

**Components of
Inventory Change
And Rental Dynamics:
New Orleans
1995-2004**

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Principal Authors: Frederick J. Eggers
Fouad Moumen

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Components of Inventory Change and Rental Market Dynamics: New Orleans 1995-2004

Overview

Components of Inventory Change (CINCH) and rental market dynamics are two techniques for explaining how changes that take place in a housing market over time came about in physical (bricks and mortar) terms. CINCH focuses first on the overall number and then the characteristics of units at different times. Using CINCH methods, analysts answer such question as: “What happened to the x units that disappeared from the housing stock between the beginning and the end of the period?” or “Where did the increase in owner-occupied units come from?” Rental market dynamics, which is really a type of CINCH analysis, focuses on the rental market with particular emphasis on the affordability of rental housing. Using rental market dynamics techniques, analysts answer such questions as: “Have the number of rental units affordable to households with very low incomes increased or decreased over the period?” or “What happened to the rental units that were affordable to low-income households at the beginning of the period?”

This report focuses on the New Orleans metropolitan housing market over the period between 1995 and 2004. It is one of 13 reports based on local American Housing Surveys conducted in 2004; these 13 metropolitan areas were previously surveyed in either 1995 or 1996.¹

CINCH and rental market dynamics have both forward-looking and backward-looking components. The forward-looking component starts with the housing stock available at the beginning of the period and then, looking at the end of the period, attempts to explain what happened to those units. Possible answers include some units still exist and serve the same market, some units still exist but serve a different market, some units have been demolished or destroyed in natural disasters, or some units are being used for nonresidential purposes. The backward-looking component starts with the housing stock available at the end of the period and, looking at the beginning of the period, attempts to explain where those units came from. Possible answers include some units existed at the beginning of the period and served the same market, some units existed at the beginning of the period but served a different market, some units were newly constructed over the period, or some units were being used for nonresidential purposes at the beginning of the period. Neither CINCH nor rental market dynamics try to track the experience of a unit over the entire period; both are interested only in the beginning and the end of the period. For example, a housing unit in 1995 may have become a medical office in 1997 but returned to being a housing unit in 2000. CINCH would record this unit as having

¹ See <http://www.huduser.org/datasets/cinch.html> for examples of previous CINCH and rental dynamics studies.

undergone no change over the period from 1995 to 2004. In research jargon, CINCH and rental market dynamics are *comparative static* analyses.

Ideally one would want to combine the forward-looking and backward-looking analyses to produce a complete accounting that can explain the beginning and the end consistently in terms of units that existed in both periods, losses from the stock over the period, and additions to the stock over the period. The research in this report uses the AHS, which is a sample of units at both points in time, and previous research has shown that creating sample weights that take both periods into account can generate some inconsistent or inaccurate results. For this reason, recent CINCH and rental market dynamics studies have separated the forward-looking and backward-looking components. This paper will do the same. (Weighting is explained briefly in Appendix B and more fully in a separate paper referenced in that appendix.)

The remainder of this report consists of four sections:

- An explanation of how to read the CINCH tables.
- Two sets of four tables each: a set of forward-looking tables tracing the movement of units from 1995 to 2004 and identifying how units were lost to the housing stock; and a set of backward-looking tables tracing where 2004 units came from and distinguishing between units that were part of the stock in 1995 and units that were additions to the stock since 1995.
- Two tables and accompanying discussion that highlight interesting changes in the New Orleans housing stock between 1995 and 2004.
- A brief discussion of the rental market dynamics results using CINCH-like tables.

Two appendices explain how the results were tested and how the weights were created.

How to Read CINCH Tables

Rows and columns serve different purposes in CINCH tables. The rows identify classes of units to be analyzed. The columns trace those units either forward or backward.

The forward-looking tables are concerned with what happened to the 1995 housing stock by 2004. There are three basic dispositions of 1995 units: units that continue to exist in 2004 with the same characteristics (or serving the same market), units that continue to exist in 2004 but with different characteristics (or serving a different market), and units that were lost to the stock.

The backward-looking tables are concerned with where the 2004 housing stock came from in reference to 1995. There are three basic sources of 2004 units: units that existed in 1995 with the same characteristics (or serving the same market),

units that existed in 1995 but with different characteristics (or serving a different market), and units that are additions to the housing stock.

The essence of the CINCH analysis lies in the columns because they specify the state of a unit in the other time period.

Columns Common to both Forward-Looking and Backward-Looking Tables:

- The first and last columns contain the row numbers. The row numbers are identical for the same tables in the forward-looking and backward-looking sets.

Columns A through E set up the analysis and track units that exist in both periods.

- Column A specifies the characteristic that defines the subset of the stock that is being tracked forward or backward in a particular row. For example, row 2 of Table 1 focuses on occupied units; row 15 focuses on units built in 1985 through 1989.
- Column B gives the estimate published in the AHS report for the number of units that satisfy the conditions specified in column A. For example, the 1995 AHS report for New Orleans counted 484,900 occupied units (row 2, column B, forward-looking Table 1); the 2004 AHS report counted 498,200 occupied units (row 2, column B, backward-looking Table 1).
- Column C gives the CINCH estimate of the number of units that satisfy two conditions: (a) being part of the housing stock in the relevant year (1995 for the forward-looking tables and 2004 for the backward-looking tables), and (b) satisfying the condition in column A. CINCH uses different weights than those used in preparing the published AHS reports. Therefore, CINCH estimates can differ from AHS estimates for particular subsets of the housing stock. As explained in the appendix, the weights were created to match AHS published totals for rows 2 through 4 of Table 1 and rows 2 and 4 of Table 4. This perfect match will not be true of other rows.²
- Column D is the CINCH estimate of the number of units from column C that (a) are also part of the housing stock in the *other* year, and (b) continue to belong to the subset defined by column A. For example, column D of row 2 of forward-

² Columns B and C will also match, except for rounding, in row 1 of Table 1 because row 1 is defined as the sum of rows 2 through 4. Categories for which the CINCH weights seem consistently to have trouble matching the published numbers were: the number of mobile homes, units built between 2000-2004, units built between 1995-1999, rental units that do not have a cash rent, and monthly housing costs less than \$350 for owners. In a few other cases, the weighted numbers consistently fail to match the published totals, but the authors believe the differences result because the Census Bureau created the published totals using information not available on the public use files or because of coding differences. These cases are: the reasons for incomplete plumbing and households receiving welfare or SSI payment.

looking Table 1 estimates that 410,200 of the occupied units from 1995 were also occupied in 2004.

- Column E is the CINCH estimate of the number of units from column C that (a) are also part of the housing stock in the *other* year, but (b) no longer belong to the subset defined by column A. Column E of row 2 indicates that 46,900 units that were occupied in 1995 are still part of the housing stock in 2004 but are no longer occupied. In some cases, the analysis will not allow a unit to change characteristics between the base year and the other year. Examples include type of structure, year built, and number of stories; these are characteristics that are considered impossible or unlikely to change.

Columns Unique to Forward-Looking Tables

In forward-looking tables, columns F through K track what happened to units that were lost from 1995 to 2004.

