Manhattan Condo Sales Prices 2014-2018

Marek Mscichowski (mm2486@nyu.edu)

Analysis Completed during Metis "Intro to Data Science" Course – Summer 2019

This research aggregates Manhattan transaction data from the NYC Department of Finance from 2014 to 2018. I only look at transactions where the # of residential units is 1; this effectively focused the research to condos.

Perhaps the most interesting takeaway from combining the CSVs and manipulating the data was seeing the price development in different neighborhoods from 2014 to 2018. (I removed neighborhoods that had less than 30 transactions in a given year.)

Neighborhood	201	4 Median Price	201	Median Price	201	6 Median Price	202	17 Median Price	2018	Median Price
CHELSEA	\$	1,760,000	\$	1,735,000	\$	2,169,050	\$	1,915,000	\$	1,923,713
CHINATOWN	\$	1,750,000	\$	1,635,000	\$	1,355,000	\$	2,050,000	\$	812,500
CIVICCENTER	\$	2,156,908	\$	2,900,000	\$	4,267,090	\$	5,704,950	\$	4,395,000
CLINTON	\$	995,000	\$	1,148,085	\$	999,000	\$	1,290,000	\$	1,160,000
EASTVILLAGE	\$	1,097,500	\$	1,370,000	\$	1,175,000	\$	2,062,500	\$	2,217,552
FINANCIAL	\$	1,074,250	\$	1,075,000	\$	1,095,000	\$	1,546,250	\$	1,040,000
FLATIRON	\$	2,233,000	\$	2,700,000	\$	2,765,000	\$	3,983,083	\$	3,100,000
GRAMERCY	\$	1,230,000	\$	1,250,000	\$	1,300,000	\$	1,955,000	\$	1,639,382
GREENWICHVILLAGE-CENTRA	\$	2,025,064	\$	3,473,506	\$	2,995,000	\$	2,499,500	\$	2,625,000
GREENWICHVILLAGE-WEST	\$	2,163,781	\$	4,200,000	\$	4,796,440	\$	4,862,143	\$	3,500,000
HARLEM-CENTRAL	\$	665,000	\$	753,505	\$	777,026	\$	905,000	\$	877,500
HARLEM-EAST	\$	635,000	\$	590,000	\$	651,680	\$	670,000	\$	614,250
HARLEM-UPPER	\$	539,672	\$	626,223	\$	500,000	\$	765,000	\$	568,119
KIPSBAY	\$	800,000	\$	900,000	\$	925,000	\$	1,100,048	\$	1,010,875
LOWEREASTSIDE	\$	1,110,000	\$	1,570,028	\$	1,200,000	\$	1,065,000	\$	2,100,000
MANHATTANVALLEY	\$	804,540	\$	1,053,750	\$	875,000	\$	950,500	\$	925,000
MIDTOWNEAST	\$	1,100,000	\$	1,580,000	\$	1,140,997	\$	1,771,744	\$	1,089,527
MIDTOWNWEST	\$	1,380,000	\$	1,619,482	\$	1,528,688	\$	1,262,500	\$	1,395,000
MURRAYHILL	\$	1,500,000	\$	1,292,500	\$	1,197,176	\$	1,295,000	\$	1,215,000
SOHO	\$	3,125,000	\$	3,850,000	\$	3,894,806	\$	3,668,754	\$	3,858,931
TRIBECA	\$	1,882,500	\$	2,591,446	\$	2,825,322	\$	3,000,000	\$	2,405,398
UPPEREASTSIDE(59-79)	\$	2,187,119	\$	1,850,000	\$	1,750,000	\$	2,005,000	\$	1,862,000
UPPEREASTSIDE(79-96)	\$	1,462,500	\$	1,450,000	\$	1,600,000	\$	1,667,588	\$	1,760,000
UPPERWESTSIDE(59-79)	\$	1,891,363	\$	1,710,000	\$	2,232,272	\$	2,125,000	\$	1,965,000
UPPERWESTSIDE(79-96)	\$	1,450,000	\$	1,171,369	\$	1,335,000	\$	1,162,500	\$	1,700,322
UPPERWESTSIDE(96-116)	\$	1,427,000	\$	1,617,500	\$	1,800,000	\$	1,747,500	\$	1,957,500

Before this project, I believed that New York City real estate prices had been going up steadily since the last period of market weakness related to the Great Recession of 2008-2009. However, only five neighborhoods had sales peaks in 2018.

