



District of Columbia Economic and Revenue Trends: February/March 2020
(How the city looked before the virus arrived)

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Highlights:

- ◇ DC job growth slower than the US average.....2,4
- ◇ Rise in housing prices and sales.....12
- ◇ Rapid tourism growth...14
- ◇ Growth in tax collections.....16

Uncertainties and risks in DC’s labor market as unemployment rises and the economy begins to slow

In the last two weeks of March of this year 30,331 initial unemployment claims were filed in DC. This two-week total exceeded the number filed over the worst six-month period (January to June in 2009) during the Great Recession (which had started in December 2007). DC’s share of national claims filed in those two weeks in March—a 0.34% share—also appears to be higher than it was in the Great Recession; DC’s share of claims was never higher than 0.22% in any quarter in 2008 or 2009.

Initial unemployment insurance claims in DC		
	Jan. 2009 to June 2009	March 2020: 14th to 28th
	29,115	30,331

Source: US Department of Labor

For insights into some of the uncertainties and risks the District’s labor market faces in the months ahead, this review looks at what happened in the years since the last time the national economy encountered such deep trouble.

In December 2009, two years after the Great Recession began and recovery was just getting underway, the unemployment rate in DC was 10.0%, one-half percent worse than the US rate. Yet at that same time, things were happening in DC that countered some of the recession’s worst bite. For example, jobs in DC were up 0.6% while in the US they were still down 6.0%. Job growth in DC went on to outpace the nation in the immediate aftermath of the recession and in much of the subsequent economic expansion. By the eve of the covid-19 lockdown DC was a city transformed by 103,967 more jobs and 130,480 more people.

	Amount in DC		change from 2017.4 to 2019.4	% ch: 2007.4 to 2019.4	
	2007.4	2019.4		DC	US
Wage and salary jobs	701,267	805,233	103,967	14.8	9.3
Population	577,320	707,800	130,480	22.6	8.5

Source: BLS and Global Insight

Several features stand out about what happened in DC’s labor market during the Great Recession and subsequent recovery:

- Federal jobs increased during the recession and the early recovery period.
- DC’s private sector outperformed the US both as the national economy was deteriorating and in most of the recovery period.
- DC’s population and labor force increased sharply in the recession, and growth well above the US average continued as the economy recovered.

A recession caused by a health crisis will differ from one brought on by a financial crisis, and DC is a different city now than in 2007. There is no reason to expect history to repeat itself. Federal spending, private sector job growth, and population will, however, continue to be important elements in what happens to DC in the months ahead and how that compares with the nation as a whole. (Cont’d on p. 21)

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Wage and salary employment

Employment growth in DC is slower than in US and in the metropolitan area

- February wage and salary employment in DC was up 8,233 (1.0%) from a year earlier as measured by the 3-month moving average.
- Federal government employment in DC for February was up 1,333 (0.7%). The private sector gained 6,033 (1.1%).
- Total year-over-year DC metropolitan area employment increased 56,267 (1.7%) in February as measured by the 3-month moving average. Of the increase, 14.6% was in DC.
- Suburban Washington employment in February increased 1.9% from a year earlier.
- Seasonally adjusted DC jobs rose 1,200 in February from the prior month, and were 4,700 more than in September.

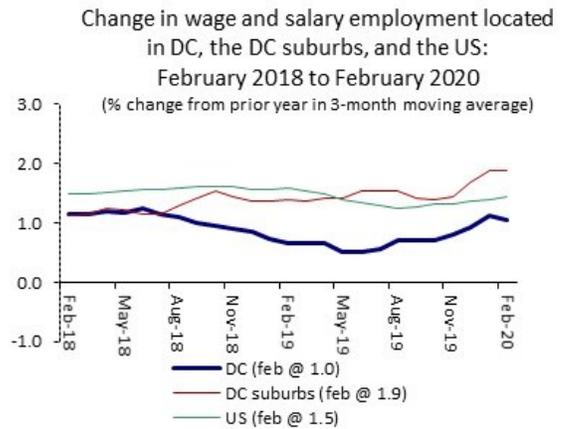


Table 1. Wage and salary employment in DC, the Washington metro area, and the US: February 2020

Jurisdiction	FY 2016	FY 2017	FY 2018	FY 2019	3-mo		
					12-mo avg	average	This month
District of Columbia	775,183	782,583	790,933	796,275	799,650	799,433	799,500
1 year change		15,767	7,400	8,350	5,342	6,042	8,233
% change		2.1	1.0	1.1	0.7	0.8	1.0
Washington metro area	3,203,450	3,257,800	3,295,517	3,324,858	3,361,367	3,365,433	3,361,300
1 year change		62,658	54,350	37,717	29,342	47,192	56,267
% change		2.0	1.7	1.2	0.9	1.4	1.7
Washington suburbs (% ch)		2.0	1.9	1.2	1.0	1.6	1.9
US (% ch)		1.8	1.6	1.6	1.6	1.4	1.5

Not seasonally adjusted. Suburban employment is the difference between the metro area total and the DC portion.

Source: BLS. February is preliminary.

Federal gov. and private sector wage and salary employment in DC: Feb. 2015 to Feb. 2020
(Ch. from prior year in 3-month moving average)

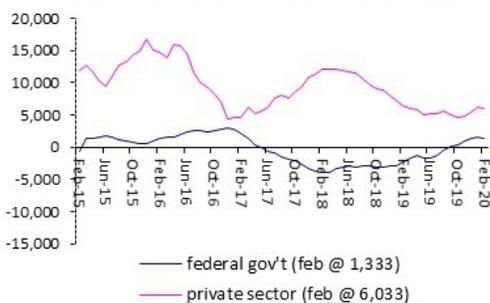


Table 2. Federal government and private sector wage and salary employment in DC: February 2020

Sector	FY 2017	FY 2018	FY 2019	3-month		
				12-mo avg	average	This month
Federal government	200,208	197,025	195,158	195,950	196,300	195,900
1 year ch.		492	-3,183	-1,867	25	1,333
% change		0.2	-1.6	-0.9	0.0	0.7
Private sector	541,250	552,183	558,592	560,808	560,567	561,000
1 year ch.		6,125	10,933	6,408	5,392	6,033
% change		1.1	2.0	1.2	1.0	1.1

Source: BLS. Not seasonally adjusted. Reflects. February is preliminary.

Table 3. Seasonally adjusted DC Employment: September 2019 to February 2020

Indicator	September	October	November	December	January	February
D.C. Wage and Salary employment	799,200	800,600	803,400	802,000	802,700	803,900
change from prior month		200	1,400	2,800	-1,400	700
% change from prior month		0.0	0.2	0.3	-0.2	0.1

Source: BLS seasonally adjusted. February is preliminary.

Resident employment and unemployment

Resident employment now outpacing the US average

- In February DC resident employment was up 11,673 (3.1%) from a year earlier (3-mo. moving average). The labor force grew more slowly—9,026 (2.2%)—as unemployment fell.
- The seasonally adjusted unemployment rate was 5.1% in February, down from 5.8% a year earlier.
- Seasonally adjusted resident employment in February was 1,532 more than in January and 3,429 more than in Sep.
- Initial unemployment insurance claims in February were down 27.4% from last year (3-month moving average).

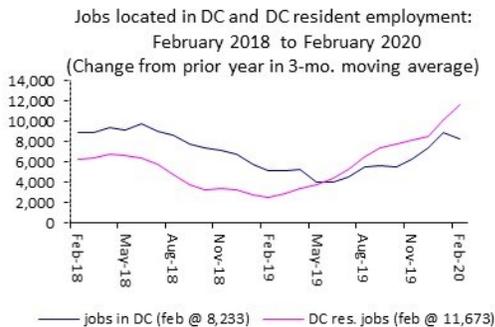
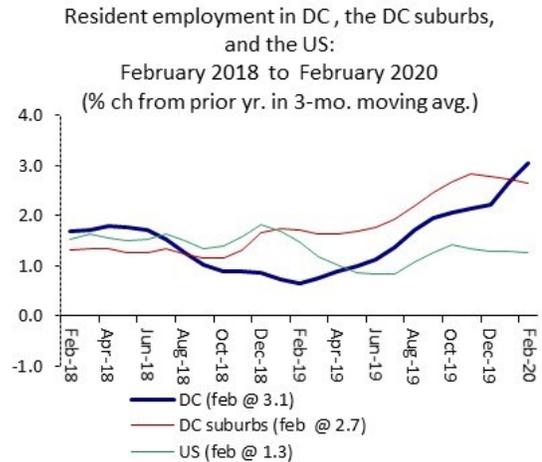


Table 4. Unemployment rates for DC, metro area, and US: February 2020

Jurisdiction	Not seasonally adj.		Seasonally adj.	
	Feb. 2019	Feb. 2020	Feb. 2019	Feb. 2020
US	4.1	3.8	3.8	3.5
DC	6.0	5.2	5.8	5.1
DC metro area	3.4	3.0	na	na
DC suburbs	3.1	2.7	na	na

Source: U.S. BLS. na= data not available

Table 5. Resident employment and unemployment: February 2020

Indicator	FY 2016	FY 2017	FY 2018	FY 2019	12-mo avg	3-mo. avg.	This month
DC Labor force summary							
Resident employment	369,631	375,386	380,897	385,356	389,642	393,878	397,669
1 year change	10,048	6,079	5,511	4,460	7,540	11,673	13,040
% change	2.8	1.6	1.5	1.2	2.0	3.1	3.4
Labor Force	394,238	399,776	404,151	408,085	411,556	414,933	419,329
1 year change	6,988	5,869	4,375	3,934	6,298	9,026	10,163
% change	1.8	1.5	1.1	1.0	1.6	2.2	2.5
Unemployed	24,606	24,390	23,254	22,729	21,915	21,056	21,660
1 year change	-3,060	-210	-1,135	-525	-1,242	-2,647	-2,877
% change	-11.1	-0.9	-4.7	-2.3	-5.4	-11.2	-11.7
Unemployment rate	6.2	6.1	5.8	5.6	5.3	5.1	5.2
DC Unemployment insurance (state program)							
Initial claims (monthly avg.)	1,472	1,505	1,611	2,299	2,066	2,284	1,862
1 year change	-123	33	106	687	-54	-862	147
% change	-7.7	2.2	7.1	42.7	-2.5	-27.4	8.6
Weeks compensated (mo. avg.)	30,261	31,355	30,429	27,473	25,726	26,739	24,633
1 year change	-2,550	1,094	-926	-2,956	-3,738	-4,470	-4,030
% change	-7.8	3.6	-3.0	-9.7	-12.7	-14.3	-14.1

Source: Labor force: BLS. Unemployment Insurance: US Dept of Labor. Not seasonally adj.

Table 6. Seasonally adjusted DC Resident employment and unemployment: Sep. 2019 to Feb. 2020

Indicator	September	October	November	December	January	February
DC Resident employment	389,568	390,098	390,156	390,081	391,465	392,997
change from prior month	726	530	58	-75	1,384	1,532
% change from prior month	0.2	0.1	0.0	0.0	0.4	0.4
DC Unemployment rate (%)	5.3	5.3	5.3	5.3	5.2	5.2

Source: BLS seasonally adjusted. February is preliminary.

Jobs by sectors of the economy

Professional services led job growth; DC's private sector growth is below the US average

- In February professional and technical services added 3,333 jobs to lead growth in the economy. (3-month moving avg.)
- Other sectors adding more than 1,000 jobs in February included organizations and information.
- The sectors with the fastest rate of growth over the prior year in February were information, wholesale trade, and personal services.
- Private sector industries losing jobs were education, amusement and recreations, and construction.
- Local government rose by 867 (2.1%).
- The federal government accounted for 24.6% of all DC jobs in February. Over the past year, DC's share of federal employment continued to fall in both the metro area and the US.
- Over the past year DC's share of jobs in the US rose in several sectors: professional services, employment services, information, organizations, retail, and personal services.

Change in private sector wage and salary jobs located in DC, the DC suburbs, and the US: February 2018 to February 2020 (% change from prior year in 3-month moving average)

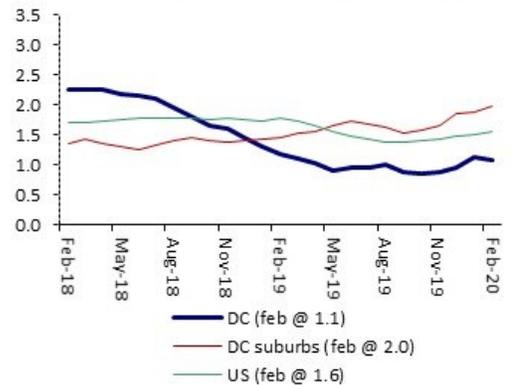


Table 7. Wage and salary employment located in DC: February 2020

Industry sector	3-month moving average				12-mo. moving avg: % change	Sector % of all DC jobs, Feb 2020	DC share (%) in Feb 2020 of all sector jobs in:		Change from Feb 2019 to Feb 2020 in DC share of sector jobs in:	
	Feb. 2019	Feb. 2020	1 year change				metro area	US	metro area	US
			Amount	%						
Federal government	194,967	196,300	1,333	0.7	0.0	24.6	53.7	6.89	-0.2	-0.06
Local government	41,700	42,567	867	2.1	1.5	5.3	12.2	0.21	0.0	0.00
Legal services	28,700	28,967	267	0.9	1.5	3.6		2.50		-0.01
Professional and tech. (except legal)	90,933	94,267	3,333	3.7	2.3	11.8	22.8	1.10	0.0	0.01
Employment services	13,433	13,867	433	3.2	2.1	1.7	28.8	0.39	-1.5	0.01
Business services (except employ.)	35,333	35,900	567	1.6	1.9	4.5	18.3	0.45	0.1	0.00
Information	19,600	20,667	1,067	5.4	4.5	2.6	26.7	0.72	0.7	0.03
Finance	29,533	29,733	200	0.7	0.7	3.7	18.3	0.34	-0.3	0.00
Organizations	67,833	69,233	1,400	2.1	1.5	8.7	36.9	2.31	0.2	0.03
Education	61,733	59,167	-2,567	-4.2	-1.6	7.4	50.4	1.52	-1.1	-0.11
Health	70,700	70,767	67	0.1	-0.2	8.9	21.2	0.34	-0.3	-0.01
Food service	53,667	53,700	33	0.1	0.8	6.7	22.3	0.45	-0.4	-0.01
Accommodations	15,700	16,100	400	2.5	5.3	2.0	35.7	0.80	1.2	0.00
Amusement and recreation	9,367	9,333	-33	-0.4	2.0	1.2	21.2	0.41	-1.3	-0.02
Retail trade	23,067	23,833	767	3.3	1.6	3.0	8.7	0.15	0.3	0.01
Wholesale trade	5,067	5,333	267	5.3	5.1	0.7	8.5	0.09	0.4	0.00
Construction	14,933	14,500	-433	-2.9	-4.6	1.8	8.9	0.20	-0.4	-0.01
Personal and miscellaneous ser.	8,667	9,100	433	5.0	-0.9	1.1		0.32		0.01
Other private	6,267	6,100	-167	-2.7	-5.0	0.8	4.6	0.03	-0.3	0.00
Total	791,200	799,433	8,233	1.0	0.8	100.0	23.8	0.53	-0.2	0.00
Public sector	236,667	238,867	2,200	0.9	0.3	29.9	33.4	1.04	-0.1	0.00
Private sector	554,533	560,567	6,033	1.1	1.0	70.1	21.1	0.44	-0.1	0.00

Source: BLS. not seasonally adjusted. February is preliminary. For the metro area, legal is included in other professional and technical, and personal and miscellaneous services is included in organizations (a category BLS calls "other services").