- Column F is the CINCH estimate of the number of units from column C that are not in the 2004 housing stock because they were merged with other units or converted into multiple units. Among occupied units, 1,900 were lost to mergers and conversions.
- Column G is the CINCH estimate of the number of mobile homes from column C that were moved out during the period. Among occupied units, 1,000 mobile homes were moved out.³
- Column H is the CINCH estimate of the number of units that from column C that became nonresidential at the end of the period. For example, a real estate firm, a tax preparation office, a palm reader, or some other business might buy or rent a house to use for business rather than residential purposes.⁴ Among occupied units, 4,500 became nonresidential.
- Column I is the CINCH estimate of the number of units from column C that were demolished or were destroyed by fires or natural disasters by 2004. In this case, 11,100 units were demolished or destroyed.
- Column J is the CINCH estimate of the number of units from column C that by 2004 were condemned or that were no longer usable for housing because of extensive damage. In New Orleans, 2,300 occupied units were lost because of damage or similar cause.

³ The AHS does not trace where the mobile home is moved to. The move may be within the metropolitan area or outside the metropolitan area. Similarly, column G in the backward-looking tables does not distinguish between move-ins from within or from outside the metropolitan area.

⁴ If the owner or tenant both lives in a unit and conducts business out of the unit, the AHS considers the unit to be residential. So nonresidential means strictly no residential use.

- Column K is the CINCH estimate of the number of units from column C that were lost by 2004 for other reasons. These include units that the Census Bureau eliminated for sampling purposes and other miscellaneous losses. Among occupied units, there were 7,100 units lost for these miscellaneous reasons.

The columns form a closed system. Column C counts the number of units tracked; columns D through K account for all the possible outcomes. Therefore, column C minus the sum of columns D through K always equals zero, except for rounding.⁵

Columns Unique to Backward-Looking Tables

In backward-looking tables, columns G through K track where units came from that are part of the housing stock in 2004 but were not part of the 1995 housing stock.⁶

- Column G is the CINCH estimate of the number of mobile homes from column C that were moved in during the period. Among occupied units, 500 mobile homes were moved in (row 2, column G, of backward-looking Table 1).⁷
- Column H is the CINCH estimate of the number of units from column C that had been nonresidential in 1995. Among occupied units, 900 had been nonresidential.
- Column I is the CINCH estimate of the number of units from column C that were newly constructed between 1995 and 2004. Among occupied units, 15,500 units were newly constructed.
- Column J is the CINCH estimate of the number of units from column C that were added by 2004 by the recovery of units that had been temporarily lost to the housing stock because occupancy was prohibited in 1995, or the interior of the unit was exposed to the elements, or for reasons “not classified.” The 2004 occupied housing stock includes 3,500 recovered units.
- Column K includes units added by the Census Bureau as sample adjustments. Sample adjustments represent 11,700 occupied units in 2004.

⁵ The weighted numbers are rounded to the nearest 100 to match practices used by the Census Bureau in the AHS publications.

⁶ The backward-looking tables do not contain a column F for units added through mergers and conversions. In 2004, the Census Bureau did not code the variable that would normally identify units created from mergers and conversions (REUAD=7 or 8).

⁷ In 2004, the Census Bureau did not code the variable that would normally identify mobile home move-ins (REUAD=4). We estimated these from another variable (NOINT=13).

Table 1

Table 1 focuses on the general housing characteristics of the stock. Row 1 provides the highest level CINCH overview of the stock. For this row, column A specifies no conditions other than being part of the stock in the relevant year.

Rows 2-4 divide the housing stock by use. By Census Bureau definition, the number of occupied non-seasonal units equals the number of households. Because households are the basis for all the analyses in Tables 2 through 4, it is important to get a good starting point for these estimates. For this reason, the weights are designed to match published AHS totals for occupied units (by owner-occupied and renter-occupied), vacant units, and seasonal units.

Rows 5-12 divide the housing stock by type of structure to see what type of units account for losses.⁸ Column E is forced to be zero on the grounds that changes in structure types are extremely rare and that any observed changes are most likely data errors.

Rows 13-24 divide the housing stock by year built.⁹ The published reports use the categories 1990-1994, 1995-1999, and 2000-2004; this report uses 1990-1995 and 1995-1999, and 2000-2004 to isolate units newly constructed since the previous AHS survey.¹⁰ Column E is again forced to be zero.

Rows 25-31 and 32-36 divide the housing stock by two different measures of interior space, the number of rooms and the number of bedrooms.¹¹

Rows 37-42 focus on multiunit structures only and divide them by number of stories. Column E is forced to be zero and, depending on the metropolitan area, the Census Bureau may suppress information, forcing some rows to be zero. For the 1995 New Orleans AHS public use file, the Census Bureau reported all units in structures with 4 or more stories in row 40 and reported no units in rows 41 and 42. The published reports contain matching data for row 37 only.

Rows 43-44 divide the housing stock between central cities units and suburban residences to see how the observed changes vary by location. Rows 45-46 divide the housing stock by whether or not the occupants have moved in within the last 2 calendar years to see if certain units consistently have high turnover, and to see if high turnover units are more susceptible to loss.

⁸ In general, the CINCH estimates exceed published AHS estimates for single-family detached units and fall short of the published AHS estimates for manufactured homes by roughly equal amounts.

⁹ Rows 13 and 14 are not included in Forward-Looking Table 1, because the 1995 housing stock cannot contain units built after 1995.

¹⁰ We use REUAD=3 and not year built to identify new construction. For this reason, there are units built after 1995 that are not considered new construction. Year built is obtained from the respondent and may be inaccurate.

¹¹ Because of small sample sizes in the losses and additions columns, we combined room categories that the published reports list separately.

Table 2

This table looks at issues related to the physical quality of units. Row 1 repeats the analysis from row 2 in Table 1. All the subsequent rows are based on row 1.

Rows 2-3 look at whether the units have complete kitchens, that is, have an installed sink with piped water, a mechanical refrigerator, and built-in burners for the exclusive use of the occupants. Rows 4-5 look at whether the units have complete plumbing facilities, that is, hot and cold piped water, a flush toilet, and a bathtub or shower inside the structure for the exclusive use of the occupants. Rows 6-9 look at each of these requirements separately.¹² In the 1995 AHS, the published reports separate out the “exclusive use” category; in the data used for this report, these units show up in row 8. Rows 2-3, 4-5, and 6-9 separate out good units from the least desirable units based on kitchen and bath equipment.

Rows 10-15 look at how units obtain water and dispose of sewage.

Rows 16-21 look at units with severe physical problems. Rows 17-21 identify specific types of serious deficiencies. Row 16 counts the units having one or more of these deficiencies. Rows 22-27 look at units with moderate problems. Rows 23-27 identify specific types of deficiencies. Row 22 counts the units having one or more of these deficiencies.¹³ These rows are in the analysis to answer two questions: whether poor-quality units in one year are also poor-quality units in the other year, and whether poorer quality units are more likely to be lost.

Table 3

This table pertains to the characteristics of occupants. Row 1 repeats the analysis from row 2 in Table 1. All the subsequent rows are based on row 1. In all cases, the analysis seeks to find out how stable occupancy characteristics are over time, and what part of the market was served by units that were lost between 1995 and 2004.

Rows 2-3 look at the age of the householder. Rows 4-5 look at whether or not the household includes children. Rows 6-11 look at the race or ethnicity of the householder.¹⁴ Rows 12-14 look at three possible sources of household income.

¹² Row 9 is not included in Forward-Looking Table 2, because the public use file does not contain the information needed to identify facilities available “for exclusive use” of the household.

