NMHC National Multi Housing Council

June 8, 2000

Key Contacts:
John (Jack) L. Goodman, Jr.
Chief Economist and VP of Research
jgoodman@nmhc.org

Other NMHC Staff Contacts:

Jonathan L. Kempner
President
jkempner@nmhc.org

Clarine Nardi Riddle
Senior VP for Government Affairs
cnriddle@nmhc.org

James N. Arbury
VP of Tax
jarbury@nmhc.org

Kimberly D. Duty
VP of Communications
kduty@nmhc.org

James (Jay) Harris
VP of Property Management
jharris@nmhc.org

Eileen C. Lee
VP of Environment
elee@nmhc.org

Stephen E. Lefkovits
VP of Housing and Finance
lefko@nmhc.org

Ron Nickson
VP of Building Codes
rnickson@nmhc.org

David S. Schless
VP of Seniors Housing
dschless@nmhc.org

Measuring and Interpreting the Recent Increase in Central City Housing Construction

By Jack Goodman

The 1990s saw a pickup in residential construction not only in suburban areas but also in the central cities of some of the nation's oldest and largest metropolitan areas. However, the evidence of an increase in in-town housing is largely anecdotal. The lack of complete and comparable construction statistics for specific central cities and their suburban rings has hampered efforts to explain why construction in central cities has rebounded, and whether and where it is likely to continue.

This paper first describes trends in central city and suburban housing construction during the 1990s, using data from each of the nation's 50 largest metropolitan areas. The description draws on a database of annual building permit statistics assembled from raw Census Bureau data. Trends in single-family and multifamily construction are compared and contrasted. The paper concludes with an interpretation of the findings and some implications for the future pattern of city and suburban housing construction.

About the National Multi Housing Council

Based in Washington, DC, the National Multi Housing Council (NMHC) represents the interests of the nation's larger and most prominent firms participating in the multifamily rental housing industry. NMHC members are engaged in all aspects of the development and operation of multifamily housing, including ownership, construction, management, and finance of rental properties.

The Council was established in 1978 as a national association to advocate for rental housing and to provide a source of vital information for the leadership of the multifamily industry. Since then, NMHC has evolved into the industry's leading national voice. The association concentrates on public policies that are of strategic importance to participants in multifamily housing, including finance, tax, property management, environmental, building codes, and seniors issues. NMHC benefits from a focused agenda and a membership comprised of the principal officers of the most distinguished real estate organizations in the United States.

For those readers interested in joining the multifamily housing industry's leadership, NMHC welcomes inquiries to its Washington offices at 202/974-2300, or you can visit our Web Site at www.nmhc.org.

About the Author

John (Jack) L. Goodman, Jr., Ph.D., is Vice President of Research and Chief Economist with principal responsibility for housing and economic research. Jack was formerly Senior Economist at the Federal Reserve Board, where he also headed the Mortgage and Consumer Finance group. Prior to joining the Fed, Jack was a senior researcher at the Urban Institute and a member of the economics faculty at the University of Virginia. He has served as an officer or board member of leading national professional associations and currently is a member of the Advisory Board of the Real Estate Research Institute and the Chairman of the Planning Commission of Arlington County, Virginia. He has consulted overseas for the World Bank and USAID. Jack's research on housing and mortgage markets and urban population change has appeared in leading professional publications and he is a member of the editorial boards of several journals. He holds a Ph.D. in Economics and Demography from the University of Michigan. Jack's father was a developer, owner, and manager of apartments in Evanston, Illinois.

Table of Contents

Introduction: What's Happening to Cities? 1

Advantages of Housing Permit Data for Measuring Urban Change 1

City and Suburban Construction During the 1990s: Summary Trends 2

Looking at Metro Areas Individually 4

Interpreting the Changes 8

Implications Going Forward 9

References 10

Appendix 11

© 2000, National Multi Housing Council.

This paper was first prepared for presentation at the annual meeting of the American Real Estate and Urban Economics Association, in Boston, January 7, 2000. The author is grateful to Joe McCahill for his assistance on this project. Views expressed are not necessarily those of the National Multi Housing Council or its member firms.

Introduction: What's Happening to Cities?

Anecdotes abound of a pick-up in the economic health of the nation's big cities during the 1990s. A booming national economy, shifting demographics, and increased traffic congestion in outlying areas all have fueled an urban resurgence that is a welcome change from the financial distress and social deterioration that characterized many of these cities during earlier times.

Population change is clearly part of this recovery in big cities. Population statistics are, however, only one measure of urban change, and less than ideal in some respects. The purpose of this report is to use residential building permit data to explore what was happening in the cities and suburban rings of the nation's 50 largest metro areas during the 1990s. These metro areas account for just under half of the nation's population and residential construction.

Related Research

The recently improved fortunes of the nation's big cities have not gone unreported. In its annual State of the Cities report for 1999 (HUD, 1999), the U.S. Department of Housing and Urban Development documents the "strong fiscal and economic recovery" in most of the nation's cities in the past few years. The focus of the report is, however, on jobs and population trends in cities and suburbs. Housing construction is hardly mentioned.

Construction does get more attention in "The State of the Nation's Housing, 1999" from Harvard's Joint Center for Housing Studies, which uses building permit data. But the focus in that report is more on county-level data, with particular emphasis on developments around the periphery of the metro area. And there is no separate attention to multifamily. Similarly, recent research by Carliner (1999) aggregates all metro areas and structure types. A report by von Hoffman (1999) looks at permits in individual metro areas and their cities, but he emphasizes land area and offers no disaggregation by structure type.

The innovation of the research reported here is the focus on structure type and how the single-family/multifamily mix of construction varies across metro areas and central city boundaries. Much of the value added from this project is from the database, which had to be built up from the permit data for individual jurisdictions in order to produce the city/suburb and single/multifamily splits in construction.

