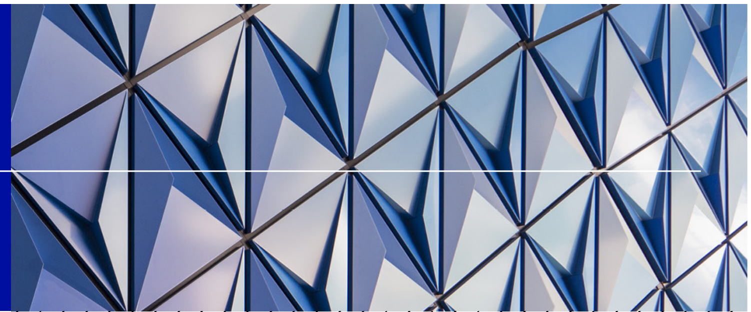


RESEARCH Q3 2021

National Office Market

Fundamentals Show Early Signs of Recovery but Worsening Public Health Conditions Slow Growth

The U.S. office market began showing signs of a modest recovery in the third quarter of 2021. Although vaccine distribution in the second quarter raised expectations of a robust near-term recovery, the rapid spread of the Delta variant stunted office market momentum. National office market fundamentals remained contractionary in the third quarter, but pressure on occupancy has softened relative to recent quarters.

Net absorption measured negative 3.9 million square feet in the third quarter, which is the smallest quarterly contraction since first-quarter 2020. Limited occupancy loss resulted in a flattening of vacancy growth, which increased just 34 basis points on the quarter, to 16.6%. New construction deliveries slowed, measuring 7.2 million square feet on the quarter. The national construction pipeline has been contracting over the last year, but 85.1 million square feet is still actively under construction and those deliveries will apply some pressure to office market fundamentals upon completion.

Asking rents have continued to increase since the pandemic began; however, the rate of growth has slowed in each of the last four quarters. Average asking rents rose 2.0% over the past year, reaching $30.79/SF. Although the national construction pipeline is slowly contracting, it remains large enough that it continues to drive rent appreciation, despite the pandemic's headwinds. Conversely, net effective rents have steadily declined due to the growing prevalence of generous concession packages aimed at attracting and retaining tenancy.

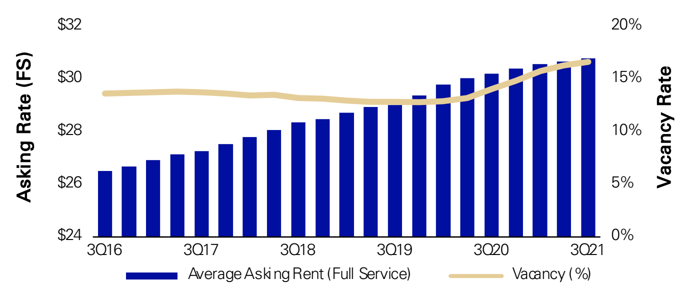
The spread of the Delta variant throughout the third quarter caused many firms to delay planned real estate initiatives, including office re-boarding efforts and engaging in new real estate planning. It has become increasingly clear that the recovery of the nation's office market will be dictated by public health conditions related to COVID-19. Pent-up office demand accumulated throughout the pandemic should begin to loosen once firms are able to safely reoccupy their offices. Vaccine mandates are becoming an increasingly common tool to accelerate office re-boarding timelines. During the third quarter, the Labor Department began crafting new regulations which would mandate large private firms to require employees be vaccinated or administer regular testing for unvaccinated workers. While this new federal regulation has not been approved and it may be challenged by local jurisdictions, many large office-occupying firms have voluntarily instituted similar policies, including Google, Morgan Stanley, Facebook, and Deloitte.

