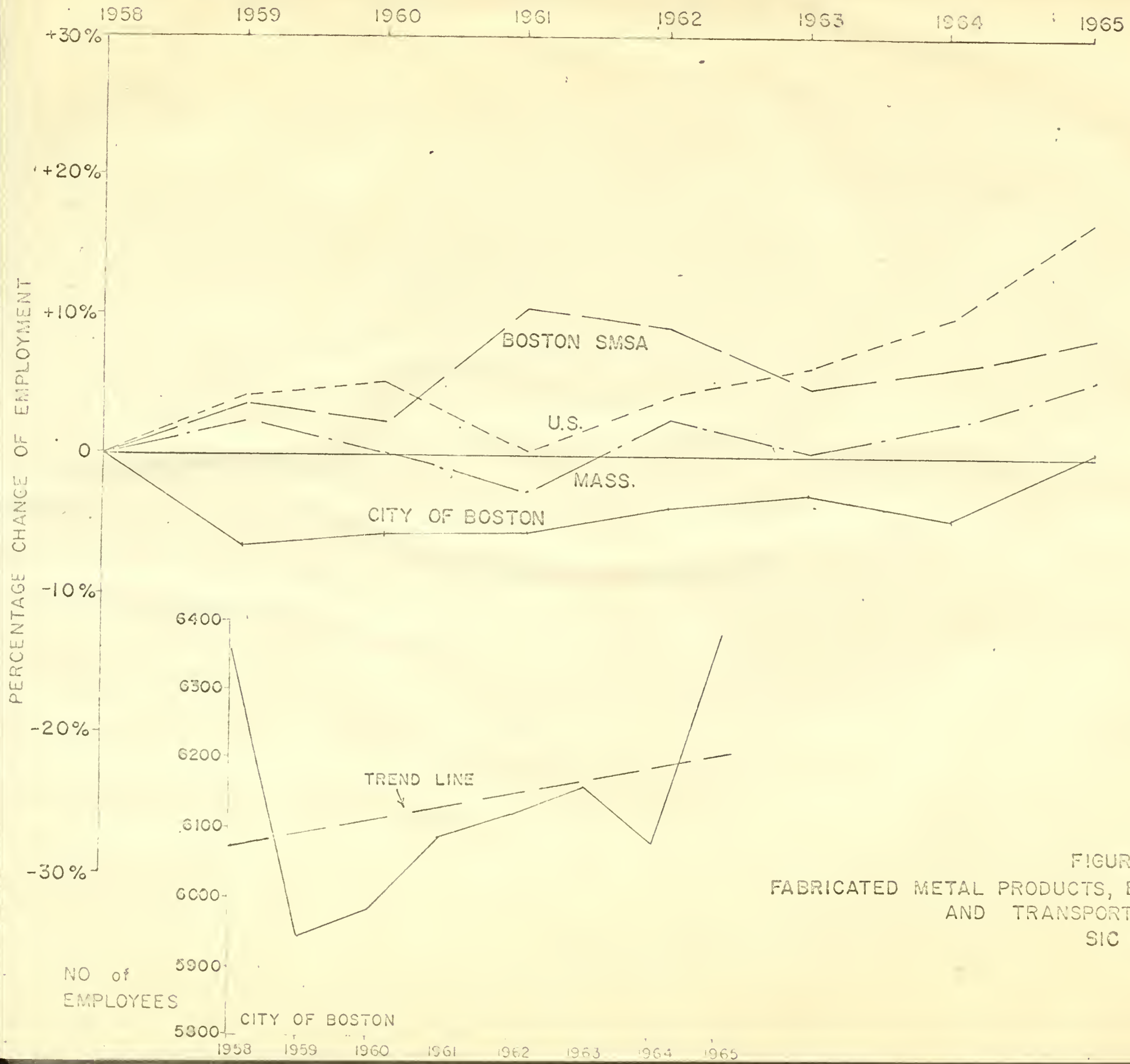

FIGURE XIV
FABRICATED METAL PRODUCTS, EXCEPT ORDNANCE, MACHINERY, AND TRANSPORTATION EQUIPMENT
SIC 34

