

#### **GOVERNMENT OF THE DISTRICT OF COLUMBIA** OFFICE OF THE CHIEF FINANCIAL OFFICER OFFICE OF REVENUE ANALYSIS

## District of Columbia Economic and Revenue Trends: September 2017

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### Highlights:

Strong job growth..... 2

$\Diamond$	More unemployment3
<b>\</b>	Slower growth in federal house price index9
$\Diamond$	Rise in housing

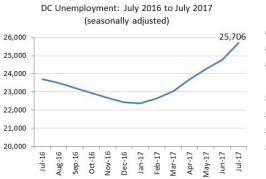
### Indicator updates:

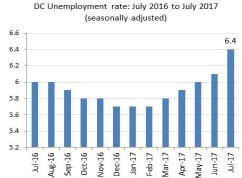
Wage and salary employment2
Resident employment and unemployment3
Sectors of the economy 4
Income and population6
Residential real estate8
Commercial office space11
Property transfers13
Hospitality14
US economy and federal government15
DC tax collections16
US and DC forecasts18
DC revenue estimate20
ORA reports , documents, & blog23
About this report23
ORA contact information23

## DC's unemployment has been increasing over the past six months, with the rate rising to 6.4% in July

## More DC residents are working, but resident employment growth has not kept up with that of the labor force

According to the US Bureau of Labor Statistics (BLS), unemployment in the District of Columbia has been rising over the past six months. Seasonally adjusted unemployment rose from 22,376 in January 2017 to 25,706 in July 2017, an increase of 3,330 (14.9%). The rate of unemployment rose from 5.7% in February to 6.4% in July.





The rise in unemployment does not mean, however, that the number of employed DC residents fell. To the contrary, there were 4,313 (1.2%) more DC residents working in July 2017 than there were in January. Unemployment rose because for the past 6 months the increase in jobs for DC residents did not keep up with the even faster growth in the DC labor force.

As explained on p.21, unemployment can be viewed as the difference between the labor force and resident employment. Unemployment goes down if resident employment increases more than the labor force. This is what happened from July 2016 to January 2017. At that time unemployment decreased by 1,324, following the trend of the prior two

years. Unemployment goes up if resident employment increas- unemployment: July 2016 to July 2017 es less than the labor force. This is what happened from January 2017 to July 2017

when the labor force increased more than twice as much as in the prior 6 months, and unemployment rose by 3,330. (Continued on p. 21)

Change in DC labor force, resident employment and

	July 2016 to	January 2017 to
	January 2017	July 2017
Labor force	3,589	7,643
Resident employment	4,913	4,313
Unemployment	-1,324	3,330

Source: BLS. Calculated from seasonally adjusted data as revised by BLS in the report for August 2017

## Wage and salary employment

### Strong job growth over the past 3 months

- •July wage and salary employment in DC was up by 12,700 (1.6%) from a year earlier as measured by the 3-month moving average.
- Federal government employment in DC for July was down by 1,667 (0.8%). The private sector gained 13,733 (2.5%).
- •Total year-over-year DC metropolitan area employment increased by 64,600 (2.0%) in July as measured by the 3-month moving average. Of the increase, 20% was in DC.
- •Suburban Washington employment in July increased by 2.1% from a year earlier, well above the 1.5% US rate.
- •Seasonally adjusted DC jobs increased by 4,700 in July from the prior month and are 8,800 above the level of five months ago.

Change in wage and salary employment located in DC, the DC suburbs, and the US:

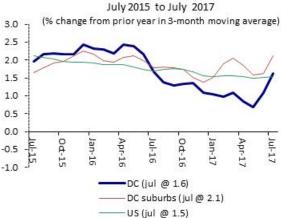


Table 1. Wage and salary employment in DC, Washington Metro area, and the US: July 2017

					3-mo	
Jurisdiction	FY 2014	FY 2015	FY 2016	12-mo avg	average	This month
District of Columbia	751,592	764,583	780,033	787,750	795,000	803,100
1 year change	6,375	12,992	15,450	9,442	12,700	16,100
% change	0.9	1.7	2.0	1.2	1.6	2.0
Washington metro area	3,107,792	3,143,100	3,218,833	3,263,008	3,306,367	3,321,500
1 year change	12,558	36,800	63,167	53,383	64,600	83,100
% change	0.4	1.2	2.0	1.7	2.0	2.6
Washington suburbs (% ch)	0.3	1.5	2.0	1.8	2.1	2.7
US (% ch)	1.8	2.1	1.8	1.6	1.5	1.5

Not seasonally adjusted. Suburban employment is the difference between the metro area total and the DC portion. Source: BLS. July is preliminary.

Federal gov. and private sector wage and salary employment in DC: July 2012 to July 2017 (Change from prior year in 3-month moving average)

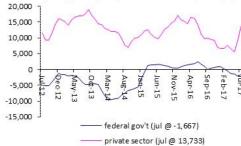


Table 2. Federal government and private sector wage and salary employment in DC: July 2017

					3-month	
Sector	FY 2014	FY 2015	FY 2016	12-mo avg	average	This month
Federal government	198,367	198,025	199,125	198,683	198,600	198,600
1 year ch.	-7,533	-342	1,100	-425	-1,667	-600
% change	-3.7	-0.2	0.6	-0.2	-0.8	-0.3
Private sector	515,558	527,033	540,992	548,450	553,000	554,600
1 year ch.	11,442	11,475	13,958	9,125	13,733	17,600
% change	2.3	2.2	2.6	1.7	2.5	3.3

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

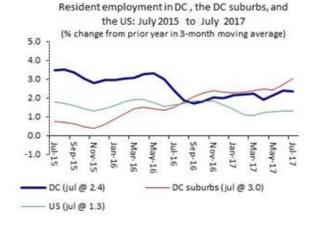
Table 3. Seasonally adjusted DC Employment: February 2017 to July 2017

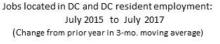
	• •					
Indicator	February	March	April	May	June	July
D.C. Wage and Salary employment	788,300	788,700	786,700	791,100	792,400	797,100
change from prior month	800	400	-2,000	4,400	1,300	4,700
% change from prior month	0.1	0.1	-0.3	0.6	0.2	0.6
Source: BLS seasonally adjusted. July is prelim	inary					

DC Economic and Revenue Trends: September 2017

## Resident employment continues to grow, but the unemployment rate is increasing

- •In July DC resident employment was up 8,735 (2.4%) from a year earlier (3-mo. moving average). The labor force grew more than that—10,286 (2.6%).
- •The seasonally adjusted unemployment rate rose to 6.4% in July. The rate is almost a full percent above what it was before the Great Recession began in December 2007.
- •July initial unemployment insurance claims were down 2.2% from last year (3-month moving average).





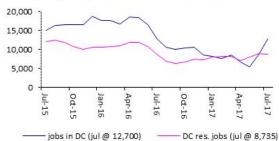


Table 4. Unemployment rates for DC, metro area, and US: July 2017

(percent of labor for	ce)						
	Not seaso	nally adj.	Seasonally adj.				
Jurisdiction	July 2016	July 2017	July 2016	July 2017			
US	5.1	4.6	4.9	4.3			
DC	6.3	6.9	6.0	6.4			
DC metro area	4.0	3.9	na	na			
DC suburbs	3.7	3.5	na	na			
Source: U.S. BLS. na=	data not avail	ahle					

Table 5. Resident employment and unemployment July 2017

Indicator	FY 2014	FY 2015	FY 2016	12-mo avg	3-mo. avg.	This month
DC Labor force summary						
Resident employment	345,061	357,437	367,036	373,606	378,627	378,005
1 year change	3,562	12,376	9,599	7,617	8,735	5,784
% change	1.0	3.6	2.7	2.1	2.4	1.6
Labor Force	374,726	385,038	391,310	397,291	403,900	406,106
1 year change	904	10,311	6,272	6,668	10,286	8,699
% change	0.2	2.8	1.6	1.7	2.6	2.2
Unemployed	29,665	27,601	24,274	23,685	25,273	28,101
1 year change	-2,659	-2,065	-3,327	-949	1,551	2,915
% change	-8.2	-7.0	-12.1	-3.9	6.5	11.6
Unemployment rate	7.9	7.2	6.2	6.0	6.3	6.9
DC Unemployment insurance (state pr	ogram)					
Initial claims (monthly avg.)	1,851	1,596	1,472	1,516	1,678	1,684
1 year change	-64	-255	-123	36	-37	32
% change	-3.3	-13.8	-7.7	2.4	-2.2	1.9
Weeks compensated (mo. avg.)	42,133	32,811	30,261	31,200	30,888	30,805
1 year change	-729	-9,322	-2,550	720	2,619	1,788
% change	-1.7	-22.1	-7.8	2.4	9.3	6.2

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

Table 6. Seasonally adjusted DC Resident employment and unemployment: Feb. 2017 to July 2017

Table 0. Seasonally adjusted be in	Table 6. Seasonally adjusted be resident employment and anemployment. Teb. 2017 to July 2017										
Indicator	February	March	April	May	June	July					
DC Resident employment	374,369	375,103	375,734	377,542	378,508	377,288					
change from prior month	1,146	734	631	1,808	966	-1,220					
% change from prior month	0.3	0.2	0.2	0.5	0.3	-0.3					
DC Unemployment rate (%)	5.7	5.8	5.9	6.0	6.1	6.4					
Source: BLS seasonally adjusted. July is pro	eliminary.										

