

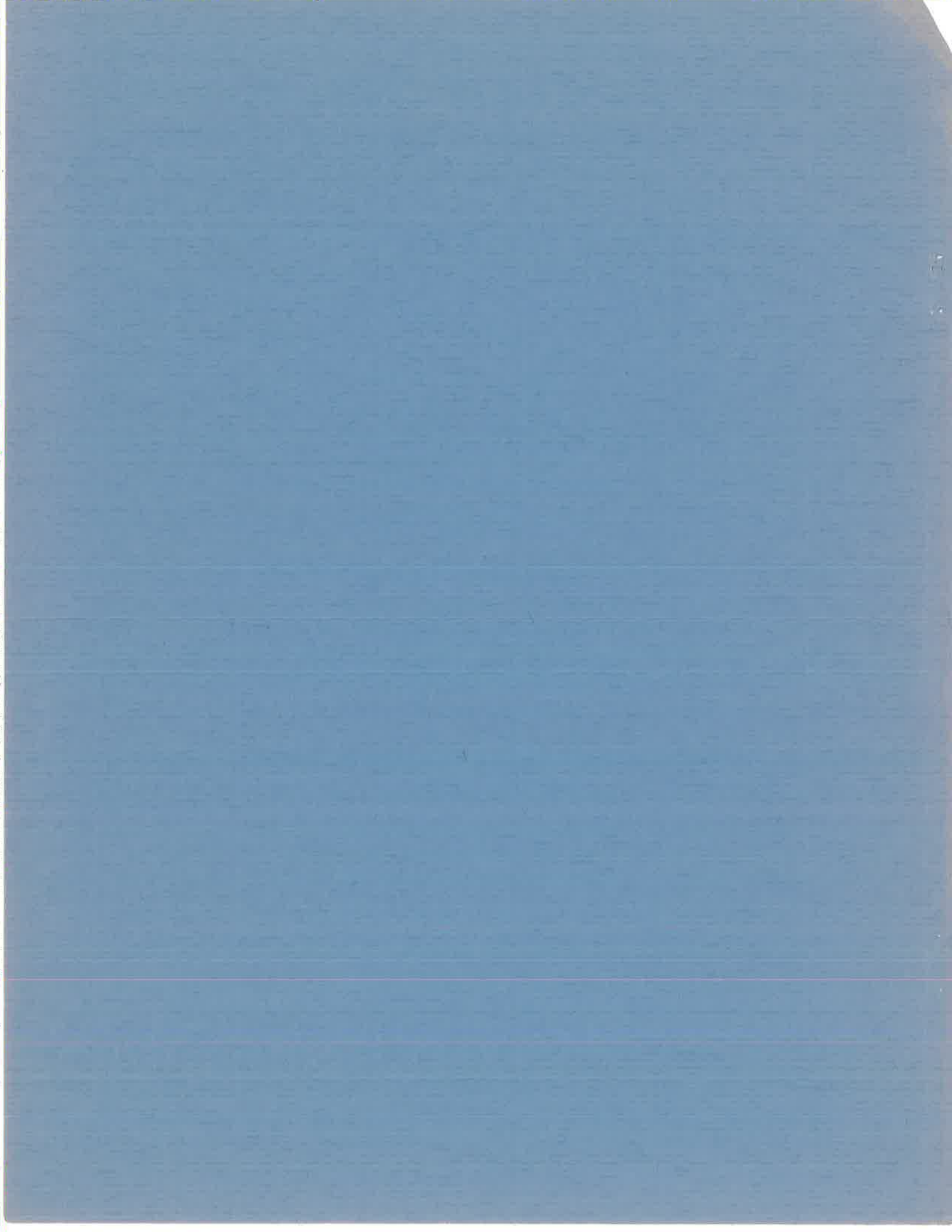


**AUTOMOBILE OWNERSHIP
IN THE REGION**

1960 - 1970

Regional Plan Association

**Regional Plan Association
235 East 45th Street
New York, New York 10017**





Regional Plan Association

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December 1973

TO: Members of Regional Plan Association
FROM: John P. Keith, President
RE: Automobile Ownership in the Region, 1960-1970

This is the second occasional paper resulting from Regional Plan's studies of the 1970 Census of the New York Region funded by The Ford Foundation. The first was titled "Population Changes in the Region, 1950-1970" and was released in March 1972.

Ellen B. Jeronimo, Senior Planner, is the author of this auto ownership study. Mrs. Jeronimo worked under the supervision of Boris Pushkarev, Vice-President, Research and Planning.

The primary messages to the Region from this work are: (1) there is a clear relationship between auto ownership and density of development and (2) in the aggregate, those who had cars in 1960 had more in 1970 and those who had none in 1960 still had none in 1970.

This study, along with recently-released pieces, Regional Energy Consumption and The Distribution of Air Quality in the New York Region, greatly strengthens the case for The Second Regional Plan concept of metropolitan centers. Denser development is energy conserving, in large part because of the substitution of public transportation and pedestrian movement for the auto. Furthermore, while the affluent are enjoying the benefits of the auto, the less well off are bearing a disproportionate share of its pollution.

Additional papers and Association bulletins derived from the Census project will be forthcoming during 1974.

JPK/rst

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AUTOMOBILE OWNERSHIP IN THE REGION - 1960 - 1970

Overall Trends in the Region and Nation

In the United States between 1960 and 1970, the population increased by slightly over 13 percent, households grew by almost 20 percent and the total number of autos available to those households expanded by 43 percent. During the same decade, the number of autos available to the Region's households increased in similar proportions--at more than twice the rate of households themselves and over three times as much as population. A total of 885,100 households were added in the 31 counties between 1960 and 1970 (a 16 percent rise) in contrast to an additional 1,695,000 autos--38 percent more than in 1960.

Table 1. Change in Population, Households and Available Autos, U.S. and Region, 1960-1970.

	<u>1960</u>	<u>1970</u>	<u>Change 1960-70</u>	
			<u>Number</u>	<u>Percent</u>
U.S. Population	179,325,671	203,210,158	+ 23,884,487	+ 13.3%
Region Population	17,624,345	19,755,805	+ 2,131,460	+ 12.1
U.S. Households	53,023,875	63,444,750	+ 10,420,875	+ 19.7
Region Households	5,524,644	6,409,741	+ 885,097	+ 16.0
U.S. Autos Available	54,363,968	77,953,515	+ 23,589,547	+ 43.4
Region Autos Available	4,439,404	6,134,140	+ 1,694,736	+ 38.2

Source: U.S. Census of Population, 1960 & 1970; U.S. Census of Housing: Detailed Characteristics, 1960 & 1970.

Though in the Region as a whole, the growth of autos available between 1960 and 1970 was below the national average, this picture changes when the core area (New York City excluding Staten Island; Hudson County; and the City of Newark) with its concentrations of poverty and mass transit facilities, is excluded. In the Region outside the core, the increase in autos was greater than that of the nation.

Table 2. Autos Available in the U.S. and Region Outside the Core, 1960-1970.

Autos Available:	<u>1960</u>	<u>1970</u>	<u>Change 1960-70</u>	
			<u>Number</u>	<u>Percent</u>
U.S.	54,363,968	77,953,515	+ 23,589,547	+ 43.4%
Region outside Core	3,012,455	4,585,768	+ 1,573,313	+ 52.2
Core	1,426,949	1,548,372	+ 121,423	+ 8.5

Source: U.S. Census of Housing: Detailed Characteristics, 1960 & 1970.

Concomitantly however, there was a significant increase in carless households in the Region--their total number growing by 165,500, or 8 percent--in contrast to a three percent decline nationally.

Table 3. Households with No Automobile Available, U.S. and Region, 1960-70.

No Autos:	<u>1960</u>	<u>1970</u>	<u>Change 1960-70</u>	
			<u>Number</u>	<u>Percent</u>
U.S.	11,416,835	11,081,394	- 335,441	- 2.9%
REGION	2,008,249	2,173,768	+ 165,519	+ 8.2
Core	1,646,068	1,760,707	+ 114,639	+ 7.0
Outside Core	362,181	413,061	+ 50,880	+14.0

Source: U.S. Census of Housing: Detailed Characteristics, 1960 & 1970.

About one-third of the Region's households remained without a car by 1970, while in the nation as a whole, only 17.5 percent were carless.

Table 4. Distribution of Households by Number of Autos Available as a Percentage of Total Households, U.S. and Region, 1960-1970.

Place	Year	Households With:			Total
		No Auto	One Auto	2 or More Autos	
U.S.	1960	21.5%	56.9%	21.5%	100.0%
	1970	17.5	47.7	34.8	100.0
	(Change)	(-4.0)	(-9.2)	(+13.3)	
REGION	1960	36.4	48.8	14.9	100.0
	1970	33.9	40.4	25.7	100.0
	(Change)	(-2.5)	(-8.4)	(+10.8)	

Note: Figures may not add to total due to rounding.

Source: U.S. Census of Housing: Detailed Characteristics, 1960 & 1970.

Some of these changes in auto ownership (or non-ownership) are even more pronounced in certain parts of the Region, and can be linked to other factors such as income, the availability of other means of transportation and shifts in journey-to-work patterns.

Historical Patterns of Auto Ownership in the Region

The frequency of automobile travel in any area is primarily dependent upon the number of autos available. Historically, the core of the Region has had lower motor vehicle registration rates than the rest of the Region. In the 1920's, the core contained half (49.9 percent) of the Region's registered vehicles and between 1930 and 1950 the core's proportion of motor vehicles remained fairly constant, at about 40 percent. By 1960, this percentage had dropped to 32 percent and it has declined further recently, so that in 1970, less than one-fourth of the Region's motor vehicles were located in the core. The availability of passenger autos has declined similarly in the core, due partly to an increasingly disadvantageous economic position and partly to the core's greater access to mass transit facilities.

Table 5 illustrates the historical trends in motor vehicle and passenger car registrations in the Region and the core, from 1920 to 1970. Over the past decade, the core's auto growth rate has slowed in comparison to the rest of the Region, although the total number of autos registered in the core did increase by about 6.5 percent. Outside the core the 1960-70 increase in motor vehicles and passenger cars was over 50 percent, during a time of rapid population growth.

Over the 1960-1970 decade, the core's persons per motor vehicle ratio dropped from 4.9 to 4.6 persons while in the suburban environs, this ratio went from 2.4 persons per motor vehicle in 1960 to 1.9 in 1970.

Table 5. Motor Vehicle and Automobile Registrations, New York Region (31 Counties), 1920-1970.

