



District of Columbia Economic and Revenue Trends: December 2016

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

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

Highlights:

- ◇ Faster job growth in DC...2
- ◇ Faster resident employment growth3
- ◇ Fewer housing permits .11
- ◇ Strong hotel revenues....14

Indicator updates:

Wage and salary employment.....2

Resident employment and unemployment.....3

Sectors of the economy..... 4

Income and population.....6

Residential real estate8

Commercial office space12

Property transfers.....13

Hospitality14

US economy and federal government.....15

DC tax collections.....16

US and DC forecasts.....18

DC revenue estimate.....20

ORA reports , documents, & blog.....23

About this report.....23

ORA contact information.....23

DC’s population of 681,170 is 114,000—20%—higher than in 2005, the last year it decreased

With less net domestic in-migration, however, 2016’s population growth was the second slowest in 8 years

According to the US Census Bureau, DC’s population in 2016 grew to 681,170, a gain of 10,793 (1.6%) from 2015.

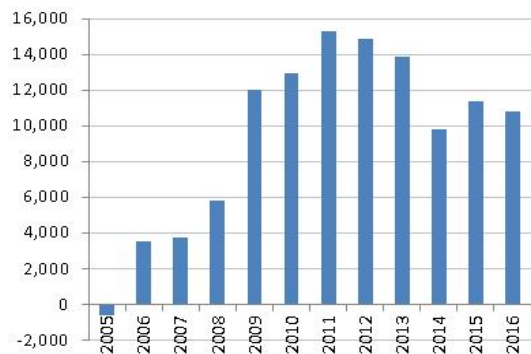
This continues an unbroken string of 11 years of population growth since 2005, the last year in which population declined. In those 11 years DC added 114,024 people, a 20.1 % increase.

This most recent growth has brought DC’s population back to a level last seen 40 years ago when children made up a larger share of the population. Population growth in 2016 was, however, the second slowest in the past 8 years. Only 2014 was slower, at 9,840.

The primary reason growth in 2016 was slower than in most recent years was less net in-migration. Net migration in 2016 was 2,004 (23.9%) less than the average of the preceding 5 1/4 years (April 1, 2010 to July 1, 2015). In addition, last year’s natural increase, which accounted for 40% of the year’s gain, was 266 (5.8%) below the average of those 5 1/4 years because the increase in births (*Continued on p. 21*)

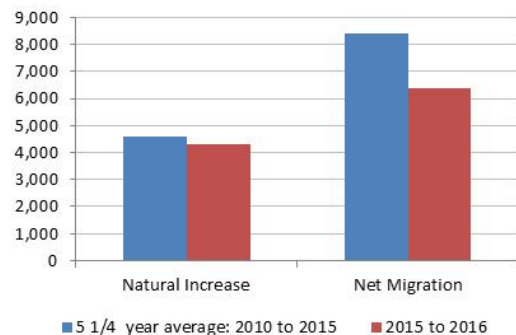
Annual change in DC population: 2005 to 2016

Source: US Census Bureau



Components of DC Population change from April 1, 2010 to July 1, 2016: natural increase and migration

Source: US Census Bureau



Wage and salary employment

DC job growth tops the US average

- November wage and salary employment in DC was up by 14,767 (1.9%) from a year earlier as measured by the 3-month moving average.
- Federal government employment in DC for November was up by 4,167 (2.1%). The private sector gained 9,533 (1.8%).
- Total year-over-year DC metropolitan area employment increased by 71,567 (2.2%) in November as measured by the 3-month moving average.
- Suburban Washington employment in November increased by 2.3% from a year earlier.
- Seasonally adjusted DC jobs fell by 700 in November from the prior month and are 7,300 above the level of 5 months ago.

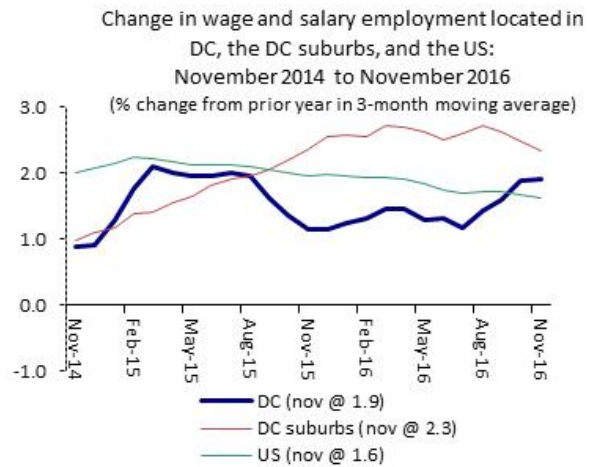


Table 1. Wage and salary employment in DC, Washington Metro area, and the US: November 2016

Jurisdiction	FY 2014	FY 2015	FY 2016	3-mo		
				12-mo avg	average	This month
District of Columbia	751,842	764,250	774,833	777,283	785,400	787,700
1 year change	6,467	12,408	10,583	11,467	14,767	14,400
% change	0.9	1.7	1.4	1.5	1.9	1.9
Washington metro area	3,103,833	3,138,300	3,226,633	3,238,142	3,273,900	3,285,000
1 year change	12,767	36,000	72,733	72,833	71,567	65,500
% change	0.4	1.2	2.3	2.3	2.2	2.0
Washington suburbs (% ch)	0.3	1.6	2.6	2.6	2.3	2.1
US (% ch)	1.8	2.1	1.8	1.8	1.6	1.6

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

Source: BLS. November is preliminary.

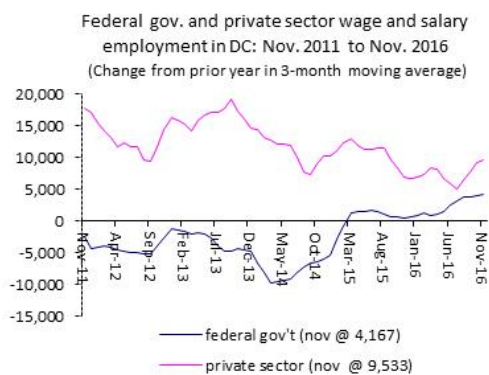


Table 2. Federal government and private sector wage and salary employment in DC: November 2016

Sector	FY 2014	FY 2015	FY 2016	3-month		
				12-mo avg	average	This month
Federal government	198,367	197,950	199,933	200,667	202,333	202,900
1 year ch.	-7,533	-417	1,983	2,650	4,167	4,500
% change	-3.7	-0.2	1.0	1.3	2.1	2.3
Private sector	515,808	526,775	533,917	535,483	542,333	543,800
1 year ch.	11,533	10,967	7,142	7,475	9,533	8,900
% change	2.3	2.1	1.4	1.4	1.8	1.7

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

Table 3. Seasonally adjusted DC Employment: June 2016 to November 2016

Indicator	June	July	August	September	October	November
D.C. Wage and Salary employment	775,200	773,000	779,200	782,800	783,200	782,500
change from prior month	-6,000	-2,200	6,200	3,600	400	-700
% change from prior month	-0.8	-0.3	0.8	0.5	0.1	-0.1

Source: BLS seasonally adjusted. November is preliminary

Resident employment and unemployment

DC resident employment growth now above the US average

- In November DC resident employment was up 7,910 (2.2%) from a year earlier (3-mo. moving average). The labor force grew by 6,301 (1.6%).
- The seasonally adjusted unemployment rate fell to 6.0% in Nov. Until last June (when it was 5.9%) the unemployment rate had been 6.0% or higher every month since April 2008.
- October initial unemployment insurance claims were down 0.4% from last year (3-month moving average).

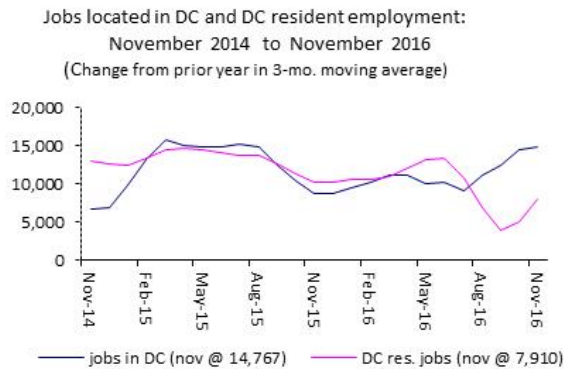
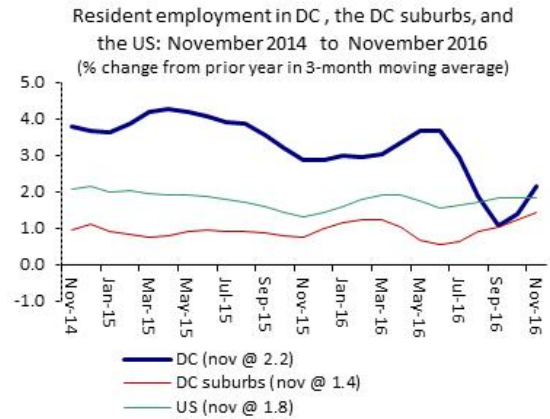


Table 4. Unemployment rates for DC, metro area, and US: November 2016

Jurisdiction	Not seasonally adj.		Seasonally adj.	
	Nov. 2015	Nov. 2016	Nov. 2015	Nov. 2016
US	4.8	4.4	5.0	4.6
DC	6.6	5.9	6.6	6.0
DC metro area	4.1	3.7	na	na
DC suburbs	3.7	3.4	na	na

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

Table 5. Resident employment and unemployment: November 2016

Indicator	FY 2014	FY 2015	FY 2016	12-mo avg	3-mo. avg.	This month
DC Labor force summary						
Resident employment	345,573	358,984	368,583	370,309	371,697	375,846
1 year change	3,846	13,410	9,599	9,624	7,910	10,400
% change	1.1	3.9	2.7	2.7	2.2	2.8
Labor Force	375,222	386,668	393,312	394,715	396,142	399,220
1 year change	1,177	11,447	6,643	6,909	6,301	7,929
% change	0.3	3.1	1.7	1.8	1.6	2.0
Unemployed	29,648	27,685	24,729	24,407	24,445	23,374
1 year change	-2,669	-1,963	-2,956	-2,715	-1,609	-2,471
% change	-8.3	-6.6	-10.7	-10.0	-6.2	-9.6
Unemployment rate	7.9	7.2	6.3	6.2	6.2	5.9
DC Unemployment insurance (state program)						
Initial claims (monthly avg.)	1,851	1,596	1,472	1,482	1,487	1,597
1 year change	-64	-255	-123	-98	-6	168
% change	-3.3	-13.8	-7.7	-6.2	-0.4	11.8
Weeks compensated (mo. avg.)	42,133	32,811	30,261	30,586	29,645	33,649
1 year change	-729	-9,322	-2,550	-1,546	-1,163	5,296
% change	-1.7	-22.1	-7.8	-4.8	-3.8	18.7

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

Table 6. Seasonally adjusted DC Resident employment and unemployment: June 2016 to Nov. 2016

Indicator	June	July	August	September	October	November
DC Resident employment	374,319	373,470	371,231	368,849	370,004	372,073
change from prior month	1,015	-849	-2,239	-2,382	1,155	2,069
% change from prior month	0.3	-0.2	-0.6	-0.6	0.3	0.6
DC Unemployment rate (%)	5.9	5.9	6.0	6.1	6.1	6.0

Source: BLS seasonally adjusted. November is preliminary.

Jobs by sectors of the economy

The federal government still tops job growth in DC

- In November the federal government's 4,167 increase in jobs over the prior year was more than in any other sector. (3-month moving average.)
- In the private sector, legal services (1,800), other professional services (1,900), food services (1,900) and education (1,367), were other sectors that grew by more than 1,000 jobs in November.
- Private sector industries losing jobs included information, employment services, and construction.
- Local government rose by 1,067 (2.7%).
- The federal government accounted for 25.9% of all DC jobs in November. Over the past year, DC's share of US federal employment increased in the metro area and the US.

