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Income Inequality in the District and the D.C. Tax System’s Effect on the Income Gap

The income gap in American cities has gotten a lot of attention lately, with stories in the New York Times and reports by the Brookings Institution and the D.C. Fiscal Policy Institute focusing on this issue. This got us thinking: where is the greatest income gap across different types of taxpayers and to what extent does the income tax system help close the gap? To answer these questions, we looked at data from people filing income taxes in D.C. in 2011.

The District, as an urban location, houses both the poor and the rich. It also has a progressive tax system with higher marginal tax rates on top earners, and refundable tax credits for those with very low incomes. Even before accounting for other social programs (health and human services, housing subsidies, and extensions on federal programs such as TANF and unemployment insurance), the tax system works to distribute some income from high earners to low earners.

For this piece, our measure of income is federal adjusted gross income (FAGI), which includes income sources such as wages and tips, business profits or losses, capital gains or losses, dividend and interest income, pension income, income from rents, royalties, and distributions from retirement accounts. In 2011, roughly 308,000 tax filers in the District collectively reported a total income of \$26.7 billion.

We exclude from our analysis 21,413 filers with no tax liability (or credits)—these filers generally report large losses, from either their businesses or rental properties. These reported losses do not always reflect the socioeconomic status of the filers, but the fact that their businesses or rental properties suffered losses at some point in the past five years. We also exclude 30,649 part-time residents so we can focus on full-year residents who pay their taxes over their entire incomes.

D.C. Income Tax Filer Overview, Tax Year 2011			
Filer Type	Number of Filers	Total Income ¹ (\$ in billions)	Total Taxes ² (\$ in billions)
All filers ³	308,010	\$26.74	\$1.23
Filers with no tax liability	21,413	\$0.41	\$0.00
Part-time filers (with tax liability)	30,649	\$2.59	\$0.07
Full-time filers (with tax liability)	255,948	\$23.74	\$1.16

¹As measured by federal adjusted gross income

²Taxes minus refundable credits

³Excludes records with data errors, filers who are dependents of others, and filers with blank FAGI and no taxes owed or tax credits

This leaves us with almost 256,000 filers who collectively received an income of \$23.7 billion, and collectively paid \$1.2 billion in income taxes. Our analysis of income inequality is on these taxpayers. *(Continued on p.2)*

This briefing document was prepared by Ginger Moored and Yesim Yilmaz, DC Office of Revenue Analysis.

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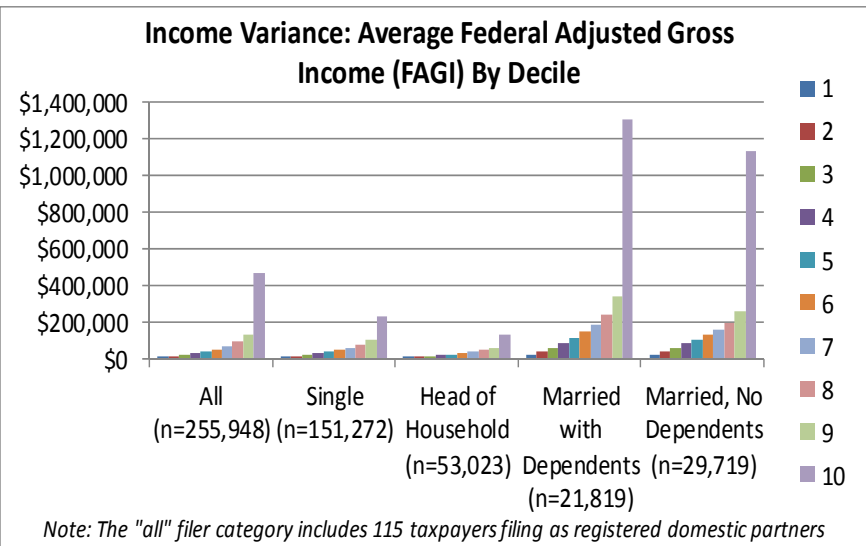
DC income inequality and taxes, continued from p.1

The Income Gap

The income gap before accounting for District taxes is large. Among all taxpayers in the District, the average income, before District taxes, is about \$6,800 among the bottom ten percent of filers and \$465,000 among the top ten percent. This is a difference of around \$459,000. The greatest income inequality is among married filers, who in the top decile have average incomes that are separated from the bottom decile by a measure of over \$1 million. This difference is only \$226,500 for singles and \$127,200 for heads of households.