Jobs and wages by sector

The professional and management services sector was the largest source of job and wage growth in DC over the past year

- For the year ending December the federal government accounted for 24.5% of all jobs and 30.1% of all wages and salaries in DC. Over the past year, although federal jobs fell the sector still accounted for 24.4% of wage increases.
- Professional and management services accounted for 40.7% of the net gain in employment and 28.7% of the gain in wages paid in DC for the year ending December.
- Information and finance accounted for 19.5% of the increase in jobs and 12.9% of the gain in wages over the past year.
- Education and health services accounted for -7.8% of last year's net job increases but 8.1% of the increase in wages.
- Trade and hospitality accounted for 41.2% of the increase in jobs over the past year and 7.7% of the increase in wages.

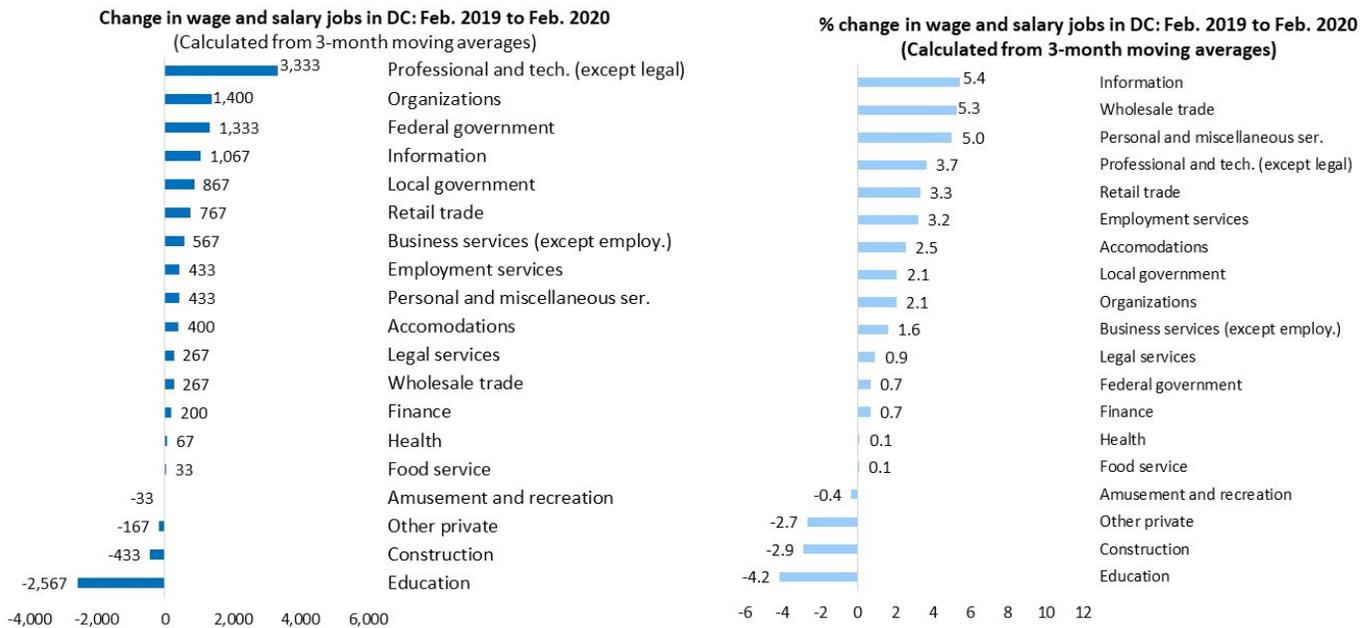


Table 8. Employment and income by sector of the DC economy: 12 mo average ending December 2019 (2019.4)

Sector	12 mo. average wage and salary employment in DC ending December 2019			12 mo avg. wages and salaries earned in DC ending December 2019			Percentage Distributions			
	Level	Change from Dec 2018	% change	Level (\$B)	Ch. from Dec 2018 (\$B)	% change	Employment		Wages	
							Dec 19	Dec 2018	Dec 19	Dec 2018
Total	798,317	5,542	0.7	79.03	2.60	3.4	100.0	100.0	100.0	100.0
Federal government	195,767	-475	-0.2	23.80	0.63	2.7	24.5	-8.6	30.1	24.4
Local government	42,742	583	1.4	3.58	0.08	2.2	5.4	10.5	4.5	3.0
Professional and management	123,875	2,258	1.9	18.31	0.75	4.2	15.5	40.7	23.2	28.7
Business services	47,183	633	1.4	2.59	0.10	4.2	5.9	11.4	3.3	4.0
Information and financial services	49,850	1,083	2.2	7.14	0.33	4.9	6.2	19.5	9.0	12.9
Education and health services	130,242	-433	-0.3	7.86	0.21	2.8	16.3	-7.8	9.9	8.1
Trade and hospitality services	109,958	2,283	2.1	4.69	0.20	4.5	13.8	41.2	5.9	7.7
Organizations and personal services	77,533	758	1.0	7.46	0.22	3.0	9.7	13.7	9.4	8.5
Other private	21,167	-1,150	-5.2	3.61	0.07	2.0	2.7	-20.8	4.6	2.7
Private sector	559,808	5,433	1.0	51.65	1.89	3.8	70.1	98.0	65.4	72.7
Government	238,508	108	0.0	27.38	0.71	2.7	29.9	2.0	34.6	27.3

Source: BLS and BEA. Federal government wages and salaries includes military.

Wages and income

DC's Personal Income and wages are growing more slowly than the US averages

- Wages and salaries earned in the District of Columbia were 3.4% higher in the December quarter compared to the same quarter of 2018.
- Wages earned by DC residents grew an estimated 3.3% in the December quarter compared to last year.
- In the December quarter, DC Personal Income grew 3.5%, compared to 4.1% for the US average.
- The growth rate of proprietors' income was 6.4% in the December quarter.
- Pensions and other transfers grew 6.2% over last year in the December quarter; property income grew 0.6%.

Wages earned in DC, wages earned by DC residents, and wages earned in the US: 2016.4 to 2019.4

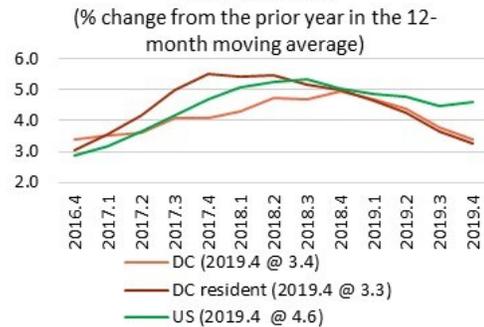


Table 9. DC Wages and Personal Income: December 2019 (2019.4)

(\$ billion at seasonally adjusted annual rates unless otherwise noted)

Indicator	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	4-qr. moving avg.	Latest qtr. (Dec.)
Wages and salaries earned in DC	67.10	69.32	72.14	75.51	78.38	79.03	79.96
1 year change	3.21	2.22	2.82	3.37	2.87	2.60	2.60
% change	5.0	3.3	4.1	4.7	3.8	3.4	3.4
Supplements to wages & salaries	17.54	18.31	19.10	19.99	20.68	20.84	21.18
% change	4.0	4.4	4.3	4.7	3.4	2.9	3.1
Income earned in DC**	82.14	85.48	88.67	92.57	96.00	96.84	98.15
% change	5.8	4.1	3.7	4.4	3.7	3.4	3.5
Net resident adjustment***	-47.45	-49.03	-50.80	-53.05	-55.06	-55.51	-56.25
% change	3.4	3.3	3.6	4.4	3.8	3.3	3.3
Income earned by DC residents**	34.69	36.44	37.87	39.52	40.94	41.33	41.90
% change	9.3	5.1	3.9	4.4	3.6	3.5	3.8
Wages and salaries of DC residents****	24.69	25.60	26.88	28.27	29.30	29.54	29.88
change from one year ago	1.74	0.91	1.28	1.39	1.03	0.94	0.96
% change	7.6	3.7	5.0	5.2	3.6	3.3	3.3
Proprietors' income earned by DC residents*	7.07	7.73	7.69	7.78	8.07	8.19	8.34
% change	17.4	9.3	-0.5	1.1	3.7	5.1	6.4
Property income of DC residents	9.39	9.64	9.95	10.69	11.09	11.11	11.15
% change	7.0	2.6	3.2	7.5	3.7	2.1	0.6
Pensions and other transfers for DC residents	6.05	6.46	6.64	6.78	7.12	7.23	7.30
% change	2.2	6.8	2.7	2.1	5.1	6.1	6.2
DC Personal Income	50.13	52.54	54.46	56.99	59.15	59.66	60.34
1 year change	3.71	2.42	1.92	2.53	2.16	2.06	2.05
% change	8.0	4.8	3.6	4.6	3.8	3.6	3.5
US Personal income (% change from prior year)	5.6	2.7	4.1	5.7	4.6	4.4	4.1
US Wages and salaries (% change from prior year)	5.6	3.1	4.2	5.3	4.5	4.6	4.5
Addendum:							
DC res. wages as % of wages earned in DC	36.8	36.9	37.3	37.4	37.4	37.4	37.4
DC Personal Income as % of US	0.32	0.33	0.33	0.32	0.00	0.00	0.31

* Proprietors' income is derived from federal tax data and therefore all proprietors' income is earned by DC residents.

**Does not include social insurance paid by individuals. Wage and salary amounts shown do include social insurance paid by individuals.

***algebraic sum of (1) income earned in DC by non residents (negative) and (2) income earned by DC residents outside of DC (positive).

Since this is a negative number, the larger the increase (or faster the rate of growth), the less growth for income earned by DC residents.

****Est. by ORA; assumes wage and salary suppl. are the same % for DC resident wages as for wages earned in DC; excludes social insurance paid by individuals.

Source: BEA; data released March 24, 2020

Population, jobs, and per capita income

DC's growth rates for per capita income and for wages per job lag the US averages.

- At mid-year 2019, population was 4,202 (0.6%) higher than the prior year and wage and salary employment increased by 4,367 (0.6%).
- In 2019 population and jobs grew less than half of their annual average increase over the 5 years 2014 to 2019.
- In the December quarter, DC's per capita income grew at a 2.9% rate compared to 3.6% in the US.
- In the December quarter wages per job in DC grew more slowly than in the US (2.4% v 3.1%).

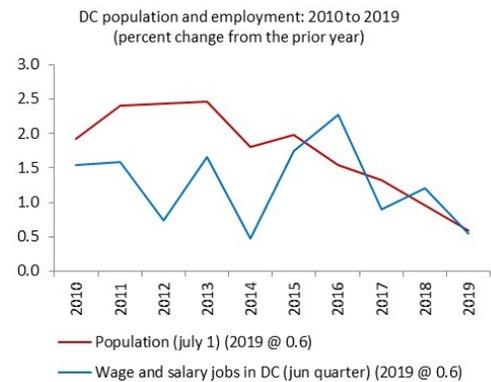


Table 10. DC Population and wage and salary employment located in DC: 2010 to 2019

Year	Population			Wage and salary employment		
	Number	Change from prior yr. Number	%	Number	Change from prior yr. Number	%
2010	605,226	11,426	1.9	713,800	16,900	2.4
2011	619,800	14,574	2.4	725,167	11,367	1.6
2012	634,924	15,124	2.4	730,533	5,367	0.7
2013	650,581	15,657	2.5	742,633	12,100	1.7
2014	662,328	11,747	1.8	746,133	3,500	0.5
2015	675,400	13,072	2.0	759,133	13,000	1.7
2016	685,815	10,415	1.5	776,333	17,200	2.3
2017	694,906	9,091	1.3	783,267	6,933	0.9
2018	701,547	6,641	1.0	792,700	9,433	1.2
2019	705,749	4,202	0.6	797,067	4,367	0.6
Ch. from 2014 to 2019		43,421	6.6	50,933	6.8	
Avg. annual ch.		8,684		10,187		

Source: U.S. Census Bureau (population) as of July 1 for year shown; BLS (jobs) June quarter, seasonally adjusted, for year shown, accessed through Global Insight

Source: U.S. Census Bureau and BLS

Table 11. Per capita income and wages per job in DC and the US: FY 2017 to December 2019

	DC					US				
	FY 2017	FY 2018	FY 2019	12-mo avg (Dec)	2019.4	FY 2017	FY 2018	FY 2019	12-mo avg (Dec)	2019.4
Per capita income	78,625	81,427	83,928	84,521	85,267	51,300	53,932	56,158	56,654	57,205
% ch in per capita income	2.2	3.6	3.1	2.9	2.9	3.4	5.1	4.1	3.9	3.6
% ch in population	1.4	1.0	0.7	0.7	0.6	0.7	0.6	0.5	0.5	0.5
% ch in personal income	3.6	4.6	3.8	3.6	3.5	4.1	5.7	4.6	4.4	4.1
Wages per job	92,176	95,447	98,403	98,990	99,701	57,141	59,252	61,073	61,531	61,827
% ch in wages per job	3.1	3.5	3.1	2.7	2.4	2.5	3.7	3.1	3.2	3.1
% ch in wages and salary jobs	1.0	1.1	0.7	0.7	1.0	1.6	1.6	1.4	1.4	1.4
% ch in total wages	4.1	4.7	3.8	3.4	3.4	4.2	5.3	4.5	4.6	4.5
Consumer price index	1.1	2.1	1.3	1.3	1.3	2.1	2.4	1.9	1.8	2.0

Source: BEA for per capita income, population and Personal Income. Moody's Analytics for CPI in the DC metropolitan area and the US.