## Jobs by sectors of the economy

### Education and food service top job growth in DC

- •In July the increases of 6,067 in education and 5,500 in food service over the prior year accounted for 91% of all net DC job growth. (3-month moving avg.)
- •In the private sector, other professional services (3,133) and amusement and recreation (1,233) were the other sectors that grew by 1,000 or more jobs in July.
- •Private sector industries losing jobs included health, constuction, retail trade, finance, and information.
- •Local government rose by by 633 (1.5%).
- •The federal government accounted for 25.0% of all DC jobs in June. Over the past year, DC's share of US federal employment fell in both the metro area and the US.

Change in private sector wage and salary jobs located in DC, the DC suburbs, and the US:

July 2015 to July 2017

(% change from prior year in 3-month moving average)

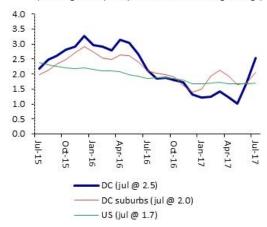


Table 7. Wage and salary employment located in DC: July 2017

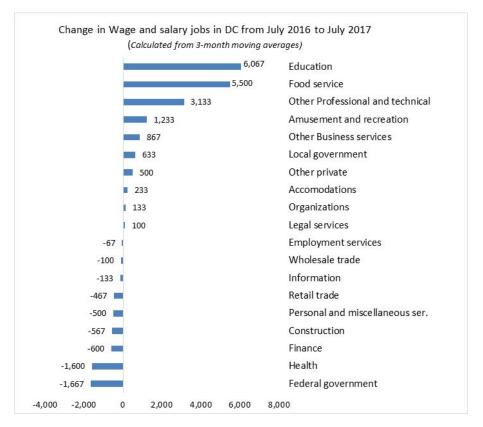
	3-moi	nth moving	average 1 year ch	iange	12-mo. moving avg:	Sector % of all DC jobs, Jul	DC share (%) in		Change from to Jul 2017 in I of sector jo	DC share
Industry sector	July 2016	July 2017	Amount	%	% change	2017	metro area	US	metro area	US
Federal government	200,267	198,600	-1,667	-0.8	-0.2	25.0	53.9	7.05	-0.5	-0.09
Local government	42,767	43,400	633	1.5	1.9	5.5	12.9	0.23	-0.2	0.00
Legal services	28,767	28,867	100	0.3	0.4	3.6		2.54		-0.01
Other Professional and technical	85,567	88,700	3,133	3.7	2.6	11.2	22.9	1.11	0.1	0.00
Employment services	15,267	15,200	-67	-0.4	-0.4	1.9	34.8	0.41	1.3	-0.02
Other Business services	36,200	37,067	867	2.4	3.8	4.7	18.4	0.46	-0.1	0.00
Information	16,933	16,800	-133	-0.8	-1.8	2.1	23.6	0.61	0.7	0.00
Finance	30,067	29,467	-600	-2.0	-0.4	3.7	18.6	0.35	-0.4	-0.01
Organizations	64,667	64,800	133	0.2	0.1	8.2	36.6	2.15	-0.5	-0.02
Education	59,933	66,000	6,067	10.1	5.7	8.3	51.2	1.90	-0.7	0.14
Health	69,100	67,500	-1,600	-2.3	-1.2	8.5	21.4	0.35	-0.7	-0.02
Food service	52,200	57,700	5,500	10.5	5.7	7.3	23.6	0.48	1.6	0.04
Accomodations	15,067	15,300	233	1.5	1.2	1.9	33.2	0.75	-1.7	0.01
Amusement and recreation	8,233	9,467	1,233	15.0	13.3	1.2	17.2	0.38	0.9	0.04
Retail trade	22,867	22,400	-467	-2.0	-1.9	2.8	7.9	0.14	-0.3	0.00
Wholesale trade	5,000	4,900	-100	-2.0	-0.5	0.6	7.9	0.08	-0.1	0.00
Construction	15,467	14,900	-567	-3.7	-6.1	1.9	9.3	0.21	-0.5	-0.01
Personal and miscellaneous ser.	7,867	7,367	-500	-6.4	-0.5	0.9		0.26		-0.02
Other private	6,067	6,567	500	8.2	4.6	0.8	5.4	0.04	0.3	0.00
Total	782,300	795,000	12,700	1.6	1.2	100.0	24.0	0.54	-0.1	0.00
Public sector	243,033	242,000	-1,033	-0.4	0.1	30.4	34.4	1.10	-0.6	-0.01
Private sector	539,267	553,000	13,733	2.5	1.7	69.6	21.3	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

### In the March quarter, the federal sector accounted for more than half of all wage and salary growth in DC

- •In the March quarter, the federal government accounted for 25.4% of all jobs and a 32.7% of the wages and salaries paid in DC. Although federal employment was 0.2% less than a year ago, the federal share of last year's wage growth in DC was 53.1%.
- •Professional and business services accounted for about 25.9% of wages paid in DC in March, but only 8.8% of the increase in wages paid in DC over the past year.
- Education and health services accounted for 30.8% of last year's job increases, and 23.7% of the increase in wages.
- •Trade and hospitality accounted for 44.3% of the increase in jobs over the past year and 7.4% of the increase in wages.



	Wage and sala	ry emplo	ment in	Wages and	salaries ear	ned in DC	I	Percentage D	Distribution	ns
	DC in the Ma	ar. 2017 d	uarter	in the M	1ar. 2017 q	uarter	Empl	oyment	Wa	ages
		Change			Ch. from			Change		Change
	f	rom Mar.			Mar. 2016		Mar.	from	Mar.	from
Sector	Level	2016	% change	Level (\$B)	(\$B)	% change	2017	Mar. 2016	2017	Mar. 2016
Total	783,967	8,433	1.1	71.62	1.86	2.67	100.0	100.0	100.0	100.0
ederal government	198,800	-300	-0.2	23.40	0.99	4.41	25.4	-3.6	32.7	53.1
ocal government	39,933	1,067	2.7	3.09	-0.02	-0.76	5.1	12.6	4.3	-1.3
Business and professional services	166,900	3,900	2.4	18.53	0.16	0.90	21.3	46.2	25.9	8.8
nformation and financial services	45,967	-600	-1.3	4.81	0.07	1.45	5.9	-7.1	6.7	3.7
Education and health services	138,033	2,600	1.9	7.81	0.44	5.99	17.6	30.8	10.9	23.7
Frade and hospitality services	103,400	3,733	3.7	6.71	0.14	2.09	13.2	44.3	9.4	7.4
Organizations and personal services	70,467	-933	-1.3	4.45	0.14	3.25	9.0	-11.1	6.2	7.5
Other private	20,467	-1,033	-4.8	2.83	-0.06	-1.97	2.6	-12.3	3.9	-3.1
Private sector	545,233	7,667	1.4	45.13	0.90	2.02	69.5	90.9	63.0	48.1
Government	238,733	767	0.3	26.49	0.96	3.78	30.5	9.1	37.0	51.9

## Wages and income

### DC income growth has slowed in the last two quarters

- Wages and salaries earned in the District of Columbia were 2.7% higher in the March quarter compared to the same quarter of 2016.
- Wages earned by DC residents grew an estimated 3.3% in the March quarter compared to last year.
- •In the March quarter, DC Personal Income grew 4.4%, above the US increase (3.7%).
- $\bullet \mbox{The growth rate of proprietors' income was 6.0% in the March quarter.$
- $\bullet \mbox{Pensions}$  and other transfers grew 5.2% over last year in the March quarter.

Wages earned in DC, wages earned by DC residents, and wages earned in the US: 2015.1 to 2017.1

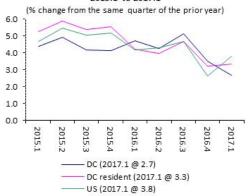


Table 9. DC Wages and Personal Income: March 2017 (2017.1)

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

					4-qtr. moving	Latest qtr.
Indicator	FY 2013	FY 2014	FY 2015	FY 2016	avg.	(Mar)
Wages and salaries earned in DC	62.08	63.97	66.88	69.93	70.99	71.62
1 year change	1.43	1.89	2.91	3.05	2.65	1.86
% change	2.4	3.0	4.5	4.6	3.9	2.7
Supplements to wages & salaries	16.44	17.22	17.91	18.75	19.12	19.41
% change	-0.1	4.7	4.0	4.7	4.5	3.3
Income earned in DC**	74.25	77.01	81.21	85.12	86.57	87.03
% change	0.5	3.7	5.5	4.8	4.1	3.5
Net resident adjustment***	-45.54	-46.28	-47.93	-50.12	-50.90	-51.08
% change	-0.4	1.6	3.6	4.6	4.1	3.2
Income earned by DC residents**	28.71	30.74	33.29	35.01	35.67	36.17
% change	2.1	7.0	8.3	5.2	4.2	3.9
Wages and salaries of DC residents****	21.66	22.85	24.21	25.32	25.73	26.01
change from one year ago	0.85	1.18	1.36	1.11	0.94	0.84
% change	4.1	5.5	6.0	4.6	3.8	3.3
Proprietors' income earned by DC residents*	4.31	5.03	6.10	6.56	6.73	6.90
% change	1.3	16.6	21.3	7.5	5.1	6.0
Property income of DC residents	8.44	8.77	9.12	9.26	9.50	9.72
% change	5.3	3.9	4.1	1.5	3.1	5.7
Pensions and other transfers for DC residents	5.92	6.03	6.18	6.58	6.78	6.82
% change	3.3	1.8	2.5	6.4	7.1	5.2
DC Personal Income	43.08	45.53	48.59	50.85	51.96	52.70
1 year change	1.19	2.46	3.06	2.26	2.16	2.22
% change	2.8	5.7	6.7	4.6	4.3	4.4
US Personal income (% change from prior year)	3.0	3.5	5.0	3.7	3.4	3.7
US Wages and salaries (% change from prior year)	4.0	4.1	5.2	4.6	3.8	3.8
Addendum:						
DC res. wages as % of wages earned in DC	34.9	35.7	36.2	36.2	36.2	36.3

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

Source: BEA; date released June 27, 2017

<sup>\*\*</sup>does not include social insurance paid by individuals. Wage and salary amounts shown do include social insurance paid by individuals.

