



The following is an excerpt from the Winter 2020-21 edition of The Linneman Letter.

Follow the Flight of the Butterfly

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Change in Unemployment Rates			
MSA	Feb-20	Oct-20	Change (bps)
New York City	3.4	13.2	980
Westchester County/N.NJ	3.5	10.9	740
Los Angeles	4.3	12.3	800
Boston	2.5	7.0	450
Las Vegas	3.7	13.9	1,020
Orlando	2.8	8.2	540
Miami	1.8	8.9	710
Long Island	3.6	6.6	300
Ft. Lauderdale	2.8	7.4	460
Pittsburgh	4.7	7.2	250
Philadelphia	4.4	7.5	310
Orange County	2.7	7.6	490
San Diego	3.0	7.8	480
Inland Empire	3.9	8.8	490
San Francisco	2.5	7.3	480
Chicago	3.4	8.0	460
West Palm Beach	3.1	6.4	330
Sacramento	3.4	7.7	430
Portland	3.2	6.9	370
Cleveland	4.1	6.5	240
Tampa	2.9	5.8	290
Fresno	6.9	9.9	300
Nashville	2.6	6.2	360
San Jose	2.5	6.0	350
Charleston	2.1	3.9	180
Fairfield County	3.8	6.6	280
Seattle	3.1	5.9	280
Phoenix	3.9	7.7	380
Charlotte	3.3	6.3	300
Jacksonville	2.9	5.2	230
Houston	3.8	8.0	420
Minneapolis	2.8	4.8	200
Denver	2.4	6.7	430
Detroit	3.9	6.2	230
Atlanta	3.0	4.7	170
Indianapolis	2.8	5.4	260
Washington, D.C.	2.9	6.9	400
Raleigh	3.2	5.6	240
Columbus	3.6	5.0	140
Durham	3.2	5.5	230
St. Louis	3.5	4.9	140
Dallas/Fort Worth	3.2	6.3	310
Austin	2.6	5.2	260
Cincinnati	3.7	5.5	180
Baltimore	3.4	7.3	390
Kansas City	3.3	5.2	190

figure 1

In October 2020, non-farm job openings stood at about 6.7 million, up by nearly 1.7 million since April but still 352,000 below the February 2020 level. The current level represents a decrease of 657,000 (9%) versus the previous year. Compare this to the 10.7 million unemployed based on the November 2020 Household Survey. No longer are there more job openings today than people actively seeking employment. This will be the case for the next 3 years.

In Figure 2, MSAs are sorted by October 2020 unemployment rates (latest available), with significant improvements since our spring issue when we reported July numbers. Last quarter, only Austin had broken into the "Solid" category (defined as unemployment rates of 5.5%-7%), while the rest were split between "Weak" (7-9%) and in "Recession" (>9%). As of Octo-

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ber, Charleston's unemployment rate of 3.9% placed it unaccompanied in the "Red Hot" category (below 4%), while nine markets led by Atlanta, Minneapolis, and St. Louis are "Hot" (4%-5.4%), and 17 markets have "Solid" unemployment rates (5.5%-7%). In the bottom tiers, 14 covered markets are categorized as "Weak" (7.1%-9%), and five are in "Recession" (above 9% unemployment rates). The covered markets with the highest unemployment rates in October 2020 were Las Vegas, New York City, Los Angeles, NY/NJ, Fresno,

Miami, and the Inland Empire. While the overall picture is still bleak compared to the heady days of a year ago, local economies are slowly crawling back.