Neighborhood	2014 Median Price		2015 Median Price		2016 Median Price		2017 Median Price		2018 Median Price	
EASTVILLAGE	\$	1,097,500	\$	1,370,000	\$	1,175,000	\$	2,062,500	\$	2,217,552
LOWEREASTSIDE	\$	1,110,000	\$	1,570,028	\$	1,200,000	\$	1,065,000	\$	2,100,000
UPPERWESTSIDE(96-116)	\$	1,427,000	\$	1,617,500	\$	1,800,000	\$	1,747,500	\$	1,957,500
UPPEREASTSIDE(79-96)	\$	1,462,500	\$	1,450,000	\$	1,600,000	\$	1,667,588	\$	1,760,000
UPPERWESTSIDE(79-96)	\$	1,450,000	\$	1,171,369	\$	1,335,000	\$	1,162,500	\$	1,700,322

In fact, most often neighborhoods saw prices peak in 2017.

Neighborhood	2014 N	ledian Price	2015	Median Price	201	6 Median Price	201	7 Median Price	2018	Median Price
CIVICCENTER	\$	2,156,908	\$	2,900,000	\$	4,267,090	\$	5,704,950	\$	4,395,000
GREENWICHVILLAGE-WEST	\$	2,163,781	\$	4,200,000	\$	4,796,440	\$	4,862,143	\$	3,500,000
FLATIRON	\$	2,233,000	\$	2,700,000	\$	2,765,000	\$	3,983,083	\$	3,100,000
TRIBECA	\$	1,882,500	\$	2,591,446	\$	2,825,322	\$	3,000,000	\$	2,405,398
CHINATOWN	\$	1,750,000	\$	1,635,000	\$	1,355,000	\$	2,050,000	\$	812,500
GRAMERCY	\$	1,230,000	\$	1,250,000	\$	1,300,000	\$	1,955,000	\$	1,639,382
MIDTOWNEAST	\$	1,100,000	\$	1,580,000	\$	1,140,997	\$	1,771,744	\$	1,089,527
FINANCIAL	\$	1,074,250	\$	1,075,000	\$	1,095,000	\$	1,546,250	\$	1,040,000
CLINTON	\$	995,000	\$	1,148,085	\$	999,000	\$	1,290,000	\$	1,160,000
KIPSBAY	\$	800,000	\$	900,000	\$	925,000	\$	1,100,048	\$	1,010,875
HARLEM-CENTRAL	\$	665,000	\$	753,505	\$	777,026	\$	905,000	\$	877,500
HARLEM-UPPER	\$	539,672	\$	626,223	\$	500,000	\$	765,000	\$	568,119
HARLEM-EAST	\$	635,000	\$	590,000	\$	651,680	\$	670,000	\$	614,250

Some neighborhoods saw prices peak earlier than 2017. Also, the total number of transactions was higher in 2016 and 2017 than in 2019 (see appendix).

Neighborhood	201	4 Median Price	201	5 Median Price	201	6 Median Price	201	7 Median Price	2018	Median Price
CHELSEA	\$	1,760,000	\$	1,735,000	\$	2,169,050	\$	1,915,000	\$	1,923,713
GREENWICHVILLAGE-CENTR	\$	2,025,064	\$	3,473,506	\$	2,995,000	\$	2,499,500	\$	2,625,000
MANHATTANVALLEY	\$	804,540	\$	1,053,750	\$	875,000	\$	950,500	\$	925,000
MIDTOWNWEST	\$	1,380,000	\$	1,619,482	\$	1,528,688	\$	1,262,500	\$	1,395,000
MURRAYHILL	\$	1,500,000	\$	1,292,500	\$	1,197,176	\$	1,295,000	\$	1,215,000
SOHO	\$	3,125,000	\$	3,850,000	\$	3,894,806	\$	3,668,754	\$	3,858,931
UPPERWESTSIDE(59-79)	\$	1,891,363	\$	1,710,000	\$	2,232,272	\$	2,125,000	\$	1,965,000
UPPEREASTSIDE(59-79)	\$	2,187,119	\$	1,850,000	\$	1,750,000	\$	2,005,000	\$	1,862,000

Why did prices peak in some neighborhoods in 2017 or before? I did some spot checks on the Central Harlem, Gramercy and Flatiron entries and did not see any problems with data sampling. So what could then be the economic reason? Are people interested in living further away from city centers these days?

I look forward to continuing to monitor this data set, collaborating with others and seeing how 2019 sales have panned out once the year is through.

