

DIVISION OF
PLANNING COORDINATION
OFFICE OF THE MAYOR
CITY OF HOUSTON
TEXAS



TRANSFERABLE HOUSING PLANNING TECHNOLOGY

AUGUST, 1979
WORKING PAPER :
DESCRIPTION OF A METHODOLOGY
FOR EXPRESSING GROWTH
OPTIONS FOR THE
CITY OF HOUSTON

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WORKING PAPER:
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EXPRESSING GROWTH OPTIONS FOR
THE CITY OF HOUSTON, TEXAS

AUGUST, 1979

Submitted by:
DIVISION OF PLANNING COORDINATION
OFFICE OF THE MAYOR
CITY OF HOUSTON, TEXAS

Submitted to:
OFFICE OF POLICY DEVELOPMENT AND RESEARCH
DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
WASHINGTON, D.C.

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WORKING PAPER: DESCRIPTION OF A METHODOLOGY FOR
EXPRESSING OPTIONS FOR GROWTH

I. INTRODUCTION

This paper is one of a series of papers describing the efforts of the City of Houston to develop methodologies for expressing and evaluating growth options for the City. In this paper the methodology for expressing growth options is described. Separate papers address the methodology for evaluation of their impact on the requirements for City services, use of the Housing Calculation Tool and the population/household forecasting capabilities of the Housing Calculation Tool. The content of this report has been structured to provide:

- An overview to the Department of Housing and Urban Development contract supporting this effort;
- A review of the methodology being used to express growth options;
- A review of the results of the use of the growth option methodology to express two growth options to the city through the year 2000.

II. CONTRACT OVERVIEW

In December, 1977, the City commenced a twelve month study of how the city could develop transparent, useful approaches to identifying alternative growth scenarios for the City and their likely impact on the local housing market and requirements for City services. This is a continuation of work initiated by the City under a DHUD capacity building contract. Under this previous contract, the City established a Policy Planning Division in the Office of the Mayor. This unit, since named the Division of Planning Coordination, over time was charged with responsibilities for developing various policies to guide operational planning, budget formulation, capital improvements programming, legislative analysis, and inter-agency coordination.

Given the responsibilities of this unit, it was apparent that a clearly stated, well developed urban growth policy would be necessary to guide upcoming City planning/programming decisions.

As a first step, the City developed and began implementing an integrated work program utilizing City and Federal funds to address the issues related to urban growth:

- EPA (Sec. 201/208) funds were used to develop population and land use forecasts;
- FHWA (Sec. 112) funds were used to establish an accurate land use base;
- EDA (Title III) funds were utilized to develop more accurate employment projections;
- UMTA (Sec. 9) funds were used to develop various growth options and policy sets to implement these options; and
- Local funds were used in all of the preceding studies to provide integration and consistency among the end products.

As part of the capacity building contract, various working committees of City staff were created to consider how growth planning should be approached. Various planning responsibilities were reviewed (e.g., wastewater, transit, capital improvements) to determine the nature and type of urban growth policy planning which would be useful as a guide to these functional area planning decisions. Based upon these reviews tentative decisions were made as to what type of urban growth planning would be appropriate. These decisions were incorporated in an overall urban growth work program of which one component is the HUD contract.

The objectives for the current contract focus principally on the development of a methodology and related calculation routines for expressing and evaluating various growth options in terms of their impact on various sectors of the housing market, and the capital/operating costs of the City. Specific objectives are as follows:

- Refine and integrate existing calculation tools and procedures in the City of Houston to assess urban growth patterns in terms of potential impact on private and public investments;

- Develop refinements to the Housing Calculation Tool to allow: (1) testing and impact of alternative housing policies on sectors of the housing market; and (2) generating data to support preparation of Housing Assistance Plans;
- Develop documentation and a detailed description of the Housing Calculation Tool to enable local officials in other municipalities to determine the Tool's applicability for their locale;
- Design and test procedures making it easier for users to understand and use the Housing Calculation Tool;
- Plan for improving the data base for planning and analysis in Houston; and
- Define and test a method for framing and evaluating growth pattern options.

The approach being taken toward development of the growth planning methodology/calculation routine is to expand and/or adapt existing analytic tools of the City. In recent years the City has developed a water model, wastewater load/flow calculation tool, various transportation models, growth share allocation routines, and a Housing Calculation Tool. The growth share allocation methodology, recently developed by the Division of Planning Coordination, coupled with an expanded Housing Calculation Tool will be used to create a calculation process for expressing growth options as a series of five year land use, employment, housing unit, household, and population projections at the Census tract level. The water, sewer, transportation, and housing tools will be used to conduct the evaluation of various options in terms of their impact on the housing market and requirements for various City facilities and services.

The Division of Planning Coordination, Office of the Mayor, is responsible for development of the growth methodology and its implementation. Contract performance has been structured to yield products which will support current efforts by the City staff and an Advisory Committee representing private sector interests convened by the Mayor to develop an overall urban policy for Houston. The projections provided by this contractual effort will provide alternative futures to be discussed in the context of developing such an urban policy.

III. REVIEW OF THE GROWTH PLANNING METHODOLOGY

Development of the growth planning methodology is being guided by a series of design assumptions. These assumptions and the resultant design structure are described below.

A. Design Assumptions -- Efforts to develop a methodology for expressing and evaluating growth options are being guided by the following design assumptions:

1. The methodology should be user oriented. Both the forecasts and the processes for generating and evaluating the forecasts should be oriented to allow staff control over the content.
2. The methodology should be structured to function as a calculation tool rather than a model. Of interest to the City staff is a methodology composed of a series of calculation routines which are transparent. Thus, forecasts would be the product of a series of readily identifiable calculation processes, driven by a series of externally derived, explicit assumptions about various components or factors in urban growth (e.g., labor force participation rates, birth and death rates, inflation rates, housing unit demolition rates, conversion rates, inflation rates, vacancy rates, etc.). Further, the calculation routines should allow the user to isolate the effects of any one assumption on the resultant growth forecasts.
3. The methodology should provide for forecasts incorporating a high level of detail to foster effective evaluations. More precisely, the forecasts should be framed to provide the following level of detail:
 - Time period frequency -- Five year intervals
 - Geographical detail -- Census tract level, census tract aggregates, and City totals
 - Unit forecast detail -- Units by tenure, age, value/rent and size classes
 - Household forecast detail -- Households by ethnicity, size, and income classes, and, where feasible, sex and age of head of household
 - Population forecast detail -- Age, sex, race
4. The methodology should be able to accomodate changes in the geographic area of the City over time through annexation/deannexation.
5. The methodology should be structured to ensure that all forecasts for any time period are consistent. The employment, land use, housing unit, household and population forecasts should constitute a logical set in both their aggregated and disaggregated forms.

6. The methodology should be sufficiently modular to allow improvements to be made in various portions of the methodology or calculation routines without jeopardizing the overall design.
7. The methodology should allow the City staff to pose City policies/programs as assumptions within various modules of the methodology and to be able to ascertain the effect of these policies or programs on the amount and type of growth to occur in future time periods.
8. The evaluation portion of the methodology should allow assessment of the impact of alternative options. Each option will be evaluated using the same evaluation criteria related to the housing market and the requirements for City services.
9. The methodology should provide for assessment of the housing market impact of an alternative, giving particular emphasis to that portion of the housing market related to low and moderate income households.
10. The housing market evaluation should be designed to be consistent with existing DHUD requirements for estimating needs for assisted housing.
11. The methodology for evaluating the impact of various options on the costs of City facilities/services should provide for the projection of multi-year costs and revenues. Thus at a minimum the methodology should be able to highlight possible changes in advalorem tax rates and the implications concerning sales tax and user fee rates.
12. Forecasts should be adequately supported by an audit trail of all assumptions used in the calculations.
13. Provision should be made for use of alternative assumptions for any time period and for any module.
14. The methodology should be convertible to a series of computer routines for performing all necessary calculations.

B. Resultant Design Structure -- Given these underlying assumptions, the methodology which has emerged for expressing growth options utilizes the following modules:

- Population and Household Module
- Locational Preference Module
- Census Tract Share of Growth Module
- Unit Forecast Module
- Tract Level Household and Population Module

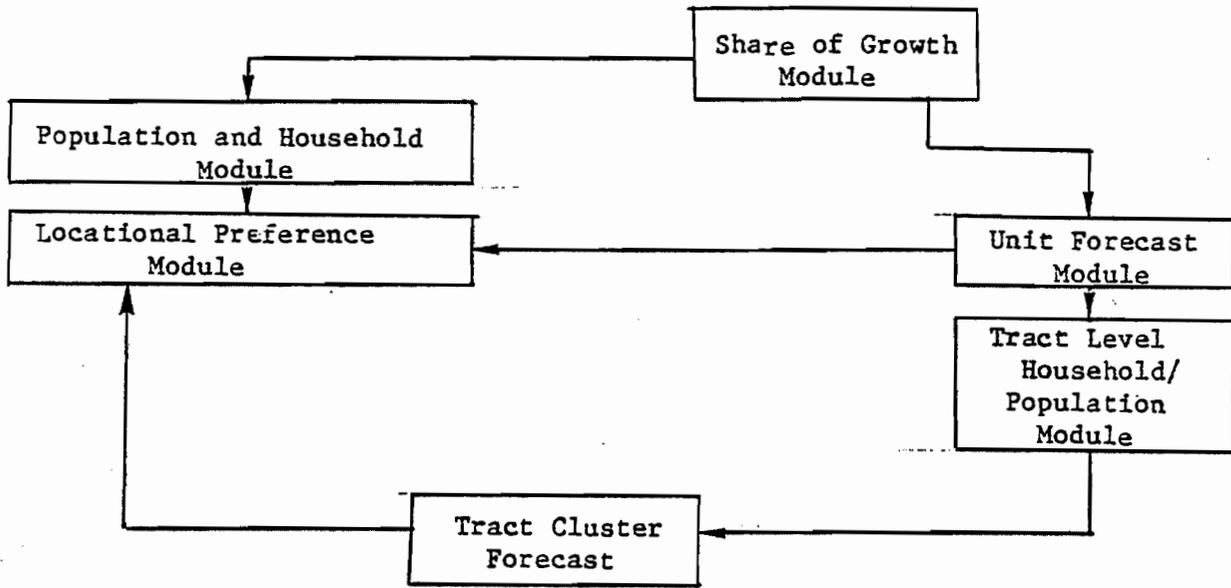
Their interrelationships are depicted in Exhibit 1 and each module is briefly described below:

1. Population and Household Modules -- A series of routines for estimating households by age, race, and sex in five year increments for the period 1970 through 2000. County level employment projections are used to generate estimates of associated population using labor force participation rates. Population forecasts are disaggregated by age, race, and sex characteristics based upon City derived assumptions about the components of net natural increase and net immigration. Resultant population projections are converted to associated household forecasts using headship rates as a basis for conversion. Households are disaggregated by type (i.e., race, size, and income) using City generated, exogenous assumptions. These forecasts are performed at the County level and factored down to correspond to the land area associated with current City boundaries and areas of possible annexation.
2. Locational Preference Module -- A series of routines for estimating residential locational preferences of households. Estimates are made for each five year forecast of previous period households displaced through demolition and/or conversion of units, the net new households resulting from in-migration, and net natural household formations. These households are defined as the households to be housed during the forecast period.

Households' locational preferences are related to household size, income, race, and density preference characteristics. Each Census tract's previous period household race, income, and density characteristics are used to create a set of tract clusters exhibiting similar characteristics. Households to be housed are allocated to clusters based upon the cluster's share of total City households by type (i.e., race, size, income) and its residential density characteristics.
3. Census Tract Growth Share Module -- A calculation process for allocating growth to tracts based upon the relative weightings of tracts as to their relative attractiveness for growth. Each tract is rated on a number of common characteristics such as proximity to schools, land costs, proximity to major places of work, etc. These ratings/weightings are used to create a cumulative attractiveness index for each tract by time period which in turn is used to allocate household growth to tracts.
4. Unit Forecast Module -- A calculation routine for estimating changes in the housing supply from period to period. Preceding period unit forecasts are reduced by use of separate demolition rates and conversion assumptions for each unit type (i.e., tenure, age, value/rent, size). Remaining units are revalued based on rehabilitation assumptions, and the entire stock is then aged five years. New units are added based upon new construction assumptions developed by users. All units are adjusted by five

Exhibit 1

Module Interrelationships



year inflation rates which are the differential rates between that of household income and housing unit value/rents, presently assuming value/rents inflate faster than incomes.

All of the above transitions are performed tract by tract. It is also possible to introduce estimates of occupied units in the tract level based upon City supplied vacancy rate assumptions and estimates of substandard units using City generated suitability assumptions by unit type.

5. Tract Level Household/Population Module -- A series of calculations designed to estimate tract level households by characteristic (i.e., size and income) as a function of the tract level housing unit forecasts.

The tract level household forecast created in this module is a disaggregated forecast; that is, an estimate of households initially disaggregated by size and income. By contrast, the growth share allocation routine allocates numbers of households without specifying their characteristics.

The tract level households are further disaggregated by race. The tract level count of households (by size and income created from the unit forecast) are first distributed by race using the preceding period race distribution. Then, the City level household forecast created in the population/household module is compared with the City sum of the tract level households by race developed in this module. To the extent that any one race is understated in the tract level forecast a reallocation is performed to achieve conformance between the two household forecasts.

The reallocation is performed through use of transition tracts. Those tracts which are predominantly Anglo, but likely to exhibit a trend toward increasing minority residency are specially designated and are used to modify the tract level race distributions. The race allocation process is based upon an assumption that preceding period race distributions will not adequately reflect moving patterns or changes in race distributions based upon differing birth and death rates among population groups. Thus, City staff for each time period establish assumptions about what percent of the minority increase should be allocated to the specially designed tracts and what percent will be allocated to remaining tracts in the City. A tract ceases to be specially designated whenever the percentage of minority households in the tract is equal to or exceeds the percent minority for the City as a whole.

To derive the tract population, average person per household assumptions are developed as a function of race. These assumptions will be City wide and allowed to vary period by period. They are consistently applied to tract level household forecasts by race. The result is a tract level population forecast by race.

The specific calculation steps used by the methodology are summarized in the next section. Given the considerable complexity of the methodology brought on by the number of calculation steps and the level of detail required of the various forecasts, computerization is required. The calculation steps have been developed into a series of computer programs. These programs are shown in Exhibit 2. Using assumptions supplied by the City the computer programs perform the calculations and put on file the resultant forecasts. Report generation routines exist which can be used to produce reports on population, households, or units at various levels of geographic detail.

Even though the level of data manipulation is quite high, the computer system has been designed to run on a minicomputer, an IBM 5110 computer with floppy disks, and a 64,000 byte processor. A complete five year run for all modules can be completed in eight hours. This is an acceptable run period; thus, precluding the need for access to a large, mainframe computer.

User procedures exist for creating, altering, or selecting assumptions for any module, for any time period. Standardization report formats have been designed as well as assumptions documentation routines for auditing the assumptions used to generate any given forecast, for any period, for any module.

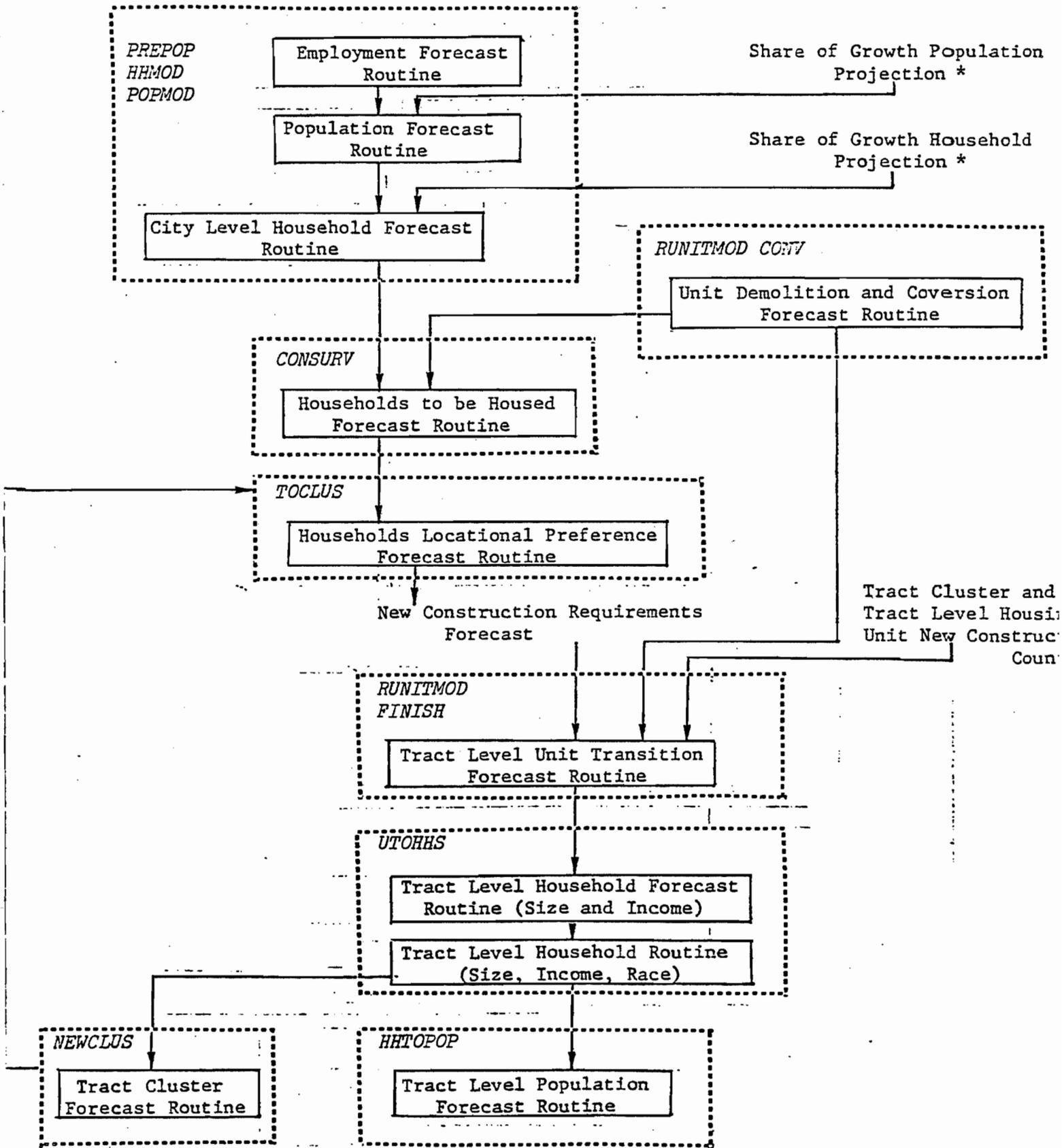
For purposes of this contract the City envisions expressing two growth options using the computerized routines. These options are:

- Trends Option, using assumptions relating to changes in population, households, units, land use, and employment based upon prevailing trends. This option generally will tend to allocate growth into outlying areas, creating a pattern of continuing sprawl.
- Inner City Growth Option, which will reflect possible private sector actions and public programs which contribute to increased concentration of development in inner city areas.

Based upon the experience developing these two growth scenarios utilizing the growth planning calculation routines, modifications will be made to the methodology as required. Consideration will then be given to using the methodology to express other options, such as a multi-modal development option, corridor development option, and possibly an "energy crisis" option.

Exhibit 2

GROWTH OPTION
FORMULATION METHODOLOGY



Major computer programs appear in the upper left-hand corner of each box.

* Derived from share of growth module (not part of the Housing Calculation Tool).

IV. Review of Growth Planning Calculations

The methodology for expression of a growth option can be explained as a series of sixty-two interrelated calculation steps. These steps as described below translate the basic design concepts into an operational definition. By tracing through these steps, the reader can determine how the routines have been structured, and where user-defined assumptions are introduced. The sixty-two steps are listed below by module. Following this list is a brief narrative description of each step.

Study Area Population/Household Module

1. Develop a place of work employment force forecast for all projection periods.
2. Develop a conversion ratio from place of work to place of residence employment.
3. Apply the conversion ratio to the work place employment forecast to obtain resident employment.
4. Define unemployment/employment rate assumptions for all periods.
5. Apply unemployment rates to resident jobs to determine total civilian labor force for the County.
6. Define labor force participation rates.
7. Apply the labor force participation rates to the civilian labor force to derive a total County population forecast 16-and-over.
8. Develop the under 16 population ratio (from national census projections applied to local base).
9. Apply the under 16 population ratios to derive a forecast of total County population.
10. Evaluate the population projection for accuracy.
11. Develop a ratio of the study area's population to the County total population for each time period.
12. Apply the appropriate ratio to the County population total to generate the study area population projection.
13. Obtain population distributions by race, age, and sex for each five year period.
14. Apply the population distribution assumption to population projections for the study area.
15. Develop birth and death rates for use in development of a net natural increase population.

16. Develop a net natural increase forecast based upon the preceding period forecast and the specified birth/death rate assumptions.
17. Develop an in-migration population projection from the net natural and total projections.
18. Develop household control count for the same period related to the population projections.
19. Develop assumptions about household characteristics, such as household size and income distribution.
20. Apply assumptions to household control projections to create a household forecast disaggregated by the characteristics specified above.
21. Develop household formation assumptions.
22. Develop net natural household projection disaggregated by specified characteristics.
23. Develop a net migration household forecast disaggregated by specified characteristics.

Location Preference Model

24. Develop a count of previous period housing units surviving demolition and conversion during the current period.
(Performed as part of the Unit Forecast Module.)
25. Develop an assumption which can be applied to an estimate of housing units to derive an estimate of the related characteristics of households living in the units.
26. Apply the assumption to the estimate of surviving units (Step 24) to obtain an estimate of households already housed (i.e., surviving households).
27. Subtract surviving households by characteristics (from 26) from total households by characteristics (Step 20) to obtain an estimate of households to be housed (i.e., newly created households, displaced, and net immigrant households).
28. Develop an assumption as to residential density preferences of households as a function of other household characteristics on a total tracts basis.
29. Apply the assumption to the estimate of total households to be housed (Step 27) to yield a count of total households to be housed by characteristics including residential density preference.

30. Apply tract cluster designations generated from the preceding period to the Step 29 result to obtain a distribution of households to be housed among the clusters.

Unit Forecast Module

31. Develop a count of previous period housing units surviving demolition.
32. Develop a count of units surviving demolition which also survive conversion to a non-residential use.
33. Develop an assumption as to the level of rehabilitation expected to occur during the five year period.
34. Apply the rehabilitation assumption to the stock to derive a redistribution of housing units by housing condition and value.
35. Age all surviving units five years.
36. Develop assumptions as to new unit characteristics by tract cluster.
37. Apply the assumption to the total new units added by clusters as estimated in the Growth Share Module to obtain a count of total new units by type for each cluster.
38. Develop new unit assumptions for each tract to allocate new units by type from clusters to tracts.
39. Apply the tract level assumption to the Step 37 estimate to obtain an estimate of new units by type for each tract.
40. Add the new unit counts to the count of surviving units by tract to obtain a total unit count.
41. Develop estimates of unit value/rent inflation.
42. Apply the inflation assumptions to the unit forecasts to create a redistribution of units by value/rent.
43. Develop vacancy rate assumptions by unit type.
44. Apply the vacancy rate assumptions to obtain a forecast of occupied units.
45. Develop suitability assumptions by unit type.
46. Apply suitability assumptions to develop estimates of standard units.

Tract Level Household/Population Module

47. Apply the assumption developed in Step 25 to the Step 42 unit forecast to obtain a forecast of tract level households by characteristics (size, income, tenure).
48. Apply the preceding period's household ethnicity distribution for each tract to obtain a tract level households forecast by characteristic including ethnicity.
49. Sum resultant tract level ethnic counts for all tracts from Step 48 to obtain a total tract ethnic distribution.
50. Compare the Step 49 distribution to the same distribution in the Step total tracts household forecast to determine relative consistency of the tract level distribution in the tract level forecast and the need for adjustment of the racial distributions at the tract level (i.e., which races were underestimated).
51. Define a list of transition tracts to receive a proportion of the reallocated households by ethnicity, using a fixed number of tracts to start and allowing tracts to become non-transition when ethnicity composition exceeds the city ethnic proportion.
52. Define as an assumption the proportion of residual households by ethnicity to be allocated to all non-transition tracts.
53. Allocate the assigned proportion of residual households to the non-transition tracts on a proportional basis (using the ethnicity distribution of the tracts as a basis for comparison).
54. Apply the transition tract proportion defined in Step 52 to the Step 50 result to determine the number of residual households by ethnicity to be allocated to the transition tracts.
55. Distribute resultant Step 54 households to transition tracts based on preceding period ratios of households by ethnicity for each transition tract to the total transition tracts.
56. Develop an average persons per household assumption by ethnicity.
57. Apply the assumption to the tract level household forecasts to obtain population by race for each tract.

Tract Cluster Forecast (Portion of Locational Preference Module)

58. Determine tract density for the period using the growth share module output.
59. Determine the median household income for each tract.

60. Define the prevailing household size and prevailing ethnic distribution for each tract.
61. Using the density class assignments, and household size, race and income assignments created in Steps 58, 59 and 60 create tract clusters of like characteristics.
62. Calculate the proportion of each cluster's households to the total City households by type and density preference.

Each of these steps will be briefly described as to purpose, general approach to performance, required assumptions, and any special features of its computerization where appropriate. In Appendix III the methodology used for the share of growth module is separately described.

Study Area Population/Household Module

There are twenty-three calculation steps used to create a set of five year population and household forecasts. The steps require a considerable number of assumptions to be made about population and household change over time. In a separate report entitled Framing Growth Options: Required Employment, Population and Household Projection Routines, these calculation steps are discussed in greater depth as well as the assumptions required to support them.

The twenty-three steps are as follows:

Step 1. Develop a place of work employment force forecast for all projection periods

The initiation of the methodology is predicated upon development of an employment forecast for the time period. It is expressed as a County level projection of all jobs, and is not disaggregated by job classification. The forecast is an assumption which can be altered by the user for any period. Thus, the computer routine makes provision for easy input or alteration.

Step 2. Develop a conversion ratio from place of work to place of residence employment

To ascertain those jobs associated with potential County residents, the County employment forecast is converted to a forecast for jobs filled by County residents. A user-generated assumption of the conversion ratio is required for each period. This assumption is the product of this task.

Step 3. Apply the conversion ratio to the work place employment forecast to obtain resident employment

The computer routine uses the conversion ratio to generate the forecast of resident employment.

Step 4. Define unemployment/employment rate assumptions for all periods

Projection of population as a function of employment requires a civilian labor force projection which in turn is the sum of residents employed and those unemployed but actively seeking work. Thus, the derivation of a civilian labor force forecast requires an unemployment rate to be defined. The purpose of this task is to develop a suitable unemployment assumption.

Step 5. Apply unemployment rates to resident jobs to determine total civilian labor force for the County

Using the unemployment rate assumption the computer computes an employment rate; then the total resident job projection is divided by the employment rate to generate a civilian labor force projection.

Step 6. Define labor force participation rates

Civilian labor force participation rate assumptions are required for each period. Although it is possible to disaggregate these rates by selected population characteristics, it is not necessary for purposes of this analysis. As a result aggregate rate assumptions are generated by City staff in this task.

Step 7. Apply the labor force participation rates to the civilian labor force to derive a total County population forecast (16 and over)

In this step the labor force counts are divided by the labor force participation rates to derive a projection of County population 16-and-over. Labor force participation rates are based upon an assumption that the population 15 and under is not a part of the labor force.

Step 8. Develop the under 16 population ratio (from national census projections applied to local base).

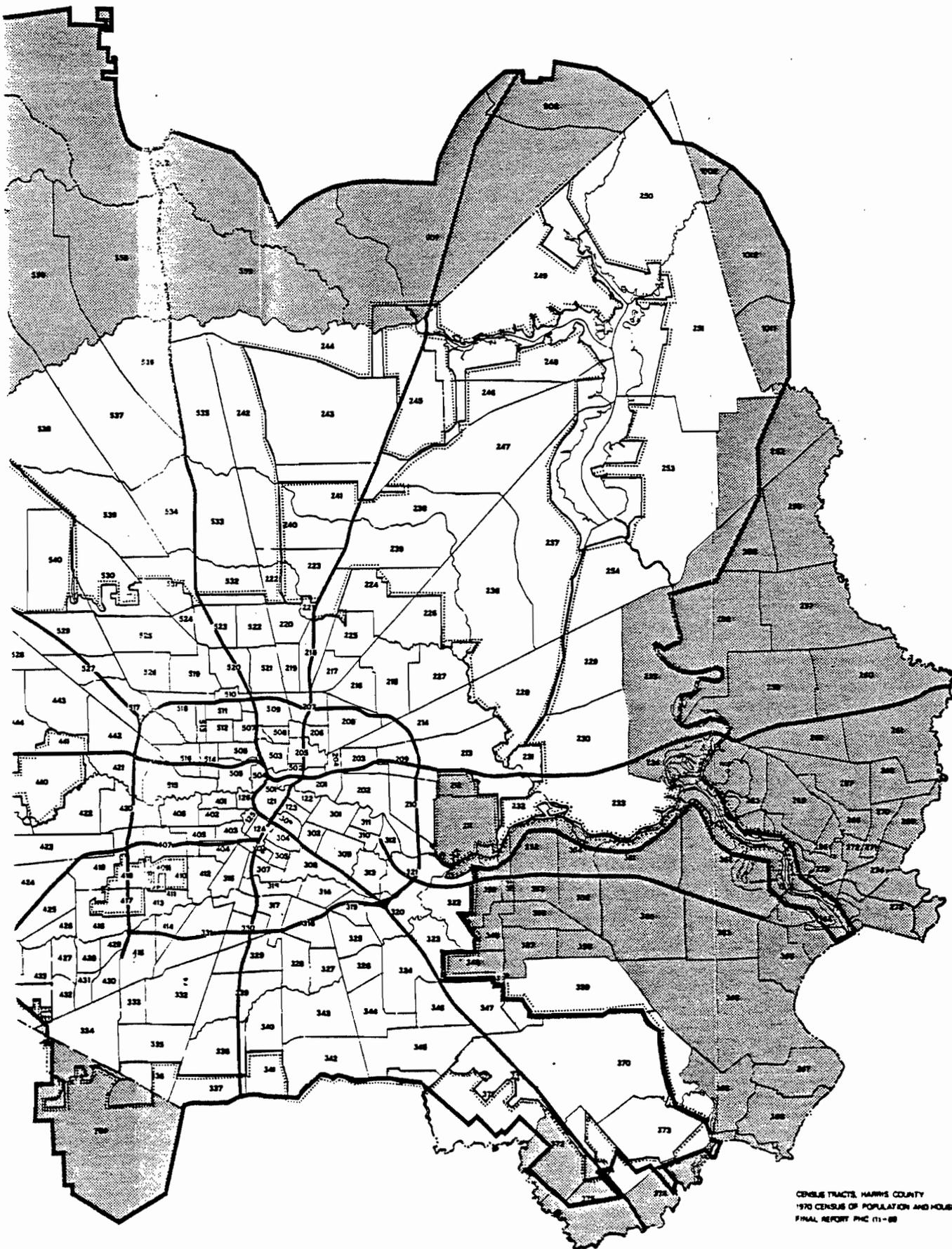
Previous local trends as to the relationship of 16-and-over population to 15-and-under population modified by projected national age shifts can be used to extend the population projection for those 16-and-over to a total population forecast for each time period. In this task the City staff develops for each period an estimated ratio of 15-and-under population to 16-and-over population.

Step 9. Apply the under 16 population ratios to derive a forecast of total County population

The calculation routines entail application of the ratio to the 16-and-over population projected in Step 8 to derive a total County population projection. At this point in the calculation process the population projection is a single aggregate count for the County.

Step 10. Evaluate the population projection for accuracy

City staff will compare the resultant population count generated by the computer to other locally available studies to determine consistency and reasonableness. Should substantial variance be encountered, the module will allow alteration of the population forecast as an exogenous assumption.



CENSUS TRACTS, HARRIS COUNTY
1970 CENSUS OF POPULATION AND HOUSING
FINAL REPORT PHC (1)-88

Step 15. Develop birth and death rates for use in development of a net natural increase projection

The methodology calls for development of a net natural increase forecast of the preceding period study area forecast. This requires two sets of assumptions to be developed by City staff. Five year birth rates by age and race of the mother are required. These rates are disaggregated by sex of the child as well. The death rate assumptions are established for age, race and sex cohorts.

Step 16. Develop a net natural increase forecast based upon the preceding period forecast and the specified birth/death rate assumptions

The calculation process for this module requires a net natural increase of the preceding period's population. This projection is subtracted from the employment-based population forecast to create a net migration forecast.

The computer routine used to generate the net natural forecast entails a series of steps. Each age cohort is aged in annual increments by the computer calculation routine and then reduced by application of the cohort death rates. Birth rates are applied to the female population by age and race to generate births by male/female which are assigned to the 0-1 age class. This process is repeated five times for each five year forecast period. The result is a projection by race, age, and sex. The age dimension is compressed out of the array to facilitate the next step.

Step 17. Develop an immigration population projection from the net natural and total projections

Inmigrant population is projected as the residual of the employment based total population for the study area less the net natural increase projection. This is done using just the counts of both projections by race and sex. Once the inmigrant population projection by race and sex is determined, it is expanded across the age dimension using the age distribution of the net natural population projection.

Step 18. Develop study area household control count for the same period related to the population projections

As will be described in subsequent papers, the overall methodology for expressing growth options is designed to create population and household control totals for use in allocating households to census tracts. At this stage in the methodology a household control total is generated by City staff for each growth option being expressed using assumptions as to average persons per household for each time period.

Step 19. Develop assumptions about the household characteristics such as household size and income distribution.

These assumptions are to be developed by the City users. They specify the distributions of households by race, size and income based upon recent City surveys and national trends.

Step 20. Apply assumptions to household control projections to create a household forecast disaggregated by the characteristics specified above

The computer routine has been developed to apply household characteristic assumptions to the household control totals to generate a study area household forecast for the time interval.

Step 21. Develop household formation assumptions for net natural households

The projection methodology requires development of a net natural increase household projection (i.e., those households associated with the net natural increase of a previous period population). This household projection requires development by City staff of assumption pertaining to headship, household size and income. The headship rate is an estimate of what percent of each population cohort is likely to be head of household. The household size assumption is a distribution of households by size class as a function of age, race and sex of the head of household. The income assumption is a distribution by income class as a function of household age, race, sex and size characteristics. The assumptions are developed by the City based upon local and national trends.

Step 22. Develop net natural household projection disaggregated by specified characteristics

Following the same approach taken with the population forecast, the computer routines generate a household forecast associated with the net natural population projection. The purpose of the net natural projection is to develop in conjunction with the household control projection a net migration household forecast.

The net natural increase projection is created by the computer through successive application of household assumption. First, the headship assumption is applied creating a count of households by age (elderly/nonelderly) race, sex and size. As a next step the income distribution is applied to create an estimate of age, race and sex, size and income.

Step 23. Develop a net migration household forecast disaggregated by specified characteristics

Using the household control projection and the net natural control projection, the computer routines generate a net migration forecast. The net natural forecast is compressed over the age and sex dimensions to create a projection of households by race, size and income which is conformable with the household control

projection. Net migration households are then computed as the residual between the two forecasts.

The output of this module is a series of population and household forecasts for each five year interval and each growth option. Users can extract the forecast from an output file through report generation routines. Population and household reports are generated using standardized formats. Each format incorporates a summary of all assumption set numbers used to generate the forecast. These numbers correspond with a specific assumption residing in an assumption file. The actual assumption can also be printed using computer routines. An example of the population report appears in Exhibit 4 and a household forecast as Exhibit 5.

As currently designed, the user can store up to three population and household forecasts for any time period. Additional forecasts require deletion of a preceding forecast. The provision for three sets of forecasts allows City staff to be able to analyze forecasts associated with alternative growth options.

Locational Preference Module

As previously described, this module allocates new households to their locational preferences. Previous period tract characteristics (i.e., household race, income and density distribution) are used to allocate new households to tract clusters. The steps in defining clusters of tracts having similar household race, income and density characteristics will be described as a separate set of steps. Steps 24 through 30 are used to allocate new households to their locational preferences and are described below:

Step 24. Develop A Count Of Previous Period Housing And Conversion During The Current Period Surviving Demolition

In order to calculate the number of households to be housed in any time period, those households which are displaced through demolition or conversion of units must be determined. First, number of units demolished/converted must be calculated. With these counts, the estimates of surviving units can be calculated. Households in surviving units are subtracted from the estimate of total households to yield households to be housed.

In this step the estimate of units surviving demolition and conversion is created. It is performed as part of a unit forecast module and more fully addressed under Step 31.

Step 25. Develop An Assumption Which Can Be Applied To An Estimate Of Housing Units To Derive An Estimate Of The Related Characteristics Of Households Living In The Units

To calculate the households associated with housing stock surviving demolition and conversion an assumption must be developed which is an estimated distribution of units by the types of households likely to live in the unit. Thus, the count of each occupied units by type is

City of Houston Housing and Population Data

1985 Population * Set 3
 Non-City Portion Included
 Run Oct 19, 1979 * Printed Oct 31, 1979 * Prepared by KLA
 OLMPOR FROM 7 * INC. 1 * GIPF 3 * REATH 1

Sex	Age	White	Black	Sp Amer	Total
Male	0-4	51,513	30,265	21,534	111,312
	5-9	53,287	35,666	19,413	108,366
	10-14	56,208	31,150	18,149	105,507
	15-19	51,859	26,882	16,880	95,621
	20-24	58,942	29,792	17,063	105,797
	25-29	62,674	26,509	14,199	103,382
	30-34	56,086	21,034	11,584	88,704
	35-39	53,670	16,008	10,070	79,756
	40-44	49,274	14,495	9,525	73,294
	45-49	45,069	12,285	6,864	64,218
	50-54	39,857	11,129	6,041	57,027
	55-59	34,532	9,238	5,036	48,806
	60-64	33,571	7,482	3,456	44,509
65+	38,946	11,873	4,363	55,182	
Total		605,400	291,808	164,185	1,141,481
Female	0-4	49,385	31,182	17,045	97,612
	5-9	50,660	30,121	15,610	96,391
	10-14	50,199	26,924	13,775	90,898
	15-19	45,862	28,847	16,582	91,291
	20-24	52,701	32,522	16,099	101,322
	25-29	56,340	30,206	14,237	100,783
	30-34	54,429	25,167	12,109	91,705
	35-39	60,040	24,779	11,978	96,797
	40-44	47,908	19,704	9,267	76,959
	45-49	39,046	15,983	7,517	62,546
	50-54	38,241	14,886	6,270	59,397
	55-59	34,627	12,851	5,299	54,777
	60-64	36,229	10,054	3,806	50,089
65+	62,304	19,546	5,623	87,473	
Total		679,971	322,852	155,217	1,158,040
Total	0-4	100,898	69,447	38,579	208,924
	5-9	103,947	65,787	35,023	204,757
	10-14	106,407	58,074	31,924	196,405
	15-19	97,721	55,729	33,462	186,912
	20-24	111,643	62,314	33,162	207,119
	25-29	119,014	56,715	28,436	204,165
	30-34	110,515	46,201	23,693	180,409
	35-39	113,710	40,787	22,056	176,553
	40-44	97,182	34,279	18,792	150,253
	45-49	84,115	28,269	14,381	126,764
	50-54	78,098	26,015	12,311	116,424
	55-59	71,159	22,089	10,335	103,583
	60-64	69,800	17,536	7,262	94,598
65+	101,250	31,419	9,986	142,655	
Total		1,365,459	614,660	319,402	2,299,521

LOADED 11010 HHRPT
 INCLUDE NONCITY

1985 All Races - Male - Total Persons 1985: 1,091,334 (Houston City)
 Run Oct 19, 1979 & Printed Oct 27, 1979 & Prepared by Alan
 OLMIH FROM 5 * POP FROM 3 * MEMBERSHIP 1 * HHSIZE 2
 HINCINAT 1 * HINCINFL 1 * INCLINFL 1

Non-Elderly

Household Income:	Household Size						Total
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person	
Less Than \$2,000	8,109	9,750	5,576	4,437	2,668	3,975	29,415
\$2,000 - \$2,999	3,606	4,490	2,531	3,047	1,210	1,718	15,602
\$3,000 - \$4,999	10,159	13,398	8,252	6,788	4,123	5,960	48,680
\$5,000 - \$6,999	12,267	18,140	12,000	10,200	6,269	8,613	57,489
\$7,000 - \$9,999	19,245	32,509	22,920	20,787	12,429	14,232	122,132
\$10,000 - \$14,999	21,425	41,787	30,949	30,329	17,274	15,278	156,942
\$15,000 - \$24,999	12,171	25,261	18,417	14,236	10,558	7,468	93,127
\$25,000 or More	4,256	8,037	5,016	5,256	2,626	1,657	27,052
Total	91,238	153,371	105,561	99,698	57,340	58,811	565,419

Elderly

Household Income:	Household Size						Total
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person	
Less Than \$2,000	2,993	3,473	1,912	1,461	998	1,290	12,017
\$2,000 - \$2,999	1,583	2,110	1,137	874	496	619	6,819
\$3,000 - \$4,999	3,154	4,340	2,368	1,793	1,039	1,276	13,969
\$5,000 - \$6,999	2,387	3,428	1,952	1,537	874	1,000	11,178
\$7,000 - \$9,999	2,678	4,070	2,423	1,971	1,077	1,181	13,400
\$10,000 - \$14,999	2,347	4,083	2,507	2,243	1,214	1,040	13,434
\$15,000 - \$24,999	1,338	2,440	1,473	1,357	719	529	7,833
\$25,000 or More	725	1,249	619	441	262	186	2,561
Total	17,205	25,192	14,531	12,057	6,578	7,091	82,261

distributed among household types (i.e., household race, size and income.)

The assumption used to estimate household types is derived from the previous period unit and household forecasts which are interrelated based upon successively altering housing preference assumptions until a match is achieved.

The assumptions reside as two, five-dimensional arrays of the following shape 7 x 5 x 8 x 3 x 6 where the first two dimensions are unit value and size classes and the remaining three are household income, race and size classes. One assumption is for owners, the other for renters. This assumption is created each time the calculation is performed; however, the Housing Calculation Tool does not currently allow the user to readily alter this assumption on his own.

Step 26. Apply The Assumption To The Estimate Of Surviving Units (Step 24) To Obtain An Estimate Of Households Already Housed

Once the assumption is generated, it is applied to the forecast of surviving owner and renter units. Thus, if a growth option for 1985 is being run, the 1980 housing unit forecast is reduced by the count of demolished/converted units. The count of surviving owner and renter units in 1985 is converted to a related household count by household type in this step.

Step 27. Subtract Surviving Households By Characteristics (From 26) From Total Households By Characteristics (From 20) To Obtain An Estimate Of Households To Be Housed (i.e., Surviving Households).

The study area household forecast generated in Step 20 less the count of "surviving" households yields the count of households to be housed. This is a simple arithmetic operation for the computer on the two household arrays. Both arrays are 8 x 3 x 6 in size.

Step 28. Develop An Assumption As To Residential Density Preferences Of Households As A Function Of Other Household Characteristics On A Total Tracts Basis

The allocation of households to be housed to their locational preferences is based upon matching the race, size and income characteristics of the households to the household characteristics of census tracts. In addition, density is used as an element in the allocation process. Some households are expected to prefer suburban, less dense, housing; others will prefer residential alternatives closer to major activity clusters or the central city. These latter alternatives are characterized by areas with higher residential land use densities, i.e., units/acre.

In this step the density preferences of households is established. It is defined as a density preference in terms of three classes:

- Urban Areas = more than 8.25 units/residential acre
- Suburban Areas = between 4.25 and 8.25 units/residential acre
- Exurban Areas = less than 4.25 units/residential acre

Density preferences are identified by household type. They can be created

by relating prevailing household characteristics in each tract to the tract's residential land use density. By examining all tracts, one can define the percentage of households of any given type who prefer urban, suburban, or exurban areas. The resultant assumption is an 8 x 3 x 6 x 3 array.

Step 29. Apply The Assumption To The Estimate Of Total Households To Be Housed (Step 27 To Yield A Count Of Total Households To Be Housed By Characteristics Including Residential Density Preference

Once the assumption is built, it is applied to count of households to be housed, yielding a set of household density preferences. This is a matrix manipulation performed by the computer.

Step 30. Apply Tract Cluster Designations Generated From The Preceding Period To The Step 29 Result To Obtain A Distribution Of Households To Be Housed Among The Clusters

As a final step, the tract clusters generated from the preceding period forecast for the same growth option are used to distribute the households to be housed. Each tract has been assigned to a cluster defined as a unique combination of household race, and income plus residential density. Households are proportionally allocated to these clusters based upon the cluster's share of total study area households having these characteristics in the preceding forecast period.

Unit Forecast Module

The unit forecast module generates 5-year housing unit forecasts by total units, occupied/vacant units or standard/sub-standard units. They are available for individual tracts, tract clusters (sectors), the city, or total study Area boundaries. They are derived using previous period forecasts as a base. These previous period forecasts are taken through a series of transition steps which replicate unit changes which typically occur to some or all of the stock over time. The changes in housing unit status include:

- Demolitions/Fire loss
- Conversions
- Aging of the stock
- Rehabilitation of existing units
- Addition of new units
- Changes in occupancy status based upon levels of market demand
- Changes in the structural condition of units
- Changes in value/rent due to market conditions/inflation

In the unit forecast module all of these unit transitions are allowed to occur from time period to time period. The specific calculation steps reflecting this overall process are as follows:

Step 31. Develop A Count Of Previous Period Housing Units Surviving Demolition

In this first step, the preceding period forecast of housing stock is reduced by an estimate of demolitions/fire loss. This is accomplished through use of a user-defined demolition assumption by unit type. The demolition assumption is the percent of each unit type which will survive

demolition/fire loss.