Change in private sector wage and salary jobs located in DC, the DC suburbs, and the US: November 2014 to November 2016 (% change from prior year in 3-month moving average)

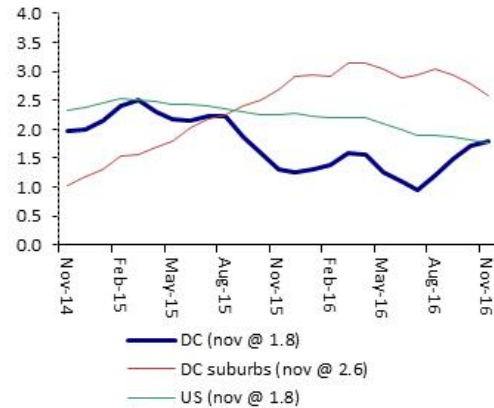


Table 7. Wage and salary employment located in DC: November 2016

Industry sector	3-month moving average				12-mo. moving avg: % change	Sector % of all DC jobs, Nov 2016	DC share (%) in Nov 2016 of all sector jobs in:		Change from Nov 2015 to Nov 2016 in DC share of sector jobs in:	
	Nov 2015	Nov 2016	1 year change				metro area	US	metro area	US
			Amount	%						
Federal government	198,167	202,333	4,167	2.1	1.3	25.9	54.5	7.21	0.3	0.03
Local government	39,667	40,733	1,067	2.7	3.4	5.2	12.3	0.21	0.2	0.01
Legal services	28,567	30,367	1,800	6.3	4.6	3.9		2.68		0.17
Other Professional and technical	83,767	85,667	1,900	2.3	1.7	11.0	22.7	1.09	-0.3	-0.03
Employment services	15,267	15,133	-133	-0.9	0.8	1.9	32.8	0.41	-1.8	-0.02
Other Business services	35,067	35,400	333	1.0	-0.6	4.5	17.8	0.44	-0.2	-0.01
Information	17,067	16,833	-233	-1.4	-0.6	2.2	22.5	0.61	0.0	-0.01
Finance	30,200	30,700	500	1.7	1.0	3.9	20.0	0.37	0.4	0.00
Organizations	62,933	63,500	567	0.9	0.0	8.1	35.5	2.13	-0.2	-0.01
Education	63,033	64,400	1,367	2.2	0.5	8.3	49.7	1.74	-3.3	-0.01
Health	66,767	67,667	900	1.3	1.0	8.7	22.1	0.35	-0.1	0.00
Food service	50,567	52,467	1,900	3.8	3.3	6.7	22.1	0.45	-0.2	0.00
Accommodations	15,233	15,533	300	2.0	2.5	2.0	37.6	0.78	2.4	0.02
Amusement and recreation	7,600	7,800	200	2.6	1.8	1.0	16.3	0.34	0.0	0.00
Retail trade	23,333	23,700	367	1.6	6.3	3.0	8.3	0.15	0.2	0.00
Wholesale trade	4,900	4,800	-100	-2.0	-1.5	0.6	7.6	0.08	-0.2	0.00
Construction	14,467	14,367	-100	-0.7	0.3	1.8	9.1	0.21	-0.4	-0.01
Personal and miscellaneous ser.	8,000	7,967	-33	-0.4	-1.3	1.0		0.30		0.00
Other private	6,033	6,033	0	0.0	4.1	0.8	5.1	0.03	-0.2	0.00
Total	770,633	785,400	14,767	1.9	1.5	100.7	23.9	0.54	-0.1	0.00
Public sector	237,833	243,067	5,233	2.2	1.7	31.2	34.7	1.10	0.2	0.02
Private sector	532,800	542,333	9,533	1.8	1.4	69.5	21.0	0.44	-0.2	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 September quarter, federal government and business and professional services accounted for 46% of last year's job growth and 51% of the growth in wages and salaries

- In the September quarter, the federal government accounted for 26% of the jobs and a 32% of the wages and salaries paid in DC. The federal share of job growth over the past year rose to 31%, but for wage growth it fell to 30%.
- Professional and business services accounted for about 26% of wages paid in DC in September, but 21% of the increase in wages paid in DC over the past year.
- Hospitality and trade accounted for 24% of the increase in jobs over the past year and 9% of the increase in wages.

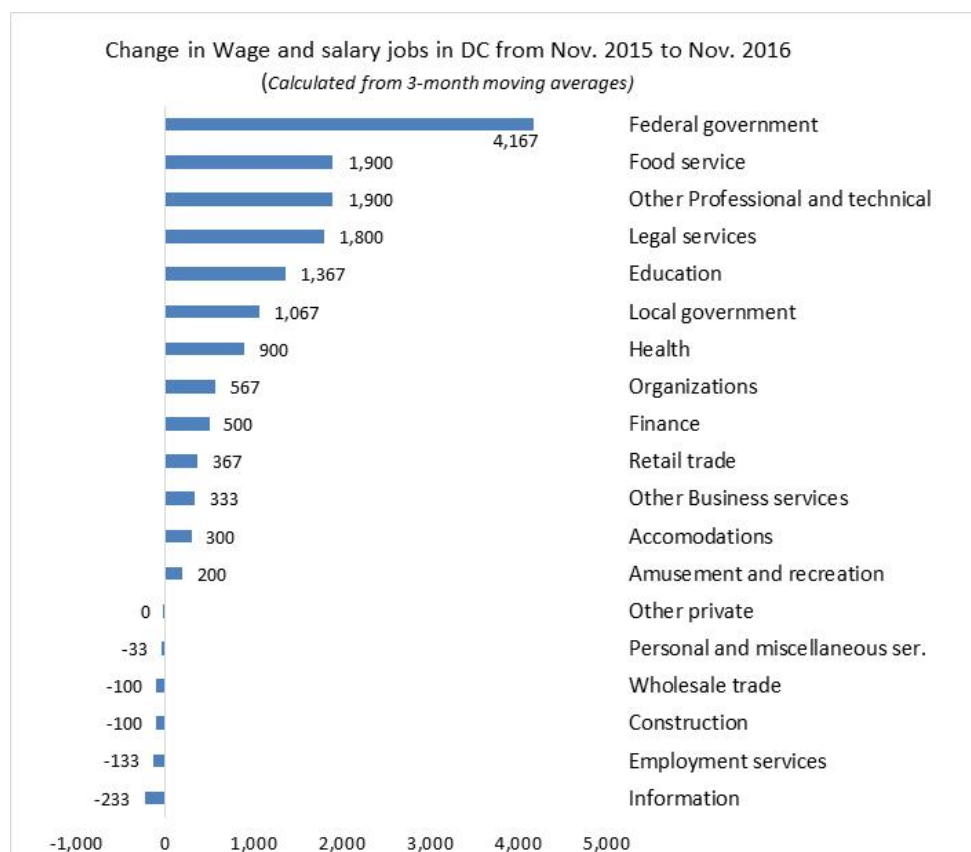


Table 8. Employment and income by sector of the DC economy: September 2016 (2016.3)

Sector	Wage and salary employment in DC in the Sept. 2016 quarter			Wages and salaries earned in DC in the Sept. 2016 quarter			Percentage Distributions			
	Level	Change from Sep. 2015		Level (\$B)	Ch. from Sep. 2015		Employment		Wages	
		2015	% change		(\$B)	% change	Sep. 2016	2015	Sep. 2016	2015
Total	779,433	12,333	1.6	71.24	3.55	5.3	100.0	100.0	100.0	100.0
Federal government	202,133	3,800	1.9	23.02	1.08	4.9	25.9	30.8	32.3	30.3
Local government	43,633	767	1.8	2.96	-0.01	-0.5	5.6	6.2	4.2	-0.4
Business and professional services	164,333	1,933	1.2	18.52	0.74	4.2	21.1	15.7	26.0	20.9
Information and financial services	47,933	367	0.8	4.93	0.30	6.5	6.1	3.0	6.9	8.4
Education and health services	125,233	2,267	1.8	7.72	0.68	9.6	16.1	18.4	10.8	19.1
Trade and hospitality services	103,667	3,000	3.0	6.64	0.31	4.9	13.3	24.3	9.3	8.8
Organizations and personal services	71,800	433	0.6	4.44	0.22	5.3	9.2	3.5	6.2	6.2
Other private	20,700	-233	-1.1	3.01	0.24	8.6	2.7	-1.9	4.2	6.7
<i>Private sector</i>	<i>533,667</i>	<i>7,767</i>	<i>1.5</i>	<i>45.26</i>	<i>2.49</i>	<i>5.8</i>	<i>68.5</i>	<i>63.0</i>	<i>63.5</i>	<i>70.1</i>
<i>Government</i>	<i>245,767</i>	<i>4,567</i>	<i>1.9</i>	<i>25.98</i>	<i>1.06</i>	<i>4.3</i>	<i>31.5</i>	<i>37.0</i>	<i>36.5</i>	<i>29.9</i>

Source: BLS and BEA. Wage data, but not wage and salary employment, is seasonally adjusted.

Wages and income

Wage growth in DC, for DC residents, and for the US all rose close to about 5% in the September quarter

- Wages and salaries earned in the District of Columbia were 5.3% higher in the September quarter compared to the same quarter of 2015.
- Wages earned by DC residents grew by 4.8% in the September quarter compared to last year.
- In the September quarter, DC Personal Income grew 4.5%, above the US increase (3.5%).
- The growth rate of proprietors' income was 5.6% in the September quarter.
- Pensions and other transfers grew 7.9% over last year in the September quarter.

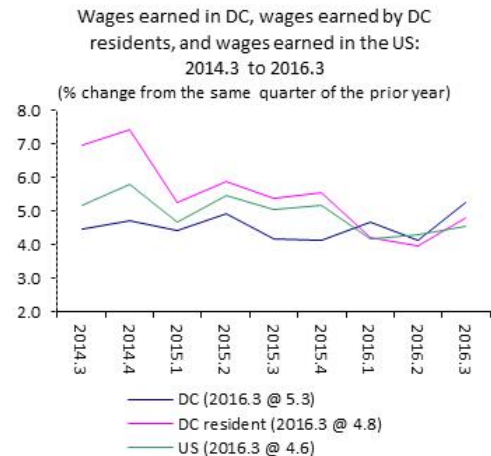


Table 9. DC Wages and Personal Income: September 2016 (2016.3)

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

Indicator	FY 2013	FY 2014	FY 2015	FY 2016	4-qr. moving avg.	Latest qtr. (Sep)
Wages and salaries earned in DC	62.08	63.97	66.88	69.92	69.92	71.24
1 year change	1.43	1.89	2.91	3.04	3.04	3.55
% change	2.4	3.0	4.5	4.6	4.6	5.3
Supplements to wages & salaries	16.44	17.22	17.91	18.77	18.77	19.10
% change	-0.1	4.7	4.0	4.8	4.8	5.3
Income earned in DC**	74.25	77.01	81.21	85.14	85.14	85.14
% change	0.5	3.7	5.5	4.8	4.8	4.8
Net resident adjustment***	-45.54	-46.28	-47.93	-50.11	-50.11	-50.11
% change	-0.4	1.6	3.6	4.6	4.6	4.6
Income earned by DC residents**	28.71	30.74	33.29	35.03	35.03	35.70
% change	2.1	7.0	8.3	5.2	5.2	5.0
Wages and salaries of DC residents****	21.66	22.85	24.21	25.33	25.33	25.78
change from one year ago	0.85	1.18	1.36	1.12	1.12	1.18
% change	4.1	5.5	6.0	4.6	4.6	4.8
Proprietors' income earned by DC residents*	4.31	5.03	6.10	6.57	6.57	6.73
% change	1.3	16.6	21.3	7.7	7.7	5.6
Property income of DC residents	8.44	8.77	9.12	9.27	9.27	9.42
% change	5.3	3.9	4.1	1.6	1.6	0.6
Pensions and other transfers for DC residents	5.92	6.03	6.18	6.58	6.58	6.77
% change	3.3	1.8	2.5	6.4	6.4	7.9
DC Personal Income	43.08	45.53	48.59	50.87	50.87	51.88
1 year change	1.19	2.46	3.06	2.28	2.28	2.25
% change	2.8	5.7	6.7	4.7	4.7	4.5
US Personal income (% change from prior year)	3.0	3.5	5.0	3.6	3.6	3.5
US Wages and salaries (% change from prior year)	4.0	4.1	5.2	4.5	4.5	4.6
Addendum:						
DC res. wages as % of wages earned in DC	34.9	35.7	36.2	36.2	36.2	36.2