¹³ For definitions of serious and moderate problems, see pages 990 and 991 of the AHS Codebook, version 1.78, at http://www.huduser.org/intercept.asp?loc=/Datasets/ahs/AHS_Codebook.pdf.

¹⁴ In compliance with new federal guidelines, the 2004 AHS used different categories for recording race. For 2004, this paper defined “White” as “White only”; Black as “Black only”; and “other” as all other answers.

Table 4

Table 4 pertains to tenure, income, and housing costs. Row 1 repeats the analysis from row 2 in Table 1. All the subsequent rows are based on row 1.

Rows 2-4 focus on tenure to see the extent to which units change tenure characteristics and whether rental or owner-occupied units are more likely to be lost.

Rows 5-10 characterize the rental stock using 6 categories based on monthly housing costs. Row 10 identifies units provided to tenants for no cash rents, e.g., units provided to maintenance or management personnel or units provided to relatives. Rows 16-20 identify owner-occupied units by total monthly housing costs.

Rows 11-15 track rental units by household income; rows 21-25 track owner-occupied units by household income.¹⁵

¹⁵ The published reports list more categories for both monthly housing costs and household income. This report combined categories for two reasons. First, the sample size in each metropolitan area is small, and therefore larger categories provide more stable measurement of the various types of losses and additions. Second, columns D and E track whether the units in each category remain occupied and stay in the same cost or income category. The combined categories create more interesting analysis because bigger changes in monthly housing costs or income are needed to move between broader categories.

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New Orleans 1995–2004

Forward-Looking Table 1: Structural and Location Characteristics – All Housing Units

	A Characteristics	B Published Numbers	C Present in 95	D 95 units present in 2004	E Changed in characteristics	F 95 units affected by conversion /merger	G 95 mobile homes moved out	H 95 units changed to nonresidential use	I 95 units lost through demolition or disaster	J 95 units badly damaged or condemned	K 95 units lost in other ways	
1	Total	547,700	547,800	509,500	0	2,700	1,800	5,000	16,700	3,900	8,000	1
	Occupancy Status											
2	Occupied	484,900	485,000	410,200	46,900	1,900	1,000	4,500	11,100	2,300	7,100	2
3	Vacant	58,000	58,000	13,900	34,600	800	700	500	5,100	1,500	800	3
4	Seasonal	4,800	4,800	1,600	2,400	0	100	0	500	100	100	4
	Units in Structure											
5	1, detached	314,800	323,900	313,500	0	100	400	1,600	3,400	1,400	3,400	5
6	1, attached	42,200	41,200	37,500	0	400	0	600	1,800	100	700	6
7	2 to 4	84,800	86,200	77,700	0	1,400	0	400	4,300	1,400	1,000	7
8	5 to 9	24,900	25,900	21,100	0	300	0	400	3,200	100	700	8
9	10 to 19	23,100	23,000	20,000	0	100	0	100	1,400	300	1,000	9
10	20 to 49	15,300	14,100	11,600	0	0	0	400	1,400	100	400	10
11	50 or more	17,100	16,900	14,800	0	300	0	1,200	400	100	100	11
12	Mobile Home/Trailer	25,500	16,600	13,300	0	0	1,400	300	700	300	600	12
	Year Built											
15	1990-1995	14,500	12,500	11,800	0	0	0	0	0	100	600	15
16	1985-1989	27,800	26,800	26,000	0	0	300	0	300	0	100	16
17	1980-1984	33,400	34,100	33,300	0	0	300	100	100	100	0	17
18	1970-1979	183,300	181,900	169,700	0	700	1,000	1,400	4,600	1,100	3,300	18
19	1960-1969	90,700	92,500	89,100	0	100	100	300	1,800	400	600	19
20	1950-1959	63,500	65,400	58,600	0	300	100	700	4,100	600	1,000	20
21	1940-1949	46,900	47,200	43,800	0	100	0	100	2,200	300	600	21
22	1930-1939	27,300	27,900	25,100	0	300	0	300	1,600	300	400	22
23	1920-1929	16,900	16,500	14,200	0	0	0	600	1,000	400	300	23
24	1919 or earlier	43,500	43,000	37,700	0	1,200	0	1,400	1,000	600	1,200	24

Components of Inventory Change and Rental Market Dynamics:
New Orleans 1995–2004

Forward-Looking Table 1 (continued): Structural and Location Characteristics – All Housing Units

	A Characteristics	B Published Numbers	C Present in 95	D 95 units present in 2004	E Changed in characteristics	F 95 units affected by conversion /merger	G 95 mobile homes moved out	H 95 units changed to nonresidential use	I 95 units lost through demolition or disaster	J 95 units badly damaged or condemned	K 95 units lost in other ways	
	Rooms											
25	1 – 4 rooms	173,000	171,700	114,900	33,700	2,000	1,100	3,900	10,800	2,100	3,300	25
26	5 rooms	122,400	122,100	54,000	60,600	400	600	300	3,400	700	2,100	26
27	6 rooms	109,800	110,600	45,100	60,900	100	0	700	1,400	700	1,600	27
28	7 rooms	79,600	79,700	25,900	51,900	100	0	100	1,000	300	400	28
29	8 rooms	38,200	38,700	10,500	27,700	0	100	0	100	0	100	29
30	9 rooms	14,200	14,800	3,000	11,500	0	0	0	0	0	300	30
31	10 rooms or more	10,400	10,200	2,800	7,000	0	0	0	0	100	100	31
	Bedrooms											
32	None	4,000	4,100	500	2,100	400	0	600	400	0	0	32
33	1	77,000	75,400	45,200	18,300	1,000	400	2,000	4,800	1,500	2,300	33
34	2	168,000	166,500	110,300	41,900	900	900	1,600	7,500	900	2,600	34
35	3	215,000	216,600	170,100	37,600	400	600	900	3,400	1,000	2,600	35
36	4 or more	83,700	85,300	65,700	17,900	0	0	0	600	600	600	36
37	Multiunit Structures	165,200	166,100	145,200	0	2,100	0	2,600	10,800	2,100	3,300	37
	Stories in Structures											
38	1	NA	41,700	38,600	0	300	0	300	1,500	400	600	38
39	2	NA	87,200	77,200	0	1,300	0	700	4,500	1,700	1,900	39
40	3	NA	37,200	29,400	0	600	0	1,600	4,700	0	900	40
41	4 to 6	NA	0	0	0	0	0	0	0	0	0	41
42	7 or more	NA	0	0	0	0	0	0	0	0	0	42
	Metro Status											
43	In central cities	NA	224,300	199,500	0	2,600	300	4,000	11,900	2,700	3,300	43
44	In suburbs	NA	323,500	310,000	0	100	1,500	1,000	4,800	1,300	4,700	44
	Mover Status											
45	Moved in last 2 years	NA	102,800	22,900	72,200	1,000	400	900	3,200	1,000	1,200	45
46	Not a Recent Mover	NA	382,200	362,000	0	900	600	3,600	8,000	1,300	5,900	46

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Forward-Looking Table 2: Condition of Unit – All Occupied Units