Advantages of Housing Permit Data for Measuring Urban Change

Housing construction is a leading indicator of population change and economic growth. People need a place to live before they can move to a location. In addition, about a third of single family and all multifamily construction is undertaken before customers are under contract. This speculative development represents a forecast of demand by developers and their lenders. Change in the volume of housing construction is a leading indicator of change in the rate of population growth.

Permit issuance has multiple advantages as a measure of housing construction. A permit is issued at the front end of the building process and in this sense is a leading indicator of construction activity. Another advantage of permit issuance as a measure of construction activity is that permit estimates are more accurate than starts or other common housing statistics because permit estimates usually are based on complete counts rather than samples. Permit statistics are available for all local areas

of the country, annually if not monthly. As for speed of reporting, permit data are available within several months of issuance, much more quickly than population estimates, which lag by about a year.

A unique attraction of permits is that they track not only the level of residential construction, but its composition. Especially in discussing smart growth, infill development, and "back to the city," it is useful to know how much of the housing that is being built is high density and how much is lower density single-family development. In this analysis multifamily is defined as housing units in structures with 2 or more units.

Permits are not without shortcomings for analysis of construction trends. Some housing for which permits have been issued never gets built, although the dropout rate in metro areas has been less than 3 percent during the 1990s. Permits do not cover conversions of housing to or from existing nonresidential structures, nor do permits cover mobile homes, which are common in some suburban rings if not central cities. There are still a few areas of the country that do not issue building permits, although these places are rare in metropolitan areas. Finally, there is some mis-reporting of structure type, with permits on balance overstating multifamily and understating single-family structures (usually single-family attached townhouses incorrectly recorded as multifamily units). Each of these distortions is, however, small in magnitude and, for most applications, far outweighed by the advantages of permits for measuring construction trends and urban change.

For purposes of this analysis, metropolitan areas are defined by the narrow "PMSA" definition, which better defines the boundaries of a housing market than the broader "CMSA" areas. And the analysis defines the central city of a metropolitan area to be those municipalities whose names appear in the official OMB title of the metro area. In metro areas where boundaries or named central cities changed during the 1990s, the analysis employs the 1999 definitions and reconstructs the historical numbers to maintain constant boundaries. For simplicity, in this paper a PMSA is usually referenced by only the first city named in its title.

City and Suburban Construction During the 1990s: Summary Trends

As measured by building permit issuance, total housing construction rose 73 percent from the trough in 1991 to 1999. The nation's 50 largest metro areas, which account for approximately half of the nation's total housing construction, more than kept pace, increasing 101 percent over this period (Exhibit 1).[1]

Many historical influences determine the size of a metro area's central city relative to its suburban ring and the mix of its new construction between single-family and multifamily. Because of these long-run, "fixed" effects, it is more illuminating to look at a cross-section of <u>changes</u> in construction rather than a metro area cross section of levels. Similarly, because construction was trending up during the 1990s in both cities and suburbs and for single-family and multifamily, changes in the <u>mix</u> (city/suburb, single/multis) of construction are more revealing than are changes in the levels of these components.

[1]Due to data limitations, three metro areas toward the bottom of the list of the biggest 50 could not be included: Nassau-Suffolk, Bergen-Passaic, and Providence-Fall River-Warwick. The next three largest metros were substituted for these.

During the 1990s, construction increased in both central cities and their suburban rings. But interestingly, the pickup in the nation's 50 largest metro areas, at least since 1993, was proportionately greater in central cities than in their suburbs (Exhibit 2). Aggregating the 50 metro areas, the central city share of permit issuance increased from a trough of 17 percent in 1993 to 22 percent in 1999.

Exhibit 1

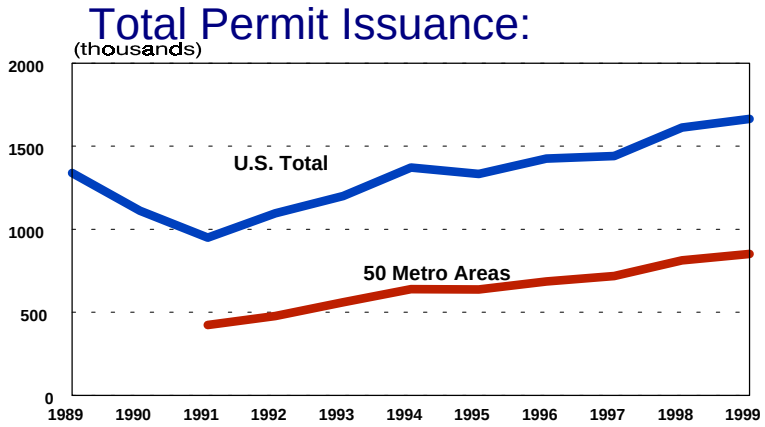
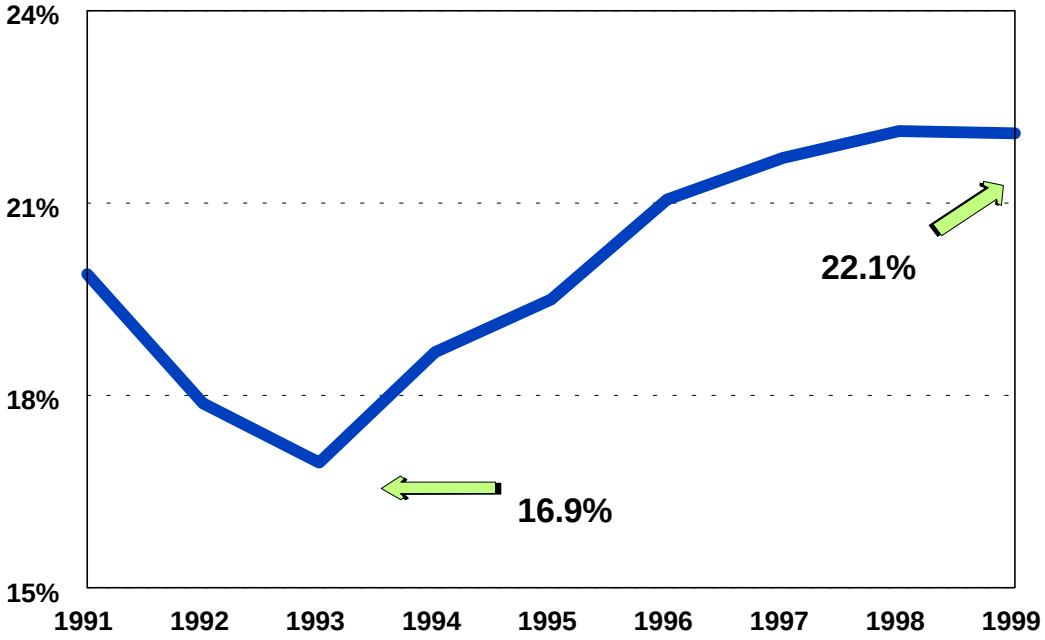