Currently used demolition assumptions were developed based upon neighborhood housing unit surveys conducted by the City on the incidence of demolition at the tract level. These were tied to the prevailing unit characteristic in the tract. From these data for all tracts, the count of demolitions/fire loss by type could be estimated and thus the percent of units surviving demolition in any five period.

The demolition/fire loss assumption expressed as percentage is applied to the count of prior period units through a simple computer calculation.

Step 32. Develop A Count Of Units Surviving Demolition Which Also Survive Conversion To A Non-Residential Use

All units surviving demolition are reduced by an estimate of all unit types expected to be converted. These assumptions are created for each rent/value class and each tract cluster. They are expressed as percents. When applied to the stock remaining after the demolitions, the assumptions reduce the stock to all units remaining after demolition/conversion.

Step 33. Develop An Assumption As To The Level Of Rehabilitation Expected To Occur During The Five Year Period

In each five year period, the count of rehabilitated units must be established. The Tool is structured to accommodate rehabilitation assumptions which posit the shift in units of a substandard condition to a standard condition and the corresponding shift in their value/rent.

Step 34. Apply The Rehabilitation Assumption To The Stock To Derive A Redistribution Of Housing Units By Housing Condition And Value

The assumptions are expressed as a percent of all substandard units which could be rehabilitated for each Census tract. They are used by the computer to estimate the number of units which should be shifted from a substandard to standard status. The units are assigned the value or rent of units whose structural conditions have been upgraded through rehabilitation.

Step 35. Age All Surviving Units Five Years

After rehabilitation, all housing unit stock is shifted five years in age, leaving the the 0-5 year class open for the addition of the new residential construction during the forecast period.

Step 36. Develop Assumptions As To New Unit Characteristics By Tract Cluster

Each unit forecast requires new construction assumptions disaggregated by unit type (i.e., tenure, size, age, value/rent). To achieve this disaggregation, two types of new construction assumptions are established. At the tract level new construction counts by tenure are required. At a tract cluster level, counts of new construction by tenure, and size and value/rent class are needed.

In this step the tract level cluster assumption must be established. Users must define the likely distribution of new construction by unit type as well. Prevailing trends in new construction and perceptions of builders/developers about factors influencing new construction by type help influence the development of these assumptions.

Step 37. Apply The Assumption To The Total New Units Added By Clusters As Estimated In The Growth Share Module To Obtain A Count Of Total New Units By Type For Each Cluster

Using the distribution of new construction by type established in the previous step, the raw counts of new construction estimated by the growth share module are disaggregated by unit type for each tract cluster.

Step 38. Develop New Unit Assumptions For Each Tract To Allocate New Units By Type From Clusters To Tracts

At the tract level counts of new construction are required. These are used to distribute the estimates of new construction by type for tract clusters to individual tracts. The source of these counts of new construction is the growth share module or independent estimates established by users.

Step 39. Apply The Tract Level Assumption To The Step 37 Estimate To Obtain An Estimate Of New Units By Type For Each Tract

The tract level counts of new construction are used to distribute new construction by unit type at the cluster level to specific tracts. This is a proportioning routine, resulting in tract level new construction assumptions by unit type.

Step 40. Add The New Unit Counts To The Count Of Surviving Units By Tract To Obtain A Total Unit Count

This is a computer transaction which places all new construction counts into the 0-5 age class. In so doing, one 7x5x7 array of value, size, and age classes is created for owners and one 8x5x7 array for renters.

Step 41. Develop Estimates Of Unit Value/Rent Inflation

Each unit forecast must consider the impact of inflation on the value/rent distributions of the stock. The user must develop a five year inflation assumption for owner and renter units. For owner units the assumption is a five year inflation rate for each tract cluster. For renter units the assumption is related to each rent class.

Step 42. Apply The Inflation Assumptions To The Unit Forecasts To Create A Redistribution Of Units By Value/Rent

The computer applies the value and rent inflation assumptions to the estimate of housing units for the period. Units are shifted from one rent or value class to another as a function of the amount of inflation projected. In effect, the computer routines establish a redistribution of the stock by value and rent class to account for the effect of inflation.

Step 43. Develop Vacancy Rate Assumptions By Unit Type

For every forecast period, owner and renter vacancy assumptions must be established. These assumptions are developed for each value class of owner units and rent class of renter units. The assumptions are to be framed as occupancy rates.

Step 44. Apply The Vacancy Rate Assumptions To Obtain A Forecast Of Occupied Units

Counts of units for value and rent class of the forecast are multiplied by the occupancy rates to create a count of occupied owner and renter units. The rates are uniformly applied across unit size and age classes.

Step 45. Develop Suitability Assumptions By Unit Type

In order to estimate how much of the stock is structurally sound, assumptions are required as to the percent of each unit type which could be considered standard. These assumptions are developed by the user for each value, size and age class. Currently the assumptions in use draw heavily from the 1970 Census and other special studies conducted by the City of Houston since 1970. Standard is defined as units which have no major code violations.

Step 46. Apply Suitability Assumptions To Develop Estimates Of Standard Units

Each suitability assumption is an array of percentages, one per unit type, of the same shape as the owner and renter unit forecasts. The computer performs a simple matrix multiplication to determine the count of standard units.

As these steps are completed, the unit forecast is placed in storage. Intermediate results are stored. Counts of prior period units remaining after demolition and conversion are retained. Counts of suitable units and occupied units are also placed in the file. Summaries for each tract, tract clusters, the City or the total Study Area can be obtained through various report generation options. Up to three complete unit forecasts can be kept for any one period.

Tract Level Household/Population Module

Expression of a growth option forecast requires development of tract level population and household forecasts which conform to the estimate of housing stock for the same period. The Housing Calculation Tool develops tract level population and household forecasts by using the unit forecast as a basis for estimation. The steps used in the calculation are as follows:

Step 47. Apply The Assumption Developed In Step 25 To The Step 42 Unit Forecast To Obtain A Forecast Of Tract Level Households By Characteristics (Size, Income, Tenure)

As previously noted, this assumption interrelates household characteristics of size and income to unit characteristics pertaining to size and value/rent. It is calculated each time period using the forecasts of households and units for the study area total. The result is a distribution of housing units by type among household size and income classes.

This assumption is computed using a routine where unit preferences of households are applied to household counts to create a unit profile. Preferences are progressively altered until the count of unit preferences matches the count of forecast units. Using this result, the count of units related to each household characteristic can be defined.

This assumption is expressed as a set of percentage distributions and then applied to the count of forecast units at the tract level produced by the unit forecast module. The result is a count of households by size and income at the tract level.

Step 48. Apply The Preceding Period's Household Ethnicity Distribution For Each Tract To Obtain A Tract Level Households Forecast By Characteristic Including Ethnicity

Projections of tract level households by race must also be developed. As a first step, the results of Step 47 are disaggregated by race using the preceding period tract level forecast by race as a basis for projection. This disaggregation is performed by the computer in this step.

Step 49. Sum Resultant Tract Level Ethnic Counts For All Tracts From Step 48 To Obtain A Total Tract Ethnic Distribution

The computer adds the Step 48 results to create a household sum for all study area tracts, by race.

Step 50. Compare The Step 49 Distribution To The Same Distribution In The Step 20 Total Tracts Household Forecast To Determine Relative Consistency Of The Tract Level Distribution In The Tract Level Forecast And The Need For Adjustment Of The Racial Distributions At The Tract Level

The purpose of this task is to determine the extent to which the tract level household race distribution created in Step 49 conforms with the study area household forecasts created in Step 20. Variance can be expected each time the comparison is made. Houston is rapidly growing and experiencing substantial increases in minority population in each five-year period. This use of the previous period race distributions typically understates the increase in minority population for the current forecast period.

In this step the two forecasts are compared. The study area household forecast created in Step 20 is based upon employment and population forecasts for the current period. It acts as a control total for the tract level household forecast. Therefore, in this step the adjustments which must be made to the tract level forecast race distribution are identified. The result of this step is a count of households to be reallocated from one race category to another.

Step 51. Define A List Of Transition Tracts To Receive A Proportion Of The Reallocated Households By Ethnicity, Using A Fixed Number Of Tracts To Start And Allowing Tracts To Become Non-Transition When Ethnicity Composition Exceeds The City Ethnic Proportion

Adjustment of the tract level race distribution is designed to parallel what occurs in a metropolitan area where rapid racial shifts occur. These

shifts are typically most evident in certain neighborhoods--areas in transition. These computer routines are designed to concentrate the adjustments in the race distribution to areas (i.e. census tracts) thought to be likely transition areas.

The City staff designates whatever tracts are likely to be in transition. Generally, these are tracts adjacent to tracts already having minority concentrations.

To preserve the concept of transition, each tract is allowed to remain designated as a transition tract until the tract's minority households meets the City median for minority households. Once this condition is met, the computer routines remove the tract from the transition tract list, based on the assumption that the tract is no longer in transition.

Step 52. Define As An Assumption The Proportion of Residual Households By Ethnicity To Be Allocated To All Non-transition Tracts

Whenever the results of the Step 50 comparison indicate a need for reallocation of tract level households by race, the computer routines require the user to determine to what extent the reallocation should occur in the transition tracts. If, for example, the tract level household forecast appears to understate the Spanish American population by 10,000 households, and Black population by 2,000 households, the user is requested to determine what percent of the reduction in White households will occur in transition tract or conversely, how much of the increase in minority households will be assimilated by transition tracts as opposed to remaining tracts in the study area.

Step 53. Allocate The Assigned Proportion Of Residual Households To The Non-Transition Tracts On A Proportional Basis (Using The Ethnicity Distribution Of The Tracts As A Basis For Comparison)

Once the user determines how much of the adjustment of households by race will occur within the transition tracts, the computer allocates the remaining amount of the adjustment to the non-transition tracts. Each tracts' previous period share of households by race is used to proportionally distribute the adjustment.

Step 54. Apply The Transition Tract Proportion Defined in Step 52 To The Step 50 Result To Determine The Number Of Residual Households By Ethnicity To Be Allocated To The Transition Tracts

Once the adjustment to non-transition tracts has been made, the computer calculates how much of the adjustment is required to be accommodated by the transition tracts. This is a simple comparison of the total adjustment to be made with the adjustment made with the non-transition tracts.

Step 55. Distribute Resultant Step 54 Households To Transition Tracts Based On Preceding Period Ratios Of Households By Ethnicity For Each Transition Tract To The Total Transition Tracts

Adjustments to the race distribution for transition tracts are based upon each transition tract's share of households by race to the total for all

transition tracts. Each tract is assigned its proportionate share of the adjustment.

Once the assignment is made, the computer recalculates the race distribution for the tract. The percent of minority households for the tract is compared to the percent of minority households for the City. Whenever the count of minority households meets or exceeds the City average, the tract is removed from the transition tract list.

Step 56. Develop An Average Persons Per Household Assumption By Ethnicity

Once the tract level households have been adjusted for race, the computer can estimate population at the tract level. The user is required to develop an assumption as to the average number of persons by household for each race. These can be altered for each forecast period to take into account declines/increases in household size. Since variation in household size occurs by race, assumptions by race are required.

Step 57. Apply The Assumption To The Tract Level Household Forecasts To Obtain Population By Race For Each Tract

Each count of households by race at the tract level is transformed into a population count by race through direct application of the persons/household assumption by the computer. The result is a population count for each tract by race.

Description of Locational Preference Module (Including Tract Cluster Forecast)

Once the five year study area population and household forecasts are determined by the 23 calculation steps of the Study Area Population/Household Module*, those arewide estimates must be distributed to geographical sub-areas (clusters of like Census tracts) through the Locational Preference Module. The clusters change from one time period to the next to reflect the changing demographic pattern of the region, since Census tracts that exhibit similar characteristics at one time may not do so subsequently. For each time period, the distribution is based on tract level information from the preceding period that determines the number and size of the cluster of like Census tracts.

In order to allocate the area wide information to clusters of Census tracts with similar characteristics, it is necessary to create the tract clusters for each subsequent time period. In the computer routines this grouping of similar Census tracts for the next time period occurs at the end of each run (Steps 58-62) once the tract level forecasts of populations and households characteristics are known. For the initial computer run, exogenous data from 1970 were used to group the Census tracts into clusters for the 1975 allocation of population and households.

The calculation steps used to group Census tracts with similar characteristics into clusters for use in the succeeding time period will be briefly described as to purpose, general approach to performance, required

* This procedure is discussed in the preceding section.

assumptions, and any special features of its computerization where appropriate.

Step 58. Determine Tract Density For The Period Using The Growth Share Module Output

This variable is used to differentiate between subareas composed of childrearing households primarily composed of single family dwelling units on the one hand and the smaller households of predominantly adults who live in multi-family, rental units on the other. Each tract is classified as urban, suburban, or exurban based on intervals specified in Step 60.

Information is available on the projected residential density for each tract for every forecast period from the growth share module which uses an index of attractiveness coupled with available land to determine changes in residential development for each period.*

Step 59. Determine The Median Household Income For Each Tract

Differences in household income were determined to be a key indicator among the housing sub-markets in the Houston region. The Housing Calculation Tool produces household income distributions at the Census tract level based on a match with the value/rent characteristics of the dwelling units in each tract for each time period.** Assuming a uniform distribution within each income class, a median household income for each tract is determined. In each time period adjustments are made for the different inflation rates of value/rent of dwelling units and income of households. The tracts are then grouped by the median income classes specified in Step 60.

Step 60. Define The Prevailing Household Size And Prevailing Ethnic Distribution For Each Tract

Household size and ethnic composition are significant data elements in determining the match between dwelling units in a particular location and the households assigned to those units. Forecasts of households and population by Census tract are available for all projection periods from the growth share module,* and those estimates were used to generate average household size by Census tract.

The ethnic distribution was found to be the most useful variable in differentiating among the sub-markets of the Houston housing market. The ethnic classification used consisted of four classes - predominantly White, predominantly Black, predominantly Hispanic, and Transitional (changing ethnic composition). The intervals which were used to determine these classes are discussed in the next step. Steps 47 to 54 which were

* This module is discussed in detail elsewhere in this report.

** This process is described in detail in Description of the Use of the Housing Calculation Tool in Preparation of the H.A.P., 2/77.

* Described elsewhere in this report.

previously described in this overview of the methodology describe how alterations of the ethnic classes over time were performed to reflect the varying locational patterns of the ethnic groups over the forecast period.

Step 61. Using The Density Class Assignments, And Household Size, Race And Income Assignments Created in Steps 58, 59, And 60 Create Tract Clusters Of Like Characteristics

The technique used to determine the class intervals for the preceding variables was based on analysis of variance testing techniques. Efforts were made to minimize the differences within each class and to maximize the differences between the classes. This was achieved by plotting the data for all Census tracts on a one-dimensional index, with the counts consisting of the number of tracts with that value on the index, and specifying the limits of each class where a break in the distribution occurred (i.e., the absence of, or fewer number of, plotted Census tracts). An example of this technique can be seen in Exhibit 6 on the following page.

Using this technique, the following three classes were defined for the residential density data:

Urban tracts = more than 8.25 units/residential acre

Suburban tracts = between 4.25 and 8.25 units/residential acre

Exurban tracts = less than 4.25 units/residential acre

Four classes of household income were used in the tract cluster groupings. Those classes were: (constant 1970 dollars):

Low income = less than \$7,000

Low middle income = between \$7,000 and \$10,000

High middle income = between \$10,000 and \$15,000

High income = more than \$15,000

For the ethnic variable, four classes were used, but the intervals of each class varied over time in relation to the total ethnic distribution of the study area. The four ethnic classes were defined as follows:

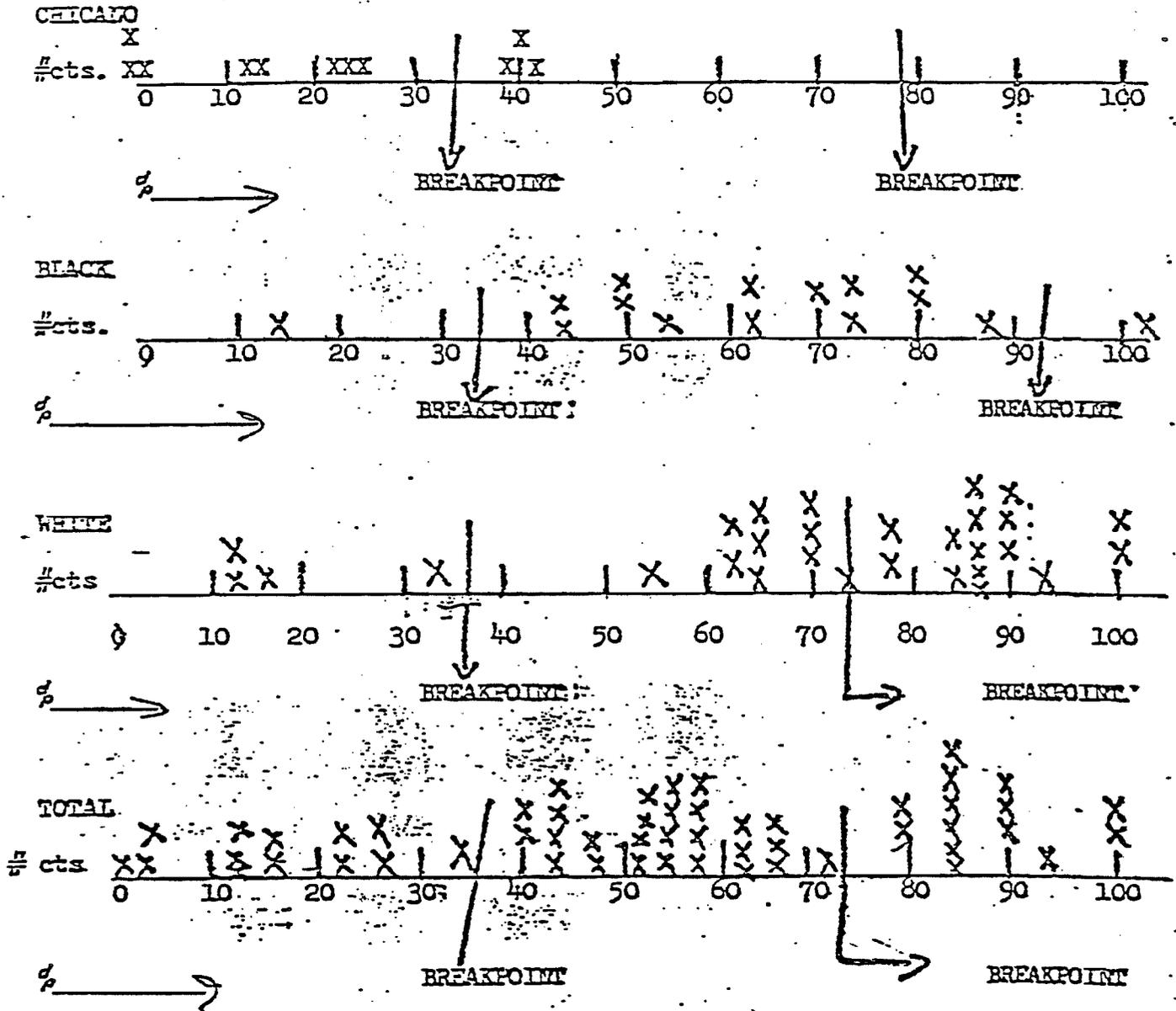
Black tracts = combined minority household rate in excess of Citywide average for the time period, with Blacks predominant.

Hispanic tracts = combined minority household rate in excess of Citywide average for the time period, with Hispanics predominant.

White tracts = neither Black nor Hispanic household rate in excess of Citywide average for the time period.

Exhibit 6

DISTRIBUTION AND BREAKPOINTS OF VARIABLES



Transitional tracts = either Black or Hispanic household rate in excess of Citywide average for that group for the time period, but minority not in excess of combined minority Citywide rate.

Thus in 1970, when the Citywide household distribution by ethnicity was 70% White, 21% Black, and 9% Hispanic, the preceding classification system allocated Census tracts thusly:

Black tracts = more than 30% minority, with Blacks predominant.

Hispanic Tracts = more than 30% minority, with Hispanics predominant.

White tracts = Black households less than 21% and Hispanic households less than 9% of the total.

Transition tracts = either Black households more than 21% or Hispanic households more than 9% but a combined minority percentage less than 30%.

For each time period, all study area Census tracts were clustered based on the three density classes, the four income classes, and the four ethnicity classes, with a maximum of forty-eight clusters for each period. In actuality, this classification system resulted in about thirty clusters for each time period, due to the interdependence between the three criteria (for example, there are no high income Black, Hispanic, or Transitional tracts).

Step 62. Calculate The Proportion Of Each Cluster's Household To The Total City Households By Type And Density Preference

Once the Census tracts are grouped by clusters, it is a simple machine operation to add the household characteristics of each tract to obtain the aggregate characteristics of each cluster. Those cluster characteristics are then compared to the Study Area household characteristics and an allocation rate is determined to distribute the Study Area households to be housed in the next time period.

As can be seen, the calculation steps do not combine to form a model. No solution is sought; nor is demand/supply behavior dynamically related in the calculations per se. For example, household behavior is expressed in terms of locational and housing unit preferences, yet these projections influence housing stock projections through user supplied assumptions to the unit forecast module, not through the calculation routines themselves.

Although the methodology cannot be considered a growth model, many of the facets/variables affecting growth have been considered in the Tool. Generally, these variables are interrelated in only the broadest sense by the Tool. It is left to the user to refine these interrelationships through the development of the numerous assumptions. As data generated through independent studies of the urban market in Houston become available, it is expected these will be used to refine specific assumptions. Further, it is possible for the user to interrelate the values of the assumptions/variables virtually at will. In so doing the user can build/refine a representation of the growth process as desired. Thus, while the Tool is not structured as a model, the user can evolve a representation suitable to specific analysis needs and within the limits of available data.

V. USE OF THE HOUSING CALCULATION TOOL TO EXPRESS GROWTH OPTIONS

The Housing Calculation Tool is a series of interrelated modules, each of which is composed of various computer programs for assumption setting, file creation/maintenance, and reporting. The structure and features of these computer routines are described in this section.

All operations of the Housing Calculation Tool are written for use on a mini-computer, specifically an IBM 5110 which is the smallest general purpose computer offered by IBM. All programs are written in APL because of its strong matrix manipulation techniques. Programs are organized into modules, each with its own input routines, files, and reports. User prompts are contained in each module which guide non-technical users in operation of the Tool. The modules developed for the computer operation include:

- o Population Forecast Module
- o Household Forecast Module
- o Locational Preference Forecast Module
- o Unit Forecast Module
- o Tract Level Household Forecast Module
- o Tract Level Population Forecast Module
- o Tract Cluster Module

These modules are in turn broken into sets of workspaces. Operating procedures center around the use of these workspaces. See Exhibit 2.

The Tool is designed to generate growth options as a set of five year forecasts of population, households, and housing units. Each five year forecast takes approximately eight hours to run and produces detailed tract level forecasts as well as study area summaries. Given the detail of the forecasts, extensive analysis can be performed on the data generated for each five year period. Analysis can be performed at a tract level or at a tract aggregate level such as all tracts within the interstate highway loop, NSA tracts, etc. Summary analysis for the City as a whole or the study area (196 tract total) can also be performed using special summary reports.

As many as 20 different reports can be automatically produced to support user analysis. Most show five year forecast results. Others show intermediate forecast results, especially in the case of the unit forecast. For example, reports can be generated showing the results after demolition and after conversion.

Generally, the reports are cross tabulations of the forecast of population, households, or units. They are not statistical analyses of the growth option. However, they are readily amenable to statistical analysis. Reports across time periods can be used as a basis for trend analysis and projections based upon current trends. Comparisons between geographic areas can also be readily performed with the computer routines.

Operation of the Housing Calculation Tool by the non-technical user falls into three major categories of interaction for each module. First, assumptions must be set. Special instructions exist pertaining to assumption setting. Provision is made for up to six different versions of any assumption to be stored by the Tool; thus in most cases the user selects which version of

assumption he/she prefers to use for the forecast. If the user wishes to alter the assumption sets, routines exist to create a new assumption, or alter an existing assumption.

Creation of each forecast of population, households, or units is generally automatic. After the user has established the assumptions, the system generates forecasts automatically. Safeguards exist to insure that all required assumptions have been properly set before a forecast is run. Forecast results are put out on file automatically. Up to three sets of population, household, and unit forecasts can be maintained at any one time.

Report generation routines prompt the user in all report preparation activities. The user has the option of picking which forecast is to be printed and at what level of geographic detail. When the report is printed all documentation related to the forecast is automatically printed, including the date prepared, who ran the forecast, and which assumptions were used in preparation of the forecast.

Please refer to the Users Manual for a detailed review of these workspaces and how they are used. Take particular notice of Appendix II of the Users Manual which describes the steps a user goes through to use the Housing Calculation Tool to develop a growth forecast.

VI. EXPERIENCE WITH THE USE OF THE SYSTEM

A. Test Results

After the methodology was transformed into the computerized Housing Calculation Tool, the Tool was used to express two different growth options for the City--an Inner City growth option and a Trend growth option. The results of the Inner City growth option are shown in Appendix I. to this paper. City staff gained considerable experience using the Tool to express growth options and an opportunity to assess the relative utility of the Housing Calculation Tool as a support to urban growth planning. Impressions of the Tool are offered below:

1. The Housing Calculation Tool requires a large number of user-supplied assumptions. Some assumptions have considerable detail. Thus, if the user has not previously created the assumption, considerable effort in set up must occur.
2. Data availability affect assumption setting, especially for forecasts beyond 1985. The assumption setting process is as good as the user's knowledge about likely trends in various phenomena or the availability of data/studies on likely occurrences. For instance, considerable demographic data are available on emerging patterns in birth rates, death rates, and household size. However, by contrast, little if any data exist on inflation rates, vacancy rates, or changes in the structural condition of the housing stock. These latter assumptions are highly dependent upon the overall functioning of the economy and its consequential effect on a specific urban area. Thus, nobody knows what 1995 or the year 2000 will bring.
3. Various aspects of the methodology do not capture the dynamic nature of the market. The methodology attempts to forecast population, households, and units in considerable detail, both geographically and by characteristic. Further, an attempt is made to insure all three forecasts for any growth option logically interrelate in terms of both the raw count and their characteristics. Capturing the characteristics is very difficult. Two examples stand out. One is household income and the other is household race. Total households can be safely projected from the count of total occupied units in each tract. Projection of households by characteristic is more difficult. The methodology assumes more expensive homes are resided in by households with above average incomes using previous relationships as a basis for projection. Thus, the methodology can establish the basic distribution of household income. Clearly, many other factors influence the income distribution in any given tract. Thus, while the general income pattern ascribed to any one tract is correct, the forecast distribution by income class is likely to vary considerably from the actual distribution.

Household race is subject to even greater deviation. Elaborate routines were developed to establish an estimate of

the race by tract for each forecast period. Previous period race distributions are used as a basis for projection, followed by steps used to alter race distributions in transition areas of the City. Clearly immigration patterns, housing opportunities, and many other variables influence the race distribution. These are not incorporated into the Tool and thereby limit the confidence one has in the race distributions.

4. The Tool requires a sound initial data base. The user must have a good tract level data base from which subsequent forecasts are made. This requires considerable effort to construct, unless one anticipates using the 1980 Census data.
5. The Tool allows extensive flexibility in forecast preparation. Since each growth option forecast is the product of many user-supplied assumptions, the user has virtually unlimited flexibility in altering assumptions and running the forecasts. For instance, if new or better data become available on trends or patterns in household behavior or housing stock transitions, these can be reflected as new assumptions and new forecasts run.
6. The Tool can be readily used to test policy/program options for the City. Any given growth forecast is affected by the ongoing activities of the City. Given the numerous assumptions required of the user by the Housing Calculation Tool, there are equally numerous points at which one can express policy/program options for the City. For instance, the unit forecast module requires demolition, conversions, new construction, rehabilitation, structural condition, vacancy assumptions. City programs can be expressed through any or all of these required assumptions. As an example, intensive code enforcement and rehabilitation may be expressed through reduced demolition rates, a rehabilitation assumption, and a reduced rate for substandard units.
7. The effects of any one variable can be readily tested. All routines are set up to allow the user to alter assumptions at will. Any one or set of assumptions can be altered in order to isolate the effect of any one or set of assumptions/policy options on the resultant forecast of population, households, and housing units.
8. The Tool provides useful small area detail. Although the effort required to construct a tool capable of handling small area detail was considerable, the effort is more than justified by the result. Tract level forecasts are crucial to the range of analytic needs of the City staff. Furthermore, data about the characteristics of the population,

The user knows how much to rely on the tract level forecasts. If the assumptions used in the forecasts are well founded, then greater confidence can be placed in the tract level data. There are no dynamic, opaque interactions in the operation of the Tool which obscure how the tract level forecast occurred.

To that extent the Tool is much more transparent to the user than a pure model.

9. The Tool ensures good documentation. Very elaborate routines have been developed to record how each forecast ever generated by the Tool was created. This allows extensive user interaction without the users having to rely on their own recordkeeping procedures to accurately denote the decisions made by the user when running a forecast.
10. The Tool promotes greater knowledge by the City staff of the study area. Working with the Tool forces staff to familiarize themselves with different phenomena which either impact on urban growth or are the result of patterns in urban growth. In turn, the tract level data provided by the Tool provides extensive raw material for review and analysis.

Generally, use of the Tool spawns greater and greater usage. The highly interactive nature of the Tool allows the user to express their own theories of various phenomena or potential City programs/actions which may be of value. Thus, the Tool has extensive instructive value to each user.

In general, the experience of using the Tool was very favorable. The data provided by the Tool are generally more extensive and more defensible than that derived from any other source. Although the user must exert considerable effort to develop various assumptions used in forecasting, a rich data base to support analysis results.

The growth options can be expressed through the Tool at a level of detail where their impact on the housing market can be identified. Growth option forecasts can be refined as the user's ability to make assumptions becomes more refined. The result is not just a set of growth option forecasts but an evolving data base of current and future conditions/characteristics of the City.

B. Transferability of the Housing Calculation Tool

Other cities can use the Housing Calculation Tool. However, several observations must be made about the transferability of the Tool. These are summarized below:

1. It is not practical to translate the design of the Housing Calculation Tool into another computer language. Conversion of the calculation processes to a language such as COBOL or FORTRAN may compromise the utility of the Housing Calculation Tool. APL was selected for use because of its capabilities in manipulating multi-dimensional arrays. Virtually every calculation of the Housing Tool requires manipulation of large scale matrices. With APL the amount of code required to manipulate these type matrices is a small fraction of that required to perform the same manipulation in a language such as COBOL or FORTRAN. A single APL command is oftentimes sufficient to perform a calculation which would require a whole

complex program in COBOL or FORTRAN involving many lines of code. Thus, by using APL the Housing Calculation Tool was designed to perform a very large number of interdependent calculations without, at the same time, requiring an enormous amount of computer code to be written.

2. The Housing Calculation Tool should be placed in an interactive computer environment. The power of the Tool is the direct user inputting of assumptions, generation of forecasts, and generation of reports. If the user is dissatisfied with the result, another attempt can be readily made. This flexibility and responsiveness is immediately lost to the user in a batch processing environment.
3. The 1980 Census will provide any other user an enormous basis for use of the Housing Calculation Tool. The operations of the Tool require a benchmark data base on tract level population, household, and unit characteristics. The 1980 Census will provide the user with a sound basis upon which forecasts can be generated. The Census data can also be used to support assumption setting by the user. The 1970 Census data were extensively used to assist City of Houston staff in assumption setting.

Plans for the 1980 Census indicate a high degree of compatibility with the Housing Calculation Tool. Collected data will be in classes generally conformable to that required by the Housing Calculation Tool. For example, 1980 Census data on housing unit value and rent by class are conformable with the classes used by the Tool. Further, the required benchmark data base can be readily constructed from the Census tapes. Specific suggestions for use of 1980 Census data are included in Appendix IV.

4. No programming expertise is required. Beyond initialization of the data base and orientation to use of the Tool, it can be operated by policy analysis staff without extensive technical support. User safeguards are built into the Tool to prevent inadvertent errors which will damage forecast files and the like.
5. The cost of implementation is limited. Assuming another city were interested in the Tool as is, the machine cost would be approximately \$15,000-\$18,000 for an IBM 5110. There will be additional costs to ready the initial data base not in excess of \$2,000-\$3,000 for Census tape processing and assumption setting. Computer supply costs will be minimal as will computer maintenance costs. Since the IBM 5110 is a general purpose mini-computer, it can be used for many other purposes as well. The APL feature makes the IBM 5110 an excellent machine for analytic work. Statistical analysis is easy to perform and its matrix handling features are unsurpassed.

The feasibility of transfer will be highly dependent upon the interests of the staff of the transfer city. The Tool will not satisfy those cities interested in an urban dynamics model or housing model. If, however, city

staff are interested in having the capacity to make population, household, and unit projections based upon a primary set of user defined assumptions, then the Tool will be very worthwhile. It can help refine the profile of current conditions. It can help establish short-term projections of change or be used for long-term projections as well.

Cities without good data on housing conditions, or the capacity to collect data on various population and household trends will be hard pressed to use the Tool. Larger cities will find the Tool useful because of its tract level orientation and corresponding amount of detailed data.

APPENDIX I
INNER CITY GROWTH OPTION FORECASTS

APPENDIX I
INNER CITY GROWTH OPTION FORECASTS

A. Introduction

The Housing Calculation Tool was tested through development of two growth scenarios for the City of Houston -- an Inner City Growth Option and a Trends Growth Option. The forecast results of the Inner City Growth Option are included in this appendix as well as the evaluation of the impact of the Inner City Growth option on the housing market.

The Housing Tool expresses a growth option in 5-year summaries beginning with 1980. These summaries relate to population, households and housing units associated with the growth scenario. More specifically, the Housing Tool generates the following results for each growth option at each 5-year interval:

- o Study Area Population forecast
- o Study Area household forecast
- o Tract level unit forecast
- o Tract level household forecast
- o Tract level population forecasts

Reports for each of these forecasts are included. They are organized by time period and appear in the order above listed. Please note that the reports for tract level households are not available. Evaluation results follow the growth option reports.

B. Inner City Growth Option Forecasts

The forecast results which follow are for the total of all 196 Study Area Census tracts. For most of the forecasts, that portion of the forecast associated with the City can be reported as well. However, for sake of initial review, all forecasts results are for the Study Area.

By way of summary, the Exhibit below shows the Inner City Growth Option results.

EXHIBIT 6

Forecast Type	1980	1985	1990	1995	2000
1. Study Area Pop.	2,052,802	2,229,521		2,827,820	3,073,452
2. Study Area Hshlds.	749,304	881,050	1,011,428	1,169,011	1,331,851
3. Study Area Units	761,997	893,852	1,026,581	1,189,359	1,354,811
4. Sum of Tract Level Household Forecast	739,379	861,401	977,486	1,115,603	1,261,874
5. Sum of Tract Levels Population Forecast	2,237,451	2,649,043	3,051,936	3,540,510	4,035,219

The reports themselves provide the user much more detail on each type of forecast related to a specific growth scenario. They show changes in population, households and units, not just in aggregate terms but the detail by type or class as well.

C. Inner City Growth Option Evaluation Results

Each set of 5-year forecasts for the Inner City Growth Option were evaluated for their impact on the housing market. Specifically, the forecasts were used to test the impact of the option on needs for assisted housing by low and moderate income families. The evaluation methodology described in the comparison report, Description of a Methodology for Evaluating Housing Market Impact of Growth Options for the City of Houston was used to produce the results.

The results are presented by time period. For each time period three types of evaluation reports are prepared: 1) stock; 2) estimates of needs for assisted housing for female headed households, and all minority households; 3) estimates of needs for assisted housing by race.

City of Houston - Office of the Mayor
Housing and Population Data

1900 Population * Set 7
Non-City Portion Included
Run Oct 18, 1979 * Printed Oct 18, 1979 * Prepared by KLA
OLMPOP FROM 35 * IPOP 1 * BIRTH 3 * DEATH 1

Sex	Age	White	Black	Sp Amer	Total
Male	0-4	48,192	34,834	19,132	102,158
	5-9	50,834	30,423	17,886	99,143
	10-14	47,207	26,493	16,786	90,486
	15-19	53,653	29,361	16,968	99,982
	20-24	57,049	26,402	14,270	97,721
	25-29	51,054	20,949	11,642	83,645
	30-34	49,174	16,177	10,277	75,628
	35-39	45,146	14,649	9,713	69,508
	40-44	42,323	12,849	7,244	62,416
	45-49	37,429	11,640	6,376	55,445
	50-54	34,393	10,374	5,706	50,473
	55-59	33,436	8,402	3,916	45,754
	60-64	29,252	6,735	2,846	38,833
65+	32,798	11,213	3,809	47,820	
Total	611,940	260,501	146,571	1,019,012	
Female	0-4	46,146	28,624	15,214	89,984
	5-9	45,726	25,584	13,426	84,738
	10-14	41,838	27,496	16,210	85,544
	15-19	48,077	30,998	15,738	94,813
	20-24	51,421	28,892	13,967	94,280
	25-29	49,678	24,073	11,879	85,630
	30-34	55,045	23,941	11,869	90,855
	35-39	43,923	19,115	9,183	72,221
	40-44	36,251	15,772	7,608	59,631
	45-49	35,503	14,689	6,345	56,537
	50-54	34,924	13,245	5,602	53,771
	55-59	34,545	10,362	4,023	48,930
	60-64	31,478	8,250	2,815	42,543
65+	52,457	17,170	4,686	74,313	
Total	607,012	288,213	138,565	1,033,790	
Total	0-4	94,338	63,458	34,346	192,142
	5-9	96,560	56,009	31,312	183,881
	10-14	89,045	53,989	32,996	176,030
	15-19	101,730	60,359	32,706	194,795
	20-24	108,470	55,294	28,237	192,001
	25-29	100,732	45,022	23,521	169,275
	30-34	104,219	40,118	22,146	166,483
	35-39	89,069	33,764	18,896	141,729
	40-44	78,574	28,621	14,852	122,047
	45-49	72,932	26,329	12,721	111,982
	50-54	69,317	23,619	11,308	104,244
	55-59	67,981	18,764	7,939	94,684
	60-64	60,730	14,985	5,661	81,376
65+	85,255	28,383	8,495	122,133	
Total	1,218,952	548,714	285,136	2,052,802	

City of Houston - Office of the Mayor
Housing and Population Data

1980 All Races - Male - Total tracts Households * Set 5 (HHMOD CITY)
Non-City Portion Included
Run Oct 18, 1979 * Printed Oct 19, 1979 * Prepared by KLA
OLDHH FROM 32 * POP FROM 7 * HEADSHIP 1 * HRSIZE 2
HHINCINAT 1 * HHINCINM 1 * INCINFL 1

Non-Elderly

Household Income:	Household Size						Total
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person	
Less Than \$2,000	7,023	8,485	4,855	3,873	2,326	3,377	29,939
\$2,000 - \$2,999	3,135	3,924	2,214	1,799	1,063	1,508	13,643
\$3,000 - \$4,999	8,949	11,837	7,302	6,019	3,658	5,287	43,052
\$5,000 - \$6,999	10,898	16,169	10,718	9,124	5,611	7,702	60,222
\$7,000 - \$9,999	17,220	29,176	20,591	18,697	11,173	12,772	109,629
\$10,000 - \$14,999	19,285	37,687	27,841	27,391	15,597	13,756	141,557
\$15,000 - \$24,999	10,981	22,826	16,652	17,425	9,545	6,740	84,169
\$25,000 or More	3,835	7,254	4,534	4,749	2,556	1,506	24,434
Total	81,326	137,358	94,707	89,077	51,529	52,648	506,645

Elderly

Household Income:	Household Size						Total
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person	
Less Than \$2,000	2,339	2,726	1,508	1,150	714	1,035	9,472
\$2,000 - \$2,999	1,282	1,733	937	722	413	514	5,601
\$3,000 - \$4,999	2,480	3,467	1,883	1,419	824	1,011	11,084
\$5,000 - \$6,999	1,765	2,563	1,446	1,131	640	717	8,262
\$7,000 - \$9,999	1,888	2,854	1,653	1,311	702	769	9,177
\$10,000 - \$14,999	1,600	2,740	1,600	1,388	738	627	8,693
\$15,000 - \$24,999	925	1,653	945	859	433	328	5,143
\$25,000 or More	548	938	450	377	178	116	2,607
Total	12,827	18,674	10,422	8,357	4,642	5,117	60,039

City of Houston - Office of the Mayor
Housing and Population Data

1980 All Races - Female - Total tracts Households * Set 5 (HHMOD CITY)

Non-City Portion Included
Run Oct 18, 1979 * Printed Oct 17, 1979 * Prepared by KLA
OLDHH FROM 32 * POP FROM 7 * HEADSHIP 1 * HHSIZE 2
HHINCINAT 1 * HHINCINH 1 * INCINFL 1

Household Income:	Non-Elderly						Total
	1	2	3	4	5	6 or More	
Person	Person	Person	Person	Person	Person	Person	Person
Less Than \$2,000	8,325	9,057	5,031	3,732	2,262	3,178	31,585
\$2,000 - \$2,999	3,337	3,572	1,945	1,402	761	1,178	12,195
\$3,000 - \$4,999	6,380	7,216	3,993	2,916	1,632	2,124	24,261
\$5,000 - \$6,999	5,592	6,506	3,352	2,447	1,226	1,369	20,492
\$7,000 - \$9,999	5,681	6,885	3,640	2,752	1,391	1,401	21,750
\$10,000 - \$14,999	3,643	4,777	2,540	2,057	1,005	896	14,918
\$15,000 - \$24,999	1,522	2,024	1,031	824	405	308	6,114
\$25,000 or More	603	692	248	215	94	57	1,909
Total	35,083	40,729	21,780	16,345	8,776	10,511	133,224

Household Income:	Elderly						Total
	1	2	3	4	5	6 or More	
Person	Person	Person	Person	Person	Person	Person	Person
Less Than \$2,000	4,174	4,144	2,145	1,642	948	1,188	14,241
\$2,000 - \$2,999	1,369	1,267	569	321	176	244	3,946
\$3,000 - \$4,999	2,411	2,486	1,267	874	428	578	8,044
\$5,000 - \$6,999	2,050	2,119	959	650	295	327	6,400
\$7,000 - \$9,999	2,062	2,359	1,179	871	392	445	7,308
\$10,000 - \$14,999	1,372	1,777	973	817	436	373	5,748
\$15,000 - \$24,999	585	874	468	461	252	178	2,818
\$25,000 or More	230	289	128	133	70	41	891
Total	14,253	15,315	7,688	5,769	2,997	3,374	49,396

City of Houston - Office of the Mayor
Housing and Population Data

1980 White - Male - Total tracts Households * Set 5 (HHMOD CITY)
Non-City Portion Included
Run Oct 18, 1979 * Printed Oct 19, 1979 * Prepared by KLA
OLDHH FROM 32 * POP FROM 7 * HEADSHIP 1 * HHSIZE 2
HHINCNA1 * HHINCIN1 * INCINFL 1

Household Income:	Non-Elderly						Total
	Household Size						
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person	
Less Than \$2,000	3,757	4,683	2,180	1,803	904	631	13,958
\$2,000 - \$2,999	1,710	2,207	995	846	392	257	6,407
\$3,000 - \$4,999	4,747	6,348	3,121	2,580	1,288	852	18,936
\$5,000 - \$6,999	6,024	9,124	5,001	4,355	2,269	1,450	28,223
\$7,000 - \$9,999	11,262	19,642	12,243	11,384	6,131	3,840	64,502
\$10,000 - \$14,999	15,509	30,579	21,271	21,264	11,435	6,789	106,847
\$15,000 - \$24,999	9,856	20,394	14,420	15,296	8,188	4,555	72,709
\$25,000 or More	3,695	6,795	4,167	4,409	2,329	1,241	22,636
Total	56,560	99,772	63,398	61,937	32,936	19,615	334,218
Household Income:	Elderly						Total
	Household Size						
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person	
Less Than \$2,000	1,137	1,443	635	479	256	162	4,112
\$2,000 - \$2,999	731	1,112	520	411	195	116	3,085
\$3,000 - \$4,999	1,705	2,425	1,171	871	439	284	6,895
\$5,000 - \$6,999	1,302	1,948	995	739	379	227	5,590
\$7,000 - \$9,999	1,470	2,277	1,173	932	446	271	6,569
\$10,000 - \$14,999	1,379	2,343	1,314	1,128	575	321	7,060
\$15,000 - \$24,999	848	1,465	811	728	350	179	4,381
\$25,000 or More	528	898	413	356	166	97	2,458
Total	9,100	13,911	7,032	5,644	2,806	1,657	40,150