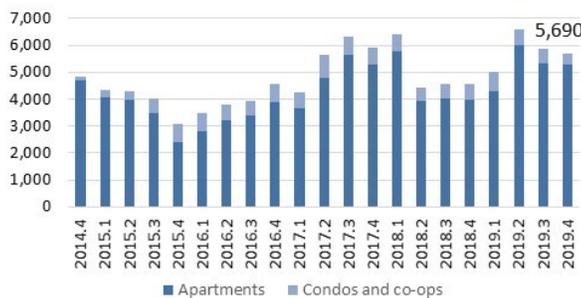
Note: % changes are from the same period of the prior year.

Multifamily-unit housing and housing permits

The number of housing permits issued has slowed

- According to CoStar, in December the inventory of apartments and condominiums increased by 5,690 (3.0%) from a year earlier.
- For the 12-month period ending February 5,418 housing permits were issued, down 6.6% from last year. The 3-month total (1,075) was, however, 50.7% below the same period last year.
- Of the increase in inventory of multifamily units over the 12-months ending 2019.4, 93.1% were in apartments. Of the housing permits issued over the past year, 95.6% were included in 59 buildings with 5 or more units.
- As of the end of December 14,248 multi-family units were under construction in 88 buildings. Of the construction, apartments accounted for 78.4% of the buildings and 93.2% of the units.

Inventory of multifamily housing units in DC: net change from prior year, 2014.4 to 2019.4



Housing permits issued in DC: Feb. 2017 to Feb. 2020 (12-month moving total)

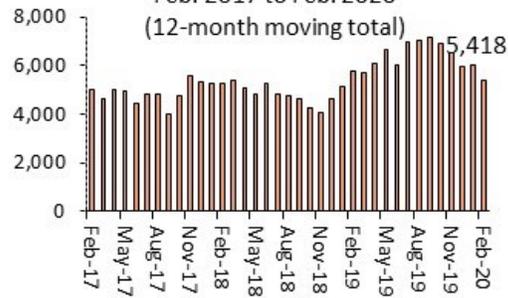


Table 12. Estimated DC households: 2012 to 2019

date	pop/hh	Estimated	
CY	Population	ratio	households
2012	634,924	2.259	281,088
2013	650,581	2.260	287,859
2014	662,328	2.261	292,894
2015	675,400	2.263	298,453
2016	685,815	2.267	302,521
2017	694,906	2.271	305,991
2018	701,547	2.275	308,372
2019	705,749	2.280	309,539

Source: 1) Population: US Census Bureau (Jul 2020); 2) population/household ratio estimated by ORA based on Oct. 2018 Office of Planning estimates for 2015, and 2020 3) households: calculated from population using the pop/hh ratio.

Table 13. Housing unit building permits issued in DC: February 2020

	FY 2017	FY 2018	FY 2019	12-mo. moving total	3-mo. moving total	This month
Total units	4,026	4,640	7,168	5,418	1,075	336
change from 1 yr ago	-1,103	614	2,528	-380	-1,107	-618
% change from 1 year	-21.5	15.3	54.5	-6.6	-50.7	-64.8
Multi-family projects with 5 or more units						
number	38	46	63	51	8	2
average size	106	101	114	106	134	154
Units in small projects with up to 4 units						
% of all units	376	179	218	239	75	29
	9.3	3.9	3.0	4.4	7.0	8.6

Source: Census Bureau (permits for privately owned units issued during period).

Table 14. Inventory and construction for private sector apartments and condominiums in DC: 2014 to 2019.4

CY	Inventory						Under construction								
	All Units			Apartments			Condominiums			Apartments			Condominiums		
	number	1 year ch.	%	build-ings	units	1 yr ch	build-ings	units	1 yr ch	build-ings	units per bldg.	build-ings	units	units per bldg.	
2014	171,618	5,004	3.0	2,810	129,636	4,872	610	33,161	132	42	6,763	161	38	972	26
2015	174,701	3,083	1.8	2,831	132,043	2,407	641	33,837	676	56	9,976	178	42	1,066	25
2016	179,262	4,561	2.6	2,852	135,945	3,902	673	34,496	659	59	10,718	182	36	1,393	39
2017	185,166	5,904	3.3	2,874	141,251	5,306	689	35,070	574	62	11,580	187	30	1,375	46
2018	189,735	4,569	2.5	2,898	145,248	3,997	704	35,642	572	71	13,716	193	23	1,058	46
2019	195,425	5,690	3.0	2,926	150,546	5,298	716	36,034	392	69	13,283	193	19	965	51
2019.4	195,425	5,690	3.0	2,926	150,546	5,298	716	36,034	392	69	13,283	193	19	965	51
1 Q ch.	928			4	876		4	52		1	144		-3	-8	

Source: CoStar. Includes units in privately-owned buildings with 5 or more units. CY amounts are last quarter of the year. Includes affordable units. Data is as of January 14, 2020. All units includes cooperative apartments, not shown separately. In 2019.4 there were 123 co-op buildings with 8,845 units with an average building size of 72.

Apartment vacancy rates are stable and rents are a little higher

• According to CoStar, for the the 12-month period ending December occupied apartments rose by 4,658 (3.4%) from the prior year. The overall vacancy rate was 6.7% and average rents were 3.1% higher.

• Class A units accounted for 26.7% of all units in the city and 40.1% of vacant ones. They also accounted for 81.8% of the net additions to apartment inventory over the past year, 93.8% of the increase in occupied units, and 85.0% of the units under construction.

• Over the past year effective rent in all classes of apartments increased: Class A by 3.5%, Class B by 3.3%, and Class C by 2.5%.

• Vacancy rates in December: Class A 10.2%, Class B 5.8%, and Class C 5.4%.

DC Apartment units: (1) 12-month change in inventory and occupancy, (2) number under construction, and (3) vacancy rate : 2016.4 to 2019.4

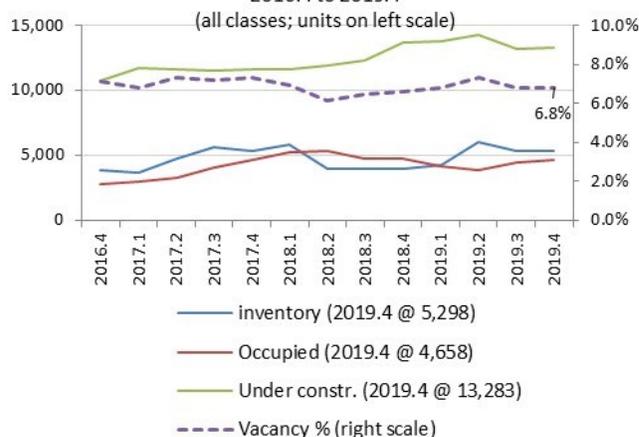


Table 15. Apartment units in DC: 2014 to 2019.4

	Level				Change from prior period						Average rent		1 yr ch in units under constr.
	number				Inventory		Occupied		Vacant		Effective rent per unit	1 yr % change	
	Inventory	Occupied	Vacant	% vacant	units	% ch	units	% ch	units	% ch			
2014	129,636	119,828	9,808	7.6	4,872	3.9	4,128	3.6	744	8.2	\$1,675	3.1	-206
2015	132,043	123,480	8,563	6.5	2,407	1.9	3,652	3.0	-1245	-12.7	\$1,771	5.7	3,213
2016	135,945	126,264	9,681	7.1	3,902	3.0	2,784	2.3	1118	13.1	\$1,814	2.4	742
2017	141,251	130,932	10,319	7.3	5,306	3.9	4,668	3.7	638	6.6	\$1,859	2.5	862
2018	145,248	135,692	9,556	6.6	3,997	2.8	4,760	3.6	-763	-7.4	\$1,909	2.7	2,136
2019	150,546	140,350	10,196	6.8	5,298	3.6	4,658	3.4	640	6.7	\$1,969	3.1	-433
2019.4	150,546	140,350	10,196	6.8	5,298	3.6	4,658	3.4	640	6.7	\$1,969	3.1	-433
1 Q ch	876	876	0								\$4		

Source: CoStar, as of January 14, 2020.

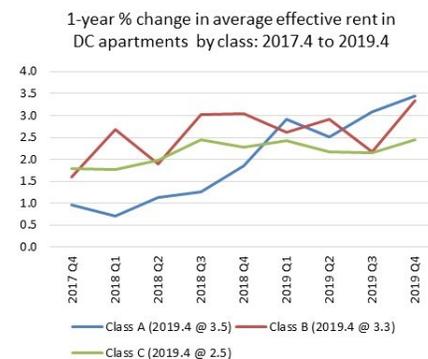
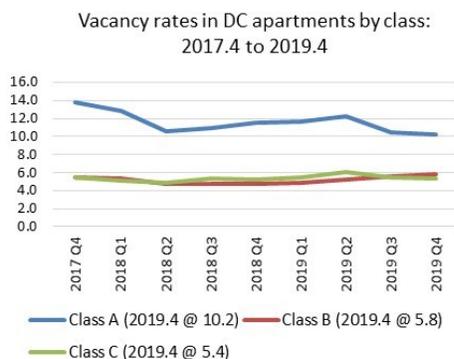
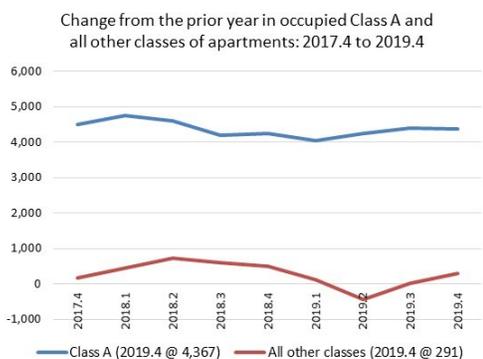


Table 16. Market rate apartment units in DC, Classes A, B, and C: 2019.4

Class	Inventory					Occupied units			Effective monthly rent		Under construction		
	Buildings	Number	1 yr ch	% ch	% vacant	Number	1 yr ch	% ch	\$ per month	1 yr % ch	Buildings	Units	Avg. size
Class A	189	40,234	4,332	12.1	10.2	36,148	4,367	13.7	\$2,665	3.5	47	11,297	240
Class B	847	52,393	1,462	2.9	5.8	49,434	904	1.9	\$1,891	3.3	21	1,977	94
Class C	1,878	57,823	-496	-0.9	5.4	54,678	-612	-1.1	\$1,377	2.5	1	9	9

Source: CoStar. Includes units in private sector buildings with 5 or more units. Includes affordable units. Vacancy rate is unoccupied units as % of inventory. Data as of Jan. 14, 2020. The total amounts for apartments in table 15 includes a small number of units not shown here.

Commercial office space

Occupied office space fell slightly and the vacancy rate rose

• According to CoStar, for the 12-month period ending December occupied office space fell by 0.09 million sq. ft. from the prior year while inventory rose by 2.08 msf. The vacancy rate has edged up to 11.8% (including sublet) and average base rent rose 1.1%.

• The vacancy rate for class A space was 12.5% in December, up from 12.1% a year ago. Class A rent rose 1.6% over the past year.

• Space under construction in December 2019 (4.54 million square feet in 24 buildings) was 0.68 msf (13.0%) less than a year earlier.

• For Class B and Class C properties, inventory and occupancy declined over the past year. Rents for Class B properties increased at the same rate as Class A ones, but Class C rents declined.