<sup>\*\*\*</sup>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.

<sup>\*\*\*\*</sup>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 invididuals.

## Population, jobs, and per capita income

# In March, DC's per capita income growth rate dipped below the US average

- For 2016, population increased 10,793 (1.6%) and wage and salary employment grew 13,258 (1.7%).
- •In the past year population grew below the 5 year average from 2011 to 2016, and jobs were above the average.
- •In the March quarter, DC's per capita income grew at a slower rate than the US average, but total Personal Income grew at a faster rate because population was growing more rapidly.
- $\bullet In$  the March quarter, wages per job in DC grew more slowly than wages per job in the US (1.6% v 2.2%).



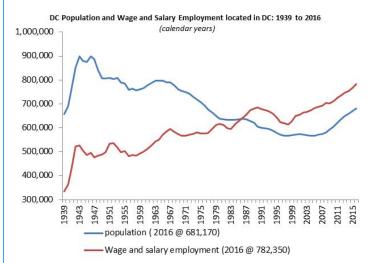


Table 10. DC Population and wage and salary employment located in DC: 2010 to 2016

		Population		Wage and salary employment				
Calendar		Change from	n prior yr.		Change from	n prior yr.		
year	Number	Number	%	Number	Number	%		
2010	605,183	11,383	1.9	712,242	10,859	1.5		
2011	620,477	15,294	2.5	726,292	14,050	2.0		
2012	635,327	14,850	2.4	734,575	8,283	1.1		
2013	649,165	13,838	2.2	748,025	13,450	1.8		
2014	659,005	9,840	1.5	753,300	5,275	0.7		
2015	670,377	11,372	1.7	769,092	15,791	2.1		
2016	681,170	10,793	1.6	782,350	13,258	1.7		
Ch. from 201	1 to 2016	60,693	9.8		56,058	7.7		
Avg. anı	nual ch.	12,139		11,212				

Source: U.S. Bureau of the Census and BLS

Table 11. Per capita income in DC and the US: FY 2014 to March 2017

		DC				US		
	FY 2014	FY 2015	FY 2016	2017.1	FY 2014	FY 2015	FY 2016	2017.1
Per capita income	69,253	72,602	74,956	76,606	45,816	47,732	49,204	49,857
% ch in per capita income	3.8	4.8	3.2	2.8	2.7	4.2	3.1	3.0
% ch in population	1.8	1.8	1.4	1.6	0.8	0.8	0.5	0.7
% ch in personal income	5.7	6.7	4.7	4.4	3.5	5.0	3.7	3.7
Consumer price index	1.9	-0.1	0.9	2.5	1.6	0.3	0.9	2.6

Source: BEA for per capita income, population and Personal Income. Global Insight for CPI. Note: % changes are from the same period of the prior year.

Table 11A. Wages and salaries per job in DC and the US: FY 2014 to March 2017

Table 117. Wages and salaries per job in be and the out it 2017 to March 2017											
		D	C		US						
	FY 2014	FY 2015	FY 2016	2017.1	FY 2014	FY 2015	FY 2016	2017.1			
Wages per job	85,110	87,477	89,648	90,870	53,275	54,906	56,385	57,031			
% ch in wages per job	2.2	2.8	2.5	1.6	2.2	3.1	2.7	2.2			
% ch in jobs	0.8	1.7	2.0	1.0	1.8	2.1	1.8	1.6			
% ch in total wages and salaries	3.0	4.5	4.6	2.7	4.1	5.2	4.6	3.8			
Source: BEA for wages and salaries ar	nd BLS for w	age and so	ılarv emplo	vment. Note	: % changes	are from t	he same ne	riod of			

Source: BEA for wages and salaries and BLS for wage and salary employment. Note: % changes are from the same period of the prior year.

## Single family and condominium housing

### Single family and condominium sales continue to rise

- •The 3-month moving total of single family home sales in August was up 5.9% from a year earlier, and the average selling price was 4.6% higher. The year-to-date median sales price (\$694,016) was 2.4% higher than the prior year.
- •August condominium sales were up 4.5% from last year as measured by the 3-month moving total, while the average selling price was 1.8% lower. The year-to-date median sales price (\$455,000) was up 1.3% from last year.
- •The total value of all home sales in August rose 7.8% from last year as measured by the 3-month moving total.





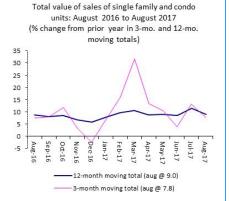


Table 12. D.C. Residential Real Estate Indicators: August 2017

					12-mo moving	3-mo moving	
					total or	total or	
Indicator	FY 2013	FY 2014	FY 2015	FY 2016	average	average	This month
Number of sales (settled contracts)							
Single family	3,979	4,024	4,097	4,385	4,593	1,376	448
1 year change	416	45	73	288	255	77	22
% change	11.7	1.1	1.8	7.0	5.9	5.9	5.2
Condo	3,487	3,592	3,832	3,955	4,102	1,199	387
1 year change	703	105	240	123	157	52	31
% change	25.3	3.0	6.7	3.2	4.0	4.5	8.7
Total	7,466	7,616	7,929	8,340	8,695	2,575	835
1 year change	1,119	150	313	411	412	129	53
% change	17.6	2.0	4.1	5.2	5.0	5.3	6.8
Average prices of units that sold							
Single family (\$)	712,799	736,362	767,870	794,668	829,825	863,491	794,282
1 year change	82,690	23,563	31,508	26,798	36,996	37,649	-43,976
% change	13.1	3.3	4.3	3.5	4.7	4.6	-5.2
Condo (\$)	447,827	472,419	499,650	500,824	510,900	512,708	479,974
1 year change	18,216	24,592	27,232	1,173	9,330	-9,451	-47,381
% change	4.2	5.5	5.8	0.2	1.9	-1.8	-9.0
Total value of all sales (\$ million)	4,397.8	4,660.0	5,060.6	5,465.4	5,907.1	1,802.9	541.6
1 year change	956.7	262.2	400.6	404.8	489.1	131.2	-3.2
% change	27.8	6.0	8.6	8.0	9.0	7.8	-0.6
Ratio: active inventory to sales							
Single family	1.6	1.6	1.5	1.6	1.5	1.6	1.7
Condo	1.7	1.9	1.7	1.8	1.7	1.7	1.8

Median contract prices, CY to date in August 2017: single family \$694,016 (2.4% 1 yr ch); condo \$455,000 (1.3% 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

### DC home prices growing faster in DC than in the US or the metropolitan area

- •The percentage change in DC home prices slowed 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 2.9%. The US index was up 6.6%, and the Washington metropolitan area gain was 4.7%.
- •23.3% of all single family sales for the 12-months ending August were for properties greater than \$1 million.
- •In the June quarter, sales of new condominium over the past 12 months were 0.2% higher than a year earlier, and single family housing permits were up by 15.9%.

Table 13. Federal Housing Finance Agency Price Index for single family property in DC, DC metro area, and US: June 2017 (2017.2)

Fiscal year average Last 2 Q's											
Indicator	FY 2013	FY 2014	FY 2015	FY 2016	2017.1	2017.2					
% change from prior year	in value o	f index									
DC	12.8	7.2	8.4	5.6	7.9	2.9					
DC metro area	8.5	5.7	3.5	2.8	5.0	4.7					
US	6.8	6.3	5.6	5.8	6.7	6.6					

Source: (1) 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: 2010.1 to 2017.1

(% change from prior year in 12-month moving average)

2013.3

Personal income (2017.1 @ 4.3)

14

12 10

8

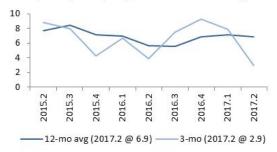
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FHFA expanded-data housing price index for DC, the Washington Metropolitan area, and the US: 2014.2 to 2017.2

(% change from prior yr. in the 12-mo. moving avg.)



