

ECONOMIC AND HOUSING CONDITIONS

CITY OF DOVER

DISCUSSION MATERIALS

August, 1987

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Planning Department

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THE CURRENT ECONOMIC ENVIRONMENT

## THE CURRENT ECONOMIC ENVIRONMENT

This section of the analysis presents an overview of the regional and city economies. Detailed data upon which the following observations are drawn are contained in Addendum A.

### A Unique Regional Economy

To a large degree, the development issues Dover has and will face are structured by its regional economy--the New Hampshire portion of the Portsmouth-Dover-Rochester metropolitan area.

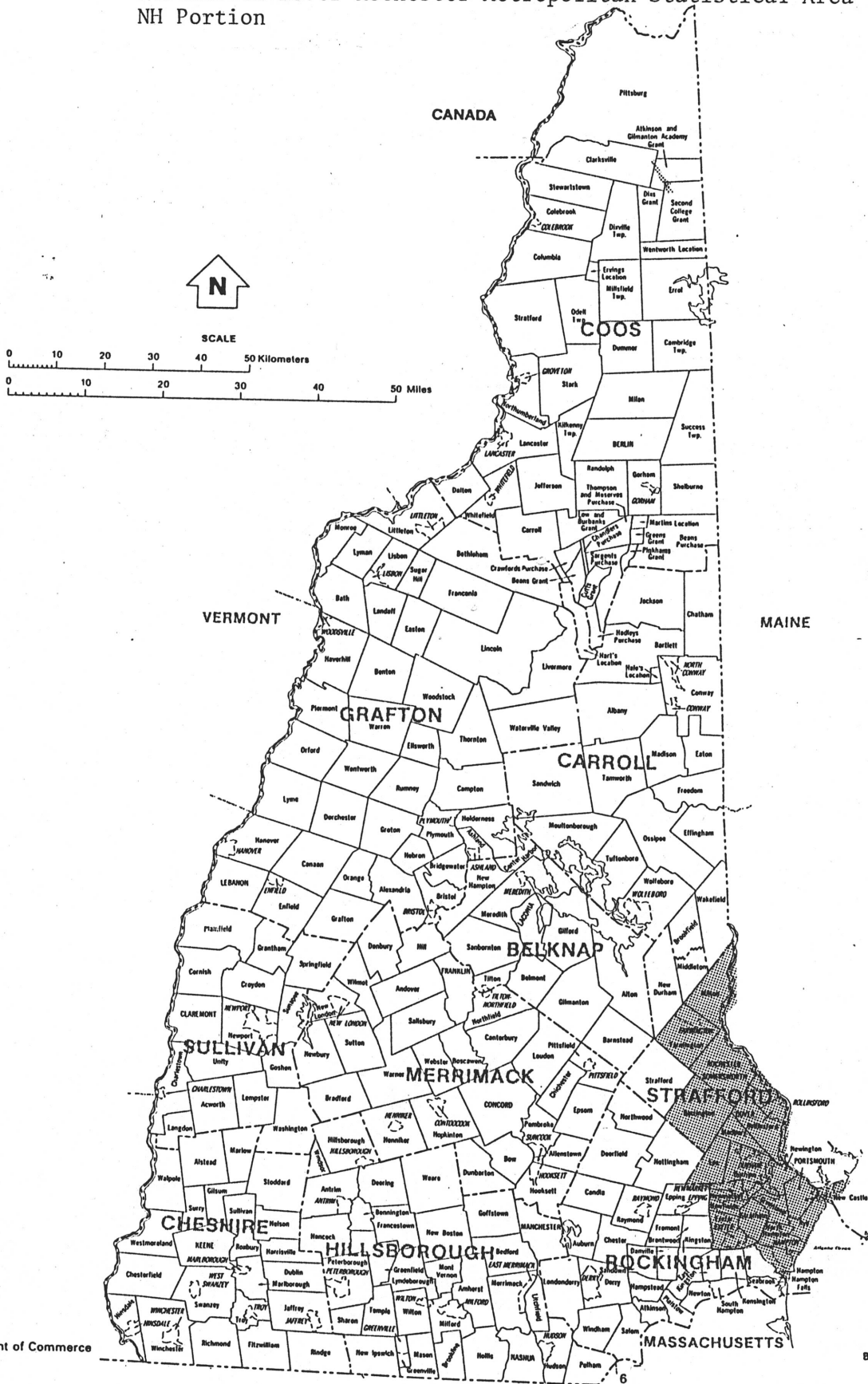
This regional economy has several distinguishing characteristics. First, unlike its counterpart metropolitan areas in northern New England (Manchester, Nashua, Portland and Burlington) there is no single community that dominates Dover's regional economy. Instead, the Dover region draws its strength as a system of smaller communities with strong economic ties and somewhat specialized functions. Portsmouth provides harborside dining, shopping and entertainment; Durham provides unparalleled educational facilities; Newington houses the region's major shopping centers, and Dover houses the county seat and a growing share of the region's manufacturing employment and population. It is because of the economic ties among the region's communities that these specialized functions can survive.

In recent years the interdependence of communities within the seacoast area has increased. As Newington has increased its inventory of retail space, its shopkeepers are more dependent on the regional economy to sustain an economic level of sales. As Portsmouth's large corporate headquarters activities grow, it necessarily draws more workers from outside its boundaries. Likewise, more than half of Dover's jobs are held by residents of other seacoast communities.

The second major characteristic of the seacoast regional economy is that measured across all major growth indicators, the regional economy has

Map 1. Market Area

Portsmouth-Dover-Rochester Metropolitan Statistical Area (MSA)  
NH Portion



U.S. Department of Commerce

BUREAU OF THE CENSUS

been expanding at a rapid rate:

Its current population stands at just under 170,000, in contrast to 128,000 in 1970 and 149,000 in 1980.

The regional economy is fueled by over 74,000 jobs, reflecting a 10,500 increase since 1980.

In 1982, area retail sales stood at \$1.6 billion, reflecting a growth of \$1 billion over 1972 levels.

Since 1980, 10,500 new housing units have been authorized by building permit, a 20 percent increase.

The dynamic aspect of the regional economy is also reflected in the employment shifts it is experiencing. Between 1980 and 1985 when New Hampshire added nearly 6,000 new manufacturing jobs, the seacoast regional economy lost 3,000 manufacturing jobs. In 1980, 32 percent of the region's employment was in manufacturing industries. By 1985, the ratio had dropped to 23 percent--a dramatic shift in but five years. During this period, the region lost a number of manufacturing jobs in old line industries, particularly the shoe industry, and those losses more than offset employment gains experienced among existing manufacturing firms and new firms attracted to the region.

With a declining manufacturing base, the real strength of the region has been in its non-manufacturing industries. Between 1980 and 1985, the region added over 12,000 non-manufacturing jobs and almost 1,400 government jobs.

#### Dover's Regional Economic Role

Dover plays a number of important economic roles within this dynamic regional setting. The following paragraphs discuss the major characteristics of Dover's economy and relates those characteristics to the broader regional economic context.

#### Employment

The major characteristics of Dover's employment base are:

In 1985 the city had slightly in excess of 13,600 jobs.

Growth since 1980 has averaged about 400 jobs per year.

Manufacturing employment totaled just under 3,900 jobs in 1985. This represents 28 percent of total employment in the city. Manufacturing employment in the city has been holding steady in the face of a sharp regional decline since 1980.

As is true for the regional economy, non-manufacturing employment has been growing significantly faster than manufacturing employment. With manufacturing employment holding steady, all of the employment growth experienced by the city has been in the non-manufacturing categories.

Services and trade account for 60 percent of the city's employment growth.

Placing these characteristics into the regional context leads to the following conclusions:

Total employment in Dover has been growing at a slightly faster rate than the New Hampshire portion of the metropolitan area, but a bit slower than the state.

Manufacturing employment represents a slightly higher share of total employment in Dover (28%) than in the region (24%).

On an overall basis, then, the salient distinguishing characteristics of Dover's employment base, as compared to the metropolitan area's base, is that Dover has not experienced the sharp loss in manufacturing jobs that has occurred at the metropolitan level. Consequently, manufacturing employment is a larger component of the city's economy than the metropolitan area's economy, and Dover's regional role as a manufacturing center has become more pronounced.

### Population

Dover's current population is estimated to be 25,600. The long term population trends indicate that between 1910 and 1950, the city's population fluctuated in a relatively narrow range of 13,000-15,000. Since 1950,

ECONOMIC DEVELOPMENT # 110  
the city has consistently increased.

An examination of population trends since 1960 reveals that:

In the 1960s and 1970s, the city's population was growing at about half the rate of the metro area's.

Since 1980, the city's population has grown at the same rate as the metro area.

The comparative percentage increase in population experienced by the city was 9 percent in the 1960s, 7 percent in the 1970s and 14 percent during the first seven years of the 1980s.

It is clear from this data that since 1980 Dover has assumed a more prominent role in housing the region's population. Its share of the region's population growth was 10 percent during the 1960s and 7 percent during the 1970s. During the first seven years of the 1980s, the city absorbed 15 percent of the region's population growth.

This more prominent role is attributable to:

The city's prime location in the center of the metropolitan area, straddling the Spaulding Turnpike;

The availability of utilities and developable land within the city's boundaries;

The willingness of the city (despite its recently imposed moratorium) to accommodate additional residential development, while a number of other communities in the region have imposed new obstacles to residential development;

The strong regional economy.

A shift in the type of residential units built in the city. Since 1980, the city has assumed a larger share of the region's single family and condominium construction (with larger average household size).

#### Wages

In 1985, Dover's average manufacturing wage was just over \$410 per week and its average non-manufacturing wage was just over \$290 per week.

Between 1980 and 1985, manufacturing wages grew by 48 percent and non-manufacturing wages increased by 37 percent.

Dover's manufacturing wages tend to be about the same as those prevailing at the regional and state levels. Its non-manufacturing wages, however, are 17 percent lower than the state average and 8 percent lower than the metropolitan average.

### Income

Dover's average household income currently stands at approximately \$32,000. This is essentially the same as the estimated regional average household income. An examination of the distribution of household income reveals that there are no major distortions within the income distribution of Dover, vis-a-vis that of the region. That is, both the central point (median household income) and the proportion of households in both the high income and low income ranges is approximately the same for Dover as for the metropolitan area. Dover does, however, have a modestly higher proportion of households in the very low income categories and a modestly lower proportion of households in the very high income categories, but the differences are not pronounced.

### Retail Sales

In 1982, Dover's retail sales totaled \$145 million. This represented 14 percent of the metropolitan area's (including the Maine portion) retail sales.

The comparison of sales trends for Dover and for Strafford/Rockingham Counties (historic data for the metropolitan area is not available) indicates that:

Retail sales in Dover have been growing at a significantly slower rate than in the broader economic setting. Consequently, Dover's share of the area's retail sales has declined from 13 percent in 1972 to 9 percent in 1982.

This declining share of regional retail sales is



especially pronounced within the shoppers goods merchandise categories (apparel, furniture/fixture, etc.--items typically purchased in a department or specialty store). In 1972, Dover captured 20 percent of the region's shoppers goods sales. By 1982, this share had declined to 8 percent.

Dover's share of the region's convenience goods sales (food stores, drug stores, eating/drinking) has remained essentially constant at about 10 percent of the region's sales.

Dover's share of "other retail" including building materials, auto sales and gasoline service stations, has also remained essentially constant at about 10 percent of the region's share.

During the past decade, Dover's role in the regional retail market has changed markedly. Bolstered by strong population and housing growth, the city has been able to maintain a relatively constant share of the region's convenience goods and "other" retailing. Hard-hit by new concentrations of shoppers goods space in shopping centers in Newington and in outlet centers in Kittery, the city has experienced a sharp erosion of its role as a shoppers goods merchandising center. With significantly better concentrations of shoppers goods available a relatively short drive away, shoppers that traditionally supported merchants in downtown Dover and its shopping centers have been drawn to those larger concentrations. Dover is clearly exporting shoppers goods sales, despite its once strong role. In 1982, Dover captured only 8 percent of the region's shoppers goods sales despite having 15 percent of the region's population. Furthermore, Dover's shoppers goods merchants typically would draw additional support from residents of surrounding communities. This support has also drifted toward the larger concentrations in Newington and Kittery.

ADDENDUM A

FIGURE 1

# COVERED EMPLOYMENT

City of Dover

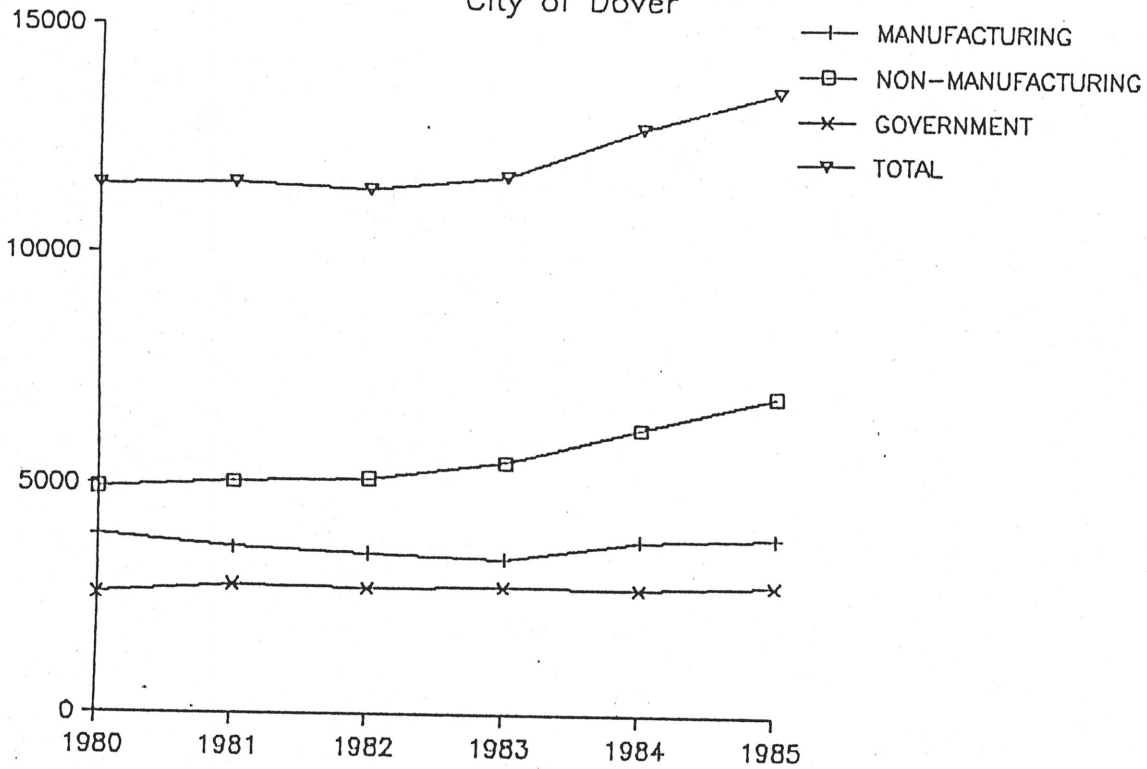


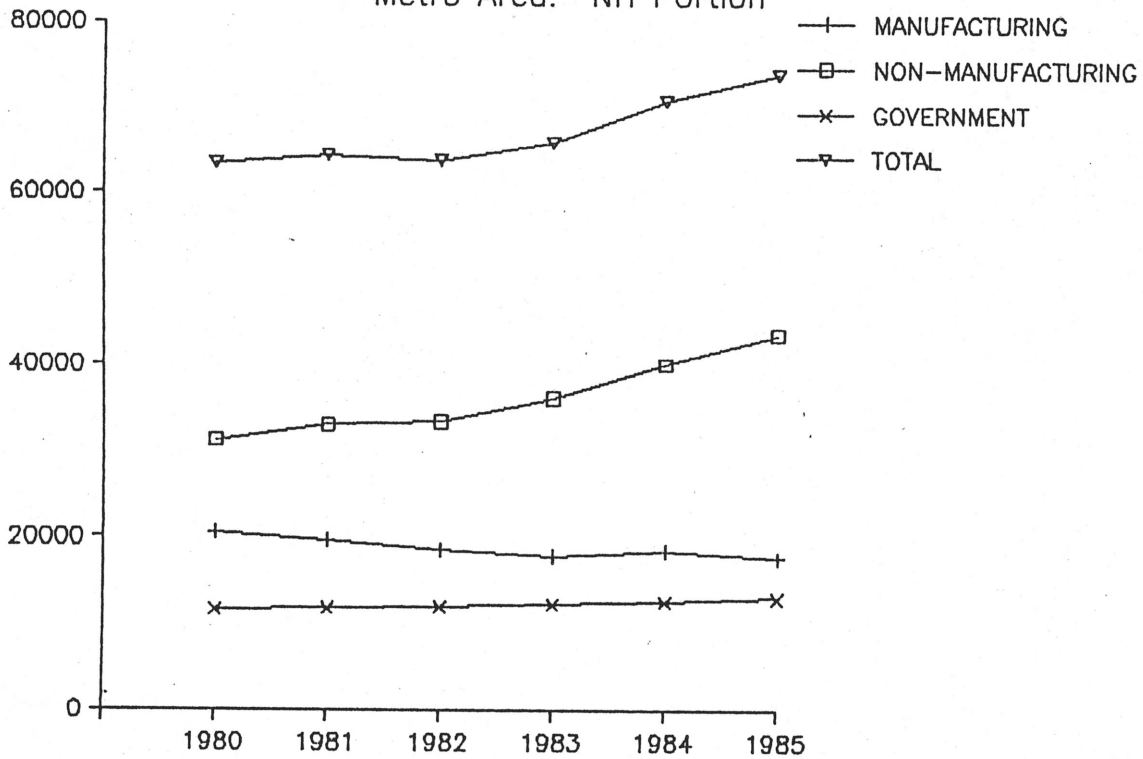
Table COMPARATIVE 1980-85 EMPLOYMENT GROWTH RATES,  
DOVER, NH PORTION OF METRO AREA AND STATE OF NEW HAMPSHIRE

|               | DOVER | METRO  | STATE |
|---------------|-------|--------|-------|
| Manufacturing | -1.0% | -14.7% | 5.0%  |
| Non Manufac.  | 40.1% | 39.0%  | 34.5% |
| Government    | 7.9%  | 12.0%  | 5.0%  |
| Total         | 18.9% | 16.7%  | 21.2% |

FIGURE 2

# COVERED EMPLOYMENT

Metro Area: NH Portion



# DOVER SHARE OF METRO AREA JOBS

(NH Portion of MSA)

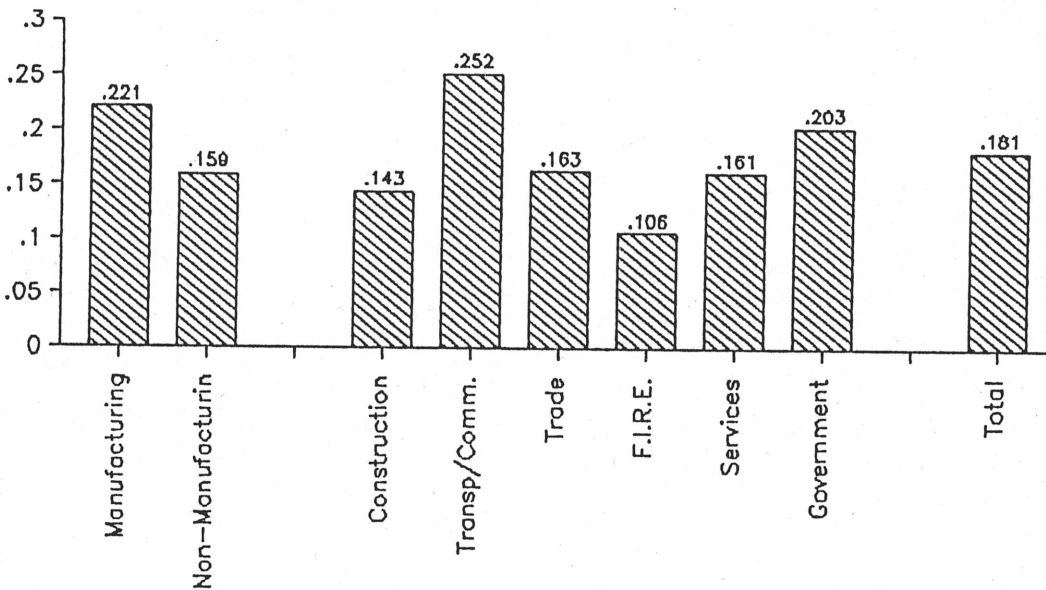
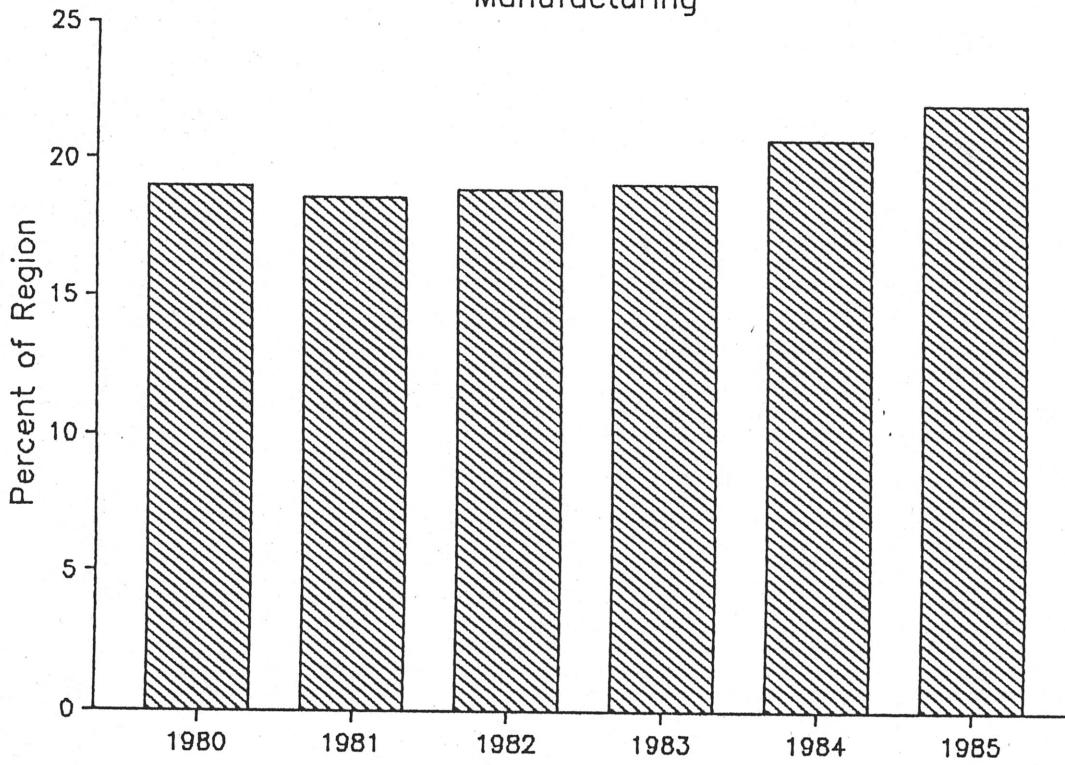