Year	All Motor Vehicles (000's)		Passenger Automobiles (000's)		Persons Per Motor Vehicle		Persons Per Automobile					
	Region	Rest of Region	Region	Rest of Region	Region	Rest of Region	Region	Rest of Region				
1920	543	271	272	389	178	212	18.5	24.2	12.8	25.8	36.8	16.4
1930	2,111	880	1,231	1,724	686	1,038	6.0	9.0	3.8	7.3	11.5	4.6
1940	2,745	1,156	1,589	2,361	973	1,388	4.9	7.2	3.3	5.7	8.6	3.7
1950	3,878	1,559	2,318	3,340	1,337	2,002	3.9	5.6	2.7	4.5	6.6	3.2
1960	5,520	1,753	3,767	4,918	1,550	3,368	3.2	4.9	2.4	3.6	5.5	2.7
1970	7,703	1,867	5,836	6,857	1,654	5,203	2.6	4.6	1.9	2.9	5.2	2.1

Sources: RPA; Tri-State Regional Planning Commission.

CHART 1. Motor Vehicle and Passenger Auto Registrations in the Region, 1920 to 1972

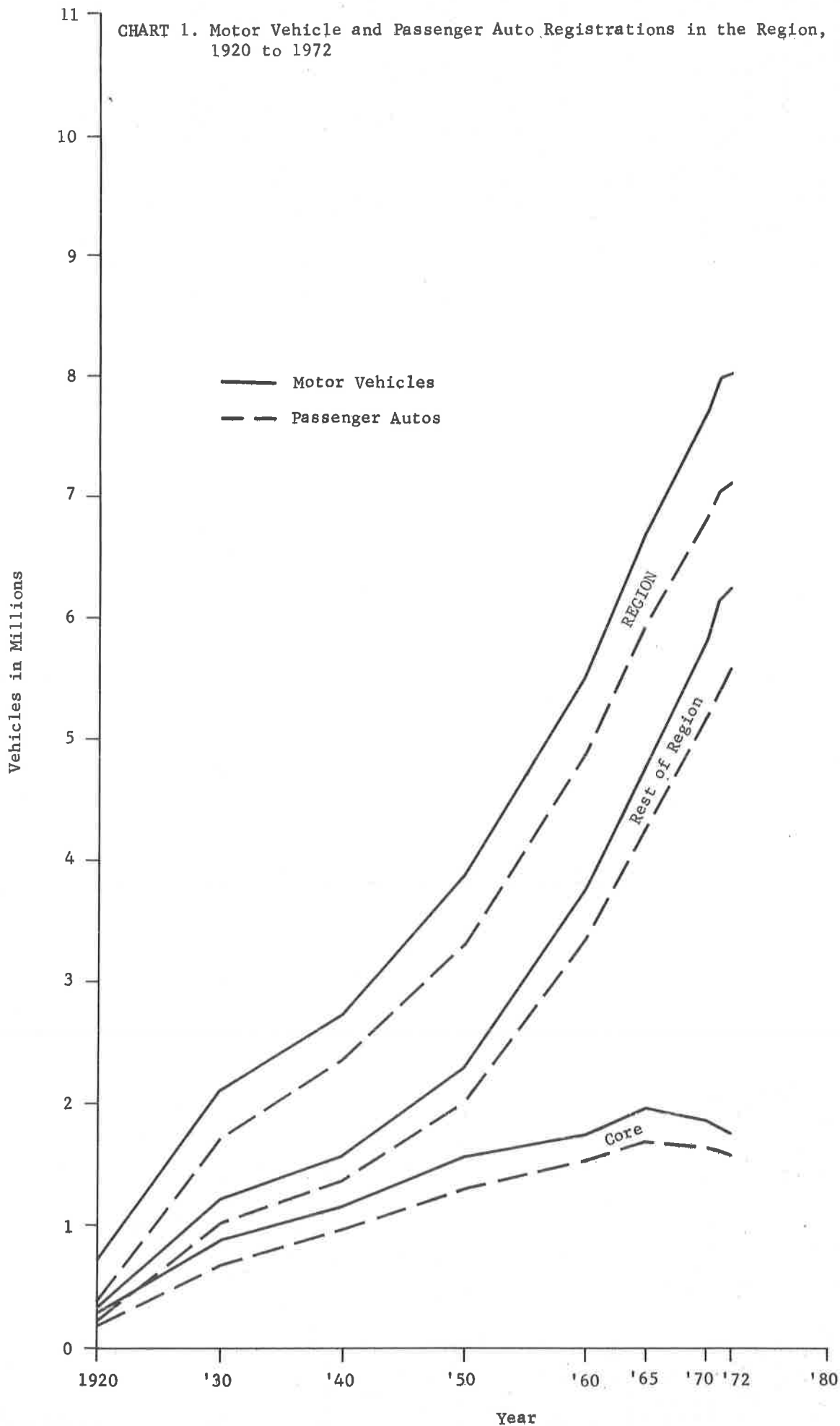


CHART 2. Commercial Vehicles in the Region, 1920-1972.

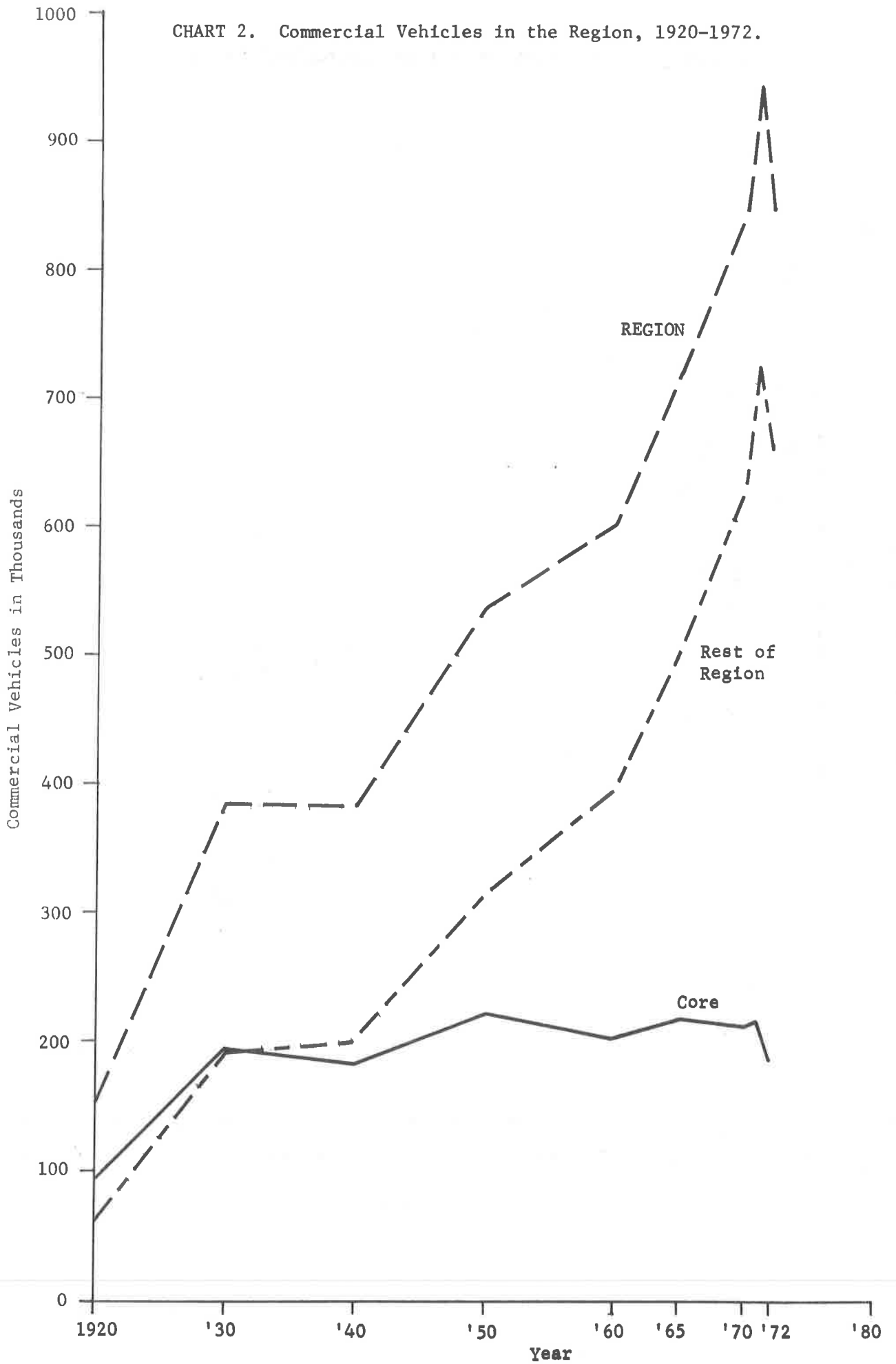
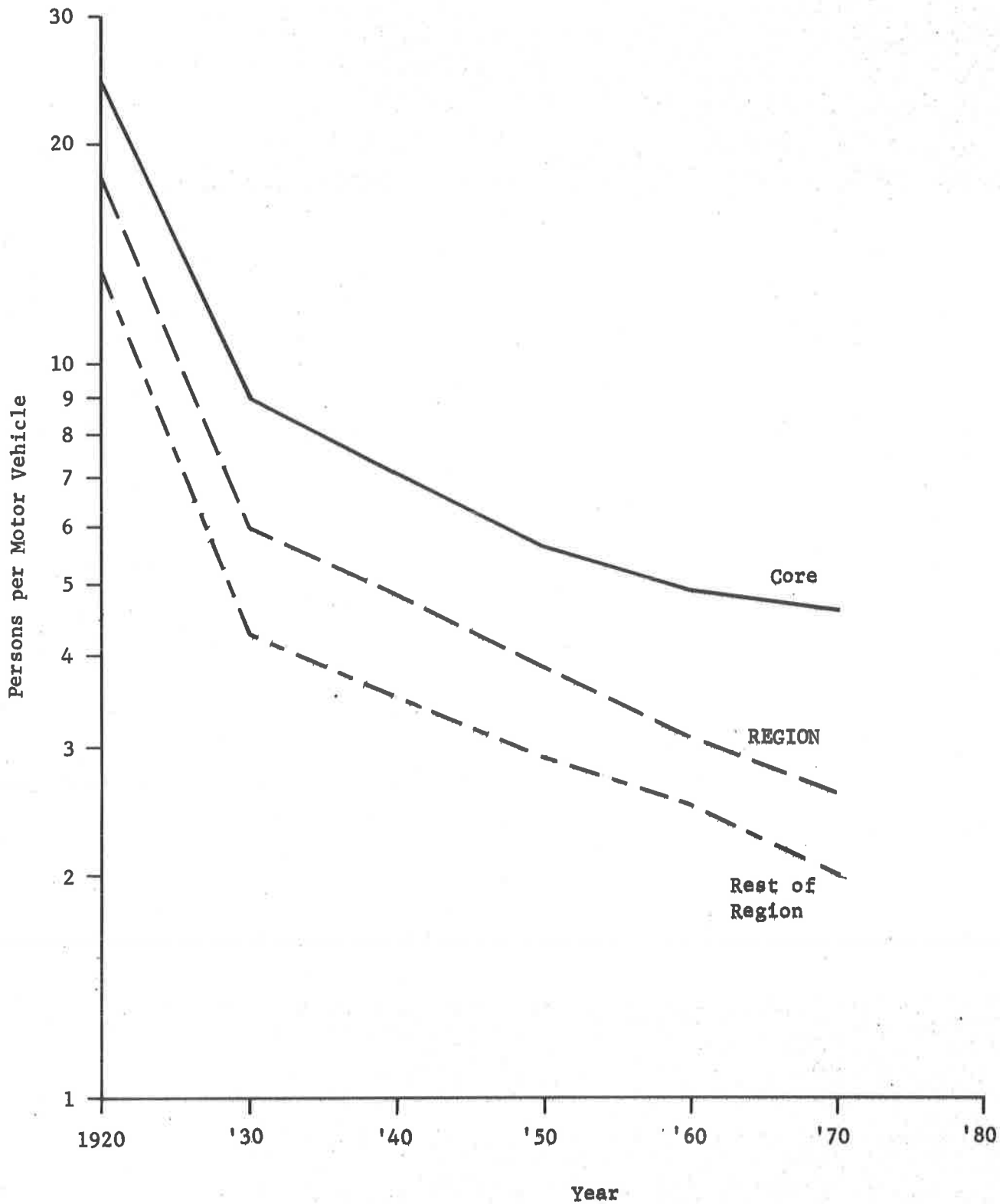


CHART 3. Persons per Motor Vehicle in the Region, 1920-1970.