Other Notes

- I tried to look at sales prices in relation to square footage, but the square footage data is spotty before 2018. Including this data as it becomes available in years to come will enable comparisons of price per square foot.
- I created a column for the decade in which a building was built, to see if new construction led to higher prices. Somewhat counterintuitively, from what I saw new construction did not seem to have a great effect on sales price. In Manhattan, I believe even old buildings are renovated at great expense to get their market attractiveness up to par, so the "new building" effect may be less relevant here.
- It would be interesting to see the research methods outlined in this report repeated for the other boroughs available like Brooklyn and Queens.
- Later on I combine this sales transaction data with 2016 census data. What other datasets could one combine with this sales transaction data?

Appendix 1

Transaction Count. This table shows the number of sales transactions in a given year for a given neighborhood. I excluded neighborhoods that had less than 30 transactions in any given year.

Neighborhood	2014 Count	2015 Count	2016 Count	2017 Count	2018 Count	Total
CHELSEA	389	303	335	260	261	1,548
CHINATOWN	85	42	33	40	49	249
CIVICCENTER	136	67	253	193	85	734
CLINTON	119	271	119	203	127	839
EASTVILLAGE	148	46	32	42	113	381
FINANCIAL	447	350	270	407	211	1,685
FLATIRON	197	217	236	215	144	1,009
GRAMERCY	186	94	118	80	114	592
GREENWICHVILLAGE-CENTRA	80	96	95	85	87	443
GREENWICHVILLAGE-WEST	173	196	315	181	199	1,064
HARLEM-CENTRAL	337	380	252	308	254	1,531
HARLEM-EAST	60	70	86	64	61	341
HARLEM-UPPER	59	71	39	34	47	250
KIPSBAY	155	151	149	223	204	882
LOWEREASTSIDE	58	51	45	67	180	401
MANHATTANVALLEY	159	152	96	113	111	631
MIDTOWNEAST	277	387	300	342	264	1,570
MIDTOWNWEST	498	547	484	394	364	2,287
MURRAYHILL	201	334	190	170	164	1,059
SOHO	98	80	153	91	85	507
TRIBECA	302	475	416	437	358	1,988
UPPEREASTSIDE(59-79)	573	500	455	412	355	2,295
UPPEREASTSIDE(79-96)	374	416	488	476	386	2,140
UPPERWESTSIDE(59-79)	514	620	412	452	471	2,469
UPPERWESTSIDE(79-96)	293	281	207	172	182	1,135
UPPERWESTSIDE(96-116)	73	77	62	58	65	335
Grand Total	5,991	6,274	5,640	5,519	4,941	28,365

Finally, I looked at the correlation between census data from 2016 with sales prices in 2018 – by zip code.

Unsurprisingly I found a high positive correlation between income and sales prices (74%, #1). Also there was high positive correlation between the percent of workers in management and sales prices (60%, #16)

A high percentage of government workers had a negative correlation with sales prices (-61%, #210). Commute travel time also had a negative correlation with sales price (-65%, #221). This makes sense particularly in Manhattan given that people often seem to pay a premium to live closer, even walking distance, to their jobs.

Notes

• The analysis would be better with more recent census data. One could also compare changes in sales price as they relate to changes in the census data over time.

Appendix 2

Complete list of correlations:

```
1. income and benefits in 2016 inflation adjusted dollars-dollars-mean family income dollars:
0.74
2. income and benefits in 2016 inflation adjusted dollars-dollars-
per capita family income dollars: 0.74
3. income_and_benefits_in_2016_inflation_adjusted_dollars-dollars-
mean household income dollars: 0.69
4. income and benefits in 2016 inflation adjusted dollars-dollars-
mean earnings dollars households with earnings: 0.69
5. health insurance coverage-percent-with health insurance-of-
civilian noninstitutionalized population: 0.67
6. income and benefits in 2016 inflation adjusted dollars-percent-200000 or more-of-
total families: 0.67
7. health insurance coverage-percent-with health insurance-of-
18 to 64 years employed civilian noninstitutionalized population: 0.65
8. income and benefits in 2016 inflation adjusted dollars-percent-200000 or more-of-
total households: 0.65
9. income and benefits in 2016 inflation adjusted dollars-dollars-
mean nonfamily income dollars: 0.65
10. health insurance coverage-percent-with private health insurance-of-
18 to 64 years employed civilian noninstitutionalized population: 0.65
11. income_and_benefits_in_2016_inflation_adjusted_dollars-dollars-median_female_full-
time_year_round_workers_earnings_dollars: 0.64
12. commuting to work-percent-other means-of-workers 16 years and over: 0.63
13. health insurance coverage-percent-with private health insurance-of-
18_to_64_years_not_in_labor_force_civilian_noninstitutionalized_population: 0.63
14. health insurance coverage-percent-with private health insurance-of-
civilian_noninstitutionalized_population: 0.62
15. income_and_benefits_in_2016_inflation_adjusted_dollars-dollars-
median_workers_earnings_dollars: 0.61
16. occupation-percent-management business science and arts occupations-of-
civilian_employed_population_16_years_and_over: 0.6
17. income and benefits in 2016 inflation adjusted dollars-households-
mean retirement income dollars households with retirement income: 0.58
18. income and benefits in 2016 inflation adjusted dollars-dollars-
median nonfamily income dollars: 0.57
19. commuting_to_work-percent-worked_at_home-of-workers 16 years and over: 0.57
20. industry-percent-finance and insurance and real estate and rental and leasing-of-
civilian employed population 16 years and over: 0.57
21. income and benefits in 2016 inflation adjusted dollars-percent-150000 to 199999-of-
total households: 0.56
22. health insurance coverage-percent-with private health insurance-of-
```

