



District of Columbia Economic and Revenue Trends: October 2018

Muriel Bowser, Mayor
 Jeffrey S. DeWitt, Chief Financial Officer

Fitzroy Lee, Deputy CFO & Chief Economist
 Stephen Swaim, Senior Economist

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Are growth of the labor force and resident jobs slowing in DC? Maybe—and maybe not.

The latest seasonally adjusted and unadjusted data from BLS tell different stories

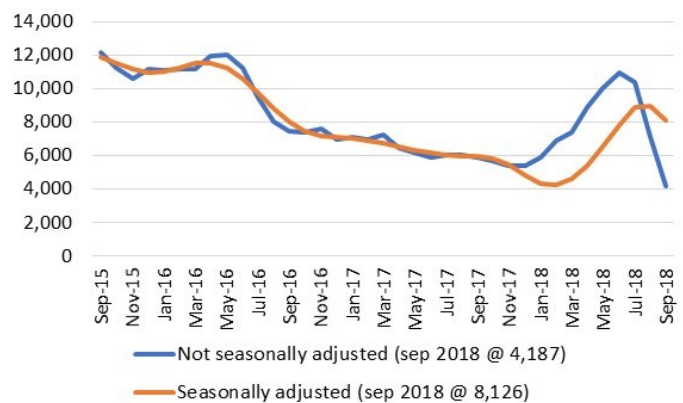
Each month the US Bureau of Labor Statistics (BLS) estimates labor market statistics for all states and the District of Columbia. Labor market statistics include the labor force, resident employment, unemployment, and the unemployment rate. The data is reported on both a seasonally adjusted and unadjusted basis. Seasonal adjustment takes account of recurrent events during a year such as holiday employment that can mask trends in the data.

Typically, comparing data from the same month of the prior year eliminates the need for seasonal adjustment. Accordingly, it would be expected that there should be little difference between seasonally adjusted and unadjusted estimates in the annual change in DC resident employment from September 2017 to September 2018. Currently, however, the two data sets give very different pictures of the change over this time, leaving unanswered the question as to whether DC's resident employment is or is not slowing.

- The seasonally-unadjusted data says that from September 2017 to September 2018 resident employment (measured by the 3-month moving average) increased by 4,187 (1.1%). By contrast, the seasonally adjusted data pegs the increase at twice that (8,126, a 2.2% gain).
- The unadjusted data shows quite a sharp decline in the amount of year-over-year growth since May 2018, while the adjusted data shows an increase.
- The unadjusted data pegs growth over the past year at about half annual average increase over the past 5 years. However, seasonally adjusted, the growth is very close to the average of the past 5 years. *(Cont'd on p. 21)*

DC resident employment: Sep. 2015 to Sep. 2018 (seasonally adjusted and unadjusted estimates of change from the prior year)

Source: BLS. Calculated from 3-month moving averages.



Wage and salary employment

Job growth steady in DC, faster in the suburbs

- September wage and salary employment in DC was up by 8,300 (1.1%) from a year earlier as measured by the 3-month moving average.
- Federal government employment in DC for September was down by 3,333 (1.7%). The private sector gained 11,200 (2.0%).
- Total year-over-year DC metropolitan area employment increased 70,433 (2.2%) in September as measured by the 3-month moving average. Of the increase, 11.8% was in DC.
- Suburban Washington employment in September increased by 2.5% from a year earlier.
- Seasonally adjusted DC jobs increased by 500 in September from the prior month and are 1,500 above the level of April 2018.

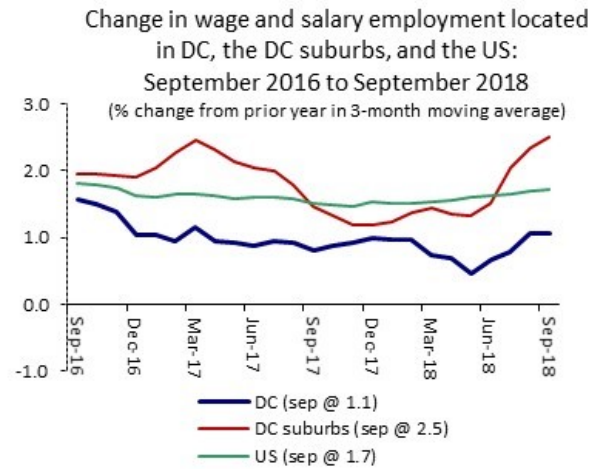


Table 1. Wage and salary employment in DC, the Washington metro area, and the US: Sep. 2018

Jurisdiction	FY 2015	FY 2016	FY 2017	3-mo		
				12-mo avg	average	This month
District of Columbia	764,583	780,892	788,433	795,258	797,800	799,800
1 year change	12,992	16,308	7,542	6,825	8,300	7,100
% change	1.7	2.1	1.0	0.9	1.1	0.9
Washington metro area	3,133,800	3,209,608	3,264,825	3,312,767	3,345,367	3,342,300
1 year change	34,700	63,175	55,217	47,942	70,433	66,900
% change	1.1	2.0	1.7	1.5	2.2	2.0
Washington suburbs (% ch)	1.5	2.0	2.0	1.7	2.5	2.4
US (% ch)	2.1	1.8	1.6	1.6	1.7	1.7

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

Source: BLS. September 2018 is preliminary.

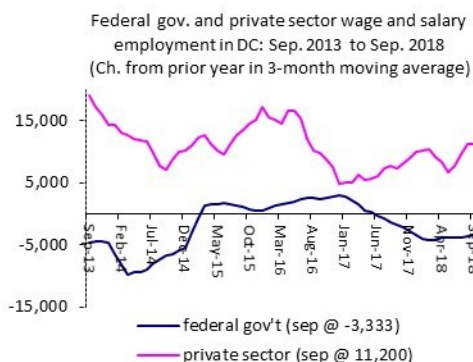


Table 2. Federal government and private sector wage and salary employment in DC: September 2018

Sector	FY 2015	FY 2016	FY 2017	3-month		
				12-mo avg	average	This month
Federal government	198,025	199,717	200,267	196,567	195,833	195,100
1 year ch.	-342	1,692	550	-3,700	-3,333	-3,500
% change	-0.2	0.9	0.3	-1.8	-1.7	-1.8
Private sector	527,033	541,258	547,417	556,958	557,800	563,000
1 year ch.	11,475	14,225	6,158	9,542	11,200	9,500
% change	2.2	2.7	1.1	1.7	2.0	1.7

Source: BLS. Not seasonally adjusted. September is preliminary.

Table 3. Seasonally adjusted DC Employment: April 2018 to September 2018

Indicator	April	May	June	July	August	September
D.C. Wage and Salary employment	795,300	795,900	793,600	796,600	796,300	796,800
change from prior month	1,900	600	-2,300	3,000	-300	500
% change from prior month	0.2	0.1	-0.3	0.4	0.0	0.1

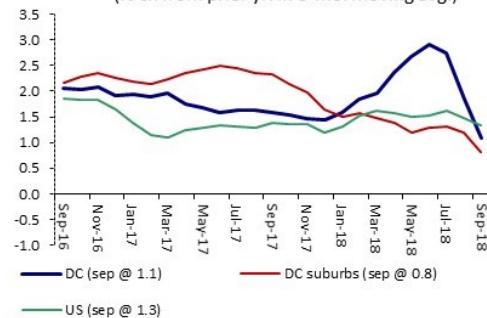
Source: BLS seasonally adjusted. September is preliminary.

Resident employment and unemployment

Slower growth in DC resident employment

- In September DC resident employment was up 4,067 (1.1%) from a year earlier (3-mo. moving average). The labor force grew by 2,722 (0.7%).
- The seasonally adjusted unemployment rate rose slightly to 5.7% in September. The rate a year ago was 6.0%.
- September initial unemployment insurance claims were up 29.2% from last year (3-month moving average).

Resident employment in DC, the DC suburbs, and the US:
September 2016 to September 2018
(% ch from prior yr. in 3-mo. moving avg.)



Jobs located in DC and DC resident employment:
September 2016 to September 2018
(Change from prior year in 3-mo. moving average)

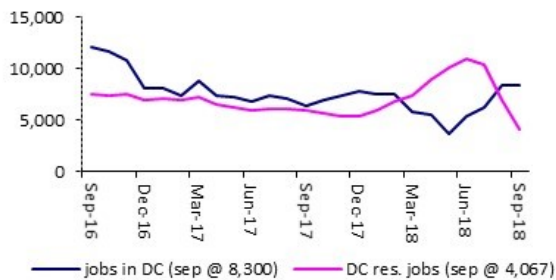


Table 4. Unemployment rates for DC, metro area, and US: September 2018

(percent of labor force)

Jurisdiction	Not seasonally adj.		Seasonally adj.	
	Sep. 2017	Sep. 2018	Sep. 2017	Sep. 2018
US	4.1	3.6	4.2	3.7
DC	6.3	6.0	6.0	5.7
DC metro area	3.6	3.3	na	na
DC suburbs	3.5	3.1	na	na

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

Table 5. Resident employment and unemployment: September 2018

Indicator	FY 2014	FY 2015	FY 2016	FY 2017	12-mo avg	3-mo. avg.	This month
DC Labor force summary							
Resident employment	346,038	358,531	368,776	375,280	382,227	380,818	376,164
1 year change	4,216	12,493	10,245	6,504	6,947	4,067	1,309
% change	1.2	3.6	2.9	1.8	1.9	1.1	0.3
Labor Force	375,876	386,144	393,316	399,638	405,233	405,334	399,996
1 year change	1,777	10,268	7,172	6,322	5,595	2,722	52
% change	0.5	2.7	1.9	1.6	1.4	0.7	0.0
Unemployed	29,838	27,614	24,540	24,359	22,977	24,396	23,832
1 year change	-2,439	-2,224	-3,073	-182	-1,382	-1,465	-1,257
% change	-7.6	-7.5	-11.1	-0.7	-5.7	-5.7	-5.0
Unemployment rate	7.9	7.2	6.2	6.1	5.7	6.0	6.0
DC Unemployment insurance (state program)							
Initial claims (monthly avg.)	1,851	1,596	1,472	1,505	1,649	1,877	1,554
1 year change	-64	-255	-123	33	144	425	292
% change	-3.3	-13.8	-7.7	2.2	9.6	29.2	23.1
Weeks compensated (mo. avg.)	42,133	32,811	30,261	31,355	32,113	29,468	25,737
1 year change	-729	-9,322	-2,550	1,094	758	-3,070	-2,988
% change	-1.7	-22.1	-7.8	3.6	2.4	-9.4	-10.4

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

Table 6. Seasonally adjusted DC Resident employment and unemployment: Apr. 2018 to Sep. 2018

Indicator	April	May	June	July	August	September
DC Resident employment	382,638	384,293	385,442	386,108	385,083	383,757
change from prior month	1,653	1,655	1,149	666	-1,025	-1,326
% change from prior month	0.4	0.4	0.3	0.2	-0.3	-0.3
DC Unemployment rate (%)	5.6	5.6	5.6	5.6	5.6	5.7

Source: BLS seasonally adjusted. September is preliminary.

Jobs by sectors of the economy

DC's private sector is growing at a faster pace than the US average

- In September education added 3,533 jobs (3-month moving avg.)
- In the private sector, food service (2,100), professional and technical services (except legal) (1,733), and finance (1,233) grew by 1,000 or more jobs in September.
- The sectors with the fastest rate of growth over the prior year in September were personal services (8.3%), other private services (6.6%) and education (6.0%).
- Private sector industries losing jobs included health, employment services, and other business services.
- Local government rose by 433.
- The federal government accounted for 24.5% of all DC jobs in September. Over the past year, DC's share of federal employment fell in both the metro area and the US.
- Over the past year DC's share of jobs in the US rose in several sectors, including legal services, information, finance, education, food service, amusement and recreation, and personal services.