Recent Trends in New York City, the Core and the Region

Comparing Census figures on autos available to households in New York City with auto registrations recorded by state motor vehicle bureaus, the increase in total available autos over the decade of the sixties is slightly lower than registrations, suggesting either a faster growth in non-household owned cars or slight underreporting by the Census, or both.

Table 6. Growth of Passenger Auto Registrations and Total Autos Available, New York City and Region, 1960-1970 (000's)

<u>Place</u>	1960		1970		1960-70 % Change	
	<u>Passenger Auto Regis.</u>	<u>Autos Available</u>	<u>Passenger Auto Regis.</u>	<u>Autos Available</u>	<u>Pass. Regis.</u>	<u>Autos Avail.</u>
New York City	1,364.5	1,256.3	1,569.6	1,417.0	+15.0%	+12.8%
Rest of Region	3,553.4	3,183.1	5,287.7	4,717.1	+48.8	+48.2
REGION	4,917.9	4,439.4	6,857.3	6,134.1	+39.4	+38.2

Note: Figures for total autos available include passenger autos owned or regularly used by any members of a household, which are ordinarily kept at home. This represents about 90 percent of the figure for registrations, which includes fleet and company-owned and leased autos not ordinarily kept at home, and in N.J. and Conn., taxis.

Source: RPA; U.S. Census of Housing; Tri-State Regional Planning Commission.

New York City contained almost half of the Region's total households in 1960 but over three-fourths of all carless households. By 1970, the City's share of all households had dropped to 44 percent, but its share of carless households remained at 75 percent. At the other extreme, almost 19 percent of the Region's households with three autos or more were located in New York City in 1960 but ten years later, only 8 percent of all households in this category were City-based.

Table 7. Households by Number of Autos Available, New York City and the Region, 1960 and 1970.

	1960 Households		1970 Households	
	Number	% of Total	Number	% of Total
Total Households	5,524,644	100.0%	6,409,741	100.0%
New York City	2,654,904	48.1	2,836,872	44.3
Rest of Region	2,869,740	51.9	3,572,869	55.7
Carless Households	2,008,249	100.0	2,173,768	100.0
New York City	1,527,278	76.0	1,630,739	75.0
Rest of Region	480,971	24.0	543,029	25.0
One-Car Households	2,694,178	100.0	2,588,510	100.0
New York City	1,018,047	37.8	1,015,111	39.2
Rest of Region	1,676,131	62.2	1,573,399	60.8
Two-Car Households	718,392	100.0	1,397,708	100.0
New York City	90,054	12.5	171,166	12.2
Rest of Region	628,338	87.5	1,226,542	87.8
3+ Car Households	103,820	100.0	249,942	100.0
New York City	19,395	18.7	19,856	7.9
Rest of Region	84,425	81.3	230,086	92.1

Source: U.S. Census of Housing: Detailed Characteristics, 1960 & 1970.

It should be noted, however, that City dwellers are not as dependent upon the auto as a means of travelling to work as are non-City residents. For example, in 1960, 20 percent of all New York City workers reported that they drove to work, in contrast to 65 percent of those living outside the City. By 1970, about three-fourths of the Region's workers living outside New York City drove to work as opposed to only one-fourth of all City workers.

Table 8. Means of Transportation to Work, New York City and Region, 1960 and 1970.

<u>Place & Year</u>	<u>Percent Distribution of Workers by Mode</u>					<u>Total</u>
	<u>Auto</u>	<u>Rail, Subway & Bus</u>	<u>Walk</u>	<u>Work At Home</u>	<u>Other Means</u>	
New York City						
1960	19.6%	64.5%	10.8%	3.0%	2.1%	100.0%
1970	25.9	60.6	9.6	1.8	2.1	100.0
Rest of Region						
1960	65.2	19.7	9.9	3.3	1.9	100.0
1970	75.0	14.1	7.1	2.0	1.8	100.0
REGION						
1960	44.0	40.6	10.3	3.2	1.9	100.0
1970	55.3	32.7	8.1	1.9	2.0	100.0

Source: Tri-State Regional Planning Commission; RPA.

In general, the core area had fewer autos available in both 1960 and 1970, compared to the rest of the Region. In Newark, for example, 43 percent of all households had no auto in 1960 and by 1970, this number had grown to almost 52 percent. In the New Jersey counties outside the core, carless households declined slightly over the decade, while those with two or more cars grew by 16 percent. Again, this was in direct contrast to Newark, where "two-plus" car households grew by slightly more than one percent. Looking at the Region outside the core, we find that 43 percent of all households had two or more cars by 1970 as opposed to only 7 percent in the core. (Figures for each of the 31 counties are included in Appendix Tables A-1 and A-2).

Outside of the core, households grew by almost 28 percent (and total autos available by 52 percent) between 1960 and 1970 but the core experienced a 5.5 percent rise in households and only an 8.5 percent increase in all available autos.

Table 9. Change in Households and Autos Available, Core versus Rest of Region, 1960-1970.

	<u>1960</u>	<u>1970</u>	<u>Change 1960-70</u>	
			<u>Number</u>	<u>Percent</u>
Core				
Households	2,918,972	3,079,204	+ 160,232	+ 5.5%
Autos Available	1,426,949	1,548,372	+ 121,423	+ 8.5
Autos per Household	0.489	0.503	-	+ 2.9
Rest of Region				
Households	2,605,672	3,330,357	+ 724,685	+ 27.8
Autos Available	3,012,455	4,585,768	+1,573,313	+ 52.2
Autos per Household	1.156	1.377	-	+ 19.1
REGION				
Households	5,524,644	6,409,741	+ 885,097	+ 16.0
Autos Available	4,439,404	6,134,140	+1,694,736	+ 38.2
Autos per Household	0.804	0.957	-	+ 19.0

Source: U. S. Census of Housing: Detailed Characteristics, 1960 & 1970.

In the core, 57 percent of all households were carless in 1970, as opposed to only 12 percent in the rest of the Region. Less than one percent of core households had three or more cars available in 1970, while in the rest of the Region, almost 7 percent fell into this category--more than doubling the 1960 ratio. Only six percent of core households had access to two cars in 1970, while outside the core, the proportion of such households was six times as great. (See Chart 4).

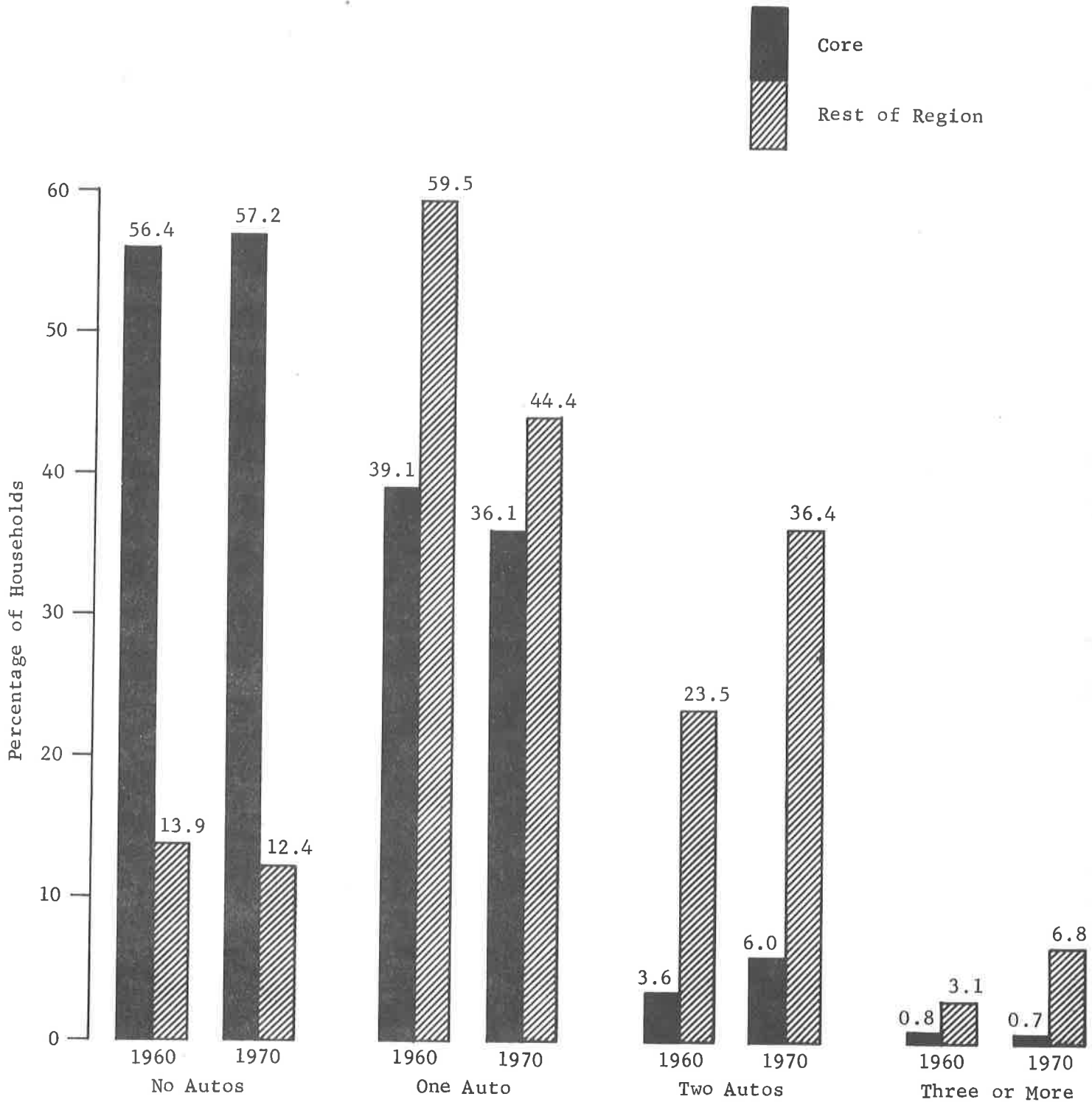
Table 10. Percent Distribution of Households by Number of Autos Available, 1960 and 1970.