DC commercial office space: (1) 1 yr change in inventory and occupied space, (2) under construction, and (3) vacancy rate: 2017.4 to 2019.4 (million square feet)

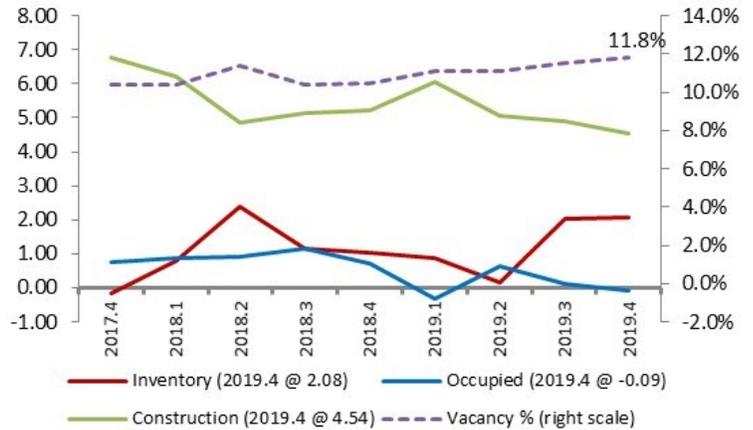


Table 17. DC commercial office space: 2014 to 2019.4

CY (year end)	Inventory				Occupied space			Vacant space			Base rent (direct)		Under constr.		
	Buildings	Level (msf)	1 yr ch (msf)	1 yr % ch	Level (msf)	1 yr ch (msf)	% ch	Level (msf)	Direct only %	Total %	\$ per sq ft.	1 yr % ch	Buildings	msf	Avg. sf per bldg
2014	2,388	154.13	0.49	0.3	139.47	0.19	0.1	14.7	9.0	9.5	\$47.47	1.3	14	2.42	172,598
2015	2,381	154.91	0.79	0.5	138.90	-0.57	-0.4	16.0	9.9	10.3	\$48.17	1.5	16	3.08	192,591
2016	2,378	155.40	0.49	0.3	138.31	-0.59	-0.4	17.1	10.4	11.0	\$50.01	3.8	21	5.32	253,163
2017	2,371	155.23	-0.17	-0.1	139.08	0.77	0.6	16.1	9.7	10.4	\$51.00	2.0	24	6.77	281,908
2018	2,370	156.25	1.02	0.7	139.81	0.74	0.5	16.4	9.8	10.5	\$52.18	2.3	22	5.22	237,103
2019	2,379	158.33	2.08	1.3	139.72	-0.09	-0.1	18.6	10.7	11.8	\$52.78	1.1	24	4.54	189,091
2019.4	2,379	158.33	2.08	1.3	139.72	-0.09	-0.1	18.6	10.7	11.8	\$52.78	1.1	24	4.54	189,091
1 Q ch	2	0.39				-0.13			0.2	0.3	-\$0.63		-1	-0.34	

Source: CoStar, all classes and sizes. Data as of January 14, 2020.

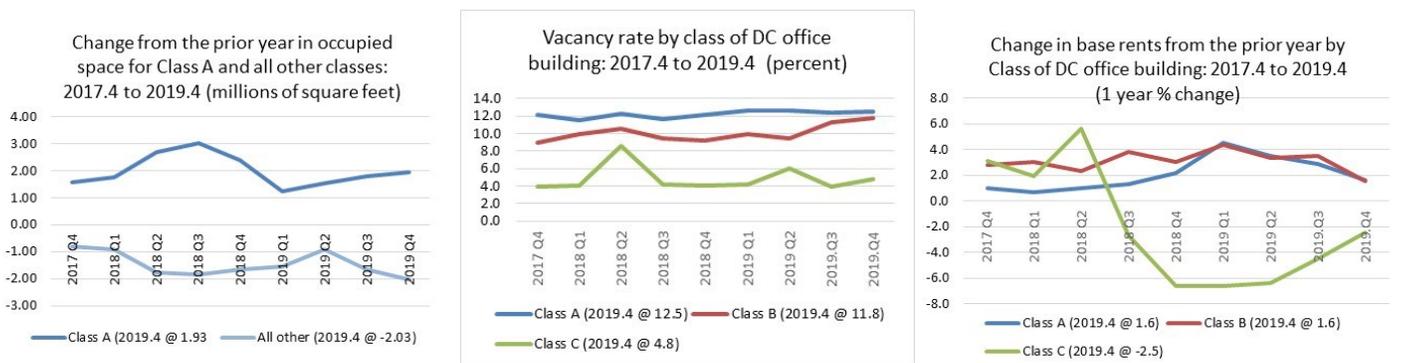


Table 18. DC Class A, B, and C commercial office space: 2019.4

Class	Inventory				Occupied space			Vacant space			Base rent (direct)		Under constr.	
	Buildings	Level (msf)	1 yr ch (msf)	1 yr % ch	Level (msf)	1 yr ch (msf)	% ch	Level (msf)	Direct %	Total %	\$ per sq ft.	1 yr % ch	Buildings	msf
Class A	329	90.60	2.59	2.9	79.27	1.93	2.5	11.3	11.2	12.5	\$56.37	1.6	19	4.38
Class B	913	57.58	-0.29	-0.5	50.80	-1.74	-3.3	6.8	11.1	11.8	\$49.14	1.6	5	0.16
Class C	1,131	10.13	-0.22	-2.1	9.64	-0.29	-2.9	0.5	3.8	4.8	\$34.17	-2.5	0	

Source: CoStar. Data as of January 14, 2020

Property transfers and deed taxes

The value of brokered home sales rose and the value of other property sales fell

- The value of property transfers in February, \$15.39 billion, was 0.4% above a year ago as measured by the 12-month moving total. The 3-month moving total, \$3.24 billion, was 16.7% below last year.
- Over the 12-month period ending February the estimated value of brokered home sales was 7.5% above last year while the value of all other real property transfers was 4.1% below last year. For the last 3 months, the value of non-home transfers was 34.7% below last year—but home transfers were 28.1% higher.

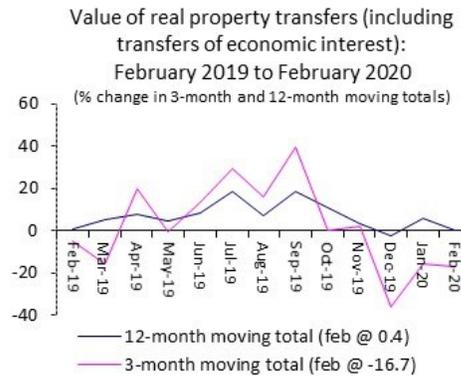


Table 19. Market Value of Real Property transfers subject to the Deed Transfer or Economic Interest tax: February 2020

	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	12-mo moving total	3-month moving total	This month
All property transfers (\$ million)	14,766.3	13,035.9	13,998.6	14,646.3	17,355.2	15,387.4	3,237.2	758.9
change from one year ago (\$M)	3,196.5	-1,730.3	962.6	647.8	2,708.8	59.7	-647.6	-332.0
% change from 1 year ago	27.6	-11.7	7.4	4.6	18.5	0.4	-16.7	-30.4

Note: represents value of property or economic interest transferred as of date deed noted by the Recorder of Deeds.

Source: OCFO/Recorder of Deeds and OCFO/ORR (calculated from tax collections and deposits adjusted for tax rate changes).

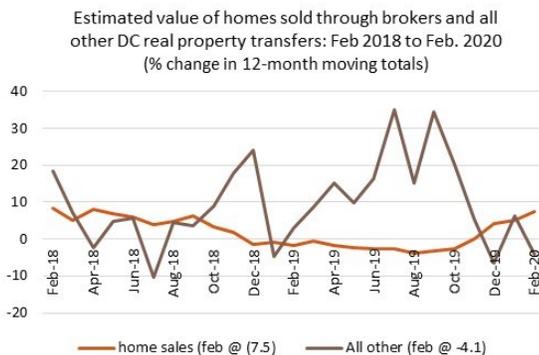


Table 19A. Value of (1) brokered home sales and (2) all other real property subject to the Deed Transfer and Economic Interest taxes: FY 2017 to February 2020

	FY 2017	FY 2018	FY 2019	12-mo moving total	3-mo moving total
Brokered home sales (\$M)	5,823.3	6,184.2	5,985.6	6,419.7	1,430.4
All other property transfers (\$M)	8,175.3	8,462.1	11,369.5	8,967.7	1,806.9
<i>% change from 1 year ago</i>					
Brokered home sales	6.6	6.2	-3.2	7.5	28.1
All other property transfers	8.0	3.5	34.4	-4.1	-34.7

Sources: Brokered sales of single family homes and condominium units are from MarketStats by ShowingTime (see Table 20); Other property transfers equals the difference between the value of all real property transfers calculated from deed tax collections reported by the OCFO (see table 19) and the value of brokered home sales.

Single family and condominium housing

Rising sales volume and prices for both single family and condominium units

- The 3-month moving total of single family home sales in February was up 20.0% from a year earlier, while the average selling price was 4.3% higher.
- February condominium sales were up 22.9% from last year as measured by the 3-month moving total, while the average selling price was 8.8% higher.
- The total value of all home sales in February was up 28.1% from last year as measured by the 3-month moving total. For the past 12-months the total was 7.5 % higher.

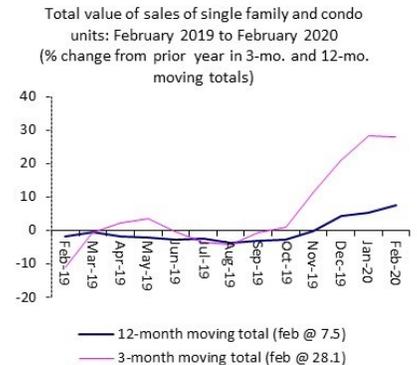
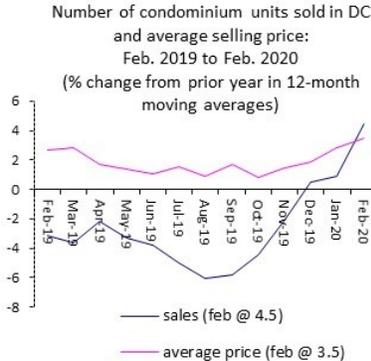
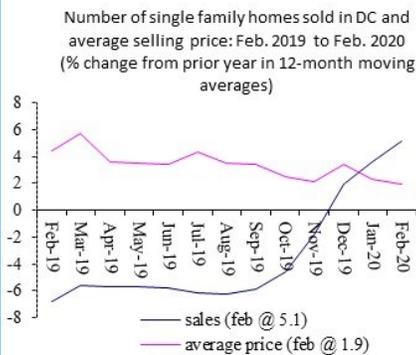


Table 20. D.C. Residential Real Estate Indicators: February 2020

Indicator	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	12-mo moving	3-mo moving	This month
							total or average	total or average	
Number of sales (settled contracts)									
Single family	4,024	4,097	4,385	4,552	4,717	4,439	4,679	1,021	311
1 year change	45	73	288	167	165	-278	228	170	36
% change	1.1	1.8	8.7	3.8	3.6	-5.9	5.1	20.0	13.1
Condo	3,592	3,832	3,955	4,046	4,240	3,995	4,234	919	315
1 year change	105	240	123	91	194	-245	181	171	85
% change	3.0	6.7	5.6	2.3	4.8	-5.8	4.5	22.9	37.0
Total	7,616	7,929	8,340	8,598	8,957	8,434	8,913	1,940	626
1 year change	150	313	411	258	359	-523	409	341	121
% change	2.0	4.1	7.2	3.1	4.2	-5.8	4.8	21.3	24.0
Average prices of units sold									
Single family (\$)	736,362	767,870	794,668	824,857	835,130	863,640	874,376	892,300	849,578
1 year change	23,563	31,508	26,798	30,189	10,273	28,511	16,480	37,045	8,401
% change	3.3	4.3	5.8	3.8	1.2	3.4	1.9	4.3	1.0
Condo (\$)	472,419	499,650	500,824	511,247	529,463	538,660	549,950	565,131	559,789
1 year change	24,592	27,232	1,173	10,423	18,215	9,197	18,654	45,661	47,094
% change	5.5	5.8	2.2	2.1	3.6	1.7	3.5	8.8	9.2
Total value of all sales (\$ million)	4,660.0	5,060.6	5,465.4	5,823.3	6,184.2	5,985.6	6,419.7	1,430.4	440.6
1 year change	262.2	400.6	404.8	357.9	361.0	-198.6	447.9	314.0	91.3
% change	6.0	8.6	12.4	6.5	6.2	-3.2	7.5	28.1	26.1

Closed (settled) contracts. Average prices calculated by ORA based on number of sales and total value of sales.

Source: MarketStats by ShowingTime, accessed by Bright MLS and (for median contract prices) GCAAR.

Single family and condominium housing

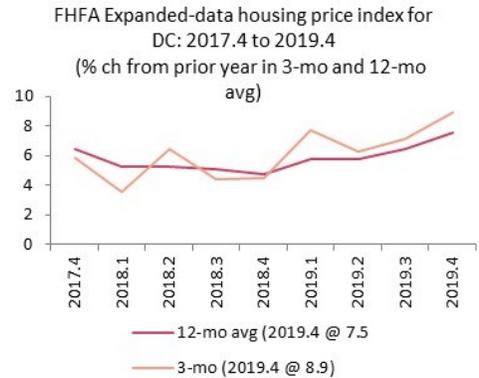
The FHFA house price index for DC was rising faster than the national average at the end of 2019

- The percentage change from the prior year in DC home prices was 8.9% higher in the December quarter, according to the Federal Housing Finance Agency Index of single-family same-property transactions. The US index was up 5.3%, and the Washington metropolitan area gain was 4.7%.
- 27.9% of all single family sales for the 12-months ending February were for properties greater than \$1 million.
- In the December quarter, sales of new condominiums over the past 12 months were 15.5% higher than a year earlier.

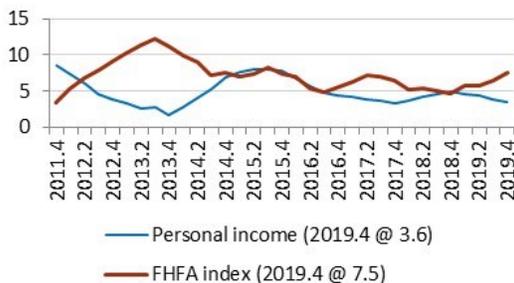
Table 21. Federal Housing Finance Agency Price Index for single family property in DC, DC metro area, and US: December 2019 (2019.4)

Indicator	Fiscal year average				Last 2 Q's	
	FY 2016	FY 2017	FY 2018	FY 2019	2019.3	2019.4
% change from prior year in value of index						
DC	4.9	6.9	5.1	6.4	7.2	8.9
DC metro area	2.6	4.2	4.4	4.7	4.3	4.7
US	5.5	6.3	6.7	6.0	5.5	5.3

Source: Federal Housing Finance Agency "Expanded-data HPI Index" (sales plus refinancings) (nsa). This quarterly index is a broad measure of the movement of single-family house price, measuring the average price changes in repeat sales or refinancings of the same properties. This information is estimated using Enterprise, FHA, and Real Property County Recorder data licensed from DataQuik. Data is collected quarterly.