Current Conditions

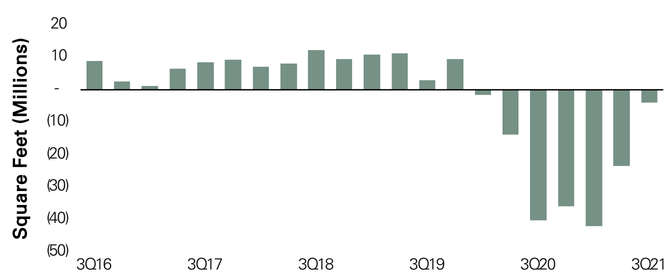
- While year-to-date net absorption measured negative 69.3 million square feet, the severity of occupancy loss has softened over the last six-months. Third-quarter net absorption was negative 3.9 million square feet.
- The vacancy rate increased by just 34 basis points on the quarter, reaching 16.6% in the third quarter.
- New construction deliveries have contributed to 2.0% annual rent growth, despite pandemic-induced slow demand. Asset owners are maintaining face rents, which averaged $30.79/SF in third-quarter, while offering robust concessions, which are creating downward pressure on effective rents.
- Third-quarter deliveries added 7.2 million square feet to market inventory and 85.1 million square feet remains under active construction.

Market Analysis

ASKING RENT AND VACANCY RATE



NET ABSORPTION



Market Summary

	Current Quarter	Prior Quarter	Prior Year	12-Month Forecast
Total Inventory (SF)	5.0 B	5.0 B	4.9 B	↑
Vacancy Rate	16.6%	16.3%	14.1%	↑
Quarterly Net Absorption (SF)	-3.9 M	-23.5 M	-41.9 M	↑
Average Asking Rent/SF (FS)	$30.79	$30.66	$30.19	→
Under Construction (SF)	85.1 M	83.0 M	99.2 M	↓
Deliveries (SF)	7.2 M	11.7 M	11.2 M	↑

Absorption Modestly Negative, Supported by Small and Mid-Market Expansion

Third-quarter absorption was negative for the seventh consecutive quarter, but the severity of the contraction has softened over the last six months. Net absorption measured negative 3.9 million square feet in the third quarter and negative 69.3 million square feet year-to-date. Relative to past quarters, a growing number of U.S. markets recorded positive occupancy growth in the third quarter; 26 of the 56 markets tracked by Newmark recorded positive absorption in the third quarter, led by Seattle, Phoenix, and Austin. Some gateway markets continue to lag in overall market recovery and are generally still exhibiting large occupancy losses. Ten markets measured negative absorption of more than 500,000 square feet in the third quarter, led by Houston, Dallas, Chicago, and Philadelphia.

Although net absorption remains contractionary in the third quarter, the magnitude of the occupancy losses was relatively modest. The most important factors driving this trend have been the vaccines and, prior to the spread of Delta, controlled public health conditions, which boosted optimism among business leaders that normalcy is attainable in the near term. This change in perspective has resulted in static sublease availability and some loosening of pent-up demand. Additional leasing activity is expected as public health conditions improve further, which will eventually shift the balance of net occupancy to expansion; a trend which is already underway in some small and mid-sized U.S. markets. Six Newmark-tracked markets have recorded net absorption of more than 500,000 square feet over the last six months, including Phoenix, Nashville, Las Vegas, Austin, Charlotte, and San Diego. While these more agile markets can serve as a recovery indicator for larger metro areas, office occupiers will continue to actively assess their real estate needs and balance greater remote work privileges with the desire to foster corporate culture and mentorship through in-office work.

Construction Cycle Slows Amid Decreased Activity and Continued Pandemic Pressures

Construction deliveries totaled 7.2 million square feet in the third quarter, bringing the year-to-date deliveries to 30.1 million square feet. Six markets recorded at least 500,000 square feet of new deliveries this quarter, including two markets with at least 1 million square feet: Silicon Valley and Manhattan. Four markets recorded more than 2 million square feet of deliveries thus far in 2021.

The nation's construction pipeline has begun to contract, a result of the natural ebbs and flows of construction cycles, and the limited number of ground breaks since the onset of the pandemic. Though the construction pipeline is contracting, 85.1 million square feet remain under construction, down from a peak of 99.2 million square feet one year ago, but up from 83.0 million square feet in second-quarter 2021. The most active markets with more than 5 million square feet of space currently under construction are Manhattan, Seattle, Boston, and Washington D.C. Manhattan leads the way, with an active construction pipeline of more than 13.6 million square feet. Office space under construction equals just 1.7% of existing inventory nationally, which is effectively unchanged from last quarter. Only three markets have construction pipelines greater than 4.0% of the existing inventory – Seattle, Silicon Valley, and Charlotte.