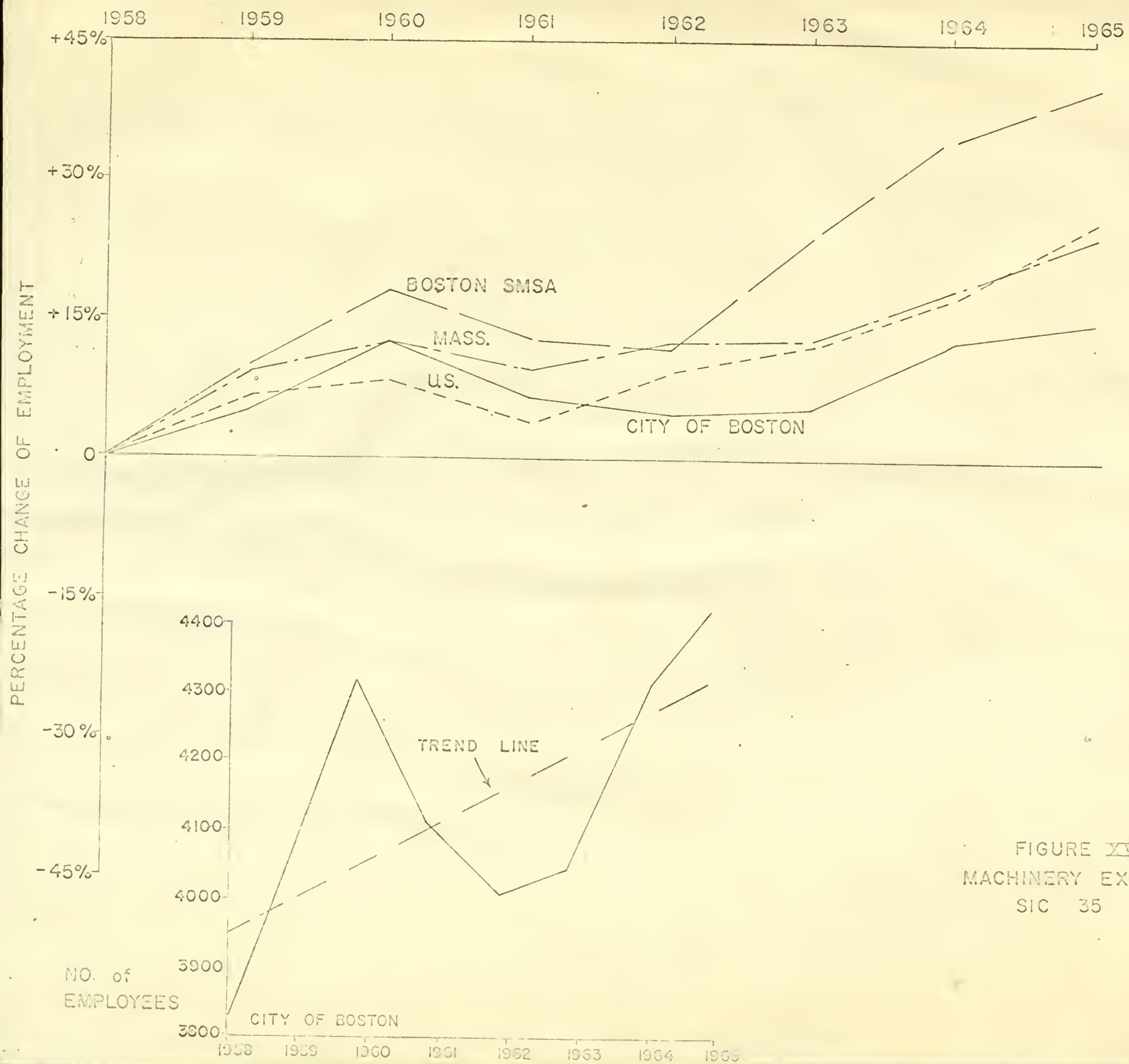

FIGURE XX
MACHINERY EXCEPT ELECTRICAL
SIC 35

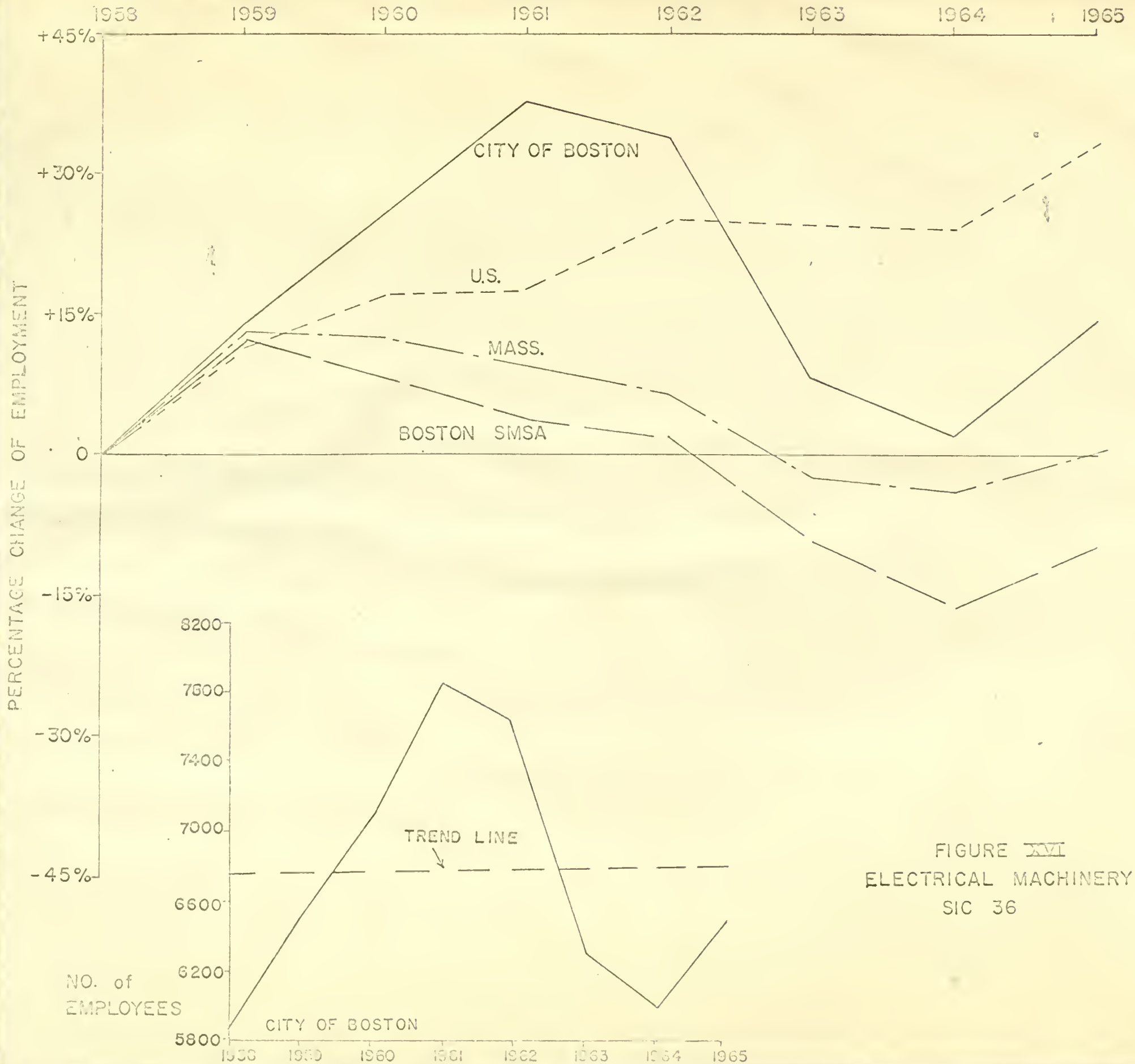

FIGURE XXVI