DC Personal Income and FHFA Housing index: 2011.4 to 2019.4
(% change from prior year in 12-month moving average)



FHFA expanded-data housing price index for DC, the Washington Metropolitan area, and the US: 2016.4 to 2019.4
(% change from prior yr. in the 12-mo. moving avg.)

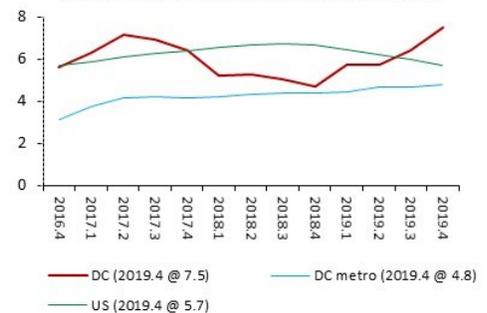


Table 22. D.C. Single family and condominium home sales at prices of \$1 million or more: February 2020

Category	FY 2017	FY 2018	FY 2019	12-mo	3-mo	This month
				moving total	moving total	
Single family homes	1,057	1,192	1,232	1,306	282	80
1 year change	121	135	40	101	51	10
% change	12.9	12.8	3.4	8.4	22.1	14.3
percent of all single family sales	23.2	25.3	27.8	27.9	27.6	25.7
Condominiums	189	222	213	250	63	16
1 year change	22	33	-9	46	28	8
% change	13.2	17.5	-4.1	22.5	80.0	100.0
percent of all condominium sales	4.7	5.2	5.3	5.9	6.9	5.1

Source: MarketStats by ShowingTime, accessed by Bright MLS. Sales are ones closed (settled) during period shown.

Table 23. Single family housing permits and sales of new condo. units in DC: FY 2015 to 2019.4

	Permits	Condo. Sales
FY 2015	293	483
FY 2016	283	680
FY 2017	367	482
FY 2018	133	525
FY 2019	138	478
12-mo. ending:		
2019.4	158	543
1 yr ch	46	73
% ch.	41.1	15.5

Source: Census Bur. (permits), and Delta Associates (condo sales)

Hospitality

Hotel stays and revenues have risen significantly over the past 6 months

- For the 3 months ending February the number of room-days sold was 4.0% more than a year ago, the average room rate was up 2.1%, and hotel room sales revenues were 6.2% higher. The 12-month moving total for hotel room-days sold was 3.1% above a year earlier, and revenues were 5.5% higher.
- Employment in food services was 0.1% more in February than a year earlier as measured by the 3-month moving average. Hotel employment was up 2.5% from a year earlier.
- February airline traffic into the DC area was 7.9% higher compared to a year earlier as measured by the 3-month moving total. Reagan National was up 8.2%. For the past 12-months, total traffic into the DC area was 2.6% more than the prior year, with Dulles experiencing the largest percentage gain (3.8%).

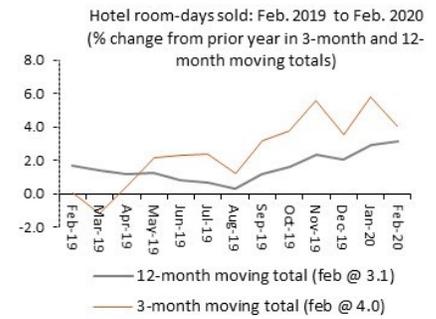
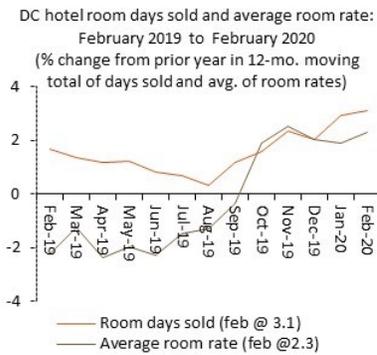
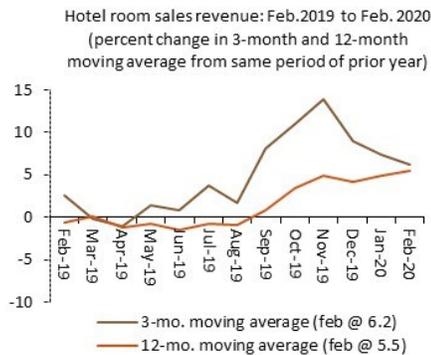


Table 27. Hospitality Industry: February 2020

Indicator	Units	date	FY 2016	FY 2017	FY 2018	FY 2019	12-month moving total or average*	3-month moving total or average*	This month
Hotel stays									
Hotel room-days sold	('M)	feb	8.332	8.740	9.018	9.123	9.270	1.829	0.621
			0.135	0.408	0.278	0.105	0.281	0.071	0.007
			1.3	4.9	3.2	1.2	3.1	4.0	1.2
Average room rate	\$	feb	221.19	233.03	223.98	223.33	226.68	186.86	202.48
			7.18	11.84	-9.05	-0.65	5.10	3.85	5.47
			3.3	5.4	-3.9	-0.3	2.3	2.1	2.8
Occupancy rate	%	feb	78.0	78.5	78.0	76.4	76.7	61.1	69.7
(average)			0.5	0.5	-0.5	-1.6	-0.2	0.8	2.0
			0.7	0.6	-0.6	-2.1	-0.3	1.3	3.0
Room revenue	(\$M)	feb	1,843.0	2,036.7	2,019.9	2,037.4	2,101.2	341.8	131.9
			83.2	193.7	-16.8	17.5	109.4	20.0	10.9
			4.7	10.5	-0.8	0.9	5.5	6.2	9.0
Airline passengers									
DCA	1 yr % ch	feb	2.8	3.2	-1.2	0.7	3.1	8.2	7.4
IAD	1 yr % ch	feb	-0.1	5.0	4.1	4.4	3.8	7.8	6.1
BWI	1 yr % ch	feb	6.0	5.6	4.5	-1.4	1.2	7.8	7.9
Total	1 yr % ch	feb	3.0	4.6	2.5	1.1	2.6	7.9	7.2
Employment									
Accommodations	level ('000)	feb	14.9	15.0	14.8	15.4	16.4	16.1	16.2
			-0.3	0.1	-0.2	-0.1	0.8	0.4	0.3
			-1.9	0.6	-1.3	-0.9	5.3	2.5	1.9
Food and bev	level ('000)	feb	51.5	52.0	54.3	55.8	55.5	53.7	53.5
			1.7	0.6	2.2	1.3	0.5	0.0	-0.6
			3.5	1.1	4.3	2.3	0.8	0.1	-1.1

* Total for hotel rooms sold and room revenue.

Source: STR (hotel data); BLS (employment); Airport authorities (airline passengers).

Federal non-defense spending increasing faster than nominal GDP the last half of 2019

- Compared to the same quarter a year ago, in the December quarter Nominal GDP growth was 4.0% and real growth was 2.3%
- During the December quarter, quarterly GDP growth was 2.1% (real) and 3.5% (nominal) (*annualized growth rates*).
- Federal government non-defense spending for consumption and investment increased 5.4% in the 2019.4 quarter from a year earlier. Defense spending grew 6.1%.

Federal non-defense spending and US GDP: 2015.4 to 2019.4 (1 year % change)



Table 28. US GDP, income, and inflation: FY 2016 to 2019.4 (percent change from same period of prior year)

Indicator	FY 2016	FY 2017	FY 2018	FY 2019	12-mo	
					avg	2019.4
GDP real	1.6	2.2	3.0	2.4	2.3	2.3
GDP nominal	2.5	3.9	5.4	4.3	4.1	4.0
Personal Income	2.7	4.1	5.7	4.7	4.4	4.1
Consumption	3.5	4.3	5.2	4.2	4.0	4.1
Investment	-1.5	4.9	7.3	5.3	3.2	-0.7
Corporate profits*	3.2	0.7	2.2	0.5	na	na
S and P stock index	0.4	13.8	16.2	3.3	6.1	14.7
US CPI	0.9	2.1	2.4	1.9	1.8	2.0

Source: BEA (February 27, 2020), BLS, Fred.

*Before tax, with IVA and CCAAdj. na = not available

Table 29. Federal government consumption and investment, US GDP accounts: FY 2016 to 2019.4

(percent change from same period of prior year)

Indicator	FY 2016	FY 2017	FY 2018	FY 2019	12-mo	
					avg	2019.4
Non-defense	3.2	3.1	5.9	3.9	4.2	5.4
Compensation of employees	4.5	3.8	3.6	3.5	3.6	3.7
Purchases of goods and services	3.8	0.5	12.6	3.9	4.6	9.2
Gross investment	1.8	3.9	3.2	4.3	4.8	4.8
Defense	-0.3	1.5	5.5	6.9	6.7	6.1
Compensation of employees	1.3	1.4	4.2	4.6	4.4	4.3
Purchases of goods and services	-0.5	3.0	7.8	11.2	10.6	8.6
Gross investment	-1.0	1.2	6.9	8.0	8.1	8.4
All federal consumption and invest.	1.1	2.2	5.7	5.7	5.7	5.8

Source: BEA (February 27, 2020). Nominal values.

Note: federal spending does not include social security, medicare, or grants.

Table 30. Qtr. to Qtr. ch. in US GDP: 2018.4 to 2019.4

(% ch. from previous quarter at seasonally adj. annual rates)

Indicator	2018.4	2019.1	2019.2	2019.3	2019.4
US GDP real	1.1	3.1	2.0	2.1	2.1
US GDP nominal	2.9	3.9	4.7	3.8	3.5
Wages and salaries	2.1	9.9	2.7	1.6	3.7
Personal income	3.4	6.0	4.4	2.6	3.0

Note: GDP=Gross Domestic Product Source: BEA, updated Feb. 27, 2020.

Defense and non-defense federal spending: 2015.4 to 2019.4 (1 Year % change)



Quarterly change in US Real and Nominal GDP: 2017.4 to 2019.4

(% change from the previous quarter at annual rates)

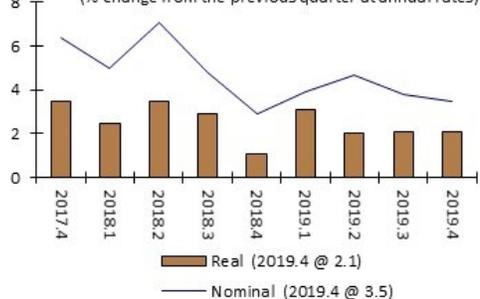


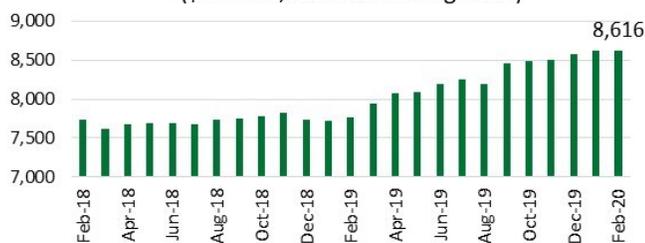
Table 31. Monthly selected US Indicators: October 2019 to February 2020

Indicator	October	November	December	January	February
S and P stock index (level)	2978	3105	3177	3278	3277
% change from prior month	-0.2	4.3	2.3	3.19	-0.03
% change from 1 year ago	6.9	14.0	23.8	25.73	18.96
10 yr. Treasury Interest rate (level)	1.71	1.81	1.86	1.76	1.50
CPI % ch from prior month (seasonally adjusted)	0.25	0.23	0.24	0.15	0.09
CPI % ch from prior year (seasonally adjusted)	1.76	2.04	2.29	1.75	1.07
Jobs (seasonally adjusted level, in millions)	151.55	151.81	152.00	152.27	152.54
change from prior month (thousands)	185	261	184	273	273
% change from prior month	0.1	0.2	0.1	0.2	0.2
Resident employment (season. adj. level, in mil.)	158.54	158.54	158.80	158.71	158.76
change from prior month (thousands)	246	-8	267	-89	45
% change from prior month	0.2	0.0	0.2	-0.1	0.0
Unemployment rate (seasonally adj.)	3.6	3.5	3.5	3.6	3.5

Source: BLS and Fred (Federal Reserve data base)

DC tax collections

DC tax collections (before earmarking):
February 2018 to February 2020
(\$ million; 12 mo. moving total)



One year change in 12-mo. moving total DC
tax collections: Feb. 2019 to Feb. 2020 (\$M)

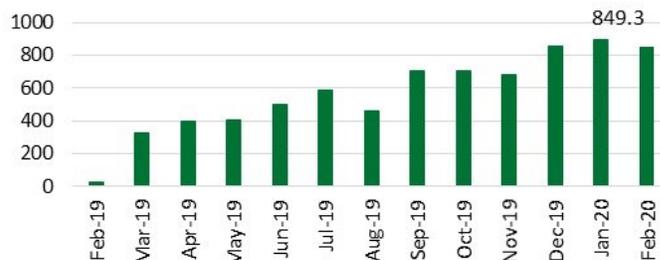


Table 32. Tax Collections (before earmarking): February 2020 (Preliminary)