FIGURE 3

### DOVER SHARE OF METRO AREA (NH) JOBS

Manufacturing



### DOVER SHARE OF METRO AREA (NH) JOBS

Non-Manufacturing

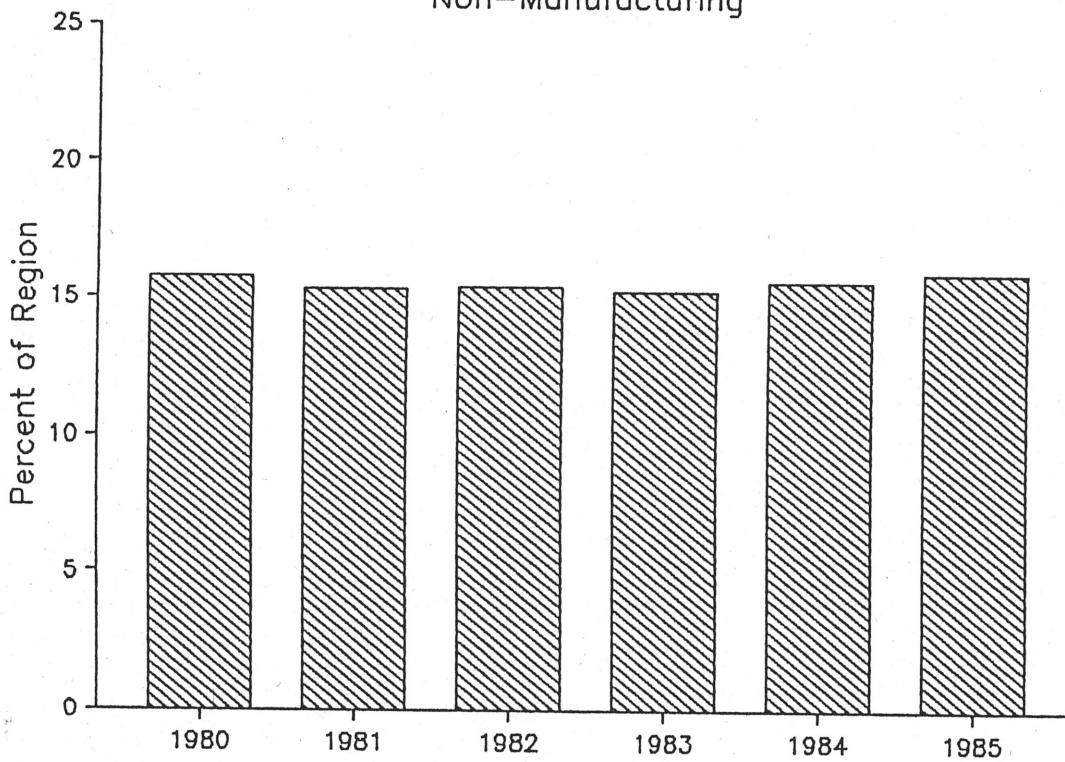
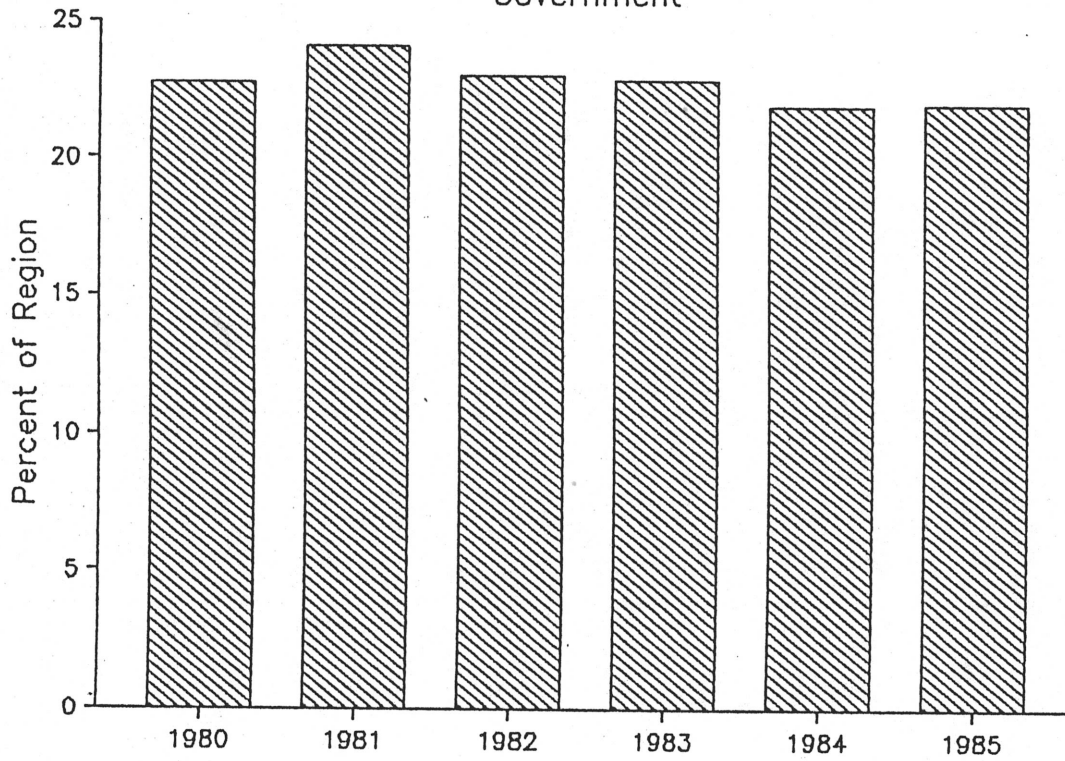


FIGURE 4

### DOVER SHARE OF METRO AREA (NH) JOBS

Government



### DOVER SHARE OF METRO AREA (NH) JOBS

Total



FIGURE 5

| COVERED EMPLOYMENT          | CITY OF DOVER |        |        |        |        | 1985   | Change<br>1980-85 | Percent<br>Changed<br>In Percent | Percent<br>Growth<br>1980-85 | % of<br>1985<br>Employment | Dover<br>Share of<br>METRO<br>STATE | Dover<br>Share of<br>STATE |
|-----------------------------|---------------|--------|--------|--------|--------|--------|-------------------|----------------------------------|------------------------------|----------------------------|-------------------------------------|----------------------------|
|                             | 1980          | 1981   | 1982   | 1983   | 1984   |        |                   |                                  |                              |                            |                                     |                            |
| COVERED EMPLOYMENT          | 3,904         | 3,638  | 3,497  | 3,394  | 3,806  | 3,870  | -34               | -.87%                            | -1.57%                       | 28.42%                     | 22.05%                              | 3.16%                      |
| MANUFACTURING               | 4,928         | 5,058  | 5,129  | 5,494  | 6,218  | 6,925  | 1,997             | 40.52%                           | 92.09%                       | 50.85%                     | 15.92%                              | 2.49%                      |
| Durable Goods               | 246           | 190    | 204    | 241    | 332    | 496    | 250               | 101.63%                          | 11.53%                       | 3.64%                      | 14.34%                              | 1.59%                      |
| Non-Durable Goods           | 175           | 172    | 263    | 286    | 400    | 522    | 347               | 198.29%                          | 16.00%                       | 3.83%                      | 25.19%                              | 3.32%                      |
| NON-MANUFACTURING           | 2,807         | 2,927  | 2,726  | 2,873  | 3,215  | 3,325  | 518               | 18.45%                           | 23.89%                       | 24.42%                     | 16.27%                              | 2.98%                      |
| Construction (Incl. Mining) | 420           | 398    | 419    | 444    | 431    | 480    | 60                | 14.29%                           | 2.77%                        | 3.52%                      | 10.62%                              | 1.92%                      |
| Transp., Comm., Util.       | 1,280         | 1,371  | 1,517  | 1,650  | 1,840  | 2,102  | 822               | 64.22%                           | 37.90%                       | 15.44%                     | 16.14%                              | 2.22%                      |
| Trade                       | 2,618         | 2,820  | 2,739  | 2,771  | 2,748  | 2,823  | 206               | 7.85%                            | 9.48%                        | 20.73%                     | 21.93%                              | 4.96%                      |
| Finance, Ins., Real Est.    | 335           | 357    | 363    | 365    | 359    | 376    | 41                | 12.17%                           | 1.88%                        | 2.76%                      | 18.40%                              | 4.96%                      |
| Services & Other            | 623           | 726    | 690    | 713    | 719    | 730    | 107               | 17.13%                           | 4.92%                        | 5.36%                      | 16.19%                              | 4.96%                      |
| GOVERNMENT                  | 1,659         | 1,736  | 1,685  | 1,693  | 1,670  | 1,717  | 58                | 3.50%                            | 2.67%                        | 12.61%                     | 27.17%                              | 4.96%                      |
| Federal                     | 2,618         | 2,820  | 2,739  | 2,771  | 2,748  | 2,823  | 206               | 7.85%                            | 9.48%                        | 20.73%                     | 21.93%                              | 4.96%                      |
| State                       | 335           | 357    | 363    | 365    | 359    | 376    | 41                | 12.17%                           | 1.88%                        | 2.76%                      | 18.40%                              | 4.96%                      |
| Local                       | 623           | 726    | 690    | 713    | 719    | 730    | 107               | 17.13%                           | 4.92%                        | 5.36%                      | 16.19%                              | 4.96%                      |
| Total                       | 11,450        | 11,516 | 11,365 | 11,659 | 12,772 | 13,618 | 2,169             | 18.94%                           | 100.00%                      | 100.00%                    | 100.00%                             |                            |

FIGURE 6

| COVERED EMPLOYMENT          | PORTSMOUTH-DOVER MSA (NH PORTION) |        |        |        |        | Percent<br>Change of Growth<br>1980-85 In Percent | Y of<br>1985<br>Employment |
|-----------------------------|-----------------------------------|--------|--------|--------|--------|---|----------------------------|
|                             | 1980                              | 1981   | 1982   | 1983   | 1984   |   |                            |
| MANUFACTURING               | 20,567                            | 19,621 | 18,529 | 17,765 | 18,354 | 17,549  | 23.74%                     |
| Durable Goods               |                                   |        |        |        |        | 10,155  | 13.74%                     |
| Non-Durable Goods           |                                   |        |        |        |        | 7,394   | 10.00%                     |
| NON-MANUFACTURING           | 31,297                            | 33,019 | 33,386 | 36,035 | 40,005 | 43,509  | 58.85%                     |
| Construction (Incl. Mining) |                                   |        |        |        |        | 3,489   | 4.68%                      |
| Transp., Comm., Util.       |                                   |        |        |        |        | 2,072   | 2.80%                      |
| Trade                       |                                   |        |        |        |        | 20,438  | 27.64%                     |
| Finance, Ins., Real Est.    |                                   |        |        |        |        | 4,520   | 6.11%                      |
| Services & Other            |                                   |        |        |        |        | 13,020  | 17.61%                     |
| GOVERNMENT                  | 11,500                            | 11,720 | 11,900 | 12,124 | 12,553 | 12,874  | 17.41%                     |
| Federal                     | 1,650                             | 1,670  | 1,700  | 1,748  | 1,967  | 2,045   | 2.77%                      |
| State                       | 3,900                             | 3,950  | 4,050  | 4,192  | 4,376  | 4,509   | 6.10%                      |
| Local                       | 5,950                             | 6,100  | 6,150  | 6,184  | 6,210  | 6,320   | 8.55%                      |
| TOTAL                       | 63,364                            | 64,360 | 63,815 | 65,924 | 70,912 | 73,932  | 100.00%                    |

Metro Area: NH Portion

1983 1984 1985  
.1839087 .1770222 .1741330

govt/total

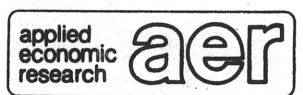




FIGURE 7

COVERED EMPLOYMENT: STATE OF NEW HAMPSHIRE

| COVERED EMPLOYMENT          | 1980           | 1981           | 1982           | 1983           | 1984           | 1985           | Change<br>1980-85 | Percent<br>Change of<br>1980-85 | Percent<br>of Growth<br>1980-85 | % of<br>1985<br>Employment |
|-----------------------------|----------------|----------------|----------------|----------------|----------------|----------------|-------------------|---------------------------------|---------------------------------|----------------------------|
| <b>MANUFACTURING</b>        |                |                |                |                |                |                |                   |                                 |                                 |                            |
| Durable Goods               | 116,975        | 116,491        | 111,661        | 113,378        | 123,315        | 122,462        | 5,867             | 5.03%                           | 7.34%                           | 26.76%                     |
| Non-Durable Goods           | 74,155         | 74,831         | 72,398         | 73,118         | 82,675         | 84,152         | 9,997             | 13.48%                          | 12.51%                          | 18.40%                     |
|                             | 42,440         | 41,660         | 39,263         | 40,290         | 40,640         | 38,310         | -4,130            | -9.73%                          | -5.17%                          | 8.38%                      |
| <b>NON-MANUFACTURING</b>    |                |                |                |                |                |                |                   |                                 |                                 |                            |
| Construction (Incl. Mining) | 206,632        | 216,927        | 222,178        | 233,315        | 255,069        | 277,876        | 71,244            | 34.48%                          | 69.18%                          | 60.77%                     |
| Transp., Comm., Util.       | 19,827         | 20,759         | 23,189         | 25,257         | 25,701         | 31,231         | 11,404            | 57.52%                          | 14.28%                          | 6.83%                      |
| Trade                       | 13,869         | 13,911         | 14,226         | 14,559         | 15,126         | 15,732         | 2,163             | 15.94%                          | 2.71%                           | 3.44%                      |
| Finance, Ins., Real Est.    | 85,431         | 88,943         | 88,460         | 84,908         | 104,616        | 111,709        | 26,278            | 30.76%                          | 32.90%                          | 24.43%                     |
| Services & Other            | 19,280         | 20,110         | 20,466         | 21,105         | 22,683         | 24,947         | 5,667             | 29.39%                          | 7.06%                           | 5.46%                      |
|                             | 68,525         | 73,204         | 75,837         | 80,296         | 86,743         | 94,617         | 26,092            | 38.08%                          | 32.66%                          | 20.69%                     |
| <b>GOVERNMENT</b>           |                |                |                |                |                |                |                   |                                 |                                 |                            |
| Federal                     | 54,134         | 54,710         | 54,395         | 54,689         | 55,832         | 56,907         | 2,773             | 5.12%                           | 3.47%                           | 12.45%                     |
| State                       | 6,936          | 6,933          | 7,212          | 7,233          | 7,293          | 7,583          | 647               | 9.33%                           | .81%                            | 1.66%                      |
| Local                       | 12,890         | 14,095         | 13,714         | 14,118         | 14,606         | 14,716         | 1,826             | 14.17%                          | 2.29%                           | 3.22%                      |
|                             | 34,308         | 33,682         | 33,469         | 33,538         | 33,933         | 34,608         | 300               | .87%                            | .38%                            | 7.57%                      |
| <b>Total</b>                | <b>377,361</b> | <b>388,128</b> | <b>388,234</b> | <b>403,602</b> | <b>434,216</b> | <b>457,245</b> | <b>79,884</b>     | <b>21.17%</b>                   | <b>100.00%</b>                  | <b>100.00%</b>             |

fed/state  
state/local  
.5380915 .4918766 .5258660 .5123247 .4993153 .5152895  
.3757141 .4184729 .4097523 .4209533 .4304364 .4252196

FIGURE 8

DOVER'S SHARE OF METROPOLITAN COVERED EMPLOYMENT,  
1985

|                   | DOVER  | METRO  | DOVER Sha |
|-------------------|--------|--------|-----------|
| Manufacturing     | 3,870  | 17,549 | 22.05%    |
| Non-Manufacturing | 6,925  | 43,509 | 15.92%    |
| Construction      | 496    | 3,459  | 14.34%    |
| Transp/Comm.      | 522    | 2,072  | 25.19%    |
| Trade             | 3,325  | 20,438 | 16.27%    |
| F.I.R.E.          | 480    | 4,520  | 10.62%    |
| Services          | 2,102  | 13,020 | 16.14%    |
| Government        | 2,618  | 12,874 | 20.34%    |
| Total             | 13,413 | 73,932 | 18.14%    |

DOVER SHARE OF METRO AREA JOBS  
(NH Portion of MSA)

FIGURE 9

DOVER'S SHARE OF METROPOLITAN EMPLOYMENT, 1980-1985

| DOVER SHARE OF NH METRO JOBS | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 |
|------------------------------|------|------|------|------|------|------|
| MANUFACTURING                | 19   | 19   | 19   | 19   | 21   | 22   |
| NON-MANUFACTURING            | 16   | 15   | 15   | 15   | 16   | 16   |
| GOVERNMENT                   | 23   | 24   | 23   | 23   | 22   | 22   |
| TOTAL                        | 18   | 18   | 18   | 18   | 18   | 18   |

0 DOVER SHARE OF METRO AREA (NH) JOBS  
 25 Total  
 Percent of Region

FIGURE 10

POPULATION TRENDS, DOVER AND PORTSMOUTH-DOVER-ROCHESTER METRO AREA (NH PORTION)

8/ 7/1987

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|                        | 1960    | 1970    | 1980    | 1987    | CHANGE  |         |         | PERCENT CHANGE |         |         |
|------------------------|---------|---------|---------|---------|---------|---------|---------|----------------|---------|---------|
|                        |         |         |         |         | 1960-70 | 1970-80 | 1980-87 | 1960-70        | 1970-80 | 1980-87 |
| Dover                  | 19,130  | 20,850  | 22,400  | 25,600  | 1,720   | 1,550   | 3,200   | 9.0%           | 7.4%    | 14.3%   |
| Metro Area             | 110,900 | 127,700 | 148,900 | 169,900 | 16,800  | 21,200  | 21,000  | 15.1%          | 16.6%   | 14.1%   |
| Dover's Share of Metro | 17.2%   | 16.3%   | 15.0%   | 15.1%   | 10.2%   | 7.3%    | 15.2%   |                |         |         |

Source: US Bureau of the Census and State of NH (1985 estimates)