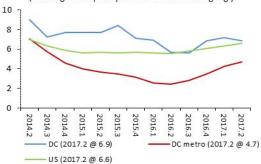


Table 14. D.C. Single family and condominium home sales at prices of \$1 million or more: August 2017

FHFA index (2017.1 @ 6.9)

12-mo 3-mo moving moving This FY 2014 FY 2015 FY 2016 Category total total month Single family homes 734 765 936 1,068 364 104 45 31 171 1 year change 143 53 3 6.5 4.2 % change 22.4 15.5 17.0 3.0 percent of all single family sales 18.2 18.7 21.3 23.3 26.5 23.2 128 160 Condominiums 167 188 52 9 1 year change 16 32 7 20 -9 -11 % change 14.3 25.0 4.4 11.9 -14.8 -55.0 4.2 4.2 percent of all condominium sales 3.6 4.6 2.3 4.3

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

Table 15. Single family housing permits and sales of new condo. units in DC: FY 2012 to 2017.2

_					
				Cond	do.
		Pe	rmits	Sale	es
	FY 2012		236		479
	FY 2013		368		442
	FY 2014		267		516
	FY 2015		293		483
	FY 2016		283		680
12-r	no. ending:				
	2017.2		328		570
	1 yr ch		45		1
	% ch.		15.9		0.2
_	_	_	,		

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

## **Apartments**

# Faster increase in occupied units in the June quarter

- •According to CoStar, in June occupied apartment units increased 4,590 (2.7%) from a year earlier; inventory was up by 5,909 (3.3%).
- •The vacancy rate was 5.3% in June, up from 4.7% a year earlier. Rents rents rose 2.8% over the prior year.
- •14,769 apartment units were under construction in June,up by 2,018 from the prior year.
- •Class A units account for 6.9% of all apartment buildings, 20.1% of all units, 18.9% of the occupied units, and 87.4% of new construction.
- $\bullet Class~A$  vacancy rate was 10.6% in June, up from 8.8% a year earlier. Average effective rent was up 0.2% from the prior year.

DC Apartment units: 12-month change in inventory, occupancy, and rents, and number under construction:



Table 17. Market rate apartment units in DC: 2011 to 2017.2

		Inv	entory			Occup	ied units		Effective mon	thly rent	Unde	r Construct	tion
CY	_		Unit	:S					\$ per month				Avg units
_	Buildings	Number	1 yr ch	% ch.	% vacant	Number	1 yr ch	% ch	per unit	1 yr % ch	Buildings	Units	per bldg.
2011	3,369	161,201	1,539	1.0	4.8	153,510	922	0.6	\$1,481	2.5	23	4,837	210
2012	3,378	163,274	2,073	1.3	4.7	155,561	2,051	1.3	\$1,527	3.1	36	8,084	225
2013	3,393	167,076	3,802	2.3	5.6	157,768	2,207	1.4	\$1,572	2.9	49	7,107	145
2014	3,420	171,828	4,752	2.8	5.6	162,226	4,458	2.8	\$1,631	3.8	82	8,334	102
2015	3,472	174,975	3,147	1.8	4.7	166,801	4,575	2.8	\$1,687	3.4	97	12,005	124
2016	3,525	179,573	4,598	2.6	5.2	170,150	3,349	2.0	\$1,732	2.7	97	14,171	146
2017.1	3,526	180,370	4,717	2.7	5.1	171,134	3,626	2.2	\$1,744	2.3	101	14,615	145
2017.2	3,539	182,521	5,909	3.3	5.3	172,928	4,590	2.7	\$1,784	2.8	99	14,769	149
1 Q ch.	13	2,151				1,794			40		-2	154	

Source: CoStar. Includes units in private buildings with 5 or more units. CY amounts are last quarter of the year. Includes some affordable units in market rate buildings. Vacancy rate Is unoccupied units as % of inventory. Data is as of September 5, 2017.







Table 18. Market rate apartment units in DC, Classes A, B, and C: 2017.2

		In	ventory			Осси	ipied units		Effective mor	nthly rent	Under construction		
Class			Un	its									
	Buildings N	Number	1 yr ch	% ch	% vacant	Number	1 yr ch	% ch	\$ per month	1 yr % ch	Buildings	Units	Avg. size
Class A	244	36,616	5,623	18.1	10.6	32,730	4,453	15.7	\$2,521	0.2	75	12,905	172
Class B	1,151	75,902	525	0.7	3.5	73,229	249	0.3	\$1,779	0.4	24	1,864	78
Class C	2,133	69,811	-239	-0.3	4.3	66,791	-121	-0.2	\$1,302	2.3	0		

Source: CoStar. Includes units in private sector buildings with 5 or more units. Includes some affordable units in market rate buildings. Vacancy rate is unoccupied units as % of inventory. Data from September 5, 2017

## Commercial office space

# Occupied space, rents, and construction all increased in June from a year earlier

- According to CoStar, for the 12-month period ending June occupied office space increased by 0.35 million sq. ft. from the prior year. Base rent rose 4.0%, and the vacancy rate fell to 11.3% (including sublet).
- •The vacancy rate for class A space was 13.2%, down from 13.5% a year ago. Class A rent rose 2.5% over the past year.
- •Space under construction in June 2017 (6.24 million square feet in 22 buildings) was 1.56 msf (34%) more than a year earlier.
- For Class B and Class C properties, inventory and occupancy have declined over the past year while rents have increased.

DC commercial office space: 1 yr change in inventory, occupied space, and rent, and under construction:

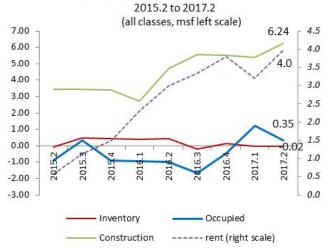
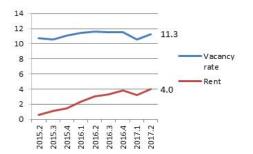


Table 19. DC commercial office space: 2011 to 2017.2

		Ir	nventory		Oc	cupied spa	ace	Vacan	cy %	Base rent (	direct)	(	Jnder cor	nstr.
CY (year	Build-	Level	1 yr ch	1 yr %	Level	1 yr ch				\$	1 yr	Build-		Avg. sf per
end)	ings	(msf)	(msf)	ch	(msf)	(msf)	% ch	Direct	Total	per sq ft.	% ch	ings	msf	bldg
2011	2,380	153.15	0.90	0.6	136.9	3 0.90	0.7	9.9	10.6	\$46.13	1.2	9	2.04	226,833
2012	2,370	152.89	-0.26	-0.2	138.40	1.42	2 1.0	8.8	9.5	\$46.56	0.9	8	2.21	276,436
2013	2,367	153.67	0.78	0.5	138.89	0.49	0.4	9.1	9.6	\$46.63	0.2	12	2.13	177,131
2014	2,361	154.16	0.49	0.3	138.3	5 -0.54	1 -0.4	9.8	10.3	\$47.22	1.3	13	2.43	187,185
2015	2,354	154.60	0.44	0.3	137.43	3 -0.92	2 -0.7	10.6	11.1	\$47.92	1.5	17	3.40	200,255
2016	2,350	154.77	0.16	0.1	136.9	4 -0.49	-0.4	10.8	11.5	\$49.74	3.8	20	5.51	275,645
2017.1	2,348	154.67	-0.03	0.0	138.3	1 1.22	0.9	9.9	10.6	\$49.66	3.2	18	5.39	299,263
2017.2	2,348	154.67	-0.02	0.0	137.13	3 0.35	0.3	10.5	11.3	\$50.77	4.0	22	6.24	283,673
1 Q ch	0	0.00			-1.18	3				\$1.11		4	0.85	

Source: CoStar, all classes and sizes.

All DC commercial office space: vacancy rate (with sublet) and annual change in base rent (direct) from: 2015.2 to 2017.2



DC Class A office space: vacancy rate( with sublet) and annual increase in base rent (direct) from 2015.2to 2017.2

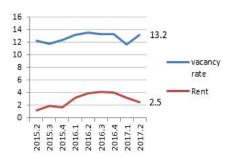


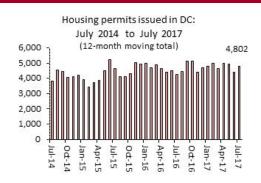
Table 20. DC Class A, B, and C commercial office space: 2017.2

		Inve	ntory		Occ	cupied spa	ice	Vacancy	/ %	Base rent (	direct)	Under	constr.
CY (year end)	Build- ings	Level (msf)	1 yr ch (msf)	1 yr % ch	Level (msf)	1 yr ch (msf)	% ch	Direct	Total	\$ per sq ft.	1 yr % ch	build- ings	msf
Class A	337	91.19	0.81	0.9	79.18	1.00	1.3	12.2	13.2	\$54.37	2.5	19	6.20
Class B	890	53.05	-0.69	-1.3	48.01	-0.46	-0.9	8.9	9.5	\$45.16	5.2	3	0.04
Class C	1,117	10.38	-0.14	-1.3	9.93	-0.20	-1.9	3.9	4.3	\$36.04	14.8	0	0.00
Source: Cos	,	10.50	0.14	1.5	3.33	0.20	1.5	3.5	1.5	Ç30.04	14.0	Ü	

## Trends and outlook for housing

# Housing occupancy gains for the year ending in June appears to be similar to the pace for FY 2015

- •For the 12-month period ending July 4,802 housing permits were issued, up 12.5% from a year ago. The 3-month total was 14.4% below last year.
- •An indicator of increased housing occupancy over the past 12 months rose by 5,426 units in the June quarter, a pick up to about the same pace as in FY 2015.
- •Class A apt. starts rose to 6,427 for the year ending 2017 Q 2.
- $\bullet Delta$  expects new supply of Class A apartments to exceed demand over the next 3 years.