Tax	Revenue (from CAFR)				Tax collections			
	FY 2016	FY 2017	FY 2018	FY 2019	12-month moving total	FY 2020 to date	3-month moving total	This month
Total taxes	7,241.0	7,472.9	7,771.3	8,455.4	8,615.6	2,351.4	1,508.5	366.1
1 year change	324.2	239.3	298.5	684.1	849.3	161.3	106.2	-8.8
% change	4.7	3.3	4.0	8.8	10.9	7.4	7.6	-2.3
Real property	2,357.5	2,473.3	2,554.2	2,710.1	2,723.4	25.2	-2.3	-2.1
1 year change	163.0	115.9	80.9	155.9	250.0	-8.2	1.1	-0.3
% change	7.4	4.9	3.3	6.1	10.1	-24.6	nm	nm
General sales	1,343.1	1,419.2	1,492.6	1,597.7	1,635.6	710.9	407.0	113.6
1 year change	27.8	76.1	73.4	105.1	120.0	61.9	39.1	13.7
% change	2.1	5.7	5.2	7.0	7.9	9.5	10.6	13.7
Individual income	1,907.9	1,958.3	2,066.8	2,299.3	2,330.9	966.9	653.2	126.7
1 year change	39.8	50.4	108.6	232.5	222.2	37.4	18.4	-40.8
% change	2.1	2.6	5.5	11.2	10.5	4.0	2.9	-24.4
withholding	1,627.6	1,766.6	1,818.2	1,942.9	2,019.7	888.7	574.5	173.1
1 year change	74.4	139.0	51.6	124.7	157.4	83.2	56.5	7.0
% change	4.8	8.5	2.9	6.9	8.5	10.3	10.9	4.2
non-withholding	280.3	191.7	248.7	356.9	311.2	78.1	78.8	-46.4
1 year change	-34.5	-88.6	56.9	108.3	64.8	-45.8	-38.1	-47.8
% change	-11.0	-31.6	29.7	43.5	26.3	-36.9	-32.6	nm
Corporate income	387.1	389.2	436.5	507.9	540.6	168.9	137.8	12.3
1 year change	79.1	2.1	47.3	71.4	93.2	30.5	28.1	6.2
% change	25.7	0.6	12.2	16.4	20.8	22.0	25.6	101.4
Unincorporated Bus.	169.4	165.0	138.2	134.7	146.8	44.8	36.3	1.9
1 year change	29.6	-4.4	-26.8	-3.5	26.6	16.0	5.2	-0.6
% change	21.2	-2.6	-16.2	-2.5	22.1	55.3	16.8	-24.8
Deed taxes*	445.2	460.9	472.3	561.1	566.3	227.8	135.7	34.2
1 year change	-35.4	16.7	11.4	88.8	85.4	15.9	10.1	10.0
% change	-7.4	3.8	2.5	18.8	17.8	7.5	8.0	41.1
Other taxes	630.9	606.9	610.7	644.6	672.2	206.9	140.7	79.6
1 year change	20.3	-17.6	3.7	33.9	51.9	7.9	4.3	3.1
% change	3.3	-2.8	0.6	5.6	8.4	4.0	3.2	4.1

*Deed taxes include deed recordation, deed transfer, and economic interest taxes on real property transactions.

Note: (1) Revenues for the fiscal years 2015 through 2019 are based on the CAFR for those years.

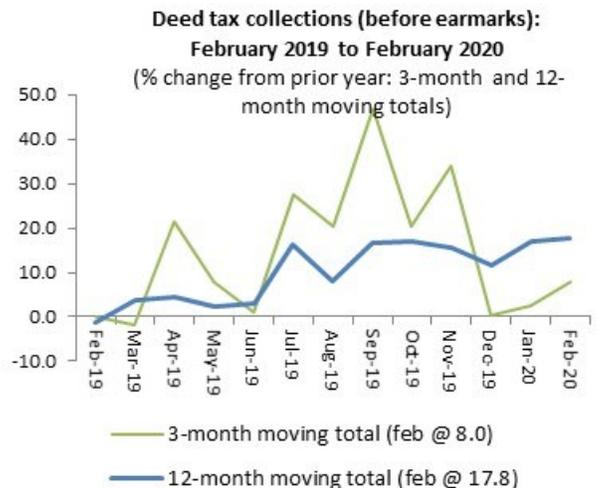
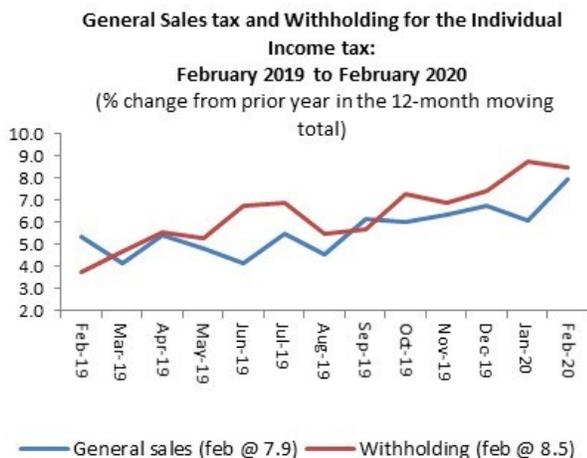
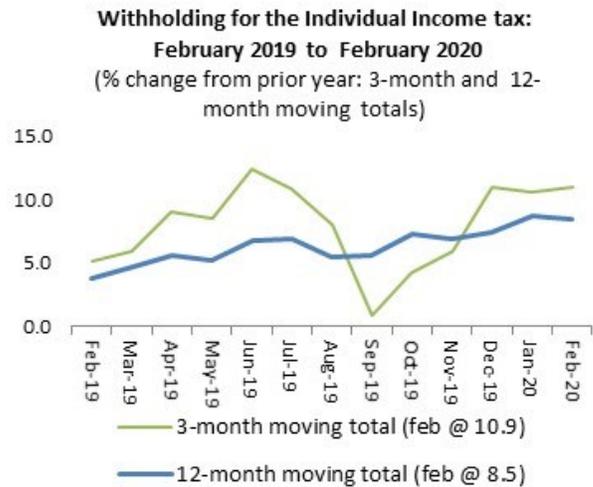
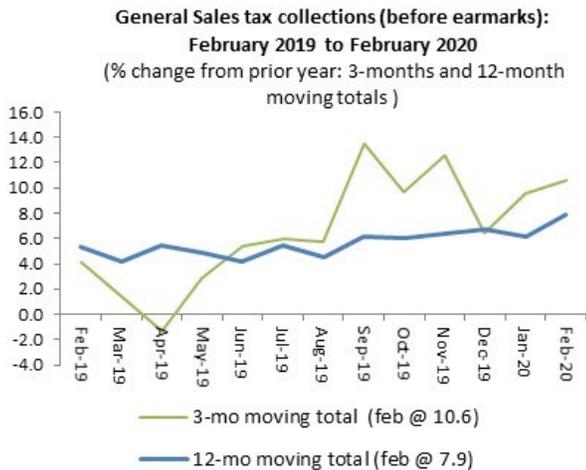
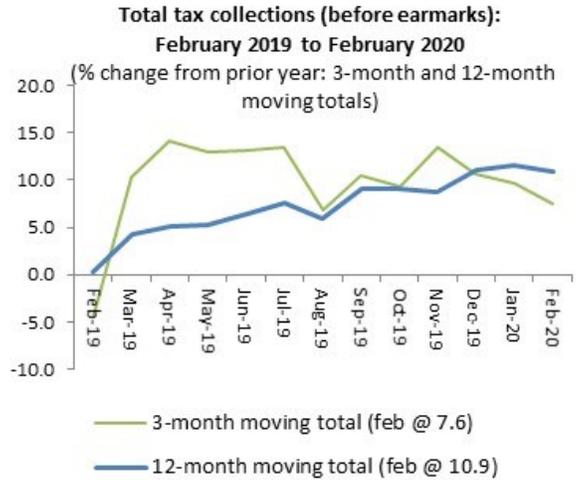
(2) Tax collections data subject to accounting adjustments.

(3) This table and the graphs on the next page may include adjustments to the timing and consistency of collection reporting intended to make comparisons with prior year periods more meaningful. The data may therefore vary from other OCFO reports.

Source: OCFO/ORA nm = not meaningful

Strong growth in tax collections

- For the 12 month period ending February total tax collections (before earmarking) were \$849.3 million (10.9%) more than in the prior year. For the last 3 months they were up 7.6% from last year.
- Individual income tax collections were 10.5% above last year for the 12-months ending February and withholding was 8.5% higher. For the past 3 months, total income tax collections were up 2.9% and withholding was up 10.9%.
- General sales tax collections were 7.9% above last year for the 12-months ending February. For the past 3 months, they were 10.6% above last year.
- Deed tax collections for the 12-months ending February were up 17.8% from last year; for the past 3 months they were up 8.0%.
- Corporate income taxes for the 12 months ending February were up 20.8% while unincorporated business income taxes were 22.1% above last year.



US economic forecasts

Outlook for the US economy: around 2% annual growth in real GDP, 4% in nominal terms, 2% inflation, and mixed views of the stock market

- The February Blue Chip Indicators keeps real GDP growth for FY 2020 at 2.0%, and FY 2021 at 1.9%, compared to 2.4% in FY 2019. Nominal growth slows from 4.3% in FY 2019 to 3.9% in FY 2020 and 4.0% in FY 2021.
- CBO's January 2020 Economic and Budget outlook: nominal GDP growth rate of 4.2% in both FY 2020 and FY 2021.
- The Blue Chip Indicators' February forecast for inflation (CPI): 2.1% in FY 2020 and 2.0% in FY 2021.
- IHS Markit and Moody's Analytics February forecasts for annual US Personal Income growth are around 4.0% for Fiscal Years 2020, 2021, and 2022.
- S&P 500 February baseline forecasts: IHS Markit says the stock market in the last quarter of 2020 will be 5.9% above 2019, while Moody's expects a 2.3% decline.

Table 33. Forecasts for US nominal and real GDP: FY 2016 through FY 2021
(% change from prior fiscal year)

Fiscal year and date of forecast	real			nominal		
	Moody's			Moody's		
	Blue Chip	Analytics	IHS Markit	Blue Chip	Analytics	IHS Markit
FY 2016 Actual	1.6	1.6	1.6	2.5	2.5	2.5
FY 2017 Actual	2.2	2.2	2.2	3.9	3.9	3.9
FY 2018 Actual	3.0	3.0	3.0	5.4	5.4	5.4
FY 2019 Actual	2.4	2.4	2.4	4.3	4.3	4.3
FY 2020						
November	1.9	1.9	2.0	3.9	3.7	4.1
December	1.9	2.0	2.1	3.9	3.8	4.0
January	2.0	2.0	2.2	4.0	3.9	4.0
February	2.0	1.9	2.2	3.9	3.9	3.9
FY 2021						
November		1.6	2.1		3.5	4.4
December		1.6	2.1		3.6	4.3
January	1.9	1.8	2.2	4.0	3.7	4.5
February	1.9	1.7	2.1	4.0	3.6	4.2

Table 34. CBO estimates of US economic indicators: FY 2018 to FY 2022

Indicator	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Real GDP (% ch from prior yr.)	3.0	2.4	2.2	2.1	1.7
Nominal GDP (% ch from prior yr.)	5.4	4.3	4.2	4.2	3.9
Personal Income	5.7	4.7	4.0	4.2	4.2
CPI (% ch from prior yr.)	2.4	1.9	2.3	2.5	2.6
10 yr. Treasury bond rate	2.7	2.5	1.9	2.1	2.5
Unemployment rate	4.0	3.7	3.5	3.5	3.8

Source: Congressional Budget Office, An Update to *The Budget and Economic Outlook: 2019 to 2029*, January 2020

Table 36. Forecasts for S and P 500: 2019.4 to 2021.4

Forecast date	% change from prior year			% change from prior year		
	2019.4	2020.4	2021.4	2019.4	2020.4	2021.4
	IHS Markit			Moody's Analytics		
November	12.9	2.5	0.9	11.9	-8.1	8.4
December	14.2	6.1	0.7	13.5	-8.4	6.5
January	14.7	6.7	1.7	14.7	-4.2	4.2
February	14.7	5.9	-0.5	14.7	-2.3	2.7

Source: IHS Markit, Moody's Analytics. Baseline forecasts

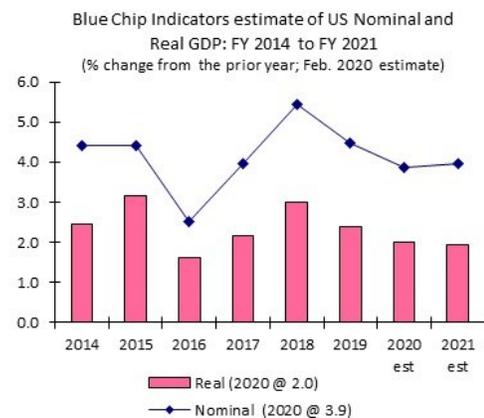


Table 34A. Alternate forecasts of nominal US GDP: FY 2018 to FY 2023 (% change from prior FY)

	2018	2019	2020	2021	2022	2023
IHS Markit	5.4	4.3	3.9	4.2	4.1	3.9
Moody's Analytics	5.4	4.3	3.6	3.6	4.9	4.5
CBO	5.4	4.3	4.2	4.2	3.9	3.7

Source: IHS Markit (Feb.); Moody's Analytics (Feb.); CBO (Jan.)

Table 35. Forecasts for US Personal Income: FY 2019 to FY 2022

Forecast date	% change from prior fiscal yr				% change from prior fiscal yr			
	2019	2020	2021	2022	2019	2020	2021	2022
	IHS Markit				Moody's Analytics			
Nov	4.8	4.1	4.0	4.3	4.8	4.3	3.7	4.5
Dec	4.7	3.7	4.1	4.4	4.7	4.1	3.8	4.4
Jan	4.7	4.0	4.3	4.5	4.7	4.1	4.1	4.4
Feb	4.7	4.1	4.1	4.1	4.7	3.8	4.0	4.3

Source: IHS Markit, Moody's Analytics. Baseline forecasts

Table 37. Blue Chip forecasts for CPI and 10 year Treasury interest rate: FY 2019 to FY 2021

Forecast date	% change from prior fiscal year			% change from prior fiscal year		
	CPI			10 yr Treasury rate		
	2019	2020	2021	2019	2020	2021
Nov	1.9	2.0	2.0	2.5	1.8	1.8
Dec	1.9	2.1	2.1	2.5	1.8	1.8
Jan	1.9	2.2	2.0	2.5	1.9	2.1
Feb	1.9	2.1	2.0	2.5	1.8	2.0

Source: Blue Chip Indicators

DC outlook: slower job growth after FY 2020 and mixed views about population and income

●**Jobs:** IHS Markit and Moody's both anticipate strong DC job growth (close to 10,000) FY 2020, with slowing thereafter, fairly comparable to their US job forecasts. Moody's expects a sharp reduction in resident employment in FY 2021 and 2022.