* 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; date released September 28, 2016

Population, jobs, and per capita income

For the past 2 years, the number of wage and salary jobs grew more than the increase in DC population

- For FY 2016, population increased 10,793 and wage and salary employment grew 11,554. In percentage terms, however, population grew faster: 1.6% v. 1.5%.
- In the past year population grew slightly below the 5 year average from 2011 to 2016, and jobs were above the average.
- In the September quarter, DC's per capita income 1 yr. rate of growth was less than in the US, but DC's total Personal Income grew faster because of faster population growth.
- In the September quarter, wages per job in DC grew faster than wages per employed DC resident. (3.7% v. 2.5%)

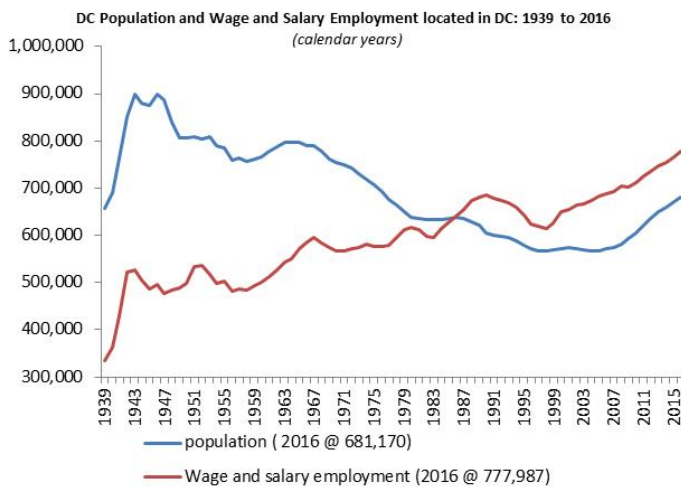
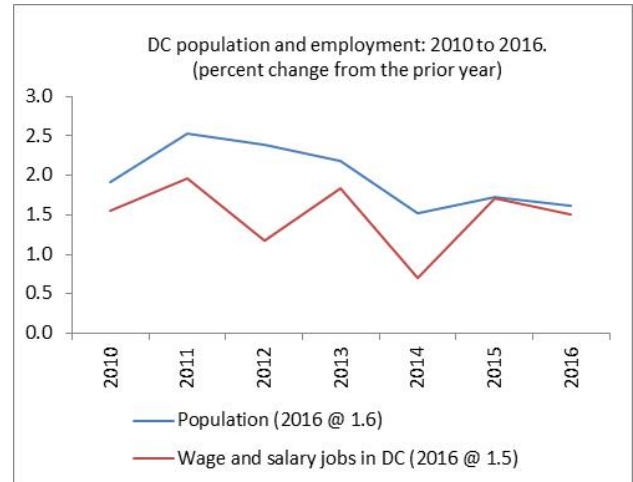


Table 10. DC Population and wage and salary employment located in DC: 2010 to 2016

Calendar year	Population			Wage and salary employment		
	Number	Change from prior yr. Number	%	Number	Change from prior yr. Number	%
2010	605,183	11,383	1.9	712,242	10,859	1.5
2011	620,477	15,294	2.5	726,233	13,991	2.0
2012	635,327	14,850	2.4	734,792	8,558	1.2
2013	649,165	13,838	2.2	748,325	13,533	1.8
2014	659,005	9,840	1.5	753,567	5,242	0.7
2015	670,377	11,372	1.7	766,434	12,867	1.7
2016	681,170	10,793	1.6	777,987	11,554	1.5
Ch. from 2011 to 2016		60,693	10.0		51,754	7.3
Avg. annual ch.		12,139			10,351	

Source: U.S. Bureau of the Census and BLS (2016 estimated by Global Insight)

Table 11. Per capita income in DC and the US: FY 2014 to September 2016

	DC				US			
	FY 2014	FY 2015	FY 2016	2016.3	FY 2014	FY 2015	FY 2016	2016.3
Per capita income	69,253	72,602	74,620	75,588	45,816	47,732	49,082	49,681
% ch in per capita income	3.8	4.8	2.8	2.6	2.7	4.2	3.6	2.7
% ch in population	1.8	1.8	1.9	1.9	0.8	0.8	0.8	0.8
% ch in personal income	5.7	6.7	4.7	4.5	3.5	5.0	3.6	3.5
Consumer price index	1.9	0.1	0.9	1.1	1.6	0.3	0.9	1.1

Source: BEA for per capita income, population and Personal Income. BLS for US CPI, Global Insight for DC CPI

Note: BEA DC population numbers have not been adjusted downward for December Census estimates.

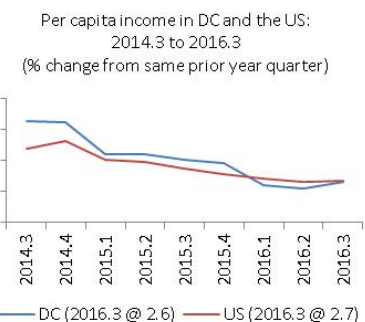


Table 11A. Wages per job located in DC: FY 2014 to 2016.3

	FY 2014	FY 2015	FY 2016	2016.3
Wages per DC job	85,083	87,507	90,239	91,525
1 yr % ch in:				
Wages per DC job	2.2	2.8	3.1	3.7
DC jobs	0.9	1.7	1.4	1.5
Total wages earned in DC	3.0	4.5	4.6	5.3

Table 11B. Wages per DC resident job: FY 2014 to 2016.3

	FY 2014	FY 2015	FY 2016	2016.3
Wages per employed DC resident	66,108	67,436	68,716	69,462
1 yr % ch in:				
Wages per DC res. job	4.3	2.0	1.9	2.5
Employed DC residents	1.1	3.9	2.7	2.2
All wages earned by DC res.	5.5	6.0	4.6	4.8

Source: Resident wages estimated by DC Office of Revenue Analysis from BEA data and BLS for DC resident employment.

Single family and condominium housing

Over the past 12 months, number of units sold has grown faster than average selling price

- The 3-month moving total of single family home sales in November was up 3.6% from a year earlier, and the average selling price essentially flat. The year-to-date median sales price (\$675,000) was up 1.5% from the prior year.
- November condominium sales were up 4.3% from last year as measured by the 3-month moving total, and the average selling price fell 1.0%. The year-to-date median sales price (\$447,500) was up 2.8% from last year.
- The total value of all home sales in November rose 3.5% above last year as measured by the 3-month moving total.
- The percentage change in DC home prices picked up in the September quarter, according to the Federal Housing Finance Agency Index of single-family same-property transactions. DC's gain over the prior year was 5.0%. The US index was up 6.4%, and the Washington metropolitan area gain was 4.3%.

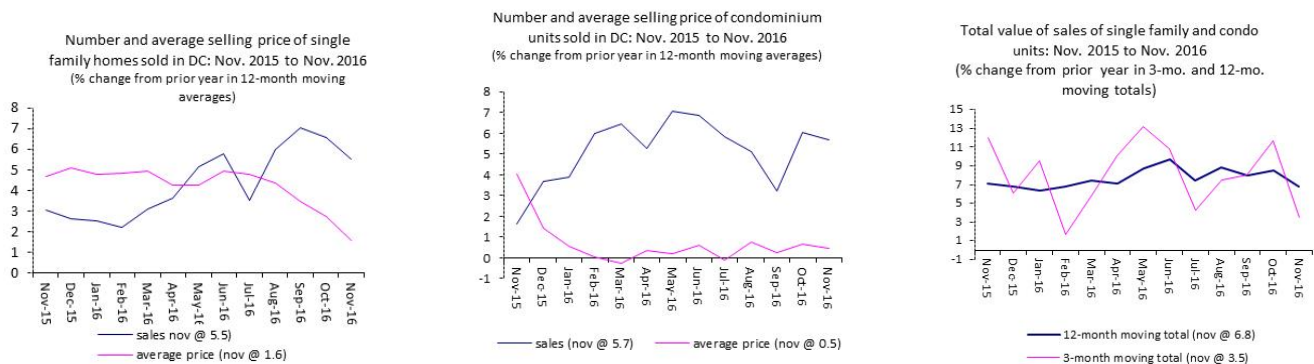


Table 12. D.C. Residential Real Estate Indicators: November 2016

Indicator	FY 2013	FY 2014	FY 2015	FY 2016	12-mo moving total or average	3-mo moving total or average	This month
Number of sales (settled contracts)							
Single family	3,979	4,024	4,097	4,385	4,375	1,059	374
1 year change	416	45	73	288	229	37	25
% change	11.7	1.1	1.8	7.0	5.5	3.6	7.2
Condo	3,487	3,592	3,832	3,955	3,984	950	297
1 year change	703	105	240	123	214	39	8
% change	25.3	3.0	6.7	3.2	5.7	4.3	2.8
Total	7,466	7,616	7,929	8,340	8,359	2,009	671
1 year change	1,119	150	313	411	443	76	33
% change	17.6	2.0	4.1	5.2	5.6	3.9	5.2
Average prices of units that sold							
Single family (\$)	712,799	736,362	767,870	794,668	792,814	797,773	769,145
1 year change	82,690	23,563	31,508	26,798	12,467	-241	-26,879
% change	13.1	3.3	4.3	3.5	1.6	0.0	-3.4
Condo (\$)	447,827	472,419	499,650	500,824	500,349	486,717	493,916
1 year change	18,216	24,592	27,232	1,173	2,311	-4,706	-9,713
% change	4.2	5.5	5.8	0.2	0.5	-1.0	-1.9
Total value of all sales (\$ million)							
	4,397.8	4,660.0	5,060.6	5,465.4	5,462.0	1,307.2	434.4
1 year change	956.7	262.2	400.6	404.8	349.0	44.0	11.0
% change	27.8	6.0	8.6	8.0	6.8	3.5	2.6
Ratio: active inventory to sales							
Single family	1.6	1.6	1.5	1.6	1.5	1.7	1.9
Condo	1.7	1.9	1.7	1.8	1.8	2.2	2.5

Median contract prices, CY to date in November 2016 : single family \$675,000 (1.5% 1 yr ch); condo \$447,500 (2.8% 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.

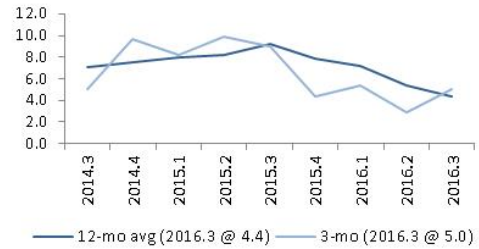
Single family and condominium housing

Table 13. Federal Housing Finance Agency Price Index for single family property in DC, DC metro area, and US: September 2016 (2016.3)

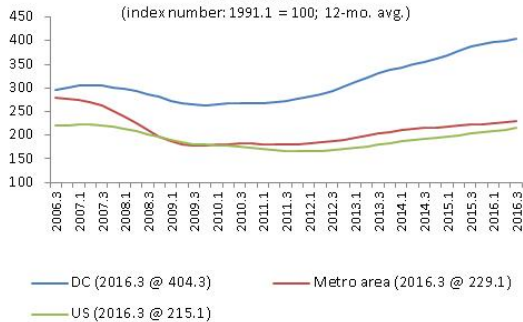
Indicator	Fiscal year average				Last 2 Q's	
	FY 2012	FY 2013	FY 2014	FY 2015	2016.2	2016.3
% change from prior year in value of index						
DC	8.2	12.8	7.0	9.2	2.9	5.0
DC metro area	3.4	8.5	5.8	3.6	2.8	4.3
US	0.7	6.8	6.4	5.8	5.6	6.4

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.