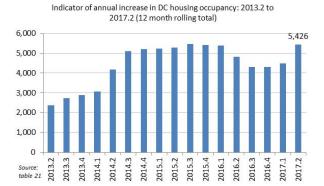


Table 25. Housing unit building permits issued in DC: July 2017 12-mo. 3-month moving moving This FY 2014 FY 2015 FY 2016 total total month Total units 4.467 4,131 5,129 4,802 1,162 455 change from 1 yr ago 612 -336 998 534 -195 388 12.5 % change from 1 year 15.9 -7.5 24.2 -14.4 579.1 Multi-family projects with 5 or more units 32 37 40 41 average size 140 112 128 117 166 205 Source: Census Bureau (permits for privately owned units issued during period).

Table 21. Estimated DC households, housing permits, and indicators of newly occupied housing units: 2011 to 2017.2

_	Es	timated DC	households			Measures of newly occupied housing un				
					Housing	l yr. ch. In	1 yr. new	1 yr. single	Total 1 yr.	
date		pop/hh	Estimated		permits (year	occupied	condo	family	new	
CY	Population	ratio	households	1 yr ch	total)	apt. units	sales	permits	occupancy	
2011	620,477	2.258	274,846	6,625	3,853	922	371	135	1,428	
2012	635,327	2.259	281,267	6,421	4,120	2,051	468	104	2,623	
2013	649,165	2.260	287,233	5,966	3,256	2,207	514	267	2,988	
2014	659,005	2.261	291,424	4,191	4,187	4,458	476	236	5,170	
2015	670,377	2.263	296,286	4,862	4,956	4,575	497	368	5,440	
2016	681,170	2.267	300,470	4,184	4,668	3,349	667	288	4,304	
2017.2					4,414	4,590	570	266	5,426	

Source: 1) Population: US Census Bureau 2) population/household ratio based on Office of Planning estimates for 2010, 2015, and 2020 3) households: calculated from population using the pop/hh ratio; 4) Housing permits: US Census Bureau; 5) occupied apt. units: CoStar (see table 17 of this report); 6) new condo sales: Delta (see table 15 of this report); and 7) single family housing permits: Census Bureau, with 2 year lag (see table 15 of this report).

Note: Housing units can be rented or purchased by entities not considered resident households for Census purposes--for example a unit can be leased or purchased by a company. Also units in the existing housing stock can be subdivided, combined, or destroyed.

Class A apartment starts for the prior 12-month period: 2015 Q2 to 2017 Q2 (units)

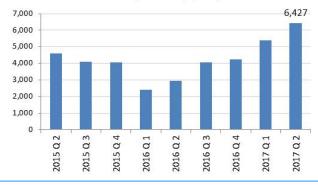


Table 22. Delta Associates outlook for Class A apartments in DC and the surrounding metro area: June 2017 to June 2020

Indicator	DC	No VA	Sub MD	Total	DC % of total
Inventory June 2017					
Inventory (msf)	23,438	688,921	35,880	128,239	18.3
Estimated net activity to	June 2020				
new supply (msf)	15,281	11,165	9,775	36,201	42.2
new demand (msf)	8,130	11,111	7,859	27,100	30.0
Source: Delta Associates					

## Commercial property trends and value of all property transfers

### Property transfers exceed the prior year by 11.8%

- •The value of August property transfers rose by 11.8% from last year as measured by the 12-month moving total. The 12-month moving total was \$14.22 billion. The 3-month moving total was 11.5% higher than last year.
- •Delta Associates expects both supply and demand for Class A office space to be about 4 million square feet over the next two years.

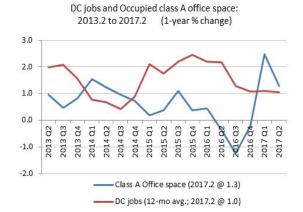
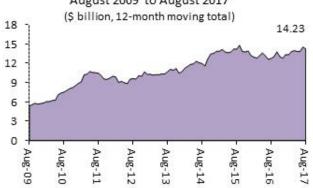


Table 23. Delta Associates outlook for Class A commercial office space in DC and the surrounding metro area: March 2017 to March 2019

Indicator	DC	No VA	Sub MD	Total	DC % of total
<b>Inventory March 2017</b>					
Inventory (msf)	142.3	179.9	85.9	408.1	34.9
Estimated net activity	to March 20	19			
new supply (msf)	4.2	3.7	0.1	8.0	52.5
new demand (msf)	4.0	2.7	0.8	7.5	53.3
Source: Delta Associates	msf = million	square feet			

## Value of all real property subject to deed transfer or economic interest taxes: August 2009 to August 2017



Value of real property transfers (including transfers of economic interest):



Table 26. Market Value of Real Property transfers subject to the Deed Transfer or Economic Interest tax: August 2017

					12-mo moving	3-month	
	FY 2013	FY 2014	FY 2015	FY 2016	total	moving total	This month
All property transfers (\$ million)	11,063.9	11,569.8	14,766.3	13,035.9	14,225.8	3,738.0	784.8
change from one year ago (\$M)	1,530.6	505.8	3,196.5	-1,730.3	1,497.2	385.6	-274.3
% change from 1 year ago	16.1	4.6	27.6	-11.7	11.8	11.5	-25.9

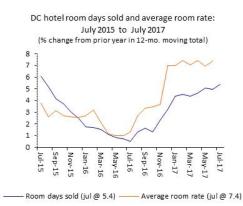
Note: represents value of property or economic interest transferred as of date deed noted by the Recorder of Deeds.

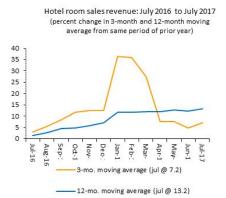
Source: OCFO/Recorder of Deeds and OCFO/ORA (calculated from tax collections and deposits adjusted for tax rate changes).

## Hospitality

## Hotel revenues have continued to be strong in the months since the inauguration

- $\bullet$ In July the 3-month moving total for hotel room-days sold was 4.0% above a year earlier. The average room rate was 3.1% higher, and hotel revenue was up 7.2%.
- •Employment in food services was 10.5% more in July than a year earlier as measured by the 3-month moving average. Hotel employment was up 1.5%.
- •May airline traffic into the DC area was up 2.7% compared to a year earlier as measured by the 3-month moving total. Reagan National was up 0.3%. For the past 12-months, total traffic into the DC area was 3.4% higher.





12-month

moving

3-month

moving

Table 27. Hospitality Industry: July 2017

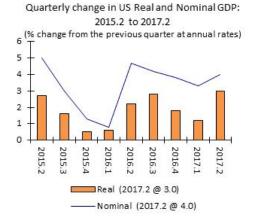
						moving	moving	
						total or	total or	
Indicator	Units	date	FY 2014	FY 2015	FY 2016	average*	average*	This month
Hotel stays								
Hotel room-days sold	('M)	jul	7.869	8.197	8.343	8.715	2.422	0.811
	1 yr ch		0.189	0.328	0.111	0.448	0.092	0.037
	1 yr % ch		2.5	4.2	1.3	5.4	4.0	4.7
Average room rate	\$	jul	209.87	215.34	223.16	234.83	235.20	202.29
	1 yr ch		2.56	5.46	7.25	16.18	7.15	11.78
	1 yr % ch		1.2	2.6	3.4	7.4	3.1	6.2
Occupancy rate	%	jul	76.6	77.5	77.8	78.5	85.5	85.0
(average)	1 yr ch		0.8	0.9	0.0	0.6	-0.4	0.6
	1 yr % ch		1.0	1.2	0.0	0.8	-0.5	0.7
Room revenue	(\$M)	jul	1,651.4	1,765.1	1,861.8	2,046.6	569.6	164.0
	1 yr ch		59.4	113.6	84.5	238.9	38.3	16.5
	1 yr % ch		3.7	6.9	4.8	13.2	7.2	11.2
Airline passengers		_						
DCA	1 yr % ch	may	0.0	10.3	2.8	1.8	0.3	0.0
IAD	1 yr % ch	may	-1.9	0.3	-0.1	4.2	4.8	2.7
BWI	1 yr % ch	may	-0.5	4.1	6.0	4.3	3.1	2.9
Total	1 yr % ch	may	-0.8	4.8	3.0	3.4	2.7	1.9
Employment								
Accommodations	level ('000)	jul	15.2	15.2	14.9	15.1	15.3	15.3
	1 yr ch		0.0	0.0	-0.3	0.2	0.2	0.2
	1 yr % ch		-0.2	-0.2	-1.9	1.2	1.5	1.3
Food and bev	level ('000)	jul	47.1	49.7	51.4	54.2	57.7	58.1
	1 yr ch		2.0	2.7	1.6	2.9	5.5	6.3
	1 yr % ch		4.3	5.6	3.3	5.7	10.5	12.2
* Total for hotel rooms sold a	and room revenue							

<sup>\*</sup> Total for hotel rooms sold and room revenue.

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

### 2nd quarter US nominal GDP was 3.8% above last year

- •US real GDP growth in the June (2017.2) quarter was estimated at 2.2% above a year earlier; nominal growth was 3.8%.
- Federal government consumption and investment for all activities was 2.2% higher in the 2017.2 quarter than a year earlier, about 60 percent of the growth rate for nominal GDP.
- •US employment (seas. adj.) increased by 156,000 in August from the month before.
- •The US unemployment rate (seas. adj.) rose back to 4.4% in August.
- •In August the average S&P 500 index rose 0.1% from July; it was 12.8% above a year earlier.