18 to 64 years unemployed civilian noninstitutionalized population: 0.56

23. income and benefits in 2016 inflation adjusted dollars-dollars-

median_household_income_dollars: 0.53

```
24. income_and_benefits_in_2016_inflation_adjusted_dollars-dollars-median_male_full-time year round workers earnings dollars: 0.53
```

25. income and benefits in 2016 inflation adjusted dollars-households-

200000 or more total households: 0.52

26. class_of_worker-percent-self_employed_in_own_not_incorporated_business_workers-of-civilian_employed_population_16_years_and_over: 0.51

27. industry-percent-

professional_scientific_and_management_and_administrative_and_waste_management_services-of-civilian_employed_population_16_years_and_over: 0.51

28. industry-percent-information-of-civilian employed population 16 years and over: 0.51

29. income_and_benefits_in_2016_inflation_adjusted_dollars-dollars-median family income dollars: 0.47

30. health_insurance_coverage-percent-with_health_insurance-of-

18_to_64_years_not_in_labor_force_civilian_noninstitutionalized_population: 0.45

31. income_and_benefits_in_2016_inflation_adjusted_dollars-percent-150000_to_199999-oftotal families: 0.44

32. industry-population-

finance_and_insurance_and_real_estate_and_rental_and_leasing_civilian_employed_population_ 16_years_and_over: 0.42

33. income_and_benefits_in_2016_inflation_adjusted_dollars-families-

200000_or_more_total_families: 0.42

34. class_of_worker-percent-private_wage_and_salary_workers-of-

civilian_employed_population_16_years_and_over: 0.42

 $35.\ employment_status-percent-employed-of-population_16_years_and_over: 0.39$

36. income_and_benefits_in_2016_inflation_adjusted_dollars-dollars-

mean_social_security_income_dollars_households_with_social_security: 0.38

37. employment_status-percent-employed-of-females_16_years_and_over: 0.37

38. commuting to work-percent-walked-of-workers 16 years and over: 0.37

39. income_and_benefits_in_2016_inflation_adjusted_dollars-percent-households_with_earnings-of-total households: 0.37

40. health_insurance_coverage-percent-18_to_64_years_employed-of-civilian noninstitutionalized population: 0.34

41. commuting to work-population-other means workers 16 years and over: 0.33

42. income_and_benefits_in_2016_inflation_adjusted_dollars-households-150000_to_199999_total_households: 0.32

43. industry-percent-wholesale_trade-of-civilian_employed_population_16_years_and_over: 0.31

44. employment_status-percent-in_labor_force-of-population_16_years_and_over: 0.29

45. employment status-percent-in civilian labor force-of-population 16 years and over: 0.29

46. commuting to work-population-walked workers 16 years and over: 0.26

47. employment status-percent-in labor force-of-females 16 years and over: 0.26

48. employment status-percent-in civilian labor force-of-females 16 years and over: 0.26

49. industry-population-information_civilian_employed_population_16_years_and_over: 0.26

50. health_insurance_coverage-percent-18_to_64_years_in_labor_force-of-civilian_noninstitutionalized_population: 0.25