Average FAGI by Decile and Filer Status					
FAGI Decile	All	Single	Head of Household	Married with Dependents	Married, No Dependents
0-10%	\$6,792	\$5,939	\$6,368	\$18,074	\$20,566
10-20%	\$15,602	\$15,479	\$11,278	\$38,268	\$42,184
20-30%	\$23,365	\$23,378	\$15,046	\$59,231	\$61,395
30-40%	\$32,096	\$32,383	\$19,254	\$86,230	\$81,395
40-50%	\$41,660	\$41,278	\$24,070	\$116,812	\$102,212
50-60%	\$52,741	\$50,504	\$29,249	\$149,913	\$126,135
60-70%	\$67,789	\$61,761	\$35,466	\$188,775	\$154,819
70-80%	\$90,233	\$77,441	\$44,320	\$241,231	\$192,193
80-90%	\$131,805	\$102,073	\$59,020	\$337,717	\$257,048
90-100%	\$465,403	\$232,468	\$133,583	\$1,305,021	\$1,130,741

The high variation in incomes of married couples and families is largely driven by very high average incomes in the top decile, as shown in the graph to the right. The top ten percent of the married earners (whether with kids or not) report incomes that are four times the incomes of those in the second highest decile. The group with the smallest variation is the heads of households. In this group, the top decile receive incomes about twenty times the bottom decile. While this number is large, it is relatively small compared to all filers, where top incomes are sixty-nine times the bottom incomes.



Taxes' Effect on Income, by FAGI Decile (All Filer Types)

FAGI Decile	Avg. FAGI Before Taxes	Avg. Tax Effect on Income	Post-Tax Income	Effective tax rate
0-10%	\$6,792	+\$606	\$7,399	-8.9%
10-20%	\$15,602	+\$597	\$16,199	-3.8%
20-30%	\$23,365	-\$147	\$23,217	0.6%
30-40%	\$32,096	-\$881	\$31,215	2.7%
40-50%	\$41,660	-\$1,565	\$40,095	3.8%
50-60%	\$52,741	-\$2,268	\$50,473	4.3%
60-70%	\$67,789	-\$3,260	\$64,529	4.8%
70-80%	\$90,233	-\$4,788	\$85,445	5.3%
80-90%	\$131,805	-\$7,554	\$124,251	5.7%
90-100%	\$465,403	-\$26,235	\$439,168	5.6%

The Tax System's Effect on Income

To calculate the income tax's effect on an individual taxpayer we totaled any local income tax credits the taxpayer received (including EITC, the property tax credit, and other refundable credits) and subtracted local income taxes they owed. We've summarized the results of our analysis in the table below.

In effect, the tax system closes the income gap by about \$27,000. The bottom decile's average income increases from \$6,800 to \$7,400, or by 8.9 percent, after tax credits such as the District's earned income tax credit and Schedule H credits. The top decile's average income is reduced from around \$465,000 to \$439,000, or by 5.6 percent, from income taxes. This makes

the gap in average income between the top and bottom deciles about \$432,000 after taxes, compared to \$459,000 before. That's a reduction of about 6 percent. (Continued on p. 3)

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How much the income gap closes after taxes varies with filing status. Singles and heads of household see the biggest income gap reductions from local taxes, of 6.7 and 6.5 percent, respectively. Married filers with no dependents see the smallest reduction in the gap—4.5 percent.

How Progressive is this Tax System?

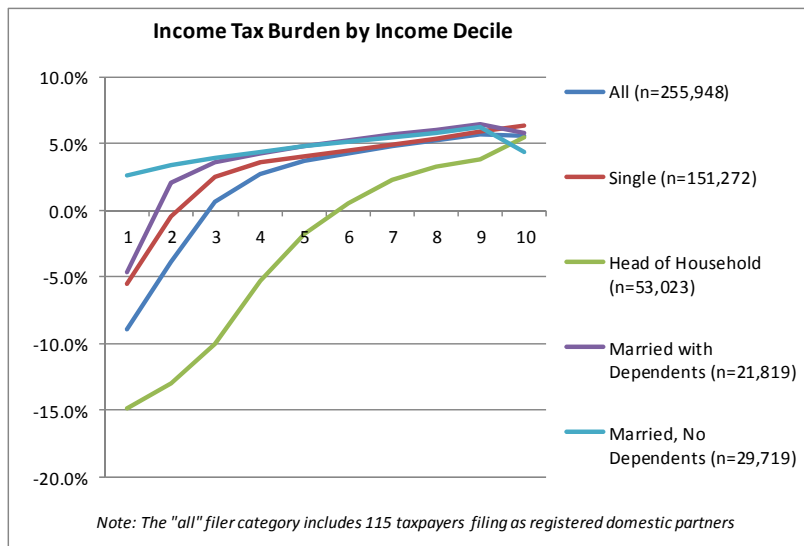
A roughly 6 percent reduction in the income gap might seem small, but D.C.'s income tax system is progressive. The percent of income paid towards taxes increases with income, as shown in the graph below. However, tax burdens do vary with filing status, and quite dramatically so for those in the lowest income deciles. The tax burden for the bottom ten percent of filers ranges