Change in private sector wage and salary jobs located in DC, the DC suburbs, and the US: September 2016 to September 2018

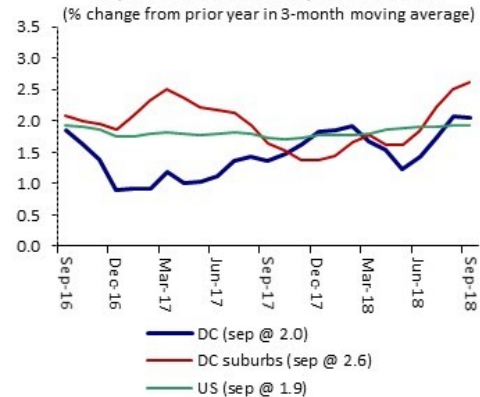


Table 7. Wage and salary employment located in DC: September 2018

Industry sector	3-month moving average					12-mo. moving avg: % change	Sector % of all DC jobs, Sep. 2018	DC share (%) in Sep 2018 of all sector jobs in:		Change from Sep 2017 to Sep 2018 in DC share of sector jobs in:	
	1 year change		1 year change		metro area			US	metro area	US	
	Sep. 2017	Sep. 2018	Amount	%							
Federal government	199,167	195,833	-3,333	-1.7	-1.8	24.5	54.0	6.98	-0.1	-0.10	
Local government	43,733	44,167	433	1.0	2.4	5.5	13.3	0.23	-0.3	0.00	
Legal services	28,367	28,700	333	1.2	-0.2	3.6		2.52		0.03	
Professional and tech. (except legal)	88,733	90,467	1,733	2.0	2.7	11.3	22.5	1.12	-0.5	-0.01	
Employment services	14,167	13,833	-333	-2.4	-3.9	1.7	31.1	0.40	0.2	0.02	
Business services (except employ.)	35,767	34,900	-867	-2.4	-1.9	4.4	17.3	0.41	-0.8	-0.04	
Information	18,100	19,000	900	5.0	5.5	2.4	25.6	0.68	1.2	0.04	
Finance	30,400	31,633	1,233	4.1	2.2	4.0	19.6	0.37	0.4	0.01	
Organizations	66,333	66,867	533	0.8	1.0	8.4	35.9	2.20	0.1	0.00	
Education	58,933	62,467	3,533	6.0	2.0	7.8	53.5	1.77	1.7	0.07	
Health	70,133	69,467	-667	-1.0	0.5	8.7	21.4	0.35	-0.7	-0.01	
Food service	53,200	55,300	2,100	3.9	4.4	6.9	22.4	0.45	0.1	0.01	
Accommodations	14,833	15,333	500	3.4	-1.3	1.9	34.0	0.71	2.3	0.01	
Amusement and recreation	8,767	9,233	467	5.3	4.9	1.2	16.6	0.36	-0.4	0.02	
Retail trade	23,267	23,400	133	0.6	1.8	2.9	8.4	0.15	0.0	0.00	
Wholesale trade	4,900	4,767	-133	-2.7	0.8	0.6	7.5	0.08	-0.3	0.00	
Construction	15,733	16,333	600	3.8	3.2	2.0	9.6	0.22	0.0	0.00	
Personal and miscellaneous ser.	8,433	9,133	700	8.3	9.0	1.1		0.32		0.02	
Other private	6,533	6,967	433	6.6	5.9	0.9	5.5	0.04	0.2	0.00	
Total	789,500	797,800	8,300	1.1	0.9	100.0	23.8	0.53	-0.3	0.00	
Public sector	242,900	240,000	-2,900	-1.2	-1.1	30.1	34.5	1.11	-0.7	-0.02	
Private sector	546,600	557,800	11,200	2.0	1.7	69.9	21.0	0.44	-0.1	0.00	

Source: BLS. not seasonally adjusted. na=not available. 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 business and professional services sector was the largest source of wage growth in DC over the past year

- For the year ending June, the federal government accounted for 24.9% of all jobs and 31.4% of all wages and salaries paid in DC. Over the past year, however, federal jobs fell and the sector accounted for just 7.4% of wage increases.
- Professional and business services accounted for 19.9 % of the net gain in employment and 31.3% of the gain in wages paid in DC for the year ending June.
- Information and finance accounted for 21.7% of the increase in jobs and 20.7% of the gain in wages over the past year.
- Education and health services accounted for 14.2% of last year’s net job increases and 6.8% of the increase in wages.
- Trade and hospitality accounted for 43.2% of the increase in jobs over the past year and 10.2% of the increase in wages.

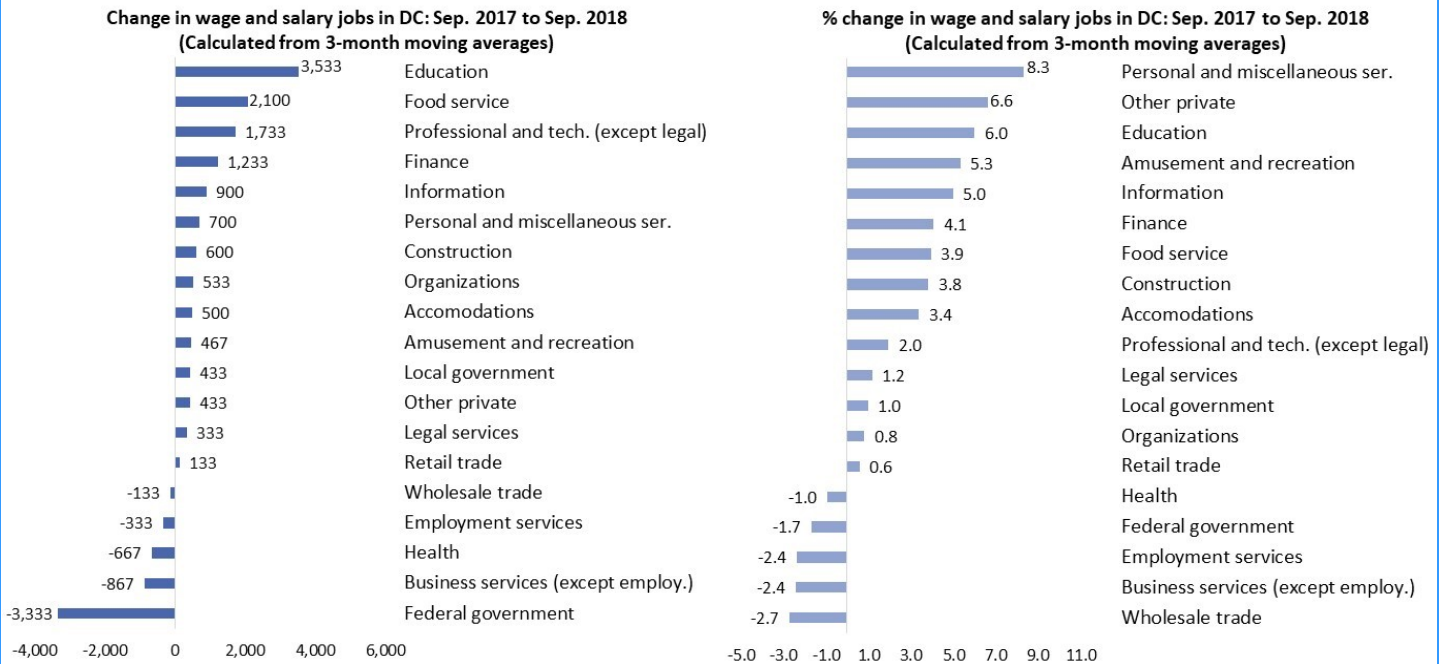


Table 8. Employment and income by sector of the DC economy: 12 mo average ending June 2018 (2018.2)

Sector	12 mo. average wage and salary employment in DC ending June 2018			12 mo avg. wages and salaries earned in DC ending June 2018			Percentage Distributions			
	Level	Change from Jun 2017		Level (\$B)	Ch. from June 2017 (\$B)		Employment		Wages	
		% change	% change		Jun 2018	Jun 2017	Jun 2018	Jun 2017		
	Level	2017	% change	Level (\$B)	(\$B)	% change	Jun 2018	Jun 2017	Jun 2018	Jun 2017
Total	793,183	6,333	0.8	74.21	2.87	4.03	100.0	100.0	100.0	100.0
Federal government	197,400	-3,333	-1.7	23.33	0.21	0.92	24.9	-52.6	31.4	7.4
Local government	41,625	1,092	2.7	3.32	0.16	4.95	5.2	17.2	4.5	5.4
Business and professional services	166,950	1,258	0.8	19.52	0.90	4.84	21.0	19.9	26.3	31.3
Information and financial services	48,908	1,375	2.9	6.64	0.59	9.84	6.2	21.7	8.9	20.7
Education and health services	134,875	900	0.7	7.50	0.19	2.66	17.0	14.2	10.1	6.8
Trade and hospitality services	105,967	2,733	2.6	4.97	0.29	6.29	13.4	43.2	6.7	10.2
Organizations and personal services	75,183	1,375	1.9	7.08	0.38	5.69	9.5	21.7	9.5	13.3
Other private	22,275	933	4.4	1.86	0.14	8.11	2.8	14.7	2.5	4.9
<i>Private sector</i>	<i>554,158</i>	<i>8,575</i>	<i>1.6</i>	<i>47.56</i>	<i>2.50</i>	<i>5.56</i>	<i>69.9</i>	<i>135.4</i>	<i>64.1</i>	<i>87.1</i>
<i>Government</i>	<i>239,025</i>	<i>-2,242</i>	<i>-0.9</i>	<i>26.65</i>	<i>0.37</i>	<i>1.41</i>	<i>30.1</i>	<i>-35.4</i>	<i>35.9</i>	<i>12.9</i>

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

Wages and income

DC's Personal Income growth is a little less than the US average

- Wages and salaries earned in the District of Columbia were 4.6% higher in the June quarter compared to the same quarter of 2017.
- Wages earned by DC residents grew an estimated 4.2% in the June quarter compared to last year.
- In the June quarter, DC Personal Income grew 4.0%, below the US average (4.6%).
- The growth rate of proprietors' income was 7.3% in the June quarter.
- Pensions and other transfers grew 0.2% over last year in the June quarter; property income grew 4.5%.

Wages earned in DC, wages earned by DC residents, and wages earned in the US: 2015.2 to 2018.2

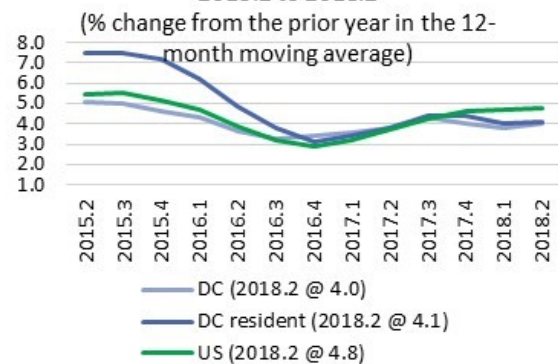


Table 9. DC Wages and Personal Income: June 2018 (2018.2)

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

Indicator	FY 2014	FY 2015	FY 2016	FY 2017	4-qtr. moving avg.	Latest qtr. (Jun.)
Wages and salaries earned in DC	63.88	67.06	69.26	72.23	74.21	75.36
1 year change	1.80	3.19	2.20	2.97	2.87	3.29
% change	2.9	5.0	3.3	4.3	4.0	4.6
Supplements to wages & salaries	16.86	17.66	18.33	19.14	19.44	19.59
% change	5.9	4.7	3.8	4.4	2.6	2.3
Income earned in DC**	77.59	82.22	85.42	89.49	91.93	93.33
% change	3.6	6.0	3.9	4.8	4.1	4.3
Net resident adjustment***	-45.85	-47.50	-49.00	-51.07	-52.32	-53.06
% change	1.9	3.6	3.1	4.2	3.7	4.2
Income earned by DC residents**	31.74	34.72	36.43	38.42	39.61	40.28
% change	6.2	9.4	4.9	5.5	4.6	4.5
Wages and salaries of DC residents****	22.94	24.66	25.59	26.72	27.45	27.85
change from one year ago	1.11	1.72	0.93	1.13	1.08	1.13
% change	5.1	7.5	3.8	4.4	4.1	4.2
Proprietors' income earned by DC residents*	6.04	7.09	7.73	8.44	8.89	9.17
% change	10.5	17.4	9.0	9.2	7.7	7.3
Property income of DC residents	8.82	9.38	9.54	9.87	10.23	10.38
% change	3.5	6.4	1.7	3.4	4.8	4.5
Pensions and other transfers for DC residents	5.95	6.02	6.45	6.64	6.68	6.66
% change	1.1	1.2	7.1	3.0	0.7	0.2
DC Personal Income	46.51	50.12	52.42	54.93	56.52	57.32
1 year change	2.22	3.61	2.30	2.51	2.25	2.19
% change	5.0	7.8	4.6	4.8	4.1	4.0
US Personal income (% change from prior year)	4.0	5.6	2.8	4.0	4.5	4.6
US Wages and salaries (% change from prior year)	4.0	5.5	3.2	4.3	4.8	4.9
Addendum:						
DC res. wages as % of wages earned in DC	35.9	36.8	36.9	37.0	37.0	37.0
DC Personal Income as % of US	0.32	0.32	0.33	0.33	0.33	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 September 25, 2018

Population, jobs, and per capita income

DC's per capita income has grown more slowly than the US average over the past year

- For 2017, population increased 9,636 (1.4%) and wage and salary employment increased by 7,458 (1.0%).
- In 2017 population and jobs grew below their 5 year average amount from 2012 to 2017.
- In the June quarter, DC's per capita income grew at a 2.5% rate compared to 3.9% in the US.
- In the June quarter wages per job in DC grew faster than in the US (3.9% v 3.2%).