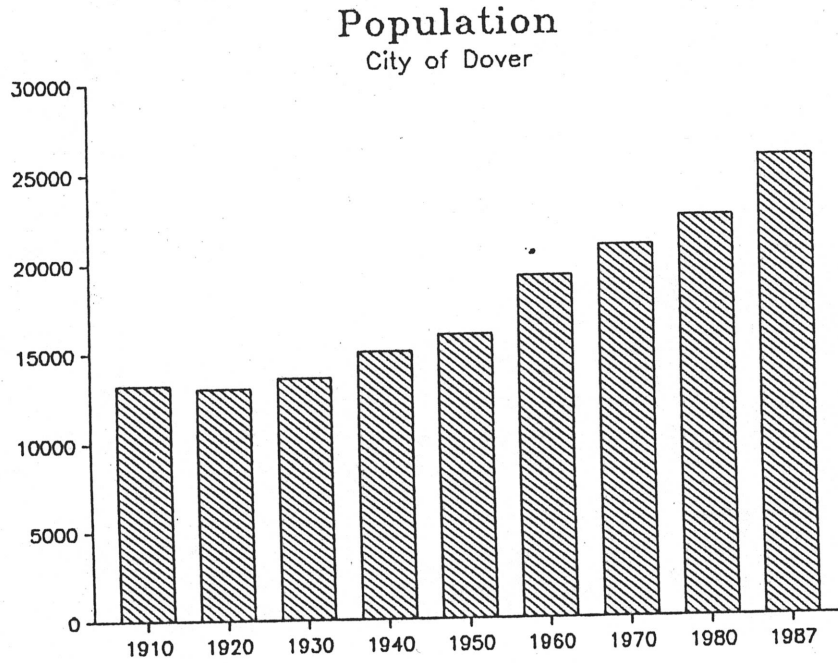


FIGURE 11

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COMPARATIVE WAGE DATA, DOVER, PORTS-DOVER-ROCHESTER METRO AREA (NH PORTION)  
AND NEW HAMPSHIRE

|                                  | Average Weekly Wages |          |          |          |          | Change<br>1980-85<br>Dollars | Change<br>1980-85<br>Percent |
|----------------------------------|----------------------|----------|----------|----------|----------|------------------------------|------------------------------|
|                                  | 1980                 | 1981     | 1982     | 1983     | 1984     |                              |                              |
| STATE                            |                      |          |          |          |          |                              |                              |
| Manufacturing                    | \$277.86             | \$305.12 | \$334.32 | \$358.37 | \$380.65 | \$133.99                     | 48.2%                        |
| Non-Manufacturing                | \$211.49             | \$229.06 | \$251.50 | \$266.45 | \$272.58 | \$79.35                      | 37.5%                        |
| PDR-MSA                          |                      |          |          |          |          |                              |                              |
| Manufacturing                    | \$266.76             | \$298.46 | \$323.57 | \$354.91 | \$379.61 | \$149.27                     | 56.0%                        |
| Non-Manufacturing                | \$185.63             | \$202.24 | \$218.81 | \$232.05 | \$241.70 | \$74.84                      | 40.3%                        |
| DOVER                            |                      |          |          |          |          |                              |                              |
| Manufacturing                    | \$263.31             | \$304.22 | \$323.25 | \$368.66 | \$391.09 | \$139.57                     | 53.0%                        |
| Non-Manufacturing                | \$179.48             | \$192.66 | \$211.37 | \$218.80 | \$229.95 | \$60.68                      | 33.8%                        |
| DOVER AS A PERCENT OF STATE      |                      |          |          |          |          |                              |                              |
| Manufacturing                    | 95                   | 100      | 97       | 103      | 103      |                              | 98                           |
| Non-manufacturing                | 85                   | 84       | 84       | 82       | 84       |                              | 83                           |
| DOVER AS A PERCENT OF METRO AREA |                      |          |          |          |          |                              |                              |
| Manufacturing                    | 99                   | 102      | 100      | 104      | 103      |                              | 97                           |
| Non-manufacturing                | 97                   | 95       | 97       | 94       | 95       |                              | 92                           |

FIGURE 12

# AVERAGE WEEKLY WAGES

City of Dover

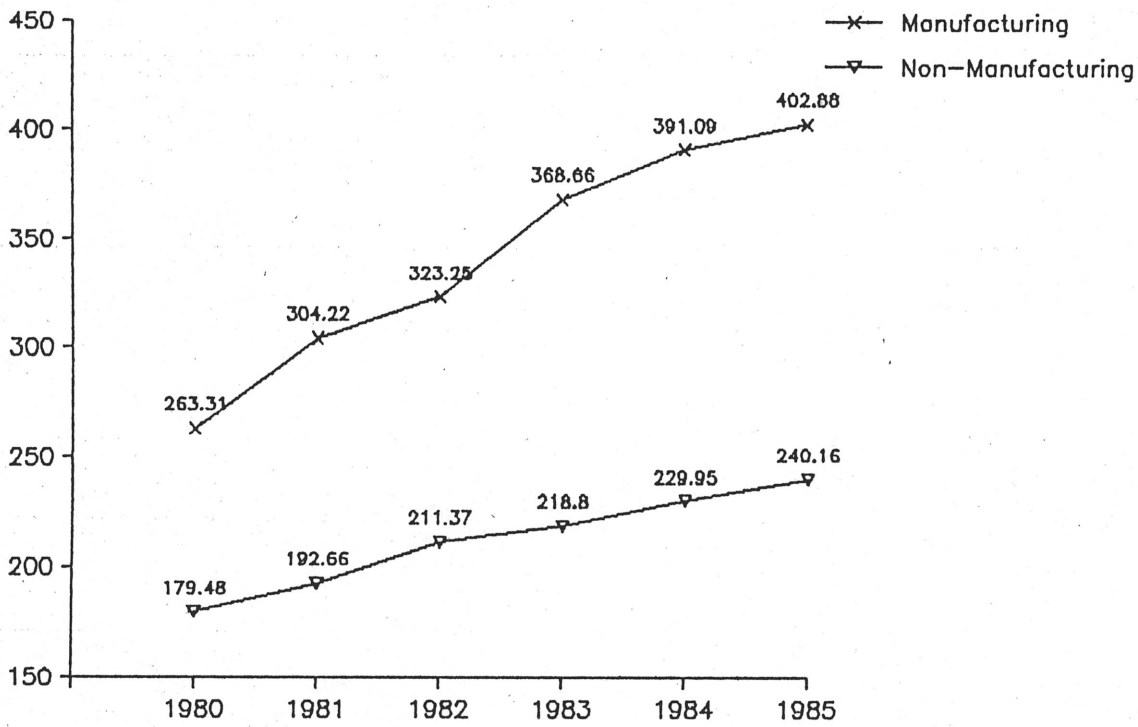
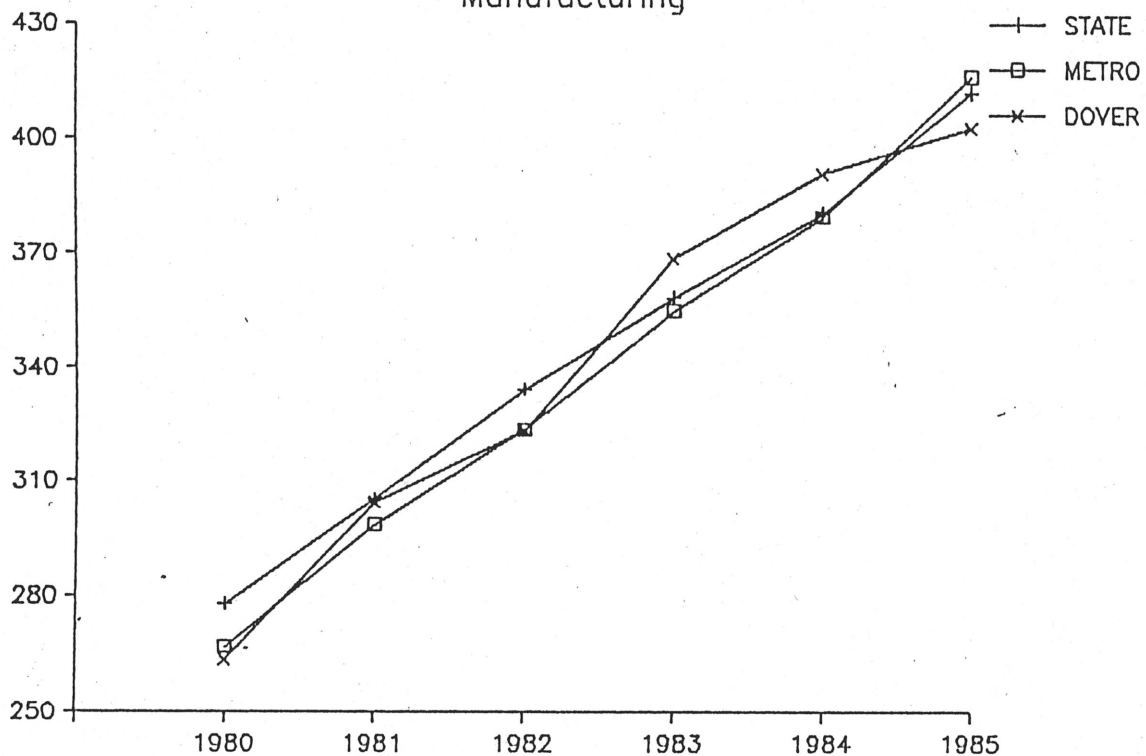


FIGURE 13

### AVERAGE WEEKLY WAGES Manufacturing



### AVERAGE WEEKLY WAGES Non-Manufacturing

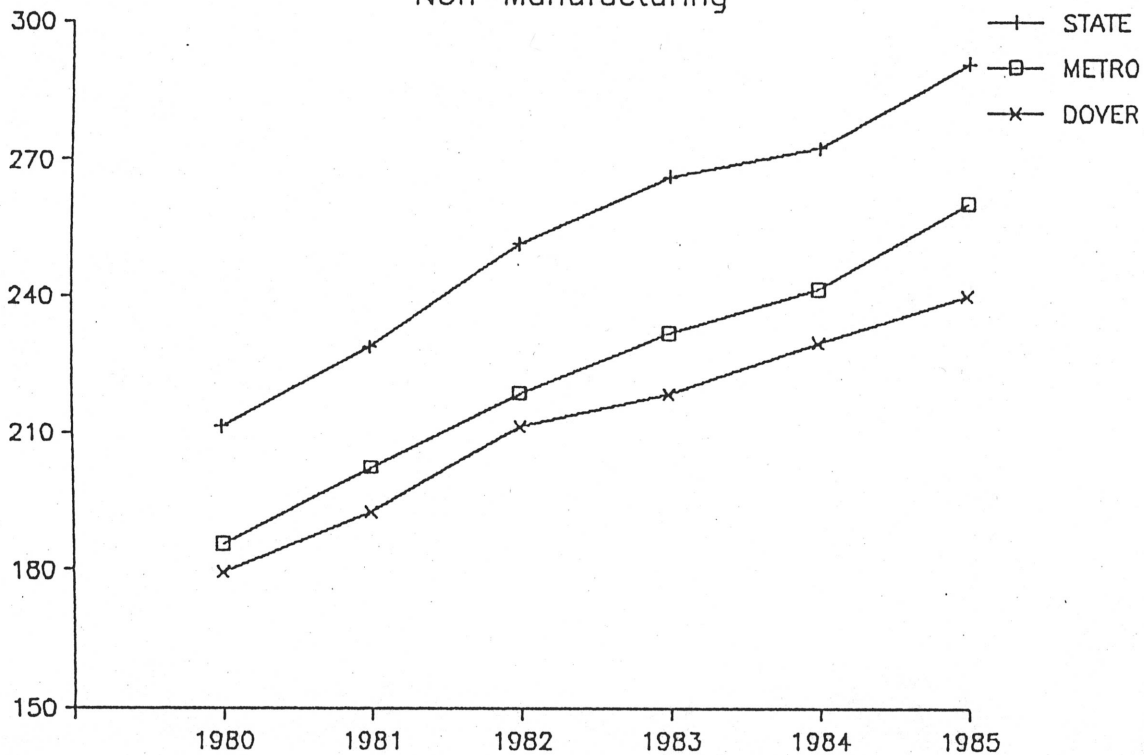


FIGURE 14

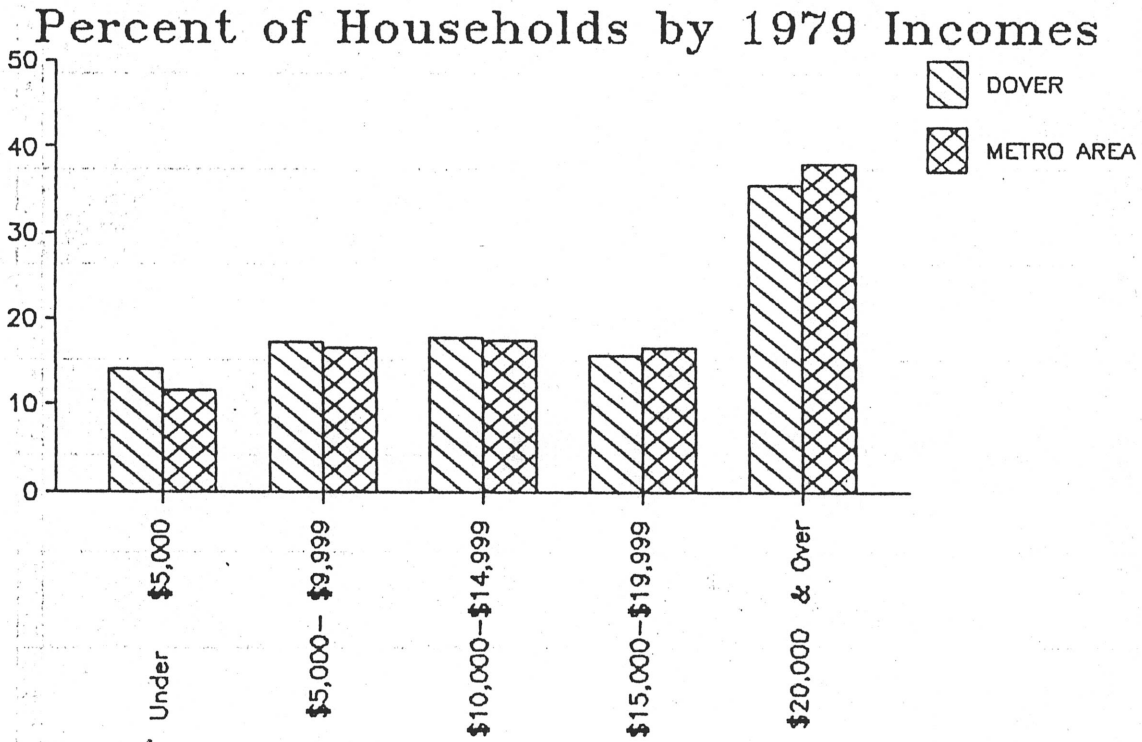




FIGURE 15  
TRENDS AND PROJECTIONS IN PER CAPITA AND TOTAL PERSONAL INCOME, DOVER REGION, 1979-1987 (CURRENT DOLLARS)

|   | PER CAPITA INCOME |       |       |       |       |       |        | POPULATION |        |        |        |        |                 |                 | GROSS PERSONAL INCOME |                 |                 |  |  |  |  |
|---|-------------------|-------|-------|-------|-------|-------|--------|------------|--------|--------|--------|--------|-----------------|-----------------|-----------------------|-----------------|-----------------|--|--|--|--|
|   | 1979              | 1980  | 1982  | 1983  | 1985  | 1987  | 1980   | 1982       | 1983   | 1985   | 1987   | 1990   | 1980            | 1982            | 1983                  | 1985            | 1987            |  |  |  |  |
| DOVER   | 6626              | 7445  | 8815  | 9500  | 11275 | 12741 | 22377  | 22833      | 23061  | 23517  | 25600  | 28000  | \$166,603,079   | \$201,275,043   | \$219,079,500         | \$265,152,588   | \$326,161,248   |  |  |  |  |
| BALANCE OF MARKET<br>PRIMARY (STRAFFORD COUNTY TOWNS) |                   |       |       |       |       |       |        |            |        |        |        |        |                 |                 |                       |                 |                 |  |  |  |  |
| S BARRINGTON  | 6699              | 7527  | 8992  | 9725  | 11542 | 13042 | 4404   | 4926       | 5188   | 5710   | 5838   | 6030   | \$33,150,266    | \$44,300,337    | \$50,449,410          | \$65,904,651    | \$76,141,486    |  |  |  |  |
| S DURHAM  | 5383              | 6049  | 7050  | 7551  | 8762  | 10127 | 10652  | 11143      | 11389  | 11880  | 11976  | 12120  | \$64,429,975    | \$78,561,750    | \$85,996,829          | \$106,466,078   | \$121,278,843   |  |  |  |  |
| S FARMINGTON  | 5321              | 5979  | 6745  | 7128  | 8460  | 9560  | 4630   | 4647       | 4655   | 4672   | 4995   | 5480   | \$27,682,415    | \$31,342,547    | \$35,182,266          | \$39,523,998    | \$47,751,758    |  |  |  |  |
| S LEE   | 7579              | 8516  | 10157 | 10977 | 13028 | 14722 | 2111   | 2280       | 2384   | 2533   | 2732   | 3030   | \$17,977,524    | \$23,155,258    | \$25,951,823          | \$32,999,640    | \$40,216,230    |  |  |  |  |
| S MADBURY   | 7340              | 8248  | 9615  | 10299 | 12223 | 13812 | 987    | 1010       | 1022   | 1045   | 1159   | 1330   | \$8,140,347     | \$9,713,264     | \$10,523,518          | \$12,773,258    | \$16,008,376    |  |  |  |  |
| S MILTON  | 5648              | 6346  | 7601  | 8229  | 9766  | 11036 | 2438   | 2477       | 2497   | 2536   | 2670   | 2870   | \$15,472,416    | \$18,850,317    | \$20,546,167          | \$24,767,756    | \$29,461,988    |  |  |  |  |
| S ROCHESTER   | 6301              | 7080  | 8144  | 8676  | 10297 | 11636 | 21560  | 21877      | 22035  | 22352  | 24051  | 26600  | \$182,646,892   | \$178,165,367   | \$191,177,395         | \$230,158,107   | \$279,849,852   |  |  |  |  |
| S ROLLINGSFORD  | 6511              | 7316  | 8649  | 9316  | 11057 | 12494 | 2319   | 2387       | 2420   | 2488   | 2617   | 2810   | \$16,965,950    | \$20,642,549    | \$22,348,446          | \$27,508,709    | \$32,694,956    |  |  |  |  |
| S SOMERSWORTH   | 6556              | 7367  | 8556  | 9150  | 10860 | 12271 | 10350  | 10424      | 10460  | 10534  | 11084  | 11910  | \$76,244,589    | \$89,179,551    | \$95,712,660          | \$114,394,397   | \$136,019,781   |  |  |  |  |
| TOTAL PRIMARY (INCL. DOVER)                           | ---               | 7080  | 8275  | 8875  | 10538 | 11924 | 81828  | 84004      | 85091  | 87267  | 92722  | 100180 | \$579,313,054   | \$695,165,982   | \$755,168,015         | \$919,649,182   | \$1,105,583,818 |  |  |  |  |
| SECONDARY (ROCKINGHAM COUNTY TOWNS)                   |                   |       |       |       |       |       |        |            |        |        |        |        |                 |                 |                       |                 |                 |  |  |  |  |
| R EXETER  | 7393              | 8268  | 9787  | 10547 | 12518 | 14145 | 11024  | 11430      | 11634  | 12040  | 12860  | 14090  | \$91,149,710    | \$111,874,268   | \$122,699,579         | \$150,711,287   | \$181,902,515   |  |  |  |  |
| R GREENLAND   | 7588              | 8486  | 9904  | 10613 | 12596 | 14233 | 2129   | 2170       | 2191   | 2232   | 2399   | 2650   | \$18,067,512    | \$21,493,939    | \$23,250,960          | \$28,114,004    | \$34,148,640    |  |  |  |  |
| R HAMPTON   | 8299              | 9282  | 11291 | 12296 | 14593 | 16490 | 10493  | 10998      | 11101  | 11506  | 12288  | 13460  | \$97,391,446    | \$123,053,623   | \$136,495,437         | \$167,910,776   | \$202,628,117   |  |  |  |  |
| R NEW CASTLE  | 10905             | 12196 | 14442 | 15565 | 18473 | 20875 | 936    | 913        | 902    | 879    | 947    | 1030   | \$11,415,551    | \$13,188,465    | \$14,036,517          | \$16,237,843    | \$19,776,585    |  |  |  |  |
| R NEWFIELDS   | 7381              | 8255  | 9490  | 10108 | 11997 | 13556 | 817    | 829        | 836    | 848    | 921    | 1030   | \$6,744,234     | \$7,871,248     | \$8,446,245           | \$10,173,056    | \$12,482,436    |  |  |  |  |
| R NEWINGTON   | 7392              | 8267  | 9880  | 10687 | 12684 | 14333 | 716    | 729        | 736    | 749    | 797    | 870    | \$5,919,300     | \$7,204,783     | \$7,863,495           | \$9,500,096     | \$11,428,805    |  |  |  |  |
| R NEWMARKET   | 6700              | 7493  | 8670  | 9259  | 10989 | 12417 | 4290   | 4809       | 5069   | 5588   | 5701   | 5870   | \$32,146,039    | \$41,697,767    | \$46,932,019          | \$61,406,003    | \$70,789,473    |  |  |  |  |
| R NORTH HAMPTON                                       | 9433              | 10550 | 12888 | 14057 | 16683 | 18852 | 3425   | 3523       | 3572   | 3670   | 3850   | 4120   | \$36,133,147    | \$45,404,217    | \$50,211,604          | \$61,227,856    | \$72,580,869    |  |  |  |  |
| R PORTSMOUTH  | 6416              | 7176  | 8641  | 9374  | 11125 | 12572 | 26254  | 26422      | 26507  | 26675  | 28729  | 31810  | \$189,388,858   | \$228,321,463   | \$248,472,868         | \$296,769,813   | \$361,172,144   |  |  |  |  |
| R RYE   | 9175              | 10261 | 13187 | 14650 | 17387 | 19647 | 4508   | 4648       | 4719   | 4859   | 5211   | 5740   | \$46,257,841    | \$61,298,881    | \$69,127,490          | \$84,484,078    | \$102,390,773   |  |  |  |  |
| R STRATHAM  | 8272              | 9251  | 11143 | 12089 | 14348 | 16213 | 2507   | 2749       | 2871   | 3113   | 3492   | 4060   | \$23,193,177    | \$30,636,900    | \$34,702,683          | \$44,664,229    | \$56,612,004    |  |  |  |  |
| TOTAL SECONDARY                                       | ---               | 8298  | 10012 | 10868 | 12905 | 14585 | 67099  | 69123      | 70135  | 72159  | 77195  | 84750  | \$556,806,817   | \$692,045,555   | \$762,238,898         | \$931,199,041   | \$1,125,912,360 |  |  |  |  |
| TOTAL MARKET AREA                                     | ---               | 7629  | 9059  | 9775  | 11609 | 13133 | 148927 | 153127     | 155226 | 159426 | 169917 | 184930 | \$1,136,119,870 | \$1,387,211,537 | \$1,517,406,913       | \$1,850,848,223 | \$2,231,496,178 |  |  |  |  |