	<u>Percent of Households With:</u>				<u>Total</u>
	<u>0 Autos</u>	<u>1 Auto</u>	<u>2 Autos</u>	<u>3 Or More Autos</u>	
Core					
1960	56.4%	39.1%	3.6%	0.8%	100.0%
1970	57.2	36.1	6.0	0.7	100.0
Rest of Region					
1960	13.9	59.5	23.5	3.1	100.0
1970	12.4	44.4	36.4	6.8	100.0
REGION					
1960	36.4	48.7	13.0	1.9	100.0
1970	33.9	40.4	21.8	3.9	100.0

Note: Figures may not add to total due to rounding.

Source: U.S. Census of Housing: Detailed Characteristics, 1960 & 1970.

CHART 4. Percentage of Households by Number of Autos Available, Core vs. Rest of Region, 1960 and 1970.



County Trends in Auto Use and Ownership

In general, we have seen a substantial rise in auto ownership in the Region between 1960 and 1970--with registrations up over 39 percent and autos available to households increasing by 38 percent. There are recent signs, however, that this steady growth of auto ownership may be abating. In New York City, for example, motor vehicle registrations increased by only 1.5 percent between 1970 and 1971, and declined by the same amount the following year. Even in New York counties outside the City, registrations grew by 8.5 percent and declined by almost two percent in 1971 and 1972, respectively. In the Region's New Jersey counties, motor vehicle registrations grew by only one-tenth of one percent between 1970 and 1971 and by slightly less than one percent in the following year. The only exception to this pattern was in the Region's three Connecticut counties (Fairfield, Litchfield and New Haven). Motor vehicle registrations increased there in both years but the rate of growth in 1972 was less than half that of 1971. (See Appendix Tables A-3, A-4, and A-5 for county-by-county registration data).

A two-year period, of course, cannot be interpreted as the basis for a long-term trend. As we have seen, the amount of auto travel in any region is dependent upon the number of autos available but there are other factors which may influence, if not absolute declines, at least a slowing of growth rates of auto ownership.

In areas with a higher density of development (such as New York City) more public transportation is available and more people can walk to their destinations. As we saw in Table 8, almost ten percent of New York City's workers were walking to their jobs in 1970--as opposed to about 7 percent in the rest of the Region. Sixty-one percent of all City dwellers depended upon rail, subway or bus lines for their work trips in 1970, in contrast to only 14 percent

of all commuters outside the City. Three-fourths of those workers living outside New York City drove to their jobs in the same year, while the same was true of only a little over one-fourth of all City workers.

Roadway space available also has an influence on the use of motor vehicles. There are four times as many registered motor vehicles vying for each mile of roadway space inside the City as outside. But in recent years, roadway construction has declined in both the City and the Region as a whole. This is partly due to a decline in public funding of highway construction and perhaps also, to a growing resistance to new expressways by citizens groups throughout the Region. Whatever the causes, the facts speak for themselves: the increase in freeway mileage between 1950 and 1960 in the Region was over 140 percent; between 1960 and 1971, freeway mileage increased about 50 percent.

Table 11. Freeway Mileage in the New York Region, 1930-1971.

Year	Freeway Mileage (Highways of 4 or more lanes with fully controlled access)					
	NYC	Percent Increment	Outside NYC	Percent Increment	REGION	Percent Increment
1930	9.7	-	37.4	-	47.1	-
1940	96.2	891.7%	223.8	498.4%	320.0	579.4%
1950	119.9	24.6	322.0	43.9	441.9	38.1
1960	163.3	36.2	901.3	179.9	1,064.6	140.9
1971*	210.5	28.9	1,394.5	54.7	1,605.0	50.8

* As of July 1.

Source: Regional Plan Association, Transportation and Economic Opportunity, January 1973, p.164.

Looking at auto use and ownership in the Region's counties outside the core in the light of these observations, some definite contrasts to trends in the core emerge. Most of the Region's counties experienced substantial increases over the sixties in the proportion of total households with access

to two or more cars. As noted in Table 6, the growth in the number of autos available between 1960 and 1970 outside New York City was four times as great as in the City. During this same period, the increase in freeway miles outside the City was about 55 percent compared to about 29 percent in New York City proper.

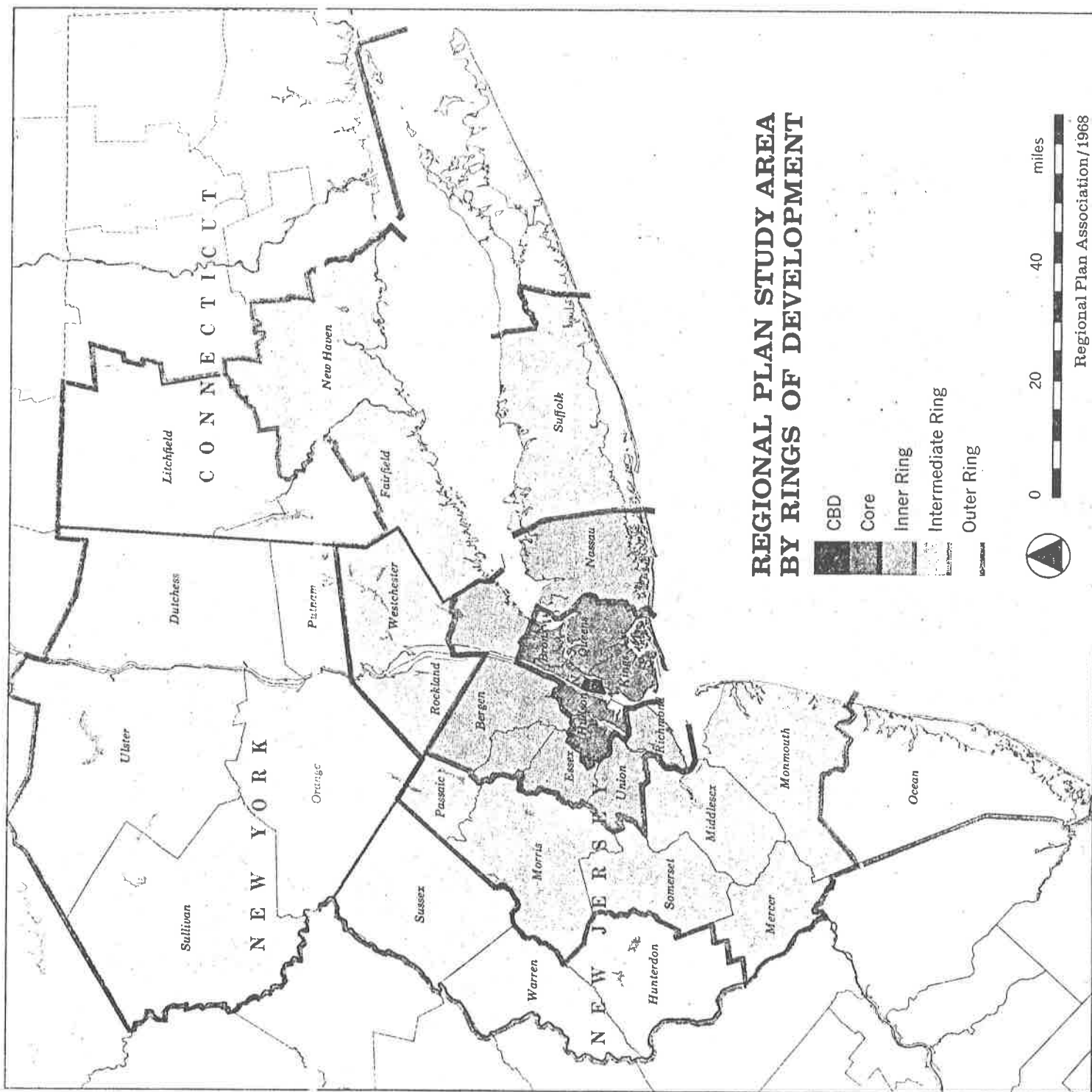
Seven counties experienced net increases in the proportion of carless households to total households between 1960 and 1970, though in the Region as a whole, such households declined by 2.5 percent. All but three of the seven (Essex, Nassau and Union) are within the core and the three exceptions are in the relatively densely settled portion of the inner ring. All of these counties have large groups of low-income residents, suggesting that the poor have less access to auto ownership.

Table 12. Counties with a Net Increase in the Proportion of Carless Households to Total, 1960-1970.

County	Carless Households as a % of Total		Net Change 1960-70
	1960	1970	
Queens	33.7%	36.4%	+ 2.7%
Bronx	59.8	62.4	+ 2.6
Essex	29.2	31.6	+ 2.4
Brooklyn	56.4	58.5	+ 2.1
Hudson	39.7	40.9	+ 1.2
Nassau	7.7	8.3	+ 0.6
Union	14.1	14.2	+ 0.1

Source: U.S. Census of Housing: Detailed Characteristics, 1960 & 1970.

Looking at auto availability in the various rings of the Region (see map, page 17) we find that the core area, between 1960 and 1970, added about 122,000 cars--an increase of 8.5 percent. In other parts of the Region, however, auto growth was far greater, with the largest increase (of 68 percent) in the fast-growing intermediate ring. Adjusting for changes in population (on a per capita basis) the core area added only 1.4 cars per hundred persons,



REGIONAL PLAN STUDY AREA BY RINGS OF DEVELOPMENT

- CBD
- Core
- Inner Ring
- Intermediate Ring
- Outer Ring

0 20 40 miles
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while in all other sectors, the increment over the decade ranged between 7.3 and 8.1 cars per hundred persons.

Table 13. Population and Autos Available, by Ring, 1960-1970. (000's)

	<u>1960</u>	<u>1970</u>	<u>1960-70 Change</u>	
			<u>Number</u>	<u>Percent</u>
Core				
Population	8,575.9	8,591.3	+ 15.4	+ 0.2%
Autos Avail.	1,426.9	1,548.4	+ 121.5	+ 8.5
Autos per 100 persons	16.6	18.0	+ 1.4	+ 8.4
Inner Ring				
Population	4,342.8	4,801.4	+ 458.6	+ 10.6
Autos Avail.	1,441.8	1,960.0	+ 518.2	+ 35.9
Autos per 100 persons	33.1	40.8	+ 7.7	+ 23.3
Intermed. Ring				
Population	3,612.4	4,889.8	+ 1,277.4	+ 35.4
Autos Avail.	1,199.5	2,017.4	+ 817.9	+ 68.2
Autos per 100 persons	33.2	41.3	+ 8.1	+ 24.4
Outer Ring				
Population	1,093.3	1,473.3	+ 380.0	+ 34.8
Autos Avail.	371.2	608.3	+ 237.1	+ 63.9
Autos per 100 persons	34.0	41.3	+ 7.3	+ 21.5
REGION				
Population	17,624.3	19,755.8	+ 2,131.5	+ 12.1
Autos Avail.	4,439.4	6,134.1	+ 1,694.7	+ 38.2
Autos per 100 persons	25.2	31.0	+ 5.8	+ 23.0

Source: U.S. Census of Population, 1960 & 1970; U.S. Census of Housing: Detailed Characteristics, 1960 & 1970.