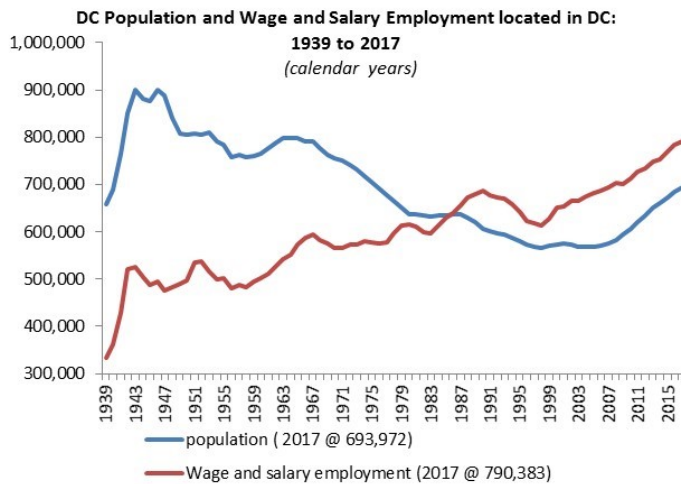
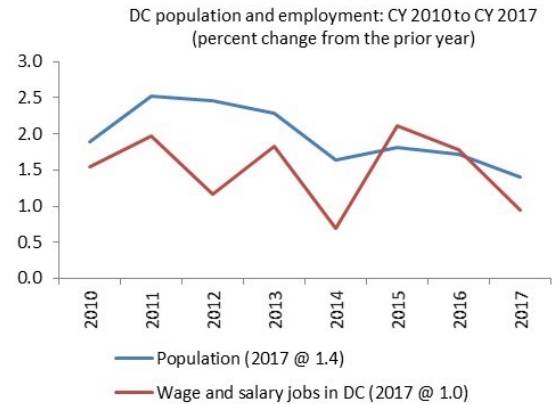


Table 10. DC Population and wage and salary employment located in DC: 2010 to 2017

Calendar year	Population			Wage and salary employment		
	Number	Change from prior yr. Number	%	Number	Change from prior yr. Number	%
2010	605,040	11,240	1.9	712,133	10,517	1.5
2011	620,336	15,296	2.5	726,208	14,075	2.0
2012	635,630	15,294	2.5	734,717	8,508	1.2
2013	650,114	14,484	2.3	748,108	13,392	1.8
2014	660,797	10,683	1.6	753,283	5,175	0.7
2015	672,736	11,939	1.8	769,242	15,958	2.1
2016	684,336	11,600	1.7	782,925	13,683	1.8
2017	693,972	9,636	1.4	790,383	7,458	1.0
Ch. from 2012 to 2017		58,342	9.4		55,667	7.7
Avg. annual ch.		11,668			11,133	

Source: U.S. Bureau of the Census (population), BLS

Table 11. Per capita income and wages per job in DC and the US: FY 2015 to June 2018

	DC					US				
	FY 2015	FY 2016	FY 2017	12-mo avg (Jun) 2018.2		FY 2015	FY 2016	FY 2017	12-mo avg (Jun) 2018.2	
Per capita income	74,814	76,920	79,414	80,860	81,598	48,569	49,555	51,148	52,580	53,342
% ch in per capita income	5.9	2.8	3.2	2.7	2.5	4.8	2.0	3.2	3.7	3.9
% ch in population	1.8	1.7	1.5	1.4	1.4	0.8	0.7	0.7	0.7	0.7
% ch in personal income	7.8	4.6	4.8	4.1	4.0	5.6	2.8	4.0	4.5	4.6
Wages per job	87,712	88,698	91,613	93,557	94,799	55,001	55,721	57,189	58,514	59,171
% ch in wages per job	3.2	1.1	3.3	3.2	3.9	3.3	1.3	2.6	3.2	3.2
% ch in wages and salary jobs	1.7	2.1	1.0	0.8	0.6	2.1	1.8	1.6	1.5	1.6
% ch in total wages	5.0	3.3	4.3	4.0	4.6	5.5	3.2	4.3	4.8	4.9
US Consumer price index						0.3	0.9	2.1	2.3	2.7

Source: BEA for per capita income, population and Personal Income. Moody's Analytics for CPI in US. Note: % changes are from the same period of the prior year.

Multifamily-unit housing and housing permits

Slowing in the number of housing permits issued in the past 3 months

- According to CoStar, in September the inventory of apartments and condominiums increased by 4,370 (2.6%) from a year earlier.
- For the 12-month period ending September 4,640 housing permits were issued, up 15.3% from last year. However, the 3-month total (598) was 51.0% below the same period as last year.
- Of the increase in inventory of multifamily units over the 12-months ending 2018.3, 90.2% were in apartments. Of the housing permits issued over the past year, 96.1% were included in 46 buildings with 5 or more units.
- As of September, 12,680 multi-family units were under construction in 89 buildings. Of the construction, apartments accounted for 68.5% of the buildings and 89.3% of the units.

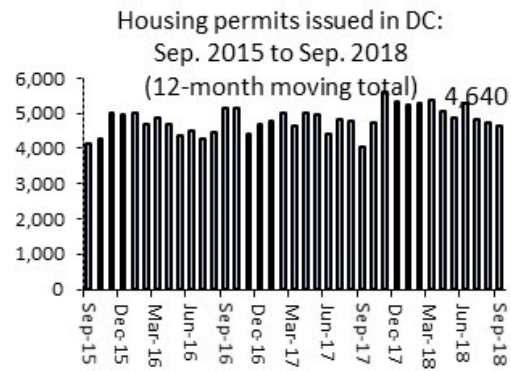
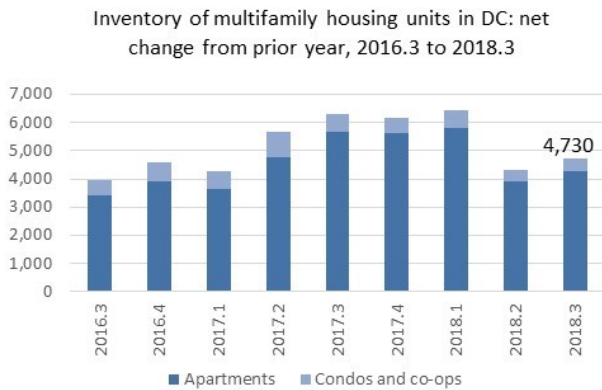


Table 12. Estimated DC households: 2012 to 2017

date	pop/hh	Estimated	
CY	Population	ratio	households 1 yr ch
2012	635,630	2.259	281,401 6,618
2013	650,114	2.260	287,653 6,252
2014	660,797	2.261	292,217 4,564
2015	672,736	2.263	297,328 5,112
2016	684,336	2.267	301,866 4,538
2017	693,972	2.271	305,521 3,655

Source: 1) Population: US Census Bureau 2) population/household ratio estimated by ORA based on Office of Planning estimates for 2010, 2015, and 2020 3) households: calculated from population using the pop/hh ratio.

Table 13. Housing unit building permits issued in DC: September 2018

	FY 2015	FY 2016	FY 2017	12-mo. moving total	3-mo. moving total	This month
Total units	4,131	5,129	4,026	4,640	598	228
change from 1 yr ago	-336	998	-1,103	614	-623	-101
% change from 1 year	-7.5	24.2	-21.5	15.3	-51.0	-31
Multi-family projects with 5 or more units						
number	37	40	38	46	10	2
average size	112	128	106	101	60	106
Units in small projects with up to 4 units	399	333	376	179	43	17
% of all units	9.7	6.5	9.3	3.9	7.2	7.5

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

Table 14. Inventory and construction for private sector apartments and condominiums in DC: 2012 to 2018.3

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	units per bldg.	build-ings	units	units per bldg.
2012	162,791	2,073	1.3	2,729	121,135	2,044	601	32,835	29	34	7,837	231	2	244	122
2013	166,584	3,793	2.3	2,742	124,712	3,577	602	33,051	216	35	6,807	194	13	297	23
2014	171,356	4,772	2.9	2,761	129,352	4,640	609	33,183	132	42	6,764	161	38	972	26
2015	174,522	3,166	1.8	2,781	131,842	2,490	641	33,859	676	57	9,977	175	41	1,058	26
2016	179,101	4,579	2.6	2,804	135,758	3,916	673	34,522	663	63	11,394	181	34	1,374	40
2017	185,279	6,178	3.4	2,828	141,362	5,604	686	35,072	550	60	11,459	191	33	1,531	46
2018.3	188,626	4,730	2.6	2,843	144,408	4,268	695	35,373	462	61	11,320	186	28	1,360	49
1 Q ch.	2,048			9	1,925		2	123		-2	-654		-1	-96	

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 Nov. 8, 2018. All units includes cooperative apartments, not shown separately. In 2018.3 there were 123 co-op buildings with 8,845 units with an average building size of 72.

Apartment occupancy continues to increase

• According to CoStar, for the the 12-month period ending September occupied apartments rose by 5,221 (3.8%) from the prior year. The overall vacancy rate was 6.3% and average rents were 2.0% higher.

• Class A units accounted 24.3% of all units in the city and 36.4% of vacant ones. They also accounted for 91.6% of the additions to apartment inventory over the past year, 80.6% of the increase in occupied units, and 82.2% of the new construction.

• Over the past year, Class A rents increased by 1.3%, Class B rose 2.7%, and Class C rose 1.9%.

• Vacancy rates in September: Class A 10.9%, Class B 4.9%, and Class C 4.9%.

DC Apartment units: (1) 12-month change in inventory and occupancy, (2) number under construction, and (3) vacancy rate :
2016.3 to 2018.3

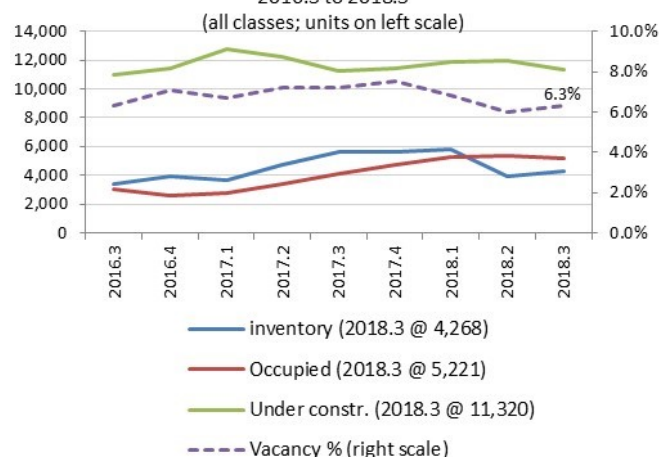
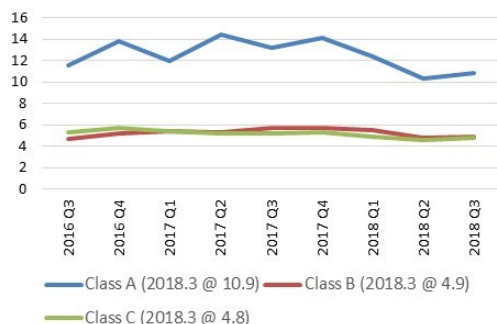


Table 15. Apartment units in DC: 2012 to 2018.3

	Level				Change from prior period						Average rent		1 yr ch in units under constr.
	number		% vacant		Inventory		Occupied		Vacant		Effective rent	1 yr % change	
	Inventory	Occupied	Vacant	% vacant	units	% ch	units	% ch	units	% ch	per unit		
2012	121,135	113,029	8,106	6.7	2,044	1.7	1,805	1.6	239	3.0	\$1,584	4.1	2798
2013	124,712	115,063	9,649	7.7	3,577	3.0	2,034	1.8	1543	19.0	\$1,617	2.1	-1030
2014	129,352	119,287	10,065	7.8	4,640	3.7	4,224	3.7	416	4.3	\$1,682	4.0	-43
2015	131,842	123,545	8,297	6.3	2,490	1.9	4,258	3.6	-1768	-17.6	\$1,762	4.8	3213
2016	135,758	126,140	9,618	7.1	3,916	3.0	2,595	2.1	1321	15.9	\$1,798	2.0	1417
2017	141,362	130,891	10,471	7.4	5,604	4.1	4,751	3.8	853	8.9	\$1,808	0.6	65
2018.3	144,408	135,386	9,022	6.3	4,268	3.0	5,221	4.0	-953	-9.6	\$1,861	2.0	-65
1 Q ch	1925	1449	476								\$2		

Source: CoStar, as of Nov 8, 2018.