FIGURE 16

### DOVER'S MARKET SHARE STRAFFORD/ROCKINGHAM TOTAL RETAIL SALES

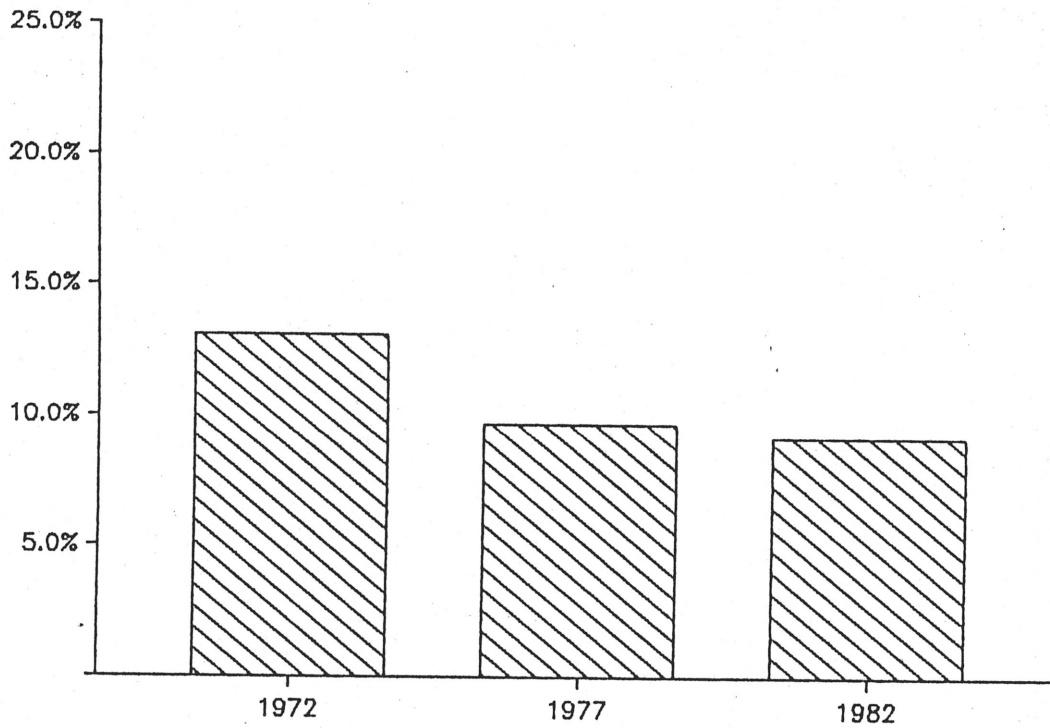


FIGURE 17

# DOVER'S MARKET SHARE

STRAFFORD/ROCKINGHAM SHOPPERS GOODS SALES

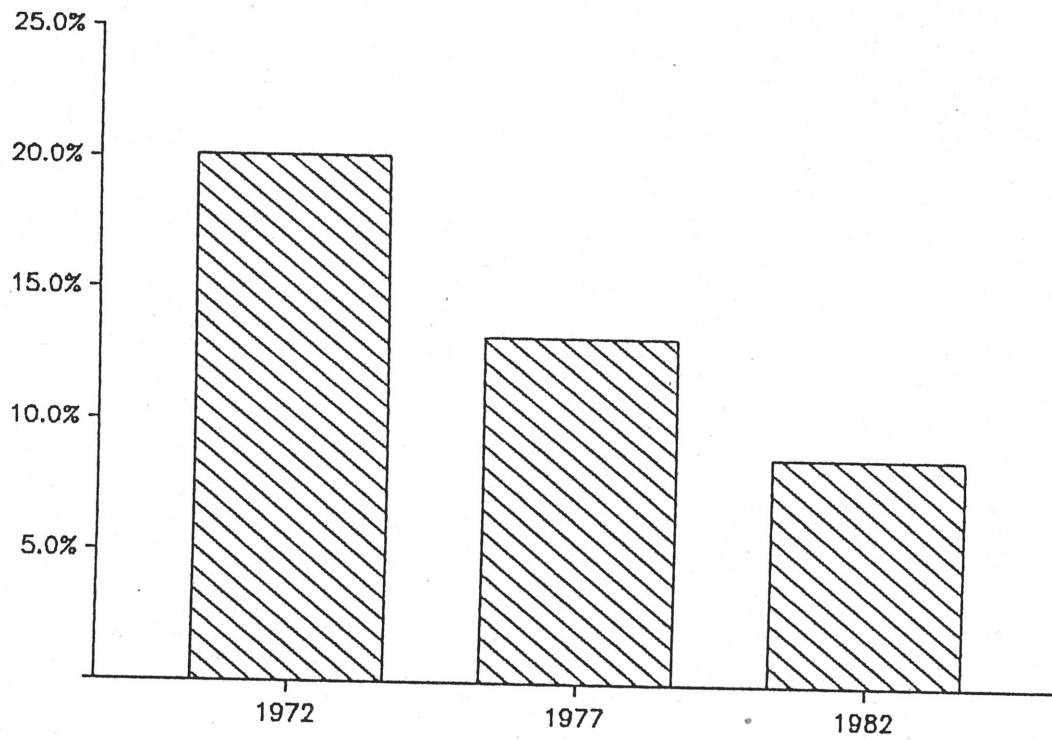
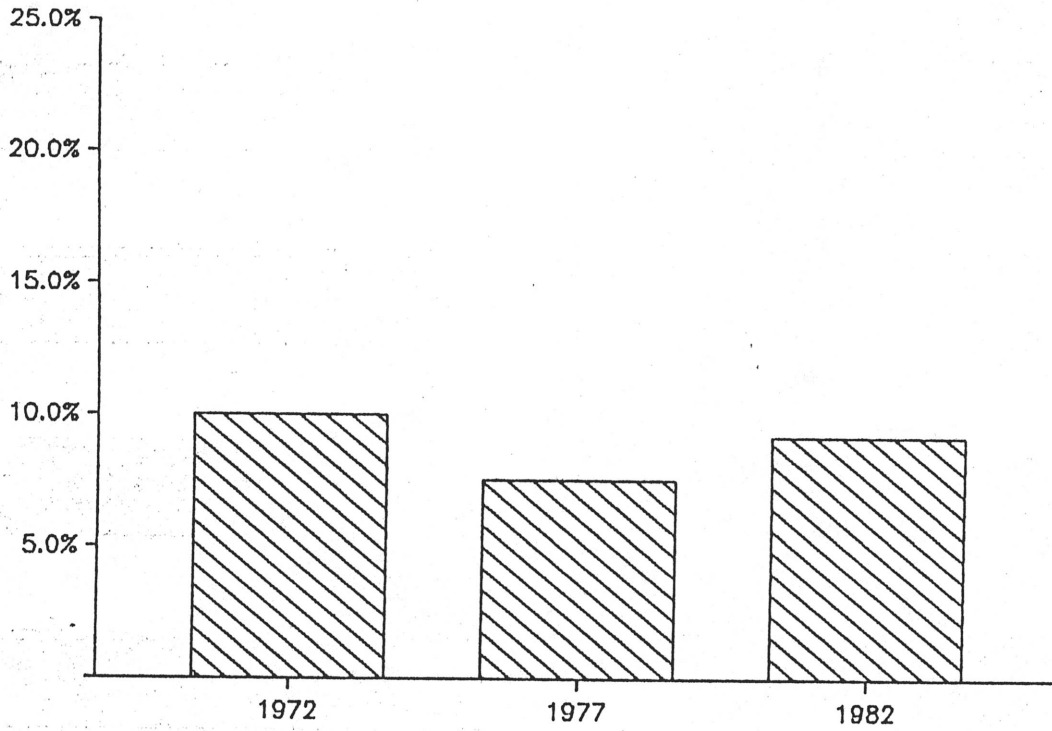


FIGURE 18

# DOVER'S MARKET SHARE

## STRAFFORD/ROCKINGHAM CONVENIENCE GOODS SALES



RETAIL SALES TRENDS, DOVER, 1977-82

8/ 7/1987

FIGURE 19

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CURRENT DOLLARS IN THOUSANDS

|                             | DOVER CITY |        | CHANGE    |           | PERCENT CHANGE |           |
|-----------------------------|------------|--------|-----------|-----------|----------------|-----------|
|                             | 1972       | 1977   | 1972-1977 | 1977-1982 | 1972-1977      | 1977-1982 |
| <b>SHOPPERS GOODS</b>       |            |        |           |           |                |           |
| General Merchandise         | 15,576     | 13,635 | ( 1,941)  | ( 5,135)  | ( 12.5%)       | ( 37.7%)  |
| Apparel                     | 3,835      | 3,900  | 65        | 2,354     | 1.7%           | 60.4%     |
| Furniture/Fixtures          | 5,209      | 6,845  | 1,636     | 1,561     | 31.4%          | 22.8%     |
| Misc. Shoppers Goods        | 1,648      | 3,734  | 2,086     | 123       | 126.6%         | 3.3%      |
| Shoppers Goods              | 26,268     | 28,114 | 1,846     | ( 1,097)  | 7.0%           | ( 3.9%)   |
| <b>CONVENIENCE GOODS</b>    |            |        |           |           |                |           |
| Food Stores                 | 12,713     | 15,501 | 3,788     | 15,149    | 29.8%          | 91.8%     |
| Drug Stores                 | 1,375      | 2,181  | 805       | 2,127     | 58.5%          | 97.5%     |
| Eating and Drinking         | 5,403      | 8,836  | 3,433     | 6,260     | 63.5%          | 70.8%     |
| Convenience Goods           | 19,492     | 27,518 | 8,026     | 23,536    | 41.2%          | 85.5%     |
| <b>OTHER RETAIL</b>         |            |        |           |           |                |           |
| Building Materials          | 2,283      | 5,851  | 3,568     | 649       | 156.3%         | 11.1%     |
| Misc. Stores and Mail Order | 11,070     | 17,271 | 6,201     | -1,851    | 56.0%          | 10.7%     |
| Automotive Dealers          | 12,913     | 14,441 | 1,528     | 12,747    | 11.8%          | 88.3%     |
| Gasoline Service Stations   | 4,731      | 6,057  | 1,326     | 8,804     | 28.0%          | 145.4%    |
| Other Retail                | 30,997     | 43,620 | 12,623    | 24,051    | 40.7%          | 55.1%     |
| Total                       | 76,757     | 99,252 | 22,495    | -46,490   | 29.3%          | 46.8%     |

FIGURE 20

RETAIL SALES TRENDS--STRAFFORD/ROCKINGHAM COUNTIES

|                             | 1972    | 1977      | 1982      | CHANGE    |           | PERCENT CHANGE |           |
|-----------------------------|---------|-----------|-----------|-----------|-----------|----------------|-----------|
|                             |         |           |           | 1972-1977 | 1977-1982 | 1972-1977      | 1977-1982 |
| <b>SHOPPERS GOODS</b>       |         |           |           |           |           |                |           |
| General Merchandise         | 71,487  | 100,865   | 124,144   | 29,378    | 23,279    | 41.1%          | 23.1%     |
| Apparel                     | 21,893  | 42,080    | 77,884    | 20,187    | 35,804    | 92.2%          | 85.1%     |
| Furniture/Fixtures          | 22,880  | 37,406    | 61,768    | 14,526    | 24,362    | 63.5%          | 65.1%     |
| Misc. Shoppers Goods        | 14,378  | 31,911    | 49,257    | 17,533    | 17,346    | 121.9%         | 54.4%     |
| -----                       | -----   | -----     | -----     | -----     | -----     | -----          | -----     |
| Shoppers Goods              | 130,638 | 212,262   | 313,053   | 81,624    | 100,791   | 62.5%          | 47.5%     |
| <b>CONVENIENCE GOODS</b>    |         |           |           |           |           |                |           |
| Food Stores                 | 149,154 | 260,985   | 381,173   | 111,831   | 120,188   | 75.0%          | 46.1%     |
| Drug Stores                 | 9,943   | 24,380    | 43,484    | 14,437    | 19,104    | 145.2%         | 78.4%     |
| Eating and Drinking         | 36,185  | 81,080    | 133,169   | 44,895    | 52,089    | 124.1%         | 64.2%     |
| -----                       | -----   | -----     | -----     | -----     | -----     | -----          | -----     |
| Convenience Goods           | 195,282 | 366,445   | 557,826   | 171,163   | 191,381   | 87.6%          | 52.2%     |
| <b>OTHER RETAIL</b>         |         |           |           |           |           |                |           |
| Building Materials          | 39,760  | 67,878    | 99,042    | 28,118    | 31,164    | 70.7%          | 45.9%     |
| Misc. Stores and Mail Order | 75,526  | 127,998   | 210,183   | 52,472    | 82,185    | 69.5%          | 64.2%     |
| Automotive Dealers          | 104,729 | 194,755   | 295,677   | 90,026    | 100,922   | 86.0%          | 51.8%     |
| Gasoline Service Stations   | 41,052  | 63,240    | 121,950   | 22,188    | 58,710    | 54.0%          | 92.8%     |
| -----                       | -----   | -----     | -----     | -----     | -----     | -----          | -----     |
| Other Retail                | 261,067 | 453,871   | 726,852   | 192,804   | 272,981   | 73.9%          | 60.1%     |
| =====                       | =====   | =====     | =====     | =====     | =====     | =====          | =====     |
| Total                       | 586,987 | 1,032,578 | 1,597,731 | 445,591   | 565,153   | 75.9%          | 54.7%     |

FIGURE 21

DOVER SHARE OF ROCKINGHAM/STRAFFORD COUNTY SALES

|  | 1972  | 1977  | 1982  | Share of Growth |         |
|--|-------|-------|-------|-----------------|---------|
|  |       |       |       | 1972-77         | 1977-82 |
| <b>SHOPPERS GOODS</b>                            |       |       |       |                 |         |
| General Merchandise                              | 21.8% | 13.5% | 6.8%  |                 |         |
| Apparel  | 17.5% | 9.3%  | 8.0%  | .3%             | 6.6%    |
| Furniture/Fixtures                               | 22.8% | 18.3% | 13.6% | 11.3%           | 6.4%    |
| Misc. Shoppers Goods                             | 11.5% | 11.7% | 7.8%  | 11.9%           | .7%     |
| Shoppers Goods                                   | 20.1% | 13.2% | 8.6%  | 2.3%            |         |
| <b>CONVENIENCE GOODS</b>                         |       |       |       |                 |         |
| Food Stores                                      | 8.5%  | 6.3%  | 8.3%  | 3.4%            | 12.6%   |
| Drug Stores                                      | 13.8% | 8.9%  | 9.9%  | 5.6%            | 11.1%   |
| Eating and Drinking                              | 14.9% | 10.9% | 11.3% | 7.6%            | 12.0%   |
| Convenience Goods                                | 10.0% | 7.5%  | 9.2%  | 4.7%            | 12.3%   |
| <b>OTHER RETAIL</b>                              |       |       |       |                 |         |
| Building Materials                               | 5.7%  | 8.6%  | 6.6%  | 12.7%           | 2.1%    |
| Misc. Stores and Mail Order                      | 14.7% | 13.5% | 9.1%  | 11.8%           | 2.3%    |
| Automotive Dealers                               | 12.3% | 7.4%  | 9.2%  | 1.7%            | 12.6%   |
| Gasoline Service Stations                        | 11.5% | 9.6%  | 12.2% | 6.0%            | 15.0%   |
| Other Retail                                     | 11.9% | 9.6%  | 9.3%  | 6.5%            | 8.8%    |
| Total  | 13.1% | 9.6%  | 9.1%  | 5.0%            | 8.2%    |
| Shoppers Goods                                   | 20.1% | 13.2% | 8.6%  |                 |         |
| <b>DOVER'S MARKET SHARE</b>                      |       |       |       |                 |         |
| <b>STRAFFORD/ROCKINGHAM SHOPPERS GOODS SALES</b> |       |       |       |                 |         |

## HOUSING MARKET TRENDS AND CURRENT HOUSING CONDITIONS

This section of the analysis presents an overview of Dover's role within the regional housing market, a review of housing development and population growth patterns within the city of Dover, and statistical and visual assessments of housing need within the city based on affordability and structural conditions.

### Housing Supply Growth

Dover has continued to capture a relatively consistent share of housing unit growth over the past 16 years. Between 1970 and 1980, the city absorbed 13 percent of the market area's overall household growth. It absorbed 22 percent of the increase in renters, but only seven percent of the increase in owner households. Because of the smaller size of renter households, Dover absorbed only 7 percent of the area's population growth during the period.

In the 1970s, the market area added an annual average of 1,400 households. In the recessionary years of 1980 to 1982, a period of low housing production generally, market area growth had slowed to an average of 600 units per year measured by building permits issued. In the strong growth years of housing market recovery, 1983 to 1986, the market area added 2,200 units per year on average. In both the slow and high-growth periods, Dover's share of overall activity was 14 percent and 13 1/2 percent respectively.

With the introduction of a substantial number of single family attached condominium, and increased activity in move-up buyer markets (repurchasers), Dover's share of single family activity and owner occupancy appears to be increasing. From 1980-86, the city absorbed 16 percent of single family growth, 13 percent of multi-family growth, and six percent of mobile home growth within the market area. The Metropolitan area as a whole contains a relatively small share of state's mobile home inventory with respect to its share of the state's population.



### Characteristics of Recent Movers

The city's recent survey of occupants of new units constructed in the city of Dover built between 1980 and 1986 provides a number of indicators of the housing market orientation of new development in the city. Significant characteristics of the households residing in new units are:

- (1) Median income of households in new units was \$31,000 (\$36,200 for homeowners and \$26,000 for renters; excluding those listed as retired);
- (2) The average household size was 2.39, with an average number of school-aged children per household of .34;
- (3) Thirty-seven percent of the homeowners in new units already lived in Dover prior to buying their new home; 30 percent lived in other parts of Rockingham or Strafford County and 33 percent lived outside of the two-county area;
- (4) Only 19 percent of the renters in new units previously resided in Dover; 30 percent had lived in other parts of Rockingham and Strafford County, and 51 percent lived outside of the two-county area. Renters were therefore more likely to make long-distance moves to Dover; and
- (5) Eighty-eight percent of the households in new units were either retired or worked in Rockingham and Strafford Counties; 29 percent of the residents of new units were working in Dover; only one percent were commuting to Massachusetts.

The results of the survey suggest that Dover has continued to provide a source of middle-income housing within an increasingly costly housing market.

### Income and Housing Cost

#### Income

The distribution of household income in Dover relative to the market area is influenced by the age and housing tenure mix of the population. Significant differences exist between Dover and the market area:

Approximately 33 percent of the Dover population in 1980 was age 45 and over and 12.2 percent were 65 and over, while within the market area, only 29 percent were age 45 and over, and only 10.7 percent were age 65 plus.

Forty-seven percent of Dover's households were renters in 1980 compared to only 39 percent for the total market area.

Median household income in Dover in the 1980 Census was about five percent lower than the metropolitan area; however, this appears to be due to Dover's large share of the renter population.

Homeowner median income in Dover was slightly higher than the market area median, while renter median income in Dover is substantially lower.

Dover had a relatively high share of the market area's very low-income (earning under \$5,000 in 1980) households.