	A Characteristics	B Published Numbers	C Present in 95	D 95 units present in 2004	E Changed in characteristics	F 95 units affected by conversion /merger	G 95 mobile homes moved out	H 95 units changed to nonresidential use	I 95 units lost through demolition or disaster	J 95 units badly damaged or condemned	K 95 units lost in other ways	
1	Occupied Units	484,900	485,000	410,200	46,900	1,900	1,000	4,500	11,100	2,300	7,100	1
	Kitchen											
2	With complete kitchen	480,200	481,200	404,300	49,800	1,700	1,000	4,200	11,000	2,300	6,900	2
3	Lacking complete kitchen facilities	4,700	3,800	200	2,900	100	0	300	100	0	100	3
	Plumbing											
4	With all plumbing facilities	484,000	484,200	404,300	52,300	1,900	1,000	4,300	11,100	2,300	6,900	4
5	Lack some plumbing	0	800	200	300	0	0	100	0	0	100	5
6	No hot piped water	0	200	200	0	0	0	0	0	0	0	6
7	No bathtub/shower	0	200	200	0	0	0	0	0	0	0	7
8	No flush toilet	1,000	800	200	300	0	0	100	0	0	100	8
	Water											
10	Public/private water	466,700	466,500	395,400	44,700	1,900	1,000	4,300	10,900	2,200	6,100	10
11	Well	18,100	18,300	10,900	5,900	0	0	100	300	100	1,000	11
12	Other water source	100	200	0	200	0	0	0	0	0	0	12
	Sewer											
13	Public sewer	454,400	455,400	385,900	43,700	1,900	900	4,200	10,700	2,000	6,100	13
14	Septic tank/cesspool	30,400	29,500	16,900	10,400	0	100	300	400	300	1,000	14
15	Other or none	200	200	200	0	0	0	0	0	0	0	15
	Severe Problems											
16	Severe Problems	4,300	3,500	300	2,200	100	0	100	600	0	100	16
17	Plumbing	1,000	800	200	300	0	0	100	0	0	100	17
18	Heating	1,300	2,300	0	1,700	100	0	0	400	0	0	18
19	Electric	200	200	0	200	0	0	0	0	0	0	19
20	Upkeep	2,000	500	0	300	0	0	0	100	0	0	20
21	Hallways	0	0	0	0	0	0	0	0	0	0	21
	Moderate problems											
22	Moderate problems	45,200	44,600	8,400	29,900	400	0	900	2,900	700	1,300	22
23	Plumbing	2,100	2,100	0	1,500	0	0	0	600	0	0	23
24	Heating	29,400	30,300	5,700	21,700	300	0	600	1,200	300	600	24
25	Kitchen	3,500	3,800	200	2,900	100	0	300	100	0	100	25
26	Upkeep	12,600	11,800	300	8,700	100	0	0	1,300	600	700	26
27	Hallways	400	300	0	0	0	0	0	300	0	0	27

Components of Inventory Change and Rental Market Dynamics:
New Orleans 1995–2004

Forward-Looking Table 3: Household Characteristics – All Occupied Units

	A Characteristics	B Published Numbers	C Present in 95	D 95 units present in 2004	E Changed in characteristics	F 95 units affected by conversion /merger	G 95 mobile homes moved out	H 95 units changed to nonresidential use	I 95 units lost through demolition or disaster	J 95 units badly damaged or condemned	K 95 units lost in other ways	
1	Occupied units	484,900	485,000	410,200	46,900	1,900	1,000	4,500	11,100	2,300	7,100	1
	Age of Householder											
2	Under 65	385,400	384,100	280,100	80,200	1,700	1,000	3,800	9,100	2,200	5,900	2
3	65 or older	99,400	100,900	47,100	49,700	100	0	700	2,000	100	1,200	3
	Children											
4	Some	198,500	200,100	87,100	99,500	600	900	1,200	6,500	1,200	3,200	4
5	None	286,400	284,900	187,400	83,000	1,300	100	3,300	4,600	1,200	3,900	5
	Race/Origin of Householder											
6	White	314,500	310,600	240,300	58,300	700	700	3,000	3,500	700	3,300	6
7	Hispanic	13,700	13,300	5,400	7,200	0	0	300	0	0	400	7
8	NonHispanic	300,800	297,300	218,200	67,800	700	700	2,700	3,500	700	2,900	8
9	Black	160,000	164,300	114,300	34,800	1,000	300	1,000	7,700	1,600	3,600	9
10	Other	10,400	10,100	2,000	7,400	100	0	400	0	0	100	10
11	Total Hispanics	16,500	16,300	6,500	8,900	0	0	300	0	0	600	11
	Income Source											
12	Wages and salaries	374,900	370,900	262,100	91,000	1,600	700	3,000	5,900	1,700	4,900	12
13	Welfare or SSI	142,700	145,400	70,000	68,600	400	100	900	2,400	400	2,400	13
14	Social security or pension	42,100	42,300	3,200	31,000	300	300	400	5,200	700	1,200	14

Components of Inventory Change and Rental Market Dynamics:
New Orleans 1995–2004

Forward-Looking Table 4: Market Dynamics and Affordability – All Occupied Units

	A Characteristics	B Published Numbers	C Present in 95	D 95 units present in 2004	E Changed in characteristics	F 95 units affected by conversion /merger	G 95 mobile homes moved out	H 95 units changed to nonresidential use	I 95 units lost through demolition or disaster	J 95 units badly damaged or condemned	K 95 units lost in other ways	
1	Occupied units	484,900	485,000	410,200	46,900	1,900	1,000	4,500	11,100	2,300	7,100	1
	Tenure											
2	Owner occupied	299,200	299,200	245,900	44,300	300	700	700	2,900	1,000	3,400	2
3	Percent own occpd	61.7%	61.7%									3
4	Renter occupied	185,700	185,800	112,700	54,200	1,600	300	3,800	8,300	1,300	3,600	4
	Renter Monthly Housing Costs											
5	Less than \$350	48,300	52,900	11,300	32,100	600	0	1,600	5,500	300	1,500	5
6	\$350 to \$599	91,100	90,100	26,900	56,400	1,000	300	1,500	1,900	700	1,500	6
7	\$600 to \$799	24,900	24,000	5,700	17,100	0	0	300	300	300	300	7
8	\$800 to \$1,249	9,700	10,400	2,700	7,300	0	0	400	0	0	0	8
9	\$1,250 or more	1,300	0	0	0	0	0	0	0	0	0	9
10	No cash rent	10,500	8,500	1,200	6,300	0	0	0	600	0	400	10
	Renter Hsd Income											
11	Less than \$15,000	76,100	77,100	22,100	43,100	700	100	1,900	5,800	900	2,500	11
12	\$15,000 to \$29,999	58,500	59,200	13,200	41,200	400	100	1,200	1,700	300	1,000	12
13	\$30,000 to \$49,999	34,900	33,100	5,400	25,900	400	0	600	700	100	0	13
14	\$50,000 to \$99,999	14,100	14,000	1,700	12,200	0	0	0	0	0	100	14
15	\$100,000 or more	2,200	2,300	0	2,200	0	0	100	0	0	0	15
	Owner Monthly Housing Costs											
16	Less than \$350	136,800	139,200	58,500	74,400	100	400	300	2,600	900	2,000	16
17	\$350 to \$599	59,800	61,000	10,000	49,500	0	100	100	100	100	900	17
18	\$600 to \$799	43,600	43,500	6,900	36,000	100	100	0	100	0	100	18
19	\$800 to \$1,249	42,400	40,400	13,400	26,500	0	0	100	0	0	400	19
20	\$1,250 or more	16,700	15,100	8,000	7,000	0	0	100	0	0	0	20
	Owner Hsd Income											
21	Less than \$15,000	47,100	47,600	14,000	31,600	0	100	0	1,000	100	700	21
22	\$15,000 to \$29,999	79,200	78,100	14,900	59,400	0	400	600	1,000	700	1,100	22
23	\$30,000 to \$49,999	66,700	66,400	14,800	50,000	100	100	100	700	0	400	23
24	\$50,000 to \$99,999	81,600	82,500	24,700	56,100	100	0	0	100	100	1,100	24
25	\$100,000 or more	24,600	24,600	9,600	15,000	0	0	0	0	0	0	25