Vacancy rates in DC apartments by class:
2016.3 to 2018.3



1-year change in average effective rent in DC apartments by class: 2016.3 to 2018.3

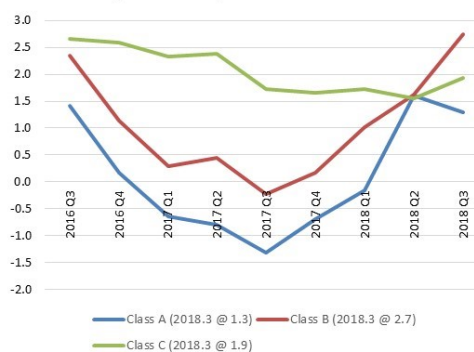


Table 16. Market rate apartment units in DC, Classes A, B, and C: 2018.3

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	168	35,068	3,911	12.6	10.9	31,260	4,209	15.6	\$2,523	1.3	40	9,310	233
Class B	818	51,153	377	0.7	4.9	48,712	757	1.6	\$1,839	2.7	20	2,001	100
Class C	1,849	58,079	-20	0.0	4.8	55,318	253	0.5	\$1,318	1.9	0		

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 Nov. 8, 2018. The total amounts for apartments in table 15 includes a small number of units not shown here.

Commercial office space

Occupied space and rents are up, vacancy rate is down

• According to CoStar, for the the 12-month period ending September occupied office space increased by 2.60 million sq. ft. from the prior year while inventory rose by 2.30 msf. The vacancy rate edged down to 10.5% (including sublet) and average base rent rose 2.6%.

• The vacancy rate for class A space was 11.6% in June, down from 12.5% a year ago. Class A rent rose 0.6% over the past year.

• Space under construction in June 2018 (4.62 million square feet in 15 buildings) was 1.86 msf (28.8%) less than a year earlier.

• For Class B and Class C properties, inventory and occupancy declined slightly over the past year. Rents for these properties increased more than in Class A, and the vacancy rate for Class B properties fell to 9.9%.

DC commercial office space: (1) 1 yr change in inventory and occupied space, (2) under construction, and (3) vacancy rate: 2016.3 to 2018.23 (million square feet)

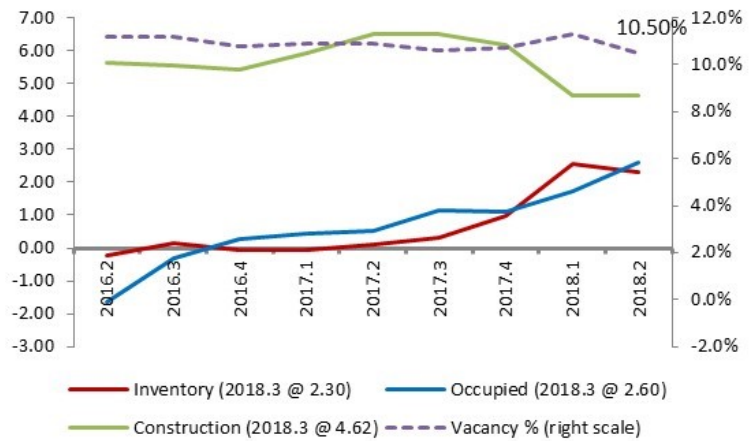
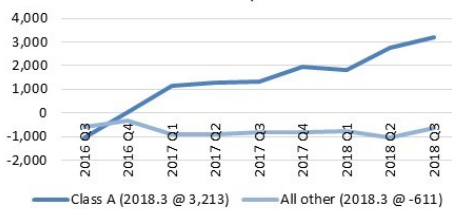


Table 17. DC commercial office space: 2012 to 2018.3

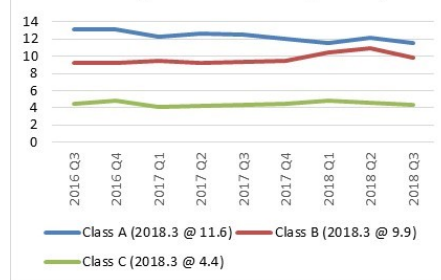
CY (year end)	Inventory				Occupied space			Vacant space			Base rent (direct)		Under constr.		
	Build-ings	Level (msf)	1 yr ch (msf)	1 yr % ch	Level (msf)	1 yr ch (msf)	% ch	Level (msf)	Total %	Direct only %	\$ per sq ft.	1 yr % ch	Build-ings	msf	Avg. sf per bldg
2012	2,398	153.42	-0.17	-0.1	138.90	1.46	1.1	14.5	8.8	9.5	\$46.82	0.9	8	2.21	276,436
2013	2,393	154.10	0.68	0.4	139.56	0.66	0.5	14.5	8.9	9.4	\$46.90	0.2	12	2.13	177,126
2014	2,387	154.59	0.49	0.3	139.15	-0.40	-0.3	15.4	9.5	10.0	\$47.43	1.1	14	2.43	173,914
2015	2,379	155.03	0.44	0.3	138.11	-1.05	-0.8	16.9	10.5	10.9	\$48.09	1.4	17	3.45	202,730
2016	2,375	155.19	0.16	0.1	137.80	-0.31	-0.2	17.4	10.6	11.2	\$49.75	3.5	21	5.53	263,407
2017	2,373	155.51	0.33	0.2	138.95	1.15	0.8	16.6	9.9	10.6	\$50.76	2.0	22	6.52	296,155
2018.3	2,375	157.31	2.30	1.5	140.72	2.60	1.9	16.6	9.7	10.5	\$51.72	2.6	15	4.62	307,906
1 Q ch	-1	-0.30			0.94			-0.9	-0.8		\$0.30		0	0.00	

Source: CoStar, all classes and sizes. Data as of November 8, 2018

Change from the prior year in occupied space for Class A and all other classes: 2016.3 to 2018.3 (thousands of square feet)



Vacancy rate by class of DC office building: 2016.3 to 2018.3 (percent)



Change in base rents from the prior year by Class of DC office building: 2016.3 to 2018.3 (1 year % change)

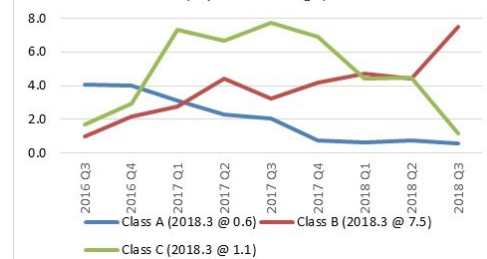


Table 18. DC Class A, B, and C commercial office space: 2018.3

Class	Inventory				Occupied space			Vacant space			Base rent (direct)		Under constr.	
	Build-ings	Level (msf)	1 yr ch (msf)	1 yr % ch	Level (msf)	1 yr ch (msf)	% ch	Level (msf)	Total %	Direct %	\$ per sq ft.	1 yr % ch	build-ings	msf
Class A	350	94.64	2.64	2.9	83.67	3.21	4.0	11.0	10.6	11.6	\$54.85	0.6	14	4.54
Class B	914	52.22	-0.32	-0.6	47.06	-0.59	-1.2	5.2	9.3	9.9	\$47.85	7.5	1	0.08
Class C	1,109	10.44	-0.03	-0.3	9.98	-0.03	-0.3	0.5	3.9	4.4	\$36.08	1.1	0	0.00

Source: CoStar. Data as of November 8, 2018

Value of all property transfers + long term view

The value of real property transfers for the past 12 months is above that of the prior year

- The value of September property transfers rose by 0.9% from last year as measured by the 3-month moving total. The 12-month moving total, \$14.65 billion, was 4.6% above last year.
- For the first time since the US recession, occupied office space in DC is once again increasing at a rate greater than the increase in DC jobs.
- Since 2010, the inventory of housing units in multi-family buildings has grown at a faster rate than DC population.

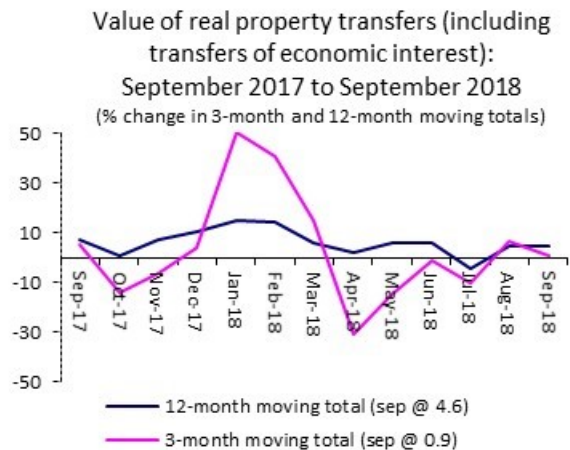
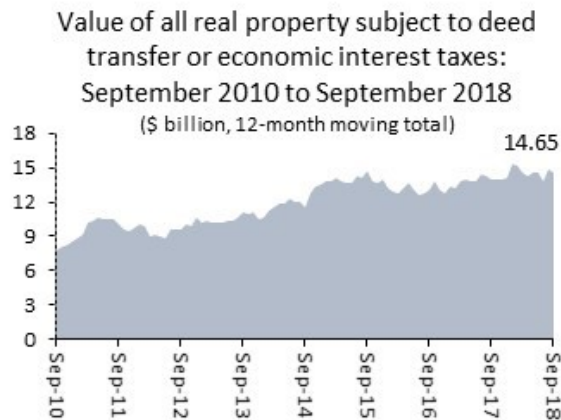


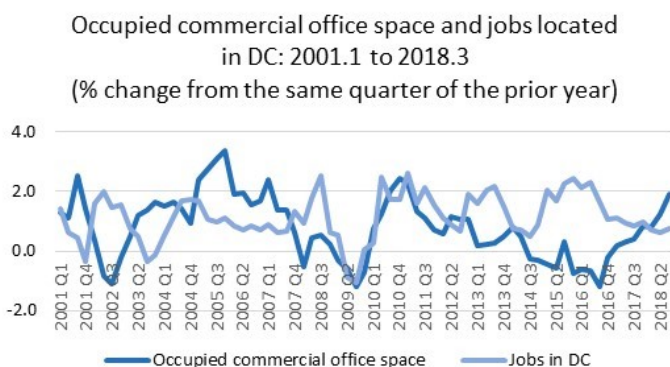
Table 19. Market Value of Real Property transfers subject to the Deed Transfer or Economic Interest tax: September 2018

	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	12-mo moving total	3-month moving total	This month
All property transfers (\$ million)	11,063.9	11,569.8	14,766.3	13,035.9	13,998.6	14,646.3	3,887.2	1,028.5
change from one year ago (\$M)	1,530.6	505.8	3,196.5	-1,730.3	962.6	647.8	35.0	-233.4
% change from 1 year ago	16.1	4.6	27.6	-11.7	7.4	4.6	0.9	-18.5

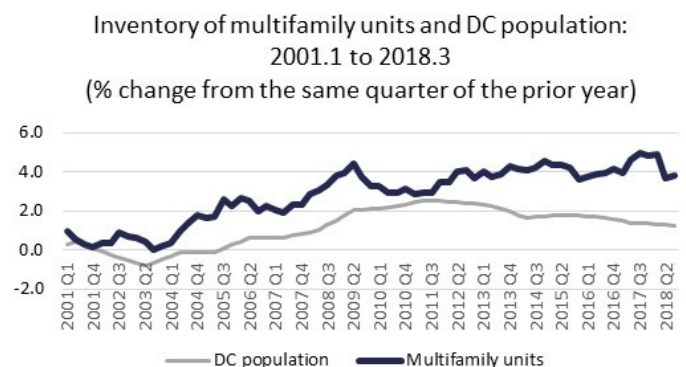
Note: represents value of property or economic interest transferred as of date deed noted by the Recorder of Deeds.

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

Longer term view of occupied office space, multifamily housing units, jobs, and population in DC: 2001.2 to 2018.3



Source: CoStar and Global Insight



Source: CoStar and Global Insight

Single family and condominium housing

In the past 3 months the number of housing units sold was slightly less than last year

- The 3-month moving total of single family home sales in September was down 3.5% from a year earlier, and the average selling price was 3.3% higher. The year-to-date median sales price (\$723,450) was 5.6% higher than the prior year.
- September condominium sales were up 3.2% from last year as measured by the 3-month moving total, while the average selling price was 2.2% higher. The year-to-date median sales price (\$463,000) was up 2.9% from last year.
- The total value of all home sales in September was up 1.7% from last year as measured by the 3-month moving total. For the past 12-months the increase was 6.2%.