City of Houston - Office of the Mayor
Housing and Population Data

1980 White - Female - Total tracts Households * Set 5 (HMOD CITY)
Non-City Portion Included

Run Oct 18, 1979 * Printed Oct 19, 1979 * Prepared by KLA
OLDHH FROM 32 * POP FROM 7 * HEADSHIP 1 * HHSIZE 2
HHINC1 * HHINC2 * HHINC3 * HHINC4 * HHINC5 * HHINC6 * HHINC7 * HHINC8 * HHINC9 * HHINC10 * HHINC11 * HHINC12 * HHINC13 * HHINC14 * HHINC15 * HHINC16 * HHINC17 * HHINC18 * HHINC19 * HHINC20 * HHINC21 * HHINC22 * HHINC23 * HHINC24 * HHINC25 * HHINC26 * HHINC27 * HHINC28 * HHINC29 * HHINC30 * HHINC31 * HHINC32 * HHINC33 * HHINC34 * HHINC35 * HHINC36 * HHINC37 * HHINC38 * HHINC39 * HHINC40 * HHINC41 * HHINC42 * HHINC43 * HHINC44 * HHINC45 * HHINC46 * HHINC47 * HHINC48 * HHINC49 * HHINC50 * HHINC51 * HHINC52 * HHINC53 * HHINC54 * HHINC55 * HHINC56 * HHINC57 * HHINC58 * HHINC59 * HHINC60 * HHINC61 * HHINC62 * HHINC63 * HHINC64 * HHINC65 * HHINC66 * HHINC67 * HHINC68 * HHINC69 * HHINC70 * HHINC71 * HHINC72 * HHINC73 * HHINC74 * HHINC75 * HHINC76 * HHINC77 * HHINC78 * HHINC79 * HHINC80 * HHINC81 * HHINC82 * HHINC83 * HHINC84 * HHINC85 * HHINC86 * HHINC87 * HHINC88 * HHINC89 * HHINC90 * HHINC91 * HHINC92 * HHINC93 * HHINC94 * HHINC95 * HHINC96 * HHINC97 * HHINC98 * HHINC99 * HHINC100

Household Income:	Non-Elderly						Total
	Household Size						
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person	
Less Than \$2,000	3,880	4,301	1,049	1,318	602	313	12,263
\$2,000 - \$2,999	1,584	1,751	709	448	156	79	4,727
\$3,000 - \$4,999	3,710	4,165	1,845	1,259	545	260	11,784
\$5,000 - \$6,999	4,181	4,743	2,082	1,496	630	295	13,427
\$7,000 - \$9,999	4,457	5,236	2,423	1,810	799	364	15,089
\$10,000 - \$14,999	3,128	3,988	1,939	1,553	711	339	11,658
\$15,000 - \$24,999	1,413	1,838	866	715	341	160	5,333
\$25,000 or More	572	648	231	191	88	41	1,771
Total	22,925	26,670	11,944	8,790	3,872	1,851	76,052

Household Income:	Elderly						Total
	Household Size						
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person	
Less Than \$2,000	2,427	2,424	1,034	748	355	207	7,195
\$2,000 - \$2,999	858	842	309	151	61	33	2,254
\$3,000 - \$4,999	1,766	1,799	748	503	198	87	5,101
\$5,000 - \$6,999	1,675	1,722	706	459	178	80	4,820
\$7,000 - \$9,999	1,763	1,969	885	647	253	141	5,658
\$10,000 - \$14,999	1,225	1,575	797	655	327	184	4,763
\$15,000 - \$24,999	544	801	403	405	217	115	2,485
\$25,000 or More	225	277	119	124	64	34	843
Total	10,483	11,409	5,001	3,692	1,653	881	33,117

City of Houston - Office of the Mayor
Housing and Population Data

1980 Black - Male - Total tracts Households * Set 5 (HMOD CITY)

Non-City Portion Included

Run Oct 18, 1979 * Printed Oct 19, 1979 * Prepared by KLA
OLDDH FROM 32 * POP FROM 7 * HEADSHIP 1 * HHSIZE 2
HHINCNA1 * HHINCINM 1 * INCINFL 1

Household Income:	Non-Elderly						Total
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person	
Less Than \$2,000	2,829	3,101	2,008	1,522	979	1,859	12,298
\$2,000 - \$2,999	1,227	1,409	922	706	468	846	5,578
\$3,000 - \$4,999	3,434	4,186	2,871	2,267	1,455	2,651	16,864
\$5,000 - \$6,999	3,856	4,990	3,625	2,909	1,913	3,518	20,811
\$7,000 - \$9,999	4,486	6,408	4,929	4,138	2,753	4,804	27,518
\$10,000 - \$14,999	2,606	4,138	3,375	2,931	1,903	3,301	18,254
\$15,000 - \$24,999	759	1,259	1,000	836	526	890	5,270
\$25,000 or More	55	122	96	76	43	75	467
Total	19,252	25,613	18,826	15,385	10,040	17,944	107,060

Household Income:	Elderly						Total
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person	
Less Than \$2,000	1,075	1,153	731	559	376	697	4,591
\$2,000 - \$2,999	493	558	330	254	178	297	2,110
\$3,000 - \$4,999	678	858	555	412	275	521	3,299
\$5,000 - \$6,999	395	469	327	253	158	302	1,904
\$7,000 - \$9,999	335	429	320	253	154	296	1,787
\$10,000 - \$14,999	148	207	147	125	71	151	849
\$15,000 - \$24,999	54	82	42	34	19	44	275
\$25,000 or More	4	7	4	2	1	2	20
Total	3,182	3,763	2,426	1,892	1,232	2,310	14,835

City of Houston - Office of the Mayor
Housing and Population Data

1980 Black - Female - Total tracts Households * Set 5 (HHMOD CITY)

Non-City Portion Included

Run Oct 18, 1979 * Printed Oct 19, 1979 * Prepared by KLA

OLDDH FROM 32 * POP FROM 7 * HEADSHIP 1 * HH SIZE 2

HHINCINAT 1 * HHINCINM 1 * INCINFL 1

Non-Elderly

Household Income:	Household Size						Total
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person	
Less Than \$2,000	4,059	4,204	2,689	2,023	1,313	2,306	16,594
\$2,000 - \$2,999	1,624	1,652	1,098	827	547	941	6,689
\$3,000 - \$4,999	2,285	2,560	1,713	1,328	815	1,428	10,129
\$5,000 - \$6,999	1,134	1,337	927	708	451	775	5,332
\$7,000 - \$9,999	990	1,273	894	671	429	709	4,966
\$10,000 - \$14,999	374	539	372	298	152	307	2,042
\$15,000 - \$24,999	73	122	83	52	23	75	428
\$25,000 or More	8	13	4	2	1	4	32
Total	10,547	11,700	7,780	5,909	3,731	6,545	46,212

Elderly

Household Income:	Household Size						Total
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person	
Less Than \$2,000	1,565	1,462	925	716	474	756	5,898
\$2,000 - \$2,999	471	399	235	160	108	191	1,564
\$3,000 - \$4,999	554	574	384	268	154	326	2,260
\$5,000 - \$6,999	303	328	186	138	77	163	1,195
\$7,000 - \$9,999	235	284	183	140	79	173	1,094
\$10,000 - \$14,999	87	122	92	79	50	89	519
\$15,000 - \$24,999	25	41	32	22	13	24	157
\$25,000 or More	2	3	2	2	1	2	12
Total	3,242	3,213	2,039	1,525	956	1,724	12,699

City of Houston - Office of the Mayor
Housing and Population Data

1980 Spanish American - Male - Total tracts Households * Set 5 (HHMOD CITY)

Non-City Portion Included
Run Oct 10, 1979 * Printed Oct 19, 1979 * Prepared by KLA
OLDHH FROM 32 * POP FROM 7 * HEADSHIP 1 * HHSIZE 2
HHINCNT 1 * HHINCIM 1 * INCINFL 1

Household Income:	Non-Elderly						Total
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person	
Less Than \$2,000	437	701	667	548	443	887	3,683
\$2,000 - \$2,999	198	308	297	247	203	405	1,658
\$3,000 - \$4,999	768	1,303	1,310	1,172	915	1,784	7,252
\$5,000 - \$6,999	1,018	2,055	2,092	1,860	1,429	2,734	11,188
\$7,000 - \$9,999	1,472	3,126	3,419	3,175	2,289	4,128	17,609
\$10,000 - \$14,999	1,170	2,970	3,195	3,196	2,259	3,666	16,456
\$15,000 - \$24,999	366	1,173	1,232	1,293	831	1,295	6,190
\$25,000 or More	85	337	271	264	184	190	1,331
Total	5,514	11,973	12,483	11,755	8,553	15,089	65,367

Household Income:	Elderly						Total
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person	
Less Than \$2,000	127	130	142	112	82	176	769
\$2,000 - \$2,999	58	63	87	57	40	101	406
\$3,000 - \$4,999	97	184	157	136	110	206	890
\$5,000 - \$6,999	68	146	124	139	103	188	768
\$7,000 - \$9,999	83	148	160	126	102	202	821
\$10,000 - \$14,999	73	190	139	135	92	155	784
\$15,000 - \$24,999	23	106	92	97	64	105	487
\$25,000 or More	16	33	33	19	11	17	129
Total	545	1,000	934	821	604	1,150	5,054

City of Houston - Office of the Mayor
Housing and Population Data

1980 Spanish American - Female - Total tracts Households * Set 5 (HIMOD CITY)

Non-City Portion Included
Run Oct 10, 1979 * Printed Oct 19, 1979 * Prepared by KLA
OLGHH FROM 32 * POP FROM 7 * HEADSHIP 1 * HHSIZE 2
HHINCNT 1 * HHINCINM 1 * INCINFL 1

Household Income:	Non-Elderly						Total
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person	
Less Than \$2,000	386	552	493	391	347	559	2,728
\$2,000 - \$2,999	129	169	138	127	58	158	779
\$3,000 - \$4,999	385	491	435	329	272	436	2,348
\$5,000 - \$6,999	277	426	343	243	145	299	1,733
\$7,000 - \$9,999	234	376	323	271	163	328	1,695
\$10,000 - \$14,999	141	250	229	206	142	250	1,218
\$15,000 - \$24,999	36	64	82	57	41	73	353
\$25,000 or More	23	31	13	22	5	12	106
Total	1,611	2,359	2,056	1,646	1,173	2,115	10,960

Household Income:	Elderly						Total
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person	
Less Than \$2,000	182	258	186	178	119	225	1,148
\$2,000 - \$2,999	40	26	25	10	7	20	128
\$3,000 - \$4,999	91	113	135	103	76	165	683
\$5,000 - \$6,999	72	69	67	53	40	84	385
\$7,000 - \$9,999	64	106	111	84	60	131	556
\$10,000 - \$14,999	60	80	84	83	59	100	466
\$15,000 - \$24,999	16	32	33	34	22	39	176
\$25,000 or More	3	9	7	7	5	5	36
Total	528	693	648	552	388	769	3,578

Run Oct 19, 1977 - Printed Oct 21, 1977 - Revised Oct 23, 8 MAY 9
 OLDERMENTS FROM 01 * 015011 * 000011 * 000011 * 000011 * 000011 *
 OCCURSI 1 * RCONV 1 * VALINFL 2 * KENTINFL 7
 OSUIT 2 * RSUIT 2 * OVAC 4 * RVAC 4 * OCONV 4 * RCONV 4
 CLUSTERS 1 * OREHAB 1 * RREHAB 1

Tenure and Value/Rent	Unit Size					Total
	1 and 2 Rooms	3 Rooms	4 Rooms	5 Rooms	6 or More Rooms	
Less Than \$5,000	125	346	1,115	776	447	2,809
\$5,000 - \$9,999	266	988	5,015	6,674	3,903	16,846
\$10,000 - \$14,999	181	925	6,744	14,030	9,954	31,834
\$15,000 - 19,999	132	570	4,927	16,491	16,828	38,948
\$20,000 - \$24,999	73	306	2,326	13,782	18,959	35,446
\$25,000 - \$34,999	60	856	4,875	21,146	43,864	70,801
\$35,000 or More	85	1,999	6,732	21,428	161,525	191,469
Total Owner Units	922	5,990	31,734	94,027	285,480	308,153
Rental						
Less Than \$40	1,046	1,829	1,348	628	404	5,255
\$40 - \$59	1,620	3,347	3,491	1,474	574	10,506
\$60 - \$79	3,688	7,325	9,652	4,940	1,794	27,399
\$80 - \$99	3,484	6,467	10,190	6,915	2,797	29,853
\$100 - \$149	4,830	9,770	10,383	6,859	3,463	35,305
\$150 - \$199	9,621	25,020	19,497	7,225	4,277	63,630
\$200 or More	11,318	50,542	73,358	43,695	17,473	196,537
No Contract Rent	670	867	1,266	2,170	1,336	5,309
Total Rental Units	36,277	103,167	129,175	73,107	32,118	373,844
Total Units	37,199	109,157	130,909	167,134	317,598	721,997

City of Houston - Office of the Mayor
Housing and Population Data

Tract-level Population Forecast by Race for 1980
Page 1

Tract	White	Black	Sp. Am.	Total
121	3136	913	1833	5882
122	137	744	4442	5323
123	351	229	1568	2148
124	610	5212	195	6017
125	840	262	1570	2672
126	487	7769	345	8601
201	0	13238	99	13337
202	2196	739	3344	6279
203	3170	2095	7693	12958
204	177	4806	90	5073
205	0	17252	1677	18929
206	84	8430	1252	9766
207	361	12269	708	13338
208	0	14216	1951	16167
209	972	0	145	1117
210	293	14313	707	15313
213	14650	1985	2542	19177
214	3156	1366	1512	6034
215	6465	11745	1470	19680
216	1697	7180	109	8986
217	318	12446	1792	14556
218	4756	9755	2777	17288
219	3643	2861	1166	7670
220	6341	242	1151	7734
221	1760	0	392	2152
222	3727	1294	2730	7751
223	6047	4108	6152	16307
224	9115	8048	1538	18701
225	3897	12763	963	17623
226	7815	5171	504	13490
227	5584	0	1363	6947
228	6847	0	0	6847
229	3842	0	1192	5034
230	23151	0	941	24092
231	5932	0	127	6059
232	5078	0	267	5345
233	2460	0	0	2460
236	5906	0	0	5906
237	1709	0	0	1709
238	7806	0	617	8423
239	6336	155	1003	7494
240	17647	0	3425	21072
241	7944	0	490	8434
242	2328	0	0	2328
243	3250	473	0	3723
244	4870	1009	267	6146
245	9259	111	583	9953
246	8138	0	0	8138
247	1899	0	807	2706
248	1876	0	0	1876

City of Houston - Office of the Mayor
Housing and Population Data

Tract-level Population Forecast by Race for 1980
Page 2

Tract	White	Black	Sp. Am.	Total
249	10522	221	579	11322
250	2058	0	0	2058
251	3568	0	94	3662
253	2466	375	97	2938
254	2234	0	36	2270
301	3980	0	7340	11320
302	1645	2139	5020	8804
303	62	4214	232	4508
304	77	17049	169	17295
305	0	13177	208	13385
306	418	8976	404	9798
307	183	15521	468	16172
308	752	2279	335	3366
309	5931	1080	9062	16073
310	2637	0	4470	7107
311	1689	114	7968	9771
312	1541	70	5634	7245
313	5470	493	5526	11489
314	3602	4330	957	8889
315	1773	9583	577	11933
316	1633	5859	448	7940
317	3283	17517	1802	22602
318	6126	11826	2262	20214
319	5920	0	997	6917
320	16011	28	2126	18165
321	5631	2320	5218	13169
322	11068	0	1067	12135
323	8617	37	1515	10169
324	12093	83	1061	13237
325	6303	0	4746	11049
326	6421	0	2529	8950
327	4332	6518	905	11755
328	2796	15639	988	19423
329	62	13287	94	13443
330	0	7141	205	7346
331	1602	1433	814	3849
332	5022	4308	1434	10764
333	852	5936	388	7176
334	1694	4498	2423	8615
335	7720	5449	5413	18582
336	3401	1215	1923	6539
337	761	654	134	1549
338	3940	459	669	5068
339	0	15103	206	15309
340	1017	11540	186	12743
341	802	829	163	1794
342	1754	0	737	2491
343	6536	28061	514	35111
344	2146	0	822	2968
345	10180	0	638	10818

City of Houston - Office of the Mayor
Housing and Population Data

Tract-level Population Forecast by Race for 1980
Page 3

Tract	White	Black	Sp. Am.	Total
346	5736	0	717	6453
347	17731	24	2099	19854
359	12868	0	2221	15089
361	14170	103	1398	15671
367	15022	102	0	15124
370	4895	0	507	5402
371	16135	403	1805	18343
401	1803	3684	5519	11006
402	7415	625	5074	13114
403	5361	88	1859	7308
404	6314	30	531	6875
405	6965	20	2581	9566
406	6336	116	708	7160
407	10312	209	1386	11907
412	8358	64	1045	9467
413	8794	0	2797	11591
414	9021	58	1111	10190
415	12872	76	803	13751
416	19640	54	2041	21735
419	9441	100	1840	11381
420	15653	116	1827	17596
421	4595	0	820	5415
422	25085	75	2757	27917
423	23212	5831	5694	34737
424	18297	54	1576	19927
425	23030	233	1722	24985
426	11406	0	1332	12738
427	12041	0	816	12857
428	6773	52	248	7073
429	3605	0	267	3872
430	8472	0	710	9182
431	5942	0	212	6154
432	6979	0	315	7294
433	11387	1557	1010	13954
434	11991	1588	0	13579
435	10716	0	731	11447
436	29107	492	5124	34723
437	4132	1690	1172	6994
438	33604	1734	2100	37438
439	14349	0	0	14349
442	13494	60	1560	15122
443	37118	0	2801	39919
444	33045	0	1662	34707
445	16735	0	1037	17772
446	43363	0	4564	47927
447	23451	0	1207	24658
448	1897	0	248	2145
449	3482	0	0	3482
450	3549	0	511	4060
451	2029	0	489	2518

Tract-level Population Forecast by Race for 1980
Page 4

Tract	White	Black	Sp. Am.	Total
501	0	57	55	112
502	81	2018	885	3784
503	2226	960	10250	13452
504	377	1884	2082	4363
505	1517	2076	3073	6666
506	4627	771	6062	11460
507	4566	673	4386	9625
508	1053	1685	3642	6380
509	5814	2506	3950	12270
510	415	6998	265	7678
511	3768	0	3058	6826
512	5292	0	1513	6805
513	781	2464	1079	4324
514	1973	6010	1344	9327
515	3809	5686	5368	14863
516	2652	1498	5570	9720
517	18682	776	1310	20768
518	8661	3174	1592	13427
519	12585	3161	1075	16821
520	7211	10017	1720	18948
521	6575	239	5262	12076
522	9347	0	1092	10439
523	14930	0	1608	16538
524	74	2219	127	2420
525	4338	13198	368	17904
526	11810	135	1443	13388
527	10989	0	607	11596
528	2547	5232	370	8157
529	15295	0	210	15505
530	8551	10122	621	19294
531	9814	12069	1219	23102
532	10943	0	844	11787
533	22050	0	696	22746
534	7645	0	212	7857
535	3152	0	0	3152
536	13031	0	870	13901
537	8870	391	0	9269
538	14101	1362	758	16221
539	6662	1214	72	7948
540	13222	0	1171	14393
541	8456	0	157	8613
542	5938	3850	1152	10940
543	1439	0	112	1551
544	448	0	0	448
545	12822	0	608	13430
551	7107	466	0	7573
Total	1380396	545525	311530	2237451

1985 Population # Set 3
 Non-City Portion Included
 Run Oct 19, 1979 * Printed Oct 31, 1979 * Prepared by KLA
 OLDFOP FROM 7 * IPDS 1 * BIPDP 3 * BIPDP 1

Sex	Age	White	Black	Sp Amer	Total
Male	0-4	51,513	38,265	21,534	111,312
	5-9	53,287	35,666	19,413	108,366
	10-14	56,208	31,150	18,149	105,507
	15-19	51,859	26,882	16,880	95,621
	20-24	58,942	29,792	17,063	105,797
	25-29	62,674	26,509	14,199	103,382
	30-34	56,086	21,034	11,584	88,704
	35-39	53,670	16,008	10,078	79,756
	40-44	49,274	14,495	9,525	73,294
	45-49	45,069	12,285	6,864	64,218
	50-54	39,857	11,129	6,041	57,027
	55-59	34,532	9,238	5,036	48,806
	60-64	33,571	7,482	3,456	44,509
	65+	38,946	11,873	4,363	55,182
Total	685,488	291,808	164,185	1,141,481	
Female	0-4	49,385	31,182	17,045	97,612
	5-9	50,640	30,121	15,610	96,371
	10-14	50,199	26,924	13,775	90,898
	15-19	45,862	28,847	16,582	91,291
	20-24	52,701	32,522	16,099	101,322
	25-29	56,340	30,206	14,237	100,783
	30-34	54,429	25,167	12,109	91,705
	35-39	60,040	24,779	11,978	96,797
	40-44	47,908	19,784	9,267	76,959
	45-49	39,046	15,983	7,517	62,546
	50-54	38,241	14,886	6,270	59,397
	55-59	36,627	12,851	5,299	54,777
	60-64	36,229	10,054	3,806	50,089
	65+	62,304	19,546	5,623	87,473
Total	679,971	322,852	155,217	1,158,040	
Total	0-4	100,898	69,447	38,579	208,924
	5-9	103,947	65,787	35,023	204,757
	10-14	106,407	58,074	31,924	196,405
	15-19	97,721	55,729	33,462	186,912
	20-24	111,443	62,314	33,162	207,119
	25-29	119,014	56,715	28,436	204,165
	30-34	110,515	46,201	23,693	180,409
	35-39	113,710	40,787	22,056	176,553
	40-44	97,182	34,279	18,792	150,253
	45-49	84,115	28,269	14,381	126,764
	50-54	78,098	26,015	12,311	116,424
	55-59	71,159	22,089	10,335	103,583
	60-64	69,800	17,536	7,262	94,598
	65+	101,250	31,419	9,986	142,655
Total	1,365,459	614,660	319,402	2,299,521	

LOADED 11010 HHRPT
 INCLUDE NONCITY

1995 All Races - male - Total Tracts Households * Set 3 (HARRIS CITY)
Household Income

Run Oct 19, 1979 * Printed Oct 23, 1979 * Prepared by SGA
OLDHH FROM 5 * POP FROM 3 * HEADSHIP 1 * HHSIZE 2
HINCINAT 1 * HINCINM 1 * INCLINFL 1

Non-Elderly

Household Income:	Household Size						Total
	1	2	3	4	5	6 or More	
	Person	Person	Person	Person	Person	Person	
Less Than \$2,000	8,109	9,750	5,576	4,437	2,648	3,975	24,505
\$2,000 - \$2,999	3,606	4,490	2,531	3,047	1,210	1,718	15,592
\$3,000 - \$4,999	10,159	13,398	8,252	6,788	4,123	5,960	46,680
\$5,000 - \$6,999	12,267	18,140	12,000	10,200	6,269	8,513	67,489
\$7,000 - \$9,999	19,245	32,509	22,920	20,797	12,479	14,232	122,192
\$10,000 - \$14,999	21,425	41,767	30,949	30,329	17,274	15,278	154,942
\$15,000 - \$24,999	12,171	25,261	18,417	19,256	10,520	7,468	93,127
\$25,000 or More	4,256	8,037	5,016	3,850	2,826	1,567	27,052
Total	91,238	153,371	105,561	99,698	57,340	59,811	565,019

Elderly

Household Income:	Household Size						Total
	1	2	3	4	5	6 or More	
	Person	Person	Person	Person	Person	Person	
Less Than \$2,000	2,993	3,473	1,912	1,461	898	1,290	12,017
\$2,000 - \$2,999	1,583	2,110	1,137	874	495	619	6,819
\$3,000 - \$4,999	3,154	4,340	2,368	1,793	1,039	1,276	13,969
\$5,000 - \$6,999	2,387	3,428	1,952	1,537	874	1,000	11,178
\$7,000 - \$9,999	2,678	4,070	2,423	1,971	1,077	1,181	13,400
\$10,000 - \$14,999	2,347	4,083	2,507	2,243	1,214	1,040	15,434
\$15,000 - \$24,999	1,338	2,440	1,072	1,367	716	529	7,632
\$25,000 or More	725	1,248	619	341	222	166	3,561
Total	17,205	25,192	14,531	11,061	6,570	7,091	82,261

1985 All Races - Female - Total Female Households * Set 3 (DHMOO CITY)

Non-City Portion Included
 Run Oct 19, 1979 * Printed Oct 31, 1979 * Prepared by RLA
 DLOHH FROM 5 * POP FROM 7 * HEADSHIP 1 * RESIDE 2
 HHINCENAT 1 * HHINCENFL 1

Non-Elderly

Household Income:	Household Size						Total
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person	
Less Than \$2,000	9,578	10,433	5,817	4,325	2,629	3,712	36,494
\$2,000 - \$2,999	3,846	4,132	2,258	1,634	893	1,382	14,145
\$3,000 - \$4,999	7,393	8,412	4,686	3,442	1,940	2,552	28,425
\$5,000 - \$6,999	6,502	7,656	4,013	2,960	1,512	1,738	24,381
\$7,000 - \$9,999	6,741	8,377	4,563	3,525	1,824	1,892	26,922
\$10,000 - \$14,999	4,512	6,222	3,501	2,949	1,497	1,340	20,021
\$15,000 - \$24,999	1,955	2,805	1,550	1,338	681	509	8,838
\$25,000 or More	767	955	391	357	167	102	2,739
Total	41,294	48,992	26,779	20,530	11,143	13,227	161,965

Elderly

Household Income:	Household Size						Total
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person	
Less Than \$2,000	5,082	5,114	2,662	2,037	1,182	1,495	17,572
\$2,000 - \$2,999	1,713	1,632	754	447	247	342	5,135
\$3,000 - \$4,999	3,122	3,315	1,727	1,219	621	840	10,844
\$5,000 - \$6,999	2,730	2,965	1,435	1,021	501	591	9,243
\$7,000 - \$9,999	2,891	3,545	1,916	1,197	742	839	11,430
\$10,000 - \$14,999	2,105	3,023	1,817	1,614	882	746	10,207
\$15,000 - \$24,999	962	1,580	945	947	517	367	5,318
\$25,000 or More	371	527	263	270	141	84	1,556
Total	18,976	21,701	11,519	9,059	4,833	5,324	71,495

1985 White - Male - Total: tracts Households & Set 3 (HHMOD) CITY:

Non-City: Service Inclusive
Run Oct 19, 1979 & started Oct 20, 1979. 2. 1985 City & Non-City
Output from 5 x 800 PRG. 1. 1985 City & Non-City
COMMENTS: 1. 1985 City & Non-City

Non-Elderly

Household Income:	Household Size						Total
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person	
Less Than \$2,000	4,310	5,346	2,482	2,044	1,023	711	15,916
\$2,000 - \$2,999	1,957	2,516	1,131	955	442	288	7,289
\$3,000 - \$4,999	5,393	7,185	3,524	2,902	1,446	953	21,403
\$5,000 - \$6,999	6,797	10,240	5,593	4,856	2,526	1,611	31,623
\$7,000 - \$9,999	12,575	21,840	13,580	12,610	6,783	4,244	71,632
\$10,000 - \$14,999	17,204	33,843	23,507	23,482	12,624	7,493	118,153
\$15,000 - \$24,999	10,914	22,543	15,921	16,880	9,034	5,024	80,316
\$25,000 or More	4,098	7,522	4,605	4,869	2,571	1,370	25,035
Total	63,248	111,035	70,343	68,598	36,449	21,694	371,367

Elderly

Household Income:	Household Size						Total
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person	
Less Than \$2,000	1,517	1,894	834	631	332	210	5,418
\$2,000 - \$2,999	923	1,371	636	500	236	140	3,806
\$3,000 - \$4,999	2,166	3,030	1,458	1,096	544	349	8,633
\$5,000 - \$6,999	1,743	2,559	1,303	960	499	298	7,382
\$7,000 - \$9,999	2,058	3,182	1,677	1,365	666	404	9,352
\$10,000 - \$14,999	2,006	3,462	2,024	1,801	929	526	10,748
\$15,000 - \$24,999	1,225	2,174	1,265	1,190	591	316	6,758
\$25,000 or More	699	1,191	569	569	243	139	3,330
Total	12,337	18,865	9,769	8,662	4,009	2,376	55,467

1985 White - Female - Total types represented in Survey (HHNDG C110)
 Run Oct 19, 1979 - 1985 Survey (HHNDG C110) by KLA
 OLDDH FROM S * POP FROM S * HEADSHIP 1 * HH SIZE 2
 HHINC NAT 1 * HHINC IN 1 * INCL IN 1

Non-Excludable

Household Income:	Household Size						Total
	1	2	3	4	5	6 or More	
Less Than \$2,000	4,409	4,897	2,109	1,511	593	365	13,984
\$2,000 - \$2,999	1,807	2,010	917	522	186	96	5,438
\$3,000 - \$4,999	4,243	4,796	2,133	1,467	641	313	13,593
\$5,000 - \$6,999	4,775	5,477	2,430	1,762	753	363	15,560
\$7,000 - \$9,999	5,203	6,271	2,977	2,277	1,030	496	18,254
\$10,000 - \$14,999	3,835	5,154	2,659	2,229	1,062	539	15,479
\$15,000 - \$24,999	1,803	2,532	1,308	1,161	575	267	7,666
\$25,000 or More	728	893	362	322	155	77	2,537
Total	26,803	32,030	14,795	11,251	5,095	2,536	92,510

FIGURE

\$2,000 - \$2,999	1,807	2,010	917	522	186	96	5,438
\$3,000 - \$4,999	4,243	4,796	2,133	1,467	641	313	13,593
\$5,000 - \$6,999	4,775	5,477	2,430	1,762	753	363	15,560
\$7,000 - \$9,999	5,203	6,271	2,977	2,277	1,030	496	18,254
\$10,000 - \$14,999	3,835	5,154	2,659	2,229	1,062	539	15,479
\$15,000 - \$24,999	1,803	2,532	1,308	1,161	575	267	7,666
\$25,000 or More	728	893	362	322	155	77	2,537
Total	13,879	16,061	7,511	5,885	2,756	1,514	47,626

1985 Black - Male - Total Tracts Households - Set 3 (HMOD CITY)

Run Oct 19, 1979 - Printed on 11/11/79 - Houston, Texas
ORDER FROM 5 - POP FOR 3 - HOUSING DATA - 1985
REVISION 1 - 8/11/79

Household Income:	Non-Elderly						Total
	Household Size						
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person	
Less Than \$2,000	3,294	3,598	2,329	1,765	1,177	2,158	14,273
\$2,000 - \$2,999	1,422	1,624	1,062	812	558	971	6,429
\$3,000 - \$4,999	3,893	4,738	3,247	2,563	1,643	2,994	19,078
\$5,000 - \$6,999	4,322	5,588	4,057	3,284	2,139	3,933	23,293
\$7,000 - \$9,999	5,015	7,159	5,504	4,610	3,071	5,359	30,726
\$10,000 - \$14,999	2,907	4,613	3,761	3,265	2,119	3,676	20,341
\$15,000 - \$24,999	846	1,403	1,114	931	585	991	5,870
\$25,000 or More	62	136	106	85	48	84	521
Total	21,761	28,859	21,180	17,293	11,280	20,158	120,531

Household Income:	Elderly						Total
	Household Size						
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person	
Less Than \$2,000	1,312	1,399	889	679	454	836	5,569
\$2,000 - \$2,999	588	657	394	302	210	353	2,504
\$3,000 - \$4,999	851	1,061	692	519	342	643	4,108
\$5,000 - \$6,999	537	647	453	353	223	421	2,634
\$7,000 - \$9,999	487	639	478	383	239	446	2,672
\$10,000 - \$14,999	228	333	247	211	126	248	1,393
\$15,000 - \$24,999	77	120	71	57	34	70	429
\$25,000 or More	5	11	7	4	2	4	33
Total	4,085	4,867	3,231	2,508	1,630	3,021	19,342

1985 Black - Female - Total (Includes Populations in 100% Black Cities)
 Housing and Population Data

Run Oct 19, 1977 - Printed on 11/22/77 - 11/22/77

OLDH FROM 5 * POP FROM 3 * HEADSHIP 1 * HHSIZE 2
 HHINCRAT 1 * HHINCINN 1 * IRCINFL 1

Non-Elderly

Household Income:	Household Size						Total
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person	
Less Than \$2,000	4,712	4,882	3,123	2,350	1,526	2,681	19,274
\$2,000 - \$2,999	1,885	1,921	1,275	960	635	1,094	7,770
\$3,000 - \$4,999	2,689	3,020	2,022	1,568	964	1,693	11,955
\$5,000 - \$6,999	1,385	1,442	1,141	875	558	966	6,557
\$7,000 - \$9,999	1,234	1,600	1,134	862	553	921	6,304
\$10,000 - \$14,999	487	710	503	408	218	427	2,753
\$15,000 - \$24,999	101	170	118	79	38	106	612
\$25,000 or More	10	18	7	4	2	6	47
Total	12,503	13,963	9,323	7,106	4,494	7,894	55,283

Elderly

Household Income:	Household Size						Total
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person	
Less Than \$2,000	1,896	1,796	1,138	878	581	939	7,228
\$2,000 - \$2,999	593	520	312	217	146	257	2,045
\$3,000 - \$4,999	756	806	540	387	228	464	3,181
\$5,000 - \$6,999	457	518	318	242	143	286	1,954
\$7,000 - \$9,999	393	501	344	272	164	325	1,999
\$10,000 - \$14,999	168	248	192	165	105	185	1,063
\$15,000 - \$24,999	48	79	61	45	28	50	311
\$25,000 or More	3	7	5	4	2	4	25
Total	4,314	4,475	2,918	2,216	1,297	2,510	17,816

1975 Spanish American Census - Total Population - 1,000,000 (1975)

Non-City Forties Income

Run Oct 19, 1979 * Printed Oct 31, 1979 * Prepared by FLO

OLDHH FROM 2 * POP FROM 3 * HEADSOLE 1 * HOUSEH 2

HHINCNTAT 1 * CHINCNTAT 1 * INCNTAT 1

Household Income:	Non-Elderly						Total
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person	
Less Than \$2,000	505	806	765	629	508	1,014	4,226
\$2,000 - \$2,999	227	350	330	260	230	459	1,884
\$3,000 - \$4,999	873	1,475	1,481	1,323	1,034	2,013	8,199
\$5,000 - \$6,999	1,148	2,312	2,350	2,070	1,604	3,069	12,573
\$7,000 - \$9,999	1,655	3,509	3,836	3,559	2,566	4,629	19,754
\$10,000 - \$14,999	1,314	3,331	3,581	3,582	2,531	4,109	18,448
\$15,000 - \$24,999	411	1,315	1,382	1,449	931	1,453	6,941
\$25,000 or More	96	379	305	296	207	213	1,496
Total	6,229	13,477	14,038	13,207	9,611	16,959	75,521

Household Income:	Elderly						Total
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person	
Less Than \$2,000	164	180	189	151	112	234	1,030
\$2,000 - \$2,999	72	82	107	72	50	126	509
\$3,000 - \$4,999	137	249	218	188	152	284	1,228
\$5,000 - \$6,999	107	222	196	204	152	281	1,162
\$7,000 - \$9,999	133	249	268	223	172	331	1,376
\$10,000 - \$14,999	113	288	236	231	159	266	1,293
\$15,000 - \$24,999	36	146	134	140	91	149	696
\$25,000 or More	21	46	43	32	17	23	178
Total	783	1,462	1,391	1,237	995	1,694	7,472

1985 Housing Unit Forecast * Set 3

Total Tracts Forecast Units
 Non-City Portion Included

Run Oct 27, 1979 * Revised Oct 31, 1979 * Prepared by AFG
 OLDUNITS FROM 7 * OGDON 1 * WREAG 1 * OGDON 2 * RCONST 2
 OGDON 3 * RCONST 2 * VALINFL 2 * REHABFL 7
 OSUIT 2 * OSUIT 2 * OVAC 4 * KYAC 4 * OCONV 4 * RCONV 4
 CLUSTERS 1 * OREHAB 1 * RREHAB 1

Tenure and Value/Rent	Unit Size					Total
	1 and 2 Rooms	3 Rooms	4 Rooms	5 Rooms	6 or More Rooms	
Owner						
Less Than \$5,000	108	296	963	661	381	2,409
\$5,000 - \$9,999	229	854	4,457	5,997	3,464	15,001
\$10,000 - \$14,999	170	998	6,421	13,293	9,379	30,261
\$15,000 - \$19,999	127	565	4,886	17,006	17,449	40,033
\$20,000 - \$24,999	71	338	2,315	14,639	20,281	37,644
\$25,000 - \$34,999	60	1,351	7,832	26,590	54,458	90,291
\$35,000 or More	85	3,907	13,004	30,910	205,350	253,256
Total Owner Units	850	8,309	39,878	109,096	310,762	468,895
Rental						
Less Than \$40	904	1,531	1,152	551	370	4,508
\$40 - \$59	1,475	3,227	3,149	1,263	495	9,609
\$60 - \$79	3,427	6,873	8,630	4,407	1,603	24,940
\$80 - \$99	3,360	6,340	9,656	6,573	2,637	28,566
\$100 - \$149	4,773	9,930	10,434	6,749	3,397	35,283
\$150 - \$199	10,119	27,246	25,445	8,086	4,909	75,805
\$200 or More	13,382	62,449	89,942	55,797	19,746	241,316
No Contract Rent	625	801	1,163	1,085	1,256	4,930
Total Rental Units	38,065	118,397	149,571	84,511	34,413	424,957
Total Units	38,915	126,706	189,449	193,607	345,175	892,852

Tract-level Population Forecast by Race for 1985
Page 1

Tract	White	Black	Sp. Am.	Total
121	3904	1453	2563	7920
122	125	838	4577	5540
123	452	423	2348	3223
124	497	5104	152	5763
125	1074	345	2122	3541
126	559	7578	439	8576
201	0	12236	74	12310
202	2255	1074	3975	7304
203	2614	2430	7274	12320
204	160	4352	75	4587
205	0	16751	1382	18133
206	99	9104	1220	10423
207	342	12848	613	13803
208	0	14114	1591	15707
209	2104	0	282	2386
210	232	15004	598	15834
213	19674	3312	3952	26930
214	4027	2195	2049	8271
215	5638	13717	1542	20897
216	1585	8918	104	10607
217	356	12378	1514	14248
218	3951	11093	2512	17556
219	3964	3843	1323	9153
220	7322	399	1555	9276
221	1843	0	445	2288
222	4281	1524	3390	9195
223	6274	5121	6871	18266
224	7740	9526	1517	18783
225	3134	14514	851	18499
226	10775	8099	657	19531
227	6677	0	1773	8450
228	9623	0	0	9623
229	5774	0	1829	7603
230	25872	0	1243	27115
231	6053	0	146	6199
232	5871	0	367	6238
233	3588	0	0	3588
236	6550	0	0	6550
237	2549	0	0	2549
238	11534	0	951	12485
239	7797	252	1388	9437
240	22484	0	5067	27551
241	11039	0	725	11764
242	4086	0	0	4086
243	5294	705	0	5999
244	6940	1529	448	8917
245	12357	175	895	13427
246	14209	0	0	14209
247	2742	0	1090	3832
248	3175	0	0	3175

Tract-level Population Forecast by Race for 1985
Page 2

Tract	White	Black	Sp. Am.	Total
249	14228	364	871	15463
250	3476	0	0	3476
251	4573	0	139	4712
253	3120	440	129	3689
254	3236	0	59	3295
301	3991	0	7991	11982
302	1581	2583	5297	9461
303	98	4842	259	5199
304	58	16586	132	16774
305	0	13159	162	13321
306	320	8908	332	9560
307	123	15535	379	16057
308	573	2493	303	3369
309	6742	1463	11312	19517
310	2617	0	4880	7497
311	1476	149	8173	9798
312	1305	87	5368	6760
313	5422	614	6099	12135
314	3443	5891	1022	10356
315	1488	11449	564	13501
316	1500	7061	459	9020
317	2842	20519	1723	25084
318	5055	13964	2101	21120
319	6812	0	1324	8136
320	17097	45	2673	19815
321	5145	2933	5455	13533
322	11426	0	1290	12716
323	9456	56	1889	11401
324	14440	137	1517	16094
325	6968	0	5786	12754
326	7453	0	3325	10778
327	3985	8577	951	13513
328	2123	16976	866	19965
329	76	12966	80	13122
330	0	7480	184	7864
331	2177	2273	1196	5646
332	5322	6355	17-7	13404
333	999	8222	449	9670
334	1632	5952	2884	10468
335	7921	7318	6005	21244
336	4470	1982	2849	9301
337	1257	1144	208	2609
338	5652	745	909	7386
339	0	17086	211	17297
340	1128	14211	205	15544
341	1329	1466	277	3072
342	2711	0	1155	3866
343	6614	40676	598	47888
344	3148	0	1223	4371
345	12760	0	906	13666

City of Houston - Office of the Mayor
Housing and Population Data

Tract-level Population Forecast by Race for 1985
Page 3

Tract	White	Black	Sp. Am.	Total
346	7958	0	1014	8972
347	19684	40	2726	22450
359	18049	0	3572	21621
361	14749	157	1721	16627
367	15235	127	0	15362
370	7091	0	801	7892
371	16344	506	2132	18982
401	18666	3919	5656	11441
402	7315	817	5566	13698
403	5738	132	2174	8044
404	6452	41	628	7121
405	7150	30	2980	10160
406	7367	138	931	8436
407	10898	300	1708	12906
412	8850	95	1301	10246
413	9587	0	3488	13075
414	9575	86	1387	11048
415	13912	116	1005	15033
416	19847	75	2446	22368
419	13874	191	3275	17340
420	15743	170	2185	18098
421	4592	0	941	5533
422	26447	113	3475	30035
423	25716	7686	7481	40883
424	22563	88	2131	24782
425	26592	348	2222	29162
426	13412	0	1888	15300
427	14631	0	1154	15785
428	7089	74	296	7459
429	3767	0	324	4091
430	11308	0	988	12296
431	6217	0	256	6473
432	9792	0	442	10234
433	14594	2152	1471	18217
434	16955	2389	0	19344
435	14022	0	1148	15170
436	37778	869	7776	45423
437	6018	3187	1699	10904
438	44832	2824	3236	50892
439	14773	0	0	14773
442	15231	102	2167	17500
443	41093	0	3660	44753
444	42630	0	2461	45091
445	18905	0	1392	20297
446	48906	0	6051	54957
447	28939	0	1758	30697
448	3341	0	439	3780
449	5139	0	0	5139
450	5779	0	870	6649
451	2903	0	711	3614

Tract-level Population Forecast by Race for 1985
Page 4

Tract	White	Black	Sp. Am.	Total
501	0	218	301	519
502	100	2717	819	3636
503	2101	1126	10113	13340
504	330	1947	1791	4068
505	1534	2337	2938	6809
506	4397	947	6213	11557
507	4483	843	4604	9930
508	1067	2045	3787	6899
509	5509	3243	4372	13124
510	379	7104	236	7719
511	3821	0	3225	7046
512	5234	0	1691	6925
513	652	2633	1046	4331
514	1661	6925	1306	9892
515	3911	6346	5792	16049
516	2635	1641	6170	10446
517	19000	1066	1516	21582
518	8680	4235	1848	14743
519	14673	4810	1456	20939
520	7370	13571	2219	23160
521	6910	272	6163	13345
522	11180	0	1528	12708
523	16307	0	2052	18359
524	83	2225	116	2424
525	5569	16029	409	22007
526	11980	186	1741	13907
527	14710	0	918	15628
528	3526	8488	473	12487
529	23200	0	360	23560
530	11799	15114	914	27027
531	10970	14460	1471	26901
532	12482	0	1131	13613
533	24957	0	924	25881
534	10936	0	342	11278
535	5300	0	0	5300
536	18209	0	1389	19598
537	14012	777	0	14789
538	19352	1946	1043	22341
539	9101	2104	111	11316
540	17848	0	1767	19615
541	12238	0	268	12506
542	8521	6566	1699	16786
543	2326	0	189	2515
544	783	0	0	783
545	16442	0	921	17363
551	9603	790	0	10393
Total	1637694	643386	367963	2649043

1990 Population * Set 3
 Non-City Portion Included
 Run Oct 28, 1979 * Printed Oct 31, 1979 * Prepared by NFA
 OLDPPOP FROM 3 * LFOP 1 * BIRTH 3 * DEATH 1

Sex	Age	White	Black	Sp. Amer.	Total
Male	0-4	64,318	47,348	26,987	138,653
	5-9	68,471	47,221	26,356	142,048
	10-14	70,829	44,014	23,761	138,604
	15-19	74,227	38,096	22,014	134,337
	20-24	68,484	32,876	20,475	121,835
	25-29	77,837	36,053	20,480	134,370
	30-34	82,765	32,081	17,042	131,888
	35-39	73,584	25,084	13,702	112,372
	40-44	70,415	19,091	11,921	101,427
	45-49	63,074	16,703	10,886	90,663
	50-54	57,691	14,157	7,845	79,693
	55-59	48,106	11,946	6,431	66,483
	60-64	41,679	9,916	5,361	56,956
65+	54,715	15,433	6,183	76,331	
Total	916,195	390,021	219,444	1,525,660	
Female	0-4	61,715	38,533	21,133	121,381
	5-9	65,165	39,528	21,106	125,799
	10-14	66,848	38,183	19,329	124,360
	15-19	66,141	34,028	17,006	117,175
	20-24	60,426	35,459	20,471	117,356
	25-29	69,403	40,959	19,805	130,167
	30-34	74,193	38,043	17,515	129,751
	35-39	71,356	31,380	14,748	117,484
	40-44	78,711	30,897	14,589	124,197
	45-49	62,024	24,153	11,051	97,228
	50-54	50,552	19,513	8,964	79,029
	55-59	48,206	17,399	7,158	72,763
	60-64	46,172	15,020	6,050	67,242
65+	87,909	27,419	8,532	123,860	
Total	908,821	431,514	207,457	1,547,792	
Total	0-4	126,033	85,881	48,120	260,034
	5-9	133,636	86,749	47,462	267,847
	10-14	137,677	82,197	43,090	262,964
	15-19	140,368	72,124	39,020	251,512
	20-24	128,910	69,335	40,946	239,191
	25-29	147,240	77,012	40,285	264,537
	30-34	156,958	70,124	34,557	261,639
	35-39	144,940	56,466	28,950	229,854
	40-44	149,126	49,988	26,510	225,624
	45-49	125,098	40,856	21,937	187,891
	50-54	108,243	33,670	16,809	158,722
	55-59	96,312	29,345	13,589	139,246
	60-64	87,851	24,936	11,411	124,198
65+	142,624	42,852	14,715	200,191	
Total	1,825,016	821,535	426,901	3,073,452	