FHFA Expanded-data housing price index for DC: 2014.3 to 2016.3
(% change from prior year in 3-mo and 12-mo avg)



FHFA expanded-data housing price index for DC, the Washington Metropolitan Area, and the US: 2006.3 to 2016.3
(index number: 1991.1 = 100; 12-mo. avg.)



FHFA expanded-data housing price index for DC, the Washington Metropolitan area, and the US: 2006.3 to 2016.3
(% change from prior yr. in the 12-mo. moving avg.)

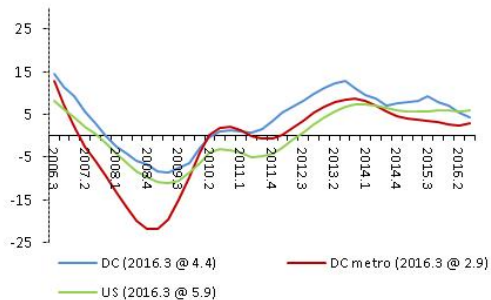


Table 14. D.C. Single family and condominium home sales at prices of \$1 million or more: November 2016

Category	FY 2014	FY 2015	FY 2016	12-mo	3-mo	This month
				moving total	moving total	
Single family homes	734	765	936	929	216	80
1 year change	45	31	171	109	4	4
% change	6.5	4.2	22.4	13.3	1.9	5.3
percent of all single family sales	18.2	18.7	21.3	21.2	20.4	21.4
Condominiums	128	160	167	164	31	13
1 year change	16	32	7	6	-4	-2
% change	14.3	25.0	4.4	3.8	-11.4	-13.3
percent of all condominium sales	3.6	4.2	4.2	4.1	3.3	4.4

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

Table 15. Single family housing permits in DC and sales of new DC condominium units: FY 2012 to 2016.3 (FY 2016)

	Single family housing permits	Sales of new condo units
FY 2012	236	479
FY 2013	368	442
FY 2014	267	516
FY 2015	293	483
12-mo. ending:		
2016.3	283	680
1 yr ch	-10	197
% ch.	-3.4	40.8

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

Table 16. Condominium units (1) currently being marketed or under construction, or (2) planned: 2016.3

item	projects	units	Avg. units per project
Unsold units in projects currently marketing or under construction	42	1,192	
Planned with probable sales within 36 months	20	1,190	60
subtotal	62	2,382	
Proposed/rumored with long term delivery	19	1,256	66

Note: an additional 12,184 units in 22 projects are planned as either condominium or rental

Source: Delta Associates. See p.13 For definition of planned and proposed.

Apartments

In the 2016.3 quarter occupied apartments increased less than inventory. Construction was up slightly

- In September occupied apartment units increased 3,393 (2.0%) from a year earlier; inventory was up 3,829.
- The vacancy rate was 4.1% in September, up from 4.0% in June; rents rose 4.2% over the prior year.
- 11,963 apartment units were under construction in September, up by 330 from the prior quarter.
- Class A units account for 23% of all apartment units, 22% of the occupied units, and 95% of new construction in September.
- Class A vacancy rate of 7.2% in September up from 6.5% a year earlier. Average rent per unit was up 3.4% from the prior year.

DC Apartment units: 12-month change in inventory and occupancy, and number under construction (all classes): 2014.3 to 2016.3

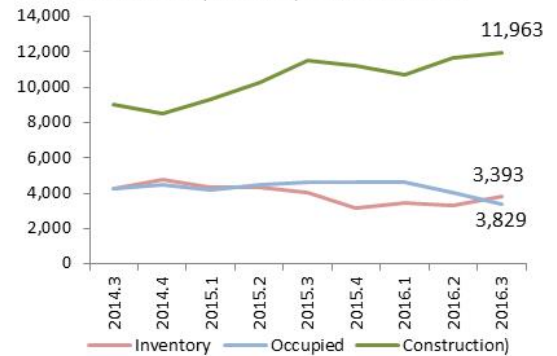


Table 17. Market rate apartment units in DC: 2010 to 2015 (2016.3)

CY	Inventory				Occupied units			Effective monthly rent		Under Construction	
	Buildings	Number	1 yr ch	% vacant	Number	1 yr ch	% ch	\$ per month	1 yr % ch	Buildings	Units
2010	3,329	159,279	1,104	3.8	153,172	2,344	1.6	\$1,448	6.9	18	2,432
2011	3,338	160,818	1,539	4.0	154,318	1,146	0.7	\$1,480	2.2	23	4,957
2012	3,347	162,891	2,073	4.0	156,321	2,003	1.3	\$1,525	3.0	36	8,090
2013	3,362	166,686	3,795	4.9	158,522	2,201	1.4	\$1,573	3.1	49	7,132
2014	3,389	171,429	4,743	4.9	162,975	4,453	2.8	\$1,635	3.9	83	8,494
2015	3,441	174,578	3,149	4.0	167,590	4,615	2.8	\$1,701	4.0	94	11,213
2016.2	3,458	176,197	3,326	4.0	169,178	4,027	2.4	\$1,752	4.2	102	11,633
2016.3	3,471	177,505	3,829	4.1	170,172	3,393	2.0	\$1,769	4.2	98	11,963
1 Q change	13	1,308			994			17		-4	330

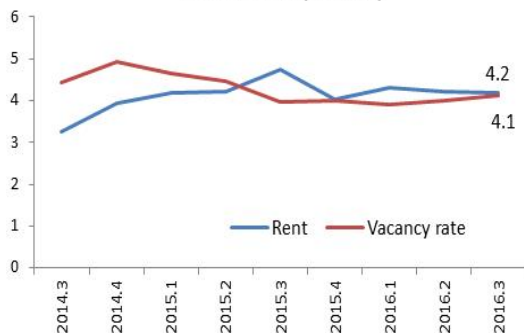
Source: CoStar. Includes units in private buildings with 5 or more units. CY amounts are last quarter of the year. Includes some affordable units in market rate buildings. Vacancy rate is unoccupied units as % of inventory

Table 18. Market rate apartment units in DC, Classes A, B, and C: 2016.3

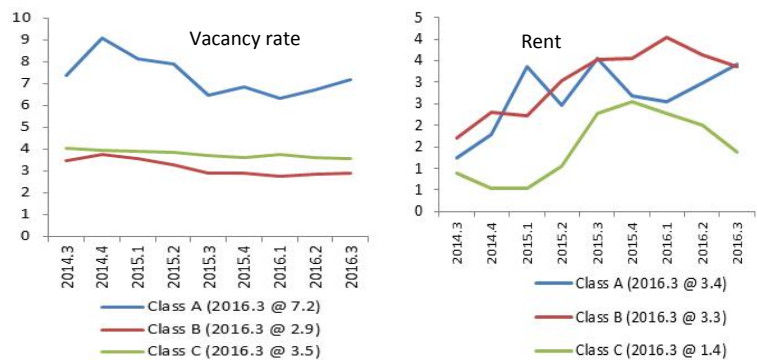
Class	Inventory				Occupied units			Effective monthly rent		Under construction		
	Buildings	Number	1 yr ch	% vacant	Number	1 yr ch	% ch	\$ per month	1 yr % ch	Buildings	Units	Avg. size
Class A	262	40,742	3,631	7.2	37,824	3,110	9.0	\$2,486	3.4	74	11,308	153
Class B	1,060	75,882	384	2.9	73,665	370	0.5	\$1,666	3.3	24	655	27
Class C	2,135	60,641	-186	3.5	58,467	-87	-0.1	\$1,181	1.4	0	-	-

Source: CoStar. Includes units in private sector 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.

Apartment vacancy rate and % change in average rent per unit: 2014.3 to 2016.3 (all classes)



Vacancy rate and 1 year % change in rent per unit for Class A, Class B, and Class C Apartment units: 2014.3 to 2016.3



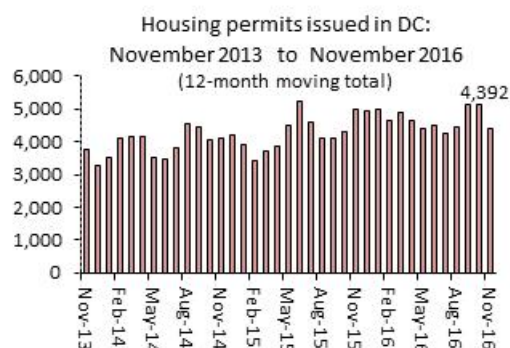
Apartments and housing permits

Housing permit pace fell to 4,392 for the past 12 months

• For the the 12-month period ending November 4,392 housing permits were issued, down 12.4% from a year ago; the 3-month total was 2.3% below last year.

• The ratio of new apartment construction to 1 year change in occupied units rose to 3.53 in the September quarter.

• A measure of newly occupied housing units has moved in the past 2 years to closely match the estimated increase in DC households.



DC apartments under construction, annual change in occupied units, and their ratio: 2008.3 to 2016.3

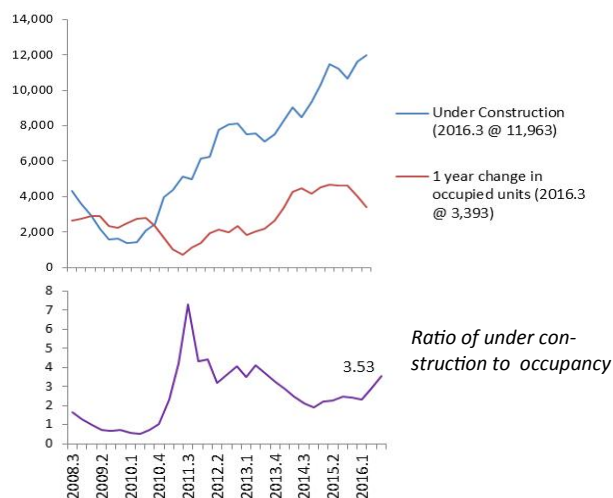


Table 19. Housing unit building permits issued in DC: November 2016

	FY 2014	FY 2015	FY 2016	12-mo. moving total	3-month moving total
Total units	4,467	4,131	5,129	4,392	1,798
change from 1 yr ago	612	-336	998	-622	-42
% change from 1 year	15.9	-7.5	24.2	-12.4	-2.3
Multi-family projects with 5 or more units					
number	32	37	40	34	10
average size	140	112	128	129	180

Source: Census Bureau (permits issued during period).

Table 20. Estimated change in DC households and in measures of newly occupied market rate housing units: 2011.4 to 2016.2

date	Change in the number of households					Measures of newly occupied housing units			
	Population	1 yr ch	pop/hh ratio	Households	1 yr ch	Ch. In occupied apt. units	New condo sales	Single family permits	Total new occupancy
2011.4	626,210	15,097	2.258	277,387	6,537	1,525	371	135	2,031
2012.4	640,929	14,719	2.259	283,749	6,363	1,894	468	104	2,466
2013.4	653,596	12,667	2.260	289,197	5,448	2,773	514	267	3,554
2014.4	664,751	11,155	2.261	293,970	4,773	4,975	476	236	5,687
2015.4	677,144	12,393	2.263	299,285	5,315	4,107	483	368	4,958
2016.2	683,124	12,451	2.267	301,338	4,913	3,856	569	351	4,776

Source: 1) Population: BEA; 2) population/household ratio based on Office of Planning estimates for 5 intervals; 3) households: calculated from population using the pop/hh ratio; 4) occupied apartment units: CoStar; 5) new condo sales: Delta Associates; 6) Single family permits: Census, with a 2 year lag.