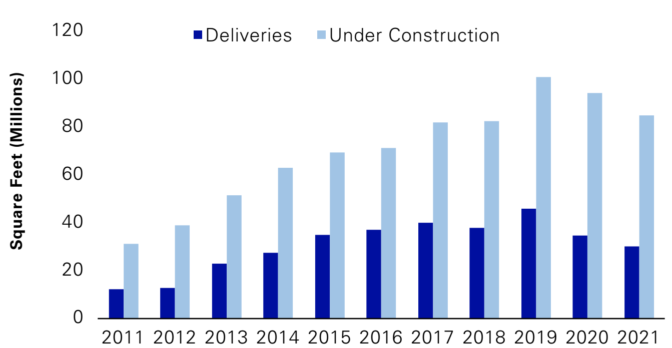
The construction pipeline is reasonably controlled compared to prior recovery periods yet is also likely too large to facilitate a rapid market tightening, given the sluggish demand. Furthermore, tenant demand for quality – a leading driver for construction activity prior to the pandemic – is expected to remain a motivator for developers as firms begin to re-engage in real estate planning activities. On balance, the construction pipeline will contract in the coming quarters, but some developers are expected to cautiously continue undertaking select new construction projects to meet the evolving demands of quality-focused tenants. Assets that do not feature strong amenities and flexibility – particularly those that are older and lack health/wellness features, including high quality air circulation – may have more difficulty leasing, given the preferences of modern tenants and increased competition in oversupplied markets.

Vacancy Growth Moderates; Permanent Remote Work Plans Challenge Long-Term Space Needs

The national vacancy rate increased by 258 basis points in the past year to 16.6%. Annual increases to vacancy were recorded in 55 of the 56 markets tracked by Newmark. Only Las Vegas recorded vacancy contraction over the last year, falling 69 basis points to 12.5%. Vacancy growth has been slowing, however, increasing by only 34 basis points between the second and third-quarters. Since the second-quarter, 16 markets have recorded decreasing vacancy, including Las Vegas, Phoenix, and Jacksonville. Conversely, several markets recorded rising vacancy, and nine markets still hold vacancy rates above 20.0% - three more than last quarter - including Houston, Dallas, Atlanta, Fairfield County (CT), Denver, and Chicago.

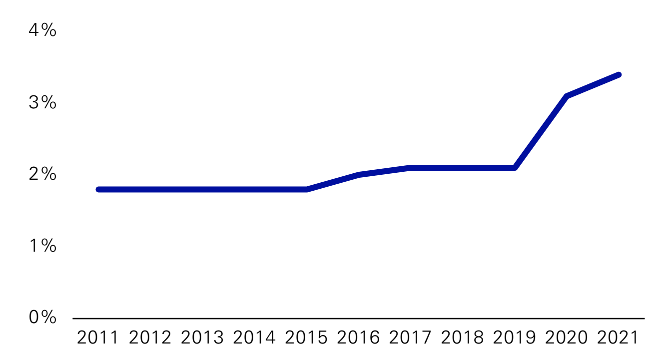
Construction and Deliveries

United States Office Market



Sublease Availability Rate

United States Office Market



The Washington D.C. market holds the largest share of vacant square footage at 67.7 million square feet, followed by Dallas with 64.5 million square feet, and Houston with 61.5 million square feet. Four markets have registered vacancy increases greater than 500 basis points over the last year. San Francisco leads all markets, recording vacancy growth of 650 basis points since third-quarter 2020, followed by Charlotte, Denver, and Silicon Valley. Vacancy should moderate in most markets, particularly once firms begin to enact return-to-office policies; however, several large firms have announced permanent remote work plans. Permanent remote working is not expected to be common among office occupiers, but some firms with multi-market exposure, including PwC, Google, and Amazon, have announced plans to permit a significant number of employees to indefinitely work in a remote capacity. Although the ability of permanent remote work will be dictated by the function of the position or business unit, the adoption of liberal remote work policies will challenge some office markets. Metro areas heavily invested in the technology sector remain the most exposed to the impact of remote working. The impact of this is evident in the rapid pace of vacancy growth and elevated sublease availability rates in markets such as San Francisco, Denver, and Silicon Valley.