City of Houston - Office of the Mayor
Housing and Population Data

1990 All Races - Male - Total Tracts Households * Set 3 (HMOD CITY)
Non-City Portion Included
Run Oct 28, 1979 * Printed Oct 31, 1979 * Prepared by AFA
OLINH FROM 3 * POP FROM 2 * HEADSHIP 1 * HOUSE 2
HHINCAT 1 * HHINCINM 1 * INCINFL 1

Household Income:	Non-Elderly						Total
	Household Size						
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person	
Less Than \$2,000	9,259	11,125	6,362	5,062	3,045	4,421	39,274
\$2,000 - \$2,999	4,114	5,119	2,884	2,332	1,377	1,958	17,784
\$3,000 - \$4,999	11,565	15,248	9,391	7,723	4,691	6,780	55,398
\$5,000 - \$6,999	13,947	20,616	13,635	11,588	7,123	9,786	76,695
\$7,000 - \$9,999	21,858	36,914	26,025	23,599	14,101	16,165	138,662
\$10,000 - \$14,999	24,322	47,427	35,011	34,420	19,405	17,347	178,132
\$15,000 - \$24,999	13,812	28,666	20,896	21,851	11,971	8,478	105,674
\$25,000 or More	4,831	9,123	5,692	5,957	3,206	1,892	30,701
Total	103,708	174,238	119,896	112,532	65,119	66,827	642,320

Household Income:	Elderly						Total
	Household Size						
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person	
Less Than \$2,000	3,480	4,041	2,220	1,694	1,040	1,470	13,945
\$2,000 - \$2,999	1,838	2,451	1,320	1,014	572	710	7,905
\$3,000 - \$4,999	3,691	5,075	2,767	2,096	1,211	1,479	16,319
\$5,000 - \$6,999	2,815	4,043	2,303	1,814	1,030	1,177	13,182
\$7,000 - \$9,999	3,174	4,829	2,879	2,344	1,283	1,401	15,910
\$10,000 - \$14,999	2,796	4,068	2,998	2,667	1,457	1,245	16,051
\$15,000 - \$24,999	1,591	2,909	1,762	1,663	860	634	9,419
\$25,000 or More	859	1,479	736	645	313	199	4,231
Total	20,244	29,695	16,905	13,957	7,766	8,315	96,962

City of Houston - Office of the Mayor
Housing and Population Data

1990 All Races - Female - Total tracts Unseparated - Set 3 (HHMOD CITY)

Non-Elderly Portion Included
Run Oct 20, 1979 & Printed Oct 27, 1979 & Prepared by
OLDSH FROM 3 & 70P FROM 3 & 70P FROM 1 & 70P FROM 2
HHINCNAV 1 * HHINCNAV 1 * HHINCNAV 1

Household Income:	Non-Elderly						Total
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person	
Less Than \$2,000	10,981	11,960	6,687	4,974	3,031	4,297	41,930
\$2,000 - \$2,999	4,408	4,737	2,597	1,882	1,032	1,599	16,255
\$3,000 - \$4,999	8,463	9,640	5,388	3,964	2,239	2,962	32,656
\$5,000 - \$6,999	7,422	8,757	4,610	3,406	1,748	2,026	27,969
\$7,000 - \$9,999	7,711	9,620	5,269	4,082	2,121	2,218	31,021
\$10,000 - \$14,999	5,186	7,205	4,086	3,458	1,764	1,586	23,285
\$15,000 - \$24,999	2,256	3,269	1,826	1,588	811	607	10,357
\$25,000 or More	885	1,114	463	425	200	121	3,208
Total	47,312	56,302	30,926	23,779	12,946	15,416	186,681

Household Income:	Elderly						Total
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person	
Less Than \$2,000	6,020	6,069	3,164	2,425	1,408	1,789	20,875
\$2,000 - \$2,999	2,031	1,938	898	533	294	409	6,103
\$3,000 - \$4,999	3,712	3,950	2,066	1,462	748	1,015	12,953
\$5,000 - \$6,999	3,249	3,538	1,718	1,226	604	715	11,050
\$7,000 - \$9,999	3,450	4,246	2,305	1,805	898	1,019	13,723
\$10,000 - \$14,999	2,524	3,642	2,197	1,956	1,069	931	12,319
\$15,000 - \$24,999	1,158	1,909	1,147	1,150	629	405	6,438
\$25,000 or More	447	636	319	328	172	102	2,004
Total	22,591	25,928	13,814	10,885	5,822	6,425	85,465

City of Houston - Office of the Mayor
Housing and Population Data

1990 White - Male - Total tracts Households * Set 3 (HHMOD CITY)

Non-City Portion Included
Run Oct 29, 1979 * Printed Oct 31, 1979 * Prepared by GFA
OLDNH FROM 3 * POP FROM 3 * HEADSHIP 1 * HSIZE 2
HHINCNT 1 * HHINCIM 1 * INCL 1

Non-Elderly

Household Income:	Household Size						Total
	1	2	3	4	5	6 or More	
Less Than \$2,000	4,921	6,098	2,830	2,329	1,166	809	18,153
\$2,000 - \$2,999	2,234	2,870	1,289	1,087	503	328	8,311
\$3,000 - \$4,999	6,147	8,184	4,012	3,302	1,644	1,083	24,372
\$5,000 - \$6,999	7,738	11,646	6,357	5,517	2,869	1,829	35,956
\$7,000 - \$9,999	14,289	24,802	15,415	14,310	7,696	4,815	81,327
\$10,000 - \$14,999	19,530	38,403	26,668	26,637	14,319	8,498	134,055
\$15,000 - \$24,999	12,385	25,577	18,059	19,145	10,246	5,698	91,110
\$25,000 or More	4,652	8,537	5,224	5,523	2,916	1,554	28,406
Total	71,896	126,117	79,854	77,850	41,359	24,614	421,690

Elderly

Household Income:	Household Size						Total
	1	2	3	4	5	6 or More	
Less Than \$2,000	1,802	2,247	990	748	394	249	6,430
\$2,000 - \$2,999	1,092	1,618	750	589	277	165	4,491
\$3,000 - \$4,999	2,562	3,579	1,722	1,282	642	412	10,199
\$5,000 - \$6,999	2,069	3,032	1,544	1,161	591	353	8,750
\$7,000 - \$9,999	2,449	3,784	1,998	1,628	795	482	11,136
\$10,000 - \$14,999	2,392	4,131	2,420	2,157	1,114	631	12,845
\$15,000 - \$24,999	1,460	2,595	1,517	1,427	711	373	8,083
\$25,000 or More	829	1,412	676	607	290	166	3,980
Total	14,655	22,390	11,617	9,599	4,814	2,831	45,914

1990 White - Female - Total Tracts Households * Set 3 (HM00 CITY)

Non-City Portion Included
Run Oct 28, 1979 * Printed Oct 31, 1979 * Prepared by AFA
OLDINH FROM 3 * POP FROM 3 * HEADSHIP 1 * HHSIZE 2
HHINCAT 1 * HHINCIN 1 * INCINFL 1

Non-Elderly

Household Income:	Household Size						Total
	1	2	3	4	5	6 or More	
Less Than \$2,000	4,993	5,547	2,390	1,713	786	415	15,844
\$2,000 - \$2,999	2,048	2,280	927	594	212	110	6,171
\$3,000 - \$4,999	4,810	5,443	2,422	1,669	729	358	15,431
\$5,000 - \$6,999	5,410	6,216	2,762	2,006	859	416	17,669
\$7,000 - \$9,999	5,915	7,157	3,410	2,617	1,188	576	20,863
\$10,000 - \$14,999	4,392	5,947	3,092	2,606	1,248	638	17,923
\$15,000 - \$24,999	2,077	2,946	1,539	1,377	684	343	8,966
\$25,000 or More	839	1,040	427	383	185	92	2,966
Total	30,484	36,576	16,969	12,965	5,891	2,948	105,833

Elderly

Household Income:	Household Size						Total
	1	2	3	4	5	6 or More	
Less Than \$2,000	3,494	3,537	1,515	1,102	525	309	10,482
\$2,000 - \$2,999	1,262	1,270	477	250	103	57	3,419
\$3,000 - \$4,999	2,649	2,774	1,175	806	330	157	7,891
\$5,000 - \$6,999	2,562	2,748	1,171	799	330	163	7,773
\$7,000 - \$9,999	2,838	3,392	1,625	1,259	544	313	9,971
\$10,000 - \$14,999	2,197	3,135	1,748	1,542	791	454	9,867
\$15,000 - \$24,999	1,065	1,732	988	1,007	538	290	5,620
\$25,000 or More	435	604	294	305	157	84	1,879
Total	16,502	19,192	8,993	7,070	3,318	1,827	56,902

City of Houston - Office of the Mayor
Housing and Population Data

1990 Black - Male - Total Tracts Households - Set 3 (HINDO CITY)

Rep-City Post of Housing
Run Oct 29, 1992 & Printed Oct 31, 1992. Prepared by AFA
BLKHH FROM 3 & REP FROM 3 & REP FROM 1 & REP FROM 2
HHINCNT 1 & HHINCNT 1 & HHINCNT 1 & HHINCNT 1

Non-Elderly

Household Income:	Household Size						Total
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person	
Less Than \$2,000	3,738	4,102	2,655	2,012	1,296	2,449	16,272
\$2,000 - \$2,999	1,620	1,848	1,209	924	612	1,105	7,318
\$3,000 - \$4,999	4,419	5,377	3,685	2,908	1,865	3,397	21,651
\$5,000 - \$6,999	4,898	6,330	4,595	3,686	2,423	4,454	26,386
\$7,000 - \$9,999	5,680	8,107	6,232	5,228	3,477	6,067	34,791
\$10,000 - \$14,999	3,291	5,222	4,257	3,696	2,398	4,161	23,025
\$15,000 - \$24,999	957	1,588	1,260	1,053	662	1,122	6,642
\$25,000 or More	70	154	120	96	54	95	589
Total	24,693	32,728	24,013	19,603	12,787	22,850	136,674

Elderly

Household Income:	Household Size						Total
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person	
Less Than \$2,000	1,480	1,577	1,002	765	511	940	6,275
\$2,000 - \$2,999	660	736	443	339	235	396	2,809
\$3,000 - \$4,999	964	1,198	783	588	387	726	4,646
\$5,000 - \$6,999	616	744	522	407	257	485	3,031
\$7,000 - \$9,999	564	743	557	446	280	519	3,109
\$10,000 - \$14,999	267	391	292	250	150	292	1,642
\$15,000 - \$24,999	88	139	84	60	40	82	501
\$25,000 or More	6	12	8	5	3	5	39
Total	4,645	5,540	3,691	2,669	1,863	3,445	22,052

City of Houston - Office of the Mayor
Housing and Population Data

1990 Black - Female - Total: Tracts Households * Set 3 (HMOD CITY)

Non-City Portion Included
Run Oct 26, 1979 * Reported Oct 21, 1979 * Prepared by AFA
OLSHH FROM 2 * POP FROM 3 * HEADSHIP 1 * RESIZE 2
HHINCHAT 1 * HHINCHIN 1 * INCIHFL 1

Non-Elderly

Household Income:	Household Size						Total
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person	
Less Than \$2,000	5,454	5,649	3,614	2,719	1,766	3,103	22,305
\$2,000 - \$2,999	2,181	2,222	1,475	1,111	735	1,265	8,989
\$3,000 - \$4,999	3,115	3,500	2,344	1,817	1,117	1,963	13,856
\$5,000 - \$6,999	1,611	1,911	1,328	1,019	650	1,126	7,645
\$7,000 - \$9,999	1,438	1,866	1,322	1,007	646	1,077	7,357
\$10,000 - \$14,999	569	832	590	479	257	502	3,229
\$15,000 - \$24,999	119	199	139	93	45	125	720
\$25,000 or More	12	21	9	5	3	7	57
Total	14,499	16,200	10,822	8,250	5,219	9,168	64,158

Elderly

Household Income:	Household Size						Total
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person	
Less Than \$2,000	2,235	2,118	1,343	1,036	685	1,109	8,526
\$2,000 - \$2,999	701	616	370	257	173	305	2,422
\$3,000 - \$4,999	897	958	643	462	272	553	3,785
\$5,000 - \$6,999	546	620	382	291	172	344	2,355
\$7,000 - \$9,999	472	603	415	329	199	393	2,411
\$10,000 - \$14,999	203	300	233	200	127	224	1,287
\$15,000 - \$24,999	58	96	74	55	34	60	377
\$25,000 or More	4	8	6	5	3	5	31
Total	5,116	5,319	3,844	2,415	1,445	2,007	24,100

City of Houston - Office of the Mayor
Housing and Population Data

1990 Spanish American - Male - Total tracts Households * Set 3 (HHMOD CITY)

Non-City Portion Includes

Run Oct 28, 1979 * Printed Oct 31, 1979 * Prepared by AFA

OLDDH FROM 3 * POP FROM 3 * HOUSEHIP 1 * HHSIZE 2

HHINCINAT 1 * HHINCINN 1 * INCINFL 1

Non-Elderly

Household Income:	Household Size						Total
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person	
Less Than \$2,000	580	925	877	721	583	1,163	4,849
\$2,000 - \$2,999	260	401	384	321	262	525	2,155
\$3,000 - \$4,999	999	1,687	1,694	1,513	1,162	2,300	9,375
\$5,000 - \$6,999	1,311	2,640	2,683	2,385	1,831	3,503	14,353
\$7,000 - \$9,999	1,889	4,005	4,378	4,061	2,928	5,283	22,544
\$10,000 - \$14,999	1,501	3,802	4,084	4,087	2,888	4,688	21,052
\$15,000 - \$24,999	470	1,501	1,577	1,653	1,063	1,658	7,922
\$25,000 or More	109	432	348	338	236	243	1,706
Total	7,119	15,393	16,029	15,079	10,973	19,363	83,956

Elderly

Household Income:	Household Size						Total
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person	
Less Than \$2,000	198	317	228	181	135	281	1,240
\$2,000 - \$2,999	86	97	127	86	60	149	605
\$3,000 - \$4,999	165	298	262	226	182	341	1,474
\$5,000 - \$6,999	130	267	237	246	182	339	1,401
\$7,000 - \$9,999	161	302	324	270	208	400	1,665
\$10,000 - \$14,999	137	346	286	280	193	322	1,564
\$15,000 - \$24,999	43	175	161	168	109	179	835
\$25,000 or More	24	55	82	33	20	28	212
Total	944	1,757	1,677	1,490	1,089	2,039	8,996

1990 Spanish American - Female - Total tracts Households * Set 3 (HHMOD CITY)

Non-City Portion Included
Run Oct 20, 1979 * Cited Oct 31, 1979 * Prepared by RFA
OLDDH FROM 3 * POP FROM 3 * HEADSHIP 1 * HH SIZE 2
HHINC1 1 * HHINC1 1 * INCINFL 1

Household Income:	Non-Elderly						Total
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person	
Less Than \$2,000	534	764	683	542	479	779	3,781
\$2,000 - \$2,999	179	235	195	177	85	224	1,095
\$3,000 - \$4,999	538	697	622	478	393	641	3,369
\$5,000 - \$6,999	401	630	520	381	239	484	2,655
\$7,000 - \$9,999	358	597	535	458	287	565	2,801
\$10,000 - \$14,999	225	426	404	373	259	446	2,133
\$15,000 - \$24,999	60	124	148	118	82	139	671
\$25,000 or More	34	53	27	37	12	22	185
Total	2,329	3,526	3,135	2,564	1,836	3,300	16,690

Household Income:	Elderly						Total
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person	
Less Than \$2,000	291	414	306	287	198	371	1,867
\$2,000 - \$2,999	68	52	51	26	18	47	262
\$3,000 - \$4,999	166	218	248	194	146	305	1,277
\$5,000 - \$6,999	141	170	165	136	102	208	922
\$7,000 - \$9,999	140	251	265	217	155	313	1,341
\$10,000 - \$14,999	124	207	216	214	151	253	1,165
\$15,000 - \$24,999	35	81	85	68	57	95	441
\$25,000 or More	8	24	19	18	12	13	94
Total	673	1,017	1,355	1,100	839	1,605	7,369

1990 Housing Unit Forecast - Set 3

Total Tracts Forecast Units
Near-City Port on In-City

Run Oct 29, 1979 * Printed Oct 23, 1979 * Prepared by AFA
 OLDUNITS FROM 3 * DEMO 1 * RDEMO 1 * OICONST 3 * RICONST 3
 OCCONST 3 * RCONST 3 * VALINFL 2 * RENTINFL 7
 OSUIT 2 * RSUIT 2 * OVAC 4 * RVAC 4 * OCONV 4 * RCONV 4
 CLUSTERS 1 * OREHAB 1 * RNEHAB 1

Tenure and Value/Rent	Unit Size					Total
	1 and 2 Rooms	3 Rooms	4 Rooms	5 Rooms	6 or More Rooms	
Owner						
Less Than \$5,000	94	250	827	561	325	2,057
\$5,000 - \$9,999	195	731	3,911	5,323	3,054	13,214
\$10,000 - \$14,999	158	1,107	6,116	12,502	8,780	28,663
\$15,000 - \$19,999	120	558	4,848	17,561	18,096	41,183
\$20,000 - \$24,999	71	365	2,361	15,504	21,676	39,977
\$25,000 - \$34,999	59	1,883	10,853	32,222	65,670	110,687
\$35,000 or More	85	5,969	19,590	41,300	252,386	319,330
Total Owner Units	782	10,863	48,506	124,973	369,987	555,111
Rental						
Less Than \$40	781	1,284	985	479	336	3,865
\$40 - \$59	1,355	3,159	2,864	1,081	424	8,883
\$60 - \$79	3,183	6,452	7,706	3,916	1,426	22,683
\$80 - \$99	3,236	6,209	9,132	6,221	2,474	27,272
\$100 - \$149	4,711	10,080	10,470	6,621	3,324	35,206
\$150 - \$199	10,595	31,236	31,171	8,913	5,526	87,441
\$200 or More	15,266	73,109	104,860	66,533	21,809	281,577
No Contract Rent	579	735	1,058	998	1,173	4,543
Total Rental Units	39,706	132,264	168,246	94,762	36,492	471,470
Total Units	40,488	143,127	216,752	219,735	406,479	1,026,581

Tract-level Population Forecast by Race for 1990
Page 1

Tract	White	Black	Sp. Am.	Total
121	4964	2099	3270	10333
122	130	998	5021	6149
123	656	800	3772	5228
124	812	5879	199	6890
125	1555	478	3171	5204
126	599	7016	457	8072
201	0	12202	81	12263
202	2994	1568	5229	9791
203	2655	3031	8304	13990
204	177	4396	75	4648
205	0	16852	1204	18056
206	182	11925	1527	13634
207	503	16081	654	17238
208	0	13584	1294	14838
209	3503	0	421	3924
210	209	16950	566	17725
213	24580	4739	5312	34639
214	4867	3161	2558	10586
215	5016	15035	1520	21571
216	1555	10731	96	12382
217	442	12262	1290	13994
218	3289	11678	2112	17079
219	3690	4348	1236	9274
220	8225	577	1894	10696
221	1817	0	449	2266
222	4054	1484	3308	8846
223	6710	6088	7350	20148
224	6529	10430	1370	18329
225	2578	15520	703	18801
226	13700	10796	774	25270
227	7952	0	2164	10116
228	12566	0	0	12566
229	7938	0	2489	10327
230	28478	0	1480	29958
231	4253	0	157	4410
232	6638	0	451	7089
233	10996	0	0	4891
236	3114	0	0	10996
237	15477	0	0	3114
238	9460	375	1251	16728
239	24892	0	1744	11579
240	14348	0	6025	30917
241	5688	0	960	15308
242	7143	909	0	5688
243	8805	1971	0	8052
244	15608	249	603	11379
245	20536	0	1203	17060
246	3481	0	0	20536
247	4627	0	1325	4806
248	0	0	0	4627

City of Houston - Office of the Mayor
Housing and Population Data

Tract-level Population Forecast by Race for 1990
Page 2

Tract	White	Black	Sp. Am.	Total
249	18051	520	1157	19728
250	4475	0	0	4475
251	5268	0	171	5439
253	3409	445	141	3995
254	3924	0	75	3999
301	4543	0	9281	13844
302	1766	3289	6107	11162
303	182	6208	332	6722
304	50	16023	102	16175
305	0	12841	124	12965
306	297	9012	285	9594
307	87	15143	298	15548
308	526	3034	310	3870
309	7899	1773	13684	23356
310	3484	0	6719	10205
311	1436	190	8502	10208
312	1171	100	5121	6392
313	5411	700	6385	12496
314	3312	7456	1016	11704
315	1295	13013	537	14845
316	1365	7785	437	9587
317	2538	22810	1604	26952
318	4213	15495	1833	21541
319	7832	0	1432	9464
320	18419	67	3109	21595
321	4670	3389	5318	13377
322	11454	0	1397	12851
323	9493	72	2031	11596
324	16951	197	1948	19096
325	7856	0	6693	14549
326	8687	0	4057	12744
327	3664	10431	922	15017
328	1682	17825	727	20234
329	99	12755	72	12926
330	0	8263	168	8431
331	2992	3427	1772	8191
332	5924	8938	1986	16848
333	1241	11005	500	12746
334	1598	7236	3265	12099
335	8642	9487	6576	24705
336	5605	2649	3719	11973
337	1904	1644	274	3822
338	7961	1098	1355	10414
339	0	19769	235	20004
340	1387	16999	222	18608
341	1699	1883	346	3928
342	3399	0	1427	4826
343	6376	51745	616	58737
344	4511	0	1724	6235
345	15977	0	1197	17174

City of Houston - Office of the Mayor
Housing and Population Data

Tract-level Population Forecast by Race for 1970
Page 3

Tract	White	Black	Sp. Am.	Total
346	10716	0	1332	12048
347	23277	61	3303	25641
359	23753	0	5017	28770
361	15339	220	1903	17502
367	15445	151	0	15596
370	9530	0	1015	10545
371	16776	589	2351	19716
401	2094	4067	5891	12052
402	7450	1022	5942	14414
403	6652	195	2535	9382
404	7003	53	706	7762
405	7866	41	3398	11305
406	8111	145	1060	9316
407	12659	402	2055	15116
412	10063	130	1602	11795
413	10808	0	4184	14992
414	10108	113	1585	11806
415	15190	164	1171	16525
416	21069	96	2829	23994
419	18006	287	4696	22989
420	16385	229	2463	19077
421	4755	0	1031	5786
422	27405	158	3935	31498
423	28862	9540	9152	47554
424	26679	128	2572	29379
425	27781	455	2457	30693
426	15556	0	2416	17972
427	14969	0	1272	16241
428	7695	96	339	8130
429	4049	0	372	4421
430	14348	0	1248	15596
431	6753	0	296	7049
432	10205	0	464	10669
433	18101	2546	1933	22580
434	21969	3183	0	25152
435	17549	0	1585	19134
436	47801	1284	10581	59666
437	7316	4640	2017	13973
438	57816	3907	4424	66147
439	15385	0	0	15385
442	16905	142	2691	19738
443	45493	0	4374	49867
444	53105	0	3262	56367
445	19566	0	1574	21140
446	51392	0	6861	58253
447	34684	0	2283	36967
448	4948	0	616	5564
449	6289	0	0	6289
450	7369	0	1099	8468
451	3521	0	826	4347

Tract-level Population Forecast by Race for 1990
Page 4

Tract	White	Black	Sp. Am.	Total
501	0	243	289	532
502	136	2639	810	3585
503	2478	1359	10718	14555
504	353	2115	1740	4208
505	1858	2561	2845	7264
506	4590	1092	6389	12071
507	4802	1041	4841	10684
508	1187	2449	4009	7645
509	5416	3966	4707	14089
510	401	7447	221	8069
511	4166	0	3545	7711
512	5746	0	1911	7657
513	866	4051	1693	6610
514	1749	8307	1390	11446
515	4246	7058	4404	16108
516	3128	1790	7638	12556
517	19280	1346	1415	22341
518	6143	4910	1820	14873
519	16788	6453	1760	25009
520	7522	16848	2630	27000
521	7519	288	6977	14784
522	11727	0	1707	13434
523	17068	0	2311	19379
524	77	2006	94	2177
525	5034	15605	338	20977
526	12349	236	1953	14538
527	16455	0	1093	17548
528	4354	11112	495	15961
529	31272	0	514	31786
530	12560	17919	985	31464
531	10003	14614	1402	26019
532	13799	0	1349	15148
533	25024	0	1006	26030
534	14336	0	470	14806
535	7553	0	0	7553
536	23504	0	1896	25400
537	19240	1224	0	20464
538	24618	2488	1285	28391
539	11170	2993	142	14305
540	22525	0	2313	24838
541	15725	0	368	16093
542	10712	8927	2104	21743
543	3130	0	252	3382
544	891	0	0	891
545	19291	0	1167	20458
551	11899	1104	0	13003
Total	1890193	737183	424560	3051936

City of Houston - Office of the Mayor
Housing and Population Data

1995 Population * Set 3
Non-City Portion Included
Run Oct 30, 1979 * Printed Oct 31, 1979 * Prepared by SA
OLJPOP FROM 3 * IPDP 1 * BIRTH 3 * DEATH 1

Sex	Age	White	Black	Sp. Amer.	Total
Male	0-4	57,369	41,080	22,968	121,417
	5-9	59,030	40,521	23,021	122,572
	10-14	62,842	40,413	22,483	125,738
	15-19	64,585	37,330	20,087	122,002
	20-24	57,583	32,311	18,610	118,604
	25-29	62,446	27,591	17,128	107,165
	30-34	70,974	30,258	17,132	118,364
	35-39	74,976	26,534	14,050	115,560
	40-44	66,661	20,749	11,297	98,707
	45-49	62,237	15,257	9,496	86,990
	50-54	55,749	13,348	8,672	77,769
	55-59	48,079	10,532	5,821	64,438
	60-64	40,091	8,892	4,772	53,755
65+	50,218	14,017	6,363	70,598	
Total	842,940	358,839	201,900	1,403,679	
Female	0-4	55,075	33,984	18,151	107,210
	5-9	56,253	33,844	18,211	108,308
	10-14	59,398	34,719	18,188	112,305
	15-19	60,841	33,437	16,607	110,885
	20-24	60,197	29,799	14,611	104,607
	25-29	54,968	31,815	17,527	104,310
	30-34	63,134	35,742	16,957	115,833
	35-39	67,188	32,866	14,846	114,900
	40-44	64,619	27,110	12,501	104,230
	45-49	70,391	26,135	12,108	108,634
	50-54	55,468	20,430	9,172	85,070
	55-59	44,018	15,802	7,123	66,943
	60-64	41,976	14,091	5,688	61,755
65+	82,631	27,238	9,182	119,051	
Total	836,157	397,012	190,872	1,424,041	
Total	0-4	112,444	75,064	41,119	228,627
	5-9	115,283	74,365	41,232	230,880
	10-14	122,240	75,132	40,671	238,043
	15-19	125,426	70,767	35,694	232,887
	20-24	127,880	62,110	33,221	223,211
	25-29	117,414	59,406	34,655	211,475
	30-34	134,108	65,000	34,089	234,197
	35-39	142,164	59,400	28,896	230,460
	40-44	131,280	47,859	23,798	202,937
	45-49	132,628	41,392	21,604	195,624
	50-54	111,217	33,778	17,844	162,839
	55-59	92,097	26,340	12,944	131,381
	60-64	82,067	22,983	10,460	115,510
65+	132,849	41,255	15,545	189,649	
Total	1,679,097	755,851	392,772	2,827,720	

City of Houston - Office of the Mayor
Housing and Population Data

1995 All Races - Male - Total Tracts Households * Set 3 (HHSMD CITY)
Non-Elderly Person Inclusive

Run Oct 30, 1979 * Printed Oct 31, 1979 * Prepared by AFA
OLDHH FROM 3 * POP FROM 3 * HEADSHIP 1 * HHHSIZE 2
HHINCINAT 1 * HHINCINM 1 * INCINFL 1

Non-Elderly

Household Income:	Household Size						Total
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person	
Less Than \$2,000	11,076	13,438	7,705	6,157	3,700	5,382	47,458
\$2,000 - \$2,999	4,961	6,235	3,525	2,873	1,703	2,415	21,712
\$3,000 - \$4,999	14,318	18,991	11,748	9,705	5,909	8,558	69,229
\$5,000 - \$6,999	17,552	26,127	17,373	14,811	9,124	12,548	97,535
\$7,000 - \$9,999	27,875	47,356	33,497	30,443	18,211	20,844	178,226
\$10,000 - \$14,999	31,329	61,335	45,374	44,663	25,445	22,466	230,612
\$15,000 - \$24,999	17,857	37,170	27,145	28,419	15,571	11,005	137,167
\$25,000 or More	6,228	11,801	7,388	7,741	4,169	2,456	39,783
Total	131,196	222,453	153,755	144,812	83,832	85,674	821,722

Elderly

Household Income:	Household Size						Total
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person	
Less Than \$2,000	3,173	3,746	2,058	1,569	971	1,382	12,899
\$2,000 - \$2,999	1,838	2,561	1,387	1,070	604	727	8,187
\$3,000 - \$4,999	3,567	5,100	2,731	2,052	1,186	1,387	16,023
\$5,000 - \$6,999	2,401	3,576	1,978	1,542	866	910	11,273
\$7,000 - \$9,999	2,454	3,709	2,053	1,566	811	859	11,452
\$10,000 - \$14,999	2,020	3,405	1,830	1,503	775	633	10,166
\$15,000 - \$24,999	1,197	2,085	1,101	939	454	359	6,135
\$25,000 or More	802	1,368	631	500	228	153	3,682
Total	17,452	25,550	13,769	10,741	5,895	6,410	79,817

City of Houston - Office of the Mayor
 Housing and Population Data

1995 All Races - Female - Total tracts Households * Set 3 (HHMOD CITY)

Non-City Portion Included
 Run Oct 30, 1979 * Printed Oct 31, 1979 * Prepared by AFA
 OLDDH FROM 2 * POP FROM 3 * HEADSHIP 1 * HHSIZE 2
 HHINCAT 1 * HHINCINM 1 * INCINFL 1

Non-Elderly

Household Income:	Household Size						Total
	1	2	3	4	5	6 or More	
Less Than \$2,000	13,287	14,434	8,079	5,990	3,656	5,193	50,639
\$2,000 - \$2,999	5,312	5,662	3,111	2,246	1,227	1,923	19,481
\$3,000 - \$4,999	10,012	11,272	6,272	4,574	2,572	3,381	38,083
\$5,000 - \$6,999	8,604	9,926	5,090	3,683	1,829	2,046	31,178
\$7,000 - \$9,999	8,557	10,161	5,272	3,907	1,940	1,954	31,791
\$10,000 - \$14,999	5,235	6,547	3,295	2,541	1,188	1,088	19,894
\$15,000 - \$24,999	2,097	2,570	1,183	835	384	314	7,383
\$25,000 or More	840	883	265	208	77	49	2,322
Total	53,944	61,455	32,567	23,984	12,873	15,948	200,771

Elderly

Household Income:	Household Size						Total
	1	2	3	4	5	6 or More	
Less Than \$2,000	6,861	6,762	3,490	2,683	1,549	1,938	23,283
\$2,000 - \$2,999	2,184	1,953	854	447	244	335	6,017
\$3,000 - \$4,999	3,726	3,723	1,873	1,254	591	813	11,980
\$5,000 - \$6,999	3,069	2,973	1,227	746	296	291	8,622
\$7,000 - \$9,999	2,890	2,998	1,313	858	298	348	8,705
\$10,000 - \$14,999	1,695	1,786	765	527	255	208	5,236
\$15,000 - \$24,999	632	752	274	247	139	98	2,142
\$25,000 or More	256	247	73	78	39	23	716
Total	21,313	21,194	9,069	6,860	3,911	4,054	66,701

1995 White - Male - Total tracts Households * Set 3 (HMOD CITY)
Non-City Portion Included

Run Oct 30, 1979 * Printed Oct 31, 1979 * Prepared by AFA
OLDDH FROM 3 * POP FROM 3 * HEADSHIP 1 * HHSIZE 2
HHINCAT 1 * HHINCIN 1 * INCINFL 1

Non-Elderly

Household Income:	Household Size						Total
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person	
Less Than \$2,000	5,939	7,432	3,467	2,877	1,444	1,012	22,171
\$2,000 - \$2,999	2,709	3,506	1,583	1,354	630	414	10,196
\$3,000 - \$4,999	7,562	10,145	4,997	4,144	2,072	1,375	30,295
\$5,000 - \$6,999	9,648	14,677	8,066	7,040	3,674	2,352	45,457
\$7,000 - \$9,999	18,186	31,823	19,873	18,501	9,972	6,250	104,605
\$10,000 - \$14,999	25,174	49,728	34,629	34,635	18,631	11,064	173,861
\$15,000 - \$24,999	16,021	33,195	23,492	24,930	13,347	7,426	118,411
\$25,000 or More	5,999	11,048	6,785	7,182	3,795	2,022	36,831
Total	91,238	161,554	102,892	100,663	53,565	31,915	541,827

Elderly

Household Income:	Household Size						Total
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person	
Less Than \$2,000	1,652	2,134	938	707	383	244	6,058
\$2,000 - \$2,999	1,127	1,757	829	659	315	187	4,874
\$3,000 - \$4,999	2,614	3,781	1,833	1,360	690	449	10,727
\$5,000 - \$6,999	1,881	2,875	1,473	1,080	559	334	8,202
\$7,000 - \$9,999	2,010	3,118	1,559	1,196	557	338	8,778
\$10,000 - \$14,999	1,787	2,970	1,560	1,259	628	340	8,544
\$15,000 - \$24,999	1,110	1,845	938	776	350	168	5,187
\$25,000 or More	772	1,311	575	473	212	128	3,471
Total	12,953	19,791	9,705	7,510	3,694	2,188	55,841

1995 White - Female - Total tracts Households * Set 3 (HHMOD CITY)

Non-City Portion Included
Run Oct 30, 1979 * Printed Oct 31, 1979 * Prepared by AFA
OLDHH FROM 3 * FOP FROM 3 * HEADSHIP 1 * HHSIZE 2
HHINCNA1 1 * HHINCINM 1 * INCINFL 1

Household Income:	Non-Elderly						Total
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person	
Less Than \$2,000	5,940	6,574	2,821	2,005	912	468	18,720
\$2,000 - \$2,999	2,417	2,659	1,073	671	231	115	7,166
\$3,000 - \$4,999	5,649	6,308	2,785	1,888	812	380	17,822
\$5,000 - \$6,999	6,373	7,164	3,118	2,221	922	421	20,219
\$7,000 - \$9,999	6,669	7,661	3,463	2,530	1,088	467	21,878
\$10,000 - \$14,999	4,479	5,424	2,471	1,869	811	351	15,405
\$15,000 - \$24,999	1,946	2,329	972	714	317	130	6,408
\$25,000 or More	791	822	246	178	74	30	2,141
Total	34,264	38,941	16,949	12,076	5,167	2,362	109,759

Household Income:	Elderly						Total
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person	
Less Than \$2,000	3,990	3,938	1,674	1,203	570	331	11,706
\$2,000 - \$2,999	1,384	1,324	476	214	85	44	3,527
\$3,000 - \$4,999	2,793	2,770	1,130	742	280	112	7,827
\$5,000 - \$6,999	2,593	2,551	999	610	216	83	7,052
\$7,000 - \$9,999	2,581	2,651	1,084	718	227	115	7,376
\$10,000 - \$14,999	1,558	1,675	676	444	200	105	4,658
\$15,000 - \$24,999	596	707	235	218	121	59	1,936
\$25,000 or More	253	240	68	73	36	19	689
Total	15,748	15,856	6,342	4,222	1,735	860	44,771

City of Houston - Office of the Mayor
Housing and Population Data

1995 Black - Male - Total Tracts Households * Set 3 (HHMOO CITY)

Non-City Portion Included

Run Oct 30, 1979 * Printed Oct 31, 1979 * Prepared by AFA

OLDINH FROM 3 * POP FROM 3 * HEADSHIP 1 * HHSIZE 2

HHINCINAT 1 * HHINCINN 1 * INCINFL 1

Non-Elderly

Household Income:	Household Size						Total
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person	
Less Than \$2,000	4,434	4,873	3,158	2,393	1,539	2,931	19,328
\$2,000 - \$2,999	1,931	2,227	1,459	1,117	740	1,340	8,814
\$3,000 - \$4,999	5,502	6,715	4,607	3,641	2,338	4,259	27,062
\$5,000 - \$6,999	6,234	8,074	5,868	4,711	3,098	5,698	33,483
\$7,000 - \$9,999	7,268	10,389	7,995	6,714	4,468	7,796	44,630
\$10,000 - \$14,999	4,230	6,718	5,483	4,763	3,093	5,364	29,451
\$15,000 - \$24,999	1,233	2,044	1,625	1,360	856	1,447	8,565
\$25,000 or More	90	198	156	124	70	122	760
Total	30,922	41,238	30,351	24,823	16,202	28,957	172,493

Elderly

Household Income:	Household Size						Total
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person	
Less Than \$2,000	1,318	1,419	899	689	465	866	5,656
\$2,000 - \$2,999	616	703	412	318	224	371	2,644
\$3,000 - \$4,999	812	1,039	667	492	332	632	3,974
\$5,000 - \$6,999	438	512	355	273	168	327	2,073
\$7,000 - \$9,999	347	430	319	248	145	293	1,782
\$10,000 - \$14,999	141	188	124	105	55	133	746
\$15,000 - \$24,999	57	85	35	28	15	41	261
\$25,000 or More	4	7	4	1	1	1	18
Total	3,733	4,383	2,815	2,154	1,405	2,264	17,154

City of Houston - Office of the Mayor
Housing and Population Data

1995 Black - Female - Total tracts Households * Set 3 (HHMOD CITY)

Non-City Portion Included

Run Oct 30, 1979 * Printed Oct 31, 1979 * Prepared by AFA

OLDHH FROM 3 * POP FROM 3 * HEADSHIP 1 * HH SIZE 2

HHINCINAT 1 * HHINCINM 1 * INCINFL 1

Non-Elderly

Household Income:	Household Size						Total
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person	
Less Than \$2,000	6,706	6,944	4,441	3,339	2,167	3,803	27,400
\$2,000 - \$2,999	2,682	2,725	1,813	1,366	903	1,552	11,041
\$3,000 - \$4,999	3,730	4,167	2,787	2,161	1,324	2,314	16,483
\$5,000 - \$6,999	1,789	2,097	1,450	1,104	702	1,198	8,340
\$7,000 - \$9,999	1,532	1,951	1,359	1,008	642	1,051	7,543
\$10,000 - \$14,999	552	786	528	415	201	419	2,901
\$15,000 - \$24,999	100	168	110	63	22	100	563
\$25,000 or More	12	18	5	1	1	4	41
Total	17,103	18,856	12,493	9,457	5,962	10,441	74,312

Elderly

Household Income:	Household Size						Total
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person	
Less Than \$2,000	2,514	2,319	1,465	1,136	754	1,184	9,372
\$2,000 - \$2,999	729	594	344	228	155	274	2,324
\$3,000 - \$4,999	785	785	524	353	196	438	3,081
\$5,000 - \$6,999	373	376	183	129	60	151	1,272
\$7,000 - \$9,999	241	260	140	97	40	132	910
\$10,000 - \$14,999	60	70	46	40	25	45	286
\$15,000 - \$24,999	18	29	22	11	7	12	99
\$25,000 or More	1	2	1	1	1	1	7
Total	4,721	4,435	2,725	1,995	1,230	2,237	17,351

City of Houston - Office of the Mayor
Housing and Population Data

1995 Spanish American - Male - Total tracts Households * Set 3 (HIMOD CITY)
Non-City Portion Included
Run Oct 30, 1979 * Printed Oct 31, 1979 * Prepared by AFA
OLDDH FROM 3 * POP FROM 3 * HEADSHIP 1 * HHSIZE 2
HHINCNA1 * HHINCIN1 * INCINFL 1

Non-Elderly

Household Income:	Household Size						Total
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person	
Less Than \$2,000	703	1,133	1,080	887	717	1,439	5,959
\$2,000 - \$2,999	321	502	483	402	333	661	2,702
\$3,000 - \$4,999	1,254	2,131	2,144	1,920	1,499	2,924	11,872
\$5,000 - \$6,999	1,670	3,376	3,439	3,060	2,352	4,498	18,395
\$7,000 - \$9,999	2,421	5,144	5,629	5,228	3,771	6,798	28,991
\$10,000 - \$14,999	1,925	4,809	5,262	5,265	3,721	6,038	27,100
\$15,000 - \$24,999	603	1,931	2,028	2,129	1,368	2,132	10,191
\$25,000 or More	139	555	447	435	304	312	2,192
Total	9,036	19,661	20,512	19,326	14,065	24,802	107,402

Elderly

Household Income:	Household Size						Total
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person	
Less Than \$2,000	203	193	221	173	123	272	1,185
\$2,000 - \$2,999	95	101	146	93	65	169	669
\$3,000 - \$4,999	141	280	231	200	164	306	1,322
\$5,000 - \$6,999	82	189	150	189	139	249	998
\$7,000 - \$9,999	97	161	175	122	109	228	892
\$10,000 - \$14,999	92	247	146	139	92	160	876
\$15,000 - \$24,999	30	155	128	135	89	150	687
\$25,000 or More	26	50	52	26	15	24	193
Total	766	1,376	1,249	1,077	796	1,558	6,822

City of Houston - Office of the Mayor
Housing and Population Data

1995 Spanish American - Female - Total Tracts Households * Ser 3 (Harris City)

Non-City Portion Included

Run Oct 30, 1979 * Printed Oct 31, 1979 * Prepared by AFA

OLDDH FROM 3 * POP FROM 3 * HEADSHIP 1 * HHSIZE 2

HHINCNA1 1 * HHINCIM 1 * INCINFL 1

Non-Elderly

Household Income:	Household Size						Total
	1	2	3	4	5	6 or More	
Less Than \$2,000	641	916	817	646	577	922	4,519
\$2,000 - \$2,999	213	278	225	209	93	256	1,274
\$3,000 - \$4,999	633	797	700	525	436	687	3,778
\$5,000 - \$6,999	442	665	522	358	205	427	2,619
\$7,000 - \$9,999	356	549	450	369	210	436	2,370
\$10,000 - \$14,999	204	337	296	257	176	318	1,588
\$15,000 - \$24,999	51	73	101	58	45	84	412
\$25,000 or More	37	43	14	29	2	15	140
Total	2,577	3,658	3,125	2,451	1,744	3,145	16,700

Elderly

Household Income:	Household Size						Total
	1	2	3	4	5	6 or More	
Less Than \$2,000	357	505	351	304	225	423	2,205
\$2,000 - \$2,999	71	35	34	5	4	17	166
\$3,000 - \$4,999	148	168	219	159	115	263	1,072
\$5,000 - \$6,999	103	46	45	27	20	57	298
\$7,000 - \$9,999	68	87	89	43	31	101	419
\$10,000 - \$14,999	77	41	43	43	30	58	292
\$15,000 - \$24,999	18	16	17	18	11	27	107
\$25,000 or More	2	5	4	4	2	3	20
Total	844	903	802	643	438	949	4,579

City of Houston - Office of the Mayor
Housing and Population Data

1995 Housing Unit Forecast * Set 3
Total Tracts Forecast Units
Non-City Portion Included

Run Oct 30, 1979 * Printed Oct 31, 1979 * Prepared by AFA
OLDNITS FROM 3 * ONEMO 1 * ROEMO 1 * OTCNST 4 * RCONST 4
OCCNST 4 * KCCNST 4 * VALINFL 2 * REITINFL 7
OSUIT 2 * RSUIT 2 * OVAC 4 * RVAC 4 * OCONV 4 * RCONV 4
CLUSTERS 1 * OREHAB 1 * RREHAB 1