●**Population:** IHS Markit anticipates DC population growth will continue to slow each year, essentially ruling out any net in-migration. Moody's expects the amount of growth to edge up each year reflecting some net in-migration.

●**Income:** IHS Markit expects Personal Income growth to stay below 4% for each year through FY 2023. Moody's forecast is higher: 4.2% growth in FY 2020, rising to 5.0% by FY 2023. Moody's says DC Personal Income growth will outpace the US economy, IHS Markit says it will not.

●**Apartments and office space.** Delta Associates anticipates that the supply of new Class A apartment space will outpace demand over the next 3 years, and the supply of new office space is also a little higher than demand for the next 2 years.

Table 38. Forecasts of DC jobs and population to FY 2023

	FY	IHS Markit			Moody's Analytics		
		Level	1 yr ch	%ch	Level	1 yr ch	%ch
Jobs	2018	791,075	8,208	1.0	791,075	8,200	1.0
	2019	796,892	5,817	0.7	796,900	5,825	0.7
	2020	806,860	9,968	1.3	806,875	9,975	1.3
	2021	812,544	5,685	0.7	812,925	6,050	0.7
	2022	817,523	4,978	0.6	818,200	5,275	0.6
	2023	821,278	3,755	0.5	822,150	3,950	0.5
Population	2018	700,564	6,948	1.0	700,750	7,000	1.0
	2019	705,220	4,656	0.7	705,325	4,575	0.7
	2020	709,311	4,091	0.6	710,000	4,675	0.7
	2021	713,251	3,940	0.6	715,575	5,575	0.8
	2022	717,084	3,833	0.5	721,975	6,400	0.9
	2023	720,717	3,633	0.5	728,750	6,775	0.9

Source: February baseline forecasts from IHS Markit and Moody's Analytics

Table 39. DC resident jobs, households, and housing starts to FY 2023

	FY	IHS Markit	Moody's Analytics
Resident jobs (1 year change)			
	2018	5,682	5,700
	2019	3,614	3,600
	2020	7,565	6,150
	2021	6,704	575
	2022	4,966	750
	2023	2,568	1,275
Households (1 year change)			
	2018	4,692	6,350
	2019	3,045	3,575
	2020	2,424	4,325
	2021	2,369	4,025
	2022	2,312	4,400
	2023	2,256	4,550
Housing starts			
	2018	4,754	4,290
	2019	6,562	5,961
	2020	4,134	3,916
	2021	3,297	3,506
	2022	2,604	3,403
	2023	2,235	3,485

Source: February baseline forecasts

Table 40. Forecasts of DC Personal Income to FY 2023

Date of est.	IHS Markit						Moody's Analytics					
	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Nov	4.6	4.1	3.8	4.4	3.2	3.9	4.6	4.2	4.5	3.8	4.8	5.0
Dec	4.6	4.1	3.5	4.4	3.5	4.2	4.6	4.2	4.3	3.9	4.8	5.0
Jan	4.6	3.8	3.9	4.8	3.8	4.3	4.6	3.8	4.5	4.5	5.0	5.0
Feb	4.6	3.8	3.9	3.7	3.0	3.7	4.6	3.8	4.2	4.3	4.9	5.0

Source: Baseline forecasts from IHS Markit and Moody's Analytics

Table 41. February forecasts for employment and Personal Income for DC, the metro area, and the US: FY 2019 to FY 2022

(percent change from prior year)

Indicator	IHS Markit				Moody's Analytics			
	2019	2020	2021	2022	2019	2020	2021	2022
Wage and salary jobs								
DC	0.7	1.3	0.7	0.6	0.7	1.3	0.7	0.6
Metro area					0.9	1.6	0.7	0.7
US	1.7	1.4	0.9	0.5	1.4	1.3	0.6	0.5
Personal Income								
DC	3.8	3.9	3.7	3.0	3.8	4.2	4.3	4.9
Metro area					4.0	3.4	3.2	3.8
US	4.7	4.1	4.1	4.1	4.7	3.8	4.0	4.3

Source: IHS Markit and Moody's Analytics. Baseline forecasts

Table 42. Feb. DC forecasts for wages and unemployment: FY 2019 to FY 2022 (% change from prior year)

	IHS Markit				Moody's Analytics			
	2019	2020	2021	2022	2019	2020	2021	2022
Wages and salaries earned in DC								
	3.9	4.0	4.3	4.7	3.9	4.1	3.3	2.9
DC resident wages and salaries								
	3.8	3.7	3.7	2.9	3.8	4.5	4.2	4.2
DC Unemployment rate (level)								
	5.5	5.2	4.9	4.9	5.5	5.3	5.5	5.8

Source: IHS Markit and Moody's Analytics. Baseline forecasts.

Table 43. Delta Associates outlook for Class A apartments in DC and the surrounding metro area: December 2019 to December 2022

Indicator	DC	No VA	Sub MD	Total	DC % of total
Inventory December 2019					
Inventory (msf)	31,907	70,880	41,711	144,498	22.1
Estimated net activity to December 2022					
new supply (msf)	16,918	13,528	7,973	38,419	44.0
new demand (msf)	10,355	10,355	6,540	27,250	38.0

Source: Delta Associates

Table 44. Delta Associates outlook for Class A commercial office space in DC and the surrounding metro area: Dec. 2019 to Dec. 2021

Indicator	DC	No VA	Sub MD	Total	DC % of total
Inventory December 2019					
Inventory (msf)	148.0	185.5	86.3	419.8	35.3
Estimated net activity to December 2021					
new supply (msf)	4.1	3.7	3.0	10.8	38.0
new demand (msf)	3.5	4.1	2.4	10.0	35.0

Source: Delta Associates msf = million square feet

DC revenue estimate

February revenue estimate: tax revenue growth is expected to continue, but at less than half the pace of the 8.8% gain in FY 2019

- Tax revenue increases are estimated at \$240.6 million (2.8%) for FY 2020 and \$246 million (2.8%) for FY 2021.
- Real property tax growth of \$101.2 million in FY 2020 is estimated to account for 42.1% of the net increase in taxes for that year. Real property's share of the increase for FY 2021 is 20.5%.
- Individual income tax revenue, which rose 11.2% in FY 2019, is expected to grow 4.9% in FY 2020 and 2.0% in FY 2021.
- The General sales tax, which grew 7.0% in FY 2019, is expected to grow 3.4% in FY 2020 and 7.0% in FY 2021.
- Deed taxes grew 18.8% FY 2019, and are expected to grow 5.4% in FY 2020, and 6.8% in FY 2021.
- As a % of DC Personal Income, tax revenue rose to 14.2% in FY 2019, and is expected to decline to 13.8% by 2022.

Table 45. DC Tax Revenue (before earmarks) for FY 2019 through FY 2022: February 2020 revenue estimate

Tax	FY level (\$ million)				Change from prior year (\$ M)				% change from prior year			
	2019	2020	2021	2022	2019	2020	2021	2022	2019	2020	2021	2022
Real property	2,710.1	2,811.3	2,861.8	2,949.3	155.9	101.2	50.6	87.5	6.1	3.7	1.8	3.1
Deed taxes	561.1	591.6	632.1	655.2	88.8	30.5	40.5	23.2	18.8	5.4	6.8	3.7
General sales	1,597.7	1,651.6	1,768.0	1,838.9	105.2	53.8	116.4	70.9	7.0	3.4	7.0	4.0
Individual income	2,299.3	2,411.4	2,458.6	2,560.5	232.5	112.0	47.2	101.9	11.2	4.9	2.0	4.1
Withholding	1,942.9	2,051.3	2,122.0	2,213.8	124.7	108.4	70.7	91.8	6.9	5.6	3.4	4.3
non-withholding	356.4	360.0	336.6	346.6	107.8	3.6	-23.5	10.1	43.3	1.0	-6.5	3.0
Business income	642.7	607.4	594.1	613.1	67.9	-35.3	-13.3	19.0	11.8	-5.5	-2.2	3.2
Other	644.6	622.8	627.7	634.0	33.9	-21.8	4.9	6.3	5.5	-3.4	0.8	1.0
Total	8,455.4	8,696.0	8,942.3	9,251.0	684.1	240.6	246.4	308.7	8.8	2.8	2.8	3.5

Source: ORA. Feb. 28, 2020 revenue estimate. Deed taxes include economic interest. The table includes tax revenue only, before all earmarks, and excludes all non-tax revenues, lottery, and "O-type" earmarked revenues. FY 2019 is from the CAFR.

Table 46. DC population and employment: FY 2019 to FY 2022

item	2019	2020	2021	2022
Wage and salary employment	796,892	805,342	810,570	815,241
1 year change	5,817	8,450	5,228	4,671
% change	0.7	1.1	0.6	0.6
DC population	708,297	714,884	721,309	727,557
1 year change	6,690	6,587	6,426	6,247
% change	1.0	0.9	0.9	0.9
Unemployment rate	5.5	5.3	5.2	5.2

Source: ORA February 2020 revenue estimate.

Table 47. DC Income and stock market assumption FY 2019 to FY 2022 (% change from prior year)

item	2019	2020	2021	2022
Wages and salaries earned in DC	4.6	4.1	4.0	4.1
Wages and salaries earned by DC residents	4.9	4.3	4.3	4.4
DC Personal income	4.4	4.1	4.1	4.2
S and P 500 stock index	13.0	2.9	2.9	2.9

Source: ORA February 2020 revenue estimate. Stock index, on a CY basis, represents the % ch. from the December quarter of the prior yr.

Table 48. DC tax revenue (before earmarks) and DC Personal Income: FY 2013 to FY 2022

item	2013	2014	2015	2016	2017	2018	2019	2020 est	2021 est	2022 est	
Tax revenue (\$ million)											
Level		6,100	6,290	6,917	7,234	7,473	7,771	8,455	8,696	8,942	9,251
Change from prior year		247	189	627	317	239	298	684	241	246	309
Percent change from prior year											
Tax revenue		4.2	3.1	10.0	4.6	3.3	4.0	8.8	2.8	2.8	3.5
Personal Income		2.7	5.3	8.0	4.8	3.6	4.6	4.4	4.1	4.1	4.2
Tax revenue as percent of Personal Income											
		13.8	13.5	13.8	13.8	13.7	13.6	14.2	14.0	13.9	13.8

Source: ORA. February 2020 revenue estimate. The table includes tax revenue only, before all earmarks, and excludes all non-tax revenues, lottery, and "O-type" earmarked revenues.

The federal sector. The federal government, DC's largest sector, which accounts for 24.4% of all jobs (compared to 1.9% in the US), made a huge difference in the Great Recession. The 12,700 increase in federal jobs from 2007.4 to 2009.4 swamped other recession effects on DC's job market. When the economy moved into the recovery phase, federal jobs in DC also increased even as they leveled off nationally. The decline in federal employment after 2011 has been greater in DC than in the US, so that as a new recession is approaching DC's share of federal jobs has been falling.

The sudden contraction of economic activity due to the arrival of the covid-19 virus has triggered increases of trillions of dollars in federal spending for temporary economic relief. Experience in the Great Recession shows that in the months ahead this sector can make an enormous difference to DC's labor market. Will the new spending translate into additional federal jobs in DC as happened in the Great Recession, or will federal jobs continue along the current trajectory of a slowly declining DC share of a sector experiencing little or no growth nationally?

Change in Federal jobs in DC and the US for selected periods: 2005 to 2019

	2005 to 2007	2007 to 2009	2009 to 2011	2011 to 2016	2016 to 2019
Amount of change	-2,867	12,700	5,100	-7,933	-4,900
DC % ch	-1.5	6.6	2.5	-3.8	-2.4
US % ch	0.4	3.5	0.0	-1.0	1.5

Source: BLS. 4th quarter data for years shown.

Private sector. DC's private sector was growing a little faster than the US average before the Great Recession began, and it substantially outperformed the nation both during the recession (far less decline) and, to a lesser extent, in the recovery period immediately afterward. For the five years from 2011.4 to 2016.4 DC's private sector no longer grew faster than the national average, but it kept pace with the nation, adding 56,867 jobs. Over the last three years, however, DC's private sector growth rate has slipped a little below the national one.

DC's private sector's ability to outperform the US average during and immediately after the recession, no doubt partly related to federal contracts from stimulus spending, helped the city limit the recession's damage. As a new recession approaches the private sector presents a mixed picture. Jobs are increasing about as fast as they were before the last recession, but the share of US private sector job growth has started to decline. A new recession's impact on private sector employment in DC will be quite different if higher levels of federal spending to stabilize the economy do not result in a lot of private sector contracts, or if DC's share of the nation's private employment slips further.

If the recession underway is severe and lasts a long time, some structural changes in the nation's economy may be a consequence. (For example, more on-line activity.) There is both up side and down side risk here for DC's private sector—it depends a great deal if possible structural changes favor things that DC's private sector can do well.

Change in private sector jobs in DC and the US for selected periods: 2005 to 2019

	2005 to 2007	2007 to 2009	2009 to 2011	2011 to 2016	2016 to 2019
Amount of change	14,067	-3,933	20,967	56,867	24,333
DC % ch	3.1	-0.8	4.5	11.7	4.5
US % ch	2.6	-7.3	3.0	11.0	5.1

Source: BLS. 4th quarter data for years shown.

Job structure in DC and the US: December 2019

sector	Number in		% of total		DC % of US jobs
	DC	US**	DC	US**	
Federal	196,433		24.4	1.9	6.88
High wage*	176,400		21.9	7.9	1.46
Trade and hospitality	110,667		13.7	25.1	0.29
Other private	279,367		34.7	51.9	0.35
State and local gov.	42,367		5.3	13.2	0.21
total	805,233		100.0	100.0	0.53
private sector	566,433		70.3	84.9	0.44

*Professional, technical, management, information, and financial ser.