Components of Inventory Change and Rental Market Dynamics:
New Orleans 1995–2004

Backward-Looking Table 1: Structural and Location Characteristics – All Housing Units

	A Characteristics	B Published Numbers	C Present in 2004	D 04 units present in 95	E Changed in characteristics	G 04 mobile homes moved in	H 04 units derived from nonresidential use	I 04 units added through new construction	J 04 units added from temporary losses	K 04 units added by other means	
1	Total	561,000	561,100	524,500	0	500	900	16,900	5,700	12,700	1
	Occupancy Status										
2	Occupied	498,200	498,200	426,900	39,200	500	900	15,500	3,500	11,700	2
3	Vacant	58,900	58,900	13,300	41,600	0	0	1,300	2,200	500	3
4	Seasonal	4,000	4,000	1,400	2,000	0	0	100	0	500	4
	Units in Structure										
5	1, detached	349,100	359,900	333,800	0	200	0	14,600	2,200	9,100	5
6	1, attached	49,300	48,200	45,300	0	200	600	500	1,400	100	6
7	2 to 4	68,100	68,400	66,300	0	0	200	1,000	800	100	7
8	5 to 9	21,300	21,200	20,800	0	0	0	100	300	0	8
9	10 to 19	16,800	16,700	16,400	0	0	0	100	100	0	9
10	20 to 49	13,400	12,600	12,100	0	0	0	400	0	100	10
11	50 or more	15,300	16,300	15,900	0	0	200	0	0	200	11
12	Mobile Home/Trailer	27,800	17,800	13,800	0	200	0	0	800	3,100	12
	Year Built										
13	2000-2004	19,900	16,900	2,200	0	0	0	9,700	600	4,400	13
14	1995-1999	16,700	14,300	6,500	0	200	0	3,900	700	3,100	14
15	1990-1994	19,100	16,400	12,600	0	0	0	3,100	100	600	15
16	1985-1989	33,800	32,100	29,700	0	0	0	100	1,100	1,200	16
17	1980-1984	42,100	40,900	39,800	0	200	0	0	100	900	17
18	1970-1979	146,900	148,900	145,800	0	0	800	0	1,000	1,300	18
19	1960-1969	99,500	100,800	99,500	0	200	0	0	400	800	19
20	1950-1959	60,400	64,100	63,500	0	0	200	0	300	100	20
21	1940-1949	47,300	49,900	49,400	0	0	0	100	100	200	21
22	1930-1939	26,000	27,100	26,700	0	0	0	0	300	200	22
23	1920-1929	16,400	16,200	16,200	0	0	0	0	0	0	23
24	1919 or earlier	33,100	33,400	32,500	0	0	0	0	900	0	24

Components of Inventory Change and Rental Market Dynamics:
New Orleans 1995–2004

Backward-Looking Table 1 (continued): Structural and Location Characteristics – All Housing Units

	A Characteristics	B Published Numbers	C Present in 2004	D 04 units present in 95	E Changed in characteristics	G 04 mobile homes moved in	H 04 units derived from nonresidential use	I 04 units added through new construction	J 04 units added from temporary losses	K 04 units added by other means	
	Rooms										
25	1 – 4 rooms	169,600	166,900	116,400	42,100	300	800	1,600	2,900	2,900	25
26	5 rooms	136,200	134,100	55,900	68,900	0	0	3,700	900	4,700	26
27	6 rooms	119,200	120,800	47,000	66,000	200	200	4,500	1,300	1,700	27
28	7 rooms	74,200	76,200	27,000	44,200	0	0	3,200	300	1,500	28
29	8 rooms	33,100	34,400	11,000	20,300	0	0	2,300	200	600	29
30	9 rooms	15,000	14,800	3,200	10,400	0	0	900	0	400	30
31	10 rooms or more	13,800	13,800	3,000	9,100	0	0	700	200	800	31
	Bedrooms										
32	None	3,700	3,800	500	2,800	0	200	0	100	200	32
33	1	65,000	63,100	45,700	14,500	0	300	900	800	800	33
34	2	154,800	154,000	112,800	34,900	300	300	1,300	2,300	2,100	34
35	3	237,600	238,700	176,600	44,600	0	0	8,800	1,700	7,000	35
36	4 or more	100,000	101,600	68,400	23,700	200	200	5,900	700	2,600	36
37	Multiunit Structures	134,900	135,200	131,500	0	0	300	1,700	1,300	400	37
	Stories in Structures										
38	1	NA	31,800	30,600	0	0	0	700	400	100	38
39	2	NA	73,700	72,400	0	0	200	400	600	200	39
40	3	NA	19,900	19,200	0	0	0	600	200	0	40
41	4 to 6	NA	4,700	4,500	0	0	200	0	0	100	41
42	7 or more	NA	5,000	4,900	0	0	0	0	100	0	42
	Metro Status										
43	In central cities	NA	212,900	204,100	0	200	900	3,800	3,400	500	43
44	In suburbs	NA	348,200	320,300	0	300	0	13,100	2,200	12,300	44
	Mover Status										
45	Moved in last 2 years	NA	94,700	23,600	60,200	0	600	5,400	1,200	3,700	45
46	Not a Recent Mover	NA	403,500	297,000	85,400	500	300	10,100	2,300	8,000	46

Components of Inventory Change and Rental Market Dynamics:
New Orleans 1995–2004

Backward-Looking Table 2: Condition of Unit – All Occupied Units

	A Characteristics	B Published Numbers	C Present in 2004	D 04 units present in 95	E Changed in characteristics	G 04 mobile homes moved in	H 04 units derived from nonresidential use	I 04 units added through new construction	J 04 units added from temporary losses	K 04 units added by other means	
1	Occupied Units	498,200	498,200	426,900	39,200	500	900	15,500	3,500	11,700	1
	Kitchen										
2	With complete kitchen	492,100	492,100	420,900	40,000	500	800	15,200	3,400	11,400	2
3	Lacking complete kitchen facilities	6,100	6,100	200	5,000	0	200	300	200	300	3
	Plumbing										
4	With all plumbing facilities	491,400	491,400	420,900	38,800	500	900	15,300	3,500	11,500	4
5	Lack some plumbing	6,800	6,800	200	6,300	0	0	100	0	200	5
6	No hot piped water	1,200	1,200	200	1,000	0	0	0	0	0	6
7	No bathtub/shower	300	300	200	0	0	0	0	0	200	7
8	No flush toilet	300	300	200	0	0	0	0	0	200	8
9	No exclusive use	5,500	5,400	0	5,200	0	0	100	0	0	9
	Water										
10	Public/private water	476,200	477,600	411,500	40,800	500	900	15,500	2,800	5,700	10
11	Well	21,600	20,300	11,400	2,300	0	0	0	800	5,800	11
12	Other water source	400	300	0	200	0	0	0	0	200	12
	Sewer										
13	Public sewer	462,900	468,600	401,600	43,200	500	900	15,100	2,600	4,800	13
14	Septic tank/cesspool	35,100	29,400	17,700	3,500	0	0	400	900	6,900	14
15	Other	200	200	200	0	0	0	0	0	0	15
	Severe Problems										
16	Severe Problems	11,900	11,600	400	10,400	200	0	100	200	300	16
17	Plumbing	6,800	6,800	200	6,300	0	0	100	0	200	17
18	Heating	4,000	3,600	0	3,100	200	0	0	200	200	18
19	Electric	300	300	0	300	0	0	0	0	0	19
20	Upkeep	1,600	1,700	0	1,700	0	0	0	0	0	20
21	Hallways	0	0	0	0	0	0	0	0	0	21
	Moderate problems										
22	Moderate problems	33,500	34,600	8,700	24,400	0	300	400	300	500	22
23	Plumbing	1,900	2,100	0	2,100	0	0	0	0	0	23
24	Heating	16,500	18,600	5,900	12,500	0	200	0	0	0	24
25	Kitchen	5,500	6,100	200	5,000	0	200	300	200	300	25
26	Upkeep	10,600	11,900	300	10,800	0	0	100	200	500	26
27	Hallways	1,000	1,400	0	1,400	0	0	0	0	0	27