In 1980, 11.4 percent of Dover's population was estimated to be residing below the poverty level, significantly higher than the metropolitan area's 9.5 percent population in poverty.

### Housing Cost

The median value (1980) of owner-occupied units in Dover was about seven percent lower than the metro area, while 1980 median rents were slightly higher by about three percent. During the last three years, an Applied Economic Research, Inc. sample of major rental housing projects in the city of Dover shows that contract rents increased by about 28 percent for studio apartments, 22 percent for one-bedroom apartments, and 20 percent for two-bedroom apartments. The New Hampshire Housing Finance Authority's Annual Rent Survey suggests that rents in Strafford County, dominated by the tri-city area of Dover-Somersworth-Rochester, continue to have rents more affordable than those in the Rockingham County portion of the market, although the most recent sample year a flattening out of rents could be seen in Rockingham County, while Strafford County rents continued a moderate but steady increase. With the frequency of long-distance moves by renters, the cost differentials across the rental market show less than

prices in the ownership market.

New condominiums sold in Dover during calendar year 1986 through the first quarter of 1987 had a median sales price of approximately \$82,600, only about five percent less than the estimated metropolitan area median price of \$87,100. However, the differential in single family home sales (non-luxury units) appears to be much wider. Based on a 1986 sample of single family sales (new and existing) by the New Hampshire Housing Finance Authority, Applied Economic Research, Inc. estimates the median sales price in Dover (1986) for a single family detached home to have been \$88,000 compared to a metropolitan area median of approximately \$112,000, or a differential of over 20 percent.

Both income and housing cost data for 1980 and for the current market suggest Dover is continuing to participate principally in the middle-income housing market, but is not yet participating significantly in the upper-priced single family markets. Dover's role has continued to be that of supplying a source of moderate-cost ownership and rental housing, within the Seacoast market.

#### Regional Housing Need: Low-Income Renters

The existence of housing need is increasingly emphasizing housing affordability criteria. Applied Economic Research, Inc. has prepared detailed tables on the distribution of Dover households by income, elderly/non-elderly, and owner versus renter status. (See Table 1.)

The most severe housing need among households as measured in the 1980 Census would be found among those renters earning under \$10,000 annual income and either residing in a sub-standard or overcrowded unit and/or spending 30 percent or more of their income on rent. In 1980, Dover had 1,400 such households (35 percent of its total renter households). Of these 1,400, approximately 300 were elderly households and 1,100 non-elderly.

As of the 1980 Census, the median renter household income was approxi-

TABLE 1.

DOVER1

DOVER HOUSEHOLDS BY AGE, TENURE & INCOMEHOUSEHOLDS WITH SELECTED CONDITIONS: <sup>(1)</sup> U S CENSUS 1980

| Income Range      | Homeowners |       |       | Renters |       |       | All Households |       |       |
|-------------------|------------|-------|-------|---------|-------|-------|----------------|-------|-------|
|                   | Age 62+    | Other | Total | Age 62+ | Other | Total | Age 62+        | Other | Total |
| Under \$5,000     | 46         | 4     | 50    | 204     | 454   | 658   | 250            | 458   | 708   |
| \$5,000- \$9,999  | 45         | 0     | 45    | 88      | 672   | 760   | 133            | 672   | 805   |
| \$10,000-\$14,999 | 18         | 59    | 77    | 17      | 210   | 227   | 35             | 269   | 304   |
| \$15,000-\$19,999 | 0          | 60    | 60    | 0       | 26    | 26    | 0              | 86    | 86    |
| \$20,000 & Over   | 42         | 87    | 129   | 5       | 23    | 28    | 47             | 110   | 157   |
| Total             | 151        | 210   | 361   | 314     | 1385  | 1699  | 465            | 1595  | 2060  |

TOTAL HOUSEHOLDS: U S CENSUS 1980

| Income Range      | Homeowners |       |       | Renters |       |       | All Households |       |       |
|-------------------|------------|-------|-------|---------|-------|-------|----------------|-------|-------|
|                   | Age 62+    | Other | Total | Age 62+ | Other | Total | Age 62+        | Other | Total |
| Under \$5,000     | 178        | 117   | 295   | 408     | 474   | 882   | 586            | 591   | 1177  |
| \$5,000- \$9,999  | 272        | 149   | 421   | 186     | 829   | 1015  | 458            | 978   | 1436  |
| \$10,000-\$14,999 | 315        | 321   | 636   | 79      | 769   | 848   | 394            | 1090  | 1484  |
| \$15,000-\$19,999 | 175        | 539   | 714   | 48      | 545   | 593   | 223            | 1084  | 1307  |
| \$20,000 & Over   | 302        | 2084  | 2386  | 41      | 541   | 582   | 343            | 2625  | 2968  |
| Total             | 1242       | 3210  | 4452  | 762     | 3158  | 3920  | 2004           | 6368  | 8372  |

Source: 1980 Census, Summary Tape File 4

- (1) Footnote: For renters, "selected conditions" mean that the household: pays 30% or more of income to rent; or resides in an overcrowded unit; or resides in a sub-standard unit (lacking complete plumbing facilities). For homeowners, "selected conditions" mean that the household: resides in a sub-standard unit (lacking complete plumbing); or resides in an overcrowded unit; or resides in a unit built prior to 1940 and which has low market value (under \$30,000 in 1980).

TABLE 2.

TOTAL METROPOLITAN AREA (CURRENT DEFINITION OF MSA)  
HOUSEHOLDS WITH SELECTED CONDITIONS: U S CENSUS 1980

| Income Range      | Homeowners |       |       | Renters |       |       | All Households |       |       |
|-------------------|------------|-------|-------|---------|-------|-------|----------------|-------|-------|
|                   | Age 62+    | Other | Total | Age 62+ | Other | Total | Age 62+        | Other | Total |
| Under \$5,000     | 234        | 78    | 312   | 988     | 2038  | 3026  | 1222           | 2116  | 3338  |
| \$5,000- \$9,999  | 285        | 103   | 388   | 530     | 2789  | 3319  | 815            | 2892  | 3707  |
| \$10,000-\$14,999 | 144        | 265   | 409   | 107     | 1133  | 1240  | 251            | 1398  | 1649  |
| \$15,000-\$19,999 | 82         | 229   | 311   | 21      | 365   | 386   | 103            | 594   | 697   |
| \$20,000 & Over   | 169        | 760   | 929   | 13      | 250   | 263   | 182            | 1010  | 1192  |
| Total             | 914        | 1435  | 2349  | 1659    | 6575  | 8234  | 2573           | 8010  | 10583 |

DOVER SHARE OF METRO AREA HOUSEHOLDS WITH SELECTED CONDITIONS

| Income Range      | Homeowners |        |        | Renters |        |        | All Households |        |        |
|-------------------|------------|--------|--------|---------|--------|--------|----------------|--------|--------|
|                   | Age 62+    | Other  | Total  | Age 62+ | Other  | Total  | Age 62+        | Other  | Total  |
| Under \$5,000     | 19.66%     | 5.13%  | 16.03% | 20.65%  | 22.28% | 21.74% | 20.46%         | 21.64% | 21.21% |
| \$5,000- \$9,999  | 15.79%     | .00%   | 11.60% | 16.60%  | 24.09% | 22.90% | 16.32%         | 23.24% | 21.72% |
| \$10,000-\$14,999 | 12.50%     | 22.26% | 18.83% | 15.89%  | 18.53% | 18.31% | 13.94%         | 19.24% | 18.44% |
| \$15,000-\$19,999 | .00%       | 26.20% | 19.29% | .00%    | 7.12%  | 6.74%  | .00%           | 14.48% | 12.34% |
| \$20,000 & Over   | 24.85%     | 11.45% | 13.89% | 38.46%  | 9.20%  | 10.65% | 25.82%         | 10.89% | 13.17% |
| Total             | 16.52%     | 14.63% | 15.37% | 18.93%  | 21.06% | 20.63% | 18.07%         | 19.91% | 19.47% |

Source: 1980 Census, Summary Tape  
File 4 and AER, Inc. selected  
conditions as defined in  
Table 1.

mately \$10,000 in Dover; median renter income was about half that of owner median income. Renters earning under \$10,000 had a significantly higher incidence of housing affordability and quality problems.

Dover has a relatively high share of the market's renters in low to moderate-income households with sub-standard housing and over-payment problems. (See Table 2.)

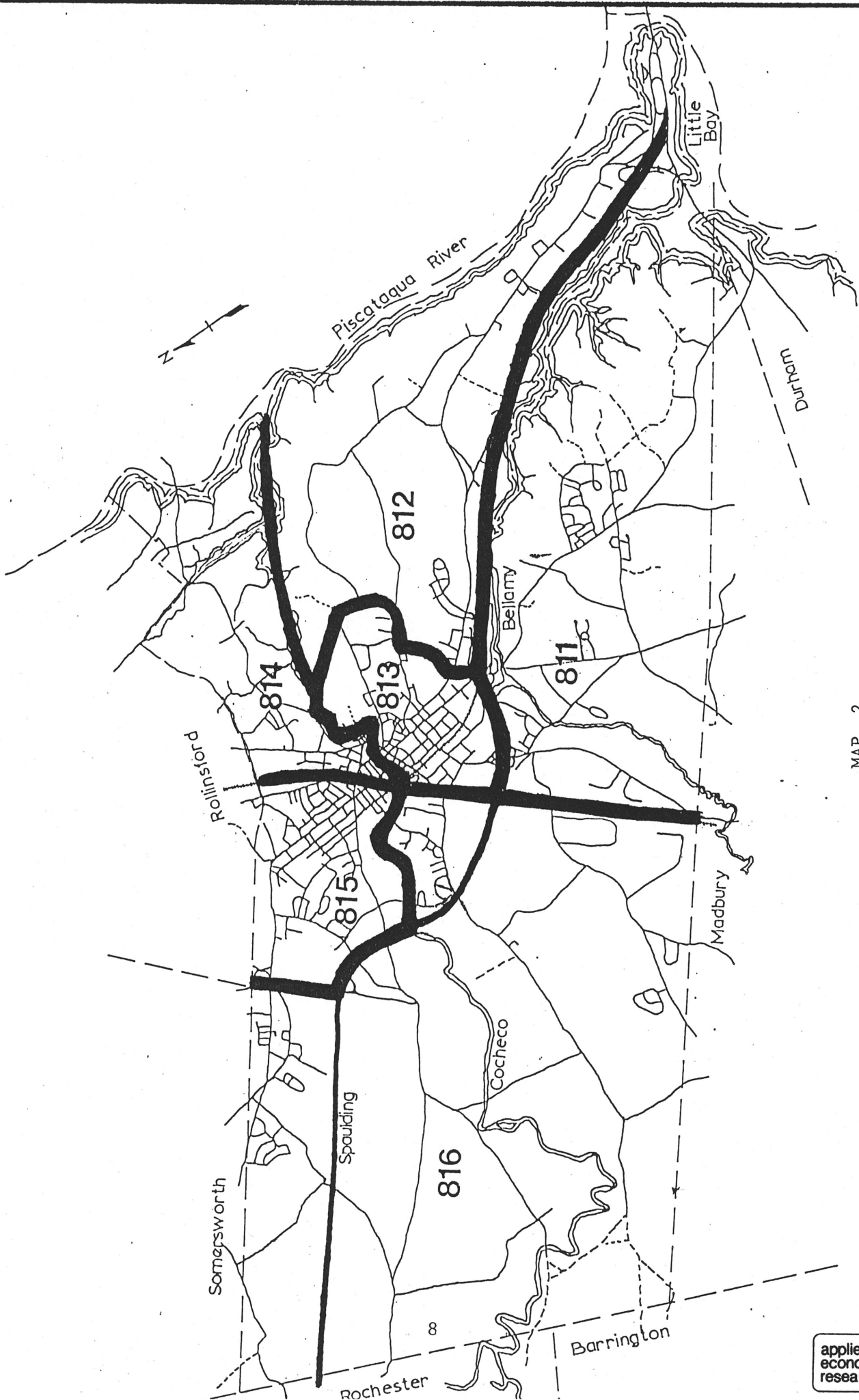
Because of the existence of subsidy programs, Dover has a somewhat lower share of the region's very low-income renters with housing problems, since households residing in assisted units in 1980 paid less than 30 percent of income for rent. Within the market area in 1980, there were approximately 2,300 assisted housing units with subsidies committed to specific structures. Dover had 686 of these units, or 30 percent of the region's total. As of 1987, Dover's subsidized housing inventory had increased to 740, representing about 27 percent of the area's estimated 2,700 total units. Subsidized housing units in Dover account for 31 percent of the assisted family structures of the region and 25 percent of the elderly units. These figures do not include the additional Section 8 Existing and voucher subsidies made available to lower-income households. Dover's overall share of the region's assisted housing units sees its share of market area population (15 percent) and its share of low-income housing needs as measured in Table 2.

#### Housing Trends Within the City

Using the 1980 Census Tract definitions (see Map 2) for the city of Dover, Applied Economic Research, Inc. has examined and summarized 1970, 1980, and 1987 (estimated) data for housing and population growth within the city. A review of the data contained in Figures 12 through 18 suggest that:

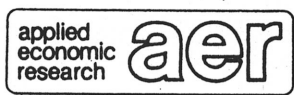
The southwestern portion of the city (Tract 811) continues to absorb the bulk of new housing growth and population as well as the bulk of proposed new housing units (this area is the most closely oriented to best access to the Spaulding Turnpike));

Population growth remains strongly related to housing



MAP 2

CITY OF DOVER, N.H.  
 CENSUS TRACTS - 1980



type. Areas with significant single family/condominium growth or owner-occupied orientation will tend to absorb significantly greater shares of net population increase.

The orientation of new movers toward factors of "location" and housing availability and cost suggest that the principal reasons for Dover's surging housing growth has been its relative accessibility and its relative housing costs, rather than the attraction of particular services offered by the city.

### Housing Need Within the City

The 1980 Census provides detailed information on housing condition and the relationship of housing cost to income. Table 3 illustrates the distribution of various factors measuring sub-standard conditions and the distribution of low-income renter households paying excessive amounts for housing. Eighty percent of the overall housing need illustrated in Table 3 may be found within the built-up areas of the central city. Generally, programs oriented toward dealing with housing needs are those which either provide benefits principally to low to moderate-income households, or which improve infrastructure in lower-income neighborhoods. A combination of 1980 statistical measures available from the Census and a windshield survey by AER, Inc. in July suggest that the current Community Development Block Grant target area for Dover represents only a portion of the area in which housing need is concentrated within the city. (See Map 3.)

Our impression of current conditions is that highly visible properties on the major thoroughfares have shown significant improvement in recent years. In addition, there has been in-fill development of new housing units in otherwise below-average quality neighborhoods by virtue of the increase in achievable rents within the market, and also by the improvements made in the city's CDBG Program.

The areas containing the city's lowest-quality housing, as measured by statistical indicators of need, suggest about the same pattern as they did in 1970. While properties in the more visible, well-traveled streets have shown significant improvement, the valuation of streets off the major thoroughfares finds continued evidence of housing and infrastructure



problems.

### Conclusions

- (1) Dover has absorbed a fairly consistent proportion of the market area's housing growth since 1970, though in the most recent years of 1985 to 1986 its share declined;
- (2) Dover has been a significant source of low to moderate-income housing with the regional economy;
- (3) The mix of housing types developed in Dover since 1980 evidences a shift away from a predominantly rental housing role for the city and into an increased single family/condominium role;
- (4) Within the city, housing development and population growth from 1970 to 1980 and 1980 to 1987 has been highly concentrated in the southwestern portion of the city oriented toward the Spaulding Turnpike commuter access;
- (5) Housing cost differentials and good accessibility to the region's job market have made Dover highly attractive to the middle-income housing market;
- (6) The current CDBG target area in the city represents only a portion of the areas in which housing need is concentrated within Dover. While the more well-traveled streets present the image of high degree of market activity in housing rehabilitation, significant needs may be found on the less well-traveled streets of the city;
- (7) While there has been significant household growth in the city's center and its built-up areas, a lower number of persons per household and concentration of rental housing means that population increases have not been as great;
- (8) Population growth remains strongly related to housing type as areas with significant single family/condominium growth or owner-occupied orientation will receive significantly greater shares of net population increase than those areas oriented more toward rental or multi-family growth; and
- (9) The orientation of new movers toward factors of "location" and housing availability and cost and high growth within this particular section of the city suggest the principal reasons for Dover's housing growth have been relative accessibility and housing cost.

TABLE 3.

files: cityneed

CITY OF DOVER: NEIGHBORHOOD HOUSING NEED CRITERIA

| Tract      | Block Group | Housing Condition Criteria |                |                          |                             |                 | Low Income, Overpayment               |         |         | Share Of City Need Composite Percent | Rank |
|------------|-------------|----------------------------|----------------|--------------------------|-----------------------------|-----------------|---------------------------------------|---------|---------|--------------------------------------|------|
|            |             | Substd Plumbing            | Substd Heating | Substd. Complete Kitchen | No Pre-1940 Renter Occupied | Total % of City | Renters <\$10,000 Spend 35% + Of City | Percent | Percent |                                      |      |
| 811        | 1           | 9                          | 40             | 9                        | 65                          | 2.43            | 145                                   | 12.12   | 5.43    | 6                                    |      |
| 811        | 2           | 0                          | 75             | 0                        | 93                          | 3.48            | 72                                    | 6.02    | 4.27    | 8                                    |      |
| 812        | 1           | 6                          | 18             | 6                        | 59                          | 2.21            | 39                                    | 3.26    | 2.53    | 11                                   |      |
| 812        | 2           | 7                          | 70             | 7                        | 126                         | 4.72            | 0                                     | .00     | 3.26    | 10                                   |      |
| 813        | 1           | 57                         | 19             | 41                       | 427                         | 20.37           | 140                                   | 11.71   | 17.69   | 2                                    |      |
| 813        | 2           | 25                         | 40             | 25                       | 309                         | 14.94           | 161                                   | 13.46   | 14.49   | 4                                    |      |
| 814        | 1           | 32                         | 25             | 32                       | 358                         | 13.41           | 117                                   | 9.78    | 12.29   | 5                                    |      |
| 815        | 1           | 31                         | 11             | 20                       | 297                         | 13.45           | 206                                   | 17.22   | 14.61   | 3                                    |      |
| 815        | 2           | 37                         | 4              | 37                       | 452                         | 16.93           | 236                                   | 19.73   | 17.80   | 1                                    |      |
| 816        | 1           | 7                          | 49             | 7                        | 13                          | 2.85            | 53                                    | 4.43    | 3.34    | 9                                    |      |
| 816        | 2           | 7                          | 44             | 7                        | 81                          | 5.21            | 27                                    | 2.26    | 4.29    | 7                                    |      |
| City Total |             | 218                        | 395            | 191                      | 1866                        | 100.00          | 1196                                  | 100.00  | 100.00  |                                      |      |

Source: U.S. Census Block Grant Data, Summary Tape File 1A, 3A

# CENTRAL AREA - DOVER, N.H.



MAP 3

## CONCENTRATIONS OF HOUSING & NEIGHBORHOOD IMPROVEMENT NEEDS

Source: AER, Inc. windshield survey & 1980 Block Group Data. Shaded are streets on which 20% or more of residential structures are in poor condition & within Census-defined statistical areas of high housing need (based on Table 3).

TABLE 4.