Average Asking Rents Continue Steady Rise; Concessions Suppress Effective Rents

The national average asking rent closed the third quarter at $30.79/SF gross full service, an increase of 2.0% over the past year. Rents have been on the rise throughout the pandemic; however, the growth rate has diminished in each of the last four quarters. Suppressed rent growth can be attributed to several factors, including the contracting construction pipeline and the prolonged nature of the pandemic's impact on leasing velocity, particularly in the largest office markets.

San Francisco and Manhattan continue to lead the nation as the two most expensive markets by asking rents, but both markets have seen asking rents decline over the past year, by -7.1% and -3.6%, respectively. Rent growth has been particularly pronounced in Southern markets. Eight markets tracked by Newmark recorded annual rent appreciation greater than 5%, of which 6 are Southern U.S. markets, including Palm Beach, Charleston, and Broward County, FL. Net effective rents remain under pressure in most markets, with asset owners providing higher work allowances and more free rent to incentivize leasing activity. Broadly, tenants have leverage in most U.S. office markets and are expected to maintain that edge for at least the next six months.

U.S. Office Market Outlook

The spread of the Delta variant slowed office market recovery in the third quarter; however, continued vaccine distribution and the loosening of pandemic-related restrictions helped to limit the severity of market softening. Although net absorption was negative and vacancy increased in the quarter, the impact was modest relative to recent quarters, indicating some degree of recovery from the depths of the pandemic. Still, vacancy remains elevated, and oversupply is pervasive in most markets. These factors will continue to strain some asset owners, particularly those with older, less amenity-rich buildings. The healthy construction pipeline will further challenge office markets as deliveries result in inventory expansion. As such, supply will continue to outweigh demand and tenants are anticipated to hold a competitive negotiating edge in the interim. Competition among landlords for limited demand will ensure concession packages and effective rents remain under pressure. Leasing activity was stable in the third-quarter, but some additional pent-up demand is expected to loosen in the remainder of 2021, particularly in small and mid-sized office markets.

The spread of the Delta variant has underscored the importance of flexibility in real estate planning in a post-pandemic era. Tenants are likely to demand greater space and term flexibility to accommodate unanticipated growth or changes in workplace strategies. While the pace of recovery will be slower than what some expected at the end of the second quarter, a genuine return to normal business activities is increasingly tangible and a growing number of markets are likely to see modest tightening of key market fundaments in the coming quarters, barring a significant change in public health conditions.

Notable 3Q 2021 Lease Transactions

Tenant	Building	Market	Type	Square Feet
IPG	100 West 33rd Street	Penn District - New York	Renewal	513,000
Fried, Frank, Harris, Shriver & Jacobson	1 New York Plaza	Downtown - New York	Renewal	399,724
Yokohama Off-Highway Tires America, Inc	4851 Sam Houston Pkwy	1960 Area - Houston	New Lease	305,025
C3	1400 Seaport Boulevard	Redwood City - Northern California	Renewal	283,015
Pfizer Inc	1 Portland Street	Cambridge - Boston	Expansion	229,330

Notable 3Q 2021 Sales Transactions

Building	Market	Sale Price	Price/SF	Square Feet
Coleman Highline - 1199 Coleman Avenue	Airport - San Jose	$775,000,000	$1,178	657,934
NO RMS HQ@First Portfolio - 110 Holger Way	North San Jose - San Jose	$535,000,000	$886	603,666
Juno Therapeutics Building - 400 Dexter Avenue North	Lake Union - Seattle	$364,014,374	$1,255	290,111
350-380 Ellis Street	South Middlefield - Mountain View	$358,000,000	$839	426,502
Crossroads Technology Center - 950 West Maude Avenue	Peery Park - Sunnyvale	$323,000,000	$2,246	143,822

Market Statistics (Continued on Next Page)

