



D.C. Office of Revenue Analysis Briefing Document *Number: 2015-9 Date: September 2015*

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New DC Personal Income data: less income over the past decade, faster growth in the past year

As the sharp revision to resident income suggests, tracking DC’s changing income flows is challenging

The US Bureau of Economic Analysis (BEA) changed significantly its estimates of DC Personal Income as part of a comprehensive revision to all State Personal Income that was released on September 30, 2015. BEA (1) lowered the level of income received by DC residents each year over the past decade, but (2) raised the rate of increase in DC Personal Income over the last year.

Reduced level over the decade. For calendar year 2014, DC Personal Income is now pegged at \$46.0 billion, \$4.2 billion (8.5 %) less than the previous estimate. Compared to the previous estimate, the new data show DC Personal Income grew less before the US recession, fell more during the recession, and grew more slowly in the early recovery period.

The primary reason for lower DC Personal Income over the years is greater allocation to the suburbs of income earned in DC. The revision is based on new analysis of Census Bureau journey-to-work data and IRS tax filings.

To calculate Personal Income, BEA starts with income earned in DC by everybody working in the city. It then makes what is called a “net resident adjustment” to obtain income earned by DC residents. The net resident adjustment involves (1) subtracting income earned in DC by non-residents (mostly commuters), and (2) adding income earned outside of DC by DC residents. In revising the data for 2014, BEA increased by \$1.7 billion the amount earned in DC, but it also took \$5.8 billion more away for the net resident adjustment. Revisions to the non-earnings portion of Personal Income were relatively minor.

Revised estimates of Personal Income for DC residents in CY 2014

(\$ billion)

	Previous estimate	Revised estimate	Amt. of change	% change
Amounts earned in DC*	77.20	78.90	1.70	2.2
Net resident adjustment** (Deduct)	-41.59	-47.40	-5.81	
Amounts earned by DC residents	35.60	31.50	-4.11	-11.5
Property income and transfer payments	14.66	14.52	-0.14	-1.0
Total DC Personal Income	50.26	46.02	-4.25	-8.5

*Wage and salaries, benefits, and proprietors income for all persons working in DC regardless of where they live (net of social insurance taxes)

**The net difference between (1) amounts earned by commuters in DC and (2) amounts DC residents earned in the suburbs or elsewhere

Source: US Bureau of Economic Analysis (BEA)

(continued on p. 2.)

This briefing document was prepared by Stephen Swaim, DC Office of Revenue Analysis

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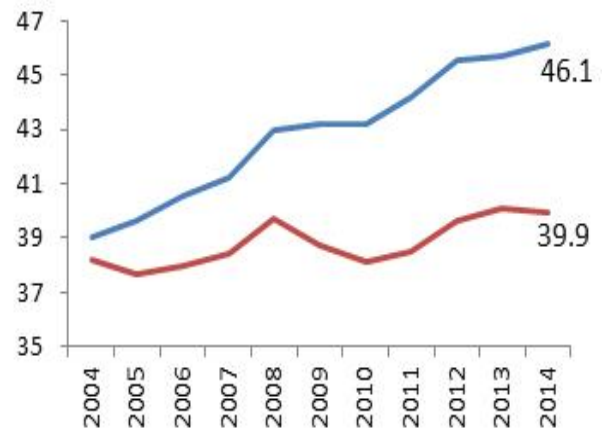
BEA’s revised estimates do not change the basic story that income earned by DC residents has grown over the past decade as population and jobs have grown. But the new numbers dial back considerably the proportion of the growing income earned in DC that stayed in the city.

The extent of the revision to DC’s Personal Income estimates is shown in the table summarizing all income earned in DC and income earned by DC. Before the revision, the increase in DC resident earnings over the period 2004 to 2014 was equivalent to 62% of the increase in all DC earnings for that time; that percentage fell to 44% with the revision. Before the revision, resident earnings were 39.0% as much as amounts earned in the city in 2004, and by 2014 this percentage was estimated to have risen to 46.1%. With the revision, as a percentage of income earned in DC, resident earnings increased only from 38.2% in 2004 to 39.9% in 2014.

According to the Bureau of Labor Statistics, DC resident employment grew considerably faster from 2004 to 2014 than jobs located in DC. Resident employment (which can reflect work outside of DC as well as turnover in jobs formerly held by commuters) grew 21.0%, while wage and salary jobs located in DC increased just 11.8%. It therefore makes sense that the earnings of DC residents (which includes income earned outside of DC) could grow faster than amounts earned in DC.

Resident income still grows faster than income earned in DC under BEA’s new analysis of household income and commuting patterns. However, the increases in the proportion of income earned in DC staying in the city are now seen to have been more moderate than might have been supposed based on the job numbers.