51. industry-populationprofessional scientific and management and administrative and waste management services civilian employed population 16 years and over: 0.24 52. occupation-populationmanagement business science and arts occupations civilian employed population 16 years a nd over: 0.22 53. income_and_benefits_in_2016_inflation_adjusted_dollars-percent-100000_to_149999-oftotal households: 0.22 54. commuting to work-population-worked at home workers 16 years and over: 0.2 55. industry-population-wholesale_trade_civilian_employed_population_16_years_and_over: 0.16 56. income and benefits in 2016 inflation adjusted dollars-households-100000 to 149999 total households: 0.15 57. income and benefits in 2016 inflation adjusted dollars-households-nonfamily households: 0.15 58. income and benefits in 2016 inflation adjusted dollars-dollarsmean_supplemental_security_income_dollars_households_with_supplemental_security_income: 0.13 59. income and benefits in 2016 inflation adjusted dollars-families-150000 to 199999 total families: 0.13 60. class of worker-populationself_employed_in_own_not_incorporated_business_workers_civilian_employed_population_16_y ears and over: 0.11 61. industry-percent-agriculture_forestry_fishing_and_hunting_and_mining-ofcivilian_employed_population_16_years_and_over: 0.11 62. health insurance coverage-populationwith_private_health_insurance_18_to_64_years_employed_civilian_noninstitutionalized_populati on: 0.11 63. income and benefits in 2016 inflation adjusted dollars-dollarsmean cash public assistance income dollars households with cash public assistance income: 0.1 64. health insurance coverage-populationwith private health insurance civilian noninstitutionalized population: 0.09 65. employment status-percent-armed forces-of-population 16 years and over: 0.05 66. health_insurance_coverage-percent-18_to_64_years-ofcivilian noninstitutionalized population: 0.05 67. income and benefits_in_2016_inflation_adjusted_dollars-householdshouseholds with earnings: 0.04 68. health insurance coverage-populationwith_private_health_insurance_18_to_64_years_not_in_labor_force_civilian_noninstitutionalized_ population: 0.03 69. employment_status-percent-all_parents_in_family_in_labor_force-ofown children of the householder 6 to 17 years: 0.01 70. industry-populationagriculture forestry fishing and hunting and mining civilian employed population 16 years a nd over: 0.01