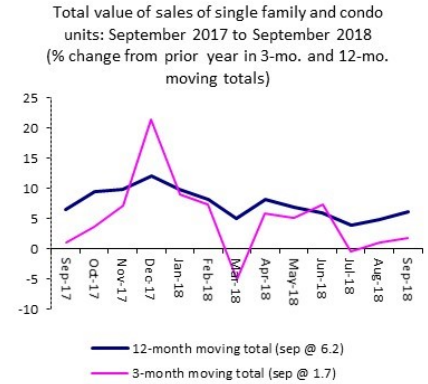
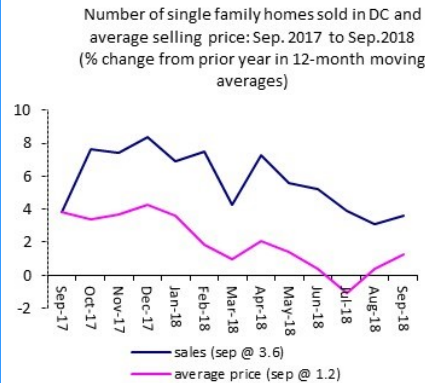


Table 20. D.C. Residential Real Estate Indicators: September 2018

Indicator	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	12-mo moving	3-mo moving	This month
						total or average	total or average	
Number of sales (settled contracts)								
Single family	3,979	4,024	4,097	4,385	4,552	4,717	1,174	308
1 year change	416	45	73	288	167	165	-42	-17
% change	11.7	1.1	1.8	8.7	3.8	3.6	-3.5	-5.2
Condo	3,487	3,592	3,832	3,955	4,046	4,240	1,103	280
1 year change	703	105	240	123	91	194	34	-6
% change	25.3	3.0	6.7	5.6	2.3	4.8	3.2	-2.1
Total	7,466	7,616	7,929	8,340	8,598	8,957	2,277	588
1 year change	1,119	150	313	411	258	359	-8	-23
% change	17.6	2.0	4.1	7.2	3.1	4.2	-0.4	-3.8
Average prices of units sold								
Single family (\$)	712,799	736,362	767,870	794,668	824,857	835,130	842,585	774,570
1 year change	82,690	23,563	31,508	26,798	30,189	10,273	27,179	32,247
% change	13.1	3.3	4.3	5.8	3.8	1.2	3.3	4.3
Condo (\$)	447,827	472,419	499,650	500,824	511,247	529,463	509,360	492,666
1 year change	18,216	24,592	27,232	1,173	10,423	18,215	10,921	7,605
% change	4.2	5.5	5.8	2.2	2.1	3.6	2.2	1.6
Total value of all sales (\$ million)								
	4,397.8	4,660.0	5,060.6	5,465.4	5,823.3	6,184.2	1,551.0	376.5
1 year change	956.7	262.2	400.6	404.8	357.9	361.0	26.7	-3.5
% change	27.8	6.0	8.6	12.4	6.5	6.2	1.7	-0.9
Ratio: active inventory to sales								
Single family	1.6	1.6	1.5	1.6	1.6	1.3	1.7	1.9
Condo	1.7	1.9	1.7	1.8	1.8	1.8	2.2	2.6

Median contract prices, CY to date in September 2018 : single family \$723,450 (5.6% 1 yr ch); condo \$463,000 (2.9% 1 yr ch)

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

Source: Metropolitan Regional Information Systems (MRIS); median price and inventory accessed through Greater Capital Area Assn. of Realtors.

Single family and condominium housing

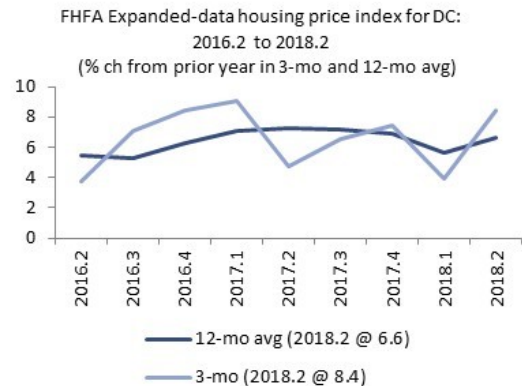
Growth in FHFA house price index for DC increased in the June quarter

- The percentage change in DC home prices increased in the June quarter, according to the Federal Housing Finance Agency Index of single-family same-property transactions. DC's gain over the prior year was 8.4%. The US index was up 6.9%, and the Washington metropolitan area gain was 4.9%.
- 25.3% of all single family sales for the 12-months ending September were for properties greater than \$1 million.
- In the June quarter, sales of new condominiums over the past 12 months were 14.2% lower than a year earlier.

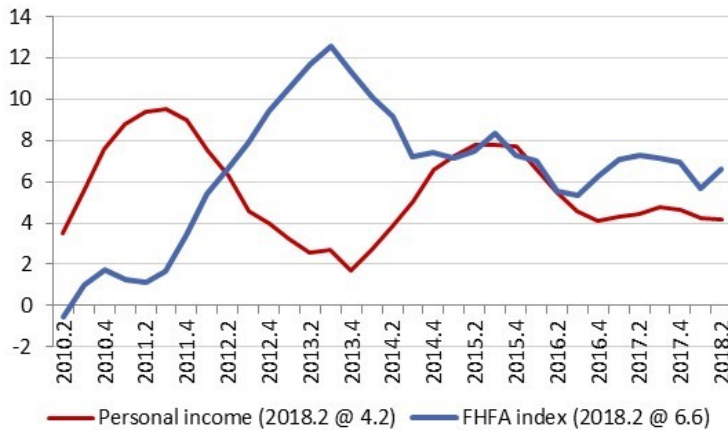
Table 21. Federal Housing Finance Agency Price Index for single family property in DC, DC metro area, and US: June 2018 (2018.2)

Indicator	Fiscal year average				Last 2 Q's	
	FY 2014	FY 2015	FY 2016	FY 2017	2018.1	2018.2
% change from prior year in value of index						
DC	7.2	8.4	5.3	7.2	4.0	8.4
DC metro area	6.2	4.1	3.4	5.4	5.8	4.9
US	6.3	5.5	5.6	6.6	7.5	6.9

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 DataQuick. Data is collected quarterly.



DC Personal Income and FHFA Housing index: 2010.2 to 2018.2
(% change from prior year in 12-month moving average)



FHFA expanded-data housing price index for DC, the Washington Metropolitan area, and the US:
2015.2 to 2018.2
(% change from prior yr. in the 12-mo. moving avg.)

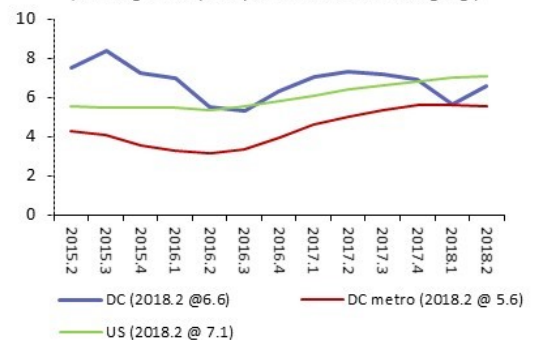


Table 22. D.C. Single family and condominium home sales at prices of \$1 million or more: September 2018

Category	FY 2015	FY 2016	FY 2017	12-mo	3-mo	This month
				moving total	moving total	
Single family homes	765	936	1,057	1,192	308	69
1 year change	31	171	121	135	32	9
% change	4.2	30.5	12.9	12.8	11.6	15.0
percent of all single family sales	18.7	21.3	23.2	25.3	26.2	22.4
Condominiums	160	167	189	222	51	11
1 year change	32	7	22	33	8	-2
% change	25.0	21.9	13.2	17.5	18.6	-15.4
percent of all condominium sales	4.2	4.2	4.7	5.2	4.6	3.9

Source: Metropolitan Regional Information Systems (MRIS). Sales are ones closed (settled) during period shown.

Table 23. Single family housing permits and sales of new condo. units in DC: FY 2013 to 2018.2

FY	Permits	Condo. Sales
FY 2013	368	442
FY 2014	267	516
FY 2015	293	483
FY 2016	283	680
FY 2017	367	482
12-mo. ending:		
2018.2	209	489
1 yr ch	-119	-81
% ch.	-36.3	-14.2

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

Hospitality

More people are staying in hotels but the average room rate is less than a year ago

- In September the 12-month moving total for hotel room-days sold was 3.2% above a year earlier. For the past 3 months, compared to the prior year the number of room-days sold in September was 2.0% greater, the average room rate was 4.1% less, and hotel revenues were down by 2.3%.
- Employment in food services was 3.9% more in September than a year earlier as measured by the 3-month moving average. Hotel employment was 3.4% higher.
- July airline traffic into the DC area was up 2.5% compared to a year earlier as measured by the 3-month moving total. Reagan National was down 0.4%. For the past 12-months, total traffic into the DC area was 1.2% more than the prior year.

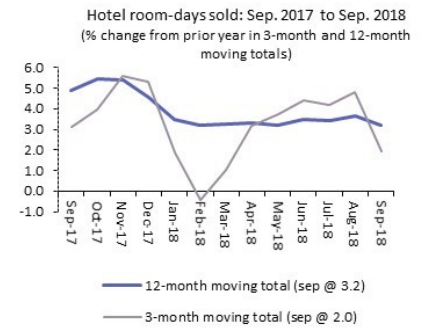
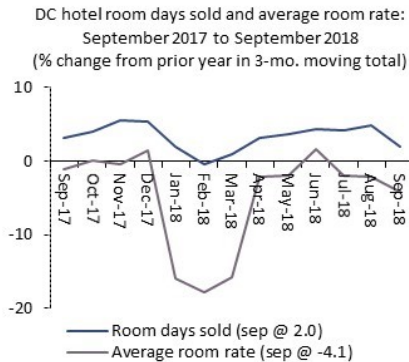
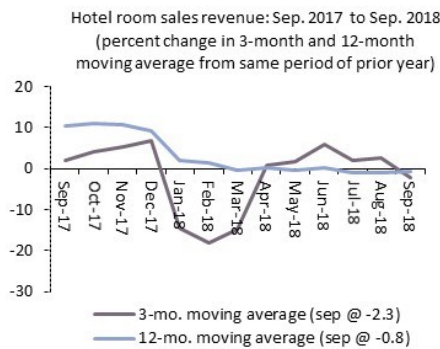


Table 27. Hospitality Industry: September 2018

Indicator	Units	date	FY 2014	FY 2015	FY 2016	12-month moving total or average*	3-month moving total or average*	This month
Hotel stays								
Hotel room-days sold	('M)	sep	7.869	8.197	8.332	9.019	2.351	0.731
			0.189	0.328	0.135	0.279	0.045	-0.023
			2.5	4.2	1.3	3.2	2.0	-3.1
Average room rate	\$	sep	209.87	215.34	221.19	223.99	191.60	224.30
			2.56	5.46	7.18	-9.05	-8.29	-3.47
			1.2	2.6	3.3	-3.9	-4.1	-1.5
Occupancy rate	%	sep	76.6	77.5	78.0	78.1	80.1	76.2
(average)			0.8	0.9	0.5	-0.5	-1.4	-5.6
			1.0	1.2	0.7	-0.6	-1.7	-6.8
Room revenue	(\$M)	sep	1,651.4	1,765.1	1,843.0	2,020.2	450.5	164.0
			59.4	113.6	83.2	-16.6	-10.5	-7.9
			3.7	6.9	4.7	-0.8	-2.3	-4.6
Airline passengers								
DCA	1 yr % ch	jul	0.0	10.3	2.8	-2.0	-0.4	0.0
IAD	1 yr % ch	jul	-1.9	0.3	-0.1	2.4	5.1	5.3
BWI	1 yr % ch	jul	-0.5	4.1	6.0	3.1	2.7	2.1
Total	1 yr % ch	jul	-0.8	4.8	3.0	1.2	2.5	2.5
Employment								
Accommodations	level ('000)	sep	15.2	15.2	14.9	14.8	15.3	15.4
			0.0	0.0	-0.3	-0.2	0.5	0.5
			-0.2	-0.2	-1.9	-1.3	3.4	3.4
Food and bev	level ('000)	sep	47.1	49.7	51.5	54.4	55.3	55.3
			2.0	2.7	1.7	2.3	2.1	1.8
			4.3	5.6	3.5	4.4	3.9	3.4

* Total for hotel rooms sold and room revenue.