Components of Inventory Change and Rental Market Dynamics:
New Orleans 1995–2004

Backward-Looking Table 3: Household Characteristics – All Occupied Units

	A Characteristics	B Published Numbers	C Present in 2004	D 04 units present in 95	E Changed in characteristics	G 04 mobile homes moved in	H 04 units derived from nonresidential use	I 04 units added through new construction	J 04 units added from temporary losses	K 04 units added by other means	
1	Occupied units	498,200	498,200	426,900	39,200	500	900	15,500	3,500	11,700	1
	Age of Householder										
2	Under 65	398,700	396,200	291,300	75,600	500	800	14,500	3,200	10,300	2
3	65 or older	99,500	102,000	49,200	50,000	0	200	1,000	300	1,400	3
	Children										
4	Some	171,100	172,800	90,700	66,900	300	300	7,700	2,500	4,500	4
5	None	327,100	325,400	195,100	113,400	200	600	7,700	1,100	7,200	5
	Race/Origin of Householder										
6	White	311,900	307,000	250,700	35,400	200	0	9,700	1,100	10,000	6
7	Hispanic	25,500	25,100	5,600	18,000	0	0	700	200	600	7
8	Non-Hispanic	286,400	281,900	227,600	34,900	200	0	9,000	900	9,400	8
9	Black	172,700	178,500	118,600	50,500	300	900	4,600	2,100	1,500	9
10	Other	13,600	12,700	2,300	8,700	0	0	1,200	300	200	10
11	Total Hispanics	29,700	29,700	6,800	21,100	0	200	900	200	600	11
	Income Source										
12	Wages and salaries	384,200	381,500	241,500	112,900	300	500	14,000	2,600	9,700	12
13	Welfare or SSI	136,700	138,800	73,100	59,900	200	300	1,700	500	3,100	13
14	Social security or pension	34,700	12,100	3,300	8,500	200	0	0	0	200	14

Components of Inventory Change and Rental Market Dynamics:
New Orleans 1995–2004

Backward-Looking Table 4: Market Dynamics and Affordability – All Occupied Units

	A Characteristics	B Published Numbers	C Present in 2004	D 04 units present in 95	E Changed in characteristics	G 04 mobile homes moved in	H 04 units derived from nonresidential use	I 04 units added through new construction	J 04 units added from temporary losses	K 04 units added by other means	
1	Occupied units	498,200	498,200	426,900	39,200	500	900	15,500	3,500	11,700	1
	Tenure										
2	Owner occupied	323,300	323,300	257,700	39,800	200	0	13,000	2,200	10,500	2
3	Percent own occpd	64.9%	64.9%								3
4	Renter occupied	174,900	174,900	115,700	52,900	300	900	2,500	1,400	1,200	4
	Renter Monthly Housing Costs										
5	Less than \$350	18,900	20,900	11,600	7,600	0	0	400	500	800	5
6	\$350 to \$599	60,900	61,300	27,600	32,800	0	500	0	500	0	6
7	\$600 to \$799	48,400	48,700	5,900	40,800	200	300	1,400	200	0	7
8	\$800 to \$1,249	25,500	26,200	2,800	22,400	200	200	600	0	200	8
9	\$1,250 or more	6,900	7,100	0	7,100	0	0	0	0	0	9
10	No cash rent	14,400	10,700	1,200	8,800	0	0	0	300	300	10
	Renter Hsd Income										
11	Less than \$15,000	58,000	58,500	22,700	34,000	0	300	400	500	600	11
12	\$15,000 to \$29,999	53,100	52,700	13,500	36,600	200	300	1,200	500	500	12
13	\$30,000 to \$49,999	41,000	41,100	5,600	34,200	200	200	400	500	200	13
14	\$50,000 to \$99,999	17,900	18,000	1,700	16,000	0	200	100	0	0	14
15	\$100,000 or more	4,900	4,600	0	4,300	0	0	300	0	0	15
	Owner Monthly Housing Costs										
16	Less than \$350	136,700	116,100	61,300	46,800	200	0	2,400	900	4,500	16
17	\$350 to \$599	43,900	56,200	10,500	43,300	0	0	800	200	1,400	17
18	\$600 to \$799	44,500	37,600	7,200	27,300	0	0	1,200	300	1,500	18
19	\$800 to \$1,249	57,100	64,800	14,000	45,000	0	0	3,100	500	2,200	19
20	\$1,250 or more	40,900	48,700	8,400	33,700	0	0	5,400	300	900	20
	Owner Hsd Income										
21	Less than \$15,000	51,900	51,900	14,700	34,800	200	0	1,200	200	900	21
22	\$15,000 to \$29,999	60,600	60,100	15,600	40,000	0	0	1,200	600	2,800	22
23	\$30,000 to \$49,999	75,600	76,400	15,600	54,900	0	0	3,300	500	2,200	23
24	\$50,000 to \$99,999	83,700	84,300	25,900	51,500	0	0	3,500	800	2,600	24
25	\$100,000 or more	51,600	50,500	10,000	34,600	0	0	3,800	200	2,000	25

Changes in the New Orleans Housing Stock: 1995-2004

Forward-looking Table 5 looks at how losses affected certain portions of the New Orleans housing stock. The rows were selected because of their inherent interest or because an examination of losses in all 13 metropolitan areas showed that these categories typically had high loss rates. In most cases, if a category had a high loss rate, then a category with the opposite characteristic would have a low loss rate, e.g., units with 1-4 rooms and units with 10 or more rooms.