We see also that more autos than people were added to both the core and inner ring over the decade, while this was not true in the rest of the Region.

Perhaps even more important than the total number of cars available is the way they are distributed among households. In what areas are there the most carless households? Where do a majority of households have two or more cars, and what are the other characteristics of such communities?

We have seen that the majority of counties in which carless households increased over the last decade were in the core area of the Region (Table 12). Chart 4 indicated that in the core, households with no cars increased slightly

between 1960 and 1970 while in the rest of the Region, they declined. Contrasting New York City with the other state sectors of the Region, we find that the percentage of households with three or more autos available stayed the same in the City over the decade, while in Connecticut, New Jersey and the New York counties outside the City, the proportion of such households more than doubled.

Two-car households increased in all sectors over the ten-year period--by 13.5 percent in Connecticut; 11 percent in New Jersey; and almost 14 percent in New York outside the City. Even in the City, two-car households grew over the decade, but by 1970, only six percent of all City households had two cars, compared with one-third or more in other sectors.

As two- and three-car households increased, there were corresponding declines in single-car households. By 1970, they had dropped to 41 percent of all households in Connecticut (from 56 percent in 1960); to 44 percent in the New Jersey counties (from 57 percent in 1960) and to 45 percent (from 62 percent) in the New York counties outside the City. In the City however, the drop was less precipitous: single-car households accounted for 38 percent of total in 1960 and about 36 percent in 1970. (See appendix Tables A-1 and A-2 for county-by-county figures for the two years.)

Conclusions

We have seen a period of rapid growth in autos in both the Region and nation over the past decade. There are preliminary signs that this rate of growth may be slowing, based on 1971 and 1972 data, but it is too early to project levels of auto ownership far into the future. Several influencing factors should be kept in mind however, including changes in the birthrate; the impact of the current energy shortage and the higher cost of gasoline;

possible shifts in settlement patterns and the Region's employment mix; and the projected increase in personal income levels.

Regional Plan has recently estimated that the "most likely" population of the Region will be about 25 million in the year 2000 and 27 million by 2020 (assuming a national fertility rate of 2.1 children per family over the rest of the century). This would tend to indicate that, with smaller families, the "three or more" car household may be a less frequent occurrence. However, as population growth slows, the age structure will change--and a more mature population may be more dependent upon the auto. This likelihood will probably depend upon whether or not settlement patterns change. The relationship between population density and autos per household in 1960 and 1970 is shown on Charts 5 and 6--and we see that more densely populated areas tend to have less autos per household.

This relationship between autos per household and density, both in 1960 and 1970, is strongest in "middle" and "high-density" counties--or, those in the inner and intermediate rings. The relationship between the two is less clear in more rural counties with very low densities.

Another influence on settlement patterns will be a continuing growth of office jobs as opposed to factory jobs. Regional Plan predicts that offices will double their employment (accounting for 3.5 million jobs) by 2000, and that this growth in office jobs may tend to centralize settlement patterns. By preferring to locate in or near "centers" where office-support services are more readily available, the office industries will play a role in centralizing residential settlement and, by inference, shorten the journey to work.

On the other hand, we have seen a trend in recent years toward the decentralization of headquarters offices--with suburban locations becoming more popular. A continuation of this pattern could result in longer work trips

CHART 5. Autos per Household as a Function of Population Density, 1960.

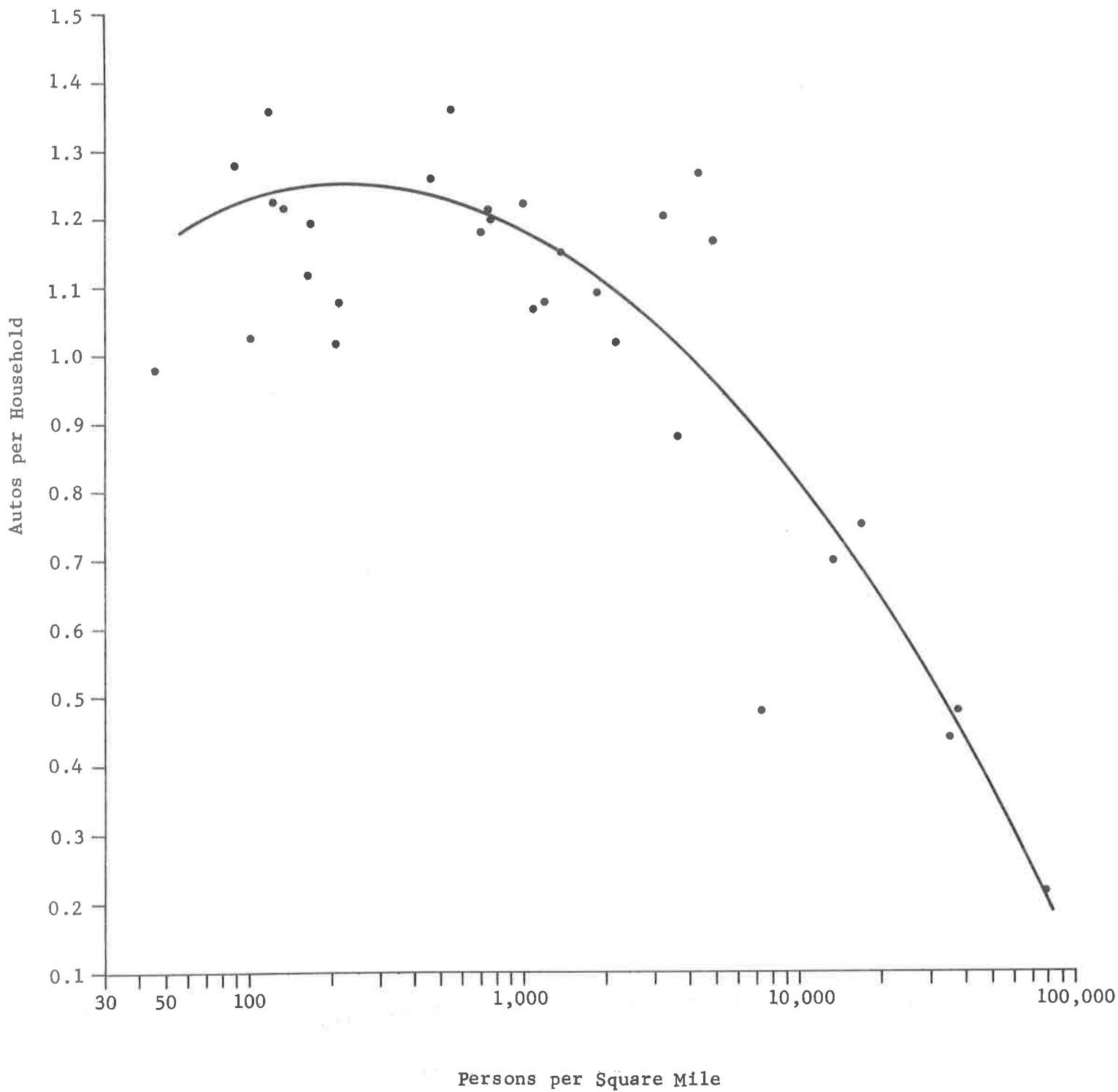


CHART 6. Autos per Household as a Function of Population Density, 1970.