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

US economy and the federal government sector

Federal non-defense spending is rising, mostly for purchased goods and services

- Compared to the same quarter a year ago, in the September quarter Nominal GDP growth was 5.5% and real growth was 3.0%
- During the past quarter, quarterly GDP growth was 3.5% (real) and 4.9% (nominal) (*annualized growth rates*).
- Federal government non-defense spending for consumption and investment increased by 4.7% in the 2018.3 from a year earlier. The growth rate has been rising, but is still less than the growth rate for nominal GDP (5.5%) and defense spending (also 5.5%).

Federal non-defense spending and US GDP: 2014.3 to 2018.3 (1 year % change)



Table 29. Federal government consumption and investment, US GDP accounts: 2018.3

(percent change from same period of prior year)

Indicator				12-mo	
	FY 2015	FY 2016	FY 2017	avg	2018.3
Non-defense	4.1	2.9	3.2	4.0	4.7
Compensation of employees	4.6	4.2	4.1	1.2	1.4
Purchases of goods and services	6.1	3.8	1.7	8.9	8.9
Gross investment	3.6	1.4	3.0	2.8	3.7
Defense	-2.4	-0.4	1.7	3.7	5.5
Compensation of employees	-0.4	1.2	1.7	0.4	0.3
Purchases of goods and services	-5.4	-0.5	1.2	8.4	15.0
Gross investment	-2.5	-1.4	4.3	4.6	3.2
All federal consumption and invest.	0.1	0.9	2.3	3.8	5.1

Source: BEA (October 26, 2018). Nominal values.

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

Table 30. Qtr. to Qtr. ch. in US GDP: 2017.2 to 2018.3

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

Indicator	2017.3	2017.4	2018.1	2018.2	2018.3
US GDP real	2.8	2.3	2.2	4.2	3.5
US GDP nominal	4.8	5.1	4.3	7.6	4.9
Wages and salaries	5.3	3.8	5.7	4.4	4.5
Personal income	4.2	4.9	5.1	4.2	4.1

Note: GDP=Gross Domestic Product Source: BEA, updated October 26, 2018.

Quarterly change in US Real and Nominal GDP: 2016.3 to 2018.3

(% change from the previous quarter at annual rates)

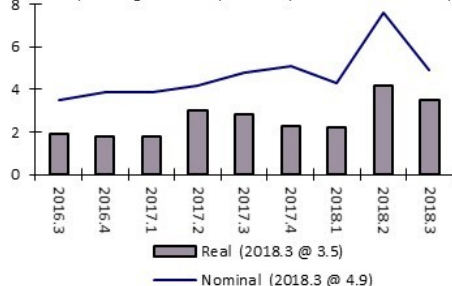


Table 28. US GDP, income, and inflation: 2018.3

(percent change from same period of prior year)

Indicator				12-mo	
	FY 2015	FY 2016	FY 2017	avg	2018.3
GDP real	3.1	1.6	2.1	2.7	3.0
GDP nominal	4.4	2.5	3.9	5.0	5.5
Consumption	4.4	4.0	4.3	4.8	5.3
Investment	7.2	-1.3	5.0	7.5	8.0
Corporate profits*	1.3	2.9	4.2	na	na
S and P stock index	9.7	0.4	13.8	16.2	15.5
US CPI	0.3	0.9	1.9	1.6	1.8

Source: BEA (October 26, 2018), BLS, Fred.

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

Defense and non-defense federal spending: 2014.3 to 2018.3 (1 Year % change)

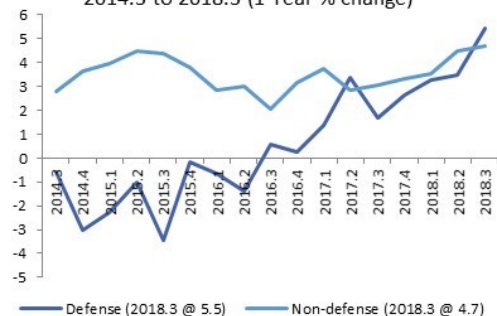


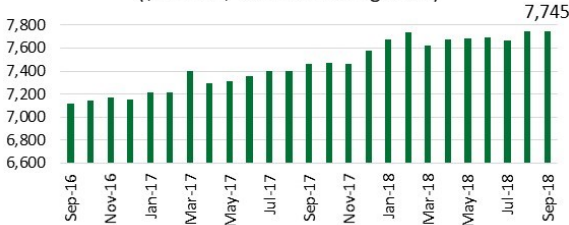
Table 31. Monthly selected US Indicators: May 2018 to September 2018

Indicator	May	June	July	August	September
S and P stock index (level)	2701	2754	2794	2858	2902
% change from prior month	1.8	2.0	1.4	2.3	1.5
% change from 1 year ago	12.8	13.2	13.8	16.4	16.4
10 yr. Treasury Interest rate (level)	2.98	2.91	2.89	2.89	3.00
CPI % ch from prior month (seasonally adjusted)	0.21	0.13	0.17	0.22	0.06
CPI % ch from prior year (seasonally adjusted)	2.72	2.80	2.89	2.68	2.27
Jobs (seasonally adjusted level, in millions)	148.72	148.93	149.10	149.37	149.50
change from prior month (thousands)	268	208	165	270	134
% change from prior month	0.2	0.1	0.1	0.2	0.1
Resident employment (season. adj. level, in mil.)	155.47	155.58	155.97	155.54	155.96
change from prior month (thousands)	293	102	389	-423	420
% change from prior month	0.2	0.1	0.3	-0.3	0.3
Unemployment rate (seasonally adj.)	3.8	4.0	3.9	3.9	3.7

Source: BLS and Fred (Federal Reserve data base)

DC tax collections

DC tax collections (before earmarking):
Sep. 2016 to Sep. 2018
(\$ million; 12 mo. moving total)



One year change in 12-mo. moving total DC
tax collections: Sep. 2017 to Sep. 2018 (\$M)

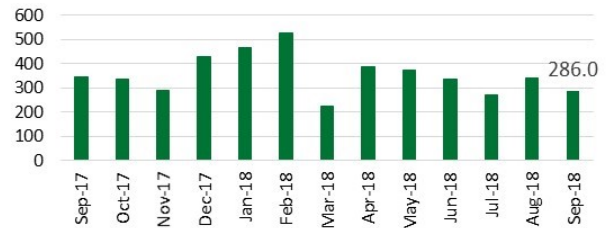


Table 32. Tax Collections (before earmarking): September 2018 (Preliminary)

Tax	Revenue (from CAFR)				Tax collections			
	FY 2014	FY 2015	FY 2016	FY 2017	12-month moving total	FY 2018 to date	3-month moving total	This month
Total taxes	6,290.0	6,916.8	7,241.0	7,472.9	7,745.4	7,745.4	2,543.3	1,549.2
1 year change	189.5	626.9	324.2	239.3	286.0	286.0	55.2	1.3
% change	3.1	10.0	4.7	3.3	3.8	3.8	2.2	0.1
Real property	2,015.6	2,194.5	2,357.5	2,473.3	2,537.4	2,537.4	1,197.4	1,008.8
1 year change	100.7	178.9	163.0	115.9	53.8	53.8	-9.3	-17.6
% change	5.3	8.9	7.4	4.9	2.2	2.2	-0.8	-1.7
General sales	1,172.1	1,315.3	1,343.1	1,419.2	1,493.8	1,493.8	367.7	107.1
1 year change	34.2	143.2	27.8	76.1	73.7	73.7	29.3	12.3
% change	3.0	12.2	2.1	5.7	5.2	5.2	8.6	13.0
Individual income	1,679.2	1,868.0	1,907.9	1,958.3	2,082.7	2,082.7	544.9	239.3
1 year change	38.3	188.9	39.8	50.4	167.1	167.1	32.6	8.3
% change	2.3	11.2	2.1	2.6	8.7	8.7	6.4	3.6
withholding	1,472.9	1,553.2	1,627.6	1,766.6	1,825.6	1,825.6	453.0	148.5
1 year change	81.7	80.3	74.4	139.0	81.1	81.1	14.9	-11.2
% change	5.9	5.5	4.8	8.5	4.7	4.7	3.4	-7.0
non-withholding	206.2	314.8	280.3	191.7	257.1	257.1	91.9	90.8
1 year change	-43.4	108.6	-34.5	-88.6	86.0	86.0	17.7	19.5
% change	-17.4	52.7	-11.0	-31.6	50.2	50.2	23.8	27.4
Corporate income	280.2	308.0	387.1	389.2	414.1	414.1	93.5	81.4
1 year change	-18.8	27.8	79.1	2.1	10.0	10.0	11.9	10.7
% change	-6.3	9.9	25.7	0.6	2.5	2.5	14.6	15.2
Unincorporated Bus.	135.4	139.8	169.4	165.0	134.0	134.0	27.6	24.2
1 year change	-18.9	4.4	29.6	-4.4	-29.6	-29.6	0.4	-0.5
% change	-12.3	3.2	21.2	-2.6	-18.1	-18.1	1.3	-2.1
Deed taxes*	391.2	480.6	445.2	460.9	471.3	471.3	124.4	33.3
1 year change	18.4	89.4	-35.4	16.7	10.5	10.5	-5.8	-5.9
% change	4.9	22.8	-7.4	3.8	2.3	2.3	-4.5	-15.0
Other taxes	616.4	610.6	630.9	606.9	612.0	612.0	187.9	55.0
1 year change	35.6	-5.8	20.3	-17.6	0.6	0.6	-3.9	-6.1
% change	6.1	-0.9	3.3	-2.8	0.1	0.1	-2.0	-10.0

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

Note: (1) Revenues for the fiscal years 2014 through 2017 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

Sales taxes and the individual income tax continue to show steady gains

• For the 12 month period ending September total tax collections (before earmarking) were \$286.0 million (3.8%) more than in the prior year. For the last 3 months they were up 2.2% from last year.

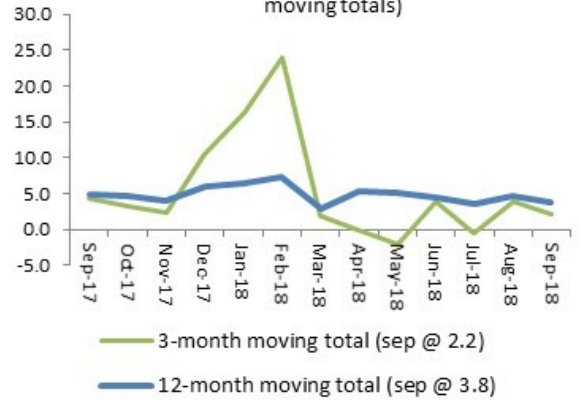
• Individual income tax collections were 8.7% above last year for the 12-months ending September and withholding was 4.7% higher. For the past 3 months, withholding was up 3.4%.

• General sales tax collections were 5.2% above last year for the 12-months ending September. For the past 3 months, they were 8.6% above last year.

• Deed tax collections for the 12-months ending September were up 2.3% from last year; for the past 3 months they were down 4.5%.

• Corporate income taxes for the 12 months ending September were up 2.5% while unincorporated business income taxes fell 18.1% from last year.

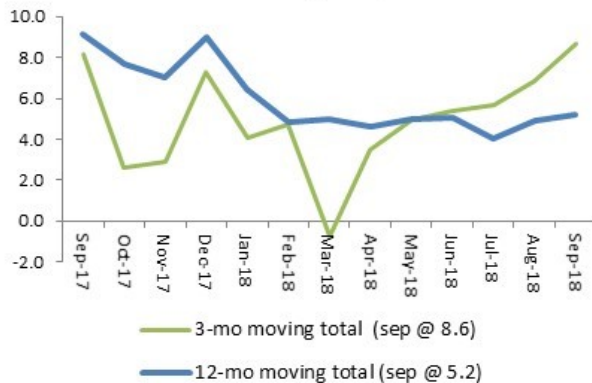
**Total tax collections (before earmarks):
September 2017 to September 2018**
(% change from prior year: 3-month and 12-month moving totals)



**Withholding for the Individual Income tax:
September 2017 to September 2018**
(% change from prior year: 3-month and 12-month moving totals)



**General Sales tax collections (before earmarks):
September 2017 to September 2018**
(% change from prior year: 3-months and 12-month moving totals)



**General Sales tax and Withholding for the Individual Income tax:
September 2017 to September 2018**
(% change from prior year in the 12-month moving total)



**Deed tax collections (before earmarks):
September 2017 to September 2018**
(% change from prior year: 3-month and 12-month moving totals)



US economic forecasts

Forecasts anticipate faster GDP growth in FY 2019

- The September Blue Chip Indicators kept real GDP growth in FY 2018 at 2.7% and FY 2019 at 2.8%. Nominal growth stayed at 5.0% for FY 2018 and rose slightly to 5.3% for FY 2019.
- CBO's August 2018 economic and budget outlook: nominal GDP growth rates of 4.9% in FY 2018 and 5.1% in FY 2019.
- The Blue Chip Indicators September forecast for inflation (CPI): 2.4% for FY 2018 and 2.3% for FY 2019.
- Global Insight and Moody's Analytics September forecasts expect US Personal Income growth to be in the 4.5% to 4.9% range for FY 2018 through FY 2020.
- S&P 500 September baseline forecasts: For the 4th quarter of 2018, Global Insight says the stock market will be 11.4% higher than a year earlier, Moody's says it will be 10.4% higher. Global Insight has very slight (0.9%) additional gain by the 4th quarter of 2019, while Moody's anticipates a sharp decline (-12.7%).