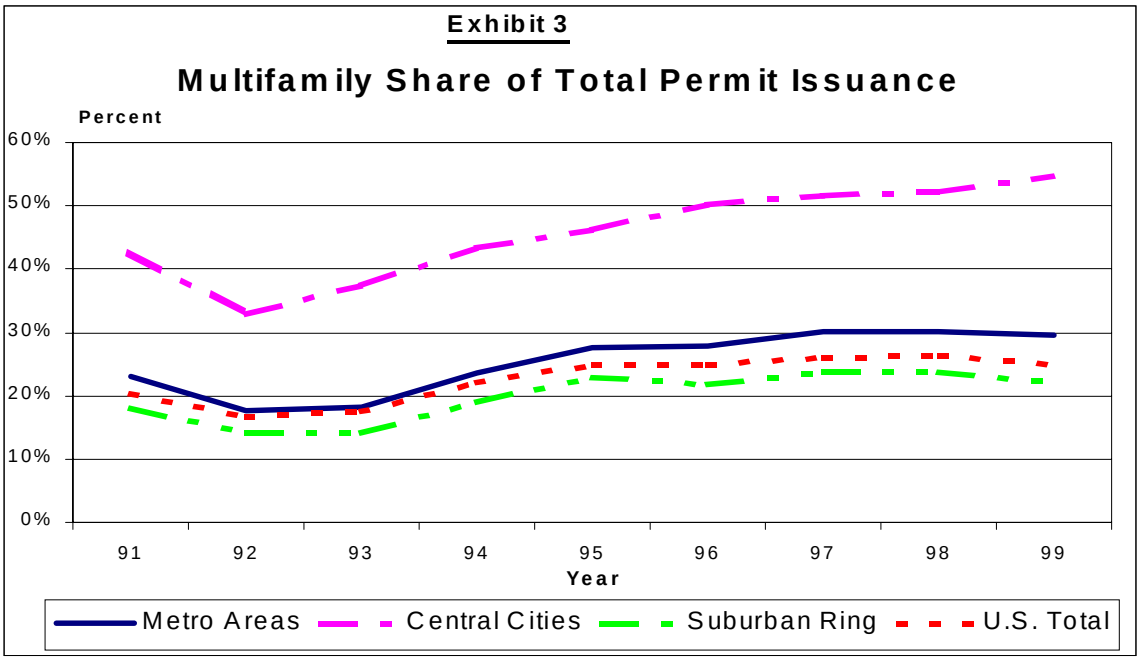
Exhibit 2

Central City Share of Metro Area Permit Issuance



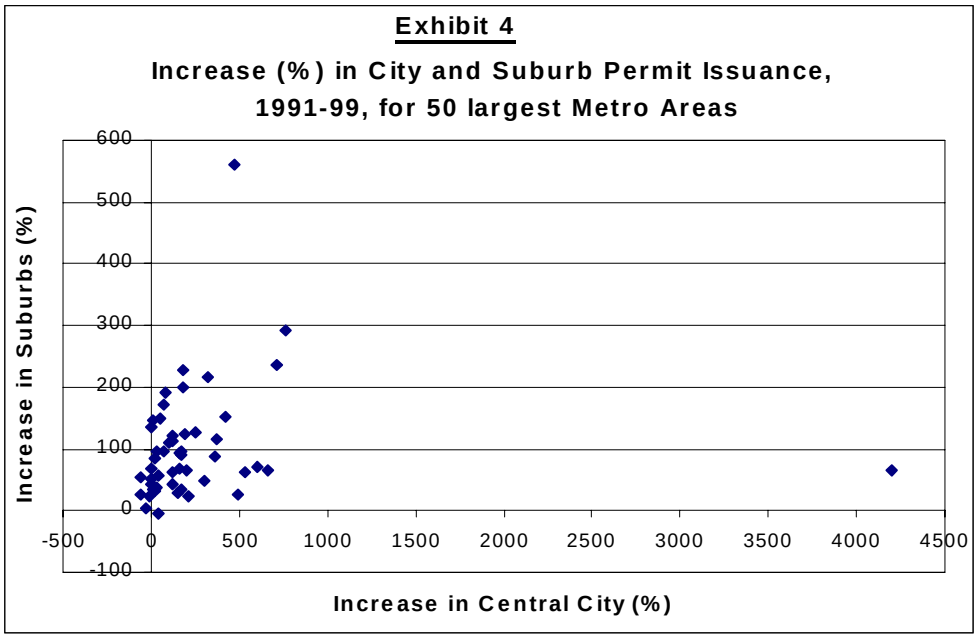
Just as the location of construction shifted during the 1990s, so did its mix. Early in the decade multifamily lagged behind the pickup in single-family construction, but multifamily housing picked up market share after 1993 from the larger single-family component for the nation overall and in the 50 biggest markets (Exhibit 3). It is worth noting that the multifamily share of new construction increased even as the nation's homeownership rate was rising. Yet despite the increase during the decade, multifamily construction remained well below the peak 45 percent share of national permit issuance reached during the previous decade (in 1984-85).