Note: all occupants of newly occupied housing units are not necessarily DC resident households for Census purposes.

Table 21. Delta Associates outlook for Class A apt. units: 2016.3

item	projects	units	Avg. units per project
Under construction/and or marketing	56	10,509	222
Planned with probable sales within 36 mo.	33	7,320	222
Proposed/rumored with long term delivery	63	16,538	263
Planned as either apartment or condo	25	13,006	520

Addendum: estimated supply and demand for the next 3 years

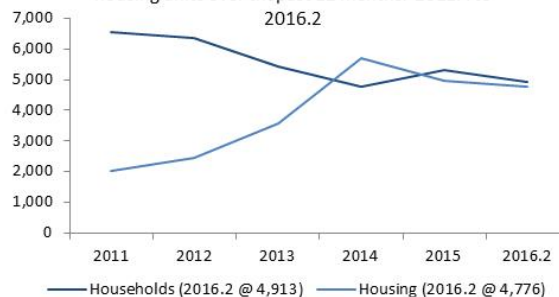
supply**	11,501
demand	8,410

*Average based on all units in projects, including 1,527 already rented.

**Supply available by Sept. 2019 is vacant units, units under construction and marketing, and 21% (1,830) of planned units.

Source: Delta Associates. For definitions of planned and proposed see p. 13.

Estimated increase in DC households and occupied housing units over the past 12 months: 2011.4 to 2016.2



Commercial office space

In the September quarter, occupied commercial office space was less than last year, the vacancy rate increased, and new construction also increased

- According to CoStar, for the the 12-month period ending September occupied office space decreased by 1.15 million sq. ft. from the prior year. Occupied space still remains below the levels of 2012, 2013, and 2014. Base rent rose 3.5%. A total of 5.87 millions square feet of construction was underway in September.

- Class A office space accounted for 14% of all office buildings, 58% of office space, 57% of occupied space, and 99% of new construction. The vacancy rate for class A space was 12.7%, up from 11.7% a year ago. Class A rent rose 4.1% over the past year.

DC Commercial office space: 1 year change in inventory and occupancy, and under construction: 2014.3 to 2016.3 (all classes, msf):

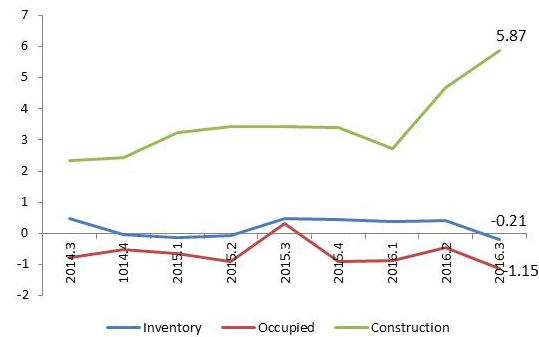


Table 22. DC commercial office space: 2010 to 2016.3

CY (year end)	Buildings	Inventory		Occupied space			Vacancy %		Base rent (direct)		Under constr.	
		Level (msf)	1 yr ch (msf)	Level (msf)	1 yr ch (msf)	% ch	Direct	Total	\$ per sq ft.	1 yr % ch	buildings	msf
2010	2,373	151.74	2.56	135.13	3.26	2.5	10.0	10.9	\$45.61	1.6	6	1.56
2011	2,368	152.64	0.90	136.02	0.90	0.7	10.2	10.9	\$46.15	1.2	9	2.04
2012	2,358	152.38	-0.26	137.52	1.49	1.1	9.1	9.8	\$45.18	-2.1	8	2.21
2013	2,355	153.15	0.78	137.88	0.36	0.3	9.4	10.0	\$46.08	2.0	12	2.13
2014	2,348	153.10	-0.05	137.35	-0.52	-0.4	9.8	10.3	\$47.24	2.5	13	2.43
2015	2,341	153.55	0.44	136.44	-0.91	-0.7	10.7	11.1	\$47.95	1.5	18	3.41
2016.2	2,338	153.60	0.40	136.27	-0.47	-0.3	10.7	11.3	\$49.34	3.2	17	4.70
2016.3	2,337	153.45	-0.21	136.22	-1.15	-0.6	10.5	11.2	\$48.14	3.5	22	5.87
1 Q ch	-1	-0.15		-0.05			-0.2	-0.1	-1.20		5	1.17

Source: CoStar, all classes and sizes.

Vacancy rate and 1 year % change in base direct rent for all commercial office space and for Class A office space: 2014.3 to 2016.3

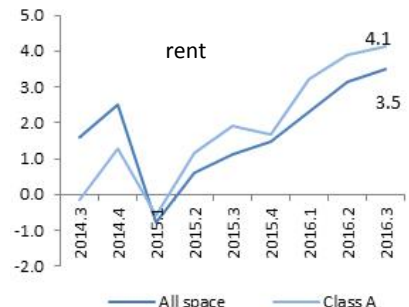
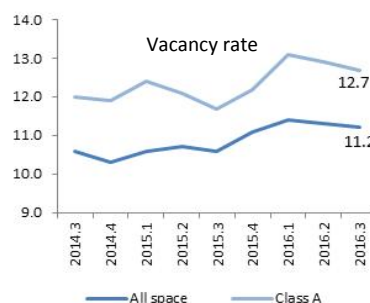


Table 23. DC Class A, B, and C commercial office space: 2016.3

CY (year end)	Buildings	Inventory		Occupied space			Vacancy %		Base rent (direct)		Under constr.	
		Level (msf)	1 yr ch (msf)	Level (msf)	1 yr ch (msf)	% ch	Direct	Total	\$ per sq ft.	1 yr % ch	buildings	msf
Class A	330	89.55	0.42	78.19	-0.50	-0.6	11.9	12.7	\$53.47	4.1	17	5.79
Class B	884	53.25	-0.53	47.81	-0.49	-1.0	9.6	10.2	\$42.99	1.5	5	0.08
Class C	1,119	10.61	-0.12	10.20	-0.15	-1.4	3.8	3.8	\$32.17	0.4	0	0.00

Source: CoStar.

Office outlook and value of all property transfers

In November the value of property transferred over the past 12 months was about 5% lower than in the prior comparable period.

•Delta Associates expects the demand for new office space in DC to be less than new supply over the next two years. DC's share of regional office new supply is estimated at 64.4% and the share of demand at 52.9%.

•The value of November property transfers was up 9.2% from last year as measured by the 3-month moving total. The 12-month moving total (\$13.05 billion) was 5.1% lower than last year.

Table 24. **Delta Associates outlook for commercial office space: September 2016** (million square feet)

item	2016.2	2016.3
Vacant	9.60	9.54
New supply, next 2 years:*		
Under construction	4.32	5.46
Part of planned for delivery in 2 yr.		0.14
Total	4.32	5.60
Demand, next 2 years	4.60	4.60
Planned	6.39	4.76
Proposed/rumored with long term delivery	14.87	15.31

*Supply for next two years represents office buildings currently under construction and a portion of those planned that could deliver by September 2018.

For definitions of planned and proposed, see box.

Source: Delta Associates.

Table 25. **Delta Associates outlook for commercial office space in DC and the surrounding metro area: Sep. 2016 to Sep. 2018**

Indicator	DC	No VA	Sub MD	Total	DC % of total
Inventory September 2016					
Inventory (msf)	141.9	179.9	86.1	407.9	34.8
Estimated net activity to September 2018					
new supply (msf)	5.6	2.9	0.2	8.7	64.4
new demand (msf)	4.6	3.1	0.9	8.7	52.9

Source: Delta Associates msf = million square feet

Note: Planned and proposed projects

Planned projects: Permits are filed, a ground-break date is established, size and location is determined, and the project is in one of many phases of the planning process (site plan review, design review, environmental compliance review, zoning, etc.).

Proposed projects: a developer has proposed to build a project (either formally or informally) but has not submitted any plans for review and permits have not yet been filed.

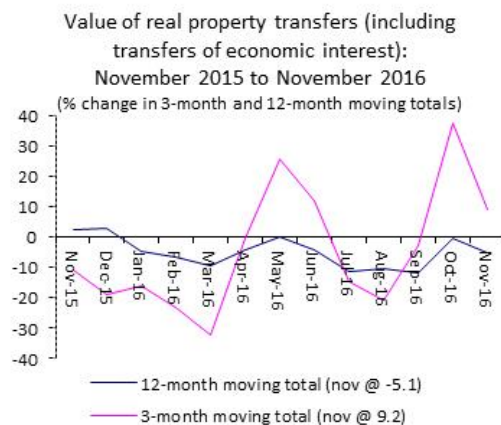
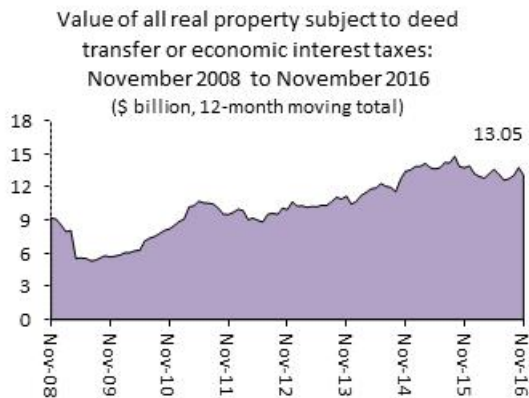


Table 26. **Market Value of Real Property transfers subject to the Deed Transfer or Economic Interest tax: November 2016**

	FY 2013	FY 2014	FY 2015	FY 2016	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	13,049.9	3,827.4	704.2
change from one year ago (\$M)		1,530.6	505.8	3,196.5	-1,730.3	-695.0	-709.9
% change from 1 year ago		16.1	4.6	27.6	-11.7	-5.1	9.2

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).

Hospitality

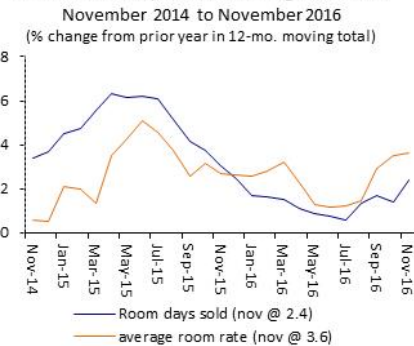
The past 3 months have been very strong ones for hotel demand and average room rates

● In November the 3-month moving total for hotel room-days sold was 4.6% above a year earlier. The average room rate was 7.4% higher, and revenue was up 12.4%. For the past 12 months, hotel revenue was up 6.1%.

● Employment in food services was 3.8% more in November than a year earlier as measured by the 3-month moving average. Hotel employment was up 2.0%.

● November airline traffic into the DC area was up 3.2% compared to a year earlier as measured by the 3-month moving total. Reagan National was up 1.6%. For the past 12-months, total traffic into the DC area was 3.2% higher.