Table 33. Forecasts for US nominal and real GDP: FY 2014 through FY 2019
(% change from prior fiscal year)

Fiscal year and date of forecast	real			nominal		
	Moody's Blue Chip	IHS Global Analytics	IHS Global Insight	Moody's Blue Chip	Moody's Analytics	IHS Global Insight
	FY 2014 Actual	2.4	2.4	2.4	4.4	4.4
FY 2015 Actual	3.1	3.1	3.1	4.4	4.4	4.4
FY 2016 Actual	1.6	1.6	1.6	2.6	2.6	2.6
FY 2017 Actual	2.1	2.1	2.1	3.9	3.9	3.9
FY 2018						
June	2.8	2.9	2.9	4.8	4.9	4.9
July	2.8	2.8	2.7	4.9	4.9	5.2
August	2.7	2.7	2.7	5.0	5.0	5.0
September	2.7	2.7	2.7	5.0	5.0	5.0
FY 2019						
June	2.7	3.0	3.0	5.0	5.7	5.4
July	2.7	2.9	3.0	5.0	5.7	7.0
August	2.8	3.1	3.0	5.2	5.8	5.3
September	2.8	3.0	2.9	5.3	5.8	5.3

Sources: BEA, Blue Chip Indicators, Moody's Economy.com, and IHS Global Insight.

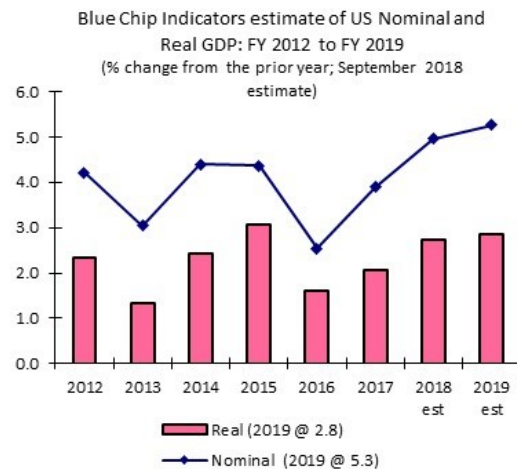


Table 34. CBO estimates of US economic indicators: FY 2017 to FY 2020

Indicator	FY 2017	FY 2018	FY 2019	FY 2020
Real GDP (% ch from prior yr.)	2.1	2.9	3.0	2.1
Nominal GDP (% ch from prior yr.)	3.8	4.9	5.1	4.3
CPI (% ch from prior yr.)	2.1	2.4	2.3	2.4
10 yr. Treasury bond rate	2.3	2.8	3.5	3.8
Unemployment rate	4.5	4.0	3.4	3.5

Source: Congressional Budget Office, An Update to *The Budget and Economic Outlook: 2018 to 2028*, August 2018

Table 35. Forecasts for US Personal Income: FY 2017 to FY 2020

Forecast date	% change from prior fiscal yr				% change from prior fiscal yr			
	2017	2018	2019	2020	2017	2018	2019	2020
	Global Insight				Moody's Analytics			
Jun	2.6	4.0	4.9	4.8	2.6	4.2	5.1	4.3
Jul	2.6	4.5	4.5	4.8	2.6	4.2	5.0	4.3
Aug	4.0	4.5	4.5	4.8	4.0	4.6	5.0	4.4
Sep	4.0	4.5	4.6	4.9	4.0	4.6	4.9	4.4

Source: IHS Global Insight, Moody's Analytics. Baseline forecasts

Table 36. Forecasts for S and P 500: 2017.4 to 2019.4

Forecast date	% change from prior year			% change from prior year		
	2017.4	2018.4	2019.4	2017.4	2018.4	2019.4
	Global Insight			Moody's Analytics		
June	19.2	5.3	-2.4	19.2	0.1	-10.0
July	19.2	8.7	-0.9	19.2	1.8	-11.1
August	19.2	8.7	-0.9	19.2	5.7	-11.3
September	19.2	11.4	0.9	19.2	10.4	-12.7

Source: IHS Global Insight, Moody's Analytics. Baseline forecasts

Table 37. Blue Chip forecasts for CPI and 10 year Treasury interest rate: FY 2017 to FY 2019

Forecast date	CPI			10 yr Treasury rate		
	2017	2018	2019	2017	2018	2019
	Jun	2.0	2.5	2.3	2.3	2.8
Jul	2.0	2.5	2.3	2.3	2.8	3.3
Aug	2.0	2.4	2.3	2.3	2.8	3.3
Sep	2.0	2.4	2.3	2.3	2.8	3.3

Source: Blue Chip Indicators

Global Insight and Moody's Analytics have different views of DC population and job growth over the next several years.

- Jobs:** Global Insight anticipates DC job growth will rise to 8,668 in FY 2020, while Moody's says it will be less than half that.
- Population:** Global Insight anticipates a gradual slowdown in annual population growth; Moody's has a sharper decline which essentially cuts all net in-migration by 2019.
- Income:** Global Insight raised slightly its estimate of FY 2019 Personal Income growth to 3.2%; Moody's cut its estimate to 3.8%.
- Apartments and office space.** Delta Associates anticipates that the supply of new Class A office and apartment space will outpace demand over the next several years.

Table 38. Forecasts of DC jobs and population to FY 2020

	FY	Global Insight			Moody's Analytics		
		Level	1 year change		Level	1 year change	
			amount	%		amount	%
Jobs	2017	788,575	7,692	1.0	788,550	7,675	1.0
	2018	794,689	6,114	0.8	794,700	6,150	0.8
	2019	801,795	7,106	0.9	800,500	5,800	0.7
	2020	810,463	8,668	1.1	804,625	4,125	0.5
Population	2017	692,750	9,987	1.5	692,800	9,900	1.4
	2018	701,886	9,136	1.3	699,125	6,325	0.9
	2019	710,056	8,169	1.2	703,450	4,325	0.6
	2020	717,284	7,228	1.0	707,525	4,075	0.6

Source: September baseline forecasts from Global Insight and Moody's Analytics

Table 40. Forecasts of DC Personal Income to FY 2020

Date of est.	Global Insight				Moody's Analytics			
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2017	FY 2018	FY 2019	FY 2020
June	3.1	4.0	4.8	5.2	3.1	3.1	4.0	3.9
July	3.0	2.9	4.9	5.2	2.6	4.2	5.0	4.3
August	3.0	2.7	3.1	3.9	3.0	3.0	4.1	3.9
September	3.0	2.7	3.2	4.5	3.0	2.9	3.8	3.9

Source: Baseline forecasts from Global Insight and Moody's Analytics

Table 41. Sep. forecasts for employment and Personal Income for DC, the metro area, and the US: FY 2017 to FY 2020

(percent change from prior year)

Indicator	Global Insight				Moody's Analytics			
	2017	2018	2019	2020	2017	2018	2019	2020
Wage and salary jobs								
DC	1.0	0.8	0.9	1.1	1.0	0.8	0.7	0.5
Metro area					1.8	1.4	1.5	0.7
US	1.6	1.6	1.6	1.1	1.6	1.6	1.5	0.7
Personal Income								
DC	3.0	2.7	3.2	4.5	3.0	2.9	3.8	3.9
Metro area					2.7	3.7	4.4	3.7
US	4.0	4.5	4.6	4.9	4.0	4.6	4.9	4.4

Source: IHS Global Insight and Moody's Analytics. Baseline forecasts

Table 39. Forecasts of DC resident jobs, households, and housing starts to FY 2020

	FY	Global	Moody's
		Insight	Analytics
Resident jobs (1 year change)			
	2017	6,483	6,500
	2018	6,784	6,475
	2019	10,237	6,825
	2020	6,955	1,650
Households (1 year change)			
	2017	1,850	9,125
	2018	3,324	3,800
	2019	3,307	3,625
	2020	3,095	3,600
Housing starts			
	2017	4,362	4,111
	2018	4,644	4,080
	2019	2,590	3,594
	2020	2,615	3,891

Source: September baseline forecasts from Global Insight and Moody's Analytics

Table 42. Sep. DC forecasts for wages and unemployment: FY 2017 to FY 2020 (% change from prior year)

	Global Insight				Moody's Analytics			
	2017	2018	2019	2020	2017	2018	2019	2020
Wages and salaries earned in DC								
	2.9	3.1	3.6	4.3	2.9	3.0	4.6	4.3
DC resident wages and salaries								
	2.5	2.6	2.1	4.2	2.5	2.9	3.6	4.7
DC Unemployment rate (level)								
	6.1	5.7	5.0	4.6	6.1	5.7	5.6	5.7

Source: IHS Global Insight and Moody's Analytics. Baseline forecasts.

Table 43. Delta Associates outlook for Class A apartments in DC and the surrounding metro area: June 2018 to June 2021

Indicator	DC				Total	DC % of total
	No VA	Sub MD				
Inventory June 2018						
Inventory (msf)	26,167	71,192	38,874	136,233		19.2
Estimated net activity to June 2021						
new supply (msf)	15,731	12,614	8,995	34,340		45.8
new demand (msf)	12,255	9,120	7,125	28,500		43.0

Source: Delta Associates

Table 44. Delta Associates outlook for Class A commercial office space in DC and the surrounding metro area: Jun. 2018 to Jun. 2020

Indicator	DC				Total	DC % of total
	No VA	Sub MD				
Inventory June 2018						
Inventory (msf)	143.1	183.4	85.5	412.0		34.7
Estimated net activity to June 2020						
new supply (msf)	4.8	2.2	2.7	9.7		49.5
new demand (msf)	4.2	4.0	3.1	11.3		37.2

Source: Delta Associates msf = million square feet

DC revenue estimate

The September estimate for tax revenue (before earmarks): \$294 million more in FY 2018 than in FY 2017, followed by an additional \$309 million increase in FY 2019

- The tax revenue increase (before earmarks) of 3.3% in FY 2017 is estimated to be followed by a 3.9% increase in FY 2018, and a 4.0% increase in FY 2019.
- Real property tax growth of \$115.9 million in FY 2017 accounted for 48.4% of the net increase in taxes for that year. Real property's share of the increase for FY 2018 is 38.0% and for FY 2019 is 41.3%.
- Individual income tax revenue rose 2.6% in FY 2017, and is expected to grow by 5.8% in FY 2018 and 4.8% in FY 2019.
- The General sales tax, which grew 5.7% in FY 2017, is estimated to grow 4.8% in FY 2018 and 7.0% in FY 2019.
- Deed taxes grew 3.8% in FY 2017, and are estimated to rise 4.8% in FY 2018 and decrease 1.1% in FY 2019.
- As a % of DC Personal Income, tax revenue is expected to fall slightly from 14.0% in FY 2017 and 2018 to 13.9% in 2019.

Table 45. DC Tax Revenue (before earmarks) for FY 2017 through FY 2020: September 2018 revenue estimate

Tax	FY level (\$ million)				Change from prior year (\$ M)				% change from prior year			
	2017	2018	2019	2020	2017	2018	2019	2020	2017	2018	2019	2020
Real property	2,473.3	2,585.1	2,713.0	2,803.0	115.9	111.8	127.9	90.0	4.9	4.5	4.9	3.3
Deed taxes	460.9	482.8	477.4	478.2	16.7	22.0	-5.4	0.8	3.8	4.8	-1.1	0.2
General sales	1,419.2	1,487.3	1,591.4	1,666.1	76.1	68.1	104.1	74.7	5.7	4.8	7.0	4.7
Individual income	1,958.3	2,072.3	2,171.6	2,257.7	50.4	114.0	99.3	86.1	2.6	5.8	4.8	4.0
Withholding	1,766.6	1,863.7	1,943.2	2,030.8	139.0	97.2	79.5	87.7	8.5	5.5	4.3	4.5
non-withholding	191.7	208.6	228.4	226.9	-88.6	16.9	19.8	-1.6	-31.6	8.8	9.5	-0.7
Business income	554.2	531.9	513.5	534.6	-2.2	-22.4	-18.4	21.1	-0.4	-4.0	-3.5	4.1
Other	606.9	607.3	609.3	599.3	-17.6	0.4	2.0	-10.0	-2.8	0.1	0.3	-1.6
Total	7,472.9	7,766.8	8,076.1	8,338.8	239.3	293.9	309.4	262.7	3.3	3.9	4.0	3.3

Source: ORA. Sep. 28, 2018 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 2017 is from the CAFR. FY 2018 reflects full implementation of DC tax cut legislation.