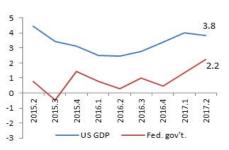
### Table 29. Federal government sector, US GDP accounts: 2017.2

(percent change from same period of prior year)

	-				
				12-mo	
Indicator	FY 2014	FY 2015	FY 2016	avg	2017.2
Non-defense					
Compensation of employees	1.5	4.2	4.0	4.0	4.0
Purchases of goods and services	-2.1	7.6	1.8	-0.7	-0.7
Gross investment	0.2	3.2	1.3	3.8	4.6
Defense					
Compensation of employees	-0.7	-0.5	1.0	2.0	2.9
Purchases of goods and services	-7.1	-6.1	-1.2	-1.2	-1.8
Gross investment	-4.4	-2.9	0.6	2.9	9.5
All federal consumption and investment	-1.9	-0.1	0.9	1.3	2.2

Source: BEA (August 30, 2017). Nominal values.

Federal government consumption and investment and US GDP: 2015.2 to 2017.2 (1 yr % ch)



Federal government consumption and investment, by defense and non-defense: 2015.2 to 2017.2 (1 yr % ch)

(Nominal.; % change from same Q of the prior year)

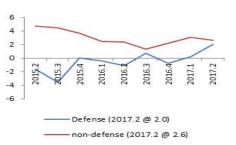


Table 30. Qtr. to Qtr. ch. in US GDP: 2016.2 to 2017.2

(% ch. from previous quarter at seasonally adj. annual rates) Indicator 2016.2 2016.3 2016.4 2017.1 2017.1 US GDP real 2.2 2.8 1.8 1.2 3.0 US GDP nominal 4.7 4.2 3.8 3.3 4.0 Wages and salaries 6.3 4.3 -3.4 6.1 4.4

3.0

-0.1

2.9

5.5

4.0 Note: GDP=Gross Domestic Product Source: BEA, updated August 30, 2017.

#### Table 28. US GDP, income, and inflation: 2017.2

(percent change from same period of prior year)

Personal income

Indic	ator _	FY 2014	FY 2015	FY 2016	12-mo avg	2017.2
US GDP real		2.6	3.0	1.5	1.9	2.2
US GDP nom	ninal	4.4	4.3	2.7	3.5	3.8
US Personal	income	3.5	5.5	3.0	2.5	2.9
US wages		4.0	5.3	3.9	2.8	2.9
Corporate p	rofits*	4.6	3.7	2.4	4.2	6.3
S and P stoc	k index	20.3	9.7	0.4	11.9	15.4
US CPI		1.6	0.3	0.9	1.8	1.9
Source: BFA (	August 30, 201	17) BIS Yaha	00 1	na= not avail	ahle	

Table 31. Monthly selected US Indicators: May 2017 to August 2017

rable 31: Monthly Science 05 maleutoisi Me	y LOIF to 7	tugust LOT,		
Indicator	May	June	July	August
S and P stock index (level)	2395	2434	2454	2456
% change from prior month	1.5	1.6	0.8	0.1
% change from 1 year ago	16.0	16.7	14.2	12.8
10 yr. Treasury Interest rate (level)	2.30	2.19	2.31	2.21
CPI % ch from prior month (seasonally adjusted)	-0.13	-0.02	0.11	0.40
CPI % ch from prior year (seasonally adjusted)	1.87	1.65	1.73	1.93
Jobs (seasonally adjusted level, in millions)	146.175	146.385	146.574	146.730
change from prior month (thousands)	145	210	189	156
% change from prior month	0.1	0.1	0.1	0.1
Resident employment (season. adj. level, in mil.)	152.923	153.168	153.513	153.439
change from prior month (thousands)	-233	245	345	-74
% change from prior month	-0.2	0.2	0.2	0.0
Unemployment rate (seasonally adj.)	4.3	4.4	4.3	4.4
Source: BLS and Yahoo! Finance.				

## DC tax collections

Total DC tax collections (before earmarking): August 2012 to August 2017

(12-month moving total in August 2017 is \$7,405 million)



Table 32. Tax Collections (before earmarking): August 2017 (Preliminary)

(\$ million)	(\$ million) Revenue (from (					Tax coll	Tax collections		
					12-month	FY 2017	3-month		
Tax	FY 2013	FY 2014	FY 2015	FY 2016	moving total	to date	moving total	This month	
Total taxes	6,100.5	6,290.0	6,916.8	7,241.0	7,404.6	5,911.6	1,446.5	496.0	
1 year change	247.2	189.5	656.9	324.2	348.2	291.9	89.6	5.5	
% change	4.2	3.1	10.0	4.7	4.9	5.2	6.6	1.1	
Real property	1,914.8	2,015.6	2,194.5	2,357.5	2,457.9	1,457.8	183.1	167.2	
1 year change	92.8	100.7	178.9	163.0	151.6	110.4	23.9	23.8	
% change	5.1	5.3	8.9	7.4	6.6	8.2	15.0	16.6	
General sales	1,137.9	1,172.1	1,315.3	1,343.1	1,412.3	1,325.3	369.0	102.7	
1 year change	26.8	34.2	143.2	27.8	98.9	111.6	25.1	1.2	
% change	2.4	3.0	12.2	2.1	7.5	9.2	7.3	1.2	
Individual income	1,640.9	1,679.2	1,868.0	1,907.9	1,890.7	1,684.7	460.9	125.3	
1 year change	150.2	38.3	188.9	39.8	24.0	16.7	29.5	-8.1	
% change	10.1	2.3	11.2	2.1	1.3	1.0	6.8	-6.1	
withholding	1,391.2	1,472.9	1,553.2	1,627.6	1,715.3	1,584.8	401.2	123.6	
1 year change	69.6	81.7	80.3	74.4	101.4	91.7	20.8	-11.1	
% change	5.3	5.9	5.4	4.8	6.3	6.1	5.5	-8.2	
non-withholding	249.6	206.2	314.8	280.3	175.4	99.9	59.7	1.7	
1 year change	80.6	-43.4	108.6	-34.5	-77.4	-75.0	8.7	3.0	
% change	47.7	-17.4	52.6	-11.0	-30.6	-42.9	17.0	na	
Corporate income	299.0	280.2	308.0	387.1	401.8	333.5	67.1	7.6	
1 year change	-3.9	-18.8	27.8	79.1	52.6	45.6	4.8	3.6	
% change	-1.3	-6.3	9.9	25.7	15.1	15.8	7.7	87.0	
Unincorporated Bus.	154.3	135.4	139.8	169.4	165.7	138.8	21.5	0.6	
1 year change	-8.7	-18.9	4.4	29.6	8.0	7.5	-2.7	0.7	
% change	-5.3	-12.3	3.2	21.2	5.0	5.7	-11.0	na	
Deed taxes*	372.8	391.2	480.6	445.2	466.7	422.7	130.3	34.1	
1 year change	60.3	18.4	89.4	-35.4	23.9	22.5	1.7	-6.7	
% change	19.3	4.9	22.8	-7.4	5.4	5.6	1.3	-16.5	
Other taxes	580.8	616.4	610.6	630.9	609.5	548.8	214.4	58.4	
1 year change	-70.4	35.6	-5.8	20.3	-10.8	-22.4	7.3	-8.9	
% change	-10.8	6.1	-0.9	3.3	-1.7	-3.9	3.5	-13.2	

 $<sup>^*</sup>$ Deed taxes include deed recordation, deed transfer, and economic interest taxes on real property transactions.

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

<sup>(2)</sup> Tax collections data subject to accounting adjustments.

<sup>(3)</sup> 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

## Collections for sales and withholding continue to be strong

- For the 12 month period ending August, total tax collections (before earmarking) were \$348.2 million (4.9%) more than in the prior year. For the last 3 months they were 6.6% above last year.
- •Individual income tax collections were 1.3% above last year for the 12-months ending August and withholding was 6.3% higher. For the past 3 months, withholding was up 5.5% and all income tax collections were up 6.8%.
- •General sales tax collections were 7.5% above last year for the 12-months ending August. For the past 3 months, they were 7.3% above last year.
- •Deed tax collections for the 12-months ending August were up 5.4% from last year; for the past 3 months they were up 1.3%.
- •Corporate income taxes in August were up 15.1% and unincorporated business income taxes rose 5.0% from last year (12mo. total).

### Total tax collections (before earmarks): August 2016 to August 2017

(% change from prior year: 3-month and 12-month



### General Sales tax collections (before earmarks): August 2016 to August 2017

(% change from prior year: 3-months and 12-month moving totals)



### Withholding for the Individual Income tax: August 2016 to August 2017

(% change from prior year: 3-month and 12month moving totals)



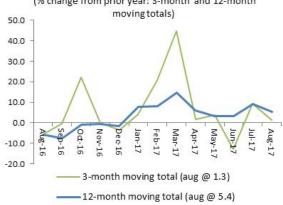
### General Sales tax and Withholding for the Individual Income tax:

August 2016 to August 2017 (% change from prior year in the 12-month moving



#### Deed tax collections (before earmarks): August 2016 to August 2017

(% change from prior year: 3-month and 12-month



## US economic forecasts

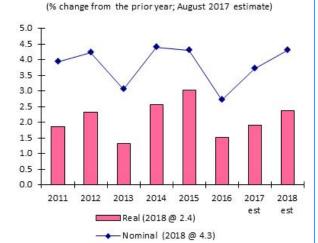
### Slightly weaker FY 2017 Blue Chip forecast for August

- •The August Blue Chip Indicators reduced GDP growth to 1.9% in FY 2017 and kept FY 2018 at 2.4%. Nominal growth was cut slightly to 3.7% for FY 2017 and FY 2018 stayed at 4.3%.
- •CBO's June economic and budget outlook: real growth rates of 2.2% in CY 2017 and 2.0% in CY 2018.
- •The Blue Chip Indicators August forecast for inflation (CPI): a slightly lower 2.0% for FY 2017 and 1.9% for FY 2018.
- •Global Insight and Moody's Analytics August forecasts for US Personal Income: FY 2017 estimates are reduced to below 3.0%, rising to the 4.4% to 4.9% range in FY 2018.
- •S&P 500 August baseline forecasts: Global Insight and Moody's Analytics expect about 14% annual gain in the 4th quarter of 2017. For the last quarter of 2018, Global Insight looks for 3.5% growth, but Moody's says the index will drop 2.5%.