DC hotel room days sold and average room rate:



Hotel room sales revenue: Nov. 2015 to Nov. 2016
(percent change in 3-month and 12-month moving average from same period of prior year)

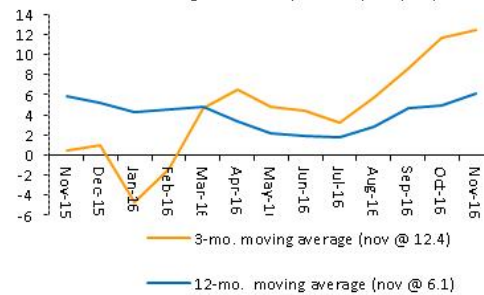


Table 27. Hospitality Industry: November 2016

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)	nov	7.869	8.197	8.337	8.402	2.193	0.660
	1 yr ch		0.189	0.328	0.140	0.195	0.097	0.056
	1 yr % ch		2.5	4.2	1.7	2.4	4.6	9.2
Average room rate	\$	nov	209.87	215.34	221.62	223.86	245.21	216.96
	1 yr ch		2.56	5.46	6.28	7.83	16.94	5.24
	1 yr % ch		1.2	2.6	2.9	3.6	7.4	2.5
Occupancy rate	%	nov	76.6	77.5	77.9	77.9	79.7	72.8
(average)	1 yr ch		0.8	0.9	0.4	0.3	0.4	3.6
	1 yr % ch		1.0	1.2	0.5	0.4	0.5	5.2
Room revenue	(\$M)	nov	1,651.4	1,765.1	1,847.5	1,880.8	537.7	143.1
	1 yr ch		59.4	113.6	82.5	107.8	59.3	15.3
	1 yr % ch		3.7	6.9	4.7	6.1	12.4	11.9
Airline passengers								
DCA	1 yr % ch	nov	0.0	10.3	2.8	2.5	1.6	2.1
IAD	1 yr % ch	nov	-1.9	0.3	-0.1	1.0	3.8	5.6
BWI	1 yr % ch	nov	-0.5	4.1	6.0	5.9	4.4	5.6
Total	1 yr % ch	nov	-0.8	4.8	3.0	3.2	3.2	4.4
Employment								
Accommodations	level ('000)	nov	15.2	15.1	15.4	15.5	15.5	15.5
	1 yr ch		0.0	-0.1	0.3	0.4	0.3	0.2
	1 yr % ch		-0.2	-0.3	2.0	2.5	2.0	1.3
Food and bev	level ('000)	nov	47.1	49.7	51.4	51.7	52.5	52.0
	1 yr ch		2.0	2.6	1.7	1.7	1.9	1.9
	1 yr % ch		4.3	5.5	3.4	3.3	3.8	3.8

* 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

Third quarter annualized growth rate for US nominal GDP increases to 4.6%

- US annualized real GDP growth in the September quarter was estimated at 3.2%; nominal growth was 4.6% (seasonally adjusted).
- Federal government consumption and investment for all activities was 2.2% higher in the 2016.3 quarter than a year earlier, below the 2.8% rate for nominal GDP for the entire US economy.
- US employment (seas. adj.) increased by 178,000 in November from the month before.
- The US unemployment rate (seas. adj.) fell to 4.6% in November.
- In November the average S&P 500 index rose 1.1% from October; it was 4.4% above a year earlier.

Quarterly change in US Real and Nominal GDP: 2014.3 to 2016.3

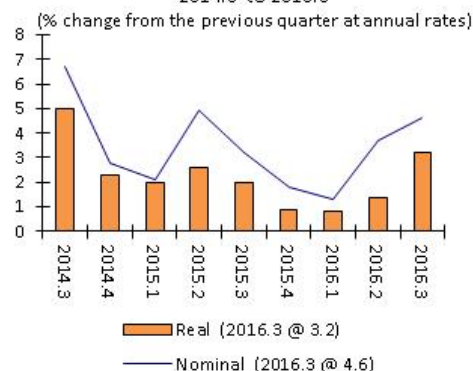
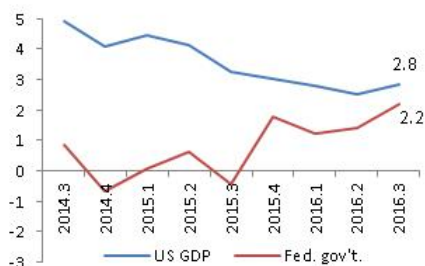


Table 29. Federal government sector, US GDP accounts: 2016.3
(percent change from same period of prior year)

Indicator	FY 2013	FY 2014	FY 2015	12-mo avg*	2016.3
Non-defense					
Compensation of employees	-0.4	1.7	4.1	3.7	4.7
Purchases of goods and services	-4.9	-1.7	8.0	7.7	9.1
Gross investment	-3.7	-0.4	3.0	1.4	2.0
Defense					
Compensation of employees	-3.5	-0.6	-0.8	1.1	2.0
Purchases of goods and services	-9.0	-7.2	-5.2	-0.9	-0.4
Gross investment	-8.2	-4.2	-4.5	2.3	3.4
All federal consumption and investment	-4.1	-1.8	-0.1	1.6	2.2

*Same as FY 2016 Source: BEA (November 29, 2016). Nominal values.

Federal government consumption and investment and US GDP: 2014.3 to 2016.3



Federal government consumption and investment, by defense and non-defense: 2014.3 to 2016.3

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

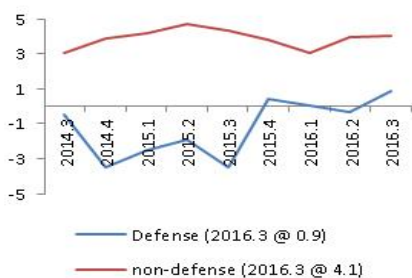


Table 30. Qtr. to Qtr. ch. in US GDP: 2015.3 to 2016.3

Indicator	2015.3	2015.4	2016.1	2016.2	2016.3
US GDP real	2.0	0.9	0.8	1.4	3.2
US GDP nominal	3.2	1.8	1.3	3.7	4.6
Wages and salaries	4.4	6.6	-0.7	6.6	5.4
Personal income	4.0	3.4	1.3	4.8	4.4

Note: GDP=Gross Domestic Product Source: BEA, updated Nov. 29, 2016.

Table 28. US GDP, income, and inflation: 2016.3

Indicator	FY 2013	FY 2014	FY 2015	12-mo avg*	2016.3
US GDP real	1.3	2.4	2.8	1.6	1.6
US GDP nominal	3.0	4.3	4.0	2.8	2.8
US Personal income	3.0	3.5	4.9	3.6	3.5
US wages	3.9	4.0	5.2	4.5	4.6
Corporate profits**	2.6	5.4	-1.6	-0.9	0.5
S and P stock index	16.7	20.3	9.7	0.4	6.7
US CPI	1.6	1.6	0.3	0.9	1.1
Balt/Wash. area CPI	1.6	1.7	0.4	1.1	na

Source: BEA (November 29, 2016), BLS, Yahoo.

* Same as FY 2016 **Before tax, w/o IVV and CCAAdj. na=not available

Table 31. Monthly selected US Indicators: August 2016 to November 20:

Indicator	August	September	October	November
S and P stock index (level)	2177	2158	2142	2165
% change from prior month	1.3	-0.9	-0.7	1.1
% change from 1 year ago	6.7	11.0	5.8	4.4
10 yr. Treasury Interest rate (level)	1.55	1.63	1.76	2.06
CPI % ch from prior month (seasonally adjusted)	0.20	0.29	0.36	0.20
CPI % ch from prior year (seasonally adjusted)	1.09	1.48	1.64	1.70
Jobs (seasonally adjusted level, in millions)	144.60	144.81	144.95	145.13
change from prior month (thousands)	176	208	142	178
% change from prior month	0.12	0.14	0.10	0.1
Resident employment (season. adj. level, in mil.)	151.614	151.968	151.925	152.085
change from prior month (thousands)	97	354	-43	160
% change from prior month	0.06	0.23	-0.03	0.1
Unemployment rate (seasonally adj.)	4.9	5.0	4.9	4.6

Source: BLS and Yahoo! Finance.

DC tax collections

Total DC tax collections (before earmarking):
November 2011 to November 2016
 (12-month moving total in November 2016 is
 \$7,169 million)

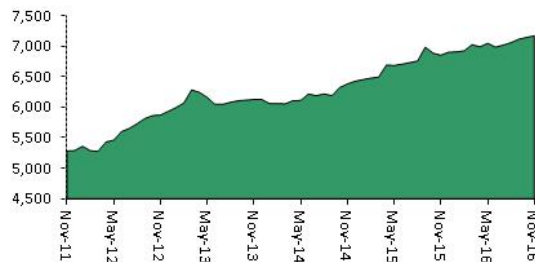


Table 32. Tax Collections (before earmarking): November 2016 (Preliminary)

Tax	Revenue (from CAFR)				Tax collections			
	FY 2013	FY 2014	FY 2015	FY 2016 collections	12-month moving total	FY 2016 to date	3-month moving total	This month
Total taxes	6,100.5	6,290.0	6,916.8	7,112.8	7,169.3	712.8	2,205.9	327.0
1 year change	247.2	189.5	656.9	134.6	318.7	56.5	112.9	27.0
% change	4.2	3.1	10.0	1.9	4.7	8.6	5.4	9.0
Real property	1,914.8	2,015.6	2,194.5	2,347.4	2,348.3	23.5	1,023.6	4.9
1 year change	92.8	100.7	178.9	49.5	148.3	0.8	42.0	0.4
% change	5.1	5.3	8.9	2.2	6.7	3.6	4.3	8.8
General sales	1,137.9	1,172.1	1,315.3	1,300.8	1,329.2	260.2	347.3	121.1
1 year change	26.8	34.2	143.2	46.7	70.6	28.4	15.7	10.7
% change	2.4	3.0	12.2	3.7	5.6	12.2	4.7	9.7
Individual income	1,640.9	1,679.2	1,868.0	1,874.1	1,887.5	267.1	473.1	124.5
1 year change	150.2	38.3	188.9	1.0	13.8	13.4	20.7	16.5
% change	10.1	2.3	11.2	0.1	0.7	5.3	4.6	15.2
withholding	1,391.2	1,472.9	1,553.2	1,623.6	1,641.4	270.5	401.1	131.3
1 year change	69.6	81.7	80.3	43.7	61.4	17.8	27.5	10.1
% change	5.3	5.9	5.4	2.8	3.9	7.1	7.4	8.4
non-withholding	249.6	206.2	314.8	250.5	246.1	-3.4	72.1	-6.8
1 year change	80.6	-43.4	108.6	-42.7	-47.6	-4.5	-6.9	6.4
% change	47.7	-17.4	52.6	-14.6	-16.2	-426.2	-8.7	-48.5
Corporate income	299.0	280.2	308.0	356.2	367.7	21.2	89.6	8.6
1 year change	-3.9	-18.8	27.8	39.2	50.9	11.5	18.5	3.0
% change	-1.3	-6.3	9.9	12.4	16.1	118.0	26.1	53.8
Unincorporated Bus.	154.3	135.4	139.8	158.2	156.4	6.1	33.0	1.7
1 year change	-8.7	-18.9	4.4	9.7	4.8	-1.8	-1.4	-0.1
% change	-5.3	-12.3	3.2	6.5	3.2	-22.9	-4.0	-7.5
Deed taxes*	372.8	391.2	480.6	444.1	442.9	321.0	115.4	31.9
1 year change	60.3	18.4	89.4	-36.4	-3.1	248.3	0.1	-13.4
% change	19.3	4.9	22.8	-7.6	-0.7	341.5	0.1	-29.5
Other taxes	580.8	616.4	610.6	631.9	637.4	74.4	123.8	34.2
1 year change	-70.4	35.6	-5.8	25.0	33.4	16.8	17.2	9.9
% change	-10.8	6.1	-0.9	4.1	5.5	29.2	16.2	40.6

*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.

(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.

Tax collections in the last 12 months are 4.7% above a year ago

• For the 12 month period ending November total tax collections (before earmarking) were \$318.7 million (4.7%) more than in the prior year. For the last 3 months they were 5.4% above last year.