Tenure and Value/Rent	Unit Size					Total
	1 and 2 Rooms	3 Rooms	4 Rooms	5 Rooms	6 or More Rooms	
Owner						
Less Than \$5,000	80	211	707	474	276	1,748
\$5,000 - \$9,999	166	620	3,403	4,689	2,678	11,556
\$10,000 - \$14,999	146	1,268	5,874	11,706	8,176	27,170
\$15,000 - 19,999	113	562	4,885	18,453	19,035	43,048
\$20,000 - \$24,999	70	419	2,524	16,655	23,510	43,178
\$25,000 - \$34,999	58	2,582	14,762	39,545	80,287	137,234
\$35,000 or More	85	8,612	27,639	54,426	312,657	403,419
Total Owner Units	718	14,274	59,794	145,948	446,619	667,353
Rental						
Less Than \$40	671	1,071	838	412	301	3,293
\$40 - \$59	1,257	3,109	2,621	924	362	8,273
\$60 - \$79	2,949	6,066	6,800	3,466	1,264	20,625
\$80 - \$99	3,111	6,074	8,629	5,869	2,313	25,996
\$100 - \$149	4,638	10,200	10,478	6,486	3,243	35,045
\$150 - \$199	11,063	35,312	37,120	9,768	6,168	99,431
\$200 or More	17,350	84,621	120,994	78,178	24,045	325,188
No Contract Rent	533	670	954	912	1,086	4,155
Total Rental Units	41,572	147,123	188,514	106,015	38,782	522,006
Total Units	42,290	161,397	248,308	251,963	485,401	1,189,359

City of Houston - Office of the Mayor
Housing and Population Data

Tract-level Population Forecast by Race for 1995
Page 1

Tract	White	Black	Sp. Am.	Total
121	6352	2928	4135	13415
122	151	1279	6057	7487
123	624	922	3778	5324
124	1132	6251	235	7618
125	1888	568	3897	6353
126	721	6674	516	7911
201	0	13350	60	13310
202	4230	2368	7227	13825
203	2998	3924	10281	17203
204	177	4170	67	4414
205	0	18066	1162	19228
206	357	16110	2085	18552
207	822	20146	731	21699
208	0	14533	1154	15687
209	5680	0	658	6338
210	221	20564	553	21338
213	30900	6305	7977	44282
214	5998	4309	3234	13541
215	4811	16338	1543	22682
216	1257	10699	79	12035
217	460	11679	1054	13193
218	2819	12001	1779	16599
219	3521	4729	1138	9388
220	9409	791	2285	12485
221	1783	0	452	2235
222	3884	1427	3218	8529
223	7464	7244	7976	22684
224	5536	10982	1199	17717
225	2227	16409	582	19218
226	15634	12666	831	29131
227	9579	0	2527	12206
228	16228	0	0	16228
229	10435	0	3330	13765
230	31646	0	1710	33356
231	6458	0	164	6622
232	7963	0	564	8527
233	6976	0	0	6976
236	14037	0	0	14037
237	3801	0	0	3801
238	20410	0	1625	22035
239	11577	542	2152	14271
240	24572	0	6182	30754
241	18484	0	1237	19721
242	8191	0	0	8191
243	10016	1237	0	11253
244	11134	2543	782	14459
245	19724	329	1588	21641
246	28425	0	0	28425
247	4393	0	1646	6039
248	6465	0	0	6465

Tract-level Population Forecast by Race for 1995
Page 2

Tract	White	Black	Sp. Am.	Total
249	22836	702	1487	25025
250	5711	0	0	5711
251	6109	0	203	6312
253	3748	458	152	4358
254	4772	0	94	4866
301	5661	0	11510	17171
302	1922	3943	6785	12650
303	226	6778	339	7343
304	63	16557	91	16711
305	0	13395	104	13499
306	320	9252	259	9831
307	67	15536	260	15863
308	542	3930	342	4814
309	8316	1935	14783	24954
310	4470	0	8788	13258
311	1574	248	9834	11656
312	1109	113	5065	6287
313	5558	772	3482	13012
314	3512	9503	1028	14043
315	1196	14957	524	16677
316	1283	8503	420	10206
317	2409	25618	1549	29576
318	3723	17311	1640	22674
319	9136	0	1993	11129
320	20154	94	3531	23779
321	4355	3776	5189	13320
322	11439	0	1453	12892
323	9558	87	2113	11758
324	20088	269	3421	22778
325	9115	0	7816	16931
326	10318	0	4917	15235
327	3652	12947	926	17525
328	1462	19402	640	21504
329	149	13565	76	13790
330	0	9661	173	9834
331	4069	5123	2722	11914
332	4774	12074	2233	21081
333	1156	10979	415	12450
334	1663	8847	3773	14283
335	9773	12093	7269	29135
336	7126	3432	4795	15353
337	3671	2919	458	7048
338	10914	1543	1787	14244
339	0	23327	280	23607
340	1813	20511	245	22569
341	2893	3158	566	6617
342	4290	0	1779	6069
343	6464	65159	634	72257
344	6628	0	2522	9150
345	20012	0	1594	21556

Tract-level Population Forecast by Race for 1995

Tract	White	Black	Sp. 60+	Total
346	14235	0	1704	15939
347	25423	88	3874	29385
359	30976	0	6821	37797
361	16138	291	2140	18569
367	15560	174	0	15734
370	12580	0	1268	13948
371	17447	660	2535	20642
401	2621	4286	6655	13562
402	7972	1242	6524	15738
403	7862	279	2910	11081
404	7647	63	767	8477
405	9095	54	3942	13091
406	9010	149	1181	10340
407	14745	505	2392	17642
412	11980	168	1990	14138
413	12179	0	9878	17057
414	10813	142	1770	12725
415	16744	217	1331	18292
416	22801	114	3212	26127
419	21204	392	5830	27426
420	17325	288	2696	20309
421	5093	0	1125	6218
422	28802	205	4345	33352
423	32698	11424	10884	55006
424	31285	175	2987	34447
425	29487	559	2659	32705
426	16824	0	2752	19576
427	15404	0	1360	16764
428	8582	122	389	9093
429	4515	0	425	4940
430	15374	0	1349	16723
431	7526	0	340	7866
432	10399	0	470	10869
433	22491	2997	2466	27954
434	28231	4126	0	32357
435	21378	0	2042	23420
436	60572	1493	15938	76203
437	8954	6450	2385	17789
438	74256	4977	5814	85047
439	16328	0	0	16328
442	18984	185	3268	22437
443	50860	0	5065	55925
444	60691	0	3854	64545
445	20713	0	1752	22465
446	53359	0	7411	60770
447	41823	0	2869	44692
448	6966	0	834	7800
449	7701	0	0	7701
450	9321	0	1370	10691
451	4290	0	976	5266

Tract-level Population Forecast by Race for 1995
Page 4

Tract	White	Black	Sp. Am.	Total
501	0	272	284	556
502	185	2664	875	3726
503	3263	1714	12348	17325
504	414	2367	1813	4594
505	2548	2913	3004	8465
506	5261	1228	6873	13362
507	5292	1253	5068	11413
508	1530	3052	4670	9252
509	5766	4811	5394	15971
510	474	8226	225	8925
511	4905	0	4185	9090
512	6793	0	2199	8992
513	905	4836	2012	7753
514	2069	10510	1592	14171
515	6103	8042	7391	21536
516	4058	2052	10105	14215
517	19756	1621	1676	23053
518	7750	5461	1773	14984
519	19728	8154	2106	29988
520	8089	20374	3198	31663
521	8509	297	7988	14794
522	12608	0	1872	14480
523	18051	0	2538	20589
524	74	1835	79	1988
525	4648	15202	282	20132
526	13148	292	2166	15606
527	16730	0	1152	17882
528	5547	14176	516	20239
529	41336	0	695	42031
530	11457	18348	895	30700
531	9223	14635	1296	25154
532	13629	0	1396	15025
533	24856	0	1045	25901
534	18568	0	620	19188
535	10310	0	0	10310
536	30109	0	2508	32617
537	25730	1819	0	27549
538	31178	3166	1574	35918
539	13715	4089	177	17981
540	28356	0	2956	31312
541	20063	0	484	20547
542	13674	11605	2608	27887
543	4161	0	326	4487
544	1027	0	0	1027
545	22821	0	1438	24259
551	14728	1477	0	16205
Total	2199878	848872	491760	3540510

2000 Population * Set 3
 Non-City Portion Included
 Run Oct 31, 1979 * Printed Oct 31, 1979 * Prepared by RFA
 OLDFOP FROM A * COUNCIL * FIFTH * PLAN I

Sex	Age	White	Black	Sp. Amer.	Total
Male	0-4	62,045	43,843	24,315	130,203
	5-9	62,342	41,646	23,272	127,260
	10-14	64,146	41,079	23,327	128,552
	15-19	67,845	40,602	22,577	131,024
	20-24	69,727	37,505	20,171	127,403
	25-29	73,072	32,122	18,492	123,686
	30-34	67,418	27,430	17,019	111,867
	35-39	76,127	29,645	16,777	122,549
	40-44	80,423	25,997	13,759	120,179
	45-49	69,761	19,642	10,689	100,092
	50-54	65,132	14,443	8,985	88,560
	55-59	55,010	11,770	7,643	74,423
	60-64	47,442	9,292	5,130	61,864
65+	55,706	15,005	7,290	78,001	
Total	916,196	390,021	219,446	1,525,663	
Female	0-4	59,480	36,473	19,509	115,462
	5-9	59,396	35,308	18,555	113,339
	10-14	60,666	35,243	18,617	114,526
	15-19	63,962	36,045	18,538	118,545
	20-24	65,516	34,714	16,926	117,156
	25-29	64,790	30,829	14,840	110,459
	30-34	59,162	32,915	17,801	109,878
	35-39	67,645	36,609	17,050	121,304
	40-44	71,989	33,663	14,928	120,580
	45-49	68,374	27,187	12,307	107,868
	50-54	74,482	26,209	11,920	112,611
	55-59	57,147	19,616	9,645	85,408
	60-64	45,350	15,172	6,714	67,236
65+	90,862	31,447	11,108	133,417	
Total	908,821	431,510	207,458	1,547,789	
Total	0-4	121,525	80,316	43,824	245,665
	5-9	121,738	77,034	41,827	240,599
	10-14	124,812	76,322	41,904	243,078
	15-19	131,807	76,647	41,115	249,569
	20-24	135,243	72,219	37,097	244,559
	25-29	137,862	62,951	33,332	234,145
	30-34	126,580	60,345	34,820	221,745
	35-39	143,772	66,254	33,827	243,853
	40-44	152,412	59,660	28,687	240,759
	45-49	138,135	46,829	22,996	207,960
	50-54	139,614	40,652	20,905	201,171
	55-59	112,157	31,386	16,288	159,831
	60-64	92,792	24,464	11,844	129,100
65+	146,568	46,452	18,398	211,418	
Total	1,825,017	821,531	426,904	3,073,452	

2000 All Races - Male - Total Tracts Households * Set 3 (HHMOU CITY)
 Non-City Portion Included

Run Oct 31, 1979 * Printed Oct 31, 1979 * Prepared by AFA
 OL-00H FROM 3 * POP FROM 3 * RESIDENCY 1 * HOUSE 2
 HHINCMAT 1 * HHINCMAT 1 * GRDECEL 1

Household Income:	Non-Elderly						Total
	Household Size						
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person	
Less Than \$2,000	12,148	14,562	8,321	6,615	3,977	5,773	51,396
\$2,000 - \$2,999	5,383	6,483	3,761	3,034	1,791	2,547	23,199
\$3,000 - \$4,999	15,045	19,808	12,162	10,007	6,071	8,770	71,883
\$5,000 - \$6,999	18,078	26,672	17,609	14,954	9,181	12,604	99,098
\$7,000 - \$9,999	28,250	47,635	33,540	30,399	18,155	20,799	178,778
\$10,000 - \$14,999	31,368	61,101	45,070	44,295	25,221	22,306	229,361
\$15,000 - \$24,999	17,804	36,916	26,895	28,117	15,401	10,901	136,034
\$25,000 or More	6,231	11,755	7,328	7,667	4,125	2,433	39,539
Total	134,307	225,132	154,706	145,088	83,922	86,133	829,288

Household Income:	Elderly						Total
	Household Size						
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person	
Less Than \$2,000	4,691	5,427	2,994	2,289	1,403	1,984	18,790
\$2,000 - \$2,999	2,432	3,215	1,742	1,332	752	948	10,421
\$3,000 - \$4,999	4,930	6,742	3,697	2,809	1,629	2,009	21,816
\$5,000 - \$6,999	3,849	5,511	3,155	2,502	1,428	1,658	18,103
\$7,000 - \$9,999	4,418	6,737	4,065	3,336	1,843	2,020	22,427
\$10,000 - \$14,999	3,942	6,911	4,325	3,916	2,135	1,837	23,066
\$15,000 - \$24,999	2,229	4,121	2,545	2,433	1,269	938	13,535
\$25,000 or More	1,165	2,009	1,017	903	443	280	5,817
Total	27,656	40,673	23,540	19,520	10,902	11,684	133,975

2000 All Races - Female - Total tracts Households * Set 3 (HMDU CITY)

Non-City Portion Included
Run Oct 31, 1979 * Printed Oct 31, 1979 * Prepared by AFA
OLDDH FROM 3 * POP FROM 3 * HEADSHIP 1 * HRSIZE 2
HHINCNT1 * HHINCIN1 * INCINFL 1

Household Income:	Non-Elderly						Total
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person	
Less Than \$2,000	14,087	15,352	8,583	6,394	3,894	5,523	53,833
\$2,000 - \$2,999	5,658	6,091	3,338	2,421	1,330	2,058	20,896
\$3,000 - \$4,999	10,907	12,457	6,974	5,141	2,909	3,857	42,245
\$5,000 - \$6,999	9,606	11,394	6,036	4,480	2,316	2,705	36,537
\$7,000 - \$9,999	10,081	12,716	7,046	5,505	2,886	3,040	41,274
\$10,000 - \$14,999	6,919	9,808	5,674	4,869	2,512	2,254	32,036
\$15,000 - \$24,999	3,059	4,558	2,613	2,327	1,200	892	14,649
\$25,000 or More	1,194	1,550	672	627	301	182	4,526
Total	61,511	73,926	40,936	31,764	17,348	20,511	245,996

Household Income:	Elderly						Total
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person	
Less Than \$2,000	8,269	8,383	4,425	3,409	1,995	2,598	29,079
\$2,000 - \$2,999	2,794	2,677	1,263	763	425	599	8,521
\$3,000 - \$4,999	5,116	5,495	2,932	2,090	1,089	1,515	18,237
\$5,000 - \$6,999	4,485	4,950	2,455	1,777	896	1,084	15,647
\$7,000 - \$9,999	4,827	6,072	3,377	2,674	1,361	1,559	19,870
\$10,000 - \$14,999	3,633	5,384	3,325	2,999	1,647	1,440	18,428
\$15,000 - \$24,999	1,699	2,869	1,768	1,779	972	691	9,778
\$25,000 or More	651	957	494	506	266	158	3,032
Total	31,474	36,787	20,039	15,997	8,651	9,644	122,592

2000 White - Male - Total tracts Households * Set 3 (HHMOO CITY)
Non-City Portion Included
Run Oct 31, 1979 * Printed Oct 31, 1979 * Prepared by AFA
OLGHH FROM 3 * POP FROM 3 * HEADSHIP 1 * HHSIZE 2
HHINCNA1 1 * HHINCIM 1 * INCINFL 1

Non-Elderly

Household Income:	Household Size						Total
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person	
Less Than \$2,000	6,436	7,960	3,690	3,032	1,516	1,050	23,684
\$2,000 - \$2,999	2,918	3,744	1,680	1,412	652	425	10,831
\$3,000 - \$4,999	8,008	10,646	5,213	4,284	2,131	1,402	31,684
\$5,000 - \$6,999	10,053	15,096	8,228	7,132	3,705	2,360	46,574
\$7,000 - \$9,999	18,484	32,027	19,885	18,449	9,918	6,202	104,965
\$10,000 - \$14,999	25,194	49,492	34,348	34,297	18,434	10,939	172,704
\$15,000 - \$24,999	15,966	32,945	23,250	24,643	13,187	7,332	117,323
\$25,000 or More	6,001	11,003	6,728	7,111	3,754	2,001	36,598
Total	93,060	162,913	103,022	100,360	53,297	31,711	544,363

Elderly

Household Income:	Household Size						Total
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person	
Less Than \$2,000	2,436	3,018	1,330	1,007	527	333	8,651
\$2,000 - \$2,999	1,443	2,116	978	765	359	213	5,874
\$3,000 - \$4,999	3,394	4,710	2,262	1,687	843	528	13,434
\$5,000 - \$6,999	2,802	4,078	2,074	1,568	796	475	11,793
\$7,000 - \$9,999	3,378	5,220	2,780	2,286	1,124	681	15,469
\$10,000 - \$14,999	3,351	5,821	3,461	3,122	1,618	921	18,294
\$15,000 - \$24,999	2,040	3,664	2,182	2,082	1,046	553	11,567
\$25,000 or More	1,120	1,910	929	846	408	232	5,445
Total	19,964	30,537	15,996	13,363	6,721	3,946	90,527

City of Houston - Office of the Mayor
Housing and Population Data

2000 White - Female - Total tracts Households * Set 2 (HHMD CITY)

Non-Elderly Person
Run Oct 31, 1979 * Printed Oct 31, 1979 * Prepared by APH
OLDDH FROM 3 * FOR FROM 3 * HOUSEHOLD 1 * HOUSE 2 *
HHINCWA 1 * HHINCWA 2 * HHINCWA 3 * HHINCWA 4

Household Income:	Non-Elderly						Total
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person	
Less Than \$2,000	6,415	7,134	3,076	2,210	1,017	540	20,392
\$2,000 - \$2,999	2,636	2,943	1,199	772	279	146	7,975
\$3,000 - \$4,999	6,200	7,036	3,137	2,170	952	471	19,966
\$5,000 - \$6,999	6,969	8,050	3,594	2,622	1,131	554	22,920
\$7,000 - \$9,999	7,700	9,427	4,543	3,521	1,615	799	27,605
\$10,000 - \$14,999	5,845	8,088	4,300	3,682	1,785	930	24,630
\$15,000 - \$24,999	2,811	4,103	2,209	2,020	1,014	517	12,674
\$25,000 or More	1,133	1,448	620	568	278	140	4,187
Total	39,709	48,229	22,678	17,565	8,071	4,097	140,349

Household Income:	Elderly						Total
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person	
Less Than \$2,000	4,598	4,679	2,008	1,463	698	412	13,858
\$2,000 - \$2,999	1,674	1,701	644	346	143	80	4,588
\$3,000 - \$4,999	3,541	3,744	1,596	1,103	457	222	10,663
\$5,000 - \$6,999	3,451	3,757	1,622	1,124	474	239	10,667
\$7,000 - \$9,999	3,896	4,765	2,329	1,834	813	472	14,109
\$10,000 - \$14,999	3,126	4,599	2,630	2,357	1,217	701	14,630
\$15,000 - \$24,999	1,555	2,595	1,523	1,558	831	450	8,512
\$25,000 or More	633	906	454	470	243	130	2,836
Total	22,474	26,746	12,806	18,255	9,876	2,706	79,863

City of Houston - Office of the Mayor
Housing and Population Data

2000 Black - Male - Total tracts Households * Set 3 (HHMOD CITY)

Non-City Portion Included

Run Oct 31, 1979 * Printed Oct 31, 1979 * Prepared by AFA

OLHHH FROM 3 * POP FROM 2 * HEADSHIP 1 * HH SIZE 2

HHINGNAT 1 * HHINGNIM 1 * INCINFL 1

Household Income:	Non-Elderly						Total
	Household Size						
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person	
Less Than \$2,000	4,954	5,398	3,492	2,646	1,705	3,217	21,412
\$2,000 - \$2,999	2,128	2,422	1,583	1,209	802	1,446	9,590
\$3,000 - \$4,999	5,751	6,993	4,792	3,780	2,422	4,414	28,152
\$5,000 - \$6,999	6,343	8,195	5,947	4,769	3,134	5,762	34,150
\$7,000 - \$9,999	7,348	10,465	8,057	6,758	4,493	7,842	44,983
\$10,000 - \$14,999	4,253	6,747	5,498	4,774	3,096	5,374	29,742
\$15,000 - \$24,999	1,237	2,051	1,628	1,360	855	1,449	8,580
\$25,000 or More	90	199	155	124	70	122	760
Total	32,104	42,490	31,152	25,420	16,577	29,626	177,369

Household Income:	Elderly						Total
	Household Size						
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person	
Less Than \$2,000	1,960	2,081	1,324	1,010	673	1,233	8,281
\$2,000 - \$2,999	862	955	578	442	305	516	3,658
\$3,000 - \$4,999	1,289	1,590	1,044	786	515	963	6,187
\$5,000 - \$6,999	851	1,035	725	567	360	676	4,212
\$7,000 - \$9,999	797	1,060	794	640	405	743	4,439
\$10,000 - \$14,999	385	571	431	370	224	429	2,409
\$15,000 - \$24,999	124	197	124	101	60	119	725
\$25,000 or More	9	18	12	7	4	7	57
Total	6,277	7,505	5,032	5,923	2,546	4,685	29,968

City of Houston - Office of the Mayor
Housing and Population Data

2000 Black - Female - Total tracts Households * Set 3 (HHMOD CITY)

Non-City Portion Included
Run Oct 31, 1979 * Printed Oct 31, 1979 * Prepared by AFA
OLDHH FROM 3 * POP FROM 3 * HEADSHIP 1 * HHNSIZE 2
HHINCAT 1 * HHINCINM 1 * INCINFL 1

Non-Elderly

Household Income:	Household Size						Total
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person	
Less Than \$2,000	6,981	7,230	4,625	3,481	2,260	3,973	28,550
\$2,000 - \$2,999	2,790	2,844	1,886	1,420	940	1,619	11,499
\$3,000 - \$4,999	4,011	4,512	3,022	2,343	1,441	2,536	17,865
\$5,000 - \$6,999	2,111	2,511	1,747	1,342	857	1,489	10,057
\$7,000 - \$9,999	1,902	2,478	1,763	1,349	867	1,451	9,810
\$10,000 - \$14,999	768	1,127	807	659	360	695	4,416
\$15,000 - \$24,999	165	276	194	133	67	175	1,010
\$25,000 or More	16	29	13	7	4	10	79
Total	18,744	21,007	14,057	10,734	6,796	11,948	83,286

Elderly

Household Income:	Household Size						Total
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person	
Less Than \$2,000	3,209	3,048	1,933	1,490	985	1,599	12,264
\$2,000 - \$2,999	1,012	894	539	376	253	446	3,520
\$3,000 - \$4,999	1,314	1,409	946	682	403	814	5,568
\$5,000 - \$6,999	813	930	578	442	264	523	3,550
\$7,000 - \$9,999	713	918	637	506	309	602	3,685
\$10,000 - \$14,999	313	465	361	311	197	348	1,995
\$15,000 - \$24,999	90	147	113	85	53	93	681
\$25,000 or More	6	13	10	7	4	7	47
Total	7,470	7,824	5,117	3,899	2,468	4,432	31,210

City of Houston - Office of the Mayor
Housing and Population Data

2000 Spanish American - Male - Total tracts Households * Set 3 (HHMOD CITY)

Non-City Portion Included
Run Oct 31, 1997 * FORTIFIED HOUSES * 1 - 100% by JFA
OLDFR FROM 3 * FOR FROM 3 * FROM 3 * FROM 3 * FROM 3
HHMODAT 1 * HHMODAT 1 * HHMODAT 1

Household Income:	Non-Elderly						Total
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person	
Less Than \$2,000	758	1,204	1,139	937	756	1,506	6,300
\$2,000 - \$2,999	337	517	498	413	337	676	2,778
\$3,000 - \$4,999	1,286	2,169	2,177	1,943	1,518	2,954	12,047
\$5,000 - \$6,999	1,682	3,381	3,434	3,053	2,342	4,482	18,374
\$7,000 - \$9,999	2,418	5,123	5,598	5,192	3,744	6,755	28,830
\$10,000 - \$14,999	1,921	4,862	5,224	5,224	3,691	5,993	26,915
\$15,000 - \$24,999	601	1,920	2,017	2,114	1,359	2,120	10,131
\$25,000 or More	140	553	445	432	301	310	2,181
Total	9,143	19,729	20,532	19,308	14,048	24,796	107,556

Household Income:	Elderly						Total
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person	
Less Than \$2,000	295	328	340	272	203	420	1,858
\$2,000 - \$2,999	127	144	186	125	88	219	889
\$3,000 - \$4,999	247	442	391	336	271	508	2,195
\$5,000 - \$6,999	196	400	356	367	272	507	2,098
\$7,000 - \$9,999	243	457	491	410	314	604	2,519
\$10,000 - \$14,999	206	519	433	424	293	488	2,363
\$15,000 - \$24,999	65	260	239	250	163	266	1,203
\$25,000 or More	36	81	76	50	31	41	315
Total	1,415	2,631	2,512	2,234	1,635	3,053	13,480

2000 Spanish American - Female - Total tracts Households * Set 3 (HHMOD CITY)

Non-City Portion Included
Run Oct 31, 1979 * Printed Oct 31, 1979 * Prepared by AFA
OLDHH FROM 3 * POP FROM 3 * F*ADSHIP 1 * HHSIZE 2
HHINC1 * HHINC1 * HHINC1 * HHINC1

Household Income:	Non-Elderly						Total
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person	
Less Than \$2,000	691	988	882	703	617	1,010	4,891
\$2,000 - \$2,999	232	304	253	229	111	293	1,422
\$3,000 - \$4,999	696	909	815	628	516	850	4,414
\$5,000 - \$6,999	526	833	695	516	328	662	3,560
\$7,000 - \$9,999	479	811	740	635	404	790	3,859
\$10,000 - \$14,999	306	593	567	528	367	629	2,990
\$15,000 - \$24,999	83	179	210	174	119	200	965
\$25,000 or More	45	73	39	52	19	32	260
Total	3,058	4,690	4,201	3,465	2,481	4,466	22,361

Household Income:	Elderly						Total
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person	
Less Than \$2,000	462	656	484	456	312	587	2,957
\$2,000 - \$2,999	108	82	80	41	29	73	413
\$3,000 - \$4,999	261	342	390	305	229	479	2,006
\$5,000 - \$6,999	221	263	255	211	158	322	1,430
\$7,000 - \$9,999	218	389	411	334	239	485	2,076
\$10,000 - \$14,999	194	320	334	331	233	391	1,803
\$15,000 - \$24,999	54	127	132	136	88	148	685
\$25,000 or More	12	36	30	29	19	21	149
Total	1,530	2,217	2,116	1,803	1,307	2,506	11,519

2000 Housing Unit Forecast * Set 3
Total Tracts Forecast Units
Non-City Portion Included
Run Oct 21, 1979 * Printed Oct 21, 1979 * Prepared by AFA
OLDUNITS FROM 3 * OUEMO 1 * RDEMO 1 * OCONST 5 * RCONST 5
OCONST 5 * RCONST 5 * VALJHFL 2 * KENTINFL 7
OSUIT 2 * RSUIT 2 * OVAC 4 * RVAC 4 * OCONV 4 * RCONV 4
CLUSTERS 1 * OREHAB 1 * RREHAB 1

Tenure and Value/Rent	1 and 2 Rooms	Unit Size				6 or More Rooms	Total
		3 Rooms	4 Rooms	5 Rooms	6 or More Rooms		
Owner							
Less Than \$5,000	69	178	603	401	235	1,486	
\$5,000 - \$9,999	141	525	2,949	4,117	2,344	10,076	
\$10,000 - \$14,999	134	1,440	5,672	10,943	7,597	25,786	
\$15,000 - 19,999	105	577	4,978	19,542	20,117	45,319	
\$20,000 - \$24,999	70	490	2,736	17,975	25,562	46,833	
\$25,000 - \$34,999	57	3,346	19,116	47,633	96,506	166,658	
\$35,000 or More	85	11,433	35,860	68,215	376,800	492,393	
Total Owner Units	661	17,989	71,914	168,826	529,161	788,551	
Rental							
Less Than \$40	576	892	714	355	271	2,808	
\$40 - \$59	1,157	3,010	2,394	787	307	7,655	
\$60 - \$79	2,730	5,691	6,133	3,062	1,119	18,735	
\$80 - \$99	2,984	5,913	8,135	5,525	2,156	24,713	
\$100 - \$149	4,552	10,233	10,420	6,335	3,157	34,697	
\$150 - \$199	11,356	38,817	42,283	10,495	6,735	109,686	
\$200 or More	19,083	94,062	135,435	88,727	26,073	364,180	
No Contract Rent	489	608	857	830	1,002	3,786	
Total Rental Units	42,927	160,026	206,371	116,116	40,820	566,260	
Total Units	43,588	178,015	278,285	284,942	569,981	1,354,811	

City of Houston - Office of the Mayor
Housing and Population Data

Tract-level Population Forecast by Race for 2000
Page 1

Tract	White	Black	Sp. Abn.	Total
121	7993	3916	5121	17030
122	157	1488	4502	6147
123	604	1043	3879	5526
124	1190	6181	236	7607
125	1941	613	4094	6648
126	851	6486	576	7912
201	0	14970	45	15035
202	4915	3059	8483	16457
203	3026	4543	11085	18654
204	168	3880	60	4108
205	0	18871	1111	19982
206	461	18763	2284	21508
207	1182	24996	835	27013
208	0	16092	1135	17227
209	7592	0	867	8459
210	245	25036	561	25842
213	37036	7935	8097	53068
214	7367	5765	4101	17233
215	4881	18013	1626	24520
216	1059	10620	66	11745
217	497	11414	914	12825
218	2491	12208	1537	16236
219	3400	5023	1058	9481
220	10954	1052	2795	14801
221	1762	0	444	2226
222	3767	1377	3182	8326
223	8040	8301	8484	24825
224	4711	11239	1047	16997
225	1895	16620	482	18997
226	15331	12717	793	28841
227	11642	0	3232	14874
228	20500	0	0	20500
229	13528	0	4388	17916
230	34208	0	1909	36117
231	6647	0	172	6819
232	9151	0	669	9820
233	9540	0	0	9540
236	17599	0	0	17599
237	4775	0	0	4775
238	22960	0	1840	24800
239	14193	759	2641	17593
240	29198	0	7439	36837
	23344	0	1533	24877
	7	0	0	11287
		1611	0	15123
		3240	995	18153
		420	2044	26913
		0	0	37958
		0	2080	7699
		0	0	8739

Tract-level Population Forecast by Race for 2000
Page 2

Tract	White	Black	Sp. Am.	Total
249	27493	890	1835	30218
250	6895	0	0	6895
251	7285	0	246	7531
253	4512	522	184	5218
254	5934	0	119	6053
301	6637	0	13650	20287
302	2020	4475	7329	13824
303	244	6941	324	7509
304	83	17792	91	17966
305	0	14280	94	14374
306	349	9549	246	10144
307	56	16442	242	16740
308	574	5028	377	5979
309	8484	2017	19380	25881
310	4553	0	9177	13730
311	1822	326	11819	13967
312	1029	117	4931	6077
313	5499	810	6784	13093
314	3823	11979	1065	16867
315	1175	17373	546	19094
316	1257	9209	431	10887
317	2448	28904	1592	32944
318	3442	19458	1522	24422
319	10769	0	2454	13223
320	22268	125	3982	26375
321	4001	4018	4975	12994
322	11257	0	1482	12739
323	9613	101	2185	11899
324	23710	342	2967	27019
325	10742	0	9243	19985
326	12392	0	5996	18388
327	3766	15989	954	20709
328	1347	21603	593	23543
329	217	15041	89	15347
330	0	11532	192	11724
331	5133	7120	3957	16210
332	7854	15700	2485	26039
333	1104	10859	356	12319
334	1798	10911	4449	17158
335	11202	15113	8129	34444
336	8995	4317	6131	19443
337	4231	3286	490	8007
338	14531	2048	2237	18816
339	0	27624	350	27974
340	2400	24697	273	27370
341	3558	3898	683	8139
342	5185	0	2157	7342
343	6492	78084	641	85217
344	9175	0	3531	12706
345	24698	0	1968	26666

City of Houston - Office of the Mayor
Housing and Population Data

Tract-level Population Forecast by Race for 2000
Page 3

Tract	White	Black	Sp. Am.	Total
346	18365	0	2130	20495
347	26085	110	4095	30290
359	38960	0	8905	47865
361	15989	347	2194	18530
367	15729	198	0	15927
370	15908	0	1514	17422
371	18195	725	2721	21641
401	2993	4440	7244	14677
402	8713	1473	7320	17506
403	8807	370	3283	12460
404	8299	73	824	9196
405	10426	68	4547	15041
406	9963	152	1309	11424
407	15705	598	2599	18902
412	14297	211	2462	16970
413	13310	0	5502	18812
414	11563	172	1962	13697
415	18663	278	1519	20460
416	24847	130	3644	28621
419	24953	519	7162	32634
420	18354	346	2929	21629
421	5538	0	1241	6779
422	30481	256	4787	35524
423	36374	13295	12606	62275
424	35778	226	3397	39401
425	31416	659	2871	34946
426	18363	0	3139	21502
427	15889	0	1450	17339
428	9510	150	443	10103
429	4979	0	479	5458
430	16006	0	1430	17436
431	8342	0	388	8730
432	10580	0	478	11058
433	26804	3442	3013	33259
434	34320	5083	0	39403
435	21786	0	2156	23942
436	73224	2120	17404	92748
437	10795	8700	2831	22326
438	90365	6049	7237	103651
439	17642	0	0	17642
442	21440	231	3959	25630
443	55920	0	5730	61650
444	64088	0	4204	68292
445	21877	0	1927	23804
446	55957	0	8013	63970
447	48833	0	3464	52287
448	9491	0	1093	10584
449	9352	0	0	9352
450	11683	0	1694	13377
451	5355	0	1172	6527

City of Houston Office of the Mayor
Housing and Population Data

Tract-level Population Forecast by Race for 2000
Page 4

Tract	White	Black	Sp. Am.	Total
501	0	307	289	596
502	235	2745	977	3957
503	3707	2044	13286	19037
504	488	2658	1944	5090
505	3399	3371	3316	10086
506	6212	1361	7641	15214
507	5872	1480	5398	12750
508	1982	3883	5620	11485
509	6358	5773	6374	18505
510	557	9167	235	9959
511	5898	0	5100	10998
512	8171	0	2580	10751
513	875	5264	2165	8304
514	2572	13097	1845	17514
515	7633	9100	8543	25276
516	5248	2313	13287	20848
517	20220	1872	1726	23818
518	7469	5906	1733	15108
519	22662	9805	2435	34902
520	8942	24216	3948	37106
521	9893	303	9369	19565
522	13740	0	2050	15790
523	19224	0	2790	22014
524	73	1700	69	1842
525	4345	14838	241	19424
526	14096	354	2396	16846
527	16897	0	1202	18099
528	6790	17118	524	24432
529	41459	0	718	42177
530	10489	18562	812	29863
531	8550	14600	1196	24346
532	13424	0	1427	14851
533	24546	0	1069	25615
534	22708	0	772	23480
535	13595	0	0	13595
536	36577	0	3144	39721
537	32047	2476	0	34523
538	36375	3945	1910	44230
539	16101	5220	213	21534
540	34028	0	3615	37643
541	24307	0	603	24910
542	16690	14086	3131	33907
543	5186	0	402	5588
544	1378	0	0	1378
545	26231	0	1713	27944
551	17976	1917	0	19893
Total	2507862	966673	560684	4035219

APPENDIX II
ASSUMPTION SETS

APPENDIX II
EXAMPLES OF ASSUMPTIONS USED TO
GENERATE GROWTH OPTION FORECASTS

Many different assumptions are used to produce a growth option forecast. Most must be set up prior to generation of the forecasts, others are requested by the computer routines while the forecasts are being run. As background to operation of the Housing Calculation Tool a sampling of the key assumptions required of the user is shown as part of this Appendix.

Several versions of each type of assumption can be created by the user. Different forecasts can be generated through use of combinations of different versions of the required assumptions.

The major assumptions used in the growth methodology are as follows:

- o Study Area Population Forecast Assumptions
 - Birth rates
 - Death rates

- o Study Area Household Forecast Assumptions
 - Headship rates
 - Household size distributions
 - Household income distributions
 - Income inflation assumptions

- o Unit Forecast Assumptions
 - Demolition rates
 - Conversion rates
 - New construction counts by:
 - Tract clusters and unit type (tenure, size, value and rent)
 - Tract and tenure
 - Unit value/rent inflation
 - Unit structural condition rates
 - Unit vacancy rates

The above cited assumptions are used to create forecasts of population, households and housing units. They appear in the following pages in the order shown above.

City of Houston - Office of the Mayor
Housing and Population Data

Headship Rate Assumption 1
Oct 31, 1979 3:00

	Age	White	Black	Sp Amer
Male	0-4	.000	.000	.000
	5-9	.000	.000	.000
	10-14	.000	.000	.000
	15-19	.036	.020	.029
	20-24	.529	.494	.588
	25-29	.872	.811	.868
	30-34	.872	.811	.868
	35-39	.973	.889	.944
	40-44	.973	.888	.944
	45-49	.974	.846	.898
	50-54	.974	.846	.898
	55-59	.974	.846	.898
	60-64	.974	.846	.898
65+	.919	.921	.780	
Female	0-4	.000	.000	.000
	5-9	.000	.000	.000
	10-14	.000	.000	.000
	15-19	.015	.017	.010
	20-24	.085	.132	.063
	25-29	.190	.268	.123
	30-34	.190	.268	.123
	35-39	.198	.297	.134
	40-44	.198	.297	.136
	45-49	.191	.302	.132
	50-54	.191	.302	.132
	55-59	.191	.302	.131
	60-64	.191	.302	.131
65+	.432	.492	.335	

City of Houston - Office of the Mayor
Housing and Population Data

Annual Death Rate Assumption 1
Oct 31, 1979 3:00

	<u>Age</u>	<u>White</u>	<u>Black</u>	<u>Sp Amer</u>
<u>Male</u>	0-4	.0166	.0311	.0311
	5-9	.0004	.0006	.0006
	10-14	.0004	.0006	.0006
	15-19	.0017	.0024	.0024
	20-24	.0017	.0024	.0024
	25-29	.0017	.0045	.0045
	30-34	.0017	.0045	.0045
	35-39	.0030	.0074	.0074
	40-44	.0030	.0074	.0074
	45-49	.0079	.0142	.0142
	50-54	.0079	.0142	.0142
	55-59	.0195	.0281	.0281
	60-64	.0195	.0281	.0281
65+	.1074	.0842	.0842	
<u>Female</u>	0-4	.0128	.0261	.0261
	5-9	.0003	.0003	.0003
	10-14	.0003	.0003	.0003
	15-19	.0006	.0009	.0009
	20-24	.0006	.0009	.0009
	25-29	.0007	.0016	.0016
	30-34	.0007	.0016	.0016
	35-39	.0016	.0036	.0036
	40-44	.0016	.0036	.0036
	45-49	.0041	.0078	.0078
	50-54	.0041	.0078	.0078
	55-59	.0094	.0164	.0164
	60-64	.0094	.0164	.0164
65+	.0756	.0611	.0611	

City of Houston - Office of the Mayor
Housing and Population Data

Annual Birth Rate Assumption 3
Oct 31, 1979 3:00

	Age	White	Black	Sp Amer
Male	0-4	.0000	.0000	.0000
	5-9	.0000	.0000	.0000
	10-14	.0004	.0026	.0026
	15-19	.0273	.0641	.0710
	20-24	.0669	.1055	.1147
	25-29	.0613	.0659	.0722
	30-34	.0267	.0303	.0335
	35-39	.0146	.0161	.0178
	40-44	.0029	.0043	.0055
	45-49	.0003	.0000	.0000
	50-54	.0000	.0000	.0000
	55-59	.0000	.0000	.0000
	60-64	.0000	.0000	.0000
65+	.0000	.0000	.0000	
Female	0-4	.0000	.0000	.0000
	5-9	.0000	.0000	.0000
	10-14	.0003	.0026	.0026
	15-19	.0257	.0584	.0643
	20-24	.0635	.0797	.0846
	25-29	.0576	.0383	.0405
	30-34	.0258	.0265	.0284
	35-39	.0146	.0169	.0184
	40-44	.0035	.0060	.0066
	45-49	.0003	.0009	.0011
	50-54	.0000	.0000	.0000
	55-59	.0000	.0000	.0000
	60-64	.0000	.0000	.0000
65+	.0000	.0000	.0000	

City of Houston - Office of the Mayor
Housing and Population Data

Household Size Distribution Assumption 2
Oct 31, 1979 3:00

	Household Size					
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person
White Male Non-Elderly	.168	.298	.190	.186	.099	.059
Elderly	.235	.359	.173	.131	.064	.038
Female Non-Elderly	.318	.357	.153	.107	.045	.020
Elderly	.373	.360	.136	.084	.032	.015
Black Male Non-Elderly	.179	.239	.176	.144	.094	.168
Elderly	.220	.257	.163	.124	.081	.155
Female Non-Elderly	.231	.254	.168	.127	.080	.140
Elderly	.282	.257	.155	.112	.069	.125
Spanish American Male Non-Elderly	.084	.183	.191	.180	.131	.231
Elderly	.115	.204	.182	.155	.115	.229
Female Non-Elderly	.158	.221	.187	.145	.103	.186
Elderly	.209	.200	.171	.131	.097	.202

City of Houston - Office of the Mayor
Housing and Population Data

Net Immigrant Population Count Assumption 1
Oct 31, 1979 3:00

	Age	White	Black	Sp Amer	Total
Male	0-4	5022	2223	1643	8888
	5-9	6494	2873	2125	11492
	10-14	3651	1616	1193	6462
	15-19	1665	733	544	2944
	20-24	2219	983	727	3929
	25-29	8319	3684	2721	14724
	30-34	6476	2865	2120	11461
	35-39	2903	1286	952	5141
	40-44	2013	892	659	3564
	45-49	1483	656	485	2624
	50-54	917	406	300	1623
	55-59	523	231	171	925
	60-64	412	183	135	730
	65+	591	262	194	1047
Total	42688	18895	13971	75554	
Female	0-4	5022	2223	1643	8888
	5-9	6324	2800	2069	11193
	10-14	3530	1563	1156	6249
	15-19	2425	1074	794	4293
	20-24	6365	2819	2082	11266
	25-29	7710	3413	2524	13647
	30-34	3966	1757	1299	7022
	35-39	2046	907	670	3623
	40-44	1533	679	502	2714
	45-49	1104	489	362	1955
	50-54	651	288	213	1152
	55-59	309	136	101	546
	60-64	463	204	151	818
	65+	1551	687	508	2746
Total	42999	19039	14074	76112	
Total	0-4	10044	4446	3286	17776
	5-9	12818	5673	4194	22685
	10-14	7181	3179	2351	12711
	15-19	4090	1809	1338	7237
	20-24	8584	3802	2809	15195
	25-29	16029	7097	5245	28371
	30-34	10442	4622	3419	18483
	35-39	4949	2193	1622	8764
	40-44	3546	1571	1161	6278
	45-49	2587	1145	847	4579
	50-54	1568	694	513	2775
	55-59	832	367	272	1471
	60-64	875	387	286	1548
	65+	2142	949	702	3793
Total	85687	37934	28045	151666	

City of Houston - Office of the Mayor
Housing and Population Data

White Household Income Assumption 1 -- For Base Households
Oct 31, 1979 3:00

Male Non-Elderly

Household Income	Household Size					
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person
Less Than \$2,000	.064	.046	.033	.028	.027	.032
\$2,000 - \$2,999	.029	.022	.015	.013	.012	.013
\$3,000 - \$4,999	.082	.062	.048	.041	.038	.043
\$5,000 - \$6,999	.105	.091	.078	.070	.068	.074
\$7,000 - \$9,999	.199	.197	.193	.184	.186	.196
\$10,000 - \$14,999	.277	.308	.337	.344	.348	.347
\$15,000 - \$24,999	.176	.206	.229	.248	.249	.233
\$25,000 or More	.066	.069	.066	.071	.071	.063

Male Elderly

Less Than \$2,000	.129	.110	.100	.100	.112	.120
\$2,000 - \$2,999	.091	.094	.092	.097	.095	.095
\$3,000 - \$4,999	.210	.200	.202	.197	.206	.226
\$5,000 - \$6,999	.146	.148	.158	.152	.161	.163
\$7,000 - \$9,999	.152	.154	.157	.156	.146	.149
\$10,000 - \$14,999	.130	.140	.146	.148	.148	.131
\$15,000 - \$24,999	.082	.087	.086	.088	.076	.057
\$25,000 or More	.060	.067	.060	.063	.057	.058

Female Non-Elderly

Less Than \$2,000	.175	.173	.173	.175	.189	.217
\$2,000 - \$2,999	.071	.070	.065	.058	.047	.052
\$3,000 - \$4,999	.166	.165	.170	.164	.167	.174
\$5,000 - \$6,999	.188	.187	.189	.192	.188	.191
\$7,000 - \$9,999	.195	.197	.205	.212	.213	.198
\$10,000 - \$14,999	.128	.134	.137	.142	.141	.126
\$15,000 - \$24,999	.054	.055	.049	.046	.045	.034
\$25,000 or More	.022	.019	.012	.011	.009	.007

Female Elderly

Less Than \$2,000	.264	.269	.302	.351	.436	.537
\$2,000 - \$2,999	.091	.089	.084	.058	.061	.066
\$3,000 - \$4,999	.182	.184	.197	.207	.201	.162
\$5,000 - \$6,999	.167	.167	.168	.161	.140	.100
\$7,000 - \$9,999	.162	.164	.167	.166	.110	.105
\$10,000 - \$14,999	.090	.087	.071	.048	.038	.026
\$15,000 - \$24,999	.031	.030	.008	.005	.011	.000
\$25,000 or More	.013	.010	.002	.004	.004	.004