We track the recovery of jobs lost due to the COVID-19 shutdown for each MSA. Comparing February-to-October net changes in seasonally-adjusted MSA unemployment rates, Las Vegas (+1,020 bps), New York City (+980 bps), Los Angeles (+800 bps), Westchester County, NY (+740 bps), and Miami (+710 bps) saw the greatest increases. Columbus and St. Louis

Metropolitan Area Employment Growth Employer Payroll Survey versus Household Survey									
Jobs in Thousands	Payroll Survey					Household Survey			
	Unemp. Rate	Jobs Lost During Covid-19	% Jobs Lost	Jobs Regained To Date*	Latest % Regained*	Jobs Lost During Covid-19	% Jobs Lost	Jobs Regained To Date*	Latest % Regained*
U.S.	6.7	22,160	14.5	12,326	56	25,400	16.0	16,329	64
RED HOT									
Charleston	3.9	56	15	27	49	52	13	37	72
HOT									
Atlanta	4.7	337	12	224	66	483	16	378	78
Minneapolis	4.8	274	13	141	51	180	9	64	36
St. Louis	4.9	168	12	89	53	181	13	94	52
Columbus	5.0	162	14	80	49	160	15	139	87
Austin	5.2	133	12	100	76	238	19	195	82
Jacksonville	5.2	92	12	57	62	149	19	100	67
Kansas City	5.2	126	11	75	59	121	11	70	58
Indianapolis	5.4	131	12	101	77	192	18	170	88
Durham	5.5	44	13	22	51	50	17	31	62
SOLID									
Cincinnati	5.5	176	16	118	67	175	16	155	88
Raleigh	5.6	99	15	51	51	133	19	78	58
Tampa	5.8	176	12	102	58	300	20	197	66
Seattle	5.9	333	16	171	51	333	16	250	75
San Jose	6.0	151	13	74	49	135	13	92	68
Nashville	6.2	150	14	86	57	203	19	123	60
Detroit	6.2	503	24	302	60	593	28	487	82
Dallas/Fort Worth	6.3	409	11	267	65	695	18	549	79
Charlotte	6.3	175	14	96	55	233	17	146	63
West Palm Beach	6.4	103	16	57	56	160	22	103	65
Cleveland	6.5	186	17	88	47	209	21	155	74
Fairfield County	6.6	80	20	42	52	70	15	31	45
Long Island	6.6	298	22	178	60	255	18	138	54
Denver	6.7	183	12	120	66	226	14	142	63
Washington, D.C.	6.9	292	10	121	42	368	11	108	29
Portland	6.9	164	13	71	44	153	12	116	76
Boston	7.0	505	18	232	46	648	23	365	56
WEAK									
Pittsburgh	7.2	226	19	132	58	186	16	108	58
Baltimore	7.3	217	15	116	53	202	14	66	33
San Francisco	7.3	400	16	143	36	394	15	212	54
Ft. Lauderdale	7.4	131	15	66	50	218	21	131	60
Philadelphia	7.5	489	16	273	56	402	13	212	53
Orange County	7.6	275	16	125	46	255	16	169	66
Phoenix	7.7	218	10	145	67	288	12	156	54
Sacramento	7.7	147	14	70	48	157	15	110	70
San Diego	7.8	229	15	109	48	229	15	156	68
Houston	8.0	365	11	163	45	621	19	430	69
Chicago	8.0	636	13	278	44	806	17	433	54
Orlando	8.2	233	17	100	43	325	24	173	53
Inland Empire	8.8	208	13	93	45	279	14	193	69
Miami	8.9	162	13	82	51	285	21	139	49
RECESSION									
Fresno	9.9	45	12	19	42	51	12	36	70
Westchester County/N.J.	10.9	1,534	21	704	46	1,296	19	458	35
Los Angeles	12.3	727	16	306	42	1,217	25	715	59
New York City	13.2	944	20	349	37	914	23	315	34
Las Vegas	13.9	252	24	137	54	412	37	284	69

*MSA Payroll and Household Survey data are seasonally-adjusted through October 2020.