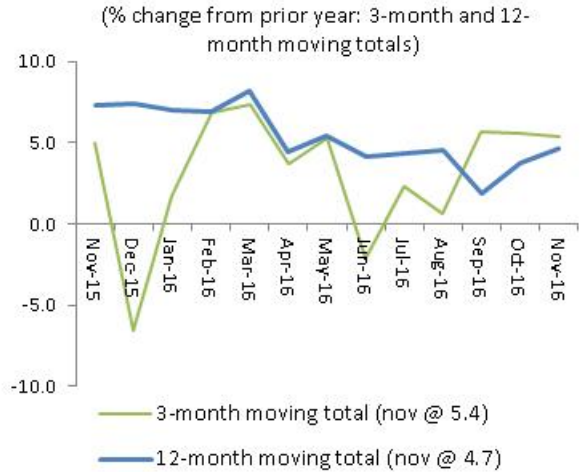
• Individual income tax collections were 0.7% above last year for the 12-months ending November, but withholding was 3.9% higher. For the past 3 months, withholding was up 7.4% and all collections were up 4.6%.

• General sales tax collections were 5.6% above last year for the 12-months ending October. For the past 3 months, they were 4.7% above last year.

• Deed tax collections for the 12-months ending November were down 0.7% from last year; for the past 3 months they were up 0.1%.

• Corporate income taxes in November were up 16.1% and unincorporated business income taxes rose 3.2% from last year (12-mo. total).

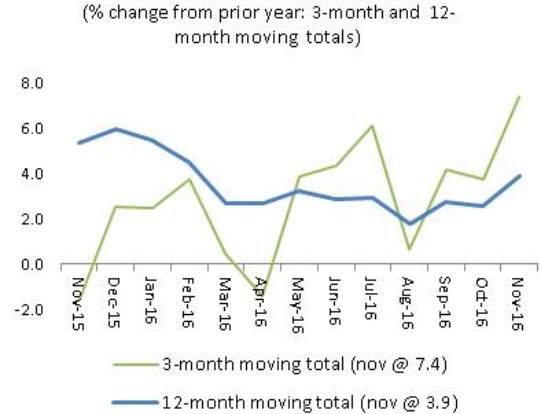
**Total tax collections (before earmarks):
November 2015 to November 2016**



**General Sales tax collections (before earmarks):
November 2015 to November 2016**



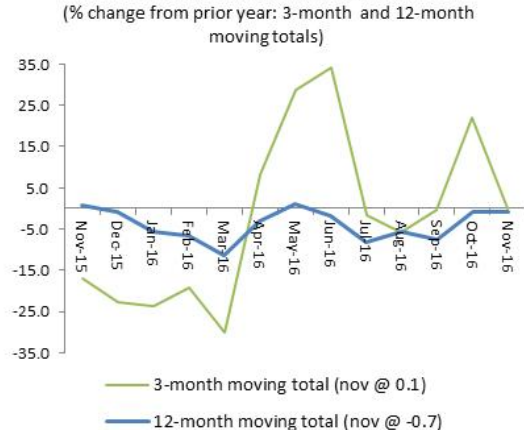
**Withholding for the Individual Income tax:
November 2015 to November 2016**



**General Sales tax and Withholding for the Individual Income tax:
November 2015 to November 2016**



**Deed tax collections (before earmarks):
November 2015 to November 2016**



US economic forecasts

December Blue Chip 2017 forecast: slightly higher GDP, prices, and interest rates

- The December Blue Chip Indicators kept its forecast for real GDP growth in FY 2016 at 1.6% and raised its FY 2017 estimate to 2.2%. Both years are lower than the actuals for 2014 and 2015 (2.4% and 2.8%, respectively). FY 2017 nominal growth of 4.1% was slightly higher than last month's forecast.
- CBO's August economic and budget outlook: real growth rates of 1.9% in FY 2016, and 2.3% in each of 2017 and 2018.
- The Blue Chip Indicators December forecast for inflation (CPI): 1.0% for FY 2016 and 2.0% in FY 2017.
- S&P 500 November baseline forecasts for the end of 2016: Global Insight's forecast: 5.9% annual gain in the 4th quarter of 2016, Moody's Analytics is 6.0%. Global Insight predicts some slowdown in 2017, and Moody's much more of a slowdown.
- Global Insight and Moody's Analytics both raised their Personal Income growth forecast for FY 2017 4.6%, with growth over 5% in FY 2018.

Table 33. Forecasts for US nominal and real GDP: FY 2013 through FY 2017
(% change from prior fiscal year)

Fiscal year and date of forecast	real			nominal		
	Blue Chip	IHS		Blue Chip	IHS	
		Moody's Analytics	Global Insight		Moody's Analytics	Global Insight
FY 2013 Actual	1.3	1.3	1.3	3.0	3.0	3.0
FY 2014 Actual	2.4	2.4	2.4	4.3	4.3	4.3
FY 2015 Actual	2.8	2.8	2.8	4.0	4.0	4.0
FY 2016						
September	1.6	1.5	1.5	2.8	2.7	2.8
October	1.6	1.6	1.5	2.9	2.7	2.8
November	1.6	1.6	1.6	2.9	2.7	2.8
December	1.6	1.6	1.6	2.9	2.8	2.8
FY 2017						
September	2.2	2.6	2.3	4.0	4.5	5.1
October	2.1	2.6	2.0	4.1	4.4	4.9
November	2.1	2.6	2.1	4.0	4.4	5.0
December	2.2	2.6	2.2	4.1	4.3	4.3

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

Blue Chip Indicators estimate of US Nominal and Real GDP: FY 2010 to FY 2017
(% change from the prior year; Dec. 2016 estimate)

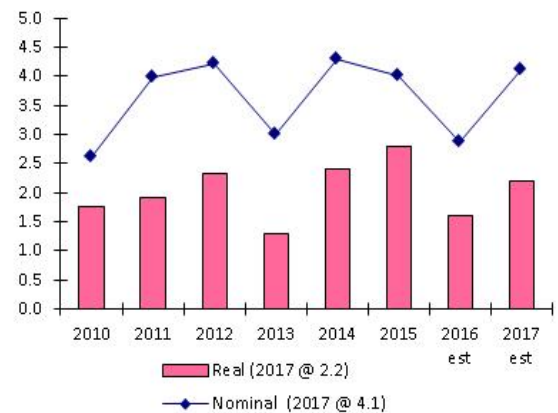


Table 34. CBO estimates of GDP and other indicators: FY 2015 to FY 2018

Indicator	FY 2015	FY 2016	FY 2017	FY 2018
Real GDP (% ch from prior yr.)	2.6	1.9	2.3	2.3
Nominal GDP (% ch from prior yr.)	3.6	3.1	4.0	4.1
CPI (% ch from prior yr.)	0.3	1.0	2.2	2.3
10 yr. Treasury bond rate	2.2	1.9	2.2	2.7
Unemployment rate	5.5	4.9	4.5	4.5

Source: Congressional Budget Office, *The Budget and Economic Outlook: 2016 to 2026*, August 2016

Table 35. Forecasts for US Personal Income: FY 2015 to FY 2018

Forecast date	% change from prior fiscal year				% change from prior fiscal year			
	2015	2016	2017	2018	2015	2016	2017	2018
	Global Insight				Moody's Analytics			
Sept.	4.9	3.5	4.3	4.8	4.9	3.5	4.2	5.5
Oct.	4.9	3.5	4.1	4.8	4.9	3.5	4.2	5.4
Nov.	4.9	3.5	4.0	4.8	4.9	3.5	4.2	5.4
Dec	4.9	3.6	4.6	5.1	4.9	3.6	4.6	5.5

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

Table 36. Forecasts for S and P 500: 2015.4 to 2017.4

Forecast date	% change from prior year			% change from prior year		
	2015.4	2016.4	2017.4	2015.4	2016.4	2017.4
	Global Insight			Moody's Analytics		
September	2.0	6.9	5.4	2.0	4.9	-1.8
October	2.0	6.9	5.4	2.0	5.0	-1.9
November	2.0	4.8	5.4	2.0	6.2	-2.9
December	2.0	5.9	5.4	2.0	6.0	0.8

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

Table 37. Blue Chip forecasts for CPI and 10 year Treasury interest rate: FY 2015 to FY 2017

Forecast date	% change from prior fiscal year			10 yr Treasury rate		
	CPI			10 yr Treasury rate		
	2015	2016	2017	2015	2016	2017
Sep	0.3	1.1	2.2	2.2	1.9	2.0
Oct	0.3	0.9	2.1	2.2	1.9	1.9
Nov	0.3	1.0	2.1	2.2	1.9	2.0
Dec	0.3	1.0	2.2	2.2	1.9	2.4

Source: Blue Chip Indicators

Global Insight and Moody's Analytics have similar views on slower job growth for the next several years, but don't agree on the extent of slower population growth

- **Global Insight:** Only a gradual slowdown in annual population growth, and drop-off in job growth in FY 2017. DC Personal Income in FY 2017 and FY 2018, 5.3% and 5.4%, is a little above the US.
- **Moody's Analytics:** Less population growth than Global Insight, and more decline from the prior year in 2017 job growth. Personal Income growth falls sharply to 0.5% in FY 2017 and 1.7% in FY 2018.
- **Changes in the last 3 months:** Global Insight added to its jobs forecast, Moody's reduced theirs. Global Insight raised its Personal Income growth rates for FY 2017 and FY 2018, Moody's made a slight reduction.

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

		FY 2015	Global Insight				Moody's Analytics			
		actual	FY 2016	FY 2017	FY 2018	FY 2019	FY 2016	FY 2017	FY 2018	FY 2019
Jobs in DC	Level	764,359	774,817	783,513	787,940	793,226	774,825	780,575	785,550	791,475
	1 yr, ch	12,534	10,458	8,696	4,428	5,286	10,450	5,750	4,975	5,925
	1 yr % ch.	1.7	1.4	1.1	0.6	0.7	1.4	0.7	0.6	0.8
	Ch. in level of estimate from 3 mo. ago		752	5,280	5,985	7,654	-225	-2,825	-3,500	-4,125
Population	Level	670,631	681,589	691,415	700,804	709,113	679,225	686,050	691,525	696,125
	1 yr, ch	11,951	10,958	9,826	9,389	8,309	9,175	6,825	5,475	4,600
	1 yr % ch.	1.8	1.6	1.4	1.4	1.2	1.4	1.0	0.8	0.7
	Ch. in level of estimate from 3 mo. ago		0	0	0	0	0	0	-0.05	-0.275

Source: December 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	Global Insight				Moody's Analytics			
		actual	FY 2016	FY 2017	FY 2018	FY 2019	FY 2016	FY 2017	FY 2018	FY 2019
DC resident jobs	1 yr, ch	13,307	10,151	2,899	7,552	7,429	10,150	4,475	4,525	4,750
Households	1 yr, ch	4,678	4,191	2,802	3,257	3,943	4,425	2,250	2,175	2,625
Housing starts		4,020	4,655	3,796	3,319	2,945	3,886	4,820	4,311	3,932

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

Table 40. Forecasts of DC Personal Income to FY 2019

Date of estimate	FY 2015	Global Insight				Moody's Analytics			
	actual	FY 2016	FY 2017	FY 2018	FY 2019	FY 2016	FY 2017	FY 2018	FY 2019
September 2016	4.1	4.5	4.6	5.2	6.1	4.1	0.7	2.0	3.5
December 2016	6.7	4.4	5.3	5.4	6.5	4.0	0.5	1.7	3.5

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

Table 41. December forecasts for employment and Personal Income for DC, the metro area, and the US: FY 2015 to FY 2018

(percent change from prior year)

Indicator	Global Insight				Moody's Analytics			
	2015	2016	2017	2018	2015	2016	2017	2018
Wage and salary jobs								
DC	1.7	1.4	1.1	0.6	1.7	1.4	0.7	0.6
Metro area					1.6	2.3	1.9	1.5
US	2.1	1.8	1.4	1.2	2.1	1.8	1.5	1.5
Personal Income								
DC	6.7	4.4	5.3	5.4	6.7	4.0	0.5	1.7
Metro area					5.0	3.6	5.1	5.3
US	4.9	3.6	4.6	5.1	4.9	3.6	4.6	5.5

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

Table 42. December DC forecasts for wages and unemployment: FY 2015 to FY 2018

(percent change from prior year)

	Global Insight				Moody's Analytics			
	2015	2016	2017	2018	2015	2016	2017	2018
Wages and salaries earned in DC								
	4.5	4.0	4.4	4.7	4.5	3.9	2.9	3.9
DC resident wages and salaries								
	6.0	4.1	5.1	5.9	6.0	3.5	-2.3	0.0
DC Unemployment rate (level)								
	7.2	6.3	6.0	5.8	7.2	6.3	6.2	6.5

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

DC revenue estimate

The September revenue estimate: \$176 million more in FY 2016 than in FY 2015, followed by an \$83 million increase in FY 2017

- Anticipated tax revenue increase (before earmarks) is 2.5 % in FY 2016, followed by a 1.2% increase in FY 2017. The estimates reflect growth in the DC economy, and the effects of scheduled tax cuts enacted in September 2015.
- Real property tax growth of \$163 million in FY 2016 offset by decreases in other taxes in that year. Real property is also the leading source of revenue gain in FY 2017. Individual income tax revenue increased 11.2% in FY 2015, but is estimated to fall 0.6% in FY 2016 reflecting both tax cuts and extraordinary capital gains in FY 2015. For FY 2018 estimated growth is 4.0%.
- The General sales tax is estimated to grow 4.1% in FY 2017, while deed taxes fall 13.0%.
- As a share of DC Personal Income, tax revenue in FY 2017 is expected to fall to 13.9% from 14.6% in FY 2015 and 14.3% in FY 2016.