Old and new estimates of the earnings of DC residents as a percentage of all amounts earned in DC: 2004 to 2014



Old and new estimates of amounts earned in DC and DC resident earnings: 2004 to 2014

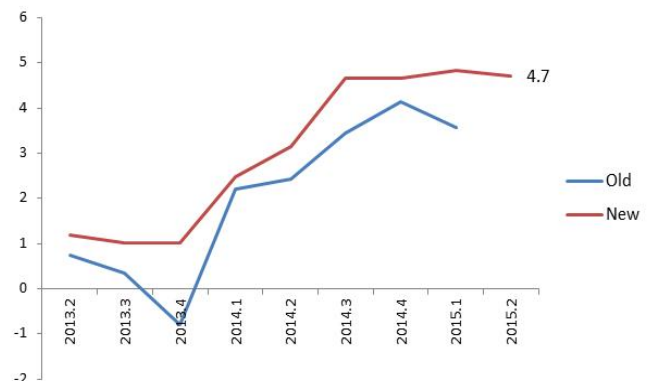
	Old estimate					New estimate				
	\$ billion		ch from '04 to '14	% ch from '04 to '14	Avg. annual rate of ch.	\$ billion		ch from '04 to '14	% ch from '04 to '14	Avg. annual rate of ch.
	Level 2004	Level 2014				Level 2004	Level 2014			
Amounts earned in DC	53.69	77.20	23.51	43.8	3.7	53.69	78.90	25.21	47.0	3.9
DC resident earnings	20.96	35.60	14.64	69.8	5.4	20.51	31.49	10.99	53.6	4.4
<i>Resident earnings as % of amounts earned in DC</i>	<i>39.0</i>	<i>46.1</i>	<i>62.3</i>	<i>159.4</i>	<i>145.9</i>	<i>38.2</i>	<i>39.9</i>	<i>43.6</i>	<i>114.0</i>	<i>112.8</i>

Source: BEA--June 2015 and September 2015 estimates.

Faster income growth in the past year. From the first quarter of 2014 to the first quarter of 2015, BEA estimate of DC Personal Income growth was raised to 4.0% from the prior estimate of 3.6%, and the growth of resident earnings went from 3.6% to 4.8%. (It was 4.7% in the June quarter.)

These are not huge increases, but the higher growth rate represents the addition of almost \$400 million more in resident earned income. With continued growth in the second quarter of 2015, income in DC has now shown significant growth for the 6 quarters since the Federal shut-down in the last quarter of 2013.

Old and new estimates of earnings of DC residents: 2013.2 to 2015.2 (% change from the same quarter of prior year)



The difficulty of tracking income flows in DC’s changing economy. There is nothing unusual about BEA revising data as more information becomes available, but the scale of the September 30, 2015 revisions to DC’s Personal Income is unusual. The percentage revisions to DC’s Personal Income were far greater than for any state data. Over the past three years there were only 5 instances of state changes of more than 3 % in any one year, the biggest being a 4.8% increase for Alaska in 2012. Why was DC so different? The reasons is the net resident adjustment factor. Tracking the in-and out-flows among jurisdictions is one of the more difficult tasks in compiling earnings estimates, and those flows proportionately are much larger in DC than for any state. They are also influenced heavily by the changes in job or residence location by a relatively small number of high income households.

In its latest revisions, BEA turned to the most recent American Community Survey (ACS) data available for all US counties (the average for the years 2006 through 2010), along with the most recently available IRS tax data. Accurately tracking DC’s Personal Income is likely, however, to continue to be a challenge for BEA because DC’s population and economy keep changing—and the key data sources used to determine Personal Income are available only with a considerable lag.
 —Stephen Swaim, DC Office of Revenue Analysis

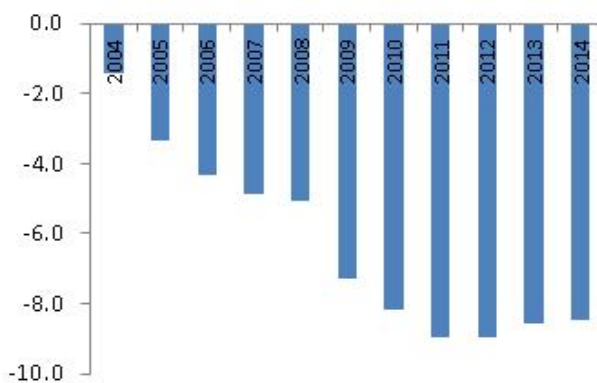
More details on revisions to DC’s Personal Income from 2004 to 2014. BEA’s new estimates reduce DC’s Personal Income by 1.4% in 2004, and the percentage reduction grows until it reaches 9.0% in 2011.