U.S. data is seasonally-adjusted through November 2020. Source: BLS, Linneman Associates.

figure 2

Change in Payroll Employment Due to Shutdown

<i>Jobs in 000s</i>	Feb-20	Oct-20	Change	% Change
Atlanta-Sandy Springs-Marietta, GA MSA	2,881.7	2,775.3	-106.4	-3.7%
Austin-Round Rock-San Marcos, TX MSA	1,139.7	1,107.6	-32.1	-2.8%
Baltimore-Towson, MD MSA	1,444.2	1,343.4	-100.8	-7.0%
Boston-Cambridge-Quincy, MA-NH Met NECTA	2,827.6	2,554.6	-273.0	-9.7%
Bridgeport-Stamford-Norwalk, CT Met NECTA	406.4	369.8	-36.6	-9.0%
Charleston-North Charleston-Summerville, SC	380.3	352.5	-27.8	-7.3%
Charlotte-Gastonia-Rock Hill, NC-SC MSA	1,243.7	1,174.2	-69.5	-5.6%
Chicago-Naperville-Elgin, IL-IN-WI	4,779.1	4,426.1	-353.0	-7.4%
Cincinnati-Middletown, OH-KY-IN MSA	1,122.2	1,067.3	-54.9	-4.9%
Cleveland-Elyria-Mentor, OH MSA	1,079.2	983.3	-95.9	-8.9%
Columbus, OH MSA	1,123.2	1,041.2	-82.0	-7.3%
Dallas-Fort Worth-Arlington, TX MSA	3,864.8	3,723.5	-141.3	-3.7%
Denver-Aurora-Broomfield, CO MSA	1,559.3	1,497.2	-62.1	-4.0%
Detroit-Warren-Livonia, MI MSA	2,054.0	1,853.6	-200.4	-9.8%
Durham-Chapel Hill, NC MSA	326.1	304.8	-21.3	-6.5%
Fort Lauderdale-Pompano Beach-Deerfield Beach, FL Met Div	867.8	804.7	-63.1	-7.3%
Fresno, CA MSA	365.3	340.7	-24.6	-6.7%
Houston-Sugar Land-Baytown, TX MSA	3,220.6	3,018.2	-202.4	-6.3%
Indianapolis-Carmel, IN MSA	1,097.2	1,067.3	-29.9	-2.7%
Jacksonville, FL MSA	740.2	705.4	-34.8	-4.7%
Kansas City, MO-KS MSA	1,105.6	1,054.6	-51.0	-4.6%
Las Vegas-Paradise, NV MSA	1,038.9	928.8	-110.1	-10.6%
Los Angeles-Long Beach-Glendale, CA Met Div	4,632.6	4,212.2	-420.4	-9.1%
Miami-Miami Beach-Kendall, FL Met Div	1,222.9	1,143.7	-79.2	-6.5%
Minneapolis-St. Paul-Bloomington, MN-WI MSA	2,033.4	1,904.5	-128.9	-6.3%
Nashville-Davidson-Murfreesboro-Franklin, TN MSA	1,069.1	1,004.5	-64.6	-6.0%
Nassau-Suffolk, NY Met Div	1,356.3	1,237.9	-118.4	-8.7%
New York City	4,698.1	4,103.4	-594.7	-12.7%
New York-White Plains-Wayne, NY-NJ Met Div	7,220.4	6,529.4	-691.0	-9.6%
Orlando-Kissimmee-Sanford, FL MSA	1,344.3	1,212.5	-131.8	-9.8%
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD MSA	2,999.1	2,783.1	-216.0	-7.2%
Phoenix-Mesa-Glendale, AZ MSA	2,221.6	2,148.7	-72.9	-3.3%
Pittsburgh, PA MSA	1,201.3	1,107.2	-94.1	-7.8%
Portland-Vancouver-Hillsboro, OR-WA MSA	1,230.4	1,137.8	-92.6	-7.5%
Raleigh-Cary, NC MSA	662.7	614.1	-48.6	-7.3%
Riverside-San Bernardino-Ontario, CA MSA	1,549.5	1,438.7	-110.8	-7.2%
Sacramento-Arden-Arcade-Roseville, CA MSA	1,029.4	952.8	-76.6	-7.4%
San Diego-Carlsbad-San Marcos, CA MSA	1,522.9	1,403.4	-119.5	-7.8%
San Francisco-Oakland-Fremont, CA MSA	2,503.2	2,246.4	-256.8	-10.3%
San Jose-Sunnyvale-Santa Clara, CA MSA	1,157.8	1,081.6	-76.2	-6.6%
Santa Ana-Anaheim-Irvine, CA Met Div	1,684.1	1,534.6	-149.5	-8.9%
Seattle-Tacoma-Bellevue, WA MSA	2,116.2	1,958.1	-158.1	-7.5%
St. Louis, MO-IL MSA	1,399.7	1,324.2	-75.5	-5.4%
Tampa-St. Petersburg-Clearwater, FL MSA	1,412.8	1,338.7	-74.1	-5.2%
Washington-Arlington-Alexandria, DC-VA-MD-WV MSA	2,784.4	2,613.9	-170.5	-6.1%
West Palm Beach-Boca Raton-Boynton Beach, FL Met Div	642.0	598.5	-43.5	-6.8%