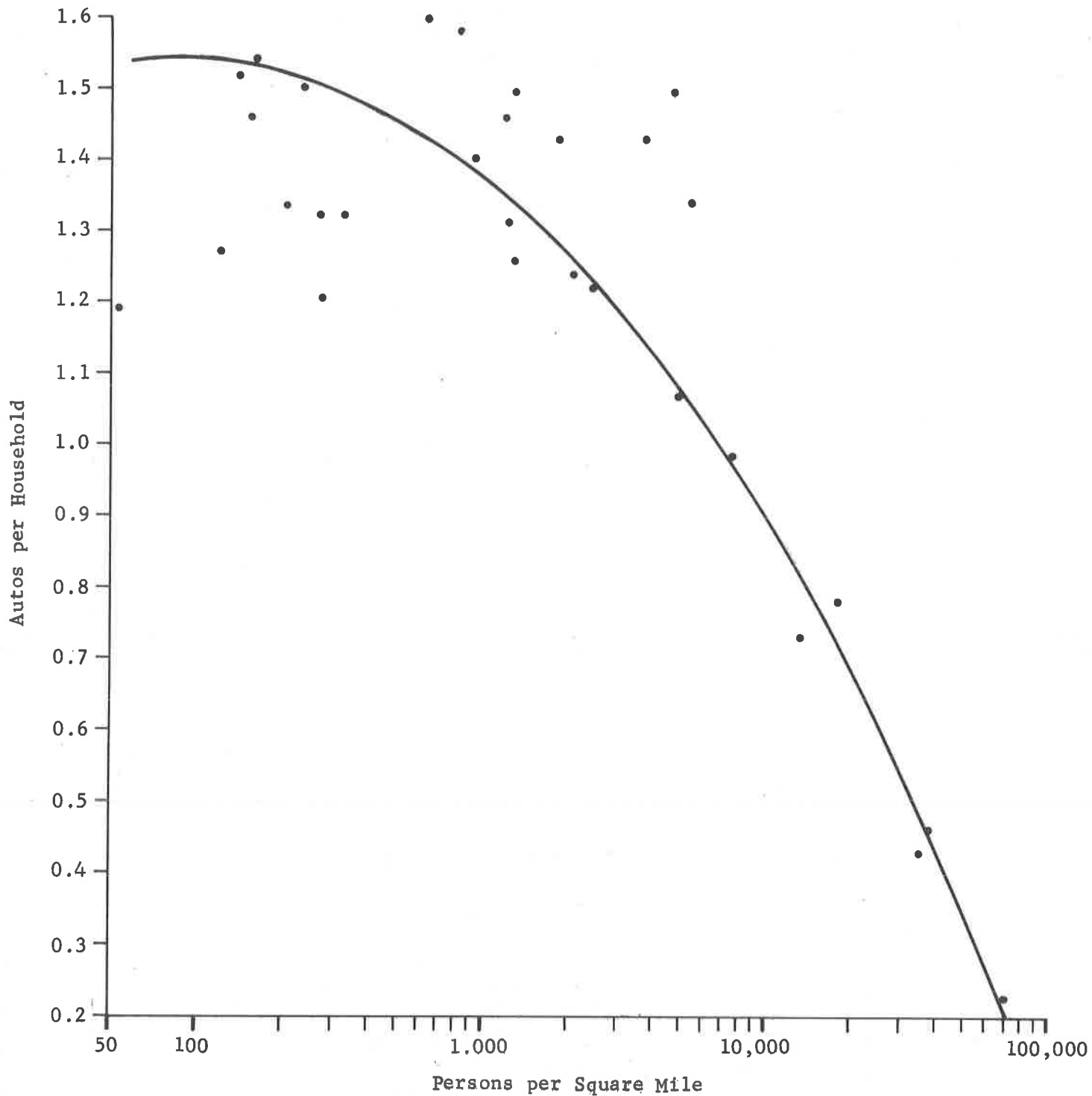
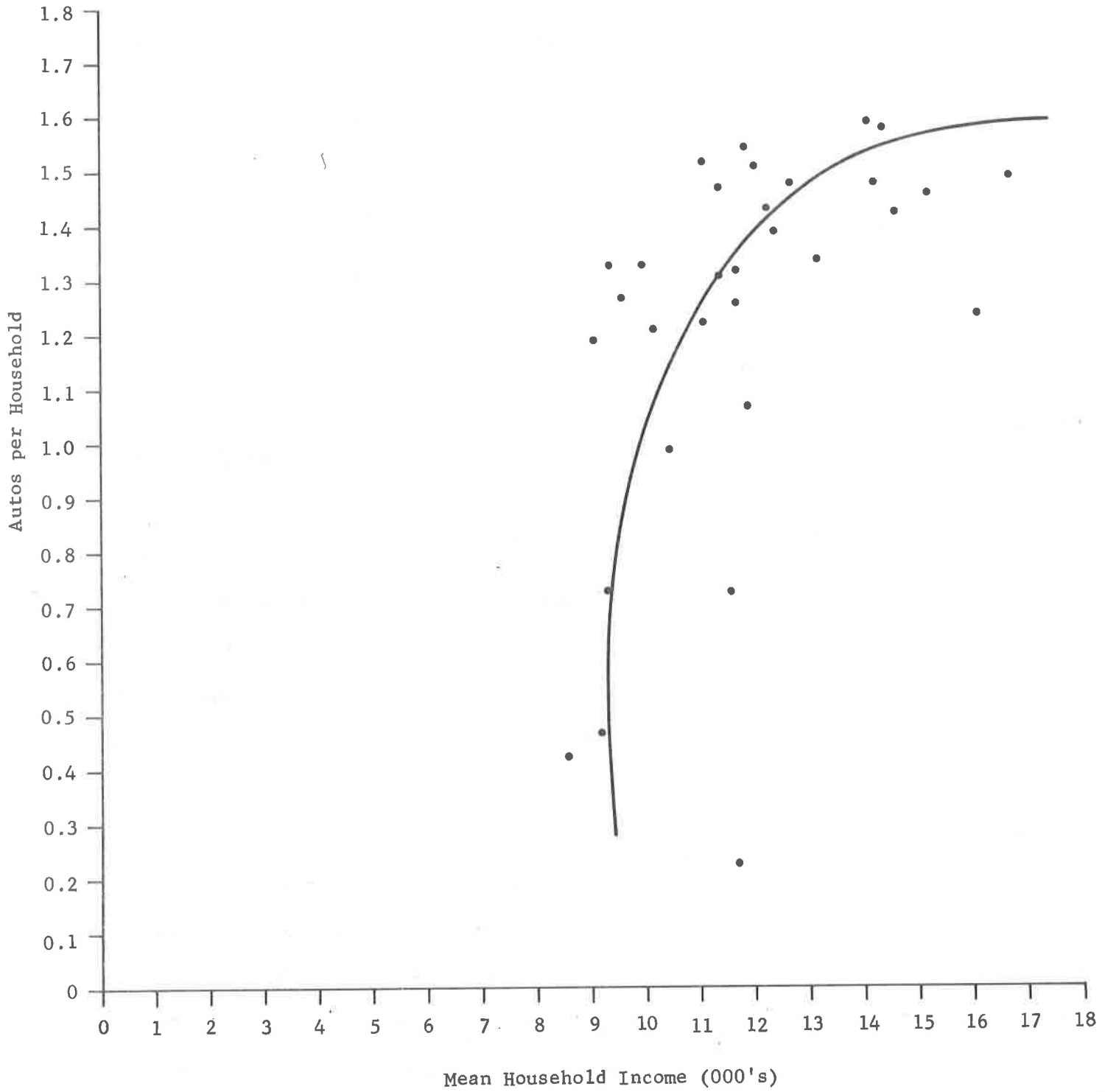


CHART 7. Autos per Household as a Function of Mean Household Income, 1970.



and increased demands for additional family cars.

Regional Plan has projected that personal income will rise from a 1969 average of \$4,769 to \$11,564 (on a constant dollar per person basis) in 2000. The implications of growing affluence in the Region are difficult to predict. We see in Chart 7 that the number of autos per household increased as household income rose. But will future affluence be channeled into the purchase of more personal goods (such as three, or even four autos) for smaller families? Or will increased tax rates allow for a surge in public spending--perhaps on such services as mass transit facilities?

The addition of autos to the Region is dependent on all of these factors, and others. The possibility of increasing government controls on auto emissions may inflate the price and thereby influence the purchase of autos. Continued gasoline and oil shortages can also have a severe impact on the availability and use of autos. A growing number of second homes in the Region could greatly increase auto travel for non-work purposes.

All in all, it is unlikely that auto growth will continue at the same pace as experienced in the 1960's. Even discounting the influences mentioned above, it is hard to imagine that households will simply add more and more autos regardless of their size and needs. A saturation point seems more likely, but it will be necessary to follow registration data closely and to examine small-area data over the next few years to make a realistic projection of auto use in the future.

One thing is clear: the growing inequality of income in the Region is evident in patterns of auto ownership. In the core, carless households have increased over the past ten years. Today one-quarter of the Region's households have two or three autos (in contrast to about 15 percent in 1960). But one-third of the Region's households remain without autos--as they did a decade ago.

APPENDIX

Table A-1. Households by Autos Available, 1960. (000's)

	Households with:				Tot. HH	% of HH with :			
	0 Auto	1 Auto	2 Autos	3+Autos		0 Auto	1 Auto	2 Autos	3+
CONNECTICUT	70.3	240.4	103.6	15.3	429.5	16.4%	56.0%	24.1%	3.6%
Fairfield	28.6	103.4	54.1	8.2	194.3	14.7	53.2	27.8	4.2
Litchfield	4.3	20.9	9.9	1.4	36.4	11.9	57.2	27.1	3.8
New Haven	37.4	116.1	39.6	5.7	198.8	18.8	58.4	19.9	2.9
NEW JERSEY	296.6	842.9	299.0	43.3	1,481.7	20.0	56.9	20.2	2.9
Bergen	25.9	139.4	58.1	7.1	230.6	11.2	60.5	25.2	3.1
Essex	84.6	150.7	46.2	2.5	289.0	29.2	52.2	16.0	2.6
Hudson	78.7	103.0	13.3	3.1	198.0	39.7	52.0	6.7	1.6
Hunterdon	1.4	8.4	5.6	0.7	16.1	8.7	52.0	34.7	4.6
Mercer	14.5	44.2	15.3	2.5	76.6	18.9	57.8	20.0	3.3
Middlesex	14.0	77.7	25.3	3.3	120.4	11.6	64.6	21.0	2.8
Monmouth	11.8	57.1	24.1	3.2	96.2	12.3	59.4	25.1	3.3
Morris	4.9	40.0	23.7	3.4	71.8	6.8	55.6	33.0	4.7
Ocean	3.9	20.3	7.7	1.3	33.2	11.7	61.0	23.3	4.0
Passaic	28.5	70.4	23.6	3.5	125.9	22.6	55.9	18.7	2.8
Somerset	3.2	22.4	12.7	1.8	40.1	7.9	55.8	31.7	4.6
Sussex	1.2	8.6	4.1	0.5	14.4	8.3	59.7	28.3	3.7
Union	21.2	88.9	35.2	4.9	150.2	14.1	59.2	23.4	3.2
Warren	2.8	11.8	4.2	0.4	19.2	14.7	61.3	21.7	2.3
NEW YORK	1,641.3	1,610.9	315.9	45.2	3,613.4	45.4	44.6	8.7	1.3
Dutchess	7.0	30.3	8.3	1.4	47.0	14.9	64.6	17.6	2.9
Nassau	26.8	214.3	98.1	9.4	348.7	7.7	61.5	28.1	2.7
Orange	9.5	34.9	8.5	1.1	53.9	17.6	64.7	15.8	2.0
Putnam	0.9	5.7	2.4	0.2	9.3	9.4	61.8	26.1	2.7
Rockland	4.0	20.7	8.7	1.2	34.7	11.7	59.7	25.2	3.4
Suffolk	14.7	112.7	41.7	4.4	173.4	8.4	65.0	24.1	2.5
Sullivan	2.8	9.1	1.9	0.3	14.1	19.8	64.6	13.3	2.3
Ulster	6.0	23.8	5.5	0.7	36.1	16.8	65.9	15.4	2.0
Westchester	42.3	141.3	50.6	7.1	241.3	17.5	58.6	21.0	2.9
NY excl. NYC	114.0	592.8	225.7	25.8	958.5	11.9	61.9	23.6	2.7
Bronx	276.9	171.9	11.0	3.6	463.4	59.8	37.1	2.4	0.8
Brooklyn	479.5	341.9	23.4	5.9	850.9	56.4	40.2	2.8	0.7
Manhattan	558.9	126.4	6.5	3.9	695.8	80.3	18.2	0.9	0.6
Queens	196.8	338.3	42.7	5.3	583.1	33.8	58.0	7.3	0.9
Richmond	15.1	39.6	6.6	0.6	61.7	24.5	64.2	10.3	1.1
New York City	1,527.3	1,018.1	90.1	19.4	2,654.9	57.5	38.4	3.4	0.7
Environs	480.9	1,676.1	628.3	84.4	2,869.7	16.8	58.4	21.9	2.9
Core	1,646.1	1,142.6	106.1	24.0	2,919.0	56.4	39.1	3.6	0.8
Rest of Region	362.1	1,551.6	612.3	79.8	2,605.6	13.9	59.5	23.5	3.1
REGION	2,008.2	2,694.2	718.4	103.8	5,524.6	36.4	48.8	13.0	1.9

Note: Figures may not add to total due to rounding.

Source: U.S. Census of Housing: Detailed Characteristics, 1960 & 1970.