CITY OF DOVER

DISTRIBUTION OF ELDERLY (AGE 65+) PERSONS & HOUSEHOLDS

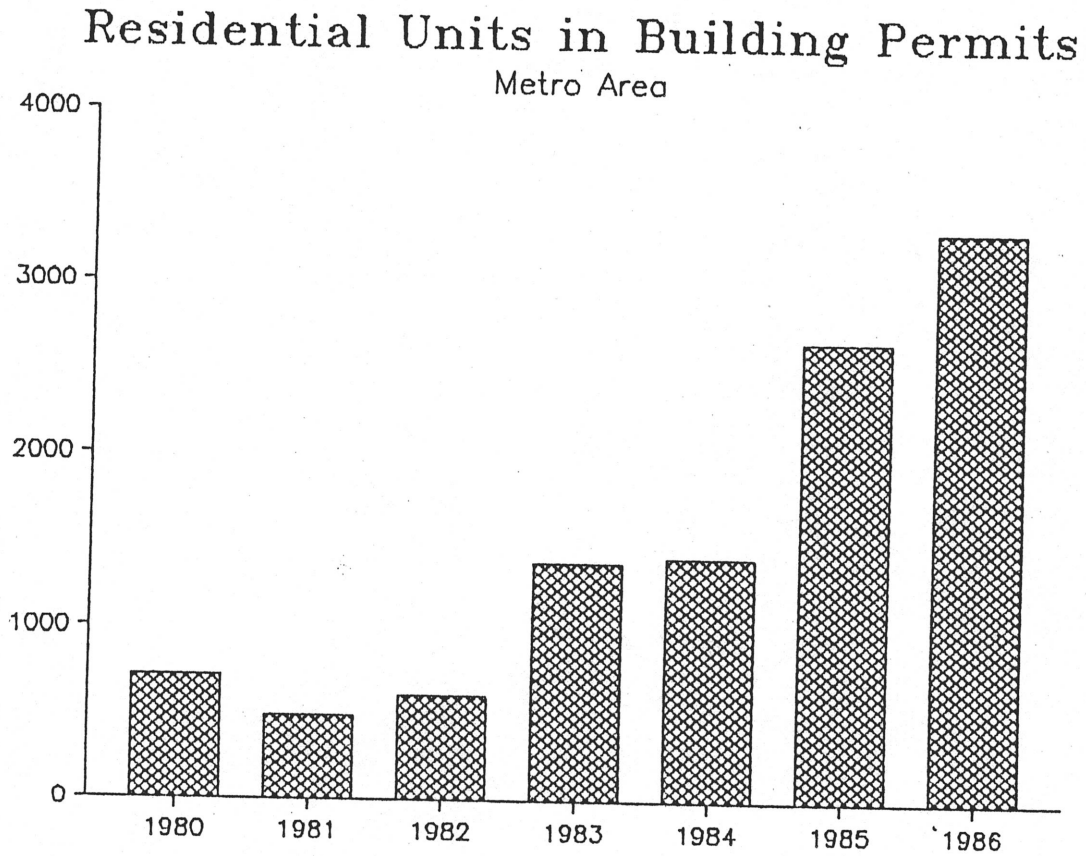
Comparative Characteristics of Block Groups

| Tract | Population | % Of City | Households | % Of City | Age 65+ Population | % of Pop Elderly | City Eld. | % Of City Eld. | Elderly Households (Head Age 65+) |        | Total | Elderly % Of Househlds |
|-------|------------|-----------|------------|-----------|--------------------|------------------|-----------|----------------|-----------------------------------|--------|-------|------------------------|
|       |            |           |            |           |                    |                  |           |                | Owner                             | Renter |       |                        |
| 811   | 1095       | 4.89      | 436        | 5.20      | 77                 | 7.03             | 2.87      | 39             | 7                                 | 46     | 10.55 |                        |
| 811   | 2510       | 11.22     | 863        | 10.30     | 186                | 7.41             | 6.93      | 86             | 27                                | 113    | 13.09 |                        |
| 812   | 1486       | 6.64      | 498        | 5.94      | 148                | 9.96             | 5.52      | 89             | 8                                 | 97     | 19.48 |                        |
| 812   | 1376       | 6.15      | 484        | 5.78      | 228                | 16.57            | 8.50      | 97             | 10                                | 107    | 22.11 |                        |
| 813   | 1925       | 8.60      | 836        | 9.98      | 319                | 16.57            | 11.89     | 53             | 192                               | 245    | 29.31 |                        |
| 813   | 2553       | 11.41     | 1068       | 12.75     | 333                | 13.04            | 12.41     | 117            | 117                               | 234    | 21.91 |                        |
| 814   | 1623       | 7.25      | 668        | 7.97      | 175                | 10.78            | 6.52      | 57             | 67                                | 124    | 18.56 |                        |
| 815   | 2118       | 9.47      | 846        | 10.10     | 268                | 12.65            | 9.99      | 99             | 60                                | 159    | 18.79 |                        |
| 815   | 3267       | 14.60     | 1255       | 14.98     | 479                | 14.66            | 17.85     | 157            | 82                                | 239    | 19.04 |                        |
| 816   | 1889       | 8.44      | 689        | 8.22      | 146                | 7.73             | 5.44      | 69             | 27                                | 96     | 13.93 |                        |
| 816   | 2335       | 11.33     | 735        | 8.77      | 324                | 12.78            | 12.08     | 77             | 14                                | 91     | 12.38 |                        |
| Total | 22377      | 100.00    | 8378       | 100.00    | 2683               | 11.99            | 100.00    | 940            | 611                               | 1551   | 18.51 |                        |

Source: 1980 Census, Summary Tape File 1A, 3A, Block Group Data

ADDENDUM B

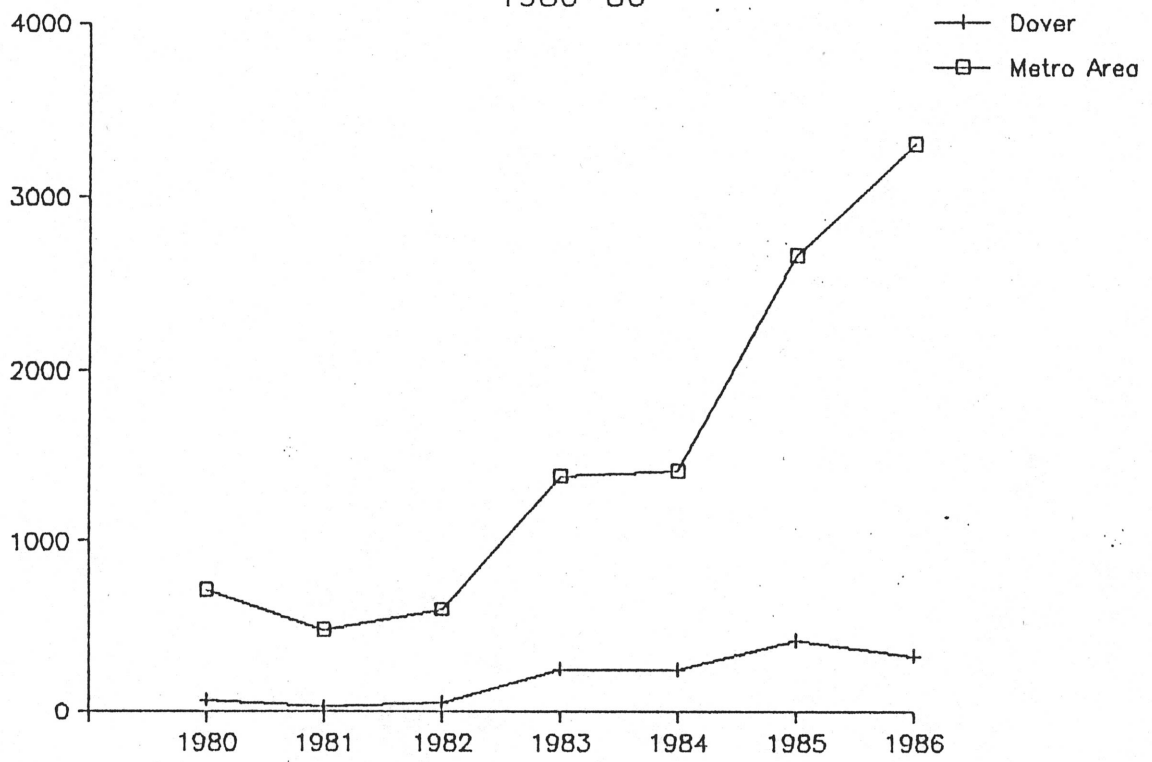
FIGURE 1.



Source: N.H. Office of State Planning;  
U.S. Census C-40 Reports  
and AER, Inc.

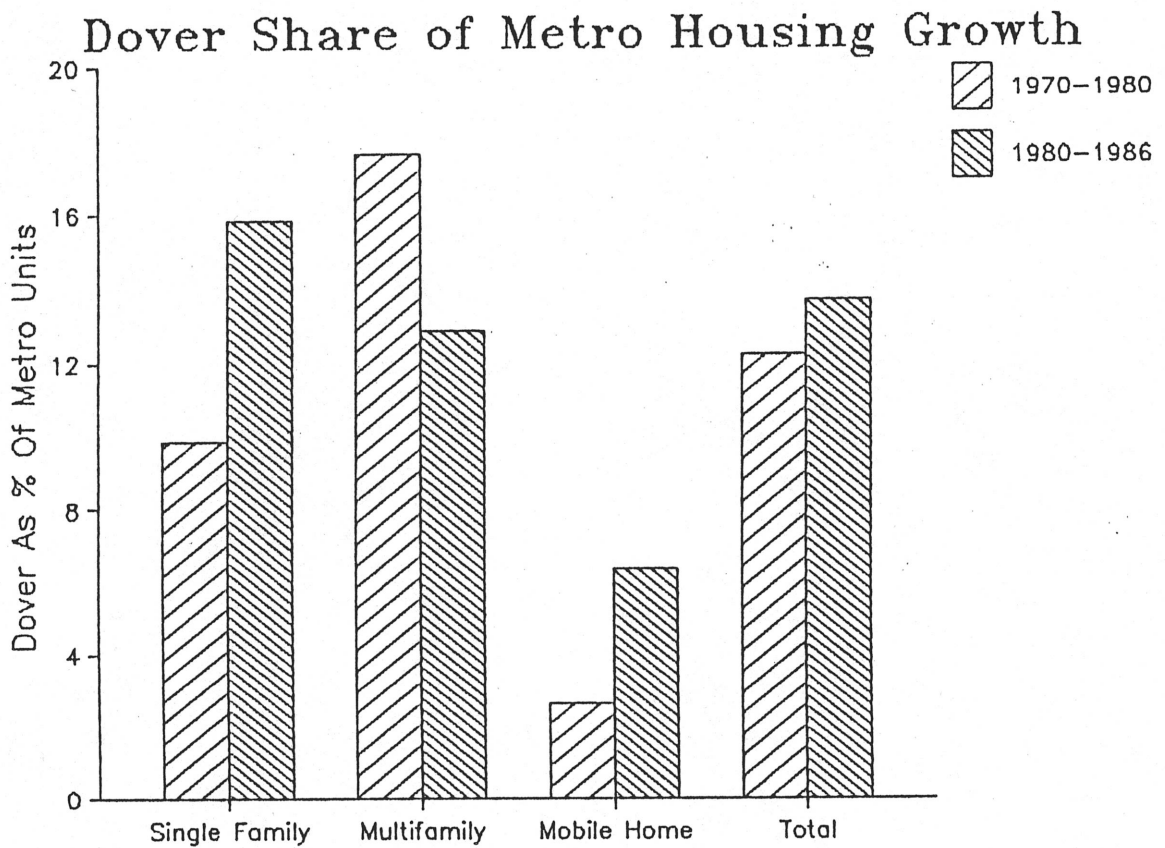
FIGURE 2.

## Residential Units in Building Permits 1980-86



Source: N.H. Office of State Planning;  
U.S. Census C-40 Reports  
and AER, Inc.

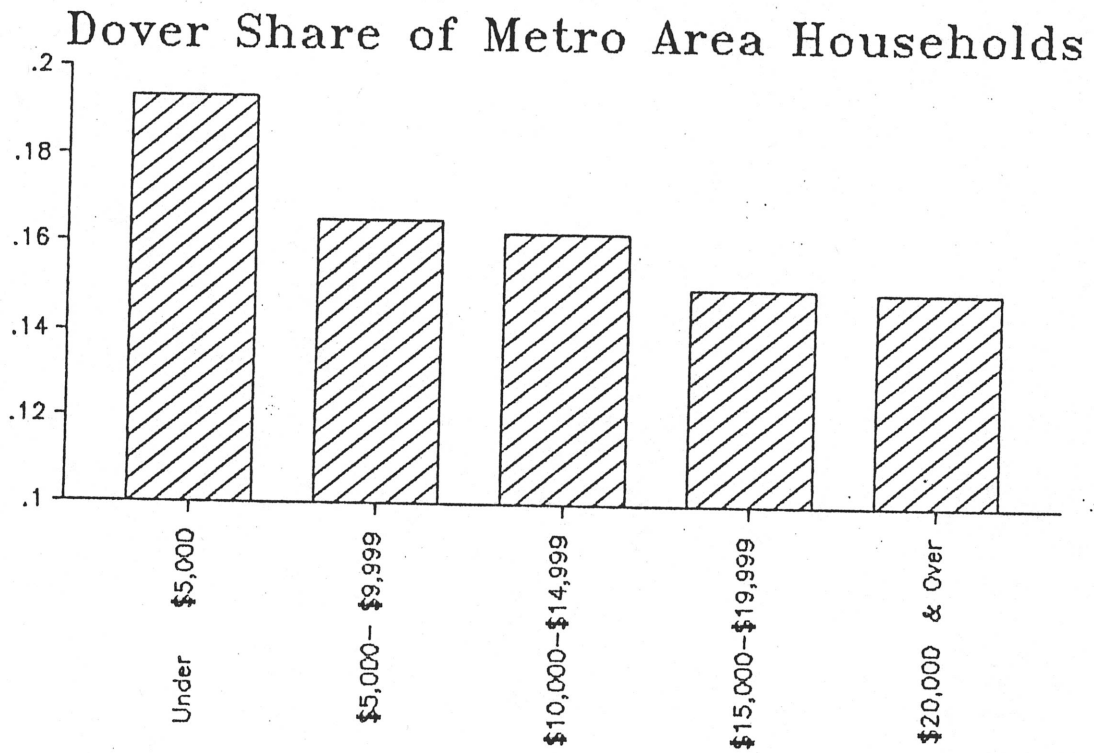
FIGURE 3.



Source: U.S. Census, 1970 and 1980;  
1980-86, N.H. Office of State  
Planning, U.S. Census C-40  
Reports



FIGURE 4.



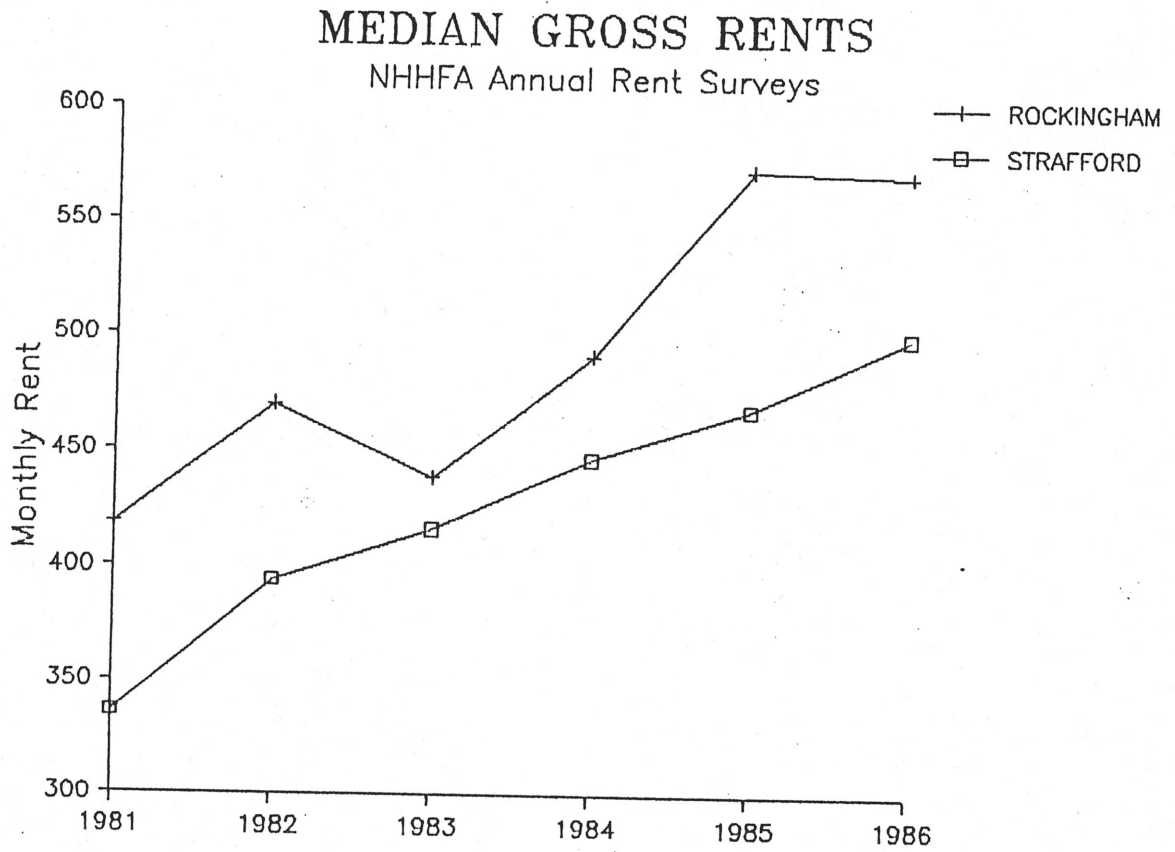
Source: 1980 Census, Summary Tape File 4,  
and AER, Inc.

FIGURE 6.



Source: AER, Inc. survey of nine major rental housing complexes in Dover, July 1984 and 1987.

FIGURE 7.

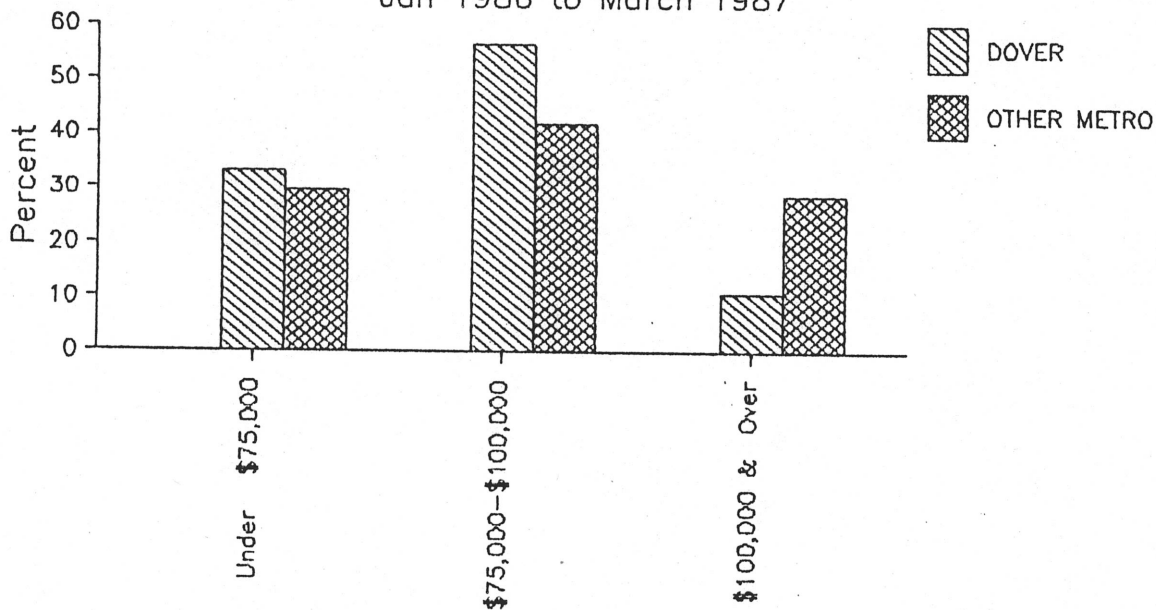


Source: N.H. Housing Finance Authority,  
Annual Rent Surveys

FIGURE 8.