	Total Inventory (SF)	SF Under Construction	SF Absorbed This Quarter	SF Absorbed Year-to-Date	Vacancy Rate	Average Asking Rent (Price/SF)
National	**4,981,662,076**	**85,069,814**	**-3,900,882**	**-69,341,877**	**16.6%**	**$30.79**
Atlanta	155,339,788	3,431,800	432,869	-2,269,842	22.2%	$29.49
Austin	71,497,988	2,152,900	544,341	178,756	18.3%	$40.04
Baltimore	82,111,011	591,278	-139,056	-621,636	14.6%	$24.77
Boston	177,739,367	6,329,353	316,057	-1,563,107	14.6%	$40.57
Broward County, FL	34,175,447	286,577	7,421	-167,852	14.3%	$33.23
Charleston, SC	53,680,031	2,265,550	-45,251	100,868	17.6%	$31.47
Charlotte	14,282,372	29,985	83,674	9,610	13.9%	$28.76
Chicago	244,105,809	3,463,878	-895,183	-2,802,248	20.6%	$30.86
Cincinnati	36,948,399	150,000	-22,010	-79,944	19.8%	$19.30
Cleveland	39,063,025	145,000	-58,849	-565,421	19.5%	$18.36
Columbia, SC	15,958,434	79,000	-141,659	-598,605	12.3%	$19.34
Columbus	59,118,605	0	-677,264	-1,769,277	15.0%	$20.36
Dallas	269,080,205	2,313,249	-944,476	-4,879,795	24.0%	$27.48
Delaware	16,693,306	60,000	99,887	83,094	17.6%	$25.50
Denver	100,529,148	620,472	-193,104	-2,560,725	20.9%	$27.93
Detroit	78,865,543	513,000	-428,668	-856,453	17.6%	$20.44
Fairfield County, CT	39,852,686	0	-18,471	-180,503	21.0%	$36.82
Fresno	21,046,625	8,694	-101,781	-151,040	8.9%	$19.65
Greenville, SC	21,919,273	486,802	-221,925	-509,741	11.9%	$22.43
Houston	245,289,097	4,355,093	-1,237,297	-3,143,915	25.1%	$29.43
Indianapolis	62,191,119	40,000	-548,161	-836,578	13.6%	$20.51
Inland Empire, CA	28,416,598	77,721	18,518	48,948	11.3%	$23.80
Jacksonville	32,154,117	24,000	245,221	-231,597	15.9%	$20.96
Kansas City	74,731,757	369,196	-32,213	-989,693	13.4%	$21.48
Las Vegas	39,168,474	1,035,558	515,284	624,515	12.5%	$22.63
Long Island	57,176,624	35,700	265,859	40,579	10.5%	$28.31
Los Angeles	211,361,993	3,819,685	-537,139	-3,583,173	19.2%	$43.85
Manhattan	468,282,792	13,588,731	-767,219	-19,954,827	9.8%	$73.47

Note: Absorption is the net change in occupied space over a period of time. Data may not match totals in some Newmark metro reports due to different local methodologies. Asking rents are quoted on a full-service basis.

Market Statistics (Continued on Next Page)