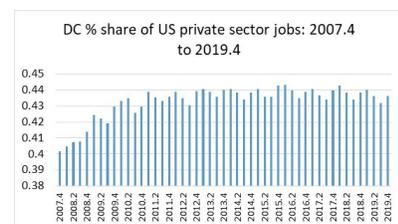
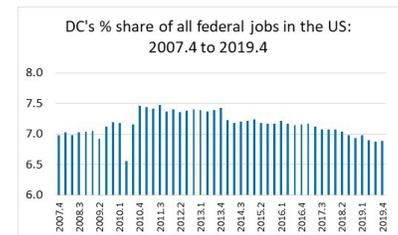
**In the last quarter of 2019 there were 152,892,000 jobs in the US.

Source: BLS. December 2019 quarter, not seasonally adjusted

Change in jobs in 5 sectors in DC and the US in the Great Recession period (2007.4 to 2009.4)

Sector	Change in number of jobs in DC		% change over the period:	
	Amount	% share	DC	US
Federal	12,700	300.0	6.6	3.5
High wage	-7,333	-173.2	-4.7	-3.9
Trade and hospitaity	2,233	52.8	2.8	-6.6
Other private	1,167	27.6	0.5	-8.1
State and local gov.	-4,533	-107.1	-10.9	0.5
Total	4,233	100.0	0.6	-6.0

Source: BLS



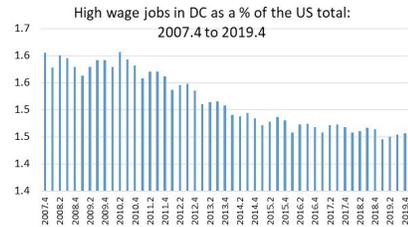
High wage sector. The District’s high wage sector, defined here as professional and technical services, management, information, and financial services, is proportionately much larger than in the US (21.9% versus 7.9%). Barely growing before the Great Recession, DC’s high wage sector lost jobs in the recession at a rate above the US one. The sector picked up steam after the recession, and it has become the leading source of job (and wage) growth in DC. The sector added 11,700 jobs in the last 3 years, over 50% of all net DC job growth since 2016.

Looking ahead, what happens to the high wage sector matters greatly for DC’s economy. On the positive side, the sector is growing as a new recession approaches. But it was also hit hard in the last recession, and it has not outperformed the sector’s national average even in the past 3 years. In the short run the sector might gain from federal contracting or lobbying related to federal stabilization spending.

Change in high wage private sector jobs in DC and the US for selected periods: 2005 to 2019

	2005 to 2007	2007 to 2009	2009 to 2011	2011 to 2016	2016 to 2019
Amount of change	267	-7,333	3,867	12,233	11,700
DC % ch	0.2	-4.7	2.6	8.0	7.1
US % ch	8.6	-3.9	4.5	14.9	8.0

Source: BLS. High wage jobs are professional, technical, management, information, and financial services. 4th quarter data for years shown.

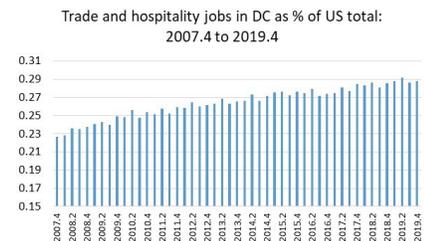


Trade and hospitality. This sector demonstrates in very stark terms how the approaching recession is different from what has happened before. Trade and hospitality, whose job share is about half of what it is in the US (13.7% v 25.1%), consistently outperformed the US average from before the Great Recession all the way up through 2019. From 2007 to 2009—the recession years—trade and hospitality jobs in DC grew 2.8% while they fell 6.6% in the US. Unemployment in the sector is now soaring, however, and the questions are how far will be the fall and how long the recovery. Even if DC outperforms what happens nationally, this time around hospitality and trade will not help to buffer DC against job losses like it did previously.

Change in trade and hospitality jobs in DC and the US for selected periods: 2005 to 2019

	2005 to 2007	2007 to 2009	2009 to 2011	2011 to 2016	2016 to 2019
Amount of change	2,733	2,233	5,867	15,067	7,700
DC % ch	3.5	2.8	7.2	17.1	7.5
US % ch	3.2	-6.6	3.0	10.9	2.2

Source: BLS. 4th quarter data for years shown.

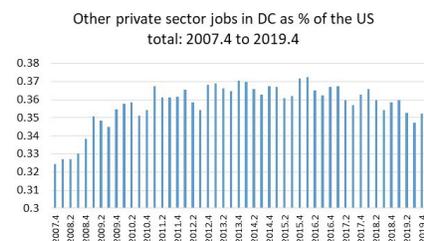


Other private. This broad sector includes everything from business services, health, and education, to non-profit organizations and construction. It is proportionally smaller in DC than in the US (34.7 v 51.9), but represents a major challenge as a recession approaches because it has been the source of much of DC’s labor market gains since 2007. This sector vastly outperformed the US before and during the Great Recession. In the 7 years from 2009 to 2016 it also outperformed the US; the more than 40,000 jobs added over those years accounted for over 50 % of all DC job growth. Since 2016 job growth in the sector has slowed and its share of the US totals has declined quite sharply. This sector once again playing a leading role in buffering DC from the worst of a deteriorating national economy would require a remarkable turnaround.

Change in other private sector jobs in DC and the US for selected periods: 2005 to 2019

	2005 to 2007	2007 to 2009	2009 to 2011	2011 to 2016	2016 to 2019
Amount of change	11,067	1,167	11,233	29,567	4,933
DC % ch	5.0	0.5	4.8	12.1	1.8
US % ch	1.5	-8.1	2.8	10.4	6.1

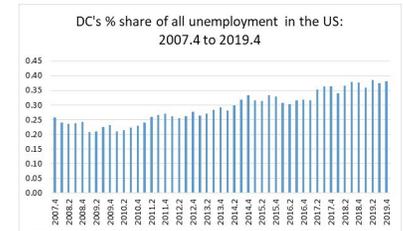
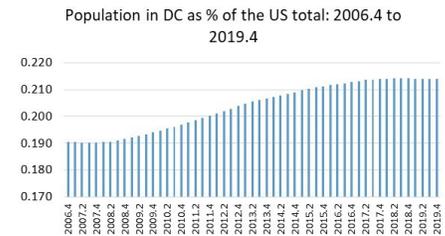
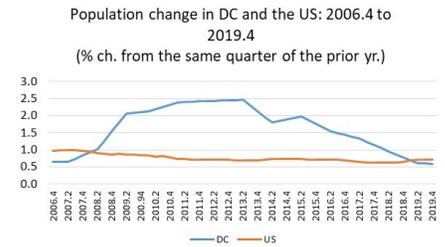
Source: BLS. 4th quarter data for years shown.



Population. In the two years before the Great Recession DC’s population started to grow, but more slowly than the national average. By the end of 2009, however, DC had 21,000 more people and was growing at twice the national rate. Due mostly to migration to the city, growth rates two or three times the US average continued over the next 7 years as DC population grew by about 92,000, more than 1,000 per month. But growth has since declined.

Accelerating population growth was an integral part of how DC avoided some of the worst effects of the Great Recession. Without it, for example, DC’s labor force and resident employment would not have been able to increase in tandem with job increases. On the eve of a new recession there was little net immigration and the population growth rate was close to the national average. Whether DC’s population growth could pick up again as the nation falls into a recession is uncertain, and depends on many factors such as whether jobs are growing and the cost of housing. The approaching recession’s impact on DC will be quite different this time if such population growth doesn’t occur,

The increase in jobs and population since the Great Recession did not solve all unemployment issues in DC. At the end of 2019 there were 2,893 (16.1%) more unemployed persons in DC than in 2007 before the recession began; US unemployment was 21.8% less. DC’s unemployment rate in 2007 (5.6%) was 21.7% above the US one; in 2019 DC’s 5.1% rate was 54.5% above the national one.



Change in population in DC and the US, selected periods: 2005 to 2019

	2005 to 2007	2007 to 2009	2009 to 2011	2011 to 2016	2016 to 2019
Amount of change	8,410	21,270	28,770	63,000	17,440
DC % ch	1.5	3.7	4.8	10.0	2.5
US % ch	1.9	1.7	1.5	3.6	2.0

Source: BLS. 4th quarter data for years shown.

Change in the number of unemployed persons in DC and the US, selected periods: 2005 to 2019

	2005 to 2007	2007 to 2009	2009 to 2011	2011 to 2016	2016 to 2019
Amount of change	285	15,829	916	-11,669	-2,183
DC % ch	1.6	87.9	2.7	-33.6	-9.5
US % ch	-0.6	107.5	-12.1	-43.5	-24.1

Source: BLS. 4th quarter data for years shown.

Change in the labor force in DC and the US, selected periods: 2005 to 2019

	2005 to 2007	2007 to 2009	2009 to 2011	2011 to 2016	2016 to 2019
Amount of change	12,109	13,909	11,409	46,066	14,869
DC % ch	3.9	4.3	3.4	13.2	3.8
US % ch	2.4	-0.3	0.3	3.7	3.1

Source: BLS. 4th quarter data for years shown.

Concluding observations. As noted above, the approaching recession differs from the Great Recession and the city is different. Accordingly, there is no way to know how things will work out in DC’s labor market in the coming months by considering what happened over the past 12 years. A look back does, however, show the importance of spending by the city’s dominant sector, the federal government, in defining the trajectory of DC’s labor market as a recession unfolds. Also, two developments that helped buffer DC from the worst impact of a recession—private sector job and population growth rates that both exceeded national averages—appear to have largely dissipated in the waning years of the longest economic expansion in US history. Everything else being equal, this suggests a risk that DC is in for a harder time than in the last recession, but things are not necessarily equal. The last recession stemmed from a financial market crisis that may have disrupted industries such as financial services that may be less affected now. Change in the patterns of industry structure and population dynamics in the national economy may also arise during the recession and subsequent recovery that can disproportionately affect specific industries and jurisdictions, and some of those developments may turn out to favor DC.

—Stephen Swaim, DC Office of Revenue Analysis

About the data. Wage and salary employment data is from the US Bureau of Labor Statistics and reflects the March 2020 revisions to prior years. The data used here is quarterly, calculated as a 3-mo. average of seasonally unadjusted data. All tables and the text use the 4th quarter of each year, sometimes shown as a decimal attached to the year (e.g. 2017.4). Population data is from Global Insight, an economics data and economic analysis firm.

ORA reports and documents. From time to time the Office of Revenue Analysis prepares revenue estimates, fiscal impact statements on pending legislation, reports, and other documents on subjects related to DC 's economy and taxes. These documents are posted on the OCFO web site (www.cfo.dc.gov) under subcategories of "Reports and Publications" and "Budget and Revenue."

District, Measured. Information on the economic and demographic trends taking shape in the city can be found on the ORA Blog, District, Measured (districtmeasured.com). You can sign up at the blog page to receive updates as new articles are posted.

<p>Recent ORA reports:</p> <p>February revenue estimate. February 28, 2020.</p> <p>DC Tax Facts, 2019. Details on all DC taxes.</p> <p>DC Tax Facts Visual Guide Report. A visual guide to DC's tax system.</p> <p>Tax Rates and Tax Burdens 2018 Nationwide. This annual publication compares DC tax rates and estimated DC tax burdens for households of different income levels with the rates and burdens of state and local taxes in the principal cities in all 50 states.</p> <p>Tax Rates and Tax Burdens 2018 Washington Metropolitan Area. This annual publication compares DC tax rates and estimated DC tax burdens for households of different income levels with the rates and burdens of the surrounding jurisdictions in the DC metropolitan area.</p> <p>Review of economic development tax expenditures. November 2018. Comprehensive description and analysis of DC tax expenditures related to economic development incentives.</p>
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About this report. *District of Columbia Economic and Revenue Trends* is generally issued toward the end of every month. Employment and most other DC information reported on a monthly basis is from one to two months prior to the *Trends* date. Lags can be greater with quarterly data such as Personal Income and commercial real estate. Data in the tables are believed to be reliable, but original sources are definitive. All data are subject to revision by the information source. The *Trends* report is available at the DC Chief Financial Officer web-site: www.cfo.dc.gov (click on *Budget and Revenue/Economy/ Economic and Revenue Trends*).

Table 49. Information sources			
Indicator	Source	Period covered in this report	Next release
D.C. Jobs and Labor Force information	BLS	February	April 17
D.C. Personal Income	BEA	2019.4	June 23
D.C. Tax Collections	OTR/ORA	February	c. April 15
D.C. Housing Sales	MarketStats by ShowingTime*	February	c. April 10
D.C. Commercial Office Building data	CoStar and Delta	2019.4	c. April 10
DC Apartment data	CoStar and Delta	2019.4	c. April 10
D.C. Hotel stay information	STR	February	c. April 20
Consumer Price Index	BLS	February	April 10
U.S. Jobs and Labor Force	BLS	February	April 3
U.S. GDP and Personal Income	BEA	2019.4	March 26
S and P 500 Stock Index	FRED (St. Louis Fed Reserve)	February	April 1
Interest rate on 10-Year Treasury Securities	FRED (St. Louis Fed Reserve)	February	April 1
IHS Markit D.C. forecast	IHS Markit	February	c. March 20
Moody's Analytics D.C. forecast	Moody's Analytics	February	c. March 20
Blue Chip Economic Indicators for the U.S.	Wolters Kluwer	February	c. March 10

*Accessed through Bright MLS & the Greater Capital Area Association of Realtors.

For further information or to comment on this report, contact: Stephen Swaim (202-727-7775) or stephen.swaim@dc.gov See also the *Economic Indicators* issued monthly by the D.C. Office of the Chief Financial Officer (www.cfo.dc.gov).

District of Columbia Economic and Revenue Trends is prepared by the Office of Revenue Analysis, which is part of the Office of the Chief Financial Officer of the District of Columbia government.

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