Table A-2. Households by Autos Available, 1970. (000's)

	Households with:				Tot. HH	% of HH with:			
	0 Auto	1 Auto	2 Autos	3+Autos		0 Auto	1 Auto	2 Autos	3+
CONNECTICUT	70.3	215.0	195.9	39.7	521.2	13.5%	41.3%	37.6%	7.6%
Fairfield	29.4	93.7	99.0	21.7	243.8	12.0	38.4	40.6	8.9
Litchfield	4.0	20.1	17.5	3.8	45.6	8.9	44.2	38.6	8.4
New Haven	36.9	101.2	79.4	14.2	231.8	15.9	43.7	34.3	6.1
NEW JERSEY	336.4	796.8	565.7	109.0	1,807.6	18.6	44.1	31.3	6.0
Bergen	28.7	124.1	106.0	20.8	279.6	10.3	44.4	37.9	7.4
Essex	95.5	129.5	66.0	11.6	302.6	31.6	42.8	21.8	3.8
Hudson	84.9	97.7	21.9	3.1	207.5	40.9	47.1	10.6	1.5
Hunterdon	1.6	8.8	8.3	2.3	21.1	7.7	41.9	39.3	11.1
Mercer	16.3	42.1	29.6	5.6	93.5	17.4	45.0	31.6	6.0
Middlesex	16.9	75.3	63.4	12.6	168.1	10.0	44.8	37.7	7.5
Monmouth	15.5	59.9	50.6	9.3	135.2	11.4	44.3	37.4	6.9
Morris	6.6	42.5	51.3	9.5	109.8	6.0	38.7	46.7	8.6
Ocean	7.0	35.5	21.8	4.0	68.4	10.2	52.0	31.9	5.9
Passaic	30.8	62.9	44.4	9.2	147.2	20.9	42.7	30.2	6.2
Somerset	3.9	20.6	27.0	5.4	57.0	7.0	36.1	47.4	9.6
Sussex	1.5	10.1	9.2	2.0	22.8	6.6	44.1	40.6	8.7
Union	24.3	76.3	59.0	12.0	171.6	14.2	44.5	34.4	7.0
Warren	2.9	11.5	7.2	1.6	23.3	12.4	49.6	31.0	7.0
NEW YORK	1,767.1	1,576.7	636.1	101.1	4,081.0	43.3	38.6	15.6	2.5
Dutchess	7.6	30.5	21.0	3.3	62.5	12.2	48.9	33.7	5.3
Nassau	33.2	170.1	164.7	32.9	401.1	8.3	42.4	41.2	8.2
Orange	10.7	33.3	18.9	2.7	65.6	16.3	50.8	28.8	4.1
Putnam	1.0	6.9	7.1	1.0	16.0	6.2	43.3	44.2	6.2
Rockland	5.5	24.4	26.4	3.9	60.4	9.2	40.4	43.8	6.6
Suffolk	20.3	132.9	122.5	19.8	295.6	6.9	45.0	41.5	6.7
Sullivan	2.8	8.7	4.6	0.7	16.9	16.8	51.7	27.4	4.1
Ulster	5.9	23.4	12.6	2.1	43.5	13.5	52.8	28.9	4.8
Westchester	49.2	131.5	86.9	14.9	282.6	17.4	46.6	30.8	5.3
NY excl. NYC	136.4	561.6	464.9	81.3	1,244.1	11.0	45.1	37.4	6.5
Bronx	310.3	163.5	21.1	2.3	497.2	62.4	32.9	4.3	0.5
Brooklyn	512.7	317.3	42.4	3.7	876.1	58.5	36.2	4.8	0.4
Manhattan	539.4	136.8	9.3	1.7	687.3	78.5	19.9	1.4	0.3
Queens	251.1	349.1	79.9	10.0	690.1	36.4	50.6	11.6	1.4
Richmond	17.2	48.4	18.4	2.2	86.2	19.9	56.2	21.3	2.6
New York City	1,630.7	1,015.1	171.2	19.9	2,836.9	57.5	35.8	6.0	0.7
Environs	543.1	1,573.4	1,226.5	230.0	3,572.9	15.2	44.0	34.3	6.4
Core	1,760.7	1,110.3	185.5	22.2	3,079.2	57.2	36.1	6.0	0.7
Rest of Region	413.1	1,478.2	1,212.2	227.7	3,330.6	12.4	44.4	36.4	6.8
REGION	2,173.8	2,588.5	1,397.7	249.9	6,409.8	33.9	40.4	21.8	3.9

Note: Figures may not add to total due to rounding.

Source: U.S. Census of Housing: Detailed Characteristics, 1960 & 1970.

Table A-3. Motor Vehicle Registration in the Region, 1920-1972. (000's)

	Total Motor Vehicles Registered			
	1920	1930	1940	1950
CONNECTICUT	58.8 ^e	214.5	292.3	400.0
Fairfield	24.7	89.0	133.1	182.4
Litchfield	5.6 ^e	23.0 ^e	30.2	41.8
New Haven	28.5 ^e	102.5 ^e	129.0	175.8
NEW JERSEY	175.4 ^e	694.9	916.1	1,316.2
Bergen	16.0 ^e	86.5	123.7	183.7
Essex	57.2 ^e	173.8	217.4	298.1
Hudson	25.2 ^e	88.1	120.4	156.6
Hunterdon	2.7 ^e	10.1	13.3	19.0
Mercer	11.4 ^e	39.9	51.0	73.2
Middlesex	6.4 ^e	41.1	57.7	77.4
Monmouth	10.5 ^e	48.6	55.5	88.1
Morris	7.7 ^e	30.2	40.3	53.1
Ocean	1.7 ^e	12.5	14.6	25.1
Passaic	16.8 ^e	59.2	78.7	118.0
Somerset	3.0 ^e	16.6	22.7	34.6
Sussex	2.1 ^e	9.1	10.8	15.7
Union	10.9 ^e	66.4	94.8	151.2
Warren	3.8 ^e	12.8	15.2	22.4
NEW YORK	308.7 ^e	1,201.5	1,536.3	2,161.5
Dutchess	7.3 ^e	29.7	34.9	47.9
Nassau	16.6 ^e	109.7	146.0	268.3
Orange	10.1 ^e	38.5	43.7	58.2
Putnam	1.6 ^e	5.5	8.0	11.1
Rockland	4.0 ^e	16.9	20.8	29.9
Suffolk	11.5 ^e	59.4	75.5	124.6
Sullivan	4.3 ^e	13.4	15.7	21.3
Ulster	7.0 ^e	24.3	27.8	36.7
Westchester	23.1 ^e	140.0	169.1	213.0
NY excl. NYC	85.5 ^e	437.4	541.5	811.0
Bronx	16.1	89.8 ^e	134.0 ^e	201.6 ^e
Brooklyn	73.0	254.9 ^e	313.8 ^e	402.7 ^e
Manhattan	100.5	206.7 ^e	220.0 ^e	257.9 ^e
Queens	26.8	183.8 ^e	288.3 ^e	433.6 ^e
Richmond	6.8	28.9 ^e	38.7 ^e	54.7 ^e
New York City	223.2	764.1	994.8	1,350.5
Environs	319.7	1,346.8	1,749.9	2,527.2
Core	270.9	880.0	1,156.1	1,559.4
Rest of Region	272.0	1,230.9	1,588.6	2,318.3
REGION	542.9	2,110.9	2,744.7	3,877.7

(continued)

Table A-3. (cont.) Motor Vehicle Registration in the Region, 1920-1972. (000's)

	Total Motor Vehicles Registered				
	1960	1965	1970	1971	1972
CONNECTICUT	625.0	751.2	882.6	957.2	993.2
Fairfield	305.0 ^e	363.8	431.5	461.8	476.4
Litchfield	60.0 ^e	71.9	82.8	93.5	98.1
New Haven	260.0 ^e	315.5	368.3	401.9	418.7
NEW JERSEY	1,872.1	2,358.3	2,799.0	2,802.6	2,873.6
Bergen	314.8	402.7	453.6	460.2	463.5
Essex	329.1	372.8	390.9	388.9	388.3
Hudson	169.6	191.1	217.9	210.1	212.3
Hunterdon	26.3	33.0	41.6	40.9	43.7*
Mercer	101.4	130.0	148.7	149.2	154.1*
Middlesex	164.6	218.4	281.7	283.6	292.2
Monmouth	136.3	180.2	228.0	228.4	239.0
Morris	113.1	154.2	203.3	206.6	214.6
Ocean	50.6	78.3	114.7	118.2	134.0*
Passaic	152.6	192.7	230.6	229.2	235.2
Somerset	46.1	68.5	84.2	84.6	87.3
Sussex	23.5	33.1	44.7	44.4	48.5*
Union	216.6	269.5	317.0	317.2	318.2
Warren	27.5	33.8	42.1	41.1	42.7*
NEW YORK	3,022.8	3,598.8	4,021.3	4,240.9	4,167.3
Dutchess	70.7	94.1	109.2	121.4	117.8
Nassau	546.2	675.1	763.6	808.1	792.2
Orange	78.3	97.7	114.4	128.4	124.8
Putnam	19.1	25.1	33.1	36.6	36.1
Rockland	54.8	82.6	109.0	121.4	121.7
Suffolk	293.3	434.6	571.2	638.3	619.4
Sullivan	25.3	27.8	31.3	35.7	37.5
Ulster	53.0	64.1	73.7	83.4	86.8
Westchester	341.7	404.2	453.0	478.5	468.1
NY excl. NYC	1,482.4	1,905.3	2,258.7	2,451.8	2,404.4
Bronx	239.0	260.2	265.2	265.4	261.3
Brooklyn	479.9	520.2	519.6	520.1	509.7
Manhattan	241.1	249.0	230.7	233.7	213.1
Queens	511.8	579.7	633.6	649.1	655.5
Richmond	68.6	84.4	113.5	120.8	123.3
New York City	1,540.4	1,693.5	1,762.6	1,789.1	1,762.9
Environs	3,979.5	5,014.8	5,940.3	6,211.6	6,271.2
Core	1,752.9	1,926.9	1,867.0	1,840.2 ^{ee}	1,767.7 ^{ee}
Rest of Region	3,767.0	4,781.4	5,835.9	6,160.5 ^{ee}	6,266.4 ^{ee}
REGION	5,519.9	6,708.3	7,702.9	8,000.7	8,034.1

^e Estimated on the basis of summary figures for sectors of the Region outside NYC as shown in "Regional Survey of New York and Its Environs," Vol. III, Highway Traffic, N.Y. 1927, p. 42.

^{ee} RPA estimate

* From R.L. Polk & Co. Further reproduction & publication is prohibited.