The pickup in multifamily share during the 1990s was not simply a result of the locational shift in construction toward central cities, which have a much higher multifamily share than do the suburban rings. As shown in Exhibit 3, the multifamily share increased both in cities and in their suburban rings, about proportionately.



Looking at Metro Areas Individually

The above aggregates mask some sharp differences across metro areas. In discussing these differences, I will focus on changes between 1991 and 1999. Most of the 50 markets followed the national pattern, shown in Exhibit 1, and had the least permit issuance during this period in 1991, with increases in most years and a high in 1999. However, there are several outliers, most notably Los Angeles and Buffalo, which were the only metro areas with less construction in 1999 than in 1991.



First, on the city/suburb mix of construction, it was shown earlier that big cities overall increased their construction proportionately more than suburbs. But the diversity is considerable

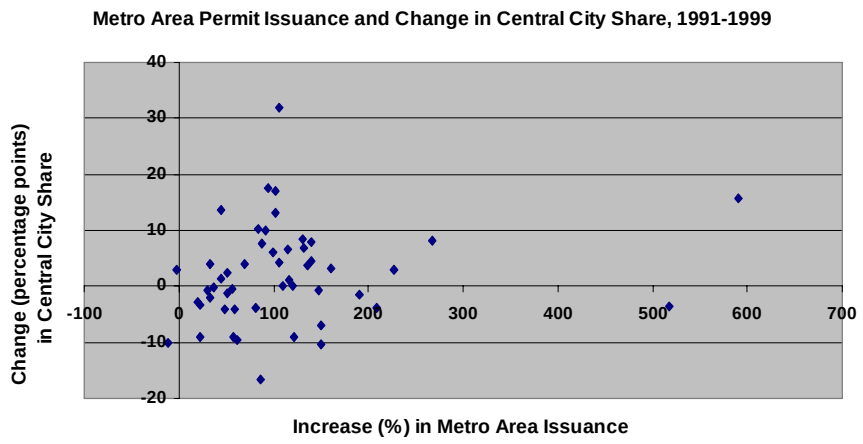
(Exhibit 4). As shown, several cities experienced a decline in city permit issuance between 1991 and 1999, while only one suburban ring (Buffalo) saw a reduction. At the other extreme, in Fort Lauderdale central city permit issuance increased fortyfold (from 30 housing units in 1991 to 1291 in 1999). Another five central cities increased permit issuance by over 500 percent (San Antonio, Denver, New Orleans, Boston, Minneapolis-St. Paul), while only one suburban ring (Austin) increased this much. The full set of statistics for the metro areas are in the Appendix tables.

Looking at the metro areas with the biggest and smallest increases in central city share (Exhibit 5), the metro areas at the top and the bottom tend to be in the West and South, but otherwise appear fairly diverse in terms of size and economic base. However, it appears that, for the 50 metros overall, central cities increased their market share the most in those metro areas that experienced the greatest overall increase in construction. The visual test, shown in Exhibit 6, confirms that the bigger the pickup in metro area construction during the 1990s, the better the city fared relative to the rest of the metro area.

Exhibit 5.
Change in Central City Share of Metro Area Permit Issuance, 1991-1999

Top 5 Metros	**Change in Central City Share (Percentage Pts)**	**Share in 1999 (%)**
1. Memphis	+32	49
2. San Francisco	+18	61
3. New Orleans	+17	23
4. San Antonio	+16	79
5. Portland-Vancouver	+14	26
Bottom 5 Metros		
1. Orange County, Ca	-16	19
2. Seattle	-10	25
3. Los Angeles	-10	30
4. Las Vegas	-10	26
5. Norfolk	-9	34

Exhibit 6



While the diversity across the sample is apparent, in the metro areas with above average growth, central cities increased their share of the metro total by 8 percentage points, on average. In metro areas with below average growth, central cities lost an average of 5 percentage points in market share. This pattern suggests that construction in central cities may be more "elastic" to economic conditions than is suburban construction. It is also consistent with the summary result in Exhibit 2 that big cities picked up market share during the 1990s as the macroeconomy continued to improve.

As for the single-family/multifamily mix of new construction, again the overall uptrend in multifamily share conceals some significant variation across metro areas (Exhibit 7). Thirteen of the 50 metro areas recorded a reduced multifamily share. One might think that those metros with the smallest multifamily share in 1991 would be the ones with the biggest increases, but as shown in Exhibit 7, the correlation is minimal.