City of Houston - Office of the Mayor
Housing and Population Data

Black Household Income Assumption 1 -- For Base Households
Oct 31, 1979 3:00

Male Non-Elderly

Household Income	Household Size					
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person
Less Than \$2,000	.142	.117	.103	.095	.094	.100
\$2,000 - \$2,999	.062	.054	.048	.045	.045	.046
\$3,000 - \$4,999	.178	.163	.151	.146	.144	.147
\$5,000 - \$6,999	.202	.196	.194	.190	.192	.197
\$7,000 - \$9,999	.236	.253	.264	.271	.276	.270
\$10,000 - \$14,999	.137	.164	.181	.193	.192	.186
\$15,000 - \$24,999	.040	.050	.054	.055	.053	.050
\$25,000 or More	.003	.005	.005	.005	.004	.004

Male Elderly

Less Than \$2,000	.364	.337	.336	.339	.351	.343
\$2,000 - \$2,999	.173	.170	.156	.158	.171	.148
\$3,000 - \$4,999	.221	.244	.246	.237	.247	.246
\$5,000 - \$6,999	.112	.111	.121	.122	.113	.117
\$7,000 - \$9,999	.083	.086	.100	.100	.087	.096
\$10,000 - \$14,999	.031	.034	.032	.035	.024	.038
\$15,000 - \$24,999	.014	.017	.009	.009	.007	.012
\$25,000 or More	.001	.001	.001	.000	.000	.000

Female Non-Elderly

Less Than \$2,000	.395	.372	.360	.358	.369	.370
\$2,000 - \$2,999	.158	.146	.147	.147	.154	.151
\$3,000 - \$4,999	.219	.222	.224	.230	.224	.223
\$5,000 - \$6,999	.103	.110	.115	.115	.116	.113
\$7,000 - \$9,999	.088	.101	.106	.103	.104	.097
\$10,000 - \$14,999	.031	.040	.040	.041	.030	.037
\$15,000 - \$24,999	.005	.008	.009	.006	.003	.009
\$25,000 or More	.001	.001	.000	.000	.000	.000

Female Elderly

Less Than \$2,000	.559	.562	.589	.633	.682	.587
\$2,000 - \$2,999	.159	.140	.133	.120	.133	.130
\$3,000 - \$4,999	.164	.176	.194	.178	.156	.200
\$5,000 - \$6,999	.071	.075	.052	.048	.028	.050
\$7,000 - \$9,999	.040	.041	.028	.021	.000	.033
\$10,000 - \$14,999	.005	.003	.000	.000	.000	.000
\$15,000 - \$24,999	.002	.003	.004	.000	.000	.000
\$25,000 or More	.000	.000	.000	.000	.000	.000

City of Houston - Office of the Mayor
Housing and Population Data

Spanish American Household Income Assumption 1 -- For Base Households
Oct 31, 1979 3:00

Male Non-Elderly

Household Income	Household Size					
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person
Less Than \$2,000	.077	.057	.052	.046	.051	.058
\$2,000 - \$2,999	.035	.025	.023	.021	.024	.027
\$3,000 - \$4,999	.138	.108	.104	.099	.106	.118
\$5,000 - \$6,999	.185	.172	.168	.158	.167	.181
\$7,000 - \$9,999	.268	.262	.275	.271	.268	.274
\$10,000 - \$14,999	.213	.249	.257	.273	.265	.244
\$15,000 - \$24,999	.067	.098	.099	.110	.097	.086
\$25,000 or More	.015	.028	.022	.023	.022	.013

Male Elderly

Less Than \$2,000	.284	.146	.192	.175	.166	.188
\$2,000 - \$2,999	.134	.079	.132	.097	.092	.121
\$3,000 - \$4,999	.187	.215	.195	.199	.221	.206
\$5,000 - \$6,999	.097	.133	.113	.180	.178	.158
\$7,000 - \$9,999	.112	.098	.120	.087	.117	.129
\$10,000 - \$14,999	.112	.174	.098	.107	.092	.083
\$15,000 - \$24,999	.037	.117	.105	.131	.117	.099
\$25,000 or More	.037	.038	.045	.024	.018	.016

Female Non-Elderly

Less Than \$2,000	.253	.258	.272	.277	.349	.308
\$2,000 - \$2,999	.084	.078	.074	.089	.055	.085
\$3,000 - \$4,999	.249	.223	.230	.221	.260	.225
\$5,000 - \$6,999	.171	.183	.168	.145	.114	.133
\$7,000 - \$9,999	.135	.146	.137	.143	.111	.130
\$10,000 - \$14,999	.076	.085	.086	.094	.090	.092
\$15,000 - \$24,999	.018	.016	.029	.018	.021	.023
\$25,000 or More	.014	.011	.003	.011	.000	.004

Female Elderly

Less Than \$2,000	.460	.680	.545	.704	.684	.556
\$2,000 - \$2,999	.088	.040	.045	.000	.000	.012
\$3,000 - \$4,999	.177	.200	.318	.296	.316	.321
\$5,000 - \$6,999	.115	.020	.023	.000	.000	.025
\$7,000 - \$9,999	.062	.060	.068	.000	.000	.062
\$10,000 - \$14,999	.080	.000	.000	.000	.000	.012
\$15,000 - \$24,999	.018	.000	.000	.000	.000	.012
\$25,000 or More	.000	.000	.000	.000	.000	.000

City of Houston - Office of the Mayor
Housing and Population Data

Spanish American Household Income Assumption 1 -- For Immigrants
Oct 13, 1979 3:00

Male Non-Elderly

Household Income	Household Size					
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person
Less Than \$2,000	.077	.057	.052	.046	.051	.058
\$2,000 - \$2,999	.035	.025	.023	.021	.024	.027
\$3,000 - \$4,999	.138	.108	.104	.099	.106	.118
\$5,000 - \$6,999	.185	.172	.168	.158	.167	.181
\$7,000 - \$9,999	.268	.262	.275	.271	.268	.274
\$10,000 - \$14,999	.213	.249	.257	.273	.265	.244
\$15,000 - \$24,999	.067	.098	.099	.110	.097	.086
\$25,000 or More	.015	.028	.022	.023	.022	.013

Male Elderly

Less Than \$2,000	.284	.146	.192	.175	.166	.188
\$2,000 - \$2,999	.134	.079	.132	.097	.092	.121
\$3,000 - \$4,999	.187	.215	.195	.199	.221	.206
\$5,000 - \$6,999	.097	.133	.113	.180	.178	.158
\$7,000 - \$9,999	.112	.098	.120	.087	.117	.129
\$10,000 - \$14,999	.112	.174	.098	.107	.092	.083
\$15,000 - \$24,999	.037	.117	.105	.131	.117	.099
\$25,000 or More	.037	.038	.045	.024	.018	.016

Female Non-Elderly

Less Than \$2,000	.253	.258	.272	.277	.349	.308
\$2,000 - \$2,999	.084	.078	.074	.089	.055	.085
\$3,000 - \$4,999	.249	.223	.230	.221	.260	.225
\$5,000 - \$6,999	.171	.183	.168	.145	.114	.133
\$7,000 - \$9,999	.135	.146	.137	.143	.111	.130
\$10,000 - \$14,999	.076	.085	.086	.094	.090	.092
\$15,000 - \$24,999	.018	.016	.029	.018	.021	.023
\$25,000 or More	.014	.011	.003	.011	.000	.004

Female Elderly

Less Than \$2,000	.460	.680	.545	.704	.684	.556
\$2,000 - \$2,999	.088	.040	.045	.000	.000	.012
\$3,000 - \$4,999	.177	.200	.318	.296	.316	.321
\$5,000 - \$6,999	.115	.020	.023	.000	.000	.025
\$7,000 - \$9,999	.062	.060	.068	.000	.000	.062
\$10,000 - \$14,999	.080	.000	.000	.000	.000	.012
\$15,000 - \$24,999	.018	.000	.000	.000	.000	.012
\$25,000 or More	.000	.000	.000	.000	.000	.000

City of Houston - Office of the Mayor
Housing and Population Data

Black Household Income Assumption 1 -- For Immigrants
Oct 13, 1979 3:00

Male Non-Elderly

Household Income	Household Size					
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person
Less Than \$2,000	.142	.117	.103	.095	.094	.180
\$2,000 - \$2,999	.062	.054	.048	.045	.045	.046
\$3,000 - \$4,999	.178	.163	.151	.146	.144	.147
\$5,000 - \$6,999	.202	.196	.194	.190	.192	.197
\$7,000 - \$9,999	.236	.253	.264	.271	.276	.270
\$10,000 - \$14,999	.137	.164	.181	.193	.192	.186
\$15,000 - \$24,999	.040	.050	.054	.055	.053	.050
\$25,000 or More	.003	.005	.005	.005	.004	.004

Male Elderly

Less Than \$2,000	.364	.337	.336	.339	.351	.343
\$2,000 - \$2,999	.173	.170	.156	.158	.171	.148
\$3,000 - \$4,999	.221	.244	.246	.237	.247	.246
\$5,000 - \$6,999	.112	.111	.121	.122	.113	.117
\$7,000 - \$9,999	.083	.086	.100	.100	.087	.096
\$10,000 - \$14,999	.031	.034	.032	.035	.024	.038
\$15,000 - \$24,999	.014	.017	.009	.009	.007	.012
\$25,000 or More	.001	.001	.001	.000	.000	.000

Female Non-Elderly

Less Than \$2,000	.395	.372	.360	.358	.369	.370
\$2,000 - \$2,999	.158	.146	.147	.147	.154	.151
\$3,000 - \$4,999	.219	.222	.224	.230	.224	.223
\$5,000 - \$6,999	.103	.110	.115	.115	.116	.113
\$7,000 - \$9,999	.088	.101	.106	.103	.104	.097
\$10,000 - \$14,999	.031	.040	.040	.041	.030	.037
\$15,000 - \$24,999	.005	.008	.008	.006	.003	.009
\$25,000 or More	.001	.001	.000	.000	.000	.000

Female Elderly

Less Than \$2,000	.559	.562	.589	.633	.682	.587
\$2,000 - \$2,999	.159	.140	.133	.120	.133	.130
\$3,000 - \$4,999	.164	.176	.194	.178	.156	.200
\$5,000 - \$6,999	.071	.075	.052	.048	.028	.050
\$7,000 - \$9,999	.040	.041	.028	.021	.000	.033
\$10,000 - \$14,999	.005	.003	.000	.000	.000	.000
\$15,000 - \$24,999	.002	.003	.004	.000	.000	.000
\$25,000 or More	.000	.000	.000	.000	.000	.000

City of Houston - Office of the Mayor
Housing and Population Data

White Household Income Assumption 1 -- For Immigrants
Oct 13, 1979 3:00

Male Non-Elderly

Household Income	Household Size					
	1 Person	2 Person	3 Person	4 Person	5 Person	6 or More Person
Less Than \$2,000	.064	.046	.033	.028	.027	.032
\$2,000 - \$2,999	.029	.022	.015	.013	.012	.013
\$3,000 - \$4,999	.082	.062	.048	.041	.038	.043
\$5,000 - \$6,999	.105	.091	.078	.070	.068	.074
\$7,000 - \$9,999	.199	.197	.193	.184	.186	.196
\$10,000 - \$14,999	.277	.308	.337	.344	.348	.347
\$15,000 - \$24,999	.176	.206	.229	.248	.249	.233
\$25,000 or More	.066	.069	.066	.071	.071	.063

Male Elderly

Less Than \$2,000	.129	.110	.100	.100	.112	.120
\$2,000 - \$2,999	.091	.094	.092	.097	.095	.095
\$3,000 - \$4,999	.210	.200	.202	.197	.206	.226
\$5,000 - \$6,999	.146	.148	.158	.152	.161	.163
\$7,000 - \$9,999	.152	.154	.157	.156	.146	.149
\$10,000 - \$14,999	.130	.140	.146	.148	.148	.131
\$15,000 - \$24,999	.082	.087	.086	.088	.076	.057
\$25,000 or More	.060	.067	.060	.063	.057	.058

Female Non-Elderly

Less Than \$2,000	.175	.173	.173	.175	.189	.217
\$2,000 - \$2,999	.071	.070	.065	.058	.047	.052
\$3,000 - \$4,999	.166	.165	.170	.164	.167	.174
\$5,000 - \$6,999	.188	.187	.189	.192	.188	.191
\$7,000 - \$9,999	.195	.197	.205	.212	.213	.198
\$10,000 - \$14,999	.128	.134	.137	.142	.141	.126
\$15,000 - \$24,999	.054	.055	.049	.046	.045	.034
\$25,000 or More	.022	.019	.012	.011	.009	.007

Female Elderly

Less Than \$2,000	.264	.269	.302	.351	.436	.537
\$2,000 - \$2,999	.091	.089	.084	.058	.061	.066
\$3,000 - \$4,999	.182	.184	.197	.207	.201	.162
\$5,000 - \$6,999	.167	.167	.168	.161	.140	.100
\$7,000 - \$9,999	.162	.164	.167	.166	.110	.105
\$10,000 - \$14,999	.090	.087	.071	.048	.038	.026
\$15,000 - \$24,999	.031	.030	.008	.005	.011	.000
\$25,000 or More	.013	.010	.002	.004	.004	.004

City of Houston - Office of the Mayor
Housing and Population Data

Five Year Income Inflation Rate Assumption 1
Oct 31, 1979 3:00

<u>Household Income</u>	<u>Inflation Rate</u>
Less Than \$2,000	1.483
\$2,000 - \$2,999	1.483
\$3,000 - \$4,999	1.483
\$5,000 - \$6,999	1.483
\$7,000 - \$9,999	1.503
\$10,000 - \$14,999	1.600
\$15,000 - \$24,999	1.600
\$25,000 or More	1.600

City of Houston - Office of the Mayor
Housing and Population Data

Cluster Groups - Assumption 3
Apr 7, 1979 3:20

USED
19

<u>Cluster</u>	<u>Tracts in Cluster</u>
1	125 126 316 331 401 402 403 404 405 406 407 412 413 414
2	504 505 506 507 510 511 512 513 514 515 516 517 518
3	205 206 207 208 501 502 503 508 509
4	122 123 124 201 202 203 204 209 210 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 317 318 321 330
5	332 333 334 335 336 367 415 416 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 445 446
6	442 443 444 447 448 519 524 525 526 527 528 529 530 531 534 536 537 538 539 540 541 542 543
7	213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 236 237 238 239 240 241 242 243 245 246 247 248 254 520 521 522 523 532 533 535
8	232 233 317 320 322 323 324 325 326 327 328 329 337 338 339 340 341 342 343 344 345 346 347 359 370
9	449
10	450 451 544 545 551
11	244 249 250 251 253
12	361 371
13	121

City of Houston - Office of the Mayor
Housing and Population Data

Percent of Owner Units Surviving Demolition and Fire Loss Assumption 1
Apr 7, 1979 4:20

Value	Unit Size (Rooms)	Age of Unit						
		0-5	6-10	11-15	16-20	21-25	26-30	31 or More
Less Than \$5,000	1 and 2	1.000	.967	.890	.911	.884	.870	.857
	3	.953	.959	.924	.902	.874	.864	.840
	4	.976	.938	.879	.896	.870	.871	.852
	5	.966	.932	.879	.888	.857	.863	.845
	6 or More	.962	.765	.843	.887	.849	.856	.850
\$5,000 - \$9,999	1 and 2	1.000	.923	.921	.913	.879	.858	.847
	3	.802	.959	.926	.925	.887	.875	.844
	4	.965	.943	.933	.931	.910	.905	.865
	5	.955	.952	.943	.944	.918	.910	.877
	6 or More	.962	.838	.881	.924	.901	.899	.874
\$10,000 - \$14,999	1 and 2	.976	.890	.957	.966	.921	1.000	.917
	3	.997	.975	.961	.956	.905	.920	.886
	4	.988	.951	.959	.960	.938	.935	.900
	5	.995	.978	.974	.976	.955	.953	.929
	6 or More	.993	.940	.957	.972	.949	.950	.928
\$15,000 - 19,999	1 and 2	.986	.939	.956	.952	1.000	1.000	.929
	3	.994	.982	.945	.953	.873	1.000	.881
	4	.983	.962	.949	.948	.914	.964	.911
	5	.988	.989	.980	.982	.956	.948	.942
	6 or More	.992	.982	.978	.985	.970	.972	.959
\$20,000 - \$24,999	1 and 2	1.000	1.000	.840	1.000	.869	1.000	1.000
	3	1.000	.981	1.000	1.000	.853	1.000	.893
	4	.979	.953	.929	.899	.914	.742	.921
	5	.990	.981	.976	.976	.970	.988	.938
	6 or More	.995	.992	.989	.991	.981	.983	.970
\$25,000 - \$34,999	1 and 2	1.000	1.000	1.000	1.000	1.000	1.000	.981
	3	.804	1.000	.972	1.000	1.000	1.000	.896
	4	.963	.963	.968	1.000	.926	1.000	.935
	5	.963	.987	.987	.991	.951	1.000	.939
	6 or More	.992	.996	.992	.993	.981	.982	.987
\$35,000 or More	1 and 2	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	4	1.000	.963	.920	.917	.857	1.000	.930
	5	1.000	.983	.965	.966	.943	1.000	.941
	6 or More	1.000	.996	.987	.989	.983	.988	.988

City of Houston - Office of the Mayor
Housing and Population Data

Percent of Rental Units Surviving Demolition and Fire Loss Assumption 1
Apr 7, 1979 4:25

Rent	Unit Size (Rooms)	Age of Unit						
		0-5	6-10	11-15	16-20	21-25	26-30	31 or More
Less Than \$40	1 and 2	.959	.975	.931	.905	.840	.826	.862
	3	.936	.946	.875	.885	.833	.812	.835
	4	.946	.965	.931	.892	.839	.824	.853
	5	.956	.979	1.000	.903	.850	.836	.865
	6 or More	.982	.994	1.000	.948	.895	.875	.903
\$40 - \$59	1 and 2	.956	.920	.914	.912	.894	.871	.871
	3	.951	.893	.895	.893	.867	.850	.850
	4	.952	.881	.891	.891	.859	.844	.834
	5	.958	.894	.898	.901	.868	.855	.843
	6 or More	.959	.902	.910	.909	.872	.854	.849
\$60 - \$79	1 and 2	.968	.945	.953	.954	.936	.928	.917
	3	.962	.933	.940	.938	.920	.910	.910
	4	.954	.914	.914	.913	.894	.884	.878
	5	.956	.919	.922	.923	.902	.892	.883
	6 or More	.957	.923	.922	.926	.901	.890	.885
\$80 - \$99	1 and 2	.986	.971	.979	.979	.975	.971	.958
	3	.977	.960	.973	.972	.962	.957	.944
	4	.971	.942	.958	.957	.943	.938	.932
	5	.979	.956	.972	.973	.960	.955	.940
	6 or More	.979	.956	.970	.971	.953	.949	.931
\$100 - \$149	1 and 2	.995	.993	.993	.993	.983	.983	.974
	3	.992	.989	.991	.991	.980	.978	.966
	4	.990	.981	.982	.981	.961	.957	.954
	5	.993	.986	.990	.990	.974	.971	.966
	6 or More	.995	.991	.993	.994	.981	.978	.971
\$150 - \$199	1 and 2	.977	.988	.999	1.000	.969	.983	.964
	3	.988	.991	.998	1.000	.979	.977	.973
	4	.995	.992	.996	.997	.984	.983	.975
	5	.998	.996	.997	.998	.995	.997	.986
	6 or More	.998	.997	1.000	1.000	1.000	1.000	.998
\$200 or More	1 and 2	.985	.970	.990	1.000	.973	.962	.984
	3	.992	.983	.992	.992	.986	.987	.990
	4	.994	.988	.996	.997	.990	.986	.995
	5	.997	.993	.999	1.000	.993	1.000	1.000
	6 or More	.998	.996	.999	1.000	.996	1.000	1.000
No Contract Rent	1 and 2	.985	.996	.974	.968	.955	.950	.913
	3	.982	.978	.962	.958	.939	.928	.904
	4	.984	.979	.963	.959	.924	.908	.896
	5	.985	.980	.960	.960	.935	.929	.907
	6 or More	.988	.986	.971	.973	.945	.938	.920

City of Houston - Office of the Mayor
Housing and Population Data

Percent of Owner Units Not Converted Assumption 4
Apr 7, 1979 3:49

Cluster Group	Value Classes						
	1	2	3	4	5	6	7
1	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2	1.000	1.000	1.000	1.000	1.000	1.000	1.000
3	1.000	1.000	1.000	1.000	1.000	1.000	1.000
4	1.000	1.000	1.000	1.000	1.000	1.000	1.000
5	1.000	1.000	1.000	1.000	1.000	1.000	1.000
6	1.000	1.000	1.000	1.000	1.000	1.000	1.000
7	1.000	1.000	1.000	1.000	1.000	1.000	1.000
8	1.000	1.000	1.000	1.000	1.000	1.000	1.000
9	1.000	1.000	1.000	1.000	1.000	1.000	1.000
10	1.000	1.000	1.000	1.000	1.000	1.000	1.000
11	1.000	1.000	1.000	1.000	1.000	1.000	1.000
12	1.000	1.000	1.000	1.000	1.000	1.000	1.000
13	1.000	1.000	1.000	1.000	1.000	1.000	1.000

City of Houston - Office of the Mayor
Housing and Population Data

Percent of Rental Units Not Converted Assumption 4
Apr 7, 1979 3:50

Cluster Group	Rent Classes							
	1	2	3	4	5	6	7	8
1	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
3	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
4	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
5	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
6	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
7	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
8	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
9	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
10	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
11	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
12	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
13	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

City of Houston - Office of the Mayor
Housing and Population Data

Owner Unit Rehabilitation Assumption 1
Apr 7, 1979 3:30

Tract	Pct								
121	0	239	0	326	0	420	0	511	0
122	0	240	0	327	0	421	0	512	0
123	0	241	0	328	0	422	0	513	0
124	0	242	0	329	0	423	0	514	0
125	0	243	0	330	0	424	0	515	0
126	0	244	0	331	0	425	0	516	0
201	0	245	0	332	0	426	0	517	0
202	0	246	0	333	0	427	0	518	0
203	0	247	0	334	0	428	0	519	0
204	0	248	0	335	0	429	0	520	0
205	0	249	0	336	0	430	0	521	0
206	0	250	0	337	0	431	0	522	0
207	0	251	0	338	0	432	0	523	0
208	0	253	0	339	0	433	0	524	0
209	0	254	0	340	0	434	0	525	0
210	0	301	0	341	0	435	0	526	0
213	0	302	0	342	0	436	0	527	0
214	0	303	0	343	0	437	0	528	0
215	0	304	0	344	0	438	0	529	0
216	0	305	0	345	0	439	0	530	0
217	0	306	0	346	0	442	0	531	0
218	0	307	0	347	0	443	0	532	0
219	0	308	0	359	0	444	0	533	0
220	0	309	0	361	0	445	0	534	0
221	0	310	0	367	0	446	0	535	0
222	0	311	0	370	0	447	0	536	0
223	0	312	0	371	0	448	0	537	0
224	0	313	0	401	0	449	0	538	0
225	0	314	0	402	0	450	0	539	0
226	0	315	0	403	0	451	0	540	0
227	0	316	0	404	0	501	0	541	0
228	0	317	0	405	0	502	0	542	0
229	0	318	0	406	0	503	0	543	0
230	0	319	0	407	0	504	0	544	0
231	0	320	0	412	0	505	0	545	0
232	0	321	0	413	0	506	0	551	0
233	0	322	0	414	0	507	0		
234	0	323	0	415	0	508	0		
237	0	324	0	416	0	509	0		
238	0	325	0	419	0	510	0		

City of Houston - Office of the Mayor
Housing and Population Data

Owner Unit Rehabilitation Assumption 1
Apr 7, 1979 3:30

Tract	Pct								
121	0	239	0	326	0	420	0	511	0
122	0	240	0	327	0	421	0	512	0
123	0	241	0	328	0	422	0	513	0
124	0	242	0	329	0	423	0	514	0
125	0	243	0	330	0	424	0	515	0
126	0	244	0	331	0	425	0	516	0
201	0	245	0	332	0	426	0	517	0
202	0	246	0	333	0	427	0	518	0
203	0	247	0	334	0	428	0	519	0
204	0	248	0	335	0	429	0	520	0
205	0	249	0	336	0	430	0	521	0
206	0	250	0	337	0	431	0	522	0
207	0	251	0	338	0	432	0	523	0
209	0	253	0	339	0	433	0	524	0
209	0	254	0	340	0	434	0	525	0
213	0	301	0	341	0	435	0	526	0
213	0	302	0	342	0	436	0	527	0
214	0	303	0	343	0	437	0	528	0
215	0	304	0	344	0	438	0	529	0
216	0	305	0	345	0	439	0	530	0
217	0	306	0	346	0	442	0	531	0
218	0	307	0	347	0	443	0	532	0
219	0	308	0	359	0	444	0	533	0
221	0	309	0	361	0	445	0	534	0
221	0	310	0	367	0	446	0	535	0
222	0	311	0	370	0	447	0	536	0
223	0	312	0	371	0	448	0	537	0
224	0	313	0	401	0	449	0	538	0
225	0	314	0	402	0	450	0	539	0
226	0	315	0	403	0	451	0	540	0
227	0	316	0	404	0	501	0	541	0
228	0	317	0	405	0	502	0	542	0
229	0	318	0	406	0	503	0	543	0
230	0	319	0	407	0	504	0	544	0
231	0	320	0	412	0	505	0	545	0
232	0	321	0	413	0	506	0	551	0
233	0	322	0	414	0	507	0		
236	0	323	0	415	0	508	0		
237	0	324	0	416	0	509	0		
238	0	325	0	419	0	510	0		

City of Houston - Office of the Mayor
Housing and Population Data

Owner Unit Cluster Construction Counts Assumption 5
Apr 12, 1979 11:45

Cluster Group 1

Value	Unit Size					Total
	1 AND 2 Rooms	3 Rooms	4 Rooms	5 Rooms	6 OR MORE Rooms	
Less Than \$5,000	0	0	0	0	0	0
\$5,000 - \$9,999	0	0	0	0	0	0
\$10,000 - \$14,999	0	0	0	0	0	0
\$15,000 - 19,999	0	0	2	6	6	14
\$20,000 - \$24,999	0	1	4	34	45	84
\$25,000 - \$34,999	0	2	4	53	131	190
\$35,000 or More	0	0	4	22	335	361
Total	0	3	14	115	517	649

Cluster Group 2

Less Than \$5,000	0	0	0	0	0	0
\$5,000 - \$9,999	0	0	0	0	0	0
\$10,000 - \$14,999	0	1	0	0	0	1
\$15,000 - 19,999	0	1	3	15	12	31
\$20,000 - \$24,999	0	2	13	109	147	271
\$25,000 - \$34,999	0	1	3	41	101	146
\$35,000 or More	0	0	2	13	206	221
Total	0	5	21	178	466	670

Cluster Group 3

Less Than \$5,000	0	0	0	0	0	0
\$5,000 - \$9,999	0	0	0	0	0	0
\$10,000 - \$14,999	0	0	1	1	0	2
\$15,000 - 19,999	0	0	3	14	13	30
\$20,000 - \$24,999	0	0	6	42	57	105
\$25,000 - \$34,999	0	0	1	24	57	82
\$35,000 or More	0	0	1	11	167	179
Total	0	0	12	92	294	399

City of Houston - Office of the Mayor
Housing and Population Data

Owner Unit Cluster Construction Counts Assumption 5
Apr 12, 1979 11:45

Cluster Group 4

Value	Unit Size					Total
	1 AND 2 Rooms	3 Rooms	4 Rooms	5 Rooms	6 OR MORE Rooms	
Less Than \$5,000	0	0	0	0	0	0
\$5,000 - \$9,999	0	0	0	0	0	0
\$10,000 - \$14,999	0	7	7	0	0	14
\$15,000 - 19,999	0	0	9	33	28	70
\$20,000 - \$24,999	0	4	22	170	229	425
\$25,000 - \$34,999	0	0	2	33	83	110
\$35,000 or More	0	0	4	22	347	373
Total	0	11	44	258	687	1000

Cluster Group 5

Less Than \$5,000	0	0	0	0	0	0
\$5,000 - \$9,999	0	0	0	0	0	0
\$10,000 - \$14,999	0	14	17	3	0	34
\$15,000 - 19,999	0	15	81	343	304	743
\$20,000 - \$24,999	0	24	123	986	1331	2464
\$25,000 - \$34,999	0	54	107	1503	3706	5370
\$35,000 or More	0	0	74	441	6874	7389
Total	0	107	402	3276	12215	16000

Cluster Group 6

Less Than \$5,000	0	0	0	0	0	0
\$5,000 - \$9,999	0	0	0	0	0	0
\$10,000 - \$14,999	0	22	28	6	0	56
\$15,000 - 19,999	0	20	117	492	438	1067
\$20,000 - \$24,999	0	28	130	1045	1410	2613
\$25,000 - \$34,999	0	43	87	1230	3031	4391
\$35,000 or More	0	0	75	448	6951	7474
Total	0	113	437	3221	11850	15601

City of Houston - Office of the Mayor
Housing and Population Data

Owner Unit Cluster Construction Counts Assumption 5
Apr 12, 1979 11:45

Cluster Group 7

Value	Unit Size					Total
	1 AND 2 Rooms	3 Rooms	4 Rooms	5 Rooms	6 OR MORE Rooms	
Less Than \$5,000	0	0	0	0	0	0
\$5,000 - \$9,999	0	0	0	0	0	0
\$10,000 - \$14,999	0	95	129	22	0	237
\$15,000 - \$19,999	0	27	141	588	526	1282
\$20,000 - \$24,999	0	24	122	973	1315	2434
\$25,000 - \$34,999	0	26	53	744	1830	2653
\$35,000 or More	0	0	53	303	4872	5048
Total	0	172	487	2630	8363	11654

Cluster Group 8

Less Than \$5,000	0	0	0	0	0	0
\$5,000 - \$9,999	0	0	0	0	0	0
\$10,000 - \$14,999	0	95	121	22	0	239
\$15,000 - \$19,999	0	10	67	275	249	601
\$20,000 - \$24,999	0	5	40	319	427	791
\$25,000 - \$34,999	0	8	21	275	676	980
\$35,000 or More	0	0	17	100	1539	1656
Total	0	118	266	991	2871	4266

Cluster Group 9

Less Than \$5,000	0	0	0	0	0	0
\$5,000 - \$9,999	0	0	0	0	0	0
\$10,000 - \$14,999	0	3	4	0	0	7
\$15,000 - \$19,999	0	3	15	67	59	144
\$20,000 - \$24,999	0	5	21	169	229	423
\$25,000 - \$34,999	0	10	13	252	620	900
\$35,000 or More	0	0	16	94	1462	1572
Total	0	21	74	582	2369	3046

City of Houston - Office of the Mayor
Housing and Population Data

Owner Unit Cluster Construction Counts Assumption 5
Apr 12, 1979 11:45

Cluster Group 10

Value	Unit Size					Total
	1 AND 2 Rooms	3 Rooms	4 Rooms	5 Rooms	6 OR MORE Rooms	
Less Than \$5,000	0	0	0	0	0	0
\$5,000 - \$9,999	0	0	0	0	0	0
\$10,000 - \$14,999	0	8	12	2	0	22
\$15,000 - 19,999	0	8	55	226	201	490
\$20,000 - \$24,999	0	10	52	418	563	1043
\$25,000 - \$34,999	0	16	33	431	1065	1545
\$35,000 or More	0	0	34	203	3142	3379
Total	0	42	136	1280	4971	6479

Cluster Group 11

Less Than \$5,000	0	0	0	0	0	0
\$5,000 - \$9,999	0	0	0	0	0	0
\$10,000 - \$14,999	0	4	4	0	0	8
\$15,000 - 19,999	0	5	23	96	86	210
\$20,000 - \$24,999	0	8	35	281	379	703
\$25,000 - \$34,999	0	13	31	453	1130	1637
\$35,000 or More	0	0	29	181	2800	3010
Total	0	35	122	1016	4395	5563

Cluster Group 12

Less Than \$5,000	0	0	0	0	0	0
\$5,000 - \$9,999	0	0	0	0	0	0
\$10,000 - \$14,999	0	4	7	1	0	12
\$15,000 - 19,999	0	4	29	120	106	259
\$20,000 - \$24,999	0	7	33	277	372	689
\$25,000 - \$34,999	0	14	27	380	935	1356
\$35,000 or More	0	0	20	112	1765	1897
Total	0	29	116	890	3178	4213

City of Houston - Office of the Mayor
Housing and Population Data

- Unit Cluster Construction Counts Assumption 5
Apr 12, 1979 11:45

Cluster Group 13

<u>Unit Size</u>					
<u>1 AND 2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6 OR MORE</u>	<u>Total</u>
<u>Rooms</u>	<u>Rooms</u>	<u>Rooms</u>	<u>Rooms</u>	<u>Rooms</u>	
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	2	2
0	0	0	0	2	2
<u>Total</u>					
0	0	0	0	0	0
0	0	0	0	0	0
0	253	321	57	0	631
0	93	545	2275	2028	4941
0	118	601	4323	6503	12045
0	192	387	5424	13365	19368
0	0	329	1950	30282	32561
0	656	2183	14529	52178	69546

City of Houston - Office of the Mayor
Housing and Population Data

Rental Unit Cluster Construction Counts Assumption 5
Apr 12, 1979 11:50

Cluster Group 1

Rent	Unit Size					Total
	1 AND 2 Rooms	3 Rooms	4 Rooms	5 Rooms	6 OR MORE Rooms	
Less Than \$40	0	0	0	0	0	0
\$40 - \$59	0	0	0	0	0	0
\$60 - \$79	0	0	0	0	0	0
\$80 - \$99	0	13	9	0	0	22
\$100 - \$149	4	237	300	67	9	617
\$150 - \$199	9	505	805	192	63	1574
\$200 or More	0	639	1695	1274	639	4247
No Contract Rent	0	0	0	0	0	0
Total	13	1394	2309	1533	711	6460

Cluster Group 2

Less Than \$40	0	0	0	0	0	0
\$40 - \$59	0	0	0	0	0	0
\$60 - \$79	0	0	0	0	0	0
\$80 - \$99	0	27	18	4	0	49
\$100 - \$149	13	230	291	61	12	607
\$150 - \$199	9	362	576	137	45	1129
\$200 or More	0	436	1179	877	436	2927
No Contract Rent	0	0	0	0	0	0
Total	22	1055	2063	1079	493	4712

Cluster Group 3

Less Than \$40	0	0	0	0	0	0
\$40 - \$59	0	0	0	0	0	0
\$60 - \$79	0	0	0	0	0	0
\$80 - \$99	0	2	1	0	0	3
\$100 - \$149	1	15	18	4	1	39
\$150 - \$199	1	24	36	9	3	73
\$200 or More	0	18	48	36	18	120
No Contract Rent	0	0	0	0	0	0
Total	2	59	103	49	22	235

City of Houston - Office of the Mayor
Housing and Population Data

Rental Unit Cluster Construction Counts Assumption 5
Apr 12, 1979 11:50

Cluster Group 4

Rent	Unit Size					Total
	1 AND 2 Rooms	3 Rooms	4 Rooms	5 Rooms	6 OR MORE Rooms	
Less Than \$40	0	0	0	0	0	0
\$40 - \$59	0	0	0	0	0	0
\$60 - \$79	0	0	0	0	0	0
\$80 - \$99	1	16	11	2	0	30
\$100 - \$149	3	66	84	19	3	174
\$150 - \$199	3	103	164	38	12	320
\$200 or More	0	73	197	147	74	491
No Contract Rent	0	0	0	0	0	0
Total	7	258	456	205	89	1015

Cluster Group 5

Less Than \$40	0	0	0	0	0	0
\$40 - \$59	0	0	0	0	0	0
\$60 - \$79	0	0	0	0	0	0
\$80 - \$99	18	487	321	45	0	871
\$100 - \$149	235	4579	5780	1191	235	12020
\$150 - \$199	189	6684	10652	2519	846	20890
\$200 or More	0	6987	18632	13973	6987	46579
No Contract Rent	0	0	0	0	0	0
Total	442	18737	35385	17728	8068	80360

Cluster Group 6

Less Than \$40	0	0	0	0	0	0
\$40 - \$59	0	0	0	0	0	0
\$60 - \$79	0	0	0	0	0	0
\$80 - \$99	3	102	66	14	0	185
\$100 - \$149	52	1157	1460	305	52	3026
\$150 - \$199	49	1663	2655	621	209	5197
\$200 or More	0	1666	4440	3329	1666	11101
No Contract Rent	0	0	0	0	0	0
Total	104	4588	8621	4269	1927	19509

City of Houston - Office of the Mayor
Housing and Population Data

Rental Unit Cluster Construction Counts Assumption 5
Apr 12, 1979 11:59

Cluster Group 7

Rent	Unit Size					Total
	1 AND 2 Rooms	3 Rooms	4 Rooms	5 Rooms	6 OR MORE Rooms	
Less Than \$40	0	0	0	0	0	0
\$40 - \$59	0	0	0	0	0	0
\$60 - \$79	0	0	0	0	0	0
\$80 - \$99	13	272	178	21	0	484
\$100 - \$149	86	1751	2207	463	84	4593
\$150 - \$199	57	1986	3351	714	228	5956
\$200 or More	0	1299	3447	2582	1278	8627
No Contract Rent	0	0	0	0	0	0
Total	156	5227	6887	3780	1610	19660

Cluster Group 8

Less Than \$40	0	0	0	0	0	0
\$40 - \$59	0	0	0	0	0	0
\$60 - \$79	0	0	0	0	0	0
\$80 - \$99	4	71	49	7	0	130
\$100 - \$149	28	557	701	145	28	1459
\$150 - \$199	22	691	1103	257	86	2159
\$200 or More	0	600	1600	1199	600	3999
No Contract Rent	0	0	0	0	0	0
Total	54	1919	3452	1608	714	7747

Cluster Group 9

Less Than \$40	0	0	0	0	0	0
\$40 - \$59	0	0	0	0	0	0
\$60 - \$79	0	0	0	0	0	0
\$80 - \$99	0	7	4	0	0	11
\$100 - \$149	1	71	90	19	1	182
\$150 - \$199	4	110	174	39	12	339
\$200 or More	0	129	342	255	129	855
No Contract Rent	0	0	0	0	0	0
Total	5	317	619	313	142	1387

City of Houston - Office of the Mayor
Housing and Population Data

Rental Unit Cluster Construction Counts Assumption 5
Apr 12, 1979 11:50

Cluster Group 10

Rent	Unit Size					Total
	1 AND 2 Rooms	3 Rooms	4 Rooms	5 Rooms	6 OR MORE Rooms	
Less Than \$40	0	0	0	0	0	0
\$40 - \$59	0	0	0	0	0	0
\$60 - \$79	0	0	0	0	0	0
\$80 - \$99	0	25	16	0	0	41
\$100 - \$149	9	271	337	66	9	692
\$150 - \$199	9	303	479	117	35	943
\$200 or More	0	202	531	397	202	1332
No Contract Rent	0	0	0	0	0	0
Total	18	801	1363	530	246	3008

Cluster Group 11

Less Than \$40	0	0	0	0	0	0
\$40 - \$59	0	0	0	0	0	0
\$60 - \$79	0	0	0	0	0	0
\$80 - \$99	0	0	0	0	0	0
\$100 - \$149	5	79	106	22	5	217
\$150 - \$199	5	202	319	74	24	624
\$200 or More	0	297	796	595	297	1985
No Contract Rent	0	0	0	0	0	0
Total	10	578	1221	691	326	2826

Cluster Group 12

Less Than \$40	0	0	0	0	0	0
\$40 - \$59	0	0	0	0	0	0
\$60 - \$79	0	0	0	0	0	0
\$80 - \$99	5	41	27	5	0	78
\$100 - \$149	21	411	513	107	21	1078
\$150 - \$199	18	545	869	202	66	1700
\$200 or More	0	479	1274	949	479	3181
No Contract Rent	0	0	0	0	0	0
Total	44	1476	2683	1263	566	6037

City of Houston - Office of the Mayor
Housing and Population Data

Rental Unit Cluster Construction Counts Assumption 5
Apr 12, 1979 11:50

Cluster Group 13

Rent	Unit Size					Total
	1 AND 2 Rooms	3 Rooms	4 Rooms	5 Rooms	6 OR MORE Rooms	
Less Than \$40	0	0	0	0	0	0
\$40 - \$59	0	0	0	0	0	0
\$60 - \$79	0	0	0	0	0	0
\$80 - \$99	0	0	0	0	0	0
\$100 - \$149	0	0	0	0	0	0
\$150 - \$199	0	0	0	0	0	0
\$200 or More	0	0	1	0	0	1
No Contract Rent	0	0	0	0	0	0
Total	0	0	1	0	0	1

	Total					
	1 AND 2 Rooms	3 Rooms	4 Rooms	5 Rooms	6 OR MORE Rooms	Total
Less Than \$40	0	0	0	0	0	0
\$40 - \$59	0	0	0	0	0	0
\$60 - \$79	0	0	0	0	0	0
\$80 - \$99	44	1063	677	98	0	1904
\$100 - \$149	458	9424	11874	2468	460	24704
\$150 - \$199	375	13098	20833	4919	1629	40904
\$200 or More	0	12824	34133	25613	12825	85445
No Contract Rent	0	0	0	0	0	0
Total	877	36409	67657	33098	14914	152957

City of Houston - Office of the Mayor
Housing and Population Data

Owner Unit Tract Construction Counts Assumption 5
Apr 11, 1979 6:10

Tract	Units								
121	2	239	252	326	45	420	221	511	47
122	11	240	721	327	35	421	14	512	58
123	12	241	78	328	96	422	816	513	21
124	33	242	34	329	78	423	445	514	44
125	2	243	46	330	27	424	32	515	41
126	8	244	803	331	18	425	114	516	57
201	71	245	309	332	283	426	117	517	45
202	36	246	409	333	6	427	199	518	45
203	68	247	891	334	203	428	8	519	72
204	26	248	1276	335	70	429	4	520	54
205	69	249	3201	336	361	430	47	521	83
206	41	250	189	337	12	431	11	522	67
207	52	251	416	338	93	432	245	523	61
208	63	253	959	339	30	433	1117	524	32
209	25	254	120	340	57	434	477	525	412
210	49	301	38	341	23	435	438	526	27
213	410	302	23	342	8	436	482	527	38
214	41	303	21	343	277	437	4899	528	73
215	157	304	61	344	0	438	4713	529	223
216	23	305	35	345	205	439	425	530	2049
217	75	306	28	346	40	442	61	531	595
218	72	307	45	347	37	443	328	532	229
219	21	308	37	359	1894	444	76	533	509
220	50	309	30	361	1223	445	274	534	460
221	5	310	20	367	205	446	395	535	51
222	171	311	45	370	977	447	558	536	574
223	188	312	39	371	2990	448	4	537	1560
224	357	313	25	401	32	449	3046	538	1294
225	118	314	21	402	118	450	263	539	1
226	447	315	26	403	81	451	1945	540	2220
227	24	316	38	404	107	501	2	541	2306
228	1621	317	65	405	63	502	18	542	1763
229	72	318	78	406	19	503	38	543	875
230	1984	319	71	407	71	504	15	544	64
231	32	320	56	412	44	505	21	545	2388
232	21	321	5	413	41	506	105	551	1819
233	61	322	37	414	7	507	124		
236	380	323	35	415	56	508	36		
237	132	324	42	416	8	509	79		
238	84	325	31	419	115	510	47		

Total Construction for the City: 69546 Units

City of Houston - Office of the Mayor
Housing and Population Data

Rental Unit Tract Construction Counts Assumption 4
Apr 11, 1979 6:10

Tract	Units								
121	1	239	630	326	21	420	753	511	21
122	13	241	539	327	16	421	6	512	30
123	15	241	637	328	43	422	3241	513	9
124	20	242	16	329	58	423	11476	514	34
125	5	243	21	330	34	424	9683	515	18
126	29	244	366	331	1774	425	4100	516	26
201	55	245	1054	332	129	426	2877	517	4263
202	22	246	185	333	3	427	6913	518	101
203	163	247	478	334	582	428	3	519	41
204	16	248	591	335	32	429	2	520	54
205	48	249	1740	336	165	430	1059	521	46
206	25	250	96	337	6	431	5	522	35
207	40	251	159	338	42	432	840	523	358
208	39	253	445	339	14	433	3937	524	15
209	11	254	66	340	26	434	1875	525	188
210	22	301	20	341	13	435	10789	526	12
211	186	302	12	342	4	436	5382	527	1100
214	19	303	14	343	126	437	1867	528	34
215	77	304	89	344	137	438	11257	529	3471
216	11	305	20	345	93	439	1961	530	1163
217	43	306	48	346	418	442	32	531	271
218	33	307	29	347	1909	443	1204	532	107
219	21	308	23	359	2622	444	82	533	5961
220	23	309	14	361	4300	445	1013	534	741
221	3	310	9	367	156	446	419	535	3589
222	85	311	21	370	602	447	903	536	2576
223	86	312	18	371	1737	448	2	537	1806
214	162	313	12	401	38	449	1337	538	1339
225	360	314	10	402	671	450	120	539	736
226	204	315	24	403	367	451	886	540	1129
227	11	316	77	404	164	501	1	541	1244
228	1145	317	99	405	278	502	14	542	803
229	33	318	145	406	43	503	19	543	417
230	2354	317	64	407	550	504	7	544	29
231	14	329	75	412	76	505	10	545	1087
232	10	321	42	413	1441	506	87	551	886
233	28	322	17	414	747	507	64		
234	324	323	245	415	478	508	24		
237	60	324	1144	416	83	509	36		
238	38	325	10	417	2574	510	22		