Old and new estimates of DC Personal Income: calendar years 2004 to 2014 (\$billion)

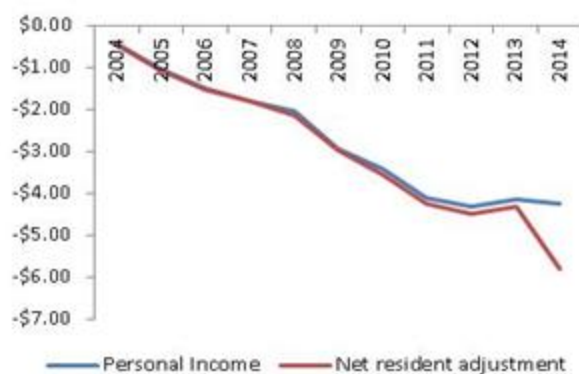
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Prior estimate	29.35	31.62	34.44	36.89	40.48	40.14	42.01	45.92	48.11	48.70	50.26
Revised estimate	28.92	30.57	32.95	35.10	38.42	37.21	38.58	41.79	43.80	44.53	46.02
Amount of change	-0.42	-1.05	-1.50	-1.79	-2.05	-2.93	-3.44	-4.12	-4.31	-4.16	-4.25
% change	-1.4	-3.3	-4.3	-4.9	-5.1	-7.3	-8.2	-9.0	-9.0	-8.6	-8.5

Source: BEA June 2015 and September 2015 State Personal Income estimates.

Percent revision to each year’s DC’s Personal Income in the September 2015 revision: 2004 to 2014



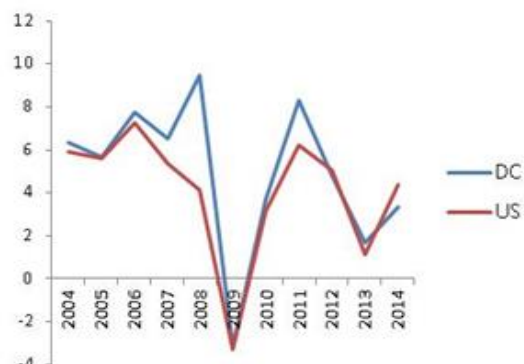
Amount of revision to DC Personal Income and to the Net resident adjustment factor: 2004 to 2014 (\$billion)



The graph plotting the amount of changes in Personal Income and the Net resident adjustment factor illustrates how the revision to DC’s Personal Income was mostly due to the re-allocation of income to non-residents. The two series are close to identical except for 2014 when amounts earned in DC increased. BEA does not provide data on the in-flow and out-flow of income that make up the net adjustment calculation, so some reduction in DC resident earnings could reflect DC resident earnings outside of the city. But the net adjustment change is so large that increases in income earned in DC by non-resident commuters swamp any changes to residents’ earnings outside of DC.

From 2004 to 2014 DC Personal Income grew faster than the US average (DC 59%, US 46%), although from 2010 to 2014 DC increases have been quite close to the US average. Despite the revision, DC's per capita income, \$69,828 in 2014, is still the highest in the nation (compared to states), and it is 52% above the US average. With higher population growth, however, DC's per capita income has also grown more slowly than the national average over the past four years.

Percent change from the prior year in DC and US Personal Income: 2004 to 2014 (revised estimates)



Personal Income, Population, and Per capita income in DC and the US: 2010 to 2014

Indicator	DC			US		
	2010	2014	% ch	2010	2014	% ch
Personal Income \$B	38.6	46.0	19.3	12,459.6	14,683.1	17.8
Population	605,534	658,980	8.8	309,387,773	318,897,606	3.1
Per capita income	\$63,704	\$69,828	9.6	\$40,271	\$46,043	14.3

Source: BEA State Personal Income, September 30, 2015

Revised estimates of Personal Income for DC residents in CY 2014 (Detail)

(\$ billion)

	Previous estimate	Revised estimate	Amount of change	% change
<i>Earnings from work</i>				
Wages and salaries earned in DC	63.55	64.67	1.12	1.8
Benefits earned in DC	16.35	17.43	1.08	6.6
Proprietor's income earned in DC	6.35	6.08	-0.27	-4.3
Contribution for social insurance (deduct)	-9.06	-9.28	-0.22	
Subtotal, Amounts earned in DC*	77.20	78.90	1.70	2.2
Net resident adjustment**	-41.59	-47.40	-5.81	
Amounts earned by DC residents	35.60	31.50	-4.11	-11.5
<i>Other components</i>				
Dividends, interest, and rent	8.59	8.54	-0.04	-0.5
Transfer payments	6.08	5.98	-0.10	-1.7
subtotal, other components***	14.66	14.52	-0.14	-1.0
Total DC Personal Income	50.26	46.02	-4.25	-8.5

*Wage and salaries, benefits, and proprietors income for all persons working in DC regardless of where they live, net of social insurance taxes

**The net difference between (1) amounts earned by commuters in DC and (2) amounts DC residents earned in the suburbs or elsewhere

***Property income (rent, interest, and dividends, but not including capital gains) plus transfer payments (social security, pensions, medicare, medicaid)

Source: US Bureau of Economic Analysis (BEA, June 2015 and September 2015)