Table 46. DC population and employment: FY 2017 to FY 2020

item	2017	2018	2019	2020
Wage and salary employment	788,575	794,960	802,871	809,059
1 year change	7,692	6,385	7,911	6,188
% change	1.0	0.8	1.0	0.8
DC population	692,750	702,247	711,354	719,943
1 year change	9,987	9,497	9,107	8,589
% change	1.5	1.4	1.3	1.2
Unemployment rate	6.1	5.7	5.6	5.6

Source: ORA September 2018 revenue estimate.

Table 47. DC Income and stock market assumptions:

item	FY 2017 to FY 2020 (% change from prior year)			
	2017	2018	2019	2020
Wages and salaries earned in DC	3.0	4.6	4.2	4.0
Wages and salaries earned by DC residents	3.8	5.1	4.7	4.3
DC Personal income	3.7	4.1	4.6	4.4
S and P 500 stock index	19.2	3.9	1.7	1.7

Source: ORA September 2018 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 2011 to FY 2020

item	2011	2012	2013	2014	2015	2016	2017	2018 est	2019 est	2020 est	
Tax revenue (\$ million)											
Level		5,325	5,853	6,100	6,290	6,917	7,234	7,473	7,767	8,076	8,339
Change from prior year		320	528	247	189	627	317	239	294	309	263
Percent change from prior year											
Tax revenue		6.4	9.9	4.2	3.1	10.0	4.6	3.3	3.9	4.0	3.3
Personal Income		9.1	4.5	2.8	5.1	7.9	5.1	3.7	4.1	4.6	4.4
Tax revenue as percent of Personal Income											
		13.3	14.0	14.2	13.9	14.2	14.1	14.0	14.0	13.9	13.8

Source: ORA. September 2018 revenue estimate. The table includes tax revenue only, before all earmarks, and excludes all non-tax revenues, lottery, and "O-type" earmarked revenues.

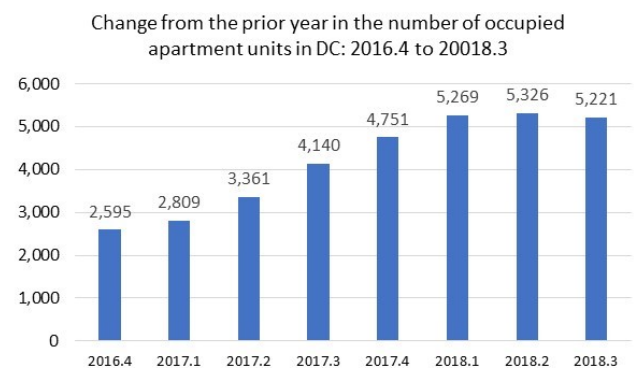
Details are shown in the tables and charts in the appendix. As indicated there, the story is similar for the seasonally adjusted and unadjusted estimates of DC’s labor force.

The current differences between the seasonally adjusted and unadjusted year-over-year changes in DC’s resident employment and labor force data are unusually clear examples of the difficulty in spotting changes in the economy by closely monitoring data as it is released each month or each quarter. As with Personal Income, population, and other data produced by federal agencies, labor market data is revised as more information becomes available.

As the labor force data is revised the current differences in the story about changes over the past year told by the seasonally adjusted and unadjusted data will be resolved. Some revision to the September 2018 data may occur next month, but it will likely not be until March 2019 when major annual revisions typically occur that the matter will be cleared up.

Two other points to note:

- Information from CoStar, which tracks apartment buildings in the District of Columbia, does not indicate any significant recent slowing in the annual increase in occupied apartment units in DC. The increase over the prior year of 5,221 in September 2018 was 26% more than the 4,140 gain recorded in September 2017. If this is accurate, it seems unlikely that DC’s population, labor force, and resident employment would be slowing, which tends to support the “no slowing” labor market view contained in the BLS seasonally adjusted data. (There is not, however, necessarily an exact connection between the labor force and occupied apartments; if two people who are working and sharing an apartment each get their own place, for example, there will be an increase in occupied units but no change in the labor force.)
- The seasonally adjusted and unadjusted data both tell the same story about unemployment: the amount and rate of unemployment fell over the past year.



Source: CoStar

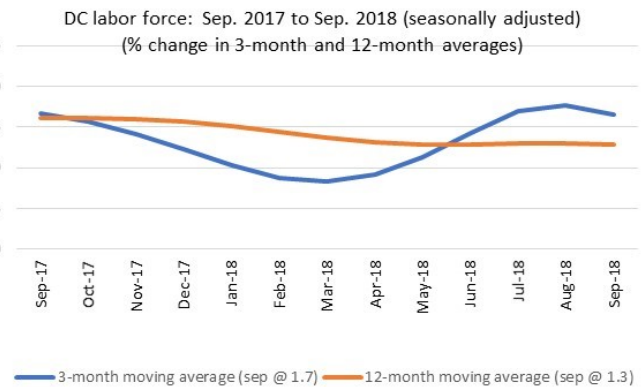
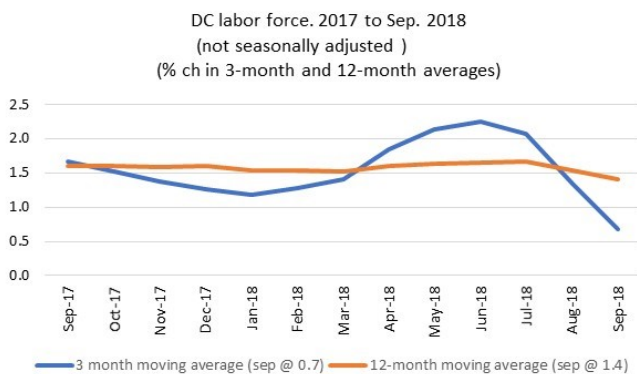
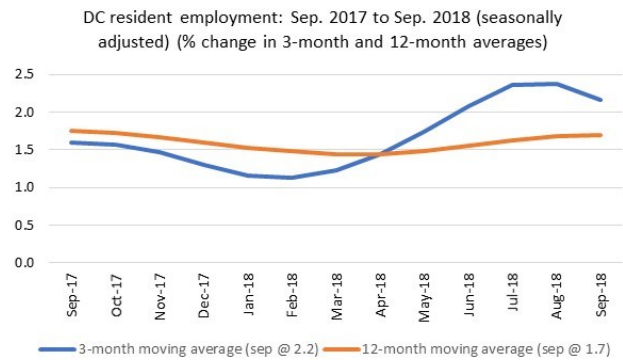
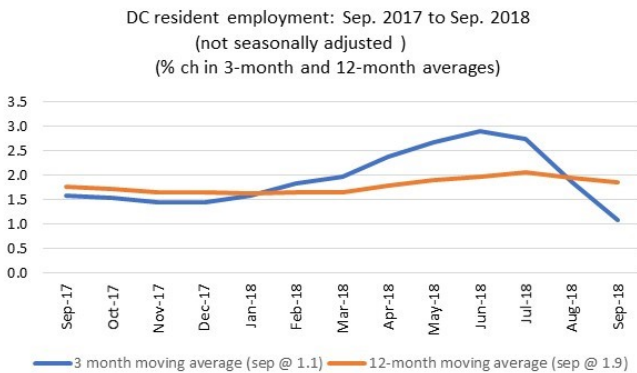
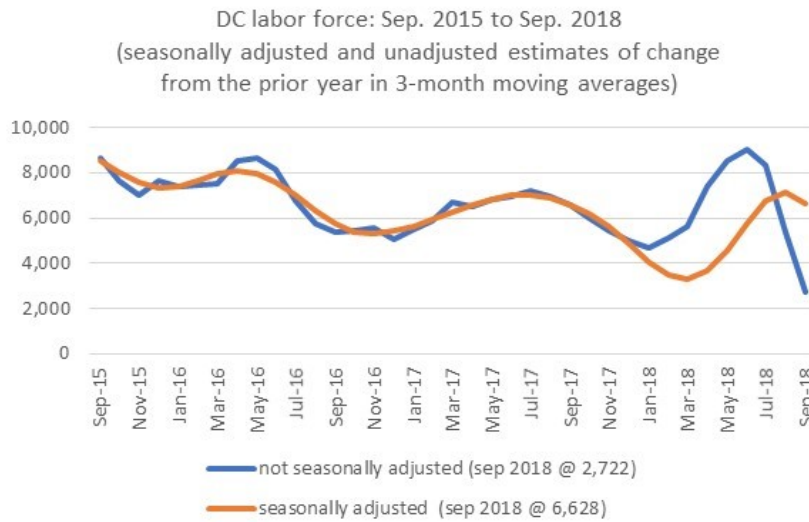
—Stephen Swaim, DC Office of Revenue Analysis

Appendix

DC labor market information: September 2013 to September 2018 (seasonally adjusted and unadjusted)

	Amount			1 year change from Sep. 2017 to Sep. 2018		Average annual change from Sep. 2013 to Sep. 2018	
	Sep. 2013	Sep. 2017	Sep. 2018	amount	%	amount	%
Resident employment							
Not seasonally adjusted	342,619	376,751	380,938	4,187	1.1	7,664	2.1
Seasonally adjusted	341,994	376,857	384,983	8,126	2.2	8,598	2.4
Labor force							
Not seasonally adjusted	375,156	402,612	405,334	2,722	0.7	6,036	1.6
Seasonally adjusted	373,646	401,349	407,977	6,628	1.7	6,866	1.7
Unemployment							
Not seasonally adjusted	32,537	25,861	24,396	-1,465	-5.7	-1,628	-5.7
Seasonally adjusted	31,652	24,492	22,994	-1,498	-6.1	-1,732	-6.2
Unemployment rate							
Not seasonally adjusted	8.7	6.4	6.0	-0.4			
Seasonally adjusted	8.5	6.1	5.6	-0.5			

Source: BLS. Calculated from 3-month moving averages.



About the data. The labor market information is from the statistics released each month for the District of Columbia (along with all states) based on a population survey. The data includes resident employment (persons over 16 years of age who say they are working on a full or part time basis); unemployment (persons over 16 years of age who are not working but say they are looking for work); labor force (the sum of resident employment and unemployment); and the unemployment rate (unemployment as a percentage of the labor force). The data is reported on both a seasonally adjusted and not seasonally adjusted basis. For the month of September 2018 the data is preliminary and may be revised when the October data is released. A comprehensive revision to the data occurs annually in March 2019. All calculations here are based on 3-month moving averages (e.g., September 2018 is the average of July, August, and September as reported by BLS).

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.

Recent ORA reports:

Revised revenue estimate, September 28, 2018.

DC Tax Facts, 2018. Details on all DC taxes.

Tax Rates and Tax Burdens 2016 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.

Tax Rates and Tax Burdens 2016 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.

Briefing documents. A series with information related to DC's economy and taxes.

Tax expenditure report, November 2016. Comprehensive description of all DC tax expenditures.

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*).

Indicator	Source	Period covered in this report	Next release
D.C. Jobs and Labor Force information	BLS	September	November 16
D.C. Personal Income	BEA	2018.2	December 20
D.C. Tax Collections	OTR/ORA	September	c. November 15
D.C. Housing Sales	MRIS*	September	c. November 10
D.C. Commercial Office Building data	CoStar and Delta	2018.2	c. October 10
DC Apartment data	CoStar and Delta	2018.2	c. October 10
D.C. Hotel stay information	Smith Travel Research	September	c. November 20
Consumer Price Index	BLS	September	November 14
U.S. Jobs and Labor Force	BLS	September	November 2
U.S. GDP and Personal Income	BEA	2018.3	November 28
S and P 500 Stock Index	Fred	September	November 1
Interest rate on 10-Year Treasury Securities	Fred	September	November 1
IHS Global Insight D.C. forecast	Global Insight	September	c. October 20
Moody's Analytics D.C. forecast	Moody's Analytics	September	c. October 25
Blue Chip Economic Indicators for the U.S.	Aspen Publishers	September	c. October 10

*Metropolitan Regional Information Systems; listings and contract data accessed through 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.

*Fitzroy Lee, Deputy Chief Financial Officer and Chief Economist
Office of Revenue Analysis
1101 4th St., SW, Suite W770
Washington D.C. 20024
202-727-7775*