Sources: Tri-State Regional Planning Commission; R.L. Polk & Co.; RPA

Table A-4. Passenger Car Registrations in the Region 1920-1972. (000's)

	Total Passenger Cars Registered			
	1920	1930	1940	1950
CONNECTICUT	44.1 ^e	176.0 ^e	253.1	348.4
Fairfield	18.5 ^e	73.0 ^e	119.8 ^e	152.6
Litchfield	4.2 ^e	18.9 ^e	27.2 ^e	37.6 ^e
New Haven	21.4 ^e	84.1 ^e	106.1 ^e	158.2 ^e
NEW JERSEY	131.8 ^e	583.6	796.0	1,135.0
Bergen	12.0 ^e	76.4	111.8	162.7
Essex	42.9 ^e	145.5	186.9	257.8
Hudson	18.9 ^e	72.1	104.1	135.4
Hunterdon	2.0 ^e	8.0	10.5	14.6
Mercer	8.6 ^e	32.4	43.8	62.1
Middlesex	4.8 ^e	35.4	50.9	66.5
Monmouth	7.9 ^e	39.8	46.7	73.8
Morris	5.8 ^e	25.8	36.1	46.2
Ocean	1.3 ^e	10.1	11.9	20.4
Passaic	12.6 ^e	49.2	67.8	101.0
Somerset	2.3 ^e	13.9	19.9	29.6
Sussex	1.6 ^e	7.2	8.6	12.4
Union	8.2 ^e	57.5	84.7	134.3
Warren	2.9 ^e	10.3	12.3	18.2
NEW YORK	213.5 ^e	964.2	1,311.9	1,856.4
Dutchess	5.1 ^e	23.8	28.9	38.4
Nassau	12.8 ^e	95.2	131.7	239.0
Orange	7.5 ^e	31.0	35.9	45.7
Putnam	1.2 ^e	4.3	6.8	9.2
Rockland	3.0 ^e	14.1	18.0	25.3
Suffolk	8.7 ^e	49.3	63.9	101.6
Sullivan	2.4 ^e	10.0	12.1	15.6
Ulster	4.8 ^e	19.0	22.5	28.6
Westchester	17.9 ^e	120.4	152.0	188.9
NY excl. NYC	63.4 ^e	367.1	471.8	692.3
Bronx	11.6 ^e	73.6 ^e	119.3 ^e	181.4
Brooklyn	52.2 ^e	209.0 ^e	279.3 ^e	362.4
Manhattan	61.8 ^e	131.0 ^e	147.2 ^e	180.0
Queens	19.5 ^e	158.1 ^e	259.5 ^e	390.2
Richmond	5.0 ^e	25.4 ^e	34.8 ^e	50.0
New York City	150.1	597.1	840.1	1,164.0
Environs	239.3	1,126.7	1,520.9	2,175.7
Core	177.5	686.3	973.1	1,337.4
Rest of Region	211.9	1,037.5	1,387.9	2,002.3
REGION	389.4	1,723.8	2,361.0	3,339.7

(continued)

Table A-4. (cont.) Passenger Car Registrations in the Region 1920-1972. (000's)

	Total Passenger Cars Registered				
	1960	1965	1970	1971	1972
CONNECTICUT	560.6	683.4	783.2	798.8	825.2
Fairfield	270.0 ^e	334.7	390.1	396.5	407.7
Litchfield	54.0 ^e	64.7	69.5	69.8	73.6
New Haven	236.6 ^e	284.0	323.6	332.5	343.9
NEW JERSEY	1,687.0	2,136.8	2,493.7	2,581.6	2,634.1
Bergen	291.4	374.2	416.6	433.1	434.3
Essex	294.7	335.8	348.0	356.9	355.3
Hudson	152.2	169.2	189.3	191.8	193.7
Hunterdon	21.5	27.5	33.0	34.5	36.4*
Mercer	90.4	116.3	131.1	136.2	140.2*
Middlesex	148.6	198.3	250.6	260.9	266.7
Monmouth	121.3	162.6	203.2	210.6	219.6
Morris	102.5	140.2	181.8	190.4	196.5
Ocean	43.9	69.2	99.9	107.4	121.1*
Passaic	137.4	175.5	206.7	212.3	217.1
Somerset	40.8	61.8	74.2	77.3	79.0
Sussex	19.4	28.1	36.4	38.4	41.4*
Union	200.0	249.4	288.7	296.6	296.5
Warren	22.9	28.7	34.2	35.2	36.3*
NEW YORK	2,670.3	3,166.2	3,580.5	3,676.1	3,726.6
Dutchess	59.3	79.1	94.6	98.7	101.9
Nassau	497.2	609.5	693.2	716.8	724.8
Orange	63.3	78.7	95.8	100.5	104.7
Putnam	16.4	21.5	29.2	30.9	32.0
Rockland	48.0	72.4	98.9	105.8	110.8
Suffolk	251.7	368.9	503.8	529.7	548.9
Sullivan	19.1	21.1	24.3	25.9	27.1
Ulster	42.8	51.6	60.9	64.7	66.9
Westchester	308.0	361.3	410.1	425.9	428.8
NY excl. NYC	1,305.8	1,664.1	2,010.8	2,098.9	2,145.9
Bronx	219.7	240.4	242.6	241.0	240.9
Brooklyn	435.5	467.6	468.6	469.2	466.2
Manhattan	174.8	181.3	175.9	175.9	167.1
Queens	472.4	535.6	577.3	581.1	590.7
Richmond	62.0	77.3	105.3	110.0	115.8
New York City	1,364.5	1,502.2	1,569.7	1,577.2	1,580.7
Environs	3,553.4	4,484.3	5,287.7	5,479.3	5,605.2
Core	1,549.7	1,708.0	1,653.7	1,623.0 ^{ee}	1,580.9 ^{ee}
Rest of Region	3,368.2	4,278.5	5,203.7	5,433.5 ^{ee}	5,605.0 ^{ee}
REGION	4,917.9	5,986.5	6,857.4	7,056.5	7,185.9

e Estimated on the basis of summary figures for sectors of the Region outside NYC as shown in "Regional Survey of New York and Its Environs," Vol. III, Highway Traffic, N.Y. 1927, p. 42.

ee RPA estimate

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Sources: Tri-State Regional Planning Commission; R.L. Polk & Co.; RPA

Table A-5. Commercial Vehicle Registrations in the Region, 1920-1972. (000's)

	Total Commercial Registrations			
	1920	1930	1940	1950
CONNECTICUT	14.7	38.5	39.2	51.6
Fairfield	6.2	16.0	13.3	29.8
Litchfield	1.4	4.1	3.0	4.2
New Haven	7.1	18.4	22.9	17.6
NEW JERSEY	43.6	111.3	120.1	181.2
Bergen	4.0	10.1	11.9	21.0
Essex	14.3	28.3	30.5	40.3
Hudson	6.3	16.0	16.3	21.2
Hunterdon	0.7	2.1	2.8	4.4
Mercer	2.8	7.5	7.2	11.1
Middlesex	1.6	5.7	6.8	10.9
Monmouth	2.6	8.8	8.8	14.3
Morris	1.9	4.4	4.2	6.9
Ocean	0.4	2.4	2.7	4.7
Passaic	4.2	10.0	10.9	17.0
Somerset	0.7	2.7	2.8	5.0
Sussex	0.5	1.9	2.2	3.3
Union	2.7	8.9	10.1	16.9
Warren	0.9	2.5	2.9	4.2
NEW YORK	95.2	237.3	224.4	305.1
Dutchess	2.2	5.9	6.0	9.5
Nassau	3.8	14.5	14.3	29.3
Orange	2.6	7.5	7.8	12.5
Putnam	0.4	1.2	1.2	1.9
Rockland	1.0	2.8	2.8	4.6
Suffolk	2.8	10.1	11.6	23.0
Sullivan	1.9	3.4	3.6	5.7
Ulster	2.2	5.3	5.3	8.1
Westchester	5.2	19.6	17.1	24.1
NY excl. NYC	22.1	70.3	69.7	118.7
Bronx	4.5	16.2	14.7	20.2
Brooklyn	20.8	45.9	34.5	40.3
Manhattan	38.7	75.7	72.8	77.9
Queens	7.3	25.7	28.8	43.4
Richmond	1.8	3.5	3.9	4.7
New York City	73.1	167.0	154.7	186.5
Environs	80.4	220.1	229.0	351.5
Core	93.4	193.7	183.0	222.0
Rest of Region	60.1	193.4	200.7	316.0
REGION	153.5	387.1	383.7	538.0

(continued)

Table A-5. (cont.) Commercial Vehicle Registrations in the Region, 1920-1972. (000's)

	Total Commercial Registrations				
	1960	1965	1970	1971	1972
CONNECTICUT	64.4	67.8	99.4	158.4	168.0
Fairfield	35.0	29.1	41.4	65.3	68.7
Litchfield	6.0	7.2	13.3	23.7	24.5
New Haven	23.4	31.5	44.7	69.4	74.8
NEW JERSEY	185.1	221.5	305.3	221.0	239.5
Bergen	23.4	28.5	37.0	27.1	29.2
Essex	34.4	37.0	42.9	32.0	33.0
Hudson	17.4	21.9	28.6	18.3	18.6
Hunterdon	4.8	5.5	8.6	6.4	7.3*
Mercer	11.0	13.7	17.6	13.0	13.9*
Middlesex	16.0	20.1	31.1	22.7	25.5
Monmouth	15.0	17.6	24.8	17.8	19.4
Morris	10.6	14.0	21.5	16.2	18.1
Ocean	6.7	9.1	14.8	10.8	12.9*
Passaic	15.2	17.2	23.9	16.9	18.1
Somerset	5.3	6.7	10.0	7.3	8.3
Sussex	4.1	5.0	8.3	6.0	7.1*
Union	16.6	20.1	28.3	20.6	21.7
Warren	4.6	5.1	7.9	5.9	6.4*
NEW YORK	352.5	432.6	440.9	564.8	440.7
Dutchess	11.4	15.0	14.6	22.7	15.9
Nassau	49.0	65.6	70.4	91.3	67.4
Orange	15.0	19.0	18.6	27.9	20.1
Putnam	2.7	3.6	3.9	5.7	4.1
Rockland	6.8	10.2	10.1	15.6	10.9
Suffolk	41.6	65.7	67.6	108.6	70.5
Sullivan	6.2	6.7	7.0	9.8	10.4
Ulster	10.2	12.5	12.8	18.7	19.9
Westchester	33.7	42.9	42.9	52.6	39.3
NY excl. NYC	176.6	241.2	247.9	352.9	258.5
Bronx	19.3	19.8	22.6	24.4	20.4
Brooklyn	44.4	52.6	51.0	50.9	43.5
Manhattan	66.3	67.7	54.8	57.8	46.0
Queens	39.4	44.1	56.3	68.0	64.8
Richmond	6.6	7.1	8.2	10.8	7.5
New York City	175.9	191.3	192.9	211.9	182.2
Environs	426.1	530.5	652.6	732.3	666.0
Core	203.2	218.9	213.3	217.2	186.8
Rest of Region	398.8	502.9	632.2	727.0	661.4
REGION	602.0	721.8	845.5	944.2	848.2

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Sources: Tri-State Regional Planning Commission; R.L. Polk & Co.; RPA.

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