Table 43. DC Tax Revenue (before earmarks) for FY 2015 through FY 2018: September 2016 revenue estimate

Tax	FY level (\$ million)				Change from prior year (\$ M)				% change from prior year			
	2015	2016	2017	2018	2015	2016	2017	2018	2015	2016	2017	2018
Real property	2,194.5	2,357.2	2,456.0	2,532.5	178.9	162.7	98.8	76.5	8.9	7.4	4.2	3.1
Deed taxes	480.6	430.5	374.6	384.3	89.4	-50.1	-55.8	9.6	22.8	-10.4	-13.0	2.6
General sales	1,315.3	1,308.5	1,362.5	1,418.2	143.2	-6.8	54.0	55.7	12.2	-0.5	4.1	4.1
Individual income	1,868.0	1,857.0	1,931.9	2,011.9	188.9	-11.1	74.9	80.0	11.2	-0.6	4.0	4.1
Withholding	1,553.2	1,621.2	1,690.2	1,768.2	80.3	68.0	69.0	78.0	5.5	4.4	4.3	4.6
non-withholding	314.8	235.8	241.7	243.7	108.6	-79.0	5.9	2.0	52.7	-25.1	2.5	0.8
Business income	447.8	516.4	449.6	460.9	32.2	68.6	-66.7	11.3	7.8	15.3	-12.9	2.5
Other	610.6	623.7	601.7	598.6	-5.8	13.1	-22.1	-3.1	-0.9	2.2	-3.5	-0.5
Total	6,916.8	7,093.2	7,176.4	7,406.4	626.9	176.4	83.1	230.1	10.0	2.5	1.2	3.2

Source: ORA. September 30, 2016 revenue estimate under existing legislation. 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 2015 is from the CAFR.

Table 44. DC labor market assumptions: FY 2015 to FY 2018

item	2015	2016	2017	2018
Wage and salary employment	762,800	772,403	778,754	783,945
1 year change	11,317	9,603	6,351	5,191
% change	1.5	1.3	0.8	0.7
DC resident employment	356,540	365,433	370,564	374,859
1 year change	11,714	8,893	5,130	4,295
% change	3.4	2.5	1.4	1.2
Unemployment rate	7.4	6.5	6.4	6.3

Source: ORA September 2016 revenue estimate.

Table 45. DC Income and stock market assumptions: FY 2015 to FY 2018 (% change from prior year)

item	2015	2016	2017	2018
Wages and salaries earned in DC	5.1	4.2	3.9	4.0
Wages and salaries earned by DC residents	4.6	4.5	4.0	4.2
DC Personal income	4.2	4.0	4.2	4.7
S and P 500 stock index	2.0	0.5	3.5	2.7

Source: ORA September 2016 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 2009 to FY 2018

item	2009	2010	2011	2012	2013	2014	2015	2016 est	2017 est	2018 est
Tax revenue (\$ million)										
Level	5,052	5,005	5,325	5,853	6,100	6,290	6,917	7,093	7,176	7,406
Change from prior year	-273	-47	320	528	247	189	627	176	83	230
Percent change from prior year										
Tax revenue	-5.1	-0.9	6.4	9.9	4.2	3.1	10.0	2.5	1.2	3.2
Personal Income	-0.7	1.5	8.0	5.2	2.8	2.7	4.2	4.0	4.2	4.7
Tax revenue as percent of Personal Income										
	13.5	13.2	13.0	13.5	13.7	13.8	14.6	14.3	13.9	13.7

Source: ORA. September 30, 2016 revenue estimate under existing legislation. The table includes tax revenue only, before all earmarks, and excludes all non-tax revenues, lottery, and "O-type" earmarked revenues.

was more than offset by more deaths.

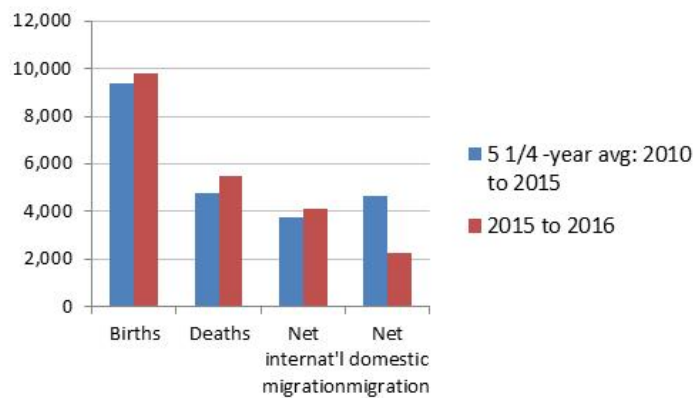
The smaller amount of net in-migration in 2016 was entirely due to domestic migration. Net domestic migration in 2016 was 2,372 less than the average of the preceding 5 1/4 years, a 51.0% decline. The Census data do not indicate whether net domestic migration declined primarily because fewer people came to DC or more left. Net international migration last year was 368 (9.8%) higher than the average of the preceding 5 years.

For DC to continue to grow as it has over most of the past decade, more than half of the increase must come from net in-migration. Accordingly, factors influencing that migration, such as job opportunities, housing cost and availability, the quality of public services, and the current public debate about immigration, all can have an important bearing on future population growth in the District of Columbia.

Tables and graphs follow for the components of population change since 2010, and for total population since 2000.

—Stephen Swaim, DC Office of Revenue Analysis

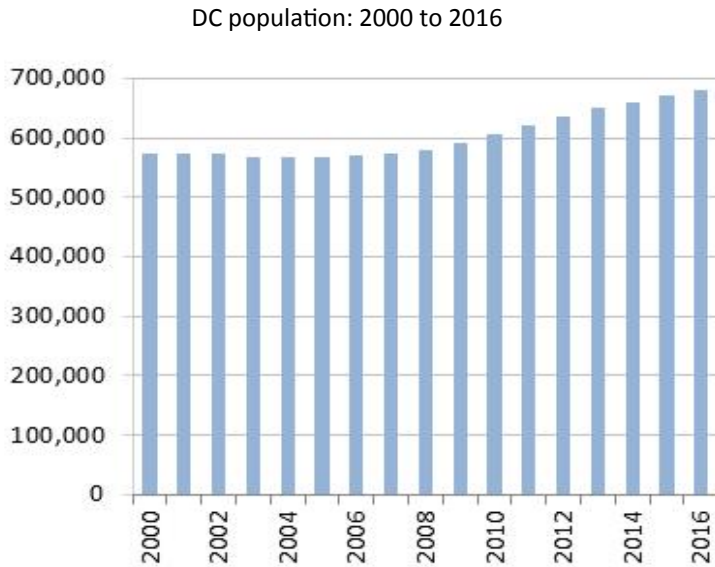
Main components of DC population change: 2010 to 2016



Components of DC population change from April 1, 2010 to July 1, 2016

Time period	Total Population Change	Natural Increase	Vital Events		Net Migration		
			Births	Deaths	Total	International	Domestic
Change from 2010 to 2015:							
5 1/4 year-total	68,611	24,096	49,114	25,018	44,078	19,678	24,400
Average for 5 1/4 years	13,069	4,590	9,355	4,765	8,396	3,748	4,648
Change from 2015 to 2016							
	10,793	4,324	9,779	5,455	6,392	4,116	2,276
Difference between 2015 to 2016 change and the 5 1/4 -year average change from 2010 to 2015							
Amount	-2,276	-266	424	690	-2,004	368	-2,372
%	-17.4	-5.8	4.5	14.5	-23.9	9.8	-51.0

Source: US Bureau of the Census. Census data for total population change contains a small statistical residual so that detail does not add to the total. Note that data for 2010 is as of April 1, the national census date, so the average to 2015 is for 5 years and 3 months or 5 1/4 years.



DC Populaton: 2000 to 2016

CY	Level	Change from prior year	
		Amount	%
2000	572,046		
2001	574,504	2,458	0.43
2002	573,158	-1,346	-0.23
2003	568,502	-4,656	-0.81
2004	567,754	-748	-0.13
2005	567,136	-618	-0.11
2006	570,681	3,545	0.63
2007	574,404	3,723	0.65
2008	580,236	5,832	1.02
2009	592,228	11,992	2.07
2010	605,183	12,955	2.19
2011	620,477	15,294	2.53
2012	635,327	14,850	2.39
2013	649,165	13,838	2.18
2014	659,005	9,840	1.52
2015	670,377	11,372	1.73
2016	681,170	10,793	1.61

Change from 2005 to 2016

Amount	114,034
%	20.1
Average per year	10,367

Change from 2006 to 2016

Amount	110,489
%	19.4
Average per year	11,049

Change from 2011 to 2016

Amount	60,693
%	9.8
Average per year	12,139

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, December 30, 2016.

Tax expenditure report, May 2014. Comprehensive description of all DC tax expenditures.

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

DC Tax Facts, 2016. 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.

About this report. *District of Columbia Economic and Revenue Trends* is generally issued toward the end of every month. Employment and most other DC information reported on a monthly basis is from one to two months prior to the *Trends* date. Lags can be greater with quarterly data such as Personal Income and commercial real estate. Data in the tables are believed to be reliable, but original sources are definitive. All data are subject to revision by the information source. The *Trends* report is available at the DC Chief Financial Officer web-site: www.cfo.dc.gov (click on *Budget and Revenue/Economy/ Economic and Revenue Trends*).

Table 47. Information sources

Indicator	Source	Period covered in this report	Next release
D.C. Jobs and Labor Force information	BLS	November	January 24
D.C. Personal Income	BEA	2016.3	March 28
D.C. Tax Collections	OTR/ORA	November	c. December 15
D.C. Housing Sales	MRIS*	November	c. December 10
D.C. Commercial Office Building data	CoStar and Delta	2016.3	c. January 10
DC Apartment data	CoStar and Delta	2016.3	c. January 10
D.C. Hotel stay information	Smith Travel Research	November	c. January 20
Consumer Price Index	BLS	November	January 18
U.S. Jobs and Labor Force	BLS	November	January 6
U.S. GDP and Personal Income	BEA	2016.3	January 27
S and P 500 Stock Index	Financial press	November	November 1
Interest rate on 10-Year Treasury Securities	Financial press	November	November 1
IHS Global Insight D.C. forecast	Global Insight	December	c. January 15
Moody's Analytics D.C. forecast	Moody's Analytics	December	c. January 25
Blue Chip Economic Indicators for the U.S.	Aspen Publishers	December	c. January 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*