Tota: Construction for the City: 152957 Units

City of Houston - Office of the Mayor
Housing and Population Data

Five Year Value Inflation Rate Assumption 2
Apr 12, 1979 9:20

<u>Cluster Group</u>	<u>Inflation Rate</u>
1	1.6370
2	1.2970
3	1.8440
4	1.3880
5	1.4570
6	1.8150
7	1.9310
8	1.3530
9	1.9000
10	1.5860
11	1.3340
12	1.2040
13	1.2040

City of Houston - Office of the Mayor
Housing and Population Data

Five Year Rent Inflation Rate Assumption 7
Apr 12, 1979 2:00

<u>Rent</u>	<u>Inflation Rate</u>
Less Than \$40	1.75
\$40 - \$59	1.80
\$60 - \$79	1.80
\$80 - \$99	1.85
\$100 - \$149	1.90
\$150 - \$199	1.90
\$200 or more	1.95

City of Houston - Office of the Mayor
Housing and Population Data

Percent of Owner Units in Suitable Condition (Condition Scores 1-3) Assumption 2
Mar 31, 1979 1:15

Value	Unit Size (Rooms)	Age of Unit						
		0-5	6-10	11-15	16-20	21-25	26-30	31 or More
Less Than \$5,000	1 and 2	.483	.483	.483	.483	.483	.483	.483
	3	.483	.483	.483	.483	.483	.483	.483
	4	.483	.483	.483	.483	.483	.483	.483
	5	.483	.483	.483	.483	.483	.483	.483
	6 or More	.483	.483	.483	.483	.483	.483	.483
\$5,000 - \$9,999	1 and 2	.593	.593	.593	.593	.593	.593	.593
	3	.593	.593	.593	.593	.593	.593	.593
	4	.593	.593	.593	.593	.593	.593	.593
	5	.593	.593	.593	.593	.593	.593	.593
	6 or More	.593	.593	.593	.593	.593	.593	.593
\$10,000 - \$14,999	1 and 2	.790	.790	.790	.790	.790	.790	.790
	3	.790	.790	.790	.790	.790	.790	.790
	4	.790	.790	.790	.790	.790	.790	.790
	5	.790	.790	.790	.790	.790	.790	.790
	6 or More	.790	.790	.790	.790	.790	.790	.790
\$15,000 - 19,999	1 and 2	.935	.935	.935	.935	.935	.935	.935
	3	.935	.935	.935	.935	.935	.935	.935
	4	.935	.935	.935	.935	.935	.935	.935
	5	.935	.935	.935	.935	.935	.935	.935
	6 or More	.935	.935	.935	.935	.935	.935	.935
\$20,000 - \$24,999	1 and 2	.953	.953	.953	.953	.953	.953	.953
	3	.953	.953	.953	.953	.953	.953	.953
	4	.953	.953	.953	.953	.953	.953	.953
	5	.953	.953	.953	.953	.953	.953	.953
	6 or More	.953	.953	.953	.953	.953	.953	.953
\$25,000 - \$34,999	1 and 2	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	4	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	5	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	6 or More	1.000	1.000	1.000	1.000	1.000	1.000	1.000
\$35,000 or More	1 and 2	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	4	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	5	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	6 or More	1.000	1.000	1.000	1.000	1.000	1.000	1.000

City of Houston - Office of the Mayor
Housing and Population Data

Percent of Owner Units in Suitable Condition (Condition Scores 1-3) Assumption 1
Mar 31, 1979, 1:20

Value	Unit Size (Rooms)	Age of Unit						
		0-5	6-10	11-15	16-20	21-25	26-30	31 or More
Less Than \$5,000	1 and 2	1.000	.832	.571	.636	.514	.500	.480
	3	.767	.778	.627	.620	.514	.496	.418
	4	.836	.753	.628	.631	.511	.510	.446
	5	.771	.683	.582	.594	.469	.462	.411
	6 or More	.800	.719	.608	.605	.447	.417	.417
\$5,000 - \$9,999	1 and 2	1.000	.824	.667	.629	.508	.440	.411
	3	.786	.775	.694	.697	.554	.545	.428
	4	.729	.741	.712	.714	.622	.624	.485
	5	.751	.765	.745	.745	.624	.625	.511
	6 or More	.695	.709	.678	.679	.567	.571	.494
\$10,000 - \$14,999	1 and 2	.667	.750	.806	.838	.667	1.000	.694
	3	.964	.918	.855	.833	.632	.684	.585
	4	.887	.843	.857	.854	.755	.745	.624
	5	.952	.928	.907	.907	.807	.805	.722
	6 or More	.937	.909	.894	.895	.789	.789	.716
\$15,000 - 19,999	1 and 2	.800	.809	.857	.818	1.000	1.000	.750
	3	.944	.957	.833	.851	.550	1.000	.561
	4	.914	.906	.845	.838	.696	.857	.669
	5	.975	.970	.940	.939	.831	.798	.779
	6 or More	.975	.977	.954	.954	.887	.892	.844
\$20,000 - \$24,999	1 and 2	1.000	1.000	.333	1.000	.333	1.000	1.000
	3	1.000	.963	1.000	1.000	.500	1.000	.636
	4	.948	.933	.836	.769	.706	.000	.735
	5	.981	.970	.947	.944	.889	.917	.768
	6 or More	.992	.993	.982	.982	.932	.937	.894
\$25,000 - \$34,999	1 and 2	1.000	1.000	1.000	1.000	1.000	1.000	.933
	3	.933	1.000	.938	1.000	1.000	1.000	.667
	4	.977	.971	.939	1.000	.818	1.000	.800
	5	.976	.989	.973	.978	.855	1.000	.786
	6 or More	.999	.999	.994	.993	.945	.944	.956
\$35,000 or More	1 and 2	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	4	1.000	.941	.842	.857	.667	1.000	.769
	5	1.000	.982	.927	.922	.854	1.000	.792
	6 or More	1.000	.999	.983	.982	.959	.967	.962

City of Houston - Office of the Mayor
Housing and Population Data

Percent of Rental Units in Suitable Condition (Condition Scores 1-3) Assumption 2
Mar 31, 1979 1:17

Rent	Unit Size (Rooms)	Age of Unit						
		0-5	6-10	11-15	16-20	21-25	26-30	31 or More
Less Than \$40	1 and 2	.344	.344	.344	.344	.344	.344	.344
	3	.344	.344	.344	.344	.344	.344	.344
	4	.344	.344	.344	.344	.344	.344	.344
	5	.344	.344	.344	.344	.344	.344	.344
	6 or More	.344	.344	.344	.344	.344	.344	.344
\$40 - \$59	1 and 2	.347	.347	.347	.347	.347	.347	.347
	3	.347	.347	.347	.347	.347	.347	.347
	4	.347	.347	.347	.347	.347	.347	.347
	5	.347	.347	.347	.347	.347	.347	.347
	6 or More	.347	.347	.347	.347	.347	.347	.347
\$60 - \$79	1 and 2	.546	.546	.546	.546	.546	.546	.546
	3	.546	.546	.546	.546	.546	.546	.546
	4	.546	.546	.546	.546	.546	.546	.546
	5	.546	.546	.546	.546	.546	.546	.546
	6 or More	.546	.546	.546	.546	.546	.546	.546
\$80 - \$99	1 and 2	.769	.769	.769	.769	.769	.769	.769
	3	.769	.769	.769	.769	.769	.769	.769
	4	.769	.769	.769	.769	.769	.769	.769
	5	.769	.769	.769	.769	.769	.769	.769
	6 or More	.769	.769	.769	.769	.769	.769	.769
\$100 - \$149	1 and 2	.956	.956	.956	.956	.956	.956	.956
	3	.956	.956	.956	.956	.956	.956	.956
	4	.956	.956	.956	.956	.956	.956	.956
	5	.956	.956	.956	.956	.956	.956	.956
	6 or More	.956	.956	.956	.956	.956	.956	.956
\$150 - \$199	1 and 2	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	4	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	5	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	6 or More	1.000	1.000	1.000	1.000	1.000	1.000	1.000
\$200 or More	1 and 2	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	4	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	5	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	6 or More	1.000	1.000	1.000	1.000	1.000	1.000	1.000
No Contract Rent	1 and 2	.697	.697	.697	.697	.697	.697	.697
	3	.697	.697	.697	.697	.697	.697	.697
	4	.697	.697	.697	.697	.697	.697	.697
	5	.697	.697	.697	.697	.697	.697	.697
	6 or More	.697	.697	.697	.697	.697	.697	.697

APPENDIX III

DESCRIPTION OF THE SHARE OF GROWTH MODULE

APPENDIX III
DESCRIPTION OF THE SHARE OF GROWTH MODULE

Use of the Housing Calculation Tool to express growth options requires various control counts for population, households and new unit construction. These control totals are provided by a Growth Allocation Program (GAP) developed by the Rice Center for Community Design and Research in support of City efforts to develop growth planning technologies.

The operation of GAP and the results it produces must be reviewed in order for the methodology embedded within the Housing Calculation Tool to be fully understood. Generally, the function of the Housing Calculation Tool is to disaggregate the raw estimates of growth provided by GAP into characteristics of population, households and units which can be used to better understand the character of growth and evaluate its impact.

A summary of the major features of GAP is provided through the inclusion of two chapters of a report prepared by Rice Center called Growth Options for Houston. These chapters follow.

Chapter 2

CONDITIONS FOR GROWTH

USE OF CONDITIONS IN GROWTH ANALYSIS

Growth-development Relationship

In the process of developing likely future patterns of growth in the city, it is necessary to understand the forces and conditions that enable, encourage or cause that growth. Land development is the primary mechanism through which growth takes place. The analysis of growth in this study, therefore, concentrated on factors that make one area of the city more attractive than another for each of four development types: residential, retail commercial, office, and industrial. The factors or conditions that make an area attractive for development are the forces that contribute to growth.

Nature of Growth Conditions

It is helpful in the analysis of growth conditions to categorize them as they relate to the development process. The first category of conditions are ones that are necessary for land to be available for development to take place. These conditions are related to available developable land without restrictions on use, without flood or drainage problems, and with available basic utilities.

Without land available for development an area cannot experience significant growth.

The second category of conditions are related to the qualities of an area that create market demand for development. These conditions include such things as availability and quality of public services, proximity to desirable land uses, accessibility to various activities, and certain cost issues. The mix of these conditions that exists in an area will determine the relative demand for development.

The third category of conditions are related to the feasibility of development given that there is land and demand exists. The conditions relate to issues of land aggregation, development financing and development cost.

Analysis of Growth Conditions

The conditions for growth are the basis on which each area is evaluated to determine its environment for growth. Each sub-area in the study area is analyzed to ascertain the existence and relative strength of growth conditions. This set of conditions for each sub-area and each time period determines the amount of land available for development and the relative proportion of growth in population and employment assigned or allocated to the area.

- (c) Access routes (especially for high value) not blighted or congested.
- 3. Site size (large acreage parcels)
- 4. Land Cost (relative to unit value & density)
- 5. Site Characteristics
 - (a) Slope: 0-10%
 - (b) Drainage & sub-soil
 - (c) Tree growth
- 6. Utility Services
 - (a) Water: public, small community, individual wells
 - (b) Sewer: public, community, septic
 - (c) Storm drainage
 - (d) Electric & gas
 - (e) Subdivision regulations
- 7. Site Environment
 - (a) Land use: adjacent blight, adjacent buffers
 - (b) Traffic & streets: noise, heavy traffic, pollution
 - (c) Air quality
 - (d) Flooding
 - (e) Airport noise zones
- 8. City Services & Community Facilities
 - (a) Fire & police protection
 - (b) Schools
 - (c) Recreation & open space
 - (d) Solid waste disposal & street services
 - (e) Community facilities
- 9. Municipal Regulations
 - (a) Zoning
 - (b) Subdivision Regulations
 - (c) Building codes

The site conditions related to commercial development include the following:

- 1. Location - Market area (support residential)
- 2. Access
 - (a) Freeway, major thoroughfare
 - (b) Traffic load capacity
 - (c) Regional centers - intersection of radial and circumferential highway ideal
- 3. Site
 - (a) Large parcels
 - (b) Level or gently sloping
- 4. Utilities
 - (a) Water
 - (b) Sanitary sewer
 - (c) Storm sewer
 - (d) Electric
 - (e) Gas
 - (f) Telephone

- 5. Unencumbered Land
 - (a) Zoning
 - (b) Deed Restrictions, etc.
- 6. Adjacent Land Use (compatible buffer uses)
- 7. Land Cost (relative to development cost & locational qualities)

The ULI describes a point system for measuring suitability of a site for regional shopping centers as follows:

Criteria for Regional Shopping Center Site Selection	
CRITERIA	POINTS
<u>Size of the Market</u> 60	
1. Population within 10 to 15 minutes driving time (assumed trade area) -- 150,000 to 170,000 for a one-department store center; 300,000 for a two-department store center.....	40
2. Income and retail expenditures of population; total retail potential.....	20
<u>Key Tenant Availability---Competitive Strength</u> 30	
1. Department store's willingness to enter the trade area.....	18
2. Market image and competitive strength of department store(s).....	12
<u>Site Characteristics</u> 10	
1. Accessibility.....	1
2. Size and shape (45 to 70 acres).....	2
3. Zoning.....	2
4. Cost of land.....	1
5. Cost of site preparation.....	1
6. Cost of utilities and drainage.....	1
7. Fringe land availability (a bonus in scoring).....	--
100	

The industrial development site conditions include the following:

- 1. Industrial Land Requirements
 - (a) Level, flood-free, well-drained, capable of bearing heavy loads
 - (b) Accessible to: highway, rail, air, water
 - (c) Free of encumbrances and conflicting easements
 - (d) Protected from encroachment by residential or other incompatible uses
 - (e) Available large enough parcels
 - (f) Served by all necessary utilities: water, sanitary sewer, storm sewer, electric power, gas, telephone
 - (g) Price reasonable enough to support investment over time
- 2. Other Industrial Requirements
 - (a) Labor supply (quantity, quality)

INDUSTRIAL
 COMMERCIAL
 RESIDENTIAL
 Multi-Family
 RESIDENTIAL
 Single-Family

IMPACT AREA	FACTOR OR CONDITIONS	IMPACT AREA	FACTOR OR CONDITIONS
REGULATIONS (Cont.)	Area not Subject to Serious Flood Problems Area not Subject to Critical Subsidence Problems Area within City Limits	Area not Subject to Serious Flood Problems Area not Subject to Critical Subsidence Problems Area within City Limits	Area not Subject to Serious Flood Problems Area not Subject to Critical Subsidence Problems Area within City Limits
JURISDICTIONAL			
ECONOMIC/ LAND VALUE	Land within Feasible Market Price Area of High Percentage of Vacant Land for Development	Land within Feasible Market Price Area of High Percentage of Vacant Land for Development	Land within Feasible Market Price Area of High Percentage of Vacant Land for Development
FINANCIAL	Area with High Percentage of Redevelopable Land Incentive Subsidy Programs for Development Financing Area without Difficult Capital Financability	Area with High Percentage of Redevelopable Land Incentive Subsidy Programs for Development Financing Area without Difficult Capital Financability	Area with High Percentage of Redevelopable Land Incentive Subsidy Programs for Development Financing Area without Difficult Capital Financability
MARKET TRENDS	Area not Subject to Major Insurance Problems Area without High Vacancy Rates Area with Positive Land Value Trends	Area not Subject to Major Insurance Problems Area without High Vacancy Rates Area with Positive Land Value Trends	Area not Subject to Major Insurance Problems Area without High Vacancy Rates Area with Positive Land Value Trends
LAND OWNERSHIP	Prevent, Potential lot Areas Private Owned Institutional Owned Public Owned	Prevent, Potential lot Areas Private Owned Institutional Owned Public Owned	Prevent, Potential lot Areas Private Owned Institutional Owned Public Owned
TRANSPORTATION	Considerable Change in Gas Price Proximity to Potential High Value Corners	Considerable Change in Gas Price Proximity to Potential High Value Corners	Considerable Change in Gas Price Proximity to Potential High Value Corners
HIGH VALUE CORNER			
NATURAL/ SOIL & GEOLOGY	Suitable Land for Development with Regard to Soil Types Proximity to Significant Water Features Adjacent to Areas Identified as Preservable Area Distant from Highly Deteriorating Zones Area Distant from Zones Subject to Substantial Demolition	Suitable Land for Development with Regard to Soil Types Proximity to Significant Water Features Adjacent to Areas Identified as Preservable Area Distant from Highly Deteriorating Zones Area Distant from Zones Subject to Substantial Demolition	Suitable Land for Development with Regard to Soil Types Proximity to Significant Water Features Adjacent to Areas Identified as Preservable Area Distant from Highly Deteriorating Zones Area Distant from Zones Subject to Substantial Demolition
WATER BODY PRESERVATION AGING			
SOCIAL/ HOMOGENEITY	Proximity to Homogeneous Land Uses Proximity to Heterogeneous Land Uses Adjacent to High Quality Elementary Schools Proximity to Compatible Population Adjacent to Middle Income Area Proximity to Mixed Income Areas Area Distant from Low Income Zone Isolated from Blighted, Crime-prone Areas	Proximity to Homogeneous Land Uses Proximity to Heterogeneous Land Uses Adjacent to High Quality Elementary Schools Proximity to Compatible Population Adjacent to Middle Income Area Proximity to Mixed Income Areas Area Distant from Low Income Zone Isolated from Blighted, Crime-prone Areas	Proximity to Homogeneous Land Uses Proximity to Heterogeneous Land Uses Adjacent to High Quality Elementary Schools Proximity to Compatible Population Adjacent to Middle Income Area Proximity to Mixed Income Areas Area Distant from Low Income Zone Isolated from Blighted, Crime-prone Areas
SCHOOL ETHNICITY INCOME			
HEIGHT/SHOUD			

INDUSTRIAL
 COMMERCIAL
 RESIDENTIAL
 Multi-Family
 RESIDENTIAL
 Single-Family

IMPACT AREA	FACTOR OR CONDITIONS	IMPACT AREA	FACTOR OR CONDITIONS
INFRASTRUCTURAL/ TRANSPORTATION	Good Accessibility to Freeways or Mass Transit Good Accessibility to Major Arterials Good Accessibility to Railroad Transportation System Good Accessibility of Motor Freight Transportation Availability of Water Transportation System Good Accessibility to Local or Suburb Transit System Proximity to Major Public Parking Facilities Optimal Time/Distance to Work Areas Proximity to Leisure Activity Areas Optimal Time/Distance to Major Shopping Areas Availability of Potable Water Supply Availability of Industrial Motor Supply Availability of Sewer Service Availability of Electric Service, Low Voltage Availability of Electric Service, High Voltage Availability of Gas Service Availability of Telephone Service Availability of Special TV Cable Service	Good Accessibility to Freeways or Mass Transit Good Accessibility to Major Arterials Good Accessibility to Railroad Transportation System Good Accessibility of Motor Freight Transportation Availability of Water Transportation System Good Accessibility to Local or Suburb Transit System Proximity to Major Public Parking Facilities Optimal Time/Distance to Work Areas Proximity to Leisure Activity Areas Optimal Time/Distance to Major Shopping Areas Availability of Potable Water Supply Availability of Industrial Motor Supply Availability of Sewer Service Availability of Electric Service, Low Voltage Availability of Electric Service, High Voltage Availability of Gas Service Availability of Telephone Service Availability of Special TV Cable Service	Good Accessibility to Freeways or Mass Transit Good Accessibility to Major Arterials Good Accessibility to Railroad Transportation System Good Accessibility of Motor Freight Transportation Availability of Water Transportation System Good Accessibility to Local or Suburb Transit System Proximity to Major Public Parking Facilities Optimal Time/Distance to Work Areas Proximity to Leisure Activity Areas Optimal Time/Distance to Major Shopping Areas Availability of Potable Water Supply Availability of Industrial Motor Supply Availability of Sewer Service Availability of Electric Service, Low Voltage Availability of Electric Service, High Voltage Availability of Gas Service Availability of Telephone Service Availability of Special TV Cable Service
WATER SERVICES			
SEWER SERVICES			
ELECTRICITY			
NATURAL GAS			
COMMUNICATIONS			
INSTITUTIONAL/ SCHOOLS	Optimal Distance to Elementary School Proximity to Higher Educational, Cultural Facilities Proximity to Fire Stations Accessibility of Police Service Proximity to Medical Centers Proximity to Parks, Zoo, Botanical Gardens, etc.	Optimal Distance to Elementary School Proximity to Higher Educational, Cultural Facilities Proximity to Fire Stations Accessibility of Police Service Proximity to Medical Centers Proximity to Parks, Zoo, Botanical Gardens, etc.	Optimal Distance to Elementary School Proximity to Higher Educational, Cultural Facilities Proximity to Fire Stations Accessibility of Police Service Proximity to Medical Centers Proximity to Parks, Zoo, Botanical Gardens, etc.
FIRE SERVICES POLICE HEALTH CARE RECREATIONAL			
LEGISLATIVE/ TAX APPROACHES	Area with Special District Taxation Policy for Development Area with Incentive Tax Policies for Redevelopment Subdivision with Deed Restrictions to Same Uses Area without Fire District Designations Area without Land Use Restrictions Area without Air Quality Controls Area without Water Quality Controls	Area with Special District Taxation Policy for Development Area with Incentive Tax Policies for Redevelopment Subdivision with Deed Restrictions to Same Uses Area without Fire District Designations Area without Land Use Restrictions Area without Air Quality Controls Area without Water Quality Controls	Area with Special District Taxation Policy for Development Area with Incentive Tax Policies for Redevelopment Subdivision with Deed Restrictions to Same Uses Area without Fire District Designations Area without Land Use Restrictions Area without Air Quality Controls Area without Water Quality Controls
TAX APPROACHES			
REGULATIONS			

Table 2-1 Factors Affecting New Development

one area in Houston more attractive than another for each of the following development types:

Residential	Retail Commercial	Office
Industrial		

The lists were compiled with minimal editing for duplication and returned to the group for additions, deletions, and comments (Appendix F).

Edited List of Conditions

The next step in identifying a set of growth factors or conditions was to further edit the list of growth conditions for duplications, condensing the statements, and deletions based on advisor comments and on the previous research. The edited list of conditions affecting the attractiveness of a location for each type of development follows.

RESIDENTIAL DEVELOPMENT

1. Proximity to centers of employment
2. Proximity to retail and service facilities
3. Proximity to quality commercial centers
4. Proximity to recreation facilities
5. Proximity to established high value areas
6. Proximity to area with compatible population characteristics
7. Proximity to area not subject to deterioration
8. Accessibility to other centers of employment
9. Accessibility to retail and service facilities
10. Accessibility to central business district
11. Accessibility to recreation facilities
12. Quality of physical environment - trees, topography
13. Quality of surrounding area - land uses, maintenance
14. Quality of air or water
15. Quality and reputation of school district
16. Availability of urban services (parks, police and fire protection, solid waste)
17. Quality of roads
18. Cost of land
19. Availability of tracts without restrictions
20. Availability of tracts of adequate size
21. Severity of soil conditions
22. Severity of drainage requirements
23. Severity of flood protection requirements
24. Availability of water supply and treatment capacity
25. Availability of sewer collection and treatment capacity
26. Availability of mortgage financing
27. Availability of development financing
28. Availability of financing for utility installation
29. Severity of tax cost of resident
30. Severity of building costs

RETAIL COMMERCIAL DEVELOPMENT

1. Proximity to sufficient residential density

2. Buying power of residents in area
3. Proximity to freeways
4. Proximity to major thoroughfares
5. Accessibility to public transportation
6. Availability of competitive tracts
7. Cost of land
8. Severity of building codes
9. Availability of water supply and treatment capacity
10. Availability of sewer collection and treatment capacity
11. Quality of physical environment - trees, topography
12. Severity of soil conditions
13. Severity of drainage requirements
14. Severity of flood protection requirements

INDUSTRIAL DEVELOPMENT

1. Proximity to rail service
2. Accessibility to motor freight service
3. Accessibility to residential areas (labor force)
4. Availability of sewer collection and treatment capacity
5. Severity of cost of utilities
6. Severity of drainage requirements
7. Severity of flood protection requirements
8. Severity and consistency of tax cost
9. Severity and consistency of wastewater requirements
10. Cost of land
11. Severity of building codes

Heavy Manufacturing

12. Proximity to similar land uses
13. Proximity to areas not high value residential
14. Proximity to raw materials, feedstocks
15. Proximity to water transportation
16. Availability of process water supply
17. Severity and consistency of air pollution restrictions
18. Isolated from area subject to future annexation
19. Quality of public cooperation

Light Manufacturing

20. Proximity to similar land uses
21. Proximity to high value residential area

Industrial Park

22. Proximity to high value residential
23. Proximity to major thoroughfares
24. Proximity to freeway
25. Quality of physical environment - trees, topography

OFFICE DEVELOPMENT

1. Proximity to high value residential area
2. Proximity to other office development
3. Proximity to freeways
4. Proximity to major thoroughfares
5. Accessibility to public transportation
6. Quality of the physical environment - trees, topography
7. Cost of land
8. Severity of building codes

Severity of flood protection requirements	3.5+
Proximity to freeways	3.3*
Cost of land	3.2+
Availability of competitive parcels	2.7+
Severity of building codes	2.4
Severity of soil conditions	2.4
Quality of physical environment	2.0
Accessibility to public transportation	1.8

OFFICE DEVELOPMENT

Condition	Average Score
Proximity to major thoroughfares	3.8*
Proximity to freeways	3.6*
Quality of roads	3.3+
Severity of drainage requirements	3.2+
Severity of flood protection requirements	3.2+
Accessibility to residential areas	3.1+
Cost of land	3.1+
Severity of tax cost	3.0+
Proximity to office development	3.0+
Accessibility to other employment centers	2.9+
Severity of building codes	2.5+
Severity of soil conditions	2.4+
Accessibility to public transportation	2.3
Quality of physical environment	1.8

INDUSTRIAL DEVELOPMENT

Condition	Average Score
Proximity to freeways	3.9*
Proximity to major thoroughfares	3.8*
Severity and consistency of wastewater requirements	3.7+
Availability of process water	3.7*
Severity and consistency of air pollution restrictions	3.6*
Accessibility to motor freight	3.5+
Availability of sewer collection and treatment capacity	3.4+
Severity and consistency of tax cost	3.4+
Quality of public cooperation	3.4+
Severity of drainage requirements	3.3+
Proximity to rail service	3.2+
Severity of cost of utilities	3.2+
Severity of flood protection requirements	3.2+
Cost of land	3.2+
Proximity to raw materials	3.2+
Proximity to industrial development	3.0+
Proximity to water transportation	2.8+
Severity of building codes	2.7+
Isolated from area subject to annexation	2.7+
Proximity to areas not high value residential	2.6+
Accessibility to residential areas	2.2
Proximity to high value residential	2.2
Quality of the physical environment	1.6

*Indicates 100% of the advisors rated the condition important (3) or very important (4).

+Indicates more than 50% of the advisors rated the condition important (3) or very important (4).

The average scores for the conditions within each development type were standardized so that their mean or average equaled zero and the standard deviation equaled one. These standard scores were then transformed so that their mean was 50, the maximum score was approximately 100 and the minimum score approximately zero. These transformed

scores, when rounded off, became the preliminary or raw weightings for the importance of the conditions in each development type. Standard scores and weights can be found in Table 2-2 for residential development, Table 2-3 for office development, Table 2-4 for retail development, and Table 2-5 for industrial development.

Table 2-3 Standardized Ratings for Office Development

Conditions	Standardized Rating (Avg=0)	Weight (Avg=50)
Prox. to Major Thoroughfares	1.722	100
Prox. to Freeways	1.320	88
Qual. of Road	.716	71
Drainage Req'm'ts	.515	65
Flood Prot. Req'm'ts	.515	65
Access to Res. Areas	.314	59
Cost of Land	.314	59
Tax Cost to Owner	.113	53
Prox. to Other Office	.113	53
Prox. to Hi Value Res.	-.088	47
Access. to Employ Center	-.088	47
Sev. Bldg. Codes & Req.	-.893	24
Sev. of Soil Conditions	-1.095	18
Access to Public Trans.	-1.296	12
Qual. of Phys. Environ.	-2.302	0

weights added: Proximity to Area Not Deteriorating; Quality of the Surrounding Area. The surviving condition was "Quality of the Surrounding Area". The condition "Proximity to Employment Center" was replaced with the condition "Accessibility to Employment Centers". The condition "Quality of Air and Water" was changed to "Quality of Air".

Based on input from the City Technical Advisory Group, the following adjustments were made to the initial list of conditions and weightings:

Weightings were added in the Office, Retail, and Industrial Development categories for the following conditions: Availability of Parcels of Adequate Size; Availability of Development Financing.

The weighting of the "Tax Cost to Owner" for Residential Development was reduced approximately 50%.

The weighting of "Quality of Air" was reduced about 25%.

For Residential Development, the weighting of "Proximity to Retail and Service" was eliminated and the weighting applied to "Accessibility to Retail and Service".

For Retail Development, the weighting of "Proximity to Retail and Service" was increased by four times.

A weighting was added in the Residential category for "Proximity and Access to Major Thoroughfares", and in the Office category, the weighting was increased about 25%.

For Office Development, the weighting of

"Proximity and Access to Freeways" was increased about 10%.

A weighting for "Accessibility to Residential Areas" was added to the Retail Development category.

The condition "Proximity to Residential Areas" was eliminated in favor of "Accessibility to Residential Areas".

The weighting of "Proximity to High-Value Residential" for the Office Development category was reduced about 50%.

Weightings were added to the Residential category for "Severity and Consistency of Waste Water Requirements".

The weighting of "Proximity to Rail Service" for the Industrial Development category was increased about 70%.

The weighting of "Proximity to Water Transportation" for the Industrial Development category was increased about 100%.

In the Residential Development category, weightings were added for both single family and multi-family housing types.

Negative weightings were added for some conditions where inverse relationships existed between development types.

The weighting of "Availability of Development Financing" for Retail Development was reduced about 80%.

For Residential Development the weighting of "Quality of the Area" was increased about 50% and "Area Not Deteriorating" was dropped.

Table 2-6 Conditions for Growth

NECESSARY CONDITIONS - AVAILABILITY OF LAND FOR DEVELOPMENT:

- | | |
|---|--|
| <ol style="list-style-type: none"> 1. Without severe drainage requirements 2. Without severe flood protection requirements 3. With available utility financing | <ol style="list-style-type: none"> 4. With available water supply and treatment 5. With available sewer collection and treatment 6. Without restrictions on use |
|---|--|

WEIGHTED CONDITIONS:

CONDITIONS	WEIGHTINGS					
	Single Family	Multi-Family	Residential	Retail	Office	Industrial
1. Quality of Schools	120	60	110			
2. Housing Cost to Resident	110	120	110			
3. Cost of Land	110	90	100	100	110	60
4. Parcels of Adequate Size	110	30	100	70	70	90
5. Development Financing Available	110	120	110	130	20	40
6. Quality of Area	180	90	160			
7. Tax Cost to Owner	30		30		30	80
8. Severity of Codes	60	60	60		40	20
9. Quality of Air	40	50	40			
10. Proximity to Retail Development				130	50	-30
11. Access to Retail Development	60	90	60			
12. Availability of Urban Services	60	60	40			
13. Access to Employment Centers	40	120	40			
14. Proximity & Access to Major Roads		60	40	150	140	100
15. Proximity & Access to Freeways				110	170	110
16. Access to Residential Development				160	110	-50
17. Proximity to Office Development					150	-50
18. Proximity to High Value Residential Development				150	40	-50
19. Severity of Waste Water Requirements	30	50	30			100
20. Availability of Process Water						100
21. Severity of Air Pollution Requirements						90
22. Proximity to Rail Service				-30	-50	110
23. Proximity to Industrial Development	-30	-10	-20	-30	-50	40
24. Proximity to Water Transportation	-30	-10	-20	-30	-50	60

The weighting of "Tax Cost to Owner" for Office Development was reduced about 60%.

For the Office Development category, a weighting was added for "Proximity to Retail Development".

In order to make the condition weightings comparable across the four development types, the weights were normalized, within any one development type, so that their sum would equal approximately their sum in any other development category.

Conditions and Weightings

The final list of weighted conditions for each development type with the addition of certain negative weights is shown in Table 2-6.

Condition Ratings

The method for using the conditions to allocate growth requires a system to indicate the location specific status of the conditions for each sub-area. This requirement is met

by a rating system for each condition that allows for measurement of the relative presence of that condition in a sub-area. The rating consists of a number ranging from -1 to +5. A rating of -1 indicates the status of the condition actually detracts from the attractiveness of the area for growth. A rating of +5 indicates the status of the condition is such as to be extremely attractive for growth.

There is need for a standardized decision rule for each condition to determine the rating for each area. Several requirements were considered for each decision rule. The status defined by the rule should be easily measured without extensive data collection of on-site surveys. The measure should be applicable at the sub-area scale and not site specific. In some cases the measure must deal with the question of perception of a quality or status by the population or developer as differentiated from the real data.

An example of a typical decision rule for the condition "Accessibility to Employment Centers" is as follows:

Chapter 4

GROWTH ALLOCATION TECHNIQUE

In order to test the growth effects of changing conditions and government policies, it was necessary to develop a technique for making growth predictions. The previous chapter on "Conditions for Growth" described the methods of determining the conditions, determining their relative importance (weight), and rating the conditions in each of the census tracts in the study area. The growth allocation technique is designed to translate those conditions, weights, and ratings into growth in households, population, housing units, and employment in the study area.

This chapter of the report describes the technique for making growth predictions. Herein will be described the theoretical basis for the technique, the data base required to make predictions of future growth, and the computer program which was written to perform the calculations.

THEORETICAL BASIS

The growth allocation technique used in this study is designed to allocate portions of a given regional growth total to small areas.

Background

At a regional level, it is possible to make population and employment projections using a technique which assumes population change is comprised of two components: (1) natural increase in population (births-deaths), and (2) migration (persons entering a region-those leaving). Natural increases may be determined by using an age-sex-cohort process, assuming fertility rates and mortality rates for each age group. Migration patterns may be determined by using economic base analyses to predict the number of new jobs (and residents) within a region based on the national growth in jobs and an assumption about the share of the national growth that the region will capture.

At the regional level (generally multi-county) the above technique is theoretically sound and can be quite accurate. It will not, however, work for small areas (sub-county areas such as census tracts) due to the difficulty in predicting the migration patterns across the many boundaries within the region.

For small geographical areas, the most often used technique involves the assumption of regional "control totals" for population and employment for each future time period and the allocation (disaggregation) of portions of the totals to the small areas within the

Table 4-1 Assessment of Growth Allocation Techniques

Techniques	OUTPUT			DESIGN				FUNCTION				
	Population	Employment	Land Use	Logic	Document Assumptions and Methods	Replacable	Flexible	Policy Shifts	Changing Conditions	Computing Land Uses	Control Purpose	
LOWRY	YES	YES	RESIDENTIAL	TRANSPORTATION ONLY	YES	YES	NO	MINOR	NO	NO	YES	
EMPIRIC	YES	YES	YES	MAINLY TRANSPORTATION	YES	YES	SOMEWHAT	SOME	FEW	YES	YES	
PLUM	YES	YES	YES	MAINLY TRANSPORTATION	YES	YES	NO	MINOR	NO	NO	YES	
UGSM	YES	YES	NO	MAINLY TRANSPORTATION	YES	YES	SOMEWHAT	SOME	FEW	NO	YES	
REGIEN	YES	YES	YES	COMPLEX	NO	YES	SOMEWHAT	NO	NO	YES	YES	
HOAC-203	YES	NO	YES	MAINLY TRENDS	YES	YES	SOMEWHAT	SOME	FEW	NO	YES	
HO-410	YES	NO	YES	POLICY EFFECTS	YES	YES	SOMEWHAT	YES	YES	NO	NO	

Houston have shown that transportation accessibility is not the single most important indicator of residential location. In fact, accessibility to employment ranks well down the list of important conditions for growth (see Chapter II Conditions for Growth) in Houston.

Criteria for Technique

For this Growth Options study, the selection of a growth allocation technique was critical. The following criteria were established:

1. The technique should produce population, housing, employment, and land use projections for sub-areas within a region using assumed control totals for the region.
2. The method for allocating the growth to sub-areas should:
 - a. reflect a logical thought process withstanding the test of reasonableness,
 - b. allow for complete and understandable documentation of all assumptions and methods,
 - c. be capable of being repeated (replacable), and,
 - d. be adaptable and flexible in order that new assumptions and modifications may be introduced.

3. The technique must account for changes in growth due to changes in government policies, changing conditions, and the competition for land between various land uses (e.g., residential, commercial, industrial).

It became immediately obvious that such a growth allocation technique either did not exist or was not known to the researchers. Table 4-1 presents an illustrative assessment of the various techniques uncovered in the research.

SELECTED GROWTH ALLOCATION TECHNIQUE

The selected technique for allocating growth is essentially the same as the models EMPIRIC, PLUM, and UGSM. All of the models compute each sub-area's share of regional growth on the basis of the "attractiveness" and then determine if the sub-area can accommodate that growth (have the necessary vacant land and public utilities). The difference between these models and the selected technique lies in the method of computing the "attractiveness" (share of growth) for each sub-area.

Example of Technique

The technique for growth allocation, developed in this study, determines the attractiveness (and therefore, growth share) of each sub-area based upon that sub-area's rat-

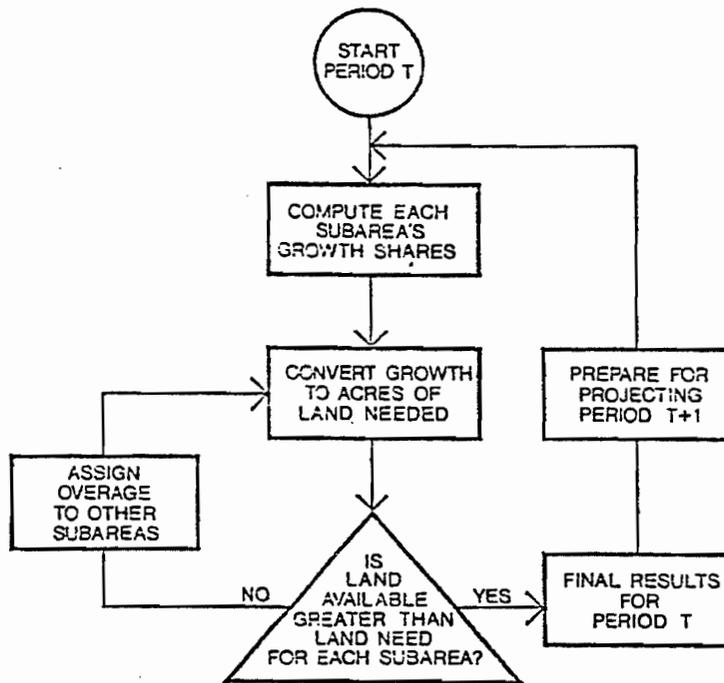


Figure 4-1 Growth Allocation Technique Flow Chart

Where:

$S_{R,t}$ = residential, R, attractiveness score for the subarea, t

\sum_i = summation over all conditions, i

$R_{i,t}$ = rating for condition, i for subarea, t

$W_{R,i}$ = relative weight for condition, i, for residential, R, development

e = exponent (set during calibration = 2)

$G_{R,t}$ = growth share of subarea, t

\sum_t = summation over all subareas.

B. For Retail Growth: (Employment)

$$(1) S_{RE,t} = \left(\sum_i R_{i,t} \times W_{RE,i} \right)^e$$

$$(2) G_{RE,t} = \frac{S_{RE,t}}{\sum_t S_{RE,t}}$$

Where:

$S_{RE,t}$ = retail, RE, attractiveness score for subarea, t

$W_{RE,i}$ = relative weight for condition, i, for retail employment growth, RE

$G_{RE,t}$ = retail growth share of subarea, t.

C. For Office Growth: (Employment)

$$(1) S'_{o,t} = \left(\sum_i R_{i,t} \times W_{o,i} \right)^e$$

$$(2) \text{ If } S'_{o,t} < T_o, \text{ then } S_{o,t} = 0$$

$$(3) S_{o,t} = \left[S'_{o,t} - T_o / C_o \right]^2$$

$$(4) G_{o,t} = \frac{S_{o,t}}{\sum_t S_{o,t}}$$

Where:

$S_{o,t}$ = office attractiveness score for subarea, t ($S'_{o,t}$ = first approximation)

$W_{o,i}$ = relative weight for office development for condition, i

T_o = threshold score for office development (set at calibration to be at the mean of all subareas)

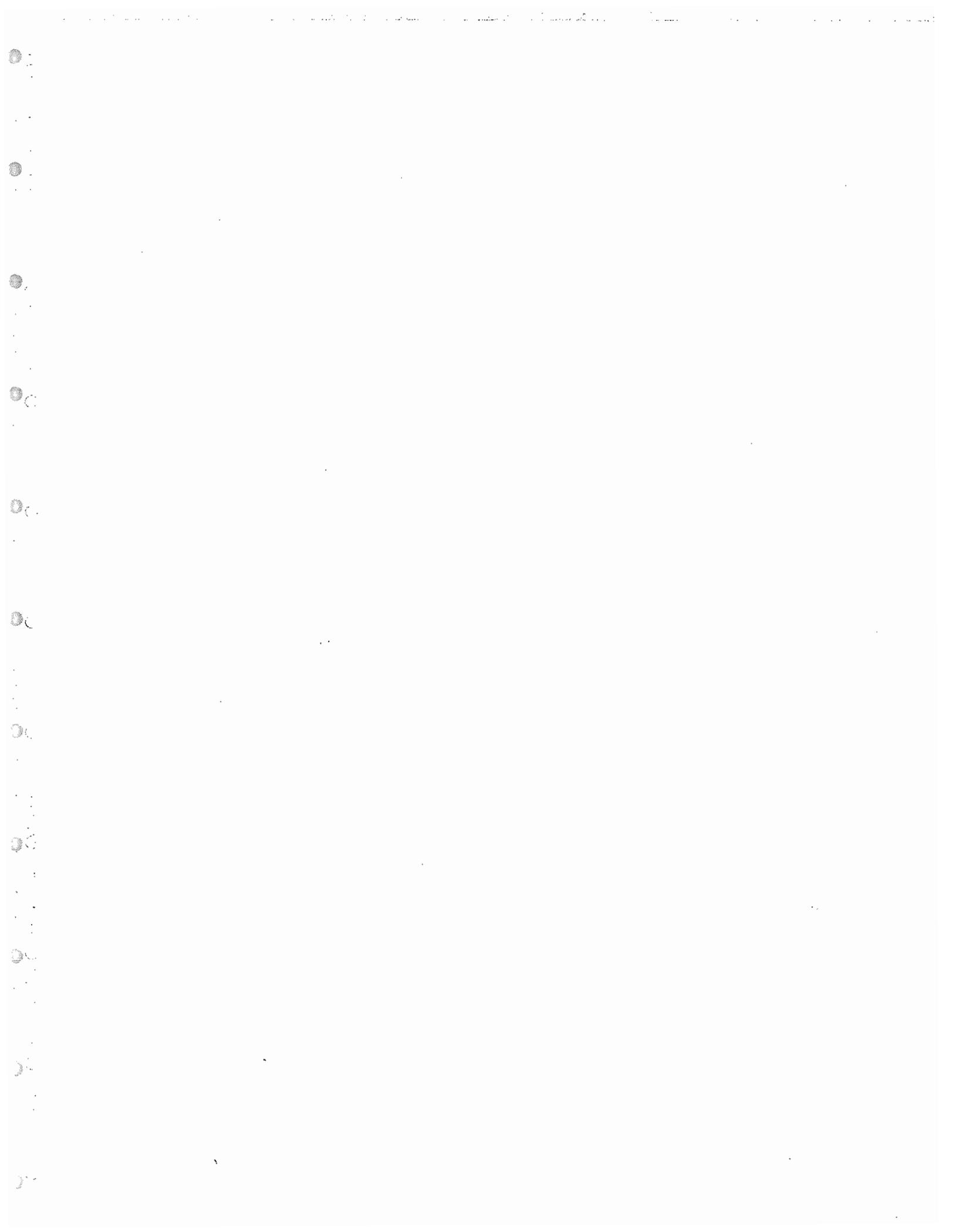
C_o = calibration constant (set at calibration to be 2.5).

$G_{o,t}$ = office growth share of subarea, t

D. For Industrial Growth: (Employment)

$$(1) S'_{I,t} = \left(\sum_i R_{i,t} \times W_{I,i} \right)^e$$

$$(2) \text{ If } S'_{I,t} < T_I, \text{ then } S_{I,t} = 0$$



Where:

$A_{SF,t}$ = acres needed for single-family development

$A_{MF,t}$ = acres needed for multi-family development

$A_{RE,t}$ = acres needed for retail development

$A_{O,t}$ = acres needed for office development

$A_{I,t}$ = acres needed for industrial development

$D_{SF,t}$ = single-family density in subarea, t, housing units per acre

$D_{MF,t}$ = multi-family density in subarea, t, housing units per acre

$D_{RE,t}$ = density of retail development, employees per acre

$D_{O,t}$ = density of office development, employees per acre

$D_{I,t}$ = density of industrial development, employees per acre.