Source: U.S. BLS, Linneman Associates

figure 3

(each +140 bps), Atlanta (+170 bps), and Cincinnati and Charleston (each +180 bps) experienced the smallest net increases in unemployment rates between February and October 2020. The average and median eight-month increases in covered MSA unemployment rates were 380 bps and 320 bps, respectively.

In all 46 markets we track, the shutdown resulted in widespread and unprecedented job losses. After a decade of growth, all covered MSAs suffered epic job losses but are climbing out of the COVID hole. On an absolute basis, the MSAs that lost the most jobs between their respective pre-COVID peaks and COVID lows were the NY/NJ metro area (1.5 million of which 944,000 were in NYC), Los Angeles (727,000), Chicago (636,000), Boston (505,000), and Detroit (503,000). The smallest absolute COVID-related job losses through October were seen in Durham (44,000), Fresno (45,000), Charleston (56,000), Bridgeport (80,000), and Jacksonville (92,000).

On a percentage basis, the largest job losses during the shutdown were in Detroit and Las Vegas (each 24%), the NY/NJ metro area (21%), Bridgeport (20%), and Pittsburgh (20%). In contrast, the MSAs with the smallest percentage job losses include Phoenix and D.C. (each 10%) and Dallas-Ft. Worth, Houston, and Kansas City (each 11%).

Through October 2020, the markets that have regained the most jobs from their 2020 troughs on an absolute basis are NY/NJ (704,000 jobs, 46% of those lost), Los Angeles (306,000, 42%), Detroit (302,000, 60%), Chicago (278,000, 44%), and Philadelphia (273,000, 56%). On a percentage basis, the MSAs that recovered the most jobs lost to COVID through October 2020 include Indianapolis (77% of jobs lost during the shutdown recovered), Austin (76%), Cincinnati and Phoenix (each 67%), Atlanta and Denver (each 66%), and Dallas-Ft. Worth (65%).

About Dr. Peter Linneman

Dr. Linneman, who holds both Masters and Doctorate degrees in economics from the University of Chicago, is the Principal of Linneman Associates. For nearly four decades, he has provided strategic and financial advice to leading corporations. Through Linneman Associates, he provides strategic and M&A analysis, market studies, and feasibility analysis to a number of leading U.S. and international companies. In addition, he serves as an advisor to and a board member of several public and private firms.

Dr. Linneman is the author of the leading real estate finance textbook, *Real Estate Finance and Investments: Risks and Opportunities*, now in its fifth edition. His teaching and research focuses on real estate and investment strategies, mergers and acquisitions, and international markets. He has published over 100 articles during his career. He is widely recognized as one of the leading strategic thinkers in the real estate industry.

He also served as the Albert Sussman Professor of Real Estate, Finance, and Business and Public Policy at the Wharton School of Business at the University of Pennsylvania until his retirement in 2011. A member of Wharton's faculty since 1979, he served as the founding chairman of Wharton's Real Estate Department and the Director of Wharton's Zell-Lurie Real Estate Center for 13 years. He is the founding co-editor of *The Wharton Real Estate Review*.

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