Table 33. Forecasts for US nominal and real GDP: FY 2014 through FY 2018

		real		nominal			
Fiscal year and date of forecast	Blue Chip	Moody's Analytics	IHS Global Insight	Blue Chip	Moody's Analytics	IHS Global Insight	
FY 2014 Actual	2.6	2.6	2.6	4.4	4.4	4.4	
FY 2015 Actual	3.0	3.0	3.0	4.3	4.3	4.3	
FY 2016 Actual	1.5	1.5	1.5	2.7	2.7	2.7	
FY 2017							
May	2.1	2.1	2.1	4.0	4.1	4.1	
June	2.1	2.2	2.1	4.0	4.1	4.1	
July	2.2	2.2	2.2	3.9	4.0	4.0	
August	1.9	2.0	2.0	3.7	3.8	3.8	
FY 2018							
May	2.4	2.5	2.6	4.5	4.9	4.9	
June	2.4	2.6	2.6	4.4	5.0	5.0	
July	2.4	2.8	2.7	4.3	5.3	4.8	
August	2.4	2.7	2.6	4.3	5.2	4.7	

Blue Chip Indicators estimate of US Nominal and Real GDP: FY 2011 to FY 2018



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

Table 34. CBO estimates of GDP and other indicators: CY 2016 to CY 2019

Indicator	CY 2016	CY 2017	CY 2018	CY 2019
Real GDP (% ch from prior yr.)	2.0	2.2	2.0	1.5
Nominal GDP (% ch from prior yr.)	3.5	4.0	4.0	3.5
CPI (% ch from prior yr.)	1.8	2.1	2.3	2.4
10 yr. Treasury bond rate	1.8	2.4	2.8	3.4
Unemployment rate	4.9	4.4	4.2	4.6

Source: Congressional Budget Office, An Update to t <u>The Budget and Economic Outlook: 2017 to 2027</u>, June 29, 2017

Table 36. Forecasts for S and P 500: 2016.4 to 2018.4

	% change f	rom prior	% change	from prior		
	ye	ar		ye	ar	
Forecast date	2016.4	2017.4	2018.4	2016.4	2017.4	2018.4
	GI	obal Insigl	nt	Mod	ody's Analy	rtics
May	6.4	12.4	3.6	6.4	5.4	-2.4
June	6.4	12.4	3.6	6.4	9.1	-2.0
July	6.4	12.4	3.6	6.4	12.0	-1.8
August	6.4	14.6	3.5	6.4	13.5	-2.5

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

Table 35. Forecasts for US Personal Income: FY 2016 to FY 2019

Forecast	% char	% change from prior fiscal year % change from prior fisca					al year		
date	2016	2017	2018	2019	201	L6	2017	2018	2019
	Glo	N	1000	ly's Anal	ytics				
May	3.6	4.2	5.0	5.4	3	3.6	4.4	5.3	5.2
Jun	3.6	3.4	4.7	5.2	3	3.6	3.6	5.1	5.2
Jul	3.6	3.4	4.5	5.1	3	3.6	3.5	4.8	5.0
Aug	3.0	2.7	4.4	5.3	3	3.0	2.8	4.9	5.0

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

Table 37. Blue Chip forecasts for CPI and 10 year Treasury interest rate: FY 2016 to FY 2018

(% change fr	om prior f	iscal year	)			
Forecast		CPI		10 yr	Treasury i	rate
date	2016	2017	2018	2016	2017	2018
May	0.9	2.3	2.2	1.9	2.4	3.0
Jun	0.9	2.2	2.1	1.9	2.4	2.9
Jul	0.9	2.1	2.0	1.9	2.3	2.9
Aug	0.9	2.0	1.9	1.9	2.3	2.8

Source: Blue Chip Indicators

## Global Insight and Moody's Analytics forecast slower population and job growth

- •Both expect DC job growth by FY 2018 to be well below what it was in FY 2016. Global Insight expects modest slowing of population growth through FY 2019 and Moody's is more pessimistic.
- Global Insight: Gradual slowdown in annual population growth. Personal Income estimate of 3.5% growth in FY 2018 is lower than its estimate for the US.
- *Moody's Analytics*: Sharp drop in population growth by FY 2019 essentially cuts all net in-migration to DC. Personal Income growth actually declines 2.1% in FY 2018.

Table 38. Forecasts of DC jobs and population to FY 2019

		FY 2015	FY 2016	C	lobal Insig	ht	Mo	ody's Anal	ytics
	.=	actual	actual	FY 2017	FY 2018	FY 2019	FY 2017	FY 2018	FY 2019
Jobs in DC	Level	764,508	780,000	788,938	794,699	800,258	788,025	791,175	796,850
	1 yr, ch	12,908	15,492	8,938	5,761	5,560	8,050	3,150	5,675
	1 yr % ch.	1.7	2.0	1.1	0.7	0.7	1.0	0.4	0.7
Population	Level	668,919	679,803	689,992	699,109	707,167	687,025	692,500	697,100
	1 yr, ch	11,048	10,883	10,189	9,117	8,058	7,250	5,475	4,600
	1 yr % ch.	1.7	1.6	1.5	1.3	1.2	1.1	0.8	0.7

Source: August 2017 baseline forecasts from Global Insight and Moody's Analytics

Table 39. Forecasts of DC resident employment, households, and housing starts to FY 2019

		FY 2015 F	Y 2016	(	Global Insig	ht	Mo	ody's Anal	ytics
		actual a	ctual	FY 2017	FY 2018	FY 2019	FY 2017	FY 2018	FY 2019
DC resident jobs	1 yr, ch	12,323	9,709	8,123	8,892	7,786	7,150	3,925	5,200
Households	1 yr, ch	4,656	4,254	2,787	2,382	3,708	3,950	1,450	3,250
Housing starts		3,976	4,407	4,410	3,224	2,927	4,141	3,832	3,762

Source: August 2017 baseline forecasts from Global Insight and Moody's Analytics

Table 40. Forecasts of DC Personal Income to FY 2019

Date of estimate	FY 2015	FY 2016	Glo	obal Insigh	it	Mod	ody's Analy	tics
	actual	actual	FY 2017	FY 2018	FY 2019	FY 2017	FY 2018	FY 2019
April	6.7	4.7	4.7	4.5	5.8	3.1	1.5	3.4
May	6.7	4.7	4.8	4.2	5.5	3.1	1.5	3.4
June	6.7	4.7	4.9	4.4	5.4	3.0	1.4	3.4
July	6.7	4.6	4.0	3.8	5.0	3.7	1.8	3.1
August	6.7	4.6	3.8	3.5	5.1	1.6	-2.1	3.9

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

Table 41. August forecasts for employment and Personal Income for DC, the metro area, and the US: FY 2016 to FY 2019

the metro area, and	the OS	20	10 10 1	1 2013				
(percent change from	n prior y	ear)						
		Global	Insight		N	∕loody's	Analytic	s
Indicator	2016	2017	2018	2019	2016	2017	2018	2019
Wage and salary jobs								
DC	2.0	1.1	0.7	0.7	2.0	1.0	0.4	0.7
Metro area					2.0	1.6	1.2	1.1
US	1.8	1.6	1.5	1.2	1.8	1.6	1.4	1.2
Personal Income								
DC	4.6	3.8	3.5	5.1	4.6	1.6	-2.1	3.9
Metro area					4.2	3.9	4.8	4.6
US	3.0	2.7	4.4	5.3	3.0	2.8	4.9	5.0
Source: IHS Global Insight	and Moo	dy's And	lytics. B	aseline foi	recasts			

Table 42. August DC forecasts for wages and unemployment: FY 2016 to FY 2019 (% change from prior year)

	Global	Insight			Moody's A	nalytics	
2016	2017	2018	2019	2016	2017	2018	2019
Wages a	nd salarie	es earned	in DC				
4.6	2.7	3.7	4.5	4.6	1.3	-0.2	5.1
DC reside	ent wage:	s and sala	aries				
4.6	2.8	2.9	5.2	4.6	0.7	-3.2	3.6
DC Unen	nploymer	nt rate (le	evel)				
6.2	5.9	5.7	5.4	6.2	6.0	6.4	6.4

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

### DC revenue estimate

# The June estimate for tax revenue (before earmarks but after implementation of scheduled tax cuts): \$235 million more in FY 2017 than in FY 2016, followed by a \$58 million increase in FY 2018

- •Anticipated tax revenue increase (before earmarks) is 3.2% in FY 2017, followed by a 0.8% increase in FY 2018. The estimates reflect growth in the DC economy and the effects of past scheduled tax cuts.
- •Real property tax growth of \$162.6 million in FY 2017 accounts for 69.1% of the net increase in taxes for that year. Real property and individual income are the leading source of revenue gain in FY 2018. Individual income tax revenue is estimated to fall by 0.8%% in FY 2017, but increase 4.5% in FY 2018.
- •The General sales tax is estimated to grow 6.5% in FY 2017 and 1.6% in FY 2018.
- •Deed taxes are estimated to increase 1.4% in FY 2017 and decrease 8.1% in FY 2018.
- •As a share of DC Personal Income, tax revenue in FY 2018 is expected to fall to 13.5% from 14.0% in FY 2017.