The land required for the five development types is summed and compared with the land available for development. If there is sufficient land, all growth in households and employment is allowed. If there is an insufficiency of available land, the development type with the highest demand receives first priority for use of the land, and all other competing uses are proportioned down to fill any remaining land. Land available for development is determined as follows:

$$LA_t = LV_t - LR_t + LD_t + RL_t$$

Where:

LA_t = land available for development in subarea, t

LV_t = vacant land in subarea, t

LR_t = land restricted due to lack of utilities or environmental constraints in subarea, t

LD_t = land made available due to demolitions in the existing housing stock in subarea, t

RL_t = redevelopment land in subarea, t (land currently in use but likely to be redeveloped due to high demand).

Any growth in households or employment that is not allocated due to lack of capacity in any sub-area is reassigned to other sub-areas in proportion to their attractiveness for growth.

After all of the regional totals of households and employment have been allocated in each period, the land use acreages are modified to reflect the changes during that period. All land used during a period is removed from available land for the next period.

The population for each sub-area is then computed by the following equation:

$$P_t = HH_{SF,t} \times PPH_{SF,t} + HH_{MF,t} \times PPH_{MF,t}$$

Where:

P_t = total population in the subarea, t

$HH_{SF,t}$ = total single-family households in the subarea, t

$HH_{MF,t}$ = total multi-family households in the subarea, t

$PPH_{SF,t}$ = the single-family household size in this time period in subarea, t

$PPH_{MF,t}$ = the multi-family household size in this time period in subarea, t.

GAP is a generalized program that will be capable of making growth projections for any geographical area using any number of sub-areas. The program is currently programmed to make projections in five-year increments up to the year 2000, starting with data in 1975. The program is designed to produce calibration results using 1970 population and employment characteristics, estimating 1975 characteristics, and comparing the 1975 estimates with actual population and employment in 1975. For more on the calibration, please see Chapter V.

Table 4-2 Data Sources

TABLE 4-2A SOURCE OF POPULATION AND HOUSING CHARACTERISTICS

DATA ITEM	1970	SOURCE	1975
Population	City of Houston (Census)		City of Houston
Households	City of Houston (Census)		City of Houston
S.F. Housing Units	Houston Chamber of Commerce		Houston Chamber of Commerce
M.F. Housing Units	Houston Chamber of Commerce		Houston Chamber of Commerce

TABLE 4-2B SOURCES OF LAND USE DATA

DATA ITEM	1970	SOURCE	1975
S.F. Residential	City of Houston - City Planning		HGAC-208 Study
M.F. Residential	City of Houston - City Planning		HGAC-203 Study
Commercial	City of Houston - City Planning (Sum of Categories Commercial & Recreational)		HGAC-208 Study
Industrial	City of Houston - City Planning		HGAC-208 Study
Park	City of Houston - City Planning		HGAC-203 Study
Agricultural	Not Available		HGAC-208 Study
Vacant	City of Houston - City Planning		HGAC-208 Study
Other	Combine Three Categories		HGAC-208 Study

TABLE 4-2C SOURCES OF EMPLOYMENT DATA

DATA ITEM	1970	SOURCE	1975
Retail & Office	1972 City of Houston Planning Department Study Combined Categories: Commercial & Educational, and Split: Retail and Office		HGAC/Texas Employment Commission, Adjusted to 1975 Total from City of Houston - Policy Planning
Industrial	1972 City of Houston Planning Department		HGAC/Texas Employment Commission, Adjusted to 1975 Total from City of Houston - Policy Planning

TABLE 4-2D SOURCES OF BASIC GROWTH CONDITIONS DATA

DATA ITEM	1970	SOURCE	1975
Household Size	Average over 1970-1975		Reduced 2%/Period
Density	Average over 1970-1975		Increased 6%/Period
% Multi-Family	Multi-Family Change 1970-1975 as Percent of Residential		Assumption about Future Growth Pattern
Available Vacant Land	Actual Vacant Land in 1970		1975-80 Reduced for Sewer Moratorium, 1980-2000 Reduced for Flood Plains
Redevelopable Land	None		Assumption about Future Growth
Units Lost	City of Houston - Policy Planning		Housing Tool - Neighborhood Conservation Policies
Vacancy Rate	Average over 1970-1975		Reduced 10%/Year with Minimums

TABLE 4-2E SOURCES OF REGIONAL CONTROL TOTAL DATA

DATA ITEM	SOURCE
Population Total	Economic Base Analysis of the Gulf Coast State Planning Region, Bureau of Business Research, University of Texas, 1974.
Retail Employment Total	Economic Projections from City of Houston, Policy Planning Department, 1977 (Aggregated)
Office Employment Total	Economic Projections from the City of Houston, Policy Planning Department, 1977 (Aggregated)
Industrial Employment Total	Economic Projections from City of Houston, Policy Planning Department, 1977 (Aggregated)

*Modified to equal total housing units from City of Houston Housing Model.

**Converted to households based on the average household size.

APPENDIX IV
USE OF 1980 CENSUS DATA

APPENDIX IV
USE OF 1980 CENSUS DATA

Use of the Housing Calculation Tool requires tract level data on population, households and housing units to create an initial data base upon which forecasts can be based. At a minimum the following types of data are required:

- o Population by race
- o Households by race, size and income
- o Units by value/rent, size, and age
- o Persons per household
- o Residential land use (units/acre)

In addition to the requirements for data base conversion, the Housing Calculation Tool requires numerous user supplied assumptions. Examples include:

- o Labor force participation rates
- o Employment projections
- o Birth rates
- o Death rates
- o Labor force participation rates
- o Headship rates
- o Distributions of households by income classes
- o Distribution of households by size classes
- o Household income inflation rates
- o Housing unit demolition rates
- o Housing unit conversion rates
- o Housing unit rehabilitation rates
- o New construction rates
- o Housing unit value/rent inflation assumptions
- o Housing unit vacancy rates
- o Housing unit suitability rates (i.e., incidence of substandard units)
- o Distributions of households by residential densities (urban, suburban, exurban)
- o Housing unit preferences of households.

These assumptions are required for each five-year forecast of population, households and housing units. Most often the rates are required by population, household and unit type. To set these assumptions, the user requires a rich source of data. The 1980 Census will be one primary source for such data providing tract level data of the following types:

- o Population by race, age, and sex
- o Households by race, size, and income
- o Units by value/rent, size, and age.

The structure of the summary tapes may not be in the cross tabular form just indicated. Further, the data may not be available by the classes required by the Housing Calculation Tool. Therefore, the user should pursue the following steps in utilization of the Census data.

1. Review required cross tabulations of the Housing Tool data base for population, households and units.
2. Define the classes used in each required cross tabulation, e.g.:
 - o Age: 5 year increments - 14 classes
 - o Sex: Male, female
 - o Race: White and other minorities, Black, and Spanish-American
 - o Household race: Same as above
 - o Household income: 8 classes
 - o Household size: 6 classes
 - o Housing unit size: 5 classes
 - o Housing unit value: 7 classes
 - o Housing unit rent: 8 classes
 - o Housing unit age: 7 classes (5-year increments)
3. Check the Census tape tabs for those which most closely provide required tabulation.
4. Identify which dimensions/variables of the cross tabulation are missing and identify what other tabs furnish the missing items.
5. Define how the tabulations can be combined to create the necessary tabulations.
6. Extract the necessary tabs.
7. Perform whatever extensions or mergings to the tabs which are required.
8. Perform mergers or disaggregations of classes as required. (This is required if the Census data are not conformable to the required classes. For instance, the 1980 Census data on housing units by age will not be available by consecutive 5-year classes. The Housing Tool requires five-year classes in order to accommodate aging of the stock from one five-year forecast period to another. Thus, some 10-year age classes must be disaggregated into 5-year classes.
9. Define what percent of each level forecast is inside the City or outside in order to affix City boundaries.

To carry out these steps, the user must have access to a computer and programming capacities. Some tape conversion may be required before the data can be used locally. Once the tapes are ready to be used, the specific data transformations need to be defined. If suppression is likely to be a factor, decisions need to be made concerning treatment of suppressed counts.

It is suggested the results be stored in array form; each corresponding to the required data base configuration for population, household and units. Arrays should be generated for all Census tracts considered a part of the study area. In the case of Houston, all tracts a part of the City in 1970 were included as well as all tracts likely to be annexed by the City before the year 2000

Once the data base is created, the tapes can also be used to help initialize assumptions used by the Housing Tool to run forecasts. Of the assumptions outlined above, the Census will be a good source of data on the following assumptions:

- o Household income distributions
- o Headship rates by population cohort (use the data age, race, and sex of the person in whose name the housing unit is owned or leased).
- o Persons per household by race
- o Housing unit preferences of households (match household incomes to unit size; household size, race and income to tenure)
- o Age and sex of person in whose name the unit is owned or rented (i.e., the surrogate for head of household)
- o Immigrant characteristics (based on prior residence)
- o Unit vacancies
- o Unit size distributions (to support new construction assumption setting)
- o Unit value and rent distributions (to support new construction assumption setting)

Supplementary data sources will need to be sought out to support other required assumptions. The census will not be a useful source of data to support assumption setting in the following areas:

- o Household income inflation
- o Housing unit value and rent inflation
- o Housing unit demolitions (comparative use of 1970 and 1980 Census data in counts of units by age may be helpful)
- o Housing unit conversions to non-residential uses
- o New construction
- o Housing unit suitability (use of Census data for estimating substandard units is problematic)

With the new five year Census provisions, the Housing Tool can be supported by up-to-date information on characteristics of the Study Area. This will facilitate creation of more refined assumptions and thereby improve the quality of forecasting by the Tool.

The 1980 Census Questionnaire



The following article is reprinted by the U.S. Bureau of the Census, courtesy of American Demographics magazine, from its April 1979 issue. American Demographics, Inc. assumes all responsibility for its contents.

The 1980 Census questionnaire is already at the printer's. We have obtained a copy, which is reprinted here with our annotations.

This is the version of the questionnaire given to a sample of the population: The first seven population questions also are asked of every American, and housing questions H1-H12 are asked of every household. The rest of the questions are asked on a one-in-six random sample basis, except in localities of less than 5,000 population, where a one-in-two sample is taken to gather data statistically adequate for use as the basis for federal revenue sharing program allocations.

The first question appears on the cover of both the short form (the 100 percent questionnaire) and long form (the sample questionnaire). The question is: "What is the name of each person who was living here on Tuesday, April 1, 1980, or who was staying or visiting here and had no other home?" Information from Question 1 is used by the Census Bureau for follow-up if other questions are not answered. Data from this question are not published.

The questionnaire begins with a pledge of confidentiality, Spanish-language instructions for those who wish to order a Spanish questionnaire, and the following message from the director of the Bureau of the Census:

Note: The questionnaire was provided by the Census Bureau, with editing and annotations done by the American Demographics staff.

"We must, from time-to-time, take stock of ourselves as a people if our Nation is to meet successfully the many national and local challenges we face. This is the purpose of the 1980 census.

"The essential need for a population census was recognized almost 200 years ago when our Constitution was written. As provided by article I, the first census was conducted in 1790 and one has been taken every 10 years since then.

"The law under which the census is taken protects the confidentiality of your answers. For the next 72 years — or until April 1, 2052 — only sworn census workers have access to the individual records, and no one else may see them.

"Your answers, when combined with the answers from other people, will provide the statistical figures needed by public and private groups, schools, business and industry, and Federal, State, and local governments across the country. These figures will help all sectors of American society understand how our population and housing are changing. In this way, we can deal more effectively with today's problems and work toward a better future for all of us.

"The census is a vitally important national activity. Please do your part by filling out this census form accurately and completely. If you mail it back promptly in the enclosed postage-paid envelope, it will save the expense and inconvenience of a census taker having to visit you.

"Thank you for your cooperation."

Did you leave anyone out of Question 1 because you were not sure if the person should be listed — for example, a new baby still in the hospital, a lodger who also has another home, or a person who stays here once in a while and has no other home?

- Yes — On page 20 give name(s) and reason left out.
- No

2. Did you list anyone in Question 1 who is away from home now — for example, on a vacation or in a hospital?

- Yes — On page 20 give name(s) and reason person is away.
- No

Is anyone visiting here who is not already listed?

- Yes — On page 20 give name of each visitor for whom there is no one at the home address to report the person to a census taker.
- No

How many living quarters, occupied and vacant, are at this address?

- One
- 2 apartments or living quarters
- 3 apartments or living quarters
- 4 apartments or living quarters
- 5 apartments or living quarters
- 6 apartments or living quarters
- 7 apartments or living quarters
- 8 apartments or living quarters
- 9 apartments or living quarters
- 10 or more apartments or living quarters
- This is a mobile home or trailer

Do you enter your living quarters —

- Directly from the outside or through a common or public hall?
- Through someone else's living quarters?

Do you have complete plumbing facilities in your living quarters, that is, hot and cold piped water, a flush toilet, and a bathtub or shower?

- Yes, for this household only
- Yes, but also used by another household
- No, have some but not all plumbing facilities
- No plumbing facilities in living quarters

How many rooms do you have in your living quarters?

Do not count bathrooms, porches, balconies, foyers, halls, or half-rooms.

- 1 room
- 2 rooms
- 3 rooms
- 4 rooms
- 5 rooms
- 6 rooms
- 7 rooms
- 8 rooms
- 9 or more rooms

Are your living quarters —

- Owned or being bought by you or by someone else in this household?
- Rented for cash rent?
- Occupied without payment of cash rent?

H9. Is this apartment (house) part of a condominium?

- No
- Yes, a condominium

H10. If this is a one-family house —

a. Is the house on a property of 10 or more acres?

- Yes
- No

b. Is any part of the property used as a commercial establishment or medical office?

- Yes
- No

H11. If you live in a one-family house or a condominium unit which you own or are buying —

What is the value of this property, that is, how much do you think this property (house and lot or condominium unit) would sell for if it were for sale?

Do not answer this question if this is —

- A mobile home or trailer
- A house on 10 or more acres
- A house with a commercial establishment or medical office on the property

- Less than \$10,000
- \$10,000 to \$14,999
- \$15,000 to \$17,499
- \$17,500 to \$19,999
- \$20,000 to \$22,499
- \$22,500 to \$24,999
- \$25,000 to \$27,499
- \$27,500 to \$29,999
- \$30,000 to \$34,999
- \$35,000 to \$39,999
- \$40,000 to \$44,999
- \$45,000 to \$49,999
- \$50,000 to \$54,999
- \$55,000 to \$59,999
- \$60,000 to \$64,999
- \$65,000 to \$69,999
- \$70,000 to \$74,999
- \$75,000 to \$79,999
- \$80,000 to \$89,999
- \$90,000 to \$99,999
- \$100,000 to \$124,999
- \$125,000 to \$149,999
- \$150,000 to \$199,999
- \$200,000 or more

H12. If you pay rent for your living quarters —

What is the monthly rent?

If rent is not paid by the month, see the instruction guide on how to figure a monthly rent.

- Less than \$50
- \$50 to \$59
- \$60 to \$69
- \$70 to \$79
- \$80 to \$89
- \$90 to \$99
- \$100 to \$109
- \$110 to \$119
- \$120 to \$129
- \$130 to \$139
- \$140 to \$149
- \$150 to \$159
- \$160 to \$169
- \$170 to \$179
- \$180 to \$189
- \$190 to \$199
- \$200 to \$224
- \$225 to \$249
- \$250 to \$274
- \$275 to \$299
- \$300 to \$349
- \$350 to \$399
- \$400 to \$499
- \$500 or more

H1-H3. the housing part of both the 100 percent and sample questionnaires starts with these three questions to make sure that everyone in the household was counted.

H4. same as in 1970. This question is asked so that census personnel can be sure that all units at an address are enumerated. Question H13 provides superior data on the number of dwelling units in the structure. Like the first three housing questions, H4 is intended to check coverage.

H5. has the objective of making certain the respondent occupies a bona fide dwelling unit, not just a few rooms in someone else's house.

H6. one of the few questions left from a series of questions in the 1970 Census which attempted to measure housing quality.

H7. same as in 1970.

H8. same as in 1970.

H9. for the first time poses a separate question on condominiums. The term "cooperative" also appeared on the test questionnaires but was misunderstood by many respondents.

H10. separates farmhouses, estates, and partly commercial structures from single family dwelling units. Value is not tabulated for these types of units.

H11. asks value. There are 24 categories instead of the 11 in 1970, when the highest value was only \$50,000 or more.

H12. also shows the impact of inflation. The highest interval in 1970 was \$300 or more. It is now \$500 or more, and 24 categories appear instead of the former 14.

H12 ends the housing questions asked of all Americans. The Census Bureau estimates it takes 15 minutes to answer the 19 population and housing questions on the short questionnaire, while the remaining questions add another 30 minutes.

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Block number	A5 Serial number	B. Type of unit or quarters	For vacant units	D. Months vacant	F. Total persons
0 0 0	0 0 0 0	<u>Occupied</u>	<u>C1. Is this unit for —</u>	<input type="radio"/> Less than 1 month	
1 1 1	1 1 1 1	<input type="radio"/> First form	<input type="radio"/> Year round use	<input type="radio"/> 1 up to 2 months	
2 2 2	2 2 2 2	<input type="radio"/> Continuation	<input type="radio"/> Seasonal/Mig. — Skip C2, C3, and D.	<input type="radio"/> 2 up to 6 months	
3 3 3	3 3 3 3	<u>Vacant</u>	<u>C2. Vacancy status</u>	<input type="radio"/> 6 up to 12 months	0 0 0
4 4 4	4 4 4 4	<input type="radio"/> Regular.	<input type="radio"/> For rent <input checked="" type="checkbox"/>	<input type="radio"/> 1 year up to 2 years	1 1 1
5 5 5	5 5 5 5	<input type="radio"/> Usual home elsewhere	<input type="radio"/> For sale only	<input type="radio"/> 2 or more years	2 2 2
6 6 6	6 6 6 6	<u>Group quarters</u>	<input type="radio"/> Rented or sold, not occupied		3 3 3
7 7 7	7 7 7 7	<input type="radio"/> First form	<input type="radio"/> Held for occasional use	<u>E. Indicators</u> <input checked="" type="checkbox"/>	4 4 4
8 8 8	8 8 8 8	<input type="radio"/> Continuation	<input type="radio"/> Other vacant	1. <input type="radio"/> Mail return	5 5 5
9 9 9	9 9 9 9		<u>C3. Is this unit boarded up?</u>	2. <input type="radio"/> Pop./F	6 6 6
			<input type="radio"/> Yes <input type="radio"/> No		7 7 7
				<input type="radio"/>	8 8 8
					9 9 9

<p>H13. Which best describes this building? <i>Include all apartments, flats, etc., even if vacant.</i></p> <ul style="list-style-type: none"> <input type="radio"/> A mobile home or trailer <input type="radio"/> A one-family house detached from any other house <input type="radio"/> A one-family house attached to one or more houses <input type="radio"/> A building for 2 families <input type="radio"/> A building for 3 or 4 families <input type="radio"/> A building for 5 to 9 families <input type="radio"/> A building for 10 to 19 families <input type="radio"/> A building for 20 to 49 families <input type="radio"/> A building for 50 or more families <input type="radio"/> A boat, tent, van, etc. <input checked="" type="checkbox"/> 	<p>H21 a. Which fuel is used most for house heating?</p> <ul style="list-style-type: none"> <input type="radio"/> Gas: from underground pipes serving the neighborhood <input type="radio"/> Gas: bottled, tank, or LP <input type="radio"/> Electricity <input type="radio"/> Fuel oil, kerosene, etc. <input type="radio"/> Coal or coke <input type="radio"/> Wood <input type="radio"/> Other fuel <input type="radio"/> No fuel used 	<p>CENSUS USE</p> <p>H22a.</p> <p>0 0 1 1 2 2 3 3 4 4 5 5 6 6 7 7 8 8 9 9</p>
<p>H14a. How many stories (floors) are in this building? <i>Count an attic or basement as a story if it has any finished rooms for living purposes.</i></p> <ul style="list-style-type: none"> <input type="radio"/> 1 to 3 — Skip to H15 <input type="radio"/> 4 to 6 <input type="radio"/> 7 to 12 <input type="radio"/> 13 or more stories 	<p>b. Which fuel is used most for water heating?</p> <ul style="list-style-type: none"> <input type="radio"/> Gas: from underground pipes serving the neighborhood <input type="radio"/> Gas: bottled, tank, or LP <input type="radio"/> Electricity <input type="radio"/> Fuel oil, kerosene, etc. <input checked="" type="checkbox"/> <input type="radio"/> Coal or coke <input type="radio"/> Wood <input type="radio"/> Other fuel <input type="radio"/> No fuel used 	<p>H22b.</p> <p>0 0 1 1 2 2 3 3 4 4 5 5 6 6 7 7 8 8 9 9</p>
<p>b. Is there a passenger elevator in this building?</p> <ul style="list-style-type: none"> <input type="radio"/> Yes <input type="radio"/> No 	<p>c. Which fuel is used most for cooking?</p> <ul style="list-style-type: none"> <input type="radio"/> Gas: from underground pipes serving the neighborhood <input type="radio"/> Gas: bottled, tank, or LP <input type="radio"/> Electricity <input type="radio"/> Fuel oil, kerosene, etc. <input type="radio"/> Coal or coke <input type="radio"/> Wood <input type="radio"/> Other fuel <input type="radio"/> No fuel used <input checked="" type="checkbox"/> 	<p>H22b.</p> <p>0 0 1 1 2 2 3 3 4 4 5 5 6 6 7 7 8 8 9 9</p>
<p>H15a. Is this building —</p> <ul style="list-style-type: none"> <input type="radio"/> On a city or suburban lot, or on a place of less than 1 acre? — Skip to H16 <input type="radio"/> On a place of 1 to 9 acres? <input type="radio"/> On a place of 10 or more acres? <p>b. Last year, 1979, did sales of crops, live-stock, and other farm products from this place amount to —</p> <ul style="list-style-type: none"> <input type="radio"/> Less than \$50 (or None) <input type="radio"/> \$50 to \$249 <input type="radio"/> \$250 to \$599 <input type="radio"/> \$600 to \$999 <input type="radio"/> \$1,000 to \$2,499 <input type="radio"/> \$2,500 or more 	<p>H22. What are the cost of utilities and fuels for your living quarters?</p> <p>a. Electricity</p> <p>\$ _____ .00 OR <input type="radio"/> Included in rent or no charge Average monthly cost <input type="radio"/> Electricity not used</p>	<p>H22b.</p> <p>0 0 1 1 2 2 3 3 4 4 5 5 6 6 7 7 8 8 9 9</p>
<p>H16. Do you get water from —</p> <ul style="list-style-type: none"> <input type="radio"/> A public system (city water department, etc.) or private company? <input type="radio"/> An individual drilled well? <input type="radio"/> An individual dug well? <input type="radio"/> Some other source (a spring, creek, river, cistern, etc.)? 	<p>b. Gas</p> <p>\$ _____ .00 OR <input type="radio"/> Included in rent or no charge Average monthly cost <input type="radio"/> Gas not used <input checked="" type="checkbox"/></p>	<p>H22c.</p> <p>0 0 1 1 2 2 3 3 4 4 5 5 6 6 7 7 8 8 9 9</p>
<p>H17. Is this building connected to a public sewer?</p> <ul style="list-style-type: none"> <input type="radio"/> Yes, connected to public sewer <input type="radio"/> No, connected to septic tank or cesspool <input type="radio"/> No, use other means 	<p>c. Water</p> <p>\$ _____ .00 OR <input type="radio"/> Included in rent or no charge Yearly cost <input type="radio"/> These fuels not used</p>	<p>H22c.</p> <p>0 0 1 1 2 2 3 3 4 4 5 5 6 6 7 7 8 8 9 9</p>
<p>H18. About when was this building originally built? Mark when the building was first constructed, not when it was remodeled, added to, or converted.</p> <ul style="list-style-type: none"> <input type="radio"/> 1979 or 1980 <input type="radio"/> 1975 to 1978 <input type="radio"/> 1970 to 1974 <input type="radio"/> 1960 to 1969 <input type="radio"/> 1950 to 1959 <input type="radio"/> 1940 to 1949 <input type="radio"/> 1939 or earlier 	<p>d. Oil, coal, kerosene, wood, etc.</p> <p>\$ _____ .00 OR <input type="radio"/> Included in rent or no charge Yearly cost <input type="radio"/> These fuels not used</p>	<p>H22d.</p> <p>0 0 0 1 1 1 2 2 2 3 3 3 4 4 4 5 5 5 6 6 6 7 7 7 8 8 8 9 9 9</p>
<p>H19. When did the person listed in column 1 move into this house (or apartment)?</p> <ul style="list-style-type: none"> <input type="radio"/> 1979 to 1980 <input type="radio"/> 1975 to 1978 <input type="radio"/> 1970 to 1974 <input type="radio"/> 1960 to 1969 <input type="radio"/> 1950 to 1959 <input type="radio"/> 1949 or earlier <input type="radio"/> Always lived here 	<p>H23. Do you have complete kitchen facilities? Complete kitchen facilities are a sink with piped water, a range or cookstove, and a refrigerator.</p> <ul style="list-style-type: none"> <input type="radio"/> Yes <input checked="" type="checkbox"/> <input type="radio"/> No 	<p>H22d.</p> <p>0 0 0 1 1 1 2 2 2 3 3 3 4 4 4 5 5 5 6 6 6 7 7 7 8 8 8 9 9 9</p>
<p>H20. How are your living quarters heated? <i>Fill one circle for the kind of heat used most.</i></p> <ul style="list-style-type: none"> <input type="radio"/> Steam or hot water system <input type="radio"/> Central warm-air furnace with ducts to the individual rooms (Do not count electric heat pumps here.) <input type="radio"/> Electric heat pump <input type="radio"/> Other built-in electric units (permanently installed in wall, ceiling, or baseboard) <input checked="" type="checkbox"/> <input type="radio"/> Floor, wall, or pipeless furnace <input type="radio"/> Room heaters with flue or vent, burning gas, oil, or kerosene <input type="radio"/> Room heaters without flue or vent, burning gas, oil, or kerosene (not portable) <input type="radio"/> Fireplaces, stoves, or portable room heaters of any kind <input type="radio"/> No heating equipment 	<p>H24. How many bedrooms do you have? <i>Count rooms used mainly for sleeping even if used also for other purposes.</i></p> <ul style="list-style-type: none"> <input type="radio"/> No bedroom <input type="radio"/> 1 bedroom <input type="radio"/> 2 bedrooms <input type="radio"/> 3 bedrooms <input type="radio"/> 4 bedrooms <input type="radio"/> 5 or more bedrooms 	<p>H22d.</p> <p>0 0 0 1 1 1 2 2 2 3 3 3 4 4 4 5 5 5 6 6 6 7 7 7 8 8 8 9 9 9</p>
<p>H21. How many bathrooms do you have? <i>A complete bathroom is a room with flush toilet, bathtub or shower, and wash basin with piped water.</i> <i>A half bathroom has at least a flush toilet or bathtub or shower, but does not have all the facilities for a complete bathroom.</i></p> <ul style="list-style-type: none"> <input type="radio"/> No bathroom, or only a half bathroom <input type="radio"/> 1 complete bathroom <input type="radio"/> 1 complete bathroom, plus half bath(s) <input type="radio"/> 2 or more complete bathrooms 	<p>H25. Do you have a telephone in your living quarters?</p> <ul style="list-style-type: none"> <input type="radio"/> Yes <input checked="" type="checkbox"/> <input type="radio"/> No <input checked="" type="checkbox"/> 	<p>PH 0</p> <p>0 0 0 1 1 1 2 2 2 3 3 3 4 4 4 5 5 5 6 6 6 7 7 7 8 8 8 9 9 9</p>
<p>H26. Do you have air conditioning?</p> <ul style="list-style-type: none"> <input type="radio"/> Yes, a central air-conditioning system <input type="radio"/> Yes, 1 individual room unit <input type="radio"/> Yes, 2 or more individual room units <input type="radio"/> No 	<p>H26. Do you have a telephone in your living quarters?</p> <ul style="list-style-type: none"> <input type="radio"/> Yes <input checked="" type="checkbox"/> <input type="radio"/> No <input checked="" type="checkbox"/> 	<p>PH 0</p> <p>0 0 0 1 1 1 2 2 2 3 3 3 4 4 4 5 5 5 6 6 6 7 7 7 8 8 8 9 9 9</p>
<p>H27. How many automobiles are kept at home for use by members of your household?</p> <ul style="list-style-type: none"> <input type="radio"/> None <input checked="" type="checkbox"/> <input type="radio"/> 1 automobile <input type="radio"/> 2 automobiles <input type="radio"/> 3 or more automobiles <input checked="" type="checkbox"/> 	<p>H27. Do you have a telephone in your living quarters?</p> <ul style="list-style-type: none"> <input type="radio"/> Yes <input checked="" type="checkbox"/> <input type="radio"/> No <input checked="" type="checkbox"/> 	<p>PH 0</p> <p>0 0 0 1 1 1 2 2 2 3 3 3 4 4 4 5 5 5 6 6 6 7 7 7 8 8 8 9 9 9</p>
<p>H28. How many vans or trucks of one-ton capacity or less are kept at home for use by members of your household?</p> <ul style="list-style-type: none"> <input type="radio"/> None <input type="radio"/> 1 van or truck <input type="radio"/> 2 vans or trucks <input type="radio"/> 3 or more vans or trucks 	<p>H28. How many automobiles are kept at home for use by members of your household?</p> <ul style="list-style-type: none"> <input type="radio"/> None <input checked="" type="checkbox"/> <input type="radio"/> 1 automobile <input type="radio"/> 2 automobiles <input type="radio"/> 3 or more automobiles <input checked="" type="checkbox"/> 	<p>PH 0</p> <p>0 0 0 1 1 1 2 2 2 3 3 3 4 4 4 5 5 5 6 6 6 7 7 7 8 8 8 9 9 9</p>

Please answer H30-H37 if you live in a one-family house which you own or are buying, unless this is -

- A mobile home or trailer
- A house on 10 or more acres
- A condominium unit
- A house with a commercial establishment or medical office on the property

If any of these, or if you rent your unit or this is a multi-family structure, skip H30 to H32 and turn to page 6.

H30. What were the real estate taxes on this property last year?

\$00 OR None

H31. What is the annual premium for fire and hazard insurance on this property?

\$00 OR None

H32a. Do you have a mortgage, deed of trust, contract to purchase, or similar debt on this property?

- Yes, mortgage, deed of trust, or similar debt
- Yes, contract to purchase
- No - Skip to page 6

b. Do you have a second or junior mortgage on this property?

- Yes
- No

c. How much is your total regular monthly payment to the lender?

Also include payments on a contract to purchase and to lenders holding second or junior mortgages on this property.

\$00 OR No regular payment required - Skip to page 6

d. Does your regular monthly payment (amount entered in H32c) include payments for real estate taxes on this property?

- Yes, taxes included in payment
- No, taxes paid separately or taxes not required

e. Does your regular monthly payment (amount entered in H32c) include payments for fire and hazard insurance on this property?

- Yes, insurance included in payment
- No, insurance paid separately or no insurance

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H13. boats, vans, and tents have been added to the possible answers. Otherwise, it is the same as a question asked in 1970.

H14. same as in 1970.

H15. same as in 1970.

H16. a slight variation from the 1970 question in that the respondent is asked to differentiate a drilled well from a dug well.

H17. same as in 1970.

H18. same as in 1970.

H19. asked in 1970, but of each person in the household, and appeared in the population section.

H20. same as in 1970 except that the choice "electric heat pump" has been added, and an open-ended "other" choice has been eliminated.

H21. same as in 1970.

H22. asked only of renters in 1970. Now all sampled households are expected to answer. Census tests show that respondents almost always overstate their utility costs.

H23. asked in 1970, but on the short form.

H24. same as in 1970.

H25. asked in 1970, except the highest category was "3 or more" bathrooms.

H26. on the 100 percent questionnaire in 1970 and asked differently: Is there a telephone on which people in your living quarters can be called? If the answer was yes, the respondent was asked to write down the phone number. The simpler form for 1980 may produce better results.

H27. same as in 1970.

H28. same as in 1970.

H29. a new question reflecting the substantial increase in the number of vans and trucks.

H30-H32. all new. Their purpose is to obtain a measure of total shelter costs for one-family owner-occupied units. The Census Bureau does not plan to tabulate these questions separately, but to combine them with H22 for a single tabulation of "total shelter costs."

1	2	4	2	4	3	2	4	
S.S.	0 0	0 0 0	S.S.	0 0	0 0 0	S.S.	0 0	0 0 0
	1 1	1 1 1		1 1	1 1 1		1 1	1 1 1
	2 2	2 2 2		2 2	2 2 2		2 2	2 2 2
Yes	3 3	3 3 3	Yes	3 3	3 3 3	Yes	3 3	3 3 3
	4 4	4 4 4		4 4	4 4 4		4 4	4 4 4
O	5 5	5 5 5	O	5 5	5 5 5	O	5 5	5 5 5
	6 6	6 6 6		6 6	6 6 6		6 6	6 6 6
No	7 7	7 7 7	No	7 7	7 7 7	No	7 7	7 7 7
	8 8	8 8 8		8 8	8 8 8		8 8	8 8 8
O	9 9	9 9 9	O	9 9	9 9 9	O	9 9	9 9 9
4	2	4	5	2	4	6	2	4
S.S.	0 0	0 0 0	S.S.	0 0	0 0 0	S.S.	0 0	0 0 0
	1 1	1 1 1		1 1	1 1 1		1 1	1 1 1
	2 2	2 2 2		2 2	2 2 2		2 2	2 2 2
Yes	3 3	3 3 3	Yes	3 3	3 3 3	Yes	3 3	3 3 3
	4 4	4 4 4		4 4	4 4 4		4 4	4 4 4
O	5 5	5 5 5	O	5 5	5 5 5	O	5 5	5 5 5
	6 6	6 6 6		6 6	6 6 6		6 6	6 6 6
No	7 7	7 7 7	No	7 7	7 7 7	No	7 7	7 7 7
	8 8	8 8 8		8 8	8 8 8		8 8	8 8 8
O	9 9	9 9 9	O	9 9	9 9 9	O	9 9	9 9 9
7	2	4	GQ.	H30.	H31.	H32c.		
S.S.	0 0	0 0 0	0 0	0 0 0 0	0 0 0	0 0 0 0		
	1 1	1 1 1	1 1	1 1 1 1	1 1 1	1 1 1 1		
	2 2	2 2 2	2 2	2 2 2 2	2 2 2	2 2 2 2		
Yes	3 3	3 3 3	3 3	3 3 3 3	3 3 3	3 3 3 3		
	4 4	4 4 4	4 4	4 4 4 4	4 4 4	4 4 4 4		
O	5 5	5 5 5	5 5	5 5 5 5	5 5 5	5 5 5 5		
	6 6	6 6 6	6 6	6 6 6 6	6 6 6	6 6 6 6		
No	7 7	7 7 7	7 7	7 7 7 7	7 7 7	7 7 7 7		
	8 8	8 8 8	8 8	8 8 8 8	8 8 8	8 8 8 8		
O	9 9	9 9 9	9 9	9 9 9 9	9 9 9	9 9 9 9		

Name of Person 1 on page 2: _____
 Last name First name Middle initial

11. In what State or foreign country was this person born?
 Print the State where this person's mother was living when this person was born. Do not give the location of the hospital unless the mother's home and the hospital were in the same State.

 Name of State or foreign country; or Puerto Rico, Guam, etc.

12. If this person was born in a foreign country —
 a. Is this person a naturalized citizen of the United States?
 Yes, a naturalized citizen
 No, not a citizen
 Born abroad of American parents

b. When did this person come to the United States to stay?
 1975 to 1980 1965 to 1969 1950 to 1959
 1970 to 1974 1960 to 1964 Before 1950

13a. Does this person speak a language other than English at home?
 Yes No, only speaks English — Skip to 14

b. What is this language?

 (For example — Chinese, Italian, Spanish, etc.)

c. How well does this person speak English?
 Very well
 Well
 Not well
 Not at all

14. What is this person's ancestry? If uncertain about how to report ancestry, see instruction guide.

 (For example — Afro-Amer., English, French, German, Honduran, Hungarian, Irish, Italian, Jamaican, Korean, Lebanese, Mexican, Nigerian, Polish, Ukrainian, Venezuelan, etc.)

15a. Did this person live in this house five years ago (April 1, 1975)? If in college or Armed Forces in April 1975, report place of residence there.
 Born April 1975 or later — Turn to next page for next person
 Yes, this house — Skip to 16
 No different house

b. Where did this person live five years ago (April 1, 1975)?
 (1) State, foreign country, Puerto Rico, Guam, etc.: _____
 (2) County: _____
 (3) City, town, village, etc.: _____
 (4) Inside the incorporated (legal) limits of that city, town, village, etc.?
 Yes No, in unincorporated area

16. When was this person born?
 Born before April 1965 — Please go on with questions 17-33
 Born April 1965 or later — Turn to next page for next person

17. In April 1975 (five years ago) was this person —
 a. On active duty in the Armed Forces?
 Yes No
 b. Attending college?
 Yes No
 c. Working at a job or business?
 Yes, full time No
 Yes, part time

18a. Is this person a veteran of active-duty military service in the Armed Forces of the United States? If service was in National Guard or Reserves only, see instruction guide.
 Yes No — Skip to 19

b. Was active-duty military service during — Fill a circle for each period in which this person served.
 May 1975 or later
 Vietnam era (August 1964–April 1975)
 February 1955–July 1964
 Korean conflict (June 1950–January 1955)
 World War II (September 1940–July 1947)
 World War I (April 1917–November 1918)
 Any other time

19. Does this person have a physical, mental, or other health condition which has lasted for 6 or more months and which —

	Yes	No
a. Limits the kind or amount of work this person can do at a job?	<input type="radio"/>	<input type="radio"/>
b. Prevents this person from working at a job?	<input type="radio"/>	<input type="radio"/>
c. Limits or prevents this person from using public transportation?	<input type="radio"/>	<input type="radio"/>

20. If this person is a female —
 How many babies has she ever had, not counting stillbirths? None 1 2 3 4 5 6
 0 1 2 3 4 5 6
 Do not count her stepchildren or children she has adopted. 7 8 9 10 11 12 or more
 7 8 9 10 11 12 or more

21. If this person has ever been married —
 a. Has this person been married more than once?
 Once More than once
 b. Month and year of marriage? Month and year of first marriage?

 (Month) (Year) (Month) (Year)
 c. If married more than once — Did the first marriage end because of the death of the husband (or wife)?
 Yes No

22a. Did this person work at any time last week?
 Yes — Fill this circle if this person worked full time or part time, (Count part-time work such as delivering papers, or helping without pay in a family business or farm. Also count active duty in the Armed Forces.)
 No — Fill this circle if this person did not work at home, school or voluntary work.
 Skip to 25

b. How many hours did this person work last week (at all jobs)?
 Subtract any time off; add overtime or extra hours work.
 _____ Hours

23. At what location did this person work last week? If this person worked at more than one location, print where he or she worked most last week. If one location cannot be specified, see instruction guide.

a. Address (Number and street) _____
 If street address is not known, enter the building name, shopping center, or other physical location description.
 b. Name of city, town, village, borough, etc. _____

c. Is the place of work inside the incorporated (legal limits of that city, town, village, borough, etc.)?
 Yes No, in unincorporated area

d. County _____
 e. State _____ f. ZIP Code _____

24a. Last week, how long did it usually take this person to get from home to work (one way)?
 _____ Minutes

b. How did this person usually get to work last week? If this person used more than one method, give the one usually used for most of the distance.
 Car Taxicab
 Truck Motorcycle
 Van Bicycle
 Bus or streetcar Walked only
 Railroad Worked at home
 Subway or elevated Other — Specify _____
 If car, truck, or van in 24b, go to 24c. Otherwise, skip to 28.

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- 11. similar to a 1970 question, but the wording has been changed from "Where was this person born?"
- 12. similar to 1970, but the word "alien" has been changed to "not a citizen."
- 13. replaces one that asked about language other than English spoken in the home when the respondent was a child.

The 1980 question should be more useful for determining how many Americans speak a language other than English and for determining how many persons do not speak English at all.
 14. replaces two questions in 1970 on where the respondent's parents were born. The new approach is more subjective than the previous approach to ancestry.

When going to work last week, did this person usually —
 Drive alone — Skip to 28 Drive others only
 Share driving Ride as passenger only

How many people, including this person, usually rode to work in the car, truck, or van last week?
 2 4 6
 3 5 7 or more

After answering 24d, skip to 28.

Was this person temporarily absent or on layoff from a job or business last week?
 Yes, on layoff
 Yes, on vacation, temporary illness, labor dispute, etc.
 No

Has this person been looking for work during the last 4 weeks?
 Yes No — Skip to 27

Could this person have taken a job last week?
 No, already has a job
 No, temporarily ill
 No, other reasons (in school, etc.)
 Yes, could have taken a job

When did this person last work, even for a few days?
 1980 1978 1970 to 1974
 1979 1975 to 1977 1969 or earlier } Skip to 31d
 Never worked

30. Current or most recent job activity
 Describe clearly this person's chief job activity or business last week. If this person had more than one job, describe the one at which this person worked the most hours.
 If this person had no job or business last week, give information for last job or business since 1975.

Industry
 For whom did this person work? If now on active duty in the Armed Forces, print "AF" and skip to question 31.
 (Name of company, business, organization, or other employer)

What kind of business or industry was this?
 Describe the activity at location where employed.

(For example: Hospital, newspaper publishing, mail order house, auto engine manufacturing, breakfast cereal manufacturing)

Is this mainly — (Fill one circle)
 Manufacturing Retail trade
 Wholesale trade Other — (agriculture, construction, service, government, etc.)

Occupation
 What kind of work was this person doing?
 (For example: Registered nurse, personnel manager, supervisor of order department, gasoline engine assembler, grinder operator)

What were this person's most important activities or duties?
 (For example: Patient care, directing hiring policies, supervising order clerks, assembling engines, operating grinding mill)

as this person — (Fill one circle)
 Employee of private company, business, or individual, for wages, salary, or commissions
 Federal government employee
 State government employee
 Local government employee (city, county, etc.)
 Self-employed in own business, professional practice, or farm —
 Own business not incorporated
 Own business incorporated
 Working without pay in family business or farm

31a. Last year (1979), did this person work, even for a few days, at a paid job or in a business or farm?
 Yes No — Skip to 31d

b. How many weeks did this person work in 1979?
 Count paid vacation, paid sick leave, and military service.
 _____ Weeks

c. During the weeks worked in 1979, how many hours did this person usually work each week?
 _____ Hours

d. Of the weeks not worked in 1979 (if any), how many weeks was this person looking for work or on layoff from a job?
 _____ Weeks

32. Income in 1979 —
 Fill circles and print dollar amounts.
 If net income was a loss, write "Loss" above the dollar amount.
 If exact amount is not known, give best estimate. For income received jointly by household members, see instruction guide.

During 1979 did this person receive any income from the following sources?
 If "Yes" to any of the sources below — How much did this person receive for the entire year?

a. Wages, salary, commissions, bonuses, or tips from all jobs... Report amount before deductions for taxes, bonds, dues, or other items.
 Yes → \$ _____ .00
 No (Annual Amount — Dollars)

b. Own nonfarm business, partnership, or professional practice... Report net income after business expenses.
 Yes → \$ _____ .00
 No (Annual Amount — Dollars)

c. Own farm... Report net income after operating expenses. Include earnings as a tenant farmer or sharecropper.
 Yes → \$ _____ .00
 No (Annual Amount — Dollars)

d. Interest, dividends, royalties, or net rental income... Report even small amounts credited to an account.
 Yes → \$ _____ .00
 No (Annual Amount — Dollars)

e. Social Security or Railroad Retirement...
 Yes → \$ _____ .00
 No (Annual Amount — Dollars)

f. Supplemental Security (SSI), Aid to Families with Dependent Children (AFDC), or other public assistance or public welfare payments...
 Yes → \$ _____ .00
 No (Annual Amount — Dollars)

g. Unemployment compensation, veterans' payments, pensions, alimony or child support, or any other sources of income received regularly... Exclude lump-sum payments such as money from an inheritance or the sale of a home.
 Yes → \$ _____ .00
 No (Annual Amount — Dollars)

33. What was this person's total income in 1979?
 Add entries in questions 32a through g, subtract any losses.
 \$ _____ .00
 (Annual Amount — Dollars)
 If total amount was a loss, write "Loss" above amount. OR None

15. same as in 1970.
16. same as in 1970.
17. same as in 1970.
18. same as in 1970.
19. resembles a question asked in 1970 but then it was asked only of persons 65 years old and was concerned with a work disability. The 1980 question tested poorly, but so many public agencies need disability data that the question will appear anyway.
20. same as in 1970.
21. same as in 1970.
22. asked in 1970, but in 1980 respondents are also asked to write in the number of hours worked.
23. same as in 1970.
- 24a. a new question which attempts to measure average time spent getting to work.
- 24b. same as in 1970 but with the additional categories of truck, van, motorcy or bicycle.
- 24c & d. a new series of questions to measure the extent of carpooling.
25. same as in 1970.
26. same as in 1970.
27. same as in 1970.
28. resembles a question asked in 1970 but the words "... this person" have been substituted for the pronoun "he" in the questions on occupation, industry, and income.
29. same as in 1970.
30. same as in 1970.
- 31a & b. same as in 1970.
- 31c & d. new questions to measure part-time workers and the extent of unemployment in the previous year.
32. similar to 1970 except that the question has been recast as "income" instead of "earnings" and "interest, dividends ..." and "unemployment compensation ..." have been separated.
33. appeared in 1970 in slightly different form as part of the earnings question. This is the last question. The questions about population characteristics are repeated for up to seven persons in the household. If there are more than seven persons in a household an enumerator records and tabulates responses of the additional persons.

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