	Total Inventory (SF)	SF Under Construction	SF Absorbed This Quarter	SF Absorbed Year-to-Date	Vacancy Rate	Average Asking Rent (Price/SF)
National	**4,981,662,076**	**85,069,814**	**-3,900,882**	**-69,341,877**	**16.6%**	**$30.79**
Memphis	32,848,880	0	-211,086	-255,186	15.1%	$19.56
Miami	49,069,092	1,528,535	53,352	-332,078	15.8%	$41.07
Milwaukee	36,296,798	659,308	-62,110	-22,459	19.1%	$19.26
Minneapolis	120,756,707	531,000	-161,454	-1,098,521	13.7%	$24.56
Nashville	55,919,212	1,208,210	-7,159	-124,646	12.5%	$28.56
New Jersey Northern	167,277,614	121,000	110,162	-2,436,137	20.2%	$29.92
New Jersey Southern	16,853,320	0	-66,945	-404,140	18.9%	$18.96
Oakland/Greater East Bay	75,668,375	220,710	-633,123	-2,093,013	16.7%	$38.74
Oklahoma City	20,584,175	0	10,040	-36,782	17.1%	$18.10
Orange County, CA	95,660,128	1,053,928	-270,734	-1,597,018	16.1%	$33.36
Orlando	65,046,268	0	-32,525	-259,014	7.6%	$24.15
Palm Beach	25,632,850	210,000	223,048	136,070	13.2%	$38.13
Philadelphia	109,293,725	2,031,122	-827,418	-2,024,127	17.4%	$30.93
Phoenix	95,713,074	1,525,638	818,732	1,178,997	17.5%	$27.07
Pittsburgh	56,533,598	1,378,853	89,724	-225,509	20.2%	$24.56
Portland	62,112,659	707,278	281,912	-987,527	15.6%	$31.40
Raleigh/Durham	52,240,584	1,755,886	262,438	306,928	13.2%	$28.14
Sacramento	70,541,757	272,000	-356,070	-1,119,800	11.8%	$24.72
Salt Lake City	71,775,073	2,822,095	196,375	-322,882	14.2%	$23.63
San Antonio	46,052,325	360,000	29,859	-30,240	15.0%	$23.86
San Diego	72,991,394	1,873,114	468,441	49,122	14.8%	$38.76
San Francisco	87,578,218	1,040,000	56,611	-4,045,235	16.8%	$78.10
Seattle	129,871,494	9,814,098	1,036,012	-674,946	10.6%	$43.31
Silicon Valley	80,123,152	3,723,406	62,254	-1,134,499	14.6%	$55.67
St. Louis	74,474,817	224,585	32,982	-731,997	12.8%	$22.12
Tampa/St. Petersburg	62,293,169	27,000	178,485	328,625	10.5%	$27.07
Washington, DC	370,512,351	5,708,826	-628,393	-3,958,647	18.3%	$41.71
Westchester County, NY	27,161,634	0	-73,697	-197,614	20.1%	$28.61

Note: Absorption is the net change in occupied space over a period of time. Data may not match totals in some Newmark metro reports due to different local methodologies. Asking rents are quoted on a full-service basis.

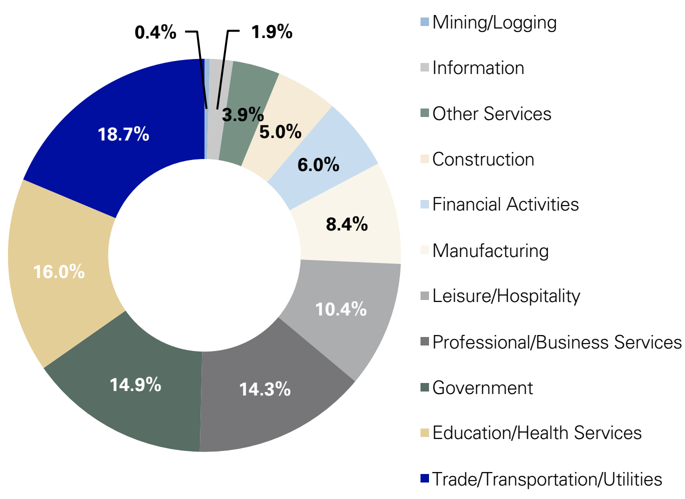
Economic Conditions

Economic recovery in the U.S. slowed throughout the third quarter of 2021. Between June and September 2021, the U.S. added 1.7 million nonfarm jobs, but monthly job growth in September recorded just 194,000 new jobs. Office-using employment recorded strong growth early in the quarter, adding 608,000 total jobs between June and September. Office-using labor sectors were less severely impacted by job losses early in the pandemic due to the ability of office workers to operate remotely. This helped support the economy during the pandemic but will likely apply downward pressure on office demand in the period ahead. Non-government office-using labor sectors have recovered 89.2% of the jobs lost between March and April 2020, slightly higher than nonfarm recovery of 84.1%. September's unemployment rate recorded 4.8%, down 300 basis points over the last year.

Concerns regarding inflation have grown over the summer. Annual CPI growth has remained elevated, but stable, around 5.4% since June. Core CPI growth has fallen to 4.0% in September. Supply chain constraints and product shortages are of growing concern for the nation's economic recovery. These disruptions could exacerbate price inflation on a variety of goods, including construction materials. The duration of this shock is still up for debate, but policymakers are indicating that global commerce could be affected into 2022.