Forward-Looking Table 5: Selected Loss Rates

Category	Based on Columns in Tables 1-4		
	All Losses 1995-2004 (F+G+H+I+J+K)/C	Permanent Losses (I/C)	Potentially Reversible Losses (F+G+H+J+K)/C
All units¹⁶	7.0%	3.0%	3.9%
Vacant units	16.2%	8.8%	7.4%
Units in structures with 2-4 units	9.9%	5.0%	4.9%
Units in structures with 5-9 units	18.1%	12.4%	5.8%
Mobile homes/trailers	19.9%	4.2%	15.7%
Units built 1930-1939	10.4%	5.7%	4.7%
Units built 1920-1929	13.9%	6.1%	7.9%
Units built in 1919 or earlier	12.6%	2.3%	10.2%
Units with 1-4 rooms	13.5%	6.3%	7.2%
Units with no bedrooms	34.1%	9.8%	24.4%
Units in central cities	11.1%	5.3%	5.8%
Units outside of central city	4.1%	1.5%	2.7%
Occupied units¹⁷	5.8%	2.3%	3.5%
Units with severe problems	25.7%	17.1%	8.6%
Units with moderate problems	13.9%	6.5%	7.4%
Units with a White householder	3.8%	1.1%	2.7%
Units with a Black householder	9.3%	4.7%	4.6%
Units with Hispanic householder	5.5%	0.0%	5.5%
Household receives welfare/SSI	19.1%	12.3%	6.9%
Owner-occupied units	3.0%	1.0%	2.0%
Renter-occupied units	10.2%	4.5%	5.7%
Renter-occupied – monthly housing costs less than \$350	18.0%	10.4%	7.6%
Renter-occupied – household income less than \$15,000	15.4%	7.5%	7.9%

¹⁶ All the rows above “Occupied units” refer to portions of the entire housing stock.

¹⁷ All the rows below “Occupied units” refer to portions of the occupied housing stock.

Components of Inventory Change and Rental Market Dynamics:
New Orleans 1995–2004

By 2004, 7.0 percent of the units in the 1995 housing stock was no longer part of the housing stock; 3.0 percent were permanent losses—that is, the units had either been demolished or destroyed by fire or natural disasters—while 3.9 percent were lost in ways that could be reversed, such as nonresidential use.

Units that were vacant in 1995 had a loss rate more than twice than the overall loss rate. Units in small apartment buildings and mobile homes also had high loss rates. About three-quarters of the overall loss rate for mobile homes and trailers was potentially reversible, while two-thirds of the losses in small apartment buildings were permanent. Units built between 1920 and 1939 had high permanent loss rates. Small units had higher loss rates, particularly units with no bedrooms. The central city loss rate was more than twice the loss rate in the rest of the metropolitan area.

Among units occupied in 1995, 5.8 percent were lost by 2004. The loss rate was higher for units with physical problems and, among those with severe physical problems, the permanent loss rate was very high. The loss rate for units occupied by Black householders was more than twice the rate of those occupied by White householders. Units with households on welfare or SSI had high loss rates.

The loss rate among rental units was 3 times the loss rate among owner-occupied units. Low-cost rental units and rental units occupied by the lowest income households had high loss rates.

Backward-looking Table 5 presents addition rates for selected areas of the New Orleans housing stock. The rows were selected because of their inherent interest or because an examination of additions in all 13 metropolitan areas showed that these categories typically had high addition rates. In most cases, if a category had a high addition rate, then a category with the opposite characteristic would have a low addition rate, e.g., units with 10 or more rooms and units with no bedrooms.

Of all the units in the New Orleans housing stock in 2004, 6.5 percent were not in the 1995 housing stock. New Orleans was the only one of the 13 metropolitan areas studied in which additions from other sources exceeded additions from new construction.

Single units in attached structures had a lower than average addition rate, while mobile homes and trailers had a very high addition rate. All of the new mobile homes were additions from other sources. Large units had high addition rates, but so did units with no bedrooms. New construction was the primary source of additions for the large units, while other sources provided all the new zero-bedroom units. The addition rate in central cities was one-half of the addition rate in the rest of the metropolitan area.

New construction formed a slightly higher proportion of the units occupied by White householders than the proportions occupied by Black or Hispanic householders. The addition rate among owner-occupied units was more than twice that of renter-occupied units. Addition rates were high for owner-occupied units with monthly housing costs

Components of Inventory Change and Rental Market Dynamics:
New Orleans 1995–2004

greater than \$1,250 and owner-occupied units with households with income of \$100,000 or more.

Backward-Looking Table 5: Selected Addition Rates

Category	Based on Columns in Tables 1-4		
	All Additions (G+H+I+J+K)/C	New Construction I/C	Other Additions G+H+J+K/C
All units ¹⁸	6.5%	3.0%	3.5%
Single-unit, attached structure	5.8%	1.0%	4.8%
Mobile homes/trailers	23.0%	0.0%	23.0%
Units with 9 rooms	8.8%	6.1%	2.7%
Units with 10 or more rooms	12.3%	5.1%	7.2%
Units with no bedrooms	13.2%	0.0%	13.2%
Units in central cities	4.1%	1.8%	2.3%
Units outside of central city	8.0%	3.8%	4.3%
Occupied units ¹⁹	6.4%	3.1%	3.3%
Units with a white householder	6.8%	3.2%	3.7%
Units with a Black householder	5.3%	2.6%	2.7%
Units with Hispanic householder	6.4%	3.0%	3.4%
Owner-occupied units	8.0%	4.0%	4.0%
Renter-occupied units	3.6%	1.4%	2.2%
Renter-occupied – monthly housing costs \$800 to \$1,249	4.6%	2.3%	2.3%
Owner-occupied – monthly housing costs \$1,250 or more	13.6%	11.1%	2.5%
Owner-occupied – household income \$100,000 or more	11.9%	7.5%	4.4%

Rental Market Dynamics

Tables A and B present the rental market dynamics analysis. Rental market dynamics differs from the analysis in rows 5-10 in the forward-looking and backward-looking tables in two ways. First, rental market dynamics uses categories (rows) based on affordability instead of absolute dollar amount. Affordability is defined relative to local area median income measured at the same time that monthly housing costs are measured. Tables A and B use the following seven categories:

- Non-market (either no cash rent or a subsidized rent).
- Extremely low rent (monthly housing costs affordable to renters with incomes less than or equal to 30 percent of local area median income).²⁰

¹⁸ All the rows above “Occupied units” refer to portions of the entire housing stock.

¹⁹ All the rows below “Occupied units” refer to portions of the occupied housing stock.

²⁰ “Affordable” is defined as monthly housing costs less than or equal to 30 percent of the highest income in the category.

Components of Inventory Change and Rental Market Dynamics:
New Orleans 1995–2004

Table A: Forward-Looking Rental Dynamics Analysis, Counts: 1995-2004

Affordability Groups	A Total in 1995	B Non- Market in 2004	C Extremely Low Rent in 2004	D Very Low Rent in 2004	E Low Rent in 2004	F Moderate Rent in 2004	G High Rent in 2004	H Very or Extremely High Rent in 2004	I Owner Occupied in 2004	J Seasonal or Vacant in 2004	K Lost to Stock in 2004
Non-market	30,500	8,100	2,500	3,400	1,000	1,400	0	300	3,000	4,200	6,500
Extremely Low Rent	11,200	800	3,500	1,700	300	300	0	0	1,200	2,200	1,000
Very Low Rent	57,400	2,200	3,500	22,300	3,900	1,500	200	200	6,100	11,200	6,400
Low Rent	33,600	1,000	1,000	9,300	6,100	2,500	800	700	4,700	4,900	2,500
Moderate Rent	34,700	700	300	7,600	7,800	5,700	1,000	500	5,100	4,600	1,500
High Rent	12,000	200	0	500	800	4,200	500	800	3,000	1,200	700
Very or Extremely High Rent	6,400	0	0	300	200	500	800	1,400	1,900	1,000	300
Total	185,800	13,000	11,000	45,100	20,100	16,200	3,400	3,900	25,000	29,200	18,900