from a 15 percent tax *credit* for heads of household to a 2.6 percent tax *burden* for married filers with no dependents. For heads of households, for whom median income is close to \$27,000, tax credits support more than half the tax filers. The appendix tables break down the effective tax rates across deciles for four types of filers captured in the graph below. One important note is that in Tax Year 2011, the highest marginal tax rate was

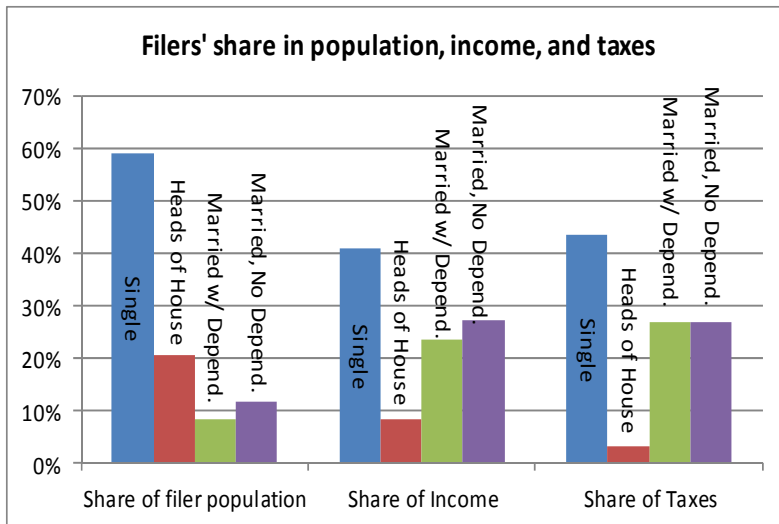
Income Gap ¹ Reduction by Filer Type				
Filer Type	Income Gap Before Taxes	Income Gap After Taxes	Difference	Percent Reduction
Single	\$226,529	\$211,340	\$15,189	6.7%
Head of Household	\$127,215	\$118,954	\$8,261	6.5%
Married w/ Dependents	\$1,286,947	\$1,209,855	\$77,092	6.0%
All	\$458,611	\$431,770	\$26,841	5.9%
Married, No Dependents	\$1,110,175	\$1,060,661	\$49,514	4.5%

¹Gap is defined as the difference in average income between the top and bottom income deciles. Federal adjusted gross income is used as the income measure.

8.5 percent on incomes above \$40,000. Starting Tax Year 2012, the District has been imposing an 8.95 percent marginal rate on incomes above \$350,000. The impact of this higher rate is not captured in our analysis.



Comparing different filing groups' share of income and taxes is another way to look at the tax burden. The graph below shows that heads of households, who constitute twenty percent of filers and take in less than eight percent of the taxes, collectively, pay three percent of the taxes. On the other hand, married filers with or without dependents, who constitute one fifth of the filers and receive nearly half the income earned in District, contribute over \$623 million in (or 54 percent of the) tax revenue.



We found that D.C.'s income tax system is somewhat more progressive than the average of 51 cities across the country in our [2012 Tax Rates and Tax Burdens](#) report. Our report found that for a family with an income of \$25,000, D.C.'s income tax burden is less than the 51-city average. For families at income levels of \$50,000, \$75,000, \$100,000, and \$150,000, the income tax burden is higher in D.C. than the 51-city average.

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DC income inequality and taxes, continued from p.3

APPENDIX

SINGLE FILERS				
FAGI Decile	Avg. FAGI Before Taxes	Avg. Tax Effect on Income	Post-Tax Income	Tax Effect as % of FAGI
1	\$5,939	\$327.70	\$6,267	5.5%
2	\$15,479	\$66.83	\$15,546	0.4%
3	\$23,378	-\$587.20	\$22,791	-2.5%
4	\$32,383	-\$1,162.52	\$31,221	-3.6%
5	\$41,278	-\$1,675.58	\$39,603	-4.1%
6	\$50,504	-\$2,259.45	\$48,245	-4.5%
7	\$61,761	-\$3,039.05	\$58,722	-4.9%
8	\$77,441	-\$4,175.95	\$73,265	-5.4%
9	\$102,073	-\$6,014.46	\$96,058	-5.9%
10	\$232,468	-\$14,861.13	\$217,607	-6.4%

HEADS OF HOUSEHOLD				
FAGI Decile	Avg. FAGI Before Taxes	Avg. Tax Effect on Income	Post-Tax Income	Tax Effect as % of FAGI
1	\$6,368	\$949.34	\$7,317	14.9%
2	\$11,278	\$1,465.28	\$12,743	13.0%
3	\$15,046	\$1,513.22	\$16,559	10.1%
4	\$19,254	\$1,017.87	\$20,272	5.3%
5	\$24,070	\$442.44	\$24,513	1.8%
6	\$29,249	-\$139.46	\$29,110	-0.5%
7	\$35,466	-\$801.70	\$34,664	-2.3%
8	\$44,320	-\$1,466.80	\$42,854	-3.3%
9	\$59,020	-\$2,281.04	\$56,739	-3.9%
10	\$133,583	-\$7,312.02	\$126,271	-5.5%

MARRIED FILERS WITH NO DEPENDENTS				
FAGI Decile	Avg. FAGI Before Taxes	Avg. Tax Effect on Income	Post-Tax Income	Tax Effect as % of FAGI
1	\$20,566	-\$528.16	\$20,037	-2.6%
2	\$42,184	-\$1,448.66	\$40,736	-3.4%
3	\$61,395	-\$2,436.13	\$58,959	-4.0%
4	\$81,395	-\$3,577.55	\$77,817	-4.4%
5	\$102,212	-\$4,868.44	\$97,343	-4.8%
6	\$126,135	-\$6,498.99	\$119,636	-5.2%
7	\$154,819	-\$8,474.67	\$146,345	-5.5%
8	\$192,193	-\$11,119.60	\$181,074	-5.8%
9	\$257,048	-\$15,960.53	\$241,087	-6.2%
10	\$1,130,741	-\$50,042.06	\$1,080,699	-4.4%

MARRIED FILERS WITH DEPENDENTS				
FAGI Decile	Avg. FAGI Before Taxes	Avg. Tax Effect on Income	Post-Tax Income	Tax Effect as % of FAGI
1	\$18,074	\$834.81	\$18,908	4.6%
2	\$38,268	-\$795.61	\$37,473	-2.1%
3	\$59,231	-\$2,132.82	\$57,098	-3.6%
4	\$86,230	-\$3,658.13	\$82,572	-4.2%
5	\$116,812	-\$5,604.56	\$111,207	-4.8%
6	\$149,913	-\$7,896.81	\$142,016	-5.3%
7	\$188,775	-\$10,670.45	\$178,105	-5.7%
8	\$241,231	-\$14,611.25	\$226,620	-6.1%
9	\$337,717	-\$21,764.56	\$315,953	-6.4%
10	\$1,305,021	-\$76,257.55	\$1,228,763	-5.8%

Total Income received (\$ millions)					
FAGI Decile	All ¹	Singles	Heads of Household	Married with Dependents	Married, No Dependents
1	\$174	\$90	\$34	\$39	\$61
2	\$399	\$234	\$60	\$84	\$125
3	\$598	\$354	\$80	\$129	\$182
4	\$822	\$490	\$102	\$188	\$242
5	\$1,066	\$624	\$128	\$255	\$304
6	\$1,350	\$764	\$155	\$327	\$375
7	\$1,735	\$934	\$188	\$412	\$460
8	\$2,310	\$1,171	\$235	\$526	\$571
9	\$3,374	\$1,544	\$313	\$737	\$764
10	\$11,912	\$3,517	\$708	\$2,848	\$3,361
TOTAL²	\$23,739	\$9,722	\$2,002	\$5,545	\$6,445

Total Taxes Paid (\$ millions)					
FAGI Decile	All ¹	Singles	Heads of Household	Married with Dependents	Married, No Dependents
1	(\$16)	(\$5)	(\$5)	(\$2)	\$2
2	(\$15)	(\$1)	(\$8)	\$2	\$4
3	\$4	\$9	(\$8)	\$5	\$7
4	\$23	\$18	(\$5)	\$8	\$11
5	\$40	\$25	(\$2)	\$12	\$14
6	\$58	\$34	\$1	\$17	\$19
7	\$83	\$46	\$4	\$23	\$25
8	\$123	\$63	\$8	\$32	\$33
9	\$193	\$91	\$12	\$47	\$47
10	\$671	\$225	\$39	\$166	\$149
TOTAL²	\$1,164	\$505	\$35	\$311	\$312

¹Excludes tax payers with no tax liability nor tax credits.

²Total taxes paid by each filing category add up to less than the total taxes paid by all filers because all filers include 115 taxpayers filing under registered domestic partner status.