Table 43. DC Tax Revenue (before earmarks and after triggered tax cuts) for FY 2016 through FY 2019: February 2017 revenue estimate

Tax		FY level (\$	million)		Char	ige from pr	ior year (\$	M)	% c	hange froi	m prior ye	ar
	2016	2017	2018	2019	2016	2017	2018	2019	2016	2017	2018	2019
Real property	2,357.5	2,520.1	2,590.3	2,680.9	163.0	162.6	70.2	90.6	7.4	6.9	2.8	3.5
Deed taxes	444.1	450.1	413.6	424.1	-36.5	6.0	-36.6	10.6	-7.6	1.4	-8.1	2.6
General sales	1,343.1	1,430.2	1,452.4	1,515.1	27.8	87.2	22.2	62.6	2.1	6.5	1.6	4.3
Individual income	1,907.9	1,892.4	1,977.7	2,024.2	39.8	-15.5	85.3	46.5	2.1	-0.8	4.5	2.4
Withholding	1,627.6	1,731.3	1,747.3	1,803.4	74.4	103.7	16.0	56.1	4.8	6.4	0.9	3.2
non-withholding	280.3	161.0	230.4	220.8	-34.5	-119.2	69.4	-9.6	-11.0	-42.5	43.1	-4.1
Business income	556.5	569.7	512.2	528.8	108.7	13.2	-57.4	16.6	24.3	2.4	-10.1	3.2
Other	624.6	606.1	580.7	583.2	13.9	-18.5	-25.4	2.5	2.3	-3.0	-4.2	0.4
Total	7,233.5	7,468.5	7,526.9	7,756.3	316.7	235.0	58.4	229.4	4.6	3.2	0.8	3.0

Source: ORA. June 30, 2017 revenue estimate under existing legislation before triggered tax cuts. 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 2016 is from the CAFR.

Table 44. DC population and employment: FY 2016 to FY 2019

item	2016	2017	2018	2019
Wage and salary				
employment	780,000	788,206	791,655	795,330
1 year change	15,492	8,206	3,449	3,675
% change	2.0	1.1	0.4	0.5
DC population	679,803	689,992	697,794	704,217
1 year change	10,883	10,189	7,803	6,423
% change	1.6	1.5	1.1	0.9
Unemployment rate	6.2	5.7	5.6	5.6
Source: ORA June 2017 reve	nue estimate.			

Table 45. **DC Income and stock market assumptions:** 

FY 2016 to FY 2019 (% change from prior year) 2016 2017 2018 2019 item Wages and salaries earned in DC 4.6 4.0 3.3 3.8 Wages and salaries earned by DC residents 4.6 5.1 4.1 4.2 DC Personal income 4.7 5.1 4.4 4.6 S and P 500 stock index 4.2 4.2 4.2 6.4

Source: ORA June 2017 revenue estimate. Stock index, on a CY basis, represents the % ch. from the December quarter of the prior yr.

Table 46. DC tax revenue (before earmarks) and DC Personal Income: FY 2010 to FY 2019

item	2010	2011	2012	2013	2014	2015	2016	2017 est	2018 est	2019 est
Tax revenue (\$ million)										
Level	5,005	5,325	5,853	6,100	6,290	6,917	7,234	7,469	7,527	7,756
Change from prior year	-47	320	528	247	189	627	317	235	58	229
Percent change from prior year										
Tax revenue	-0.9	6.4	9.9	4.2	3.1	10.0	4.6	3.2	0.8	3.0
Personal Income	3.0	9.1	4.5	2.8	5.7	6.7	4.7	5.1	4.4	4.6
Tax revenue as percent of										
Personal Income	13.6	13.3	14.0	14.2	13.8	14.2	14.2	14.0	13.5	13.3

Source: ORA. June 30, 2017 revenue estimate before tax cut triggers under existing legislation. The table includes tax revenue only, before all earmarks, and excludes all non-tax revenues, lottery, and "O-type" earmarked revenues.

Unemployment is defined by BLS as people without jobs who are looking for work. This is calculated each month based on a monthly survey of a sample of households. The survey also counts people who are working. The labor force is then estimated by adding together the number working and the number who are unemployed. Unemployment can therefore be viewed as the difference between the labor force and resident employment, and the unemployment rate expresses unemployment as a percentage of the labor force.

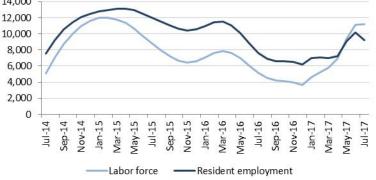
The following charts and table show that for most of the past 3 years DC's resident employment has grown faster than the labor force, with the consequence that unemployment and the unemployment rate steadily declined. The data does not explain why unemployment has started to rise in recent months. The reasons the labor force can grow more than resident employment include arrival in the city of more workers looking for jobs and existing residents returning to the labor force because of improving prospects of finding work. Whatever the reasons, DC's unemployment rate over the past 6 months rose from 5.7% to 6.4% as the US rate was falling from 4.8% to 4.3%.

Change in DC labor force, resident employment and unemployment: July 2014 to July 2017

							Change for	periods shown		
		Level in mo	nth shown			Amount			Percent	
	July 2014	July 2016	Jan. 2017	July 2017	July 2014 to July 2016	July 2016 to Jan. 2017	Jan. 2017 to July 2017	July 2014 to July 2016	July 2016 to Jan. 2017	Jan. 2017 to July 2017
Labor force	378.059	392.010	395,599	403.242	13,951		7,643	3.7	0.9	1.9
	,	/	,	/	,	,	,	_		
Resident employment	347,055	368,310	373,223	377,536	21,255	4,913	4,313	6.1	1.3	1.2
Unemployment	29,396	23,700	22,376	25,706	-5,696	-1,324	3,330	-19.4	-5.6	14.9
Unemployment rate	7.8	6.0	5.7	6.4						

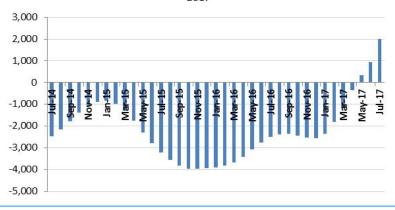
Source: BLS. Calculated from seasonally adjusted data as revised by BLS in the report for August 2017

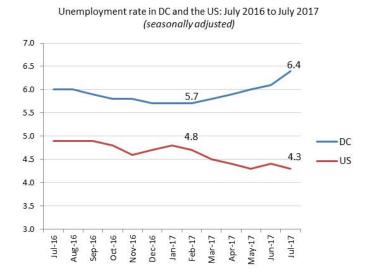
employment: July 2014 to July 2017 14,000



Change from the prior year in DC labor force and resident

Change from the prior year in DC unemployment: July 2014 to July 2017





About the data. The data discussed here are labor force statistics prepared each month for the US and the states by the US Bureau of Labor Statistics. The data are derived from household surveys, and are subject to sampling and reporting errors as well as changes in underlying demographic information that is taken into account by BLS in making the estimates. In practice, labor force is constructed by adding together those who say they are working and those who say they are unemployed (this is, not working but looking for work). All calculations are from seasonally adjusted data. The data reflect revisions to the original July 2017 estimates made by BLS in its August report, but the data are also subject to further revision by BLS.

—Stephen Swaim, DC Office of Revenue Analysis

**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, June 30, 2017.

DC Tax Facts, 2017. Details on all DC taxes.

Tax Rates and Tax Burdens 2015 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 2015 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	July	September 15
D.C. Personal Income	BEA	2017.1	September 26
D.C. Tax Collections	OTR/ORA	August	c. October 15
D.C. Housing Sales	MRIS*	August	c October 10
D.C. Commercial Office Building data	CoStar and Delta	2017.2	c. October 10
DC Apartment data	CoStar and Delta	2017.2	c. October 10
D.C. Hotel stay information	Smith Travel Research	July	c. September 20
Consumer Price Index	BLS	August	October 14
U.S. Jobs and Labor Force	BLS	July/August	October 1
U.S. GDP and Personal Income	BEA	2017.2	September 28
S and P 500 Stock Index	Financial press	August	October 1
Interest rate on 10-Year Treasury Securities	Financial press	August	October 1
IHS Global Insight D.C. forecast	Global Insight	August	c. September 15
Moody's Analytics D.C. forecast	Moody's Analytics	August	c. September 25
Blue Chip Economic Indicators for the U.S.	Aspen Publishers	August	c. September 10

For further information or to comment on this report, contact: Stephen Swaim (202-727-7775) or <a href="mailto:stephen.swaim@dc.gov">stephen.swaim@dc.gov</a> 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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