ELECTRICAL MACHINERY, EQUIPMENT, & SUPPLIES
SIC 36

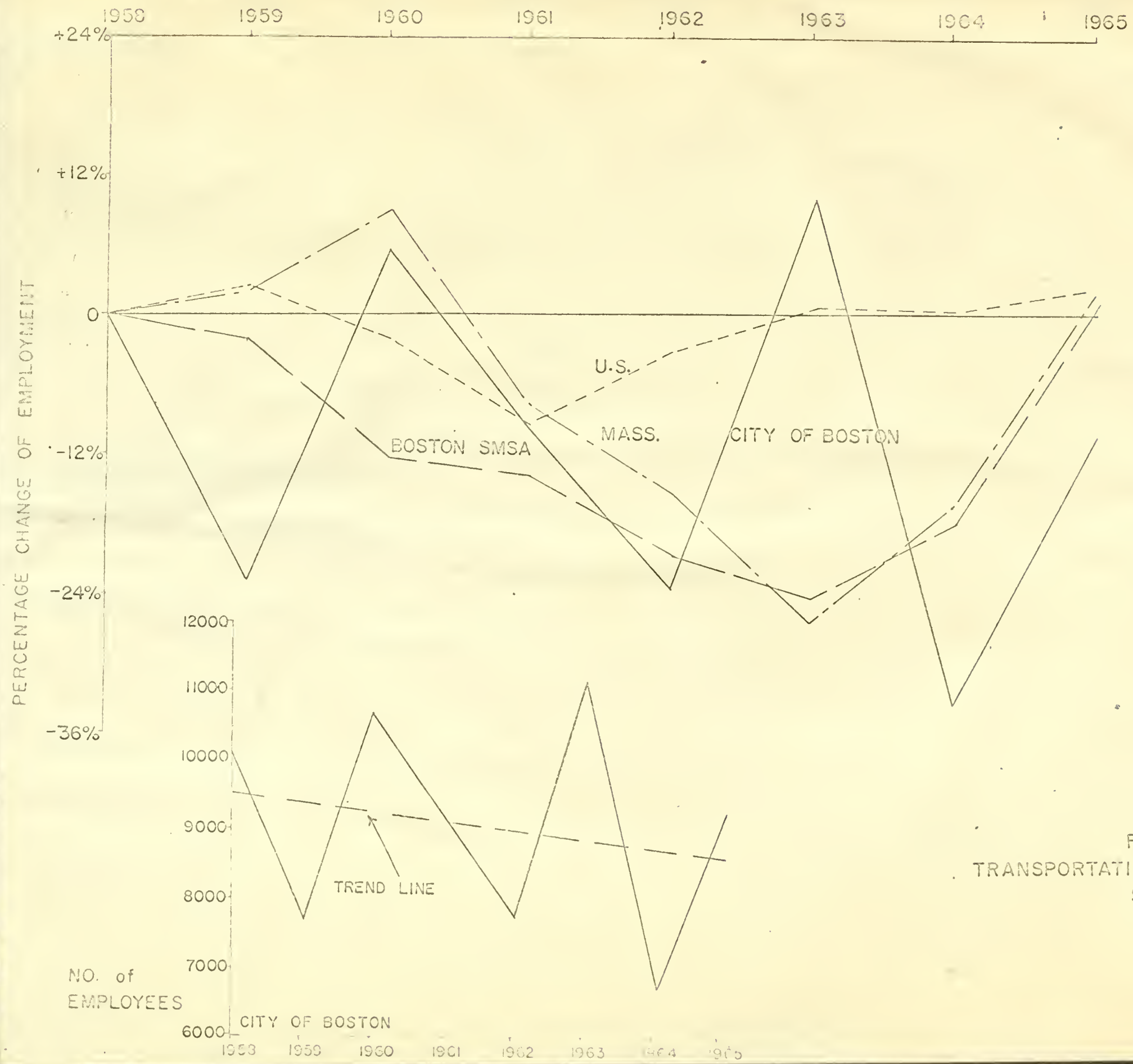

FIGURE XVII
TRANSPORTATION EQUIPMENT
SIC 37