Exhibit 7

Change in Multifamily Market Share, 1991-99, by Share in 1991

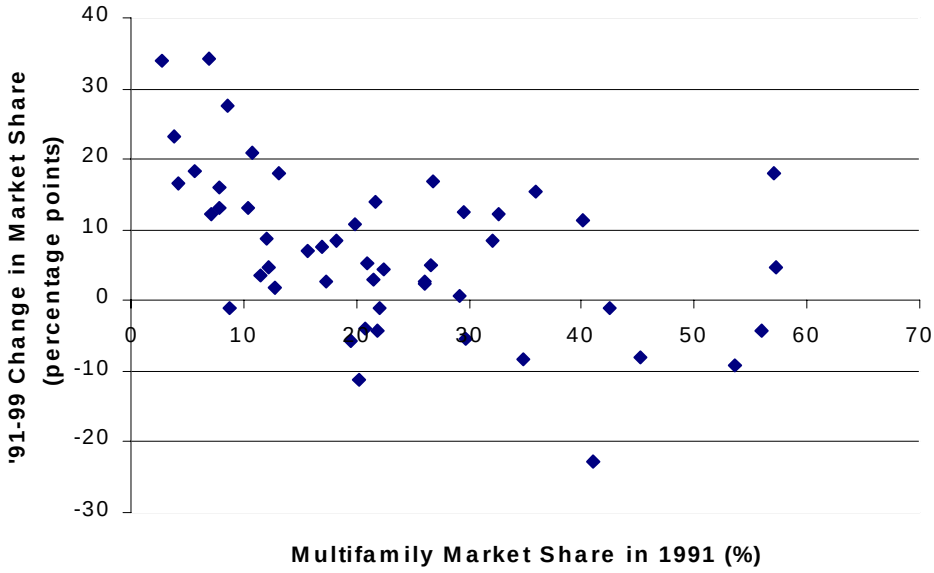
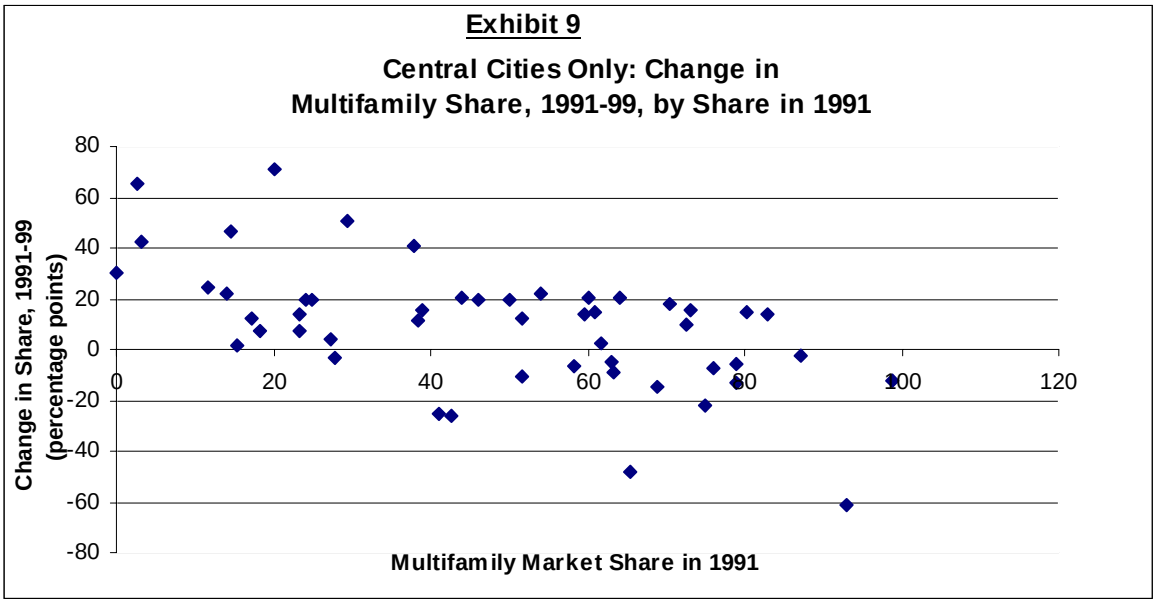


Exhibit 8
Change in Multifamily Share of Metro Area Permit Issuance, 1991-1999 (full rankings of the 50 metros are in the appendix).

Top 5 Metros (PMSAs)	Change in Multifamily Share (Percentage Pts)	Share in 1999 (%)
1. Austin	+34	42
2. San Antonio	+34	37
3. Rochester	+28	36
4. Denver	+23	27
5. Kansas City	+21	32
Bottom 5 Metros		
1. Oakland	-23	18
2. Riverside-San Bernardino	-11	9
3. Los Angeles-Long Beach	-9	44
4. Cincinnati	-8	26
5. Orange County	-8	37



Within central cities the single/multifamily pattern is similar to that for entire metro areas (Exhibits 9 and 10), indicating that city/suburb mix shifts are not exclusively responsible for the increase in multifamily market share. Across the 50 metro areas, the correlation between change in central city share and change in the metro area's multifamily share is only 0.37. There is considerable variation in the multifamily share of central city construction in 1991 and change in that share by 1999, and with little correlation between the two variables.

Exhibit 10:
Change in Multifamily Share of Central City Permit Issuance, 1991-1999

Top 5 Central Cities	Change in Multifamily Share (percentage points)	Share in1999 (%)
1. Fort Lauderdale	+71	91
2. New Orleans	+65	68
3. Minneapolis-St. Paul	+51	80
4. Austin	+46	61
5. San Antonio	+43	46
Bottom 5 Metros		
1. Hartford	-61	32
2. Cincinnati	-48	17
3. Orange County	-26	17
4. Cleveland	-25	16
5. Washington DC	-22	53

Interpreting the Changes

What distinguishes those metro areas where central cities picked up market share of construction during the 1990s? Few clear patterns emerge. Cities gaining metro market shares are found in all regions, consistent with the findings of von Hoffman (1999), and among the biggest metro areas as well as those near the bottom. Central city share at the beginning of the period had little correlation to its subsequent change.

One variable that does correlate with increase in city share is the overall metro pickup in construction. Housing construction in central cities appears to be more pro-cyclical than construction in suburbs. That is, the elasticity of central city construction in response to metro area economic growth exceeds that of the suburbs. There are two pieces of evidence of this higher elasticity: First, big central cities overall picked up market share of metro area construction as the economy expanded during the 1990s. Second, those metro areas with the greatest growth, as measured by total increase in construction, were also those with the biggest increase in central city share.

One possible reason why central cities gain disproportionately in construction when the metro area booms is that the path of least resistance for developers is to build on the suburban periphery. It may be that some developers take a good look at central city opportunities only when strong development demand puts pressure on site availability and pricing in the suburban ring. Another possible reason is that intensifying commuting problems in outer fringe communities (e.g., Atlanta) put a new premium on in-town locations, just as an aging real estate stock in town is making more redevelopment sites potentially available. Lastly, the industries booming most during the 1990s were those more central city oriented. Because most of the economic growth has been in technology and services, and these industries are often require less space than, say, manufacturing, the higher priced land and smaller available lots in central cities may have been less of a deterrent. These are all speculations. More research is needed to investigate each of these hypotheses.