## Sales of New Condominiums

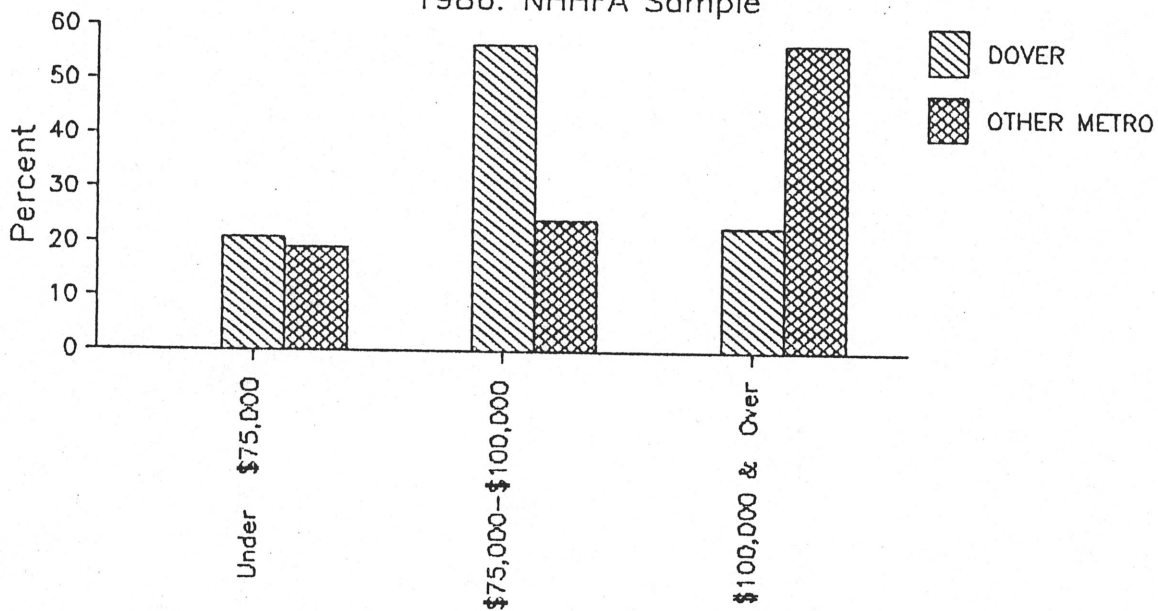
Jan 1986 to March 1987



Source: AER, Inc. compilation of new residential condominium closings

## Single Family Sales

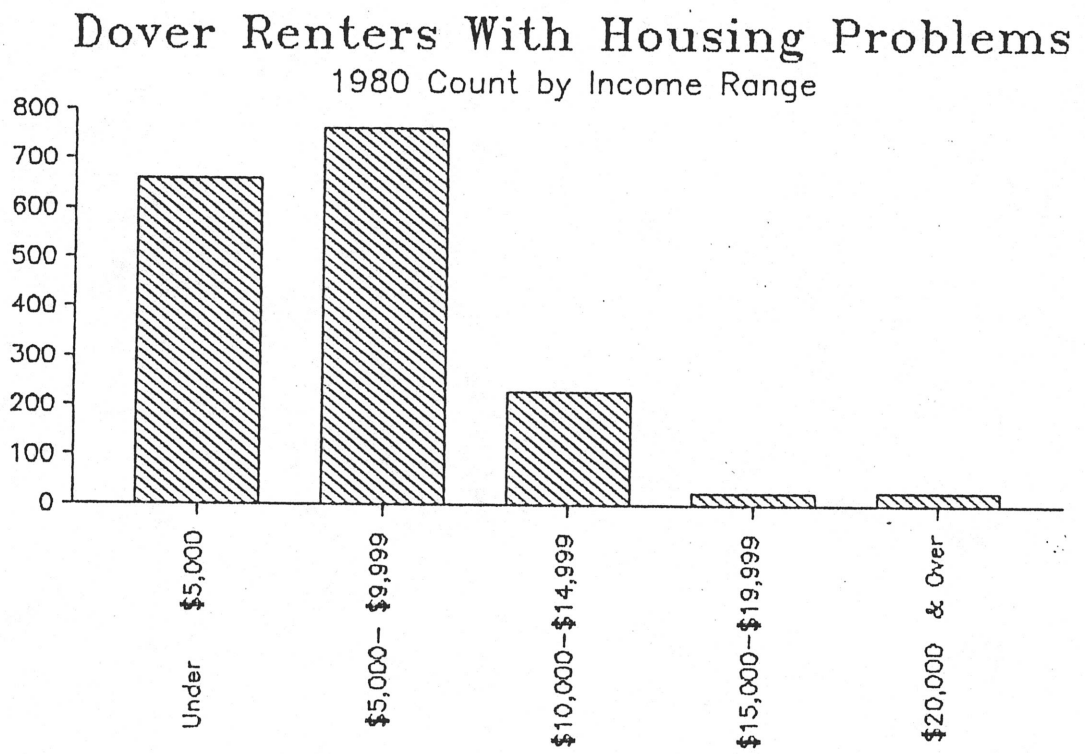
1986: NHHFA Sample



Percent of Sales by Price Range

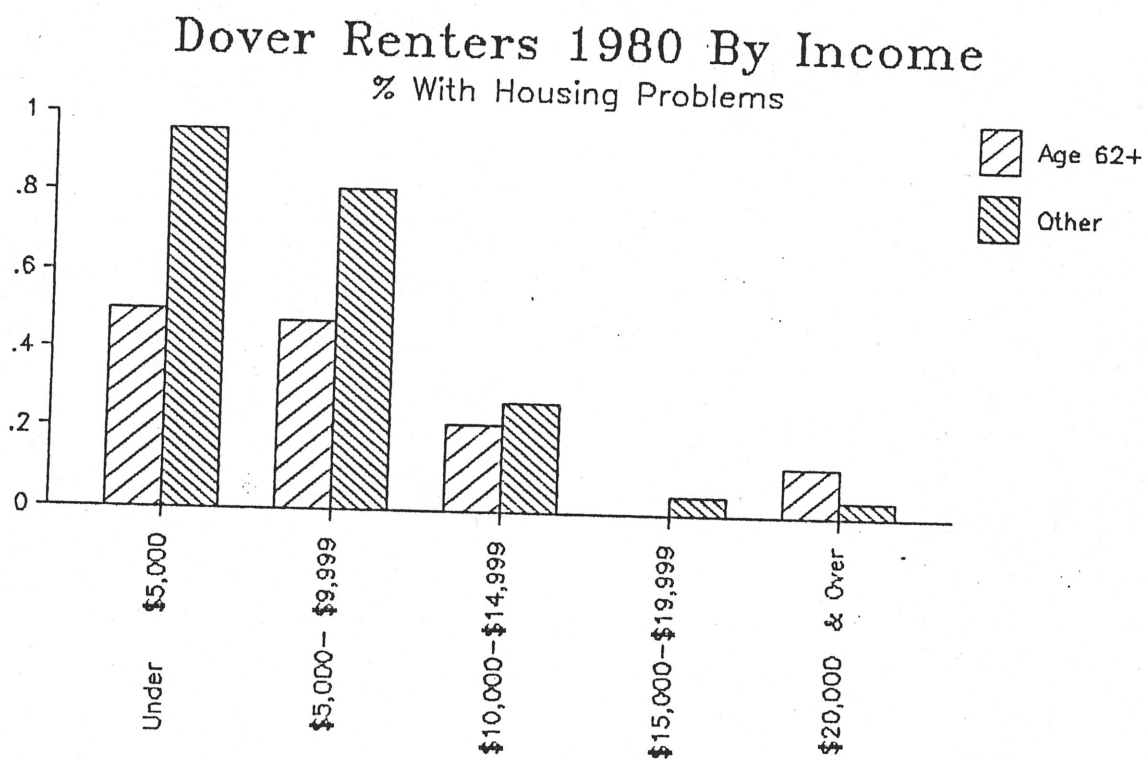
Source: AER, Inc. analysis of New Hampshire Housing Finance Authority, sample of 1986 home sales, excluding condominiums

FIGURE 9.



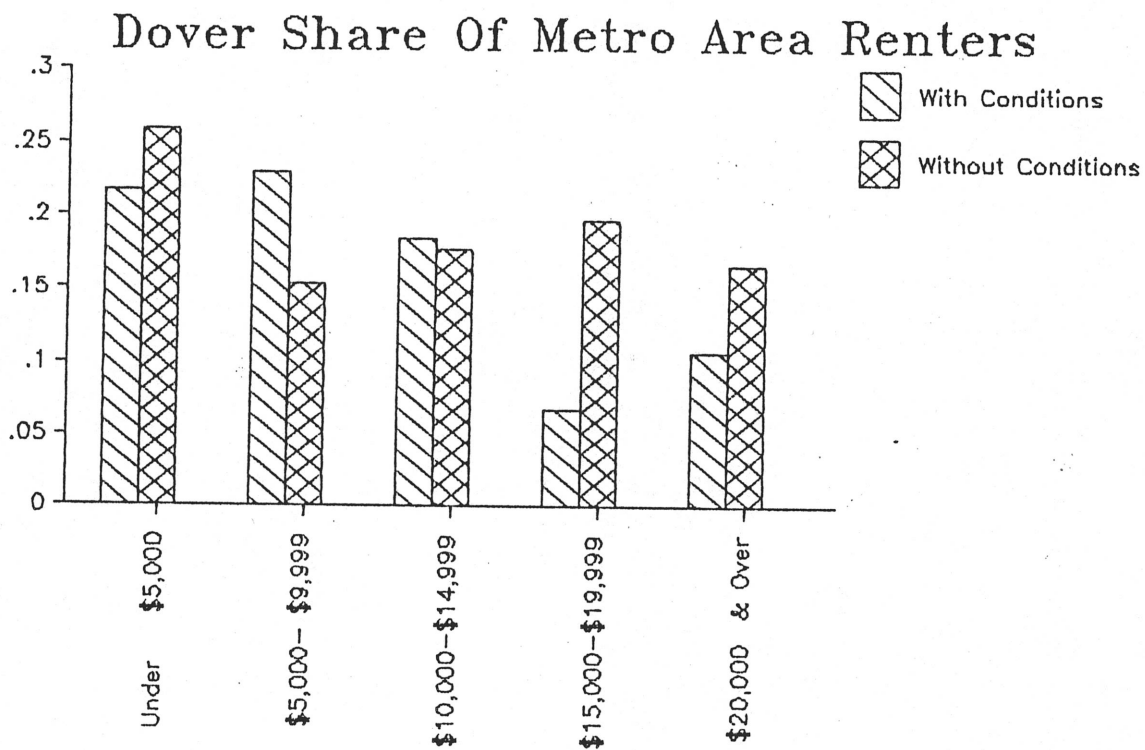
Source: 1980 Census, Summary Tape File 4; housing problems defined by "selected conditions" (See Table 1.)

FIGURE 10.



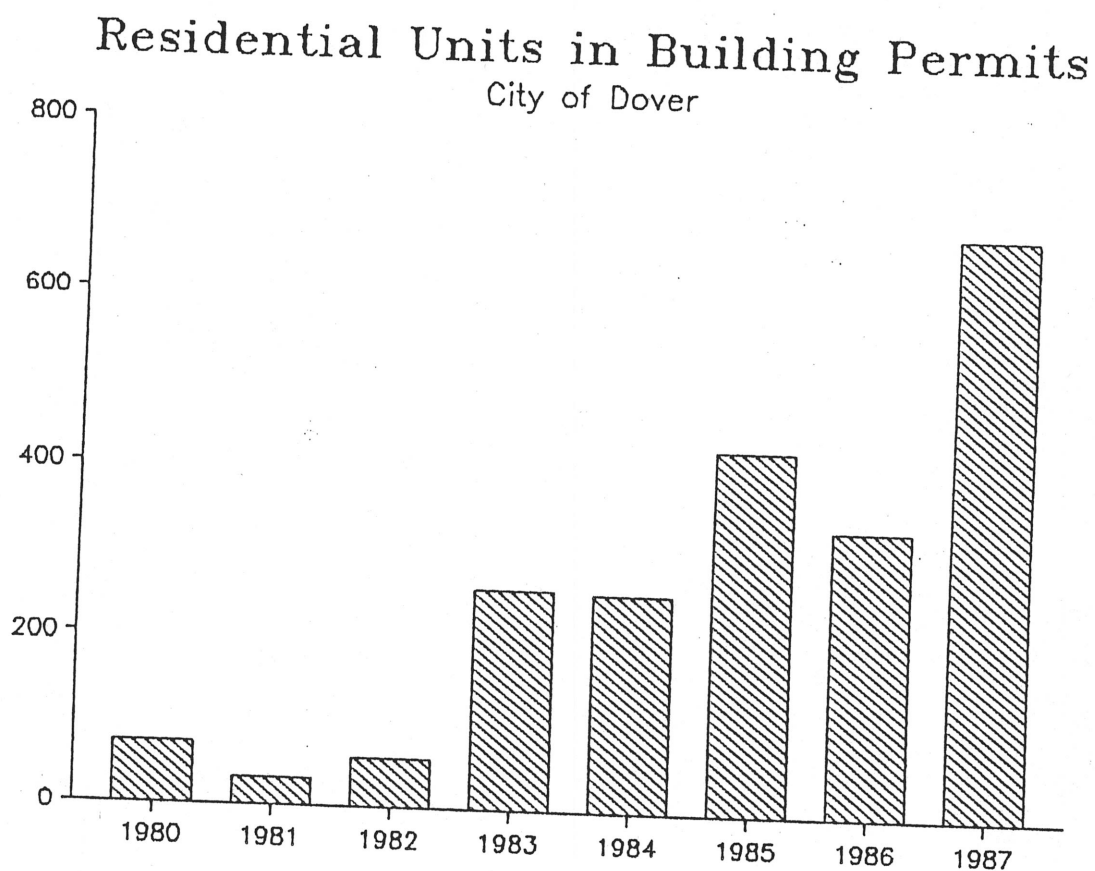
Source: 1980 Census, Summary Tape  
File 4 (See Table 1.)

FIGURE 11.



Source: U.S. Census, Summary Tape File 4

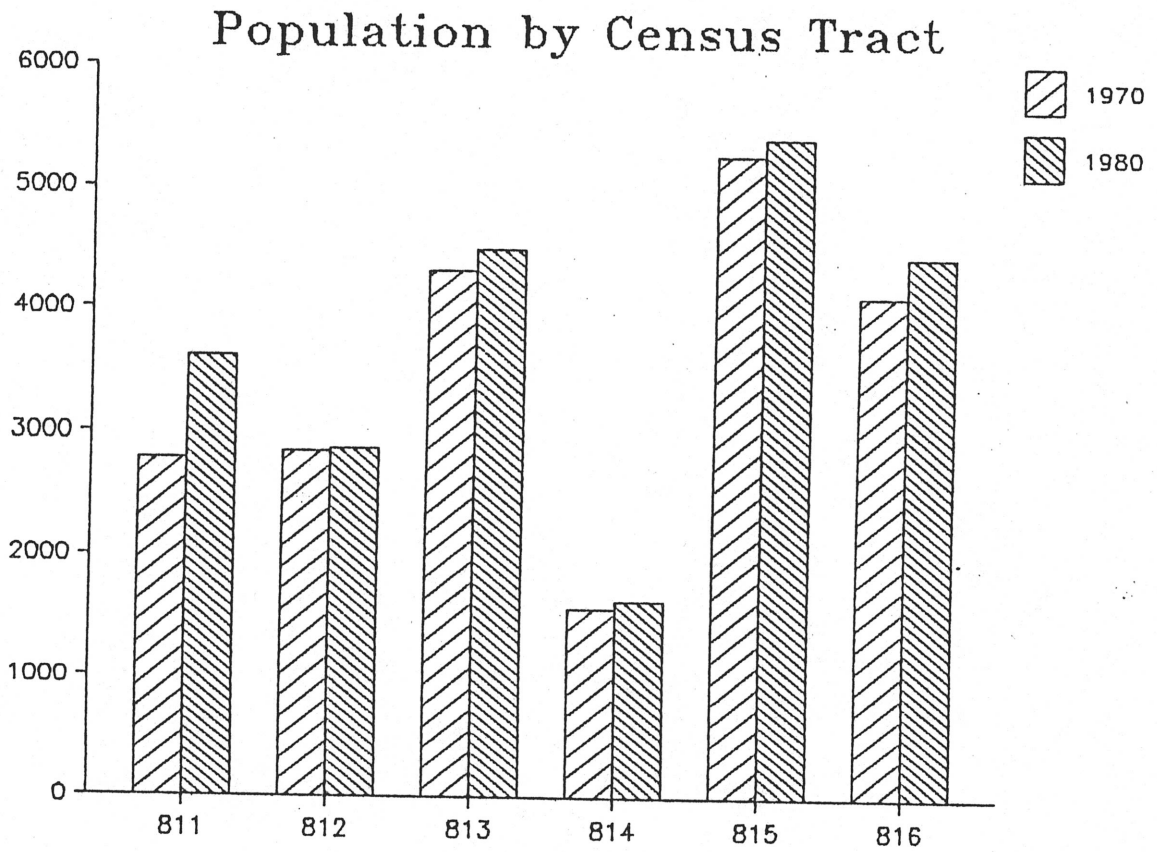
FIGURE 12.



Source: AER, Inc. compilation of  
Building Permit records,  
City of Dover



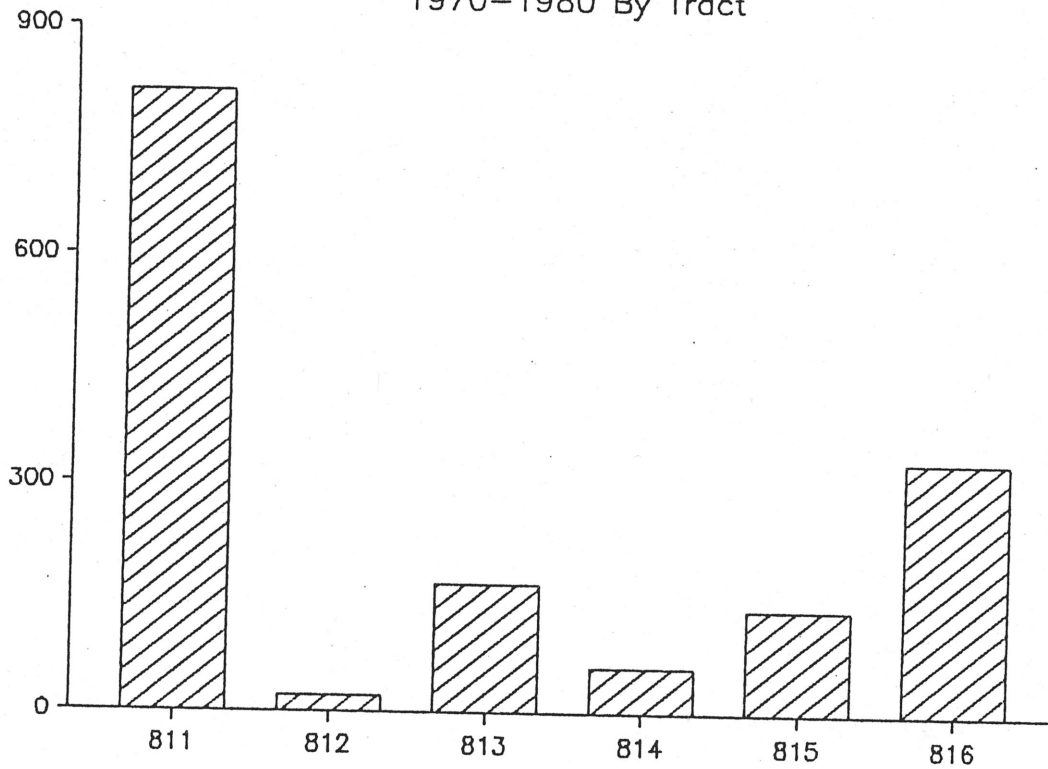
FIGURE 13.



Source: 1980 Census; conversion of 1970 Census to 1980 Tracts by AER, Inc.

FIGURE 14.