71. health insurance coverage-percent-with health insurance-of-

18 to 64 years unemployed civilian noninstitutionalized population: 0

```
72. health insurance coverage-percent-no health insurance-of-
18_to_64_years_unemployed_civilian_noninstitutionalized_population: 0
73. health insurance coverage-population-
with_health_insurance_18_to_64_years_employed_civilian_noninstitutionalized_population: -0.02
74. income and benefits in 2016 inflation adjusted dollars-percent-100000 to 149999-of-
total families: -0.02
75. income and benefits in 2016 inflation adjusted dollars-percent-
households with retirement income-of-total households: -0.02
76. class_of_worker-population-
private wage and salary workers civilian employed population 16 years and over: -0.02
77. income_and_benefits_in_2016_inflation_adjusted_dollars-households-total_households: -0.02
78. employment status-population-armed forces population 16 years and over: -0.04
79. income_and_benefits_in_2016_inflation_adjusted_dollars-households-
households_with_retirement_income: -0.04
80. commuting_to_work-population_workers_16_years_and_over: -0.05
81. employment status-population-employed population 16 years and over: -0.05
82. occupation-population-civilian_employed_population_16_years_and_over: -0.05
83. industry-population-civilian_employed_population_16_years_and_over: -0.05
84. class of worker-population-civilian employed population 16 years and over: -0.05
85. employment_status-population-employed_females_16_years_and_over: -0.06
86. income and benefits in 2016 inflation adjusted dollars-households-
75000 to 99999 total households: -0.08
87. income and benefits in 2016 inflation adjusted dollars-households-
households with social security: -0.09
88. employment status-percent-all parents in family in labor force-of-
own children of the householder under 6 years: -0.09
89. income and benefits in 2016 inflation adjusted dollars-percent-
households_with_social_security-of-total_households: -0.09
90. health_insurance_coverage-population-
18_to_64_years_employed_civilian_noninstitutionalized_population: -0.09
91. employment status-population-in civilian labor force population 16 years and over: -0.1
92. employment_status-population-in_labor_force_population_16_years_and_over: -0.1
93. employment status-population-in civilian labor force females 16 years and over: -0.1
94. employment status-population-in labor force females 16 years and over: -0.1
95. occupation-population-
sales and office occupations civilian employed population 16 years and over: -0.11
96. class of worker-percent-unpaid family workers-of-
civilian employed population 16 years and over: -0.12
97. health insurance coverage-population-
18 to 64 years in labor force civilian noninstitutionalized population: -0.13
98. income and benefits in 2016 inflation adjusted dollars-families-
100000 to 149999 total families: -0.14
99. health insurance coverage-population-
with private health insurance 18 to 64 years unemployed civilian noninstitutionalized popula
tion: -0.16
```

```
100. class of worker-population-
unpaid_family_workers_civilian_employed_population_16_years_and_over: -0.17
101. health insurance coverage-population-
with_health_insurance_civilian_noninstitutionalized_population: -0.17
102. employment status-population-population 16 years and over: -0.17
103. industry-percent-manufacturing-of-civilian employed population 16 years and over: -0.18
104. industry-population-manufacturing_civilian_employed_population_16_years_and_over: -0.18
105. employment status-population females 16 years and over: -0.18
106. commuting_to_work-population-
public transportation excluding taxicab workers 16 years and over: -0.18
107. occupation-percent-sales_and_office_occupations-of-
civilian_employed_population_16_years_and_over: -0.19
108. health_insurance_coverage-population-
18 to 64 years civilian noninstitutionalized population: -0.19
109. income_and_benefits_in_2016_inflation_adjusted_dollars-percent-75000_to_99999-of-
total households: -0.21
110. income and benefits in 2016 inflation adjusted dollars-households-
50000_to_74999_total_households: -0.21
111. health_insurance_coverage-population-civilian_noninstitutionalized_population: -0.21
112. commuting to work-population-car truck or van alone workers 16 years and over: -0.22
113. income and benefits in 2016 inflation adjusted dollars-families-total families: -0.24
114. commuting to work-percent-car truck or van alone-of-workers 16 years and over: -0.24
115. industry-population-
educational services and health care and social assistance civilian employed population 16 y
ears and over: -0.26
116. income and benefits in 2016 inflation adjusted dollars-percent-75000 to 99999-of-
total_families: -0.26
117. industry-population-retail trade civilian employed population 16 years and over: -0.29
118. commuting_to_work-population-car_truck_or_van_carpooled_workers_16_years_and_over: -
0.29
119. employment_status-percent-not_in_labor_force-of-population_16_years_and_over: -0.29
120. employment status-population-not in labor force population 16 years and over: -0.29
121. income_and_benefits_in_2016_inflation_adjusted_dollars-households-
35000_to_49999_total_households: -0.3
122. commuting to work-percent-car truck or van carpooled-of-workers 16 years and over: -
0.3
123. industry-population-
public administration civilian employed population 16 years and over: -0.3
124. health insurance coverage-population-
with_health_insurance_18_to_64_years_not_in_labor_force_civilian_noninstitutionalized_populati
on: -0.31
125. employment status-population own children of the householder under 6 years: -0.33
126. health insurance coverage-population-
18 to 64 years not in labor force civilian noninstitutionalized population: -0.33
```

```
127. industry-population-
arts_entertainment_and_recreation_and_accommodation_and_food_services_civilian_employed_