Employment by Industry

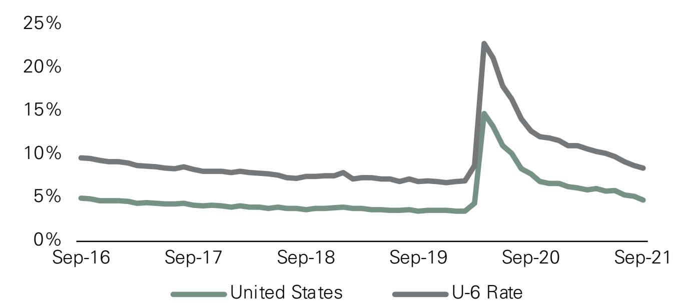
UNITED STATES, 12-MONTH AVERAGE



Source: U.S. Bureau of Labor Statistics, Newmark Research, October 2021

Unemployment Rate

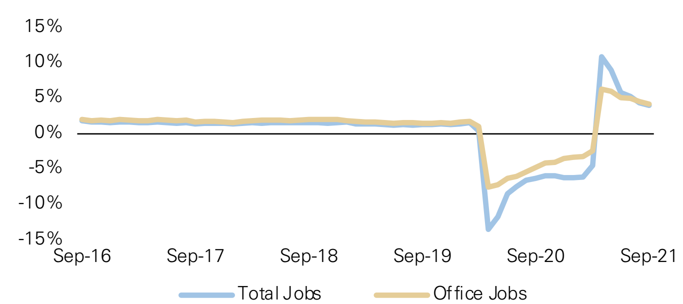
UNITED STATES, SEASONALLY ADJUSTED



Note: U-6 rate includes total unemployed, marginally attached workers, and those working part time for economic reasons
Source: U.S. Bureau of Labor Statistics,FRED, Newmark Research, October 2021

Payroll Employment

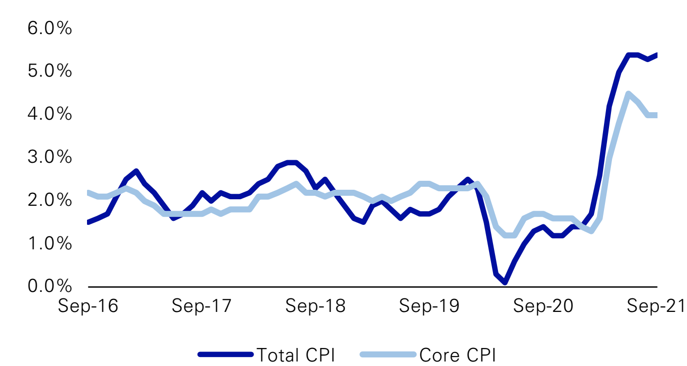
UNITED STATES, 12-MONTH % CHANGE, NOT SEASONALLY ADJUSTED



* Includes Professional and Business Services, Information, Financial Activities, Other Services and Government
Source: U.S. Bureau of Labor Statistics, Newmark Research, October 2021

Consumer Price Index (CPI)

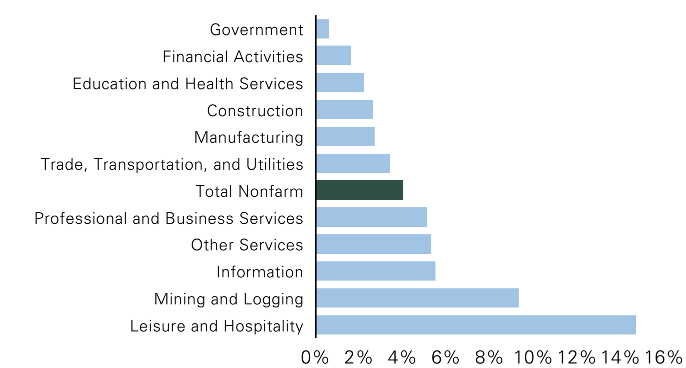
UNITED STATES, 12-MONTH % CHANGE, NOT SEASONALLY ADJUSTED



Note: Core CPI excludes food and energy, which can be volatile; 1982–84=100
Source: U.S. Bureau of Labor Statistics, Newmark Research, October 2021

Employment Growth By Industry

U.S., SEPTEMBER 2021, 12-MONTH % CHANGE, NOT SEASONALLY ADJUSTED



Source: U.S. Bureau of Labor Statistics, Newmark Research, October 2021

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