### Change in Population 1970-1980 By Tract



### Change in Households 1970-80 1970-1980 By Tract

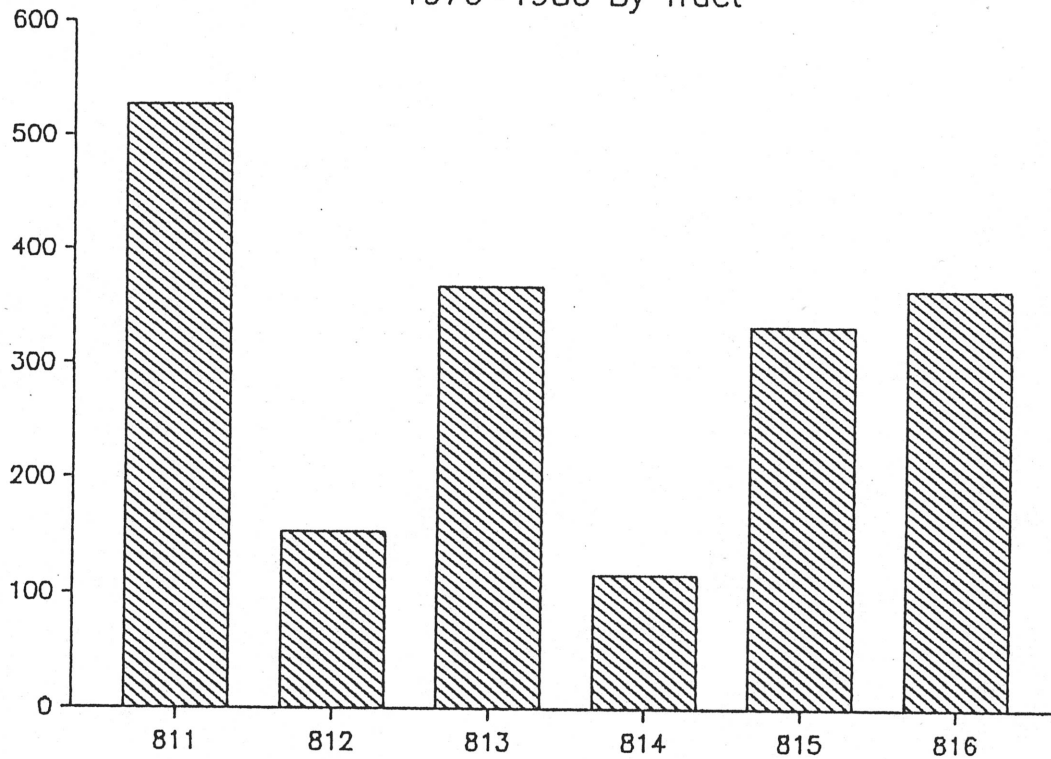
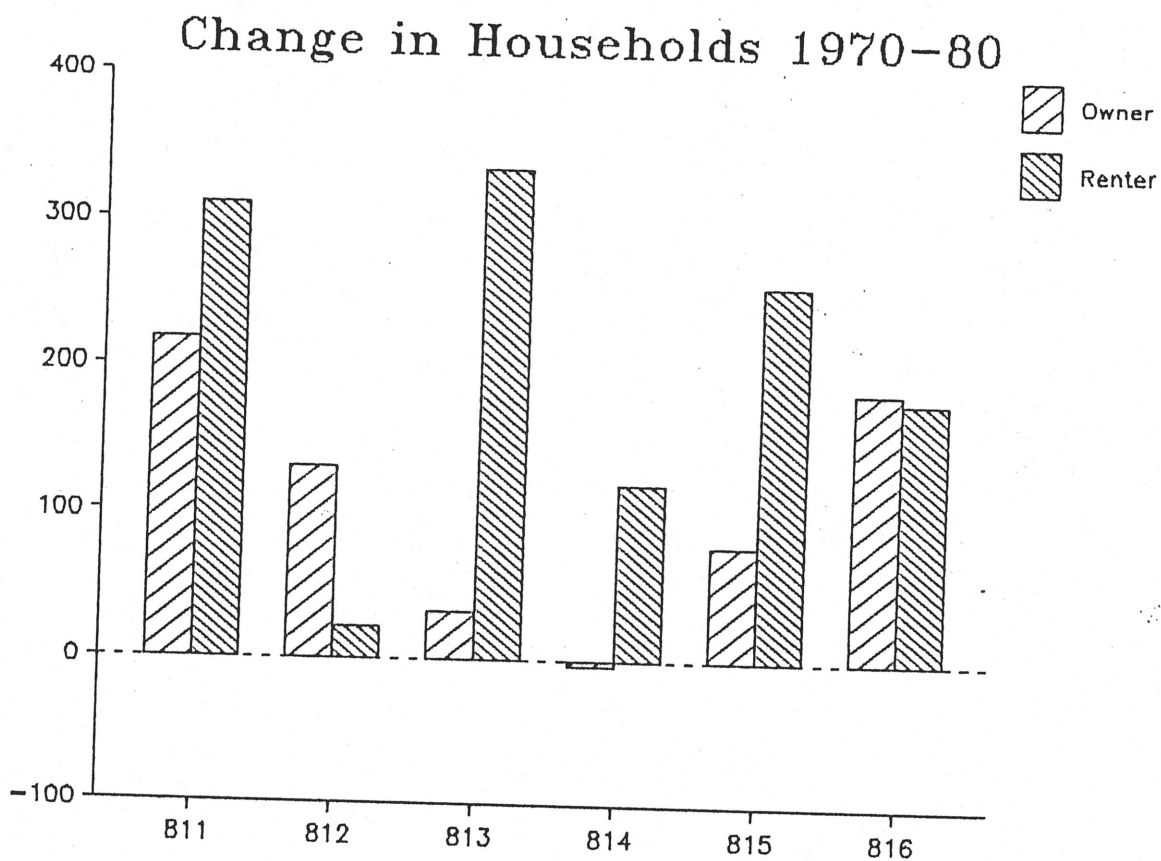


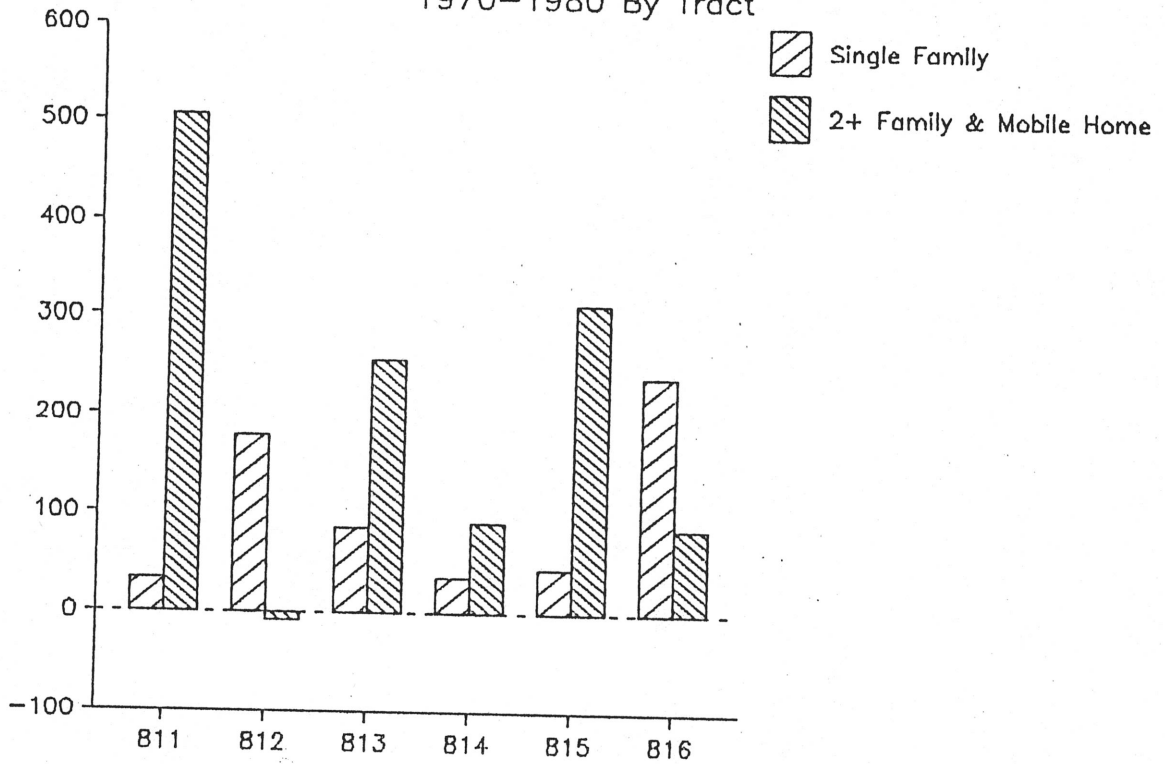
FIGURE 15.



Source: 1980 Census; conversion of 1970  
Census to 1980 Tracts by AER, Inc.

FIGURE 16.

### Change in Year-Round Housing 1970-1980 By Tract



### Change in Housing Units 1980-87 by Tract

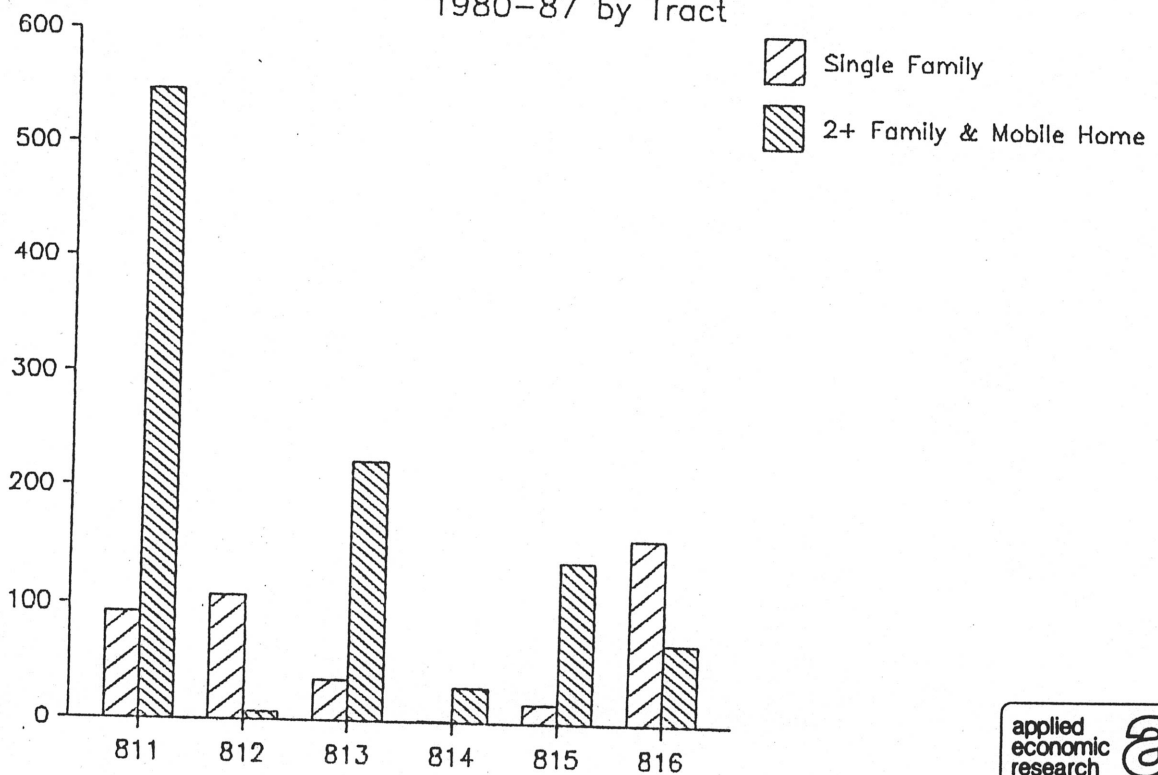
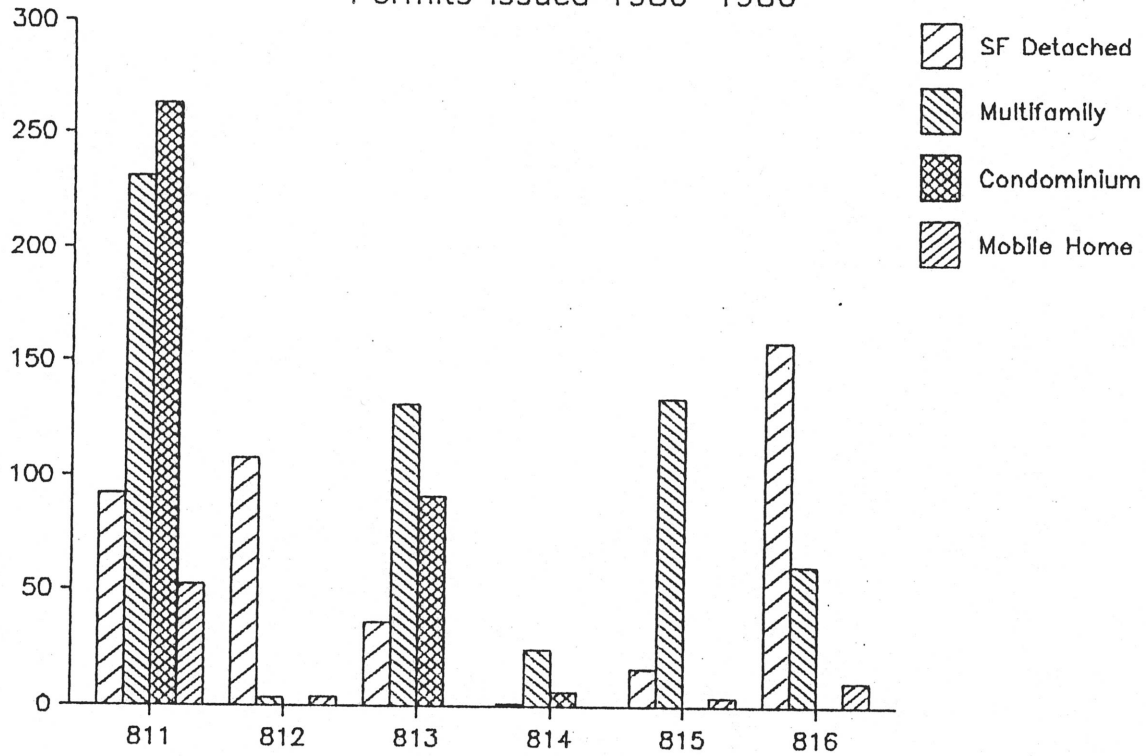
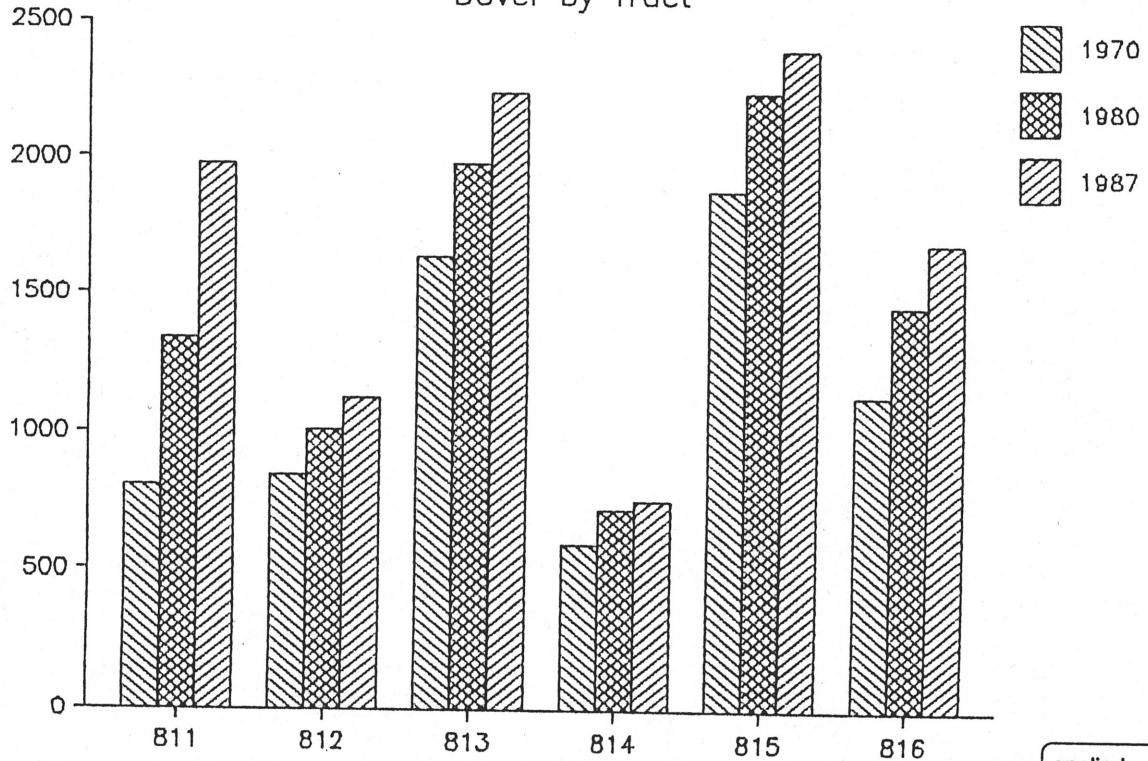


FIGURE 17.

### City of Dover Housing Growth Permits Issued 1980-1986

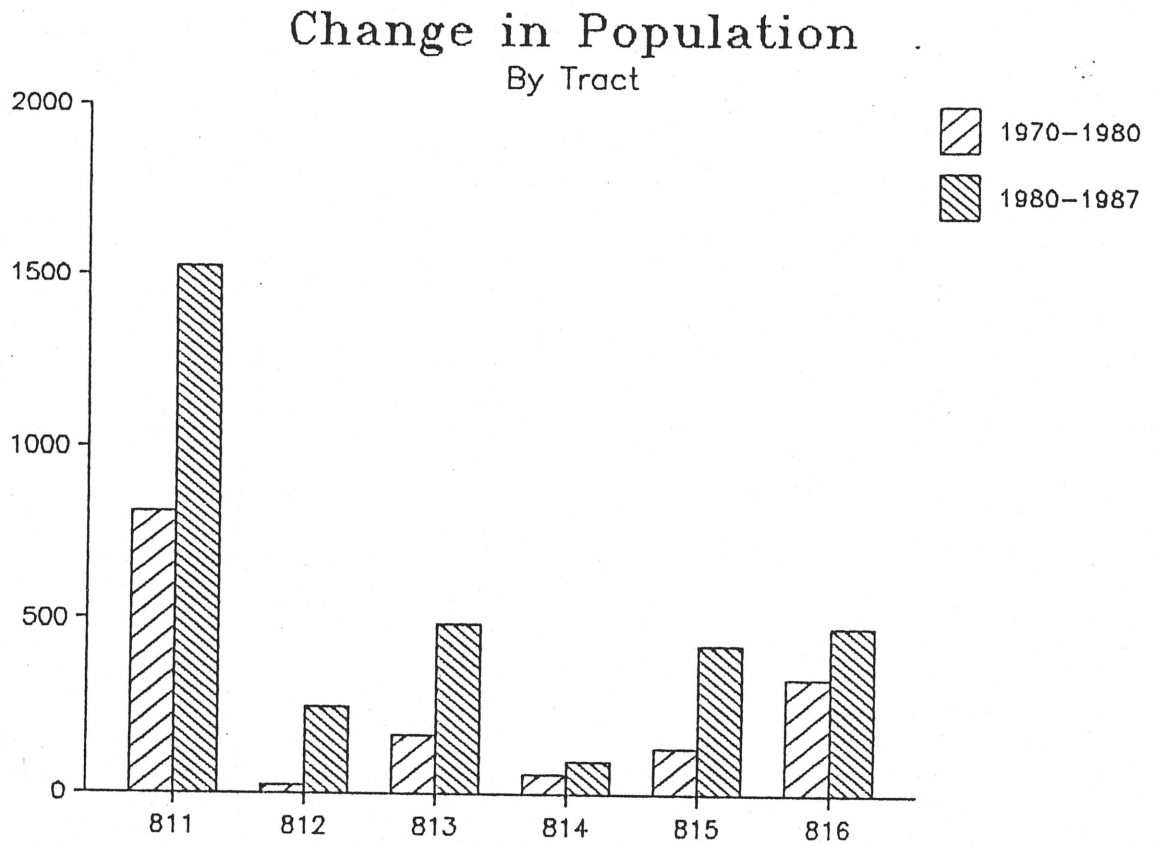
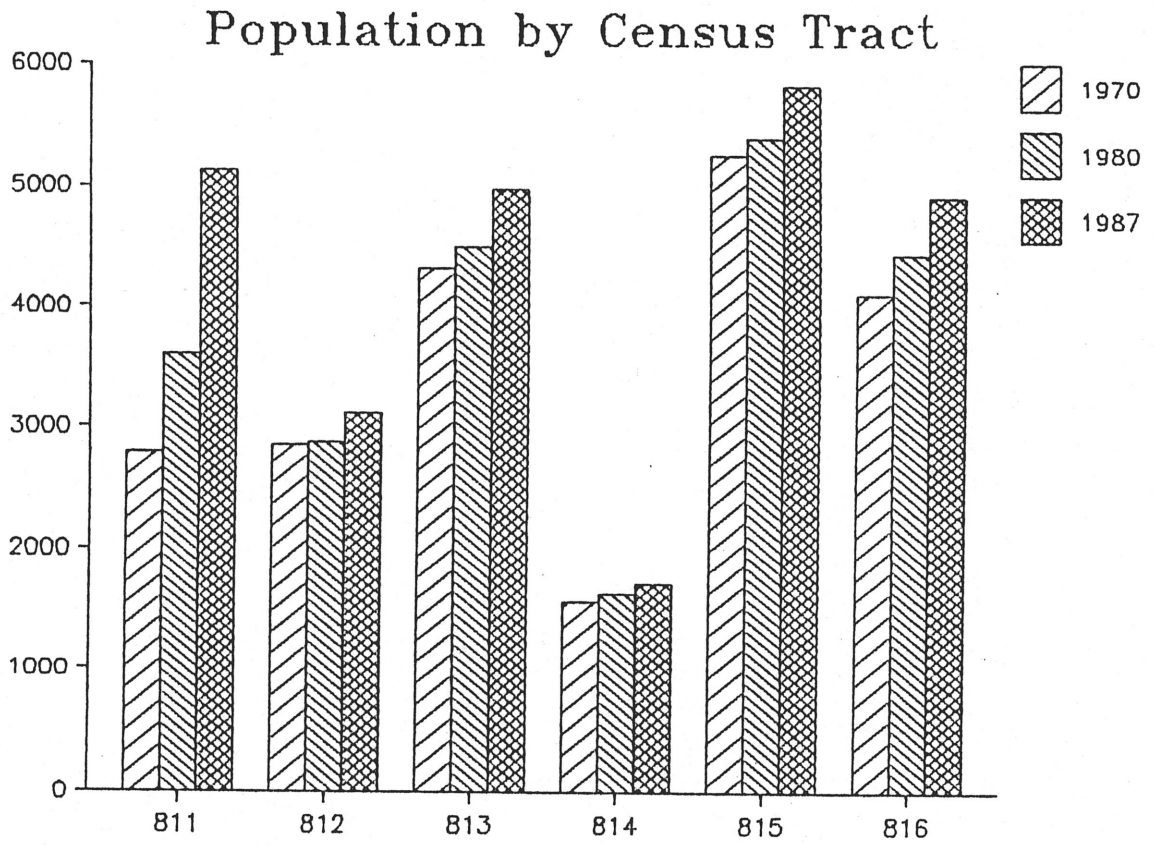


### Growth in Housing Inventory Dover by Tract



Source: U.S. Census; AER, Inc.  
B-17

FIGURE 18.



Source: U.S. Census 1970, 1980 and AER, Inc. estimates  
B-18