population 16 years and over: -0.34
128. employment_status-population-
all parents in family in labor force own children of the householder under 6 years: -0.34
129. industry-percent-public administration-of-civilian employed population 16 years and over:
-0.36
130. health insurance coverage-percent-18 to 64 years not in labor force-of-
civilian_noninstitutionalized_population: -0.36
131. income and benefits in 2016 inflation adjusted dollars-families-
75000 to 99999 total families: -0.36
132. health insurance coverage-percent-no health insurance-of-
under_18_years_civilian_noninstitutionalized_population: -0.38
133. income and benefits in 2016 inflation adjusted dollars-households-
15000_to_24999_total_households: -0.38
134. industry-population-
other services except public administration civilian employed population 16 years and over:
-0.38
135. income and benefits in 2016 inflation adjusted dollars-households-
25000_to_34999_total_households: -0.39
136. health insurance coverage-percent-under 18 years-of-
civilian noninstitutionalized population: -0.39
137. income_and_benefits_in_2016_inflation_adjusted_dollars-households-
less_than_10000_total_households: -0.4
138. industry-percent-retail trade-of-civilian employed population 16 years and over: -0.4
139. health insurance coverage-population-
no health insurance under 18 years civilian noninstitutionalized population: -0.4
140. health insurance coverage-population-
under 18 years civilian noninstitutionalized population: -0.41
141. industry-population-construction civilian employed population 16 years and over: -0.41
142. employment status-population own children of the householder 6 to 17 years: -0.42
143. income_and_benefits_in_2016_inflation_adjusted_dollars-households-
10000 to 14999 total households: -0.42
144. employment_status-population-
all parents in family in labor force own children of the householder 6 to 17 years: -0.43
145. people_whose_income_in_past_12m_is_below_poverty_level-percent-
married couple families with 5 years only related children under-of-all families: -0.43
146. people whose income in past 12m is below poverty level-percent-65 years and over-
of-all people: -0.44
147. health insurance coverage-population-no health insurance-
18_to_64_years_unemployed_civilian_noninstitutionalized_population: -0.44
148. class of worker-population-
government_workers_civilian_employed_population_16_years_and_over: -0.45
149. industry-percent-construction-of-civilian_employed_population_16_years_and_over: -0.45
150. health_insurance_coverage-percent-no_health_insurance-of-
18 to 64 years not in labor force civilian noninstitutionalized population: -0.45
```

```
151. health insurance coverage-population-
no health insurance 18 to 64 years not in labor force civilian noninstitutionalized populatio
n: -0.45
152. employment_status-population-unemployed_population_16_years_and_over: -0.46
153. health insurance coverage-population-
with public health insurance civilian noninstitutionalized population: -0.46
154. income and benefits in 2016 inflation adjusted dollars-percent-35000 to 49999-of-
total households: -0.47
155. industry-percent-educational_services_and_health_care_and_social_assistance-of-
civilian_employed_population_16_years_and_over: -0.47
156. health_insurance_coverage-population-
18 to 64 years unemployed civilian noninstitutionalized population: -0.48
157. health_insurance_coverage-population-
with health insurance 18 to 64 years unemployed civilian noninstitutionalized population: -
0.48
158. industry-percent-
arts entertainment and recreation and accommodation and food services-of-
civilian employed population 16 years and over: -0.48
159. occupation-population-
natural_resources_construction_and_maintenance_occupations_civilian_employed_population_16
_years_and_over: -0.48
160. income_and_benefits_in_2016_inflation_adjusted_dollars-households-
households with cash public assistance income: -0.48
161. income_and_benefits_in_2016_inflation_adjusted_dollars-households-
households with supplemental security income: -0.49
162. income and benefits in 2016 inflation adjusted dollars-families-
10000 to 14999 total families: -0.49
163. people whose income in past 12m is below poverty level-percent-
married couple families-of-all families: -0.5
164. people whose income in past 12m is below poverty level-percent-
married_couple_families_with_under_18_years_related_children-of-all_families: -0.5
165. income_and_benefits_in_2016_inflation_adjusted_dollars-families-
less_than_10000_total_families: -0.5
166. income and benefits in 2016 inflation adjusted dollars-families-
50000 to 74999 total families: -0.5
167. commuting to work-percent-public transportation excluding taxicab-of-
workers 16 years and over: -0.5
168. health insurance coverage-population-
no health insurance civilian noninstitutionalized population: -0.51
169. people whose income in past 12m is below poverty level-percent-
families with female householder no husband with under 18 years related children-of-
all families: -0.51
170. income_and_benefits_in_2016_inflation_adjusted_dollars-percent-50000_to_74999-of-
total households: -0.51
171. health_insurance_coverage-population-
no health insurance 18 to 64 years employed civilian noninstitutionalized population: -0.51
172. income_and_benefits_in_2016_inflation_adjusted_dollars-percent-15000_to_24999-of-
total households: -0.51
```

```
173. income and benefits in 2016 inflation adjusted dollars-families-
35000_to_49999_total_families: -0.51
174. occupation-population-
service occupations civilian employed population 16 years and over: -0.52
175. health insurance coverage-percent-with public health insurance-of-
civilian noninstitutionalized population: -0.52
176. income and benefits in 2016 inflation adjusted dollars-families-
15000 to 24999 total families: -0.53
177. industry-population-
