

# **Analysis of Effectiveness of DC QHTC Credit**

Findings  
and Policy Recommendations

# Is Tax Credit Effective?

- Tax Credits represent forgone revenue.
- The District spent more than \$101 million in terms of foregone corporate franchise tax revenue from 2001 to 2012 for QHTC credits
- Is the money well spent?
- Existing literature has conflicting opinions
  - Bartik (1991) and Chirinko and Wilson (2006) find that tax credits are effective in increasing state and local business activity and generating capital investment
  - Fisher, Peter et al (2012) finds that state and local taxes are only a small part of the cost of doing business (1.8%); LeRoy, Greg et al (2013) argues that state and local tax incentives are much more likely to reshuffle investment between geographic areas than they are to spur genuinely new economic activity

# QHTC Tax Incentives and Historical Background

- QHTC Tax Incentives
  - New Economy Transformation Act of 2000, Amended in 2012 (Technology Sector Enhancement Act of 2012)
  - Beginning in tax year 2001
  - No franchise tax for 5 years after the date of commencement (For Tax Year 2012 and thereafter, No franchise tax for 5 years after the first year of making profit)
  - Reduced corporate income taxes rate at 6% thereafter
  - Hiring, retraining, employees relocation credit
  - Personal Property and Sales taxes exemption
  - Real Property tax abatement

# QHTC Tax Incentives and Historical Background

- Qualified High Technology Companies
  - Internet-related services and sales
  - Information and communication technologies, equipment and systems
  - Advanced materials and processing technologies
  - Engineering, production, biotechnology and defense technologies
  - Electronic and photonic devices and components

# QHTC Tax Incentives and Historical Background

## QHTC Qualifications

- Be an individual or entity organized for profit;
- Maintain an office, headquarters, or base of operations in DC;
- Have two or more employees in the District;
- Be registered to do business in the District and be current in all District filing requirements and payment obligations; and
- Derive at least 51% of its gross revenues from qualifying activities.

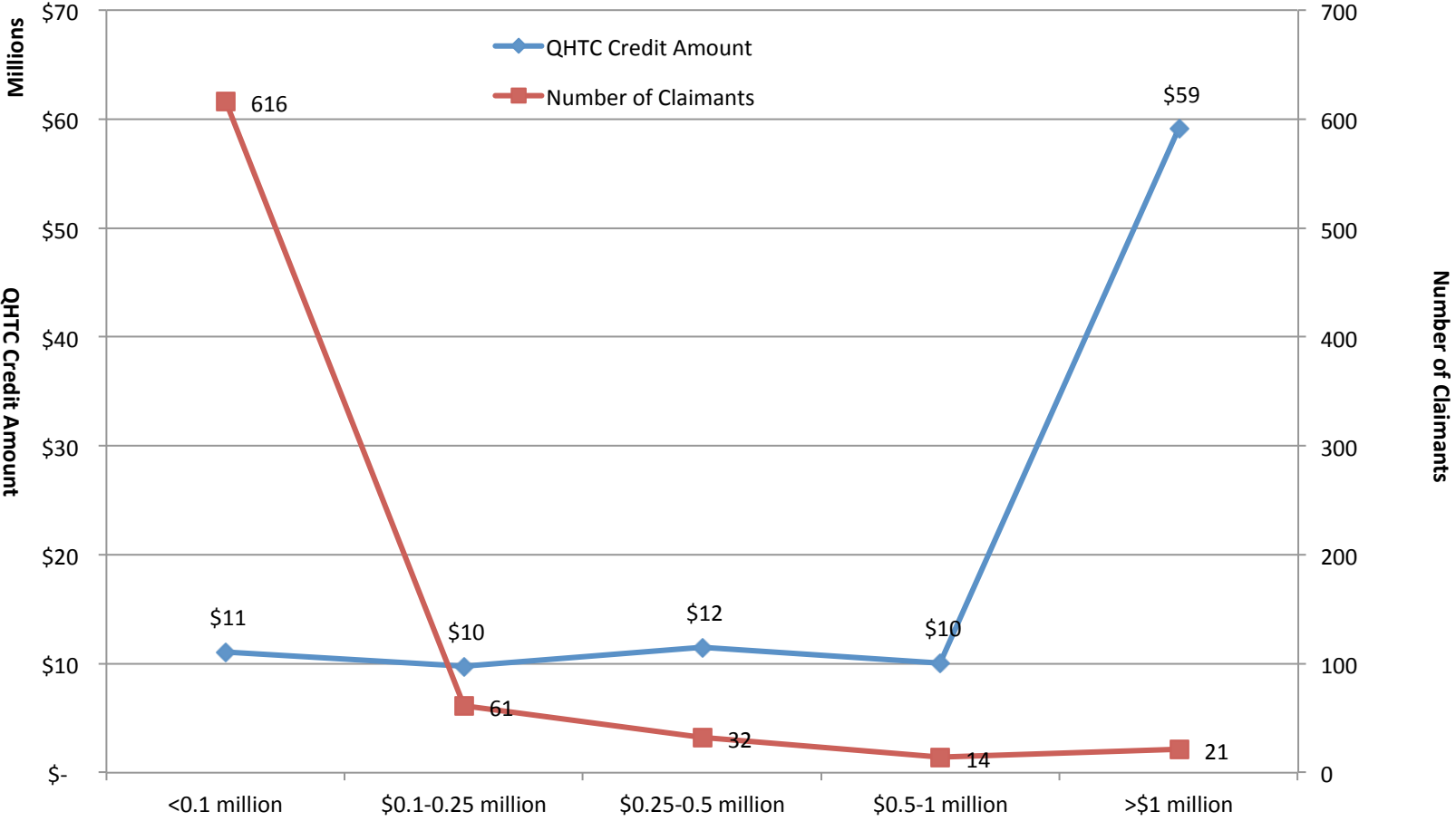
# Annual Corporate Franchise Tax Receipts and QHTC Credits

Tax Year	Total Franchise Tax Revenue	Number of QHTC Companies	Total QHTC Credit Amount	QHTC Credit Expenditure as a Percentage of Franchise Tax Revenue
2001	\$233,237,000	41*	\$1,479,569	0.63%
2002	\$142,647,000	52*	\$1,051,260	0.73%
2003	\$156,777,000	539	\$1,853,446	1.17%
2004	\$168,353,000	112	\$2,445,346	1.43%
2005	\$195,492,000	61	\$5,778,522	2.87%
2006	\$215,283,000	83	\$8,504,262	3.80%
2007	\$255,511,000	123	\$15,580,051	5.75%
2008	\$286,204,000	108	\$4,580,270	1.58%
2009	\$221,882,000	114	\$4,616,344	2.04%
2010	\$207,292,000	142	\$13,809,747	6.25%
2011	\$216,280,000	191	\$23,414,174	9.77%
2012	\$302,924,000	292	\$18,458,541	5.74%
<b>Total</b>	<b><u>\$2,601,882,000</u></b>	<b><u>1,858</u></b>	<b><u>\$101,571,532</u></b>	<b><u>3.76%</u></b>

# QHTC Credit Location Distribution

Corporation Location	District of Columbia	DC PCT	Maryland	MD PCT	Virginia	VA PCT	Other States	Other State PCT	Total
Tax Year									
2007	\$703,477	5%	\$120,463	1%	\$12,838,738	82%	\$1,917,373	12%	\$15,580,051
2008	\$713,236	16%	\$1,787,840	39%	\$1,819,564	40%	\$259,630	6%	\$4,580,270
2009	\$745,555	16%	\$1,428,822	31%	\$2,189,387	47%	\$252,580	5%	\$4,616,344
2010	\$7,358,841	53%	\$826,191	6%	\$2,460,804	18%	\$3,163,911	23%	\$13,809,747
2011	\$5,893,867	25%	\$1,170,454	5%	\$7,061,554	30%	\$9,288,299	40%	\$23,414,174
2012	\$10,602,861	57%	\$1,904,194	10%	\$4,177,500	23%	\$1,773,986	10%	\$18,458,541
Total QHTC Credit Amount	\$26,017,837	32%	\$7,237,964	9%	\$30,547,547	38%	\$16,655,779	21%	\$80,459,127

# QHTC Hiring Credit Distribution

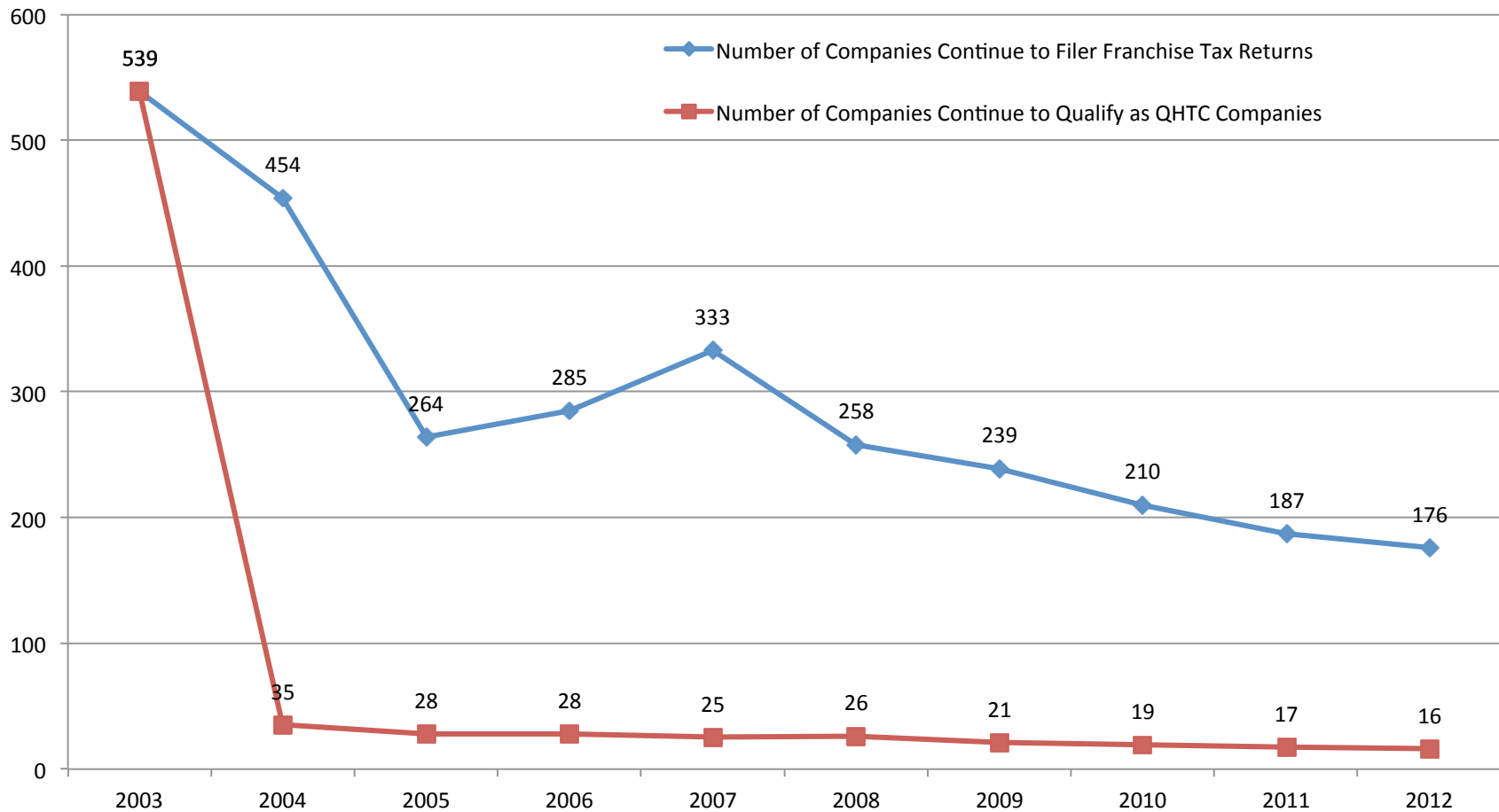




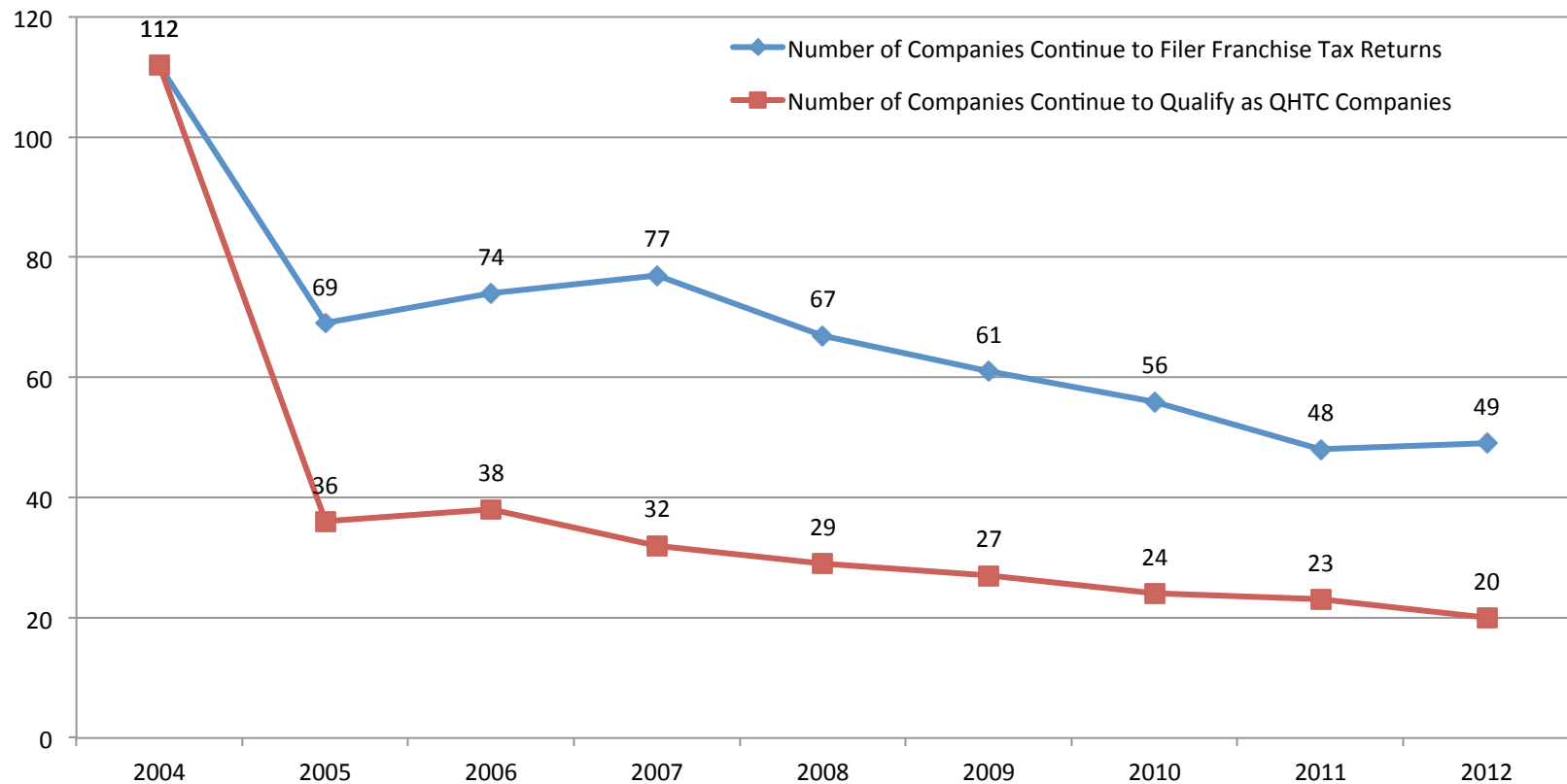
# Is the Credit Misused?

- The District's tax law does not stipulate that a company must continue to do business in the district after the credit has been "paid" out.
- 539 Companies were certified QHTCs in tax year 2003.
- Each year significant number of companies no longer qualify as QHTC / stop filing business tax returns.
  - stopped doing business in the district
  - Merged with other companies
  - Changed business structure and became unincorporated.
- In 2012, only 16 of the original 539 certified QHTC companies were still certified QHTCs and only 176 of them were still filing corporate franchise tax returns.

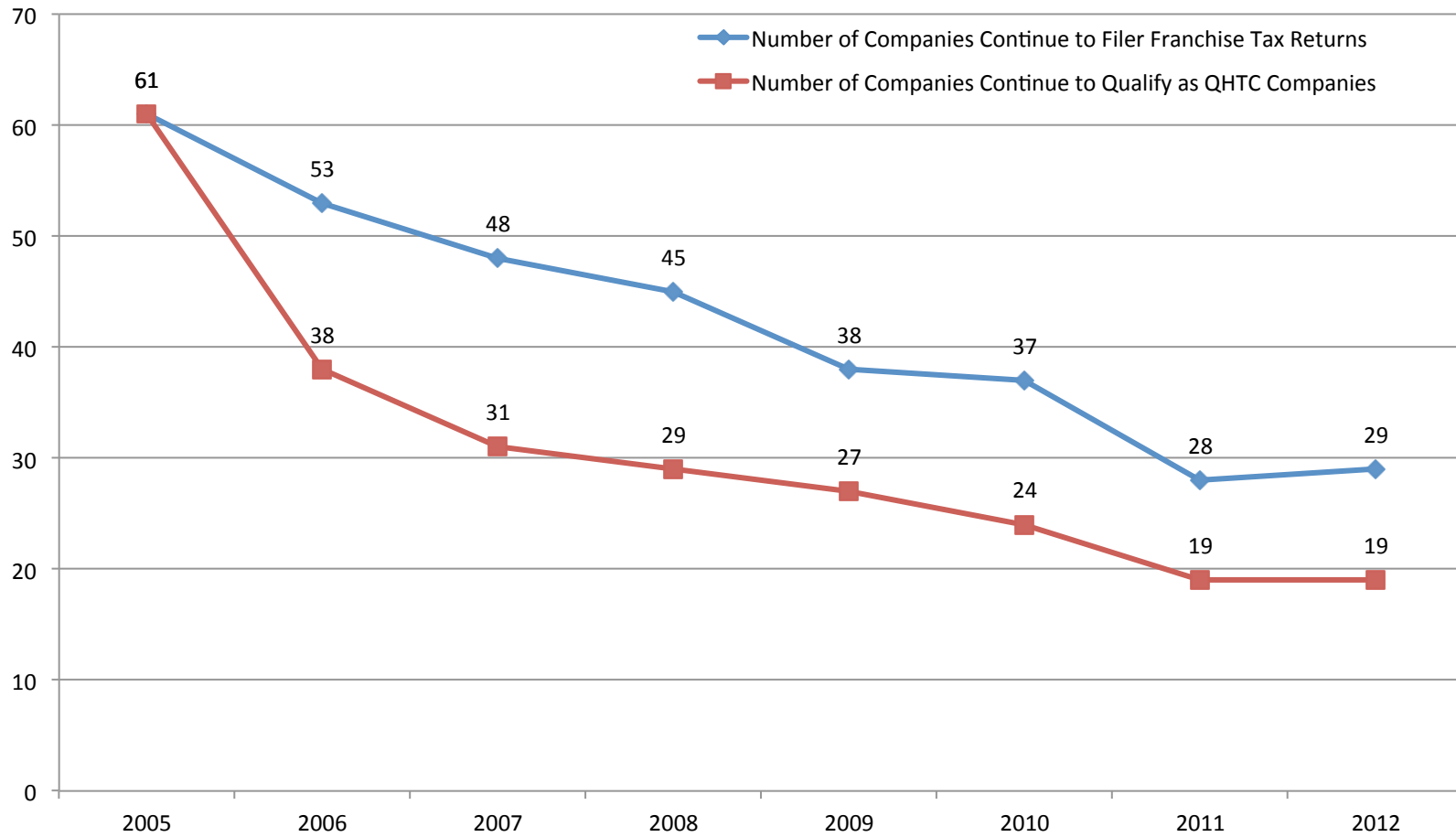
# Tracking of 2003 Certified QHTC Companies



# Tracking of 2004 Certified QHTC Companies

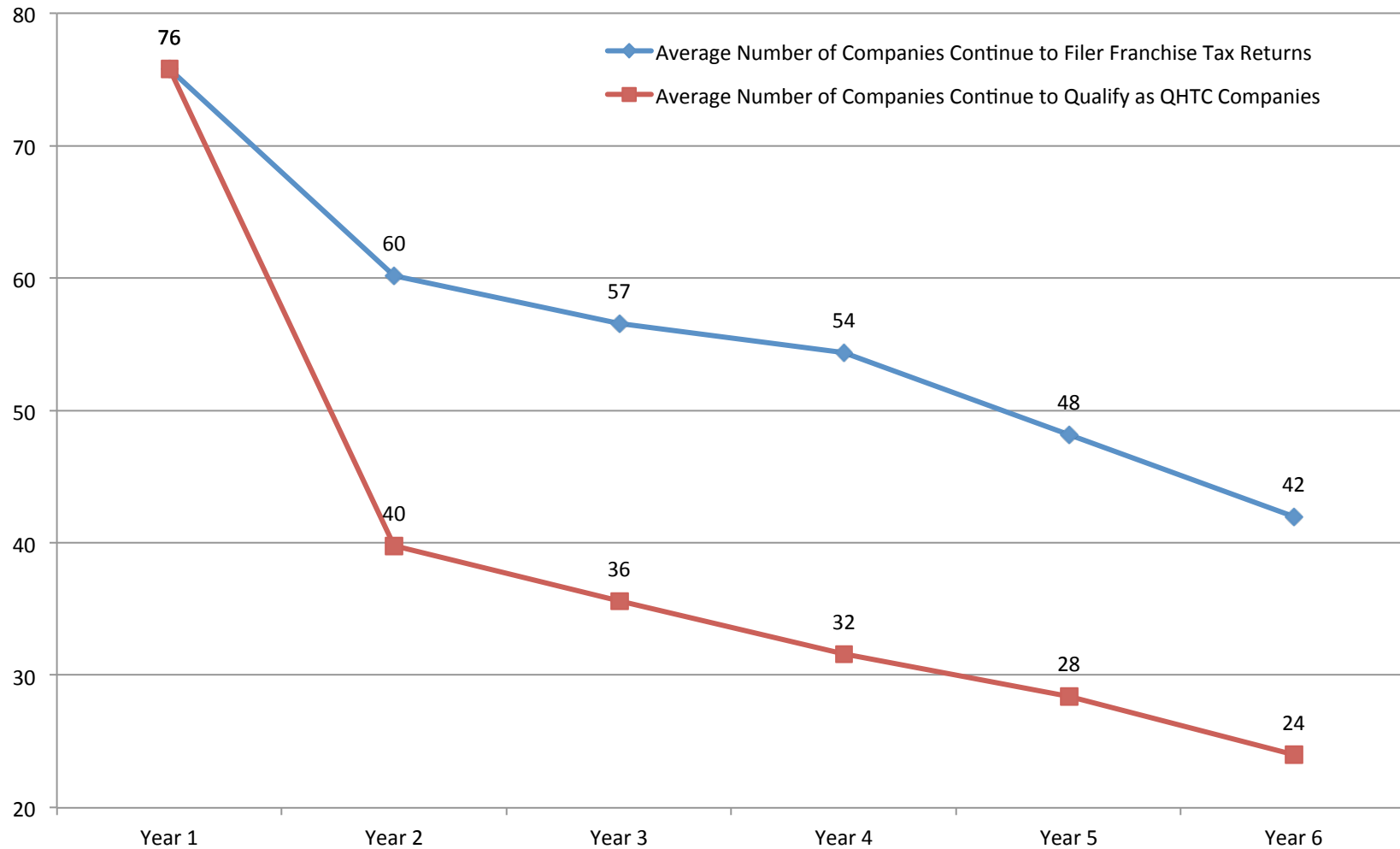


# Tracking of 2005 Certified QHTC Companies



# 5 years after Being a Certified QHTC

- ✓ On average, only 32% of the original QHTC companies are still qualified as QHTC after 5 years.
- ✓ On average, only 55% of the original QHTC companies are still filing DC franchise taxes after 5 years.

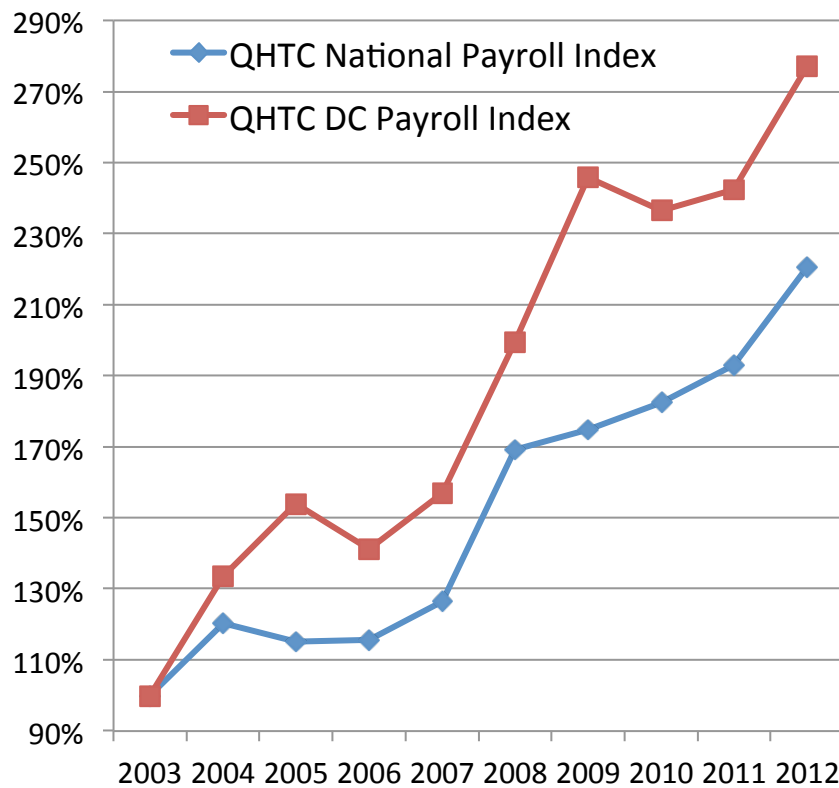


# Data and Estimation

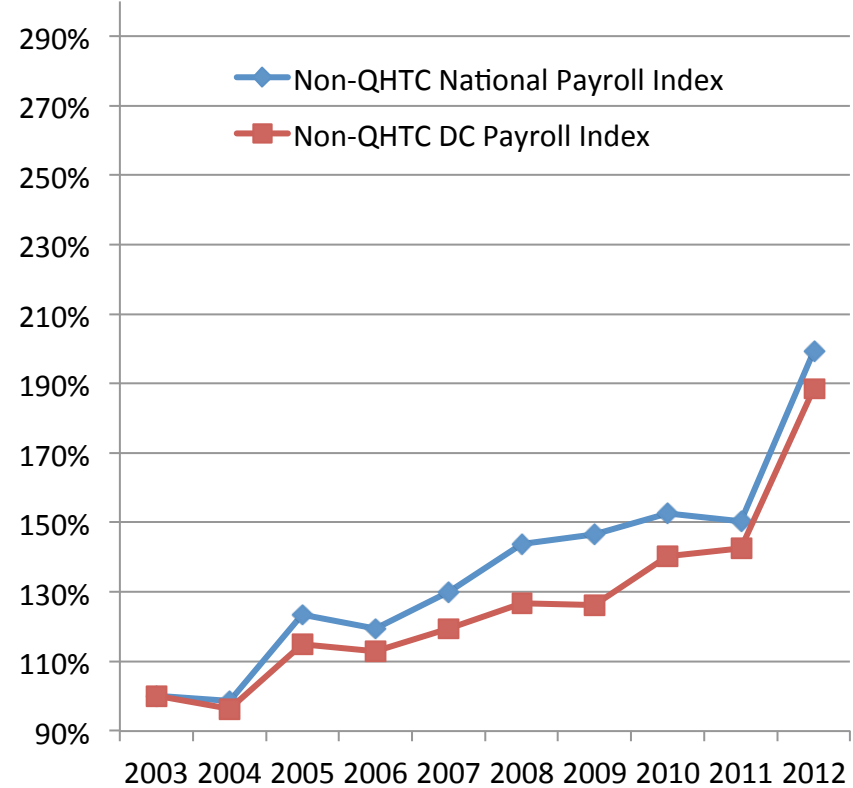
- Data on QHTC status only available starting 2003
- For companies that are certified QHTCs in 2003, 16 companies had received QHTC certification continuously from 2003 through 2012.
- For comparison purposes, we selected 405 non-QHTC companies (control group) that have continuously filed franchise taxes during the same period and of similar size and tax liabilities
- Using equally weighted payroll index to measure the payroll performance

# QHTC vs. Non-QHTC Payrolls

## QHTC Payrolls 2003-2012

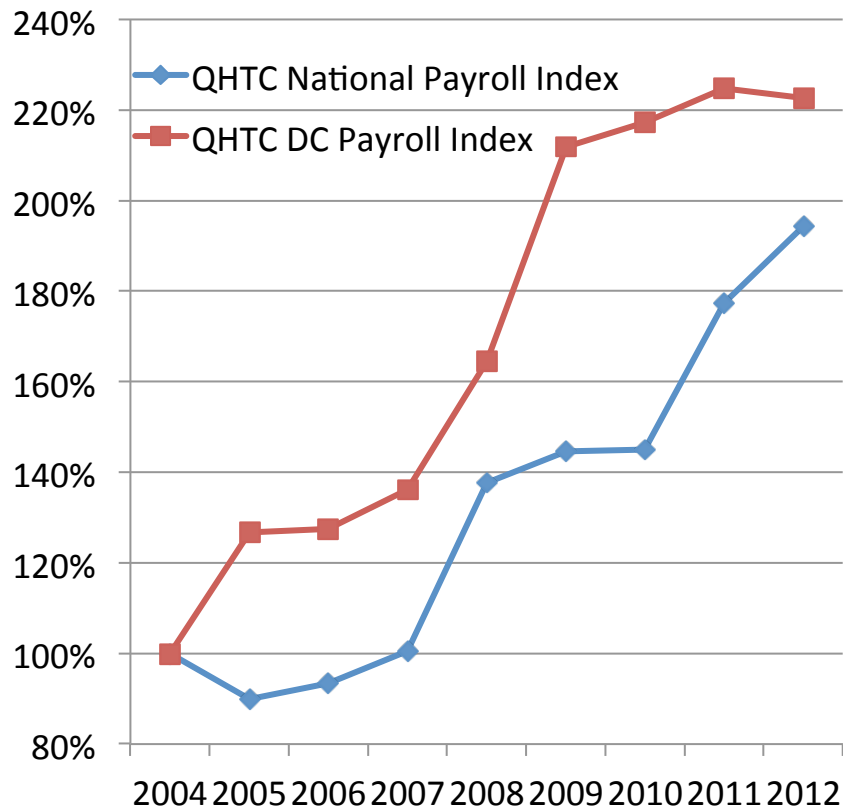


## Non-QHTC Payrolls 2003-2012

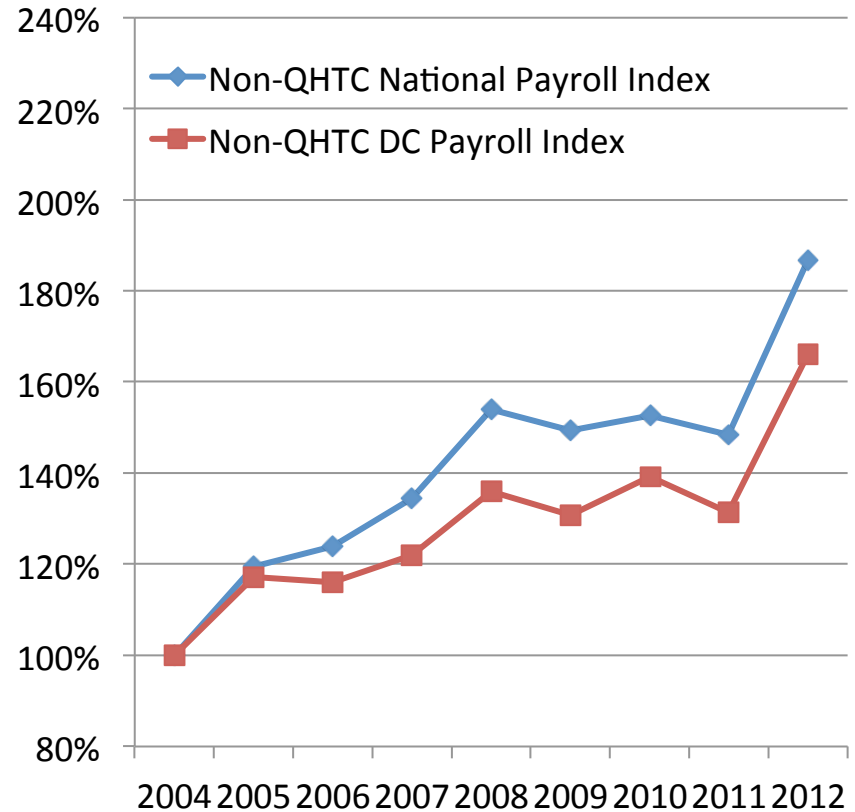


# QHTC vs. Non-QHTC Payrolls

## QHTC Payrolls 2004-2012



## Non-QHTC Payrolls 2004-2012





# Panel data regression Results

## Equation 1:

$$Payroll\_DC_{it} = \alpha_1 + \alpha_2 Year_t * QHTC_{it} + \alpha_3 Payroll_{N_{it}} + \alpha_4 DC_{JOBS} + u_{it}$$

- where  $i=1, 2, \dots, 421$  denotes company  $i$  and  $t=2003, 2004, \dots, 2012$  denotes tax years.  $\alpha_1$  is the intercept,  $\alpha_2$  is the slope coefficient for the interaction term of Tax Year and QHTC Dummy.  $\alpha_3$  is the coefficient for the corporation's national payroll  $Payroll_N$ ,  $\alpha_4$  is the coefficient for  $DC_{JOBS}$  and
- $u_{it} = \alpha_i + \varepsilon_{it}$
- where the  $\alpha_i$  s ( $i=1, 2, \dots, 421$ ) are nonrandom parameters to be estimated and  $\varepsilon_{it} \sim iid(0,$

# Panel Data and Regression Results

## Equation 2

$$\text{Income\_DC}_{it} = \alpha_1 + \alpha_2 \text{Year}_t * \text{QHTC}_{it} + \alpha_3 \text{Income\_N}_{it} + \mathbf{u}_{it}$$

where  $i=1, 2, \dots, 421$  denotes company  $i$  and  $t=2003, 2004, \dots, 2012$  denotes tax years.  $\alpha_1$  is the intercept  $\alpha_2$  is the slope coefficient for the interaction term of Tax Year and QHTC Dummy.

$\alpha_3$  is the coefficient for the corporation's national payroll  $\text{Payroll}_N$ , and

$$\mathbf{u}_{it} = \alpha_i + \varepsilon_{it}$$

# Descriptive Statistics

Variable	Label	Mean	Std Dev	Minimum	Maximum	N
<i>Income_N</i>	Net National Taxable Income	\$51,526,592	\$462,656,095	-\$19,404,580,361	\$6,709,573,246	4,210
<i>Income_DC</i>	DC Taxable Income	\$770,831	\$9,500,581	-\$15,093,225	\$605,090,106	4,210
<i>Payroll_N</i>	Log National Payroll	\$14	\$7	-\$12	\$23	4,210
<i>Payroll_DC</i>	Log DC Payroll	\$9	\$10	-\$12	\$19	4,210
<i>QHTC_Credit</i>	Log QHTC Credit Amount	-\$11	\$3	-\$12	\$14	4,210
<i>QHTC</i>	QHTC Indicator, =1 if QHTC, =0 if not	\$0	\$0	\$0	\$1	4,210
<i>DC_JOBS</i>	Log Total DC Employment	\$13	\$0	\$13	\$14	4,210
<i>CORP_Tax</i>	Log Total DC Corporate Franchise Tax Receipts	\$12	\$0	\$12	\$13	4,210

# Estimation of Coefficients

Equation 1, 2003-2012

Dependent Variable : *Payroll\_DC*

Variable	Label	Estimate	Standard Error	t Value	Pr >  t	Significance
Intercept	Intercept	-652.977	254.5	-2.57	0.0103	95%
<i>Payroll_N</i>	Log National Payroll	0.906337	0.0127	71.40	<.0001	99%
<i>DC_JOBS</i>	Log Total DC Employment	23.0574	15.0979	-1.53	0.1268	-
<i>Year</i>	Time Trend	0.235917	0.1569	1.50	0.1329	-
<i>Year*QHTC=1</i>	Time Trend for QHTCs	0.472954	0.1928	2.45	0.0142	95%

# Estimation of Coefficients

Equation 2, 2003-2012

Dependent Variable: *Income\_DC*

Variable	Label	Estimate	Standard Error	t Value	Pr >  t	Significance
Intercept	Intercept	-5.574E8	4.7172E8	-1.18	0.2374	-
<i>Income_N</i>	Net National Taxable Income	0.004344	0.000426	10.20	<.0001	99%
<i>CORP_Tax</i>	Log DC Corporate Franchise Tax Receipts	-6.11834	4.4428	-1.38	0.1685	-
<i>Year</i>	Time Trend	140686.2	69930.9	2.01	0.0443	95%
<i>Year*QHTC=1</i>	Time Trend for QHTCs	278502.6	235073	1.18	0.2362	-

# Estimation of Coefficients

Equation 1, 2004-2012

Dependent Variable: *Payroll\_DC*

Variable	Label	Estimate	Standard Error	t Value	Pr >  t	Significance
Intercept	Intercept	-905.96	244.7	-3.7	0.0002	99%
<i>Payroll_N</i>	Log National Payroll	0.892923	0.0135	66.38	<.0001	99%
<i>DC_JOBS</i>	Log Total DC Employment	-33.1873	14.2297	-2.33	0.0197	95%
<i>Year</i>	Time Trend	0.300268	0.1475	2.04	0.0418	95%
<i>Year*QHTC=1</i>	Time Trend for QHTCs	0.671202	0.1827	3.67	0.0002	99%

# Estimation of Coefficients

Equation 2, 2004-2012

Dependent Variable: *Income\_DC*

Variable	Label	Estimate	Standard Error	t Value	Pr >  t	Significance
Intercept	Intercept	-3.41E+08	4.70E+08	-0.72	0.4687	-
<i>Income_N</i>	Net National Taxable Income	0.003686	0.000385	9.57	<.0001	99%
<i>CORP_Tax</i>	Log DC Corporate Franchise Tax Receipts	-5.27894	4.4104	-1.2	0.2314	-
<i>Year</i>	Time Trend	138836.4	71489.2	1.94	0.0522	90%
<i>Year*QHTC=1</i>	Time Trend for QHTCs	159393.9	234347	0.68	0.4964	-

# Findings

- ✓ 3% of the QHTC Companies Claimed 60% of the QHTC Credits
- ✓ Shares of DC Based QHTC Companies have significantly Increased Over the Years
- ✓ On Average, Only 32% of QHTC Companies Remain QHTC after 