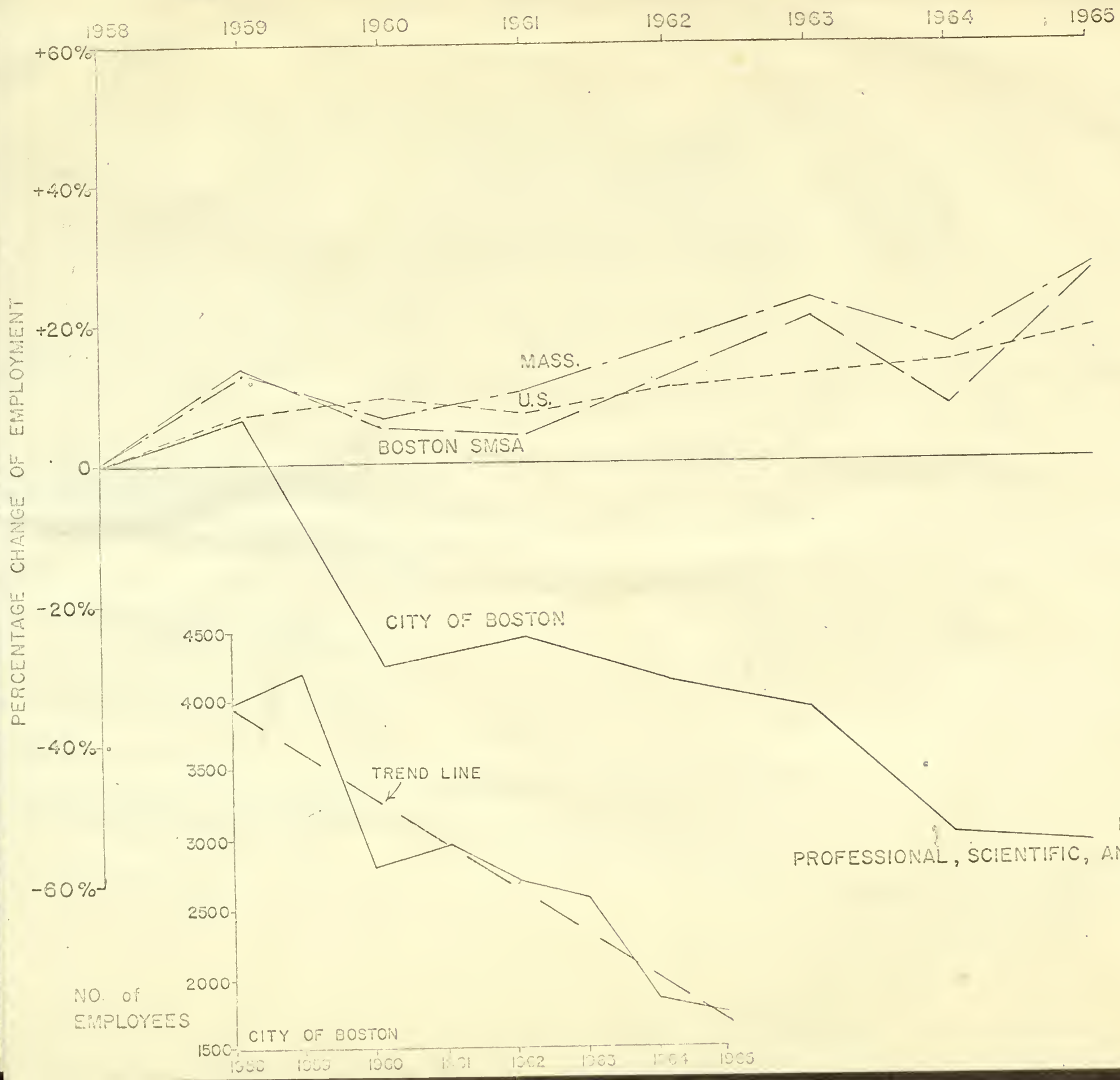

FIGURE XVIII

PROFESSIONAL, SCIENTIFIC, AND CONTROLLING INSTRUMENTS
SIC 38

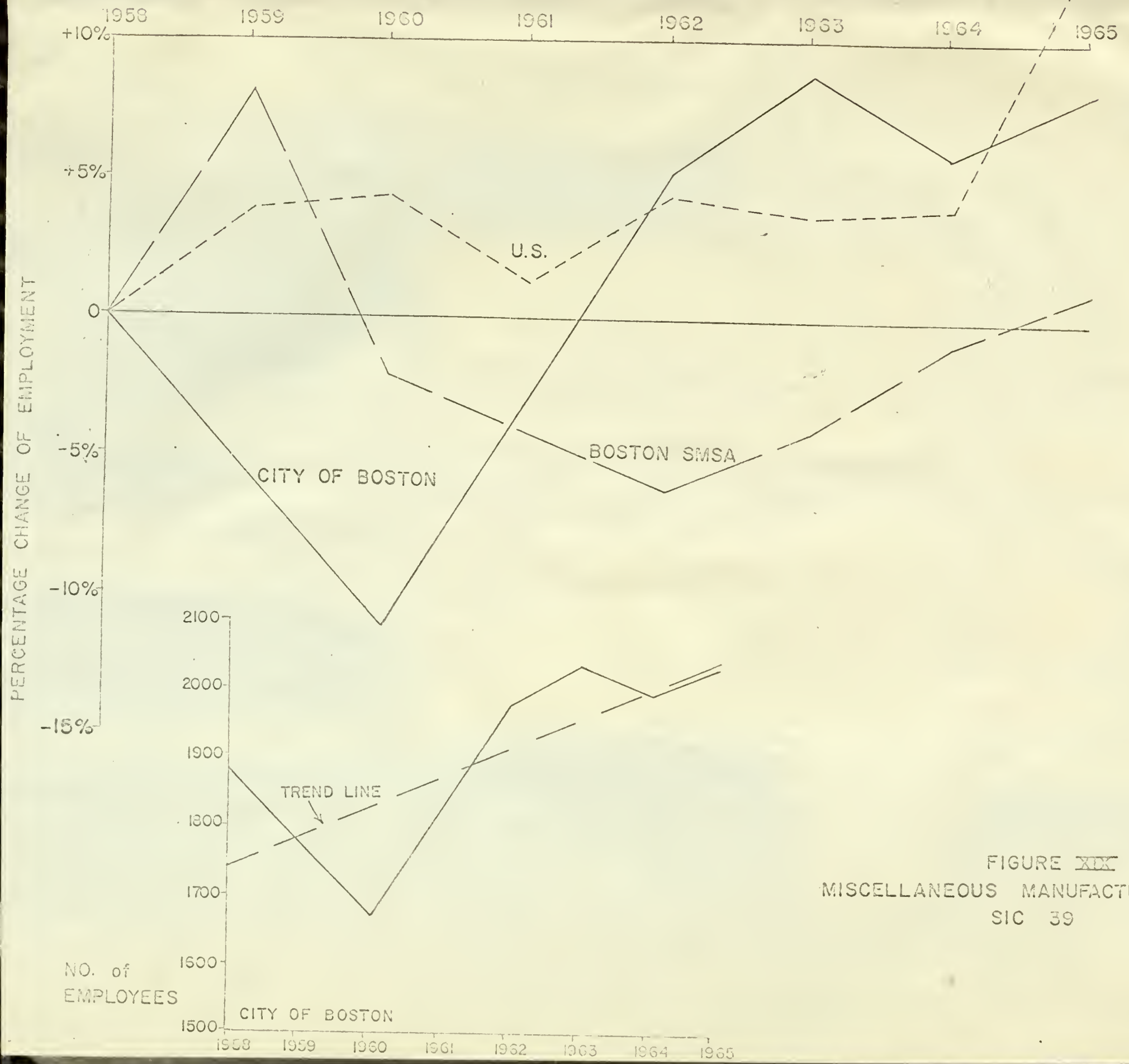

FIGURE XIX
MISCELLANEOUS MANUFACTURING INDUSTRIES
SIC 39

ACCOPRESS®

25070	YELLOW
25071	BLACK
25072	LIGHT BLUE
25073	DARK BLUE
25074	LIGHT GRAY
25075	LIGHT GREEN
25076	DARK GREEN
25077	TANGERINE
25078	RED
25079	EXECUTIVE RED

ACCO INTERNATIONAL INC
CHICAGO, ILLINOIS 60615