Turning to multifamily's role in a shift in construction to cities, it is not surprising that those metros with an increase in central city share also are those with increase in multifamily market share, since central cities are more multifamily oriented than are suburban rings. But the multifamily share of construction picked up not just in cities but in rings, so more than a locational effect is at work. In fact, only about 10 percent of the total increase in multifamily market share in the 50 biggest metros combined can be accounted for by the locational shift favoring the cities.

Both cyclical and trend influences probably were responsible for the increase in multifamily share, separate from the influence of the locational shift toward cities. One obvious cyclical influence is that multifamily housing, more than single-family, entered the decade overbuilt in many local markets. With both lenders and investors reluctant to consider any multifamily development, regardless of the economics of the particular deal, apartment construction at the turn of the decade fell to its lowest level since the 1950s. Part of the subsequent increase in multifamily share represents a return to a more typical single/multi mix.

As for trend influences on the multifamily share, demographics and economics been supportive. The renewed growth of young adult households and the increasing prevalence of empty-nest couples and single-person households of all ages have boosted multifamily demand and help explain why apartments have increased their share of all U.S. housing even as the homeownership rate has continued to rise (Goodman, 1999). Similarly, as metro areas build out, land prices increase, increasing the incentive for the sites to be developed with higher density housing. And, from a policy

perspective, increased attention to “smart growth” has perked up interest in higher density housing, often as part of mixed use development, as part of a strategy to preserve open space and create more livable communities.

The causality runs primarily from location demand to structure type. That is, the city resurgence during the 1990s boosted the multifamily share, rather than the other way around. However, both central cities and multifamily housing, as a joint product, were likely spurred by increased demand for location and accessibility by singles and empty nesters, who are a growing share of all households and housing consumers.

Implications Going Forward

Trend and cyclical influences will continue to shape the future of share of new housing construction going to central cities and to multifamily structures.

Regarding the trend influences, it is hard to see the mix of construction not being toward higher density, meaning more multifamily and more small-lot single family, both in cities and suburbs. The demographic, economic, and policy influences described above are unlikely to reverse in the foreseeable future.

It is less clear where the trend lies for central cities. Even with the boom of the 1990s, cities’ job growth was slower than that of the suburbs (HUD, 1999). And the national migration statistics do not show any major changes, at least through 1997, in the numbers of people moving into and out of central cities each year.

Cyclical influences on construction and cities are also important, but easy to forget after nearly nine consecutive years of expansion. If the economy hits a soft spot, or worse, what will the effect be on the central city share of construction? If the strong, steady growth of the 1990s has been disproportionately good for cities, will a slowdown be disproportionately bad? It is not an easy question to answer, and one that needs to be added to the list.

If cities lose market share, multifamily too will lose share, all else equal, because of the central city concentration of multifamily construction. But the multifamily share of the metro area total should be fairly resilient, in part because the pure locational effect is moderate, as shown earlier. In addition, although a recession produces few winners, multifamily housing demand could well hold up better than single-family in the next downturn. Any economic events that lower consumer confidence will have a disproportionate effect on consumer demand for big ticket items, of which a house is the biggest. In addition, a rise in interest rates has a disproportionate effect on single-family housing demand, especially in the short run, judging from the historical evidence.

Right now, there is much optimism about future housing demand in close-in locations (Brookings Institution, 1998; Lend Lease Real Estate Investments, 1999). As described above, there are good reasons for that optimism. The biggest challenge to this future scenario will arrive with the next recession, whenever it comes.

References

Brookings Institution and Fannie Mae Foundation, “Rouse Forum Survey: A Rise in Downtown Living” mimeo, September 28, 1998.

Michael Carliner, “Home Building in Central Cities,” *Housing Economics*, February 1999.

Jack Goodman, “The Changing Demography of Multifamily Rental Housing,” *Housing Policy Debate* Vol 10, no. 1 (1999).

Lend Lease Real Estate Investments, *Emerging Trends in Real Estate 2000*, www.lendleaserei.com, 1999.

U.S. Department of Housing and Urban Development, *State of the Cities, 1999 (Annual Urban Policy Report)*, 1999.

von Hoffman, Alexander, “Housing Heats Up: Home Building Patterns in Metropolitan Areas,” Center for Urban & Metropolitan Policy, The Brookings Institution, December 1999.

Appendix Table 1.