Table B: Backward-Looking Rental Dynamics Analysis, Counts: 2004-1995

Affordability Groups	A Total in 2004	B Non- Market in 1995	C Extremely Low Rent in 1995	D Very Low Rent in 1995	E Low Rent in 1995	F Moderate Rent in 1995	G High Rent in 1995	H Very or Extremely High Rent in 1995	I Owner Occupied in 1995	J Seasonal or Vacant in 1995	K New Construc- tion	L Other Additions
Non-market	25,300	8,300	900	2,300	1,000	700	200	0	7,800	3,100	100	900
Extremely Low Rent	15,500	2,600	3,600	3,600	1,000	300	0	0	1,000	1,900	300	900
Very Low Rent	63,700	3,500	1,700	22,900	9,500	7,800	500	300	5,600	10,900	0	900
Low Rent	30,100	1,000	300	4,000	6,200	8,000	900	200	3,300	4,500	1,000	600
Moderate Rent	26,500	1,400	300	1,600	2,600	5,900	4,300	500	5,900	2,800	700	500
High Rent	7,200	0	0	200	900	1,000	500	900	2,400	1,000	300	0
Very or Extremely High Rent	6,600	300	0	200	700	500	900	1,400	1,600	1,000	0	0
Total	174,900	17,200	6,900	34,700	22,000	24,300	7,300	3,300	27,600	25,300	2,500	3,800

Components of Inventory Change and Rental Market Dynamics:
New Orleans 1995–2004

- Very low rent (monthly housing costs affordable to renters with incomes greater than 30 percent but less than or equal to 50 percent of local area median income).
- Low rent (monthly housing costs affordable to renters with incomes greater than 50 percent but less than or equal to 60 percent of local area median income).
- Moderate rent (monthly housing costs affordable to renters with incomes greater than 60 percent but less than or equal to 80 percent of local area median income).
- High rent (monthly housing costs affordable to renters with incomes greater than 80 percent but less than or equal to 100 percent of local area median income).
- Very high rent or extremely high rent (monthly housing costs affordable to renters with incomes greater than 100 percent of local area median income).²¹

The second difference is that rental market dynamics uses different columns in order to highlight changes in availability and affordability. Columns A through H duplicate the rows so that one can trace how rental units change their affordability status. Columns I and J track movement into or out of the owner-occupied stock or the seasonal or vacant stock, respectively. In Table A, the various types of losses are combined in column K, while, in Table B, new construction is recorded in column K and all other additions in column L.

Table A shows that there were 185,500 rental units in the New Orleans metropolitan area in 1995. In 2004, 73,100 of those units were no longer rental; 25,000 were owner-occupied, 29,200 were either vacant or being used seasonally, and 18,900 had been lost to the stock. Taken as a proportion of the units in 1995, movement into owner-occupancy was concentrated among units in the two highest rent categories, and losses to the stock were concentrated among non-market units and very low rent units.

Table B shows there were 174,900 rental units in the New Orleans metropolitan area in 2004, of which 59,200 were not rental units in 1995. The new units came from units that had been owner-occupied (27,600), units that had been vacant or in seasonal use (25,300), newly constructed units (2,500), and other additions (3,800). Most of the formerly owner-occupied units went to the non-market, very low rent, and moderate rent categories; most of the limited newly constructed rental units went to the low rent and moderate rent categories.

Looking at both tables, we see that the overall number of rental units declined by approximately 10,900 units. The number of extremely low rent and very low rent units combined grew from approximately 70,000 in 1995 to approximately 80,000 in 2004.

²¹ Ideally this final category would be two separate categories with a boundary of 120 percent of local area median income. However, the Census Bureau uses top coding of variables to prevent data users from being able to identify specific units. At the metropolitan area level, top coding of the variables used to calculate housing costs results in monthly housing costs never exceeding the 120-percent boundary in one or both years.

Components of Inventory Change and Rental Market Dynamics:
New Orleans 1995–2004

Tables A and B paint an interesting picture of the evolution of the rental market in New Orleans between 1995 and 2004. Overall, the number of rental units declined by approximately 6 percent, but the totals conceal considerable movement into and out of the rental market. The gross flows sum to over 130,000 units. Tables A and B also show that there was considerable movement by individual units across the affordability categories. The net effect of the gross flows into and out of the rental stock and the movement across rental categories was a substantial increase in the number of units affordable to the lowest income renters.

Appendix A – Internal and External Checks

For the CINCH analysis, we performed two tests of internal consistency:

- For each row, we tested whether the sum of possible outcomes (columns D through K) equaled the number of units present in the base year (column C). In every case, exact equality was achieved prior to rounding.
- Throughout the tables, various sets of rows are related to each other. For example, the year-built rows (13-24) in Table 1 are a disaggregation of the total stock in row 1. Similarly, rows 6 (Whites), 9 (Blacks), and 10 (Other race) in Table 3 are a disaggregation of row 1 (occupied households). In these cases, there should be equality between the parent row and the sum of the break-out rows for all columns except D and E. The difference between column D in the parent row and the sum of column D for the break-out rows should equal the negative of the difference between column E in the parent row and the sum of column E for the break-out rows. In every case, exact equality was achieved prior to rounding.

Column B provides an external check of how well the CINCH weighting performed. In general, the CINCH estimates are within 5 percent of the AHS published totals, and many of the CINCH estimates are very close to the AHS estimates. Footnote 2 indicates where the CINCH weights or coding used for individual rows does not seem to produce the same results as the published estimates.

Appendix B – Weighting

CINCH separates the AHS samples in 1995 and 2004 into three components: units that exist and are part of the housing stock in both years (SAMES), units that are part of the 1995 housing stock but are not part of the 2004 housing stock (LOSSES), and units that are not part of the 1995 housing stock but are part of the 2004 housing stock (ADDITIONS). ADDITIONS are segmented into NEW CONSTRUCTION and RECOVERIES (structures that existed in 1995 but were not in the housing stock).

Because CINCH looks at various subsets of the housing stock, we need to know the characteristics of units and their occupants. Therefore, we can use only those SAMES observations that were interviewed in both years. For the same reason, we can use only those LOSSES that were interviewed in 1995 and those ADDITIONS that were interviewed in 2004.

For the forward-looking analysis, we started with the AHS pure weights and used the AHS weighted count in 1995 of SAMES to create weights for the interviewed SAMES. We used the AHS weighted count in 1995 of LOSSES to create weights for interviewed LOSSES. We then adjusted the weights of SAMES and LOSSES to equal the AHS published totals for owner-occupied units, renter-occupied units, vacant units, and seasonal units in 1995.

For the backward-looking analysis, we started with the AHS pure weights and used the AHS weighted count in 2004 of SAMES to create weights for the interviewed SAMES. We used the AHS weighted counts in 2004 for NEW CONSTRUCTION and for RECOVERIES to create weights for interviewed NEW CONSTRUCTION and interviewed RECOVERIES. We then adjusted the weights for SAMES, NEW CONSTRUCTION, and RECOVERIES to equal AHS published totals for owner-occupied units, renter-occupied units, vacant units, and seasonal units in 2004.

The logic behind the weighting and the procedures used to create the weights are explained in *Weighting Strategy for 2004 Metropolitan CINCH and Rental Dynamics Analysis*.