transportation and warehousing and utilities civilian employed population 16 years and over
: -0.53
178. occupation-population-
production_transportation_and_material_moving_occupations_civilian_employed_population_16_
years and over: -0.53
179. people whose income in past 12m is below poverty level-percent-
families_with_female_householder_no_husband_with_under_5_years_only_related_children-of-
all families: -0.53
180. income and benefits in 2016 inflation adjusted dollars-percent-25000 to 34999-of-
total households: -0.53
181. health_insurance_coverage-population-
with public health insurance 18 to 64 years not in labor force civilian noninstitutionalized
population: -0.53
182. income_and_benefits_in_2016_inflation_adjusted_dollars-families-
25000 to 34999 total families: -0.54
183. income_and_benefits_in_2016_inflation_adjusted_dollars-households-
households with food stampsnap benefits in the past 12 months: -0.54
184. health insurance coverage-population-
with public health insurance 18 to 64 years employed civilian noninstitutionalized populatio
n: -0.54
185. income and benefits in 2016 inflation adjusted dollars-percent-less than 10000-of-
total families: -0.55
186. people_whose_income_in_past_12m_is_below_poverty_level-percent-
families with under 5 years only related children-of-all families: -0.55
187. people_whose_income_in_past_12m_is_below_poverty_level-percent-
related children 5 to 17 years-of-all people: -0.56
188. health_insurance_coverage-percent-with_public_health_insurance-of-
18 to 64 years unemployed civilian noninstitutionalized population: -0.56
189. occupation-percent-natural resources construction and maintenance occupations-of-
civilian employed population 16 years and over: -0.56
190. employment status-percent-unemployed-of-population 16 years and over: -0.57
191. income and benefits in 2016 inflation adjusted dollars-percent-35000 to 49999-of-
total families: -0.57
192. health insurance coverage-population-
with public health insurance 18 to 64 years unemployed civilian noninstitutionalized populat
ion: -0.57
193. income and benefits in 2016 inflation adjusted dollars-percent-10000 to 14999-of-
total households: -0.57
```

```
194. people whose income in past 12m is below poverty level-percent-
families_with_female_householder_no_husband-of-all_families: -0.58
195. income and benefits in 2016 inflation adjusted dollars-percent-10000 to 14999-of-
total families: -0.58
196. income and benefits in 2016 inflation adjusted dollars-percent-
with cash public assistance income-of-total households: -0.58
197. people whose income in past 12m is below poverty level-percent-
related_children_under_18_years-of-all_people: -0.58
198. income_and_benefits_in_2016_inflation_adjusted_dollars-percent-15000_to_24999-of-
total families: -0.58
199. income and benefits in 2016 inflation adjusted dollars-percent-less than 10000-of-
total households: -0.58
200. income and benefits in 2016 inflation adjusted dollars-percent-
households with supplemental security income-of-total households: -0.59
201. health insurance coverage-percent-18 to 64 years unemployed-of-
civilian noninstitutionalized population: -0.59
202. industry-percent-transportation and warehousing and utilities-of-
civilian employed population 16 years and over: -0.59
203. occupation-percent-production transportation and material moving occupations-of-
civilian_employed_population_16_years_and_over: -0.59
204. people whose income in past 12m is below poverty level-percent-under 18 years-of-
all people: -0.59
205. employment_status-percent-unemployed-of-
civilian labor force population 16 years and over: -0.59
206. income_and_benefits_in_2016_inflation_adjusted_dollars-percent-50000_to_74999-of-
total families: -0.59
207. people_whose_income_in_past_12m_is_below_poverty_level-percent-
related children under 5 years-of-all people: -0.59
208. people_whose_income_in_past_12m_is_below_poverty_level-percent-people_in_families-of-
all families: -0.6
209. industry-percent-other_services_except_public_administration-of-
civilian_employed_population_16_years_and_over: -0.6
210. class of worker-percent-government workers-of-
civilian_employed_population_16_years_and_over: -0.61
211. people whose income in past 12m is below poverty level-percent-families-of-
all families: -0.62
212. people whose income in past 12m is below poverty level-percent-
families with under 18 years related children-of-all families: -0.62
213. health insurance coverage-percent-with public health insurance-of-
18 to 64 years not in labor force civilian noninstitutionalized population: -0.62
214. people_whose_income_in_past_12m_is_below_poverty_level-percent-
unrelated_individuals_15_years_and_over-of-all_families: -0.62
215. income_and_benefits_in_2016_inflation_adjusted_dollars-percent-
households with food stampsnap benefits in the past 12 months-of-total households: -0.62
216. people_whose_income_in_past_12m_is_below_poverty_level-percent-18_to_64_years-of-
all people: -0.62
217. people whose income in past 12m is below poverty level-percent-18 years and over-
of-all people: -0.62
```

- 218. occupation-percent-service_occupations-of-civilian_employed_population_16_years_and_over: -0.62
- $219.\ income_and_benefits_in_2016_inflation_adjusted_dollars-percent-25000_to_34999-oftotal_families: -0.63$
- 220. health_insurance_coverage-percent-with_public_health_insurance-of-
- 18_to_64_years_employed_civilian_noninstitutionalized_population: -0.63
- 221. people_whose_income_in_past_12m_is_below_poverty_level-percent-people-of-all_people: 0.63
- 222. commuting_to_work-minutes-mean_travel_time_to_work_minutes: -0.65
- 223. health_insurance_coverage-percent-no_health_insurance-of-
- 18_to_64_years_employed_civilian_noninstitutionalized_population: -0.65
- ${\tt 224.\ health_insurance_coverage-percent-no_health_insurance-of-}$

civilian_noninstitutionalized_population: -0.67