	Metropolitan Area (PMSA)	98 population (000s)	1 9 9 1 Permit Issuance (# of Units)					
			Metro Area			Central City		
			Total	Single Family	Multifamily	Total	Single Family	Multifamily
1	Los Angeles-Long Beach	9213.5	15914	7399	8515	6370	1347	5023
2	New York City	8692.8	6406	2756	3650	4669	1376	3293
3	Chicago	7939.4	11951	8842	3109	1290	463	827
4	Philadelphia	4946.6	11051	9788	1263	366	148	218
5	Washington	4673.9	18146	15068	3078	333	83	250
6	Detroit	4473.9	14108	11019	3089	339	130	209
7	Houston	3931.7	13589	9960	3629	3131	1146	1985
8	Atlanta	3746.1	23442	21611	1831	740	296	444
9	Boston	3289.1	4354	3784	570	163	44	119
10	Dallas	3209.9	14247	11162	3085	3259	1630	1629
11	Riverside-San Bernardino	3114.1	16092	12840	3252	1441	1095	346
12	Phoenix-Mesa	2931.0	15428	14330	1098	5879	5201	678
13	Minneapolis-St. Paul	2831.2	13630	11989	1641	204	144	60
14	San Diego	2780.6	7891	5365	2526	2541	1367	1174
15	Orange County	2721.7	6555	3587	2968	2322	1333	989
16	St. Louis	2563.8	8350	7324	1026	121	29	92
17	Baltimore	2484.0	11159	9400	1759	530	244	286
18	Pittsburgh	2346.2	4453	3521	932	257	107	150
19	Oakland	2318.5	6783	4006	2777	762	161	601
20	Seattle-Bellevue-Everett	2313.0	7952	5097	2855	2799	768	2031
21	Tampa-St. Petersburg-Clearwater	2256.6	11137	7841	3296	1505	726	779
22	Cleveland-Lorain-Elyria	2222.7	5933	4779	1154	265	156	109
23	Miami	2152.4	5855	3506	2349	451	77	374
24	Newark	1952.4	2281	1771	510	151	2	149
25	Denver	1938.6	6218	5984	234	415	256	159
26	Portland-Vancouver	1819.0	10438	7390	3048	1258	767	491
27	Kansas City	1737.0	7435	6641	794	1104	829	275
28	San Francisco	1683.3	2261	965	1296	987	195	792
29	San Jose	1641.2	3788	1670	2118	2063	643	1420
30	Cincinnati	1617.8	8134	5304	2830	470	163	307
31	Fort Worth-Arlington	1592.6	5215	4311	904	2582	1863	719
32	Norfolk-Virginia Beach-Newport News	1542.1	7302	5788	1514	3159	2300	859
33	San Antonio	1538.3	1986	1930	56	1268	1227	41
34	Sacramento	1532.0	9825	7650	2175	1049	888	161
35	Indianapolis	1519.2	7335	6400	935	2499	2072	427
36	Orlando	1504.6	13392	9030	4362	2505	321	2184
37	Fort Lauderdale	1503.4	6523	4822	1701	30	24	6
38	Columbus	1469.6	8429	6177	2252	3624	2030	1594
39	Milwaukee-Waukesha	1459.8	5988	3441	2547	809	298	511
40	Charlotte(Meck Cty.)-Gastonia-Rock Hill	1383.1	8438	6904	1534	4961	3811	1150
41	Las Vegas	1321.5	17864	12563	5301	6279	5134	1145

	Metropolitan Area (PMSA)	98 population (000s)	1 9 9 1 Permit Issuance (# of Units)					
			Metro Area			Central City		
			Total	Single Family	Multifamily	Total	Single Family	Multifamily
42	New Orleans	1309.4	2450	2312	138	151	147	4
43	Salt Lake City-Ogden	1267.7	4756	4557	199	215	104	111
44	Greensboro- Winston-Salem-High Point	1167.6	5180	4641	539	1451	1247	204
45	Buffalo-Niagara Falls	1152.5	2717	2131	586	208	81	127
46	Hartford	1143.9	1570	1434	136	29	2	27
47	Austin-San Marcos	1105.9	3219	2995	224	1526	1303	223
48	Memphis	1093.4	5100	4696	404	873	873	0
49	Rochester	1081.9	2950	2695	255	79	49	30
50	Jacksonville	1044.7	7368	5906	1462	4573	3503	1070
	Totals:	126275.2	422588	325082	97506	84055	48203	35852

Appendix Table 2.

	Metropolitan Areas (PMSA)	1 9 9 9 Permit Issuance (# of Units)					
		Metro Area			Central City		
		Total	Single Family	Multifamily	Total	Single Family	Multifamily
1	Los Angeles-Long Beach	14060	7826	6234	4210	1425	2785
2	New York	15326	3831	11495	12401	1466	10935
3	Chicago	39091	27961	11130	5400	839	4561
4	Philadelphia	16658	14152	2506	367	97	270
5	Washington	37957	28635	9322	683	319	364
6	Detroit	19370	15971	3399	440	158	282
7	Houston	32585	22248	10337	9014	4089	4925
8	Atlanta	61046	48275	12771	3888	760	3128
9	Boston	8347	5758	2589	1146	127	1019
10	Dallas	35684	22968	12716	5724	1752	3972
11	Riverside-San Bernardino	20921	19018	1903	1714	969	745
12	Phoenix-Mesa	47713	38448	9265	16401	10449	5952
13	Minneapolis-St. Paul	23173	18322	4851	1293	255	1038
14	San Diego	16925	10070	6855	6579	2233	4346
15	Orange County	12239	7679	4560	2317	1929	388
16	St. Louis	12612	10482	2130	487	154	333
17	Baltimore	13606	10486	3120	191	46	145
18	Pittsburgh	6946	5129	1817	367	178	189
19	Oakland	10810	8852	1958	760	203	557
20	Seattle-Bellevue-Everett	19910	9690	10220	4938	876	4062
21	Tampa-St. Petersburg-Clearwater	22980	13309	9671	4105	1469	2636
22	Cleveland-Lorain-Elyria	7916	6839	1077	672	565	107
23	Miami	13771	6681	7090	1572	50	1522
24	Newark	5286	3866	1420	711	97	614
25	Denver	22835	16643	6192	3379	1706	1673
26	Portland-Vancouver	15077	10595	4482	3889	1758	2131

	Metropolitan Areas (PMSA)	1999 Permit Issuance (# of Units)					
		Metro Area			Central City		
		Total	Single Family	Multifamily	Total	Single Family	Multifamily
27	Kansas City	16368	11208	5160	2427	1346	1081
28	San Francisco	4392	1664	2728	2694	146	2548
29	San Jose	6880	3323	3557	3479	1596	1883
30	Cincinnati	12031	8859	3172	212	175	37
31	Fort Worth-Arlington	11998	9605	2393	6955	5224	1731
32	Norfolk-Virginia Beach-Newport News	8988	7478	1510	3066	2119	947
33	San Antonio	13705	8678	5027	10891	5892	4999
34	Sacramento	13019	10275	2744	1114	922	192
35	Indianapolis	15862	13573	2289	5576	3962	1614
36	Orlando	29593	16368	13225	2889	430	2459
37	Fort Lauderdale	12013	8574	3439	1291	117	1174
38	Columbus	15847	8948	6899	8009	2871	5138
39	Milwaukee-Waukesha	7173	4200	2973	762	320	442
40	Charlotte(Meck Cty.)-Gastonia-Rock Hill	24475	17944	6531	14014	9754	4260
41	Las Vegas	28800	21823	6977	7367	5472	1895
42	New Orleans	4933	3754	1179	1151	369	782
43	Salt Lake City-Ogden	9453	7478	1975	994	585	409
44	Greensboro- Winston-Salem- High Point	10487	8020	2467	4328	2766	1562
45	Buffalo-Niagara Falls	2664	2014	650	285	69	216
46	Hartford	3890	3595	295	44	30	14
47	Austin-San Marcos	19897	11704	8193	8720	3381	5339
48	Memphis	10466	7952	2514	5140	3587	1553
49	Rochester	4282	2733	1549	176	38	138
50	Jacksonville	11604	8052	3552	6156	3878	2278
	Totals	851664	601556	250108	190388	89018	101370

Appendix Table 3.

	Metropolitan Area (PMSA)	Percent Change in Permit Issuance, 1991-99					
		Metro Area			Central City		
		Total	Single Family	Multifamily	Total	Single Family	Multifamily
1	Los Angeles-Long Beach	-11.7	5.8	-26.8	-33.9	5.8	-44.6
2	New York	139.2	39.0	214.9	165.6	6.5	232.1
3	Chicago	227.1	216.2	258.0	318.6	81.2	451.5
4	Philadelphia	50.7	44.6	98.4	0.3	-34.5	23.9
5	Washington	109.2	90.0	202.9	105.1	284.3	45.6
6	Detroit	37.3	44.9	10.0	29.8	21.5	34.9
7	Houston	139.8	123.4	184.8	187.9	256.8	148.1
8	Atlanta	160.4	123.4	597.5	425.4	156.8	604.5
9	Boston	91.7	52.2	354.2	603.1	188.6	756.3
10	Dallas	150.5	105.8	312.2	75.6	7.5	143.8
11	Riverside-San Bernardino	30.0	48.1	-41.5	18.9	-11.5	115.3
12	Phoenix-Mesa	209.3	168.3	743.8	179.0	100.9	777.9
13	Minneapolis-St. Paul	70.0	52.8	195.6	533.8	77.1	1630.0
14	San Diego	114.5	87.7	171.4	158.9	63.4	270.2
15	Orange County	86.7	114.1	53.6	-0.2	44.7	-60.8
16	St. Louis	51.0	43.1	107.6	302.5	431.0	262.0
17	Baltimore	21.9	11.6	77.4	-64.0	-81.1	-49.3
18	Pittsburgh	56.0	45.7	95.0	42.8	66.4	26.0
19	Oakland	59.4	121.0	-29.5	-0.3	26.1	-7.3
20	Seattle-Bellevue-Everett	150.4	90.1	258.0	76.4	14.1	100.0
21	Tampa-St. Petersburg-Clearwater	106.3	69.7	193.4	172.8	102.3	238.4
22	Cleveland-Lorain-Elyria	33.4	43.1	-6.7	153.6	262.2	-1.8
23	Miami	135.2	90.6	201.8	248.6	-35.1	307.0
24	Newark	131.7	118.3	178.4	370.9	4750.0	312.1
25	Denver	267.2	178.1	2546.2	714.2	566.4	952.2
26	Portland-Vancouver	44.4	43.4	47.0	209.1	129.2	334.0
27	Kansas City	120.1	68.8	549.9	119.8	62.4	293.1
28	San Francisco	94.3	72.4	110.5	172.9	-25.1	221.7
29	San Jose	81.6	99.0	67.9	68.6	148.2	32.6
30	Cincinnati	47.9	67.0	12.1	-54.9	7.4	-87.9
31	Fort Worth-Arlington	130.1	122.8	164.7	169.4	180.4	140.8
32	Norfolk-Virginia Beach-Newport News	23.1	29.2	-0.3	-2.9	-7.9	10.2
33	San Antonio	590.1	349.6	8876.8	758.9	380.2	12092.7
34	Sacramento	32.5	34.3	26.2	6.2	3.8	19.3
35	Indianapolis	116.3	112.1	144.8	123.1	91.2	278.0
36	Orlando	121.0	81.3	203.2	15.3	34.0	12.6
37	Fort Lauderdale	84.2	77.8	102.2	4203.3	387.5	19466.7
38	Columbus	88.0	44.9	206.3	121.0	41.4	222.3
39	Milwaukee-Waukesha	19.8	22.1	16.7	-5.8	7.4	-13.5
40	Charlotte(Meck Cty.)-Gastonia-Rock Hill	190.1	159.9	325.7	182.5	155.9	270.4
41	Las Vegas	61.2	73.7	31.6	17.3	6.6	65.5

	Metropolitan Area (PMSA)	Percent Change in Permit Issuance, 1991-99					
		Metro Area			Central City		
		Total	Single Family	Multifamily	Total	Single Family	Multifamily
42	New Orleans	101.3	62.4	754.3	662.3	151.0	19450.0
43	Salt Lake City-Ogden	98.8	64.1	892.5	362.3	462.5	268.5
44	Greensboro- Winston-Salem-High Point	102.5	72.8	357.7	198.3	121.8	665.7
45	Buffalo-Niagara Falls	-2.0	-5.5	10.9	37.0	-14.8	70.1
46	Hartford	147.8	150.7	116.9	51.7	1400.0	-48.1
47	Austin-San Marcos	518.1	290.8	3557.6	471.4	159.5	2294.2
48	Memphis	105.2	69.3	522.3	488.8	310.9	N/A
49	Rochester	45.2	1.4	507.5	122.8	-22.4	360.0
50	Jacksonville	57.5	36.3	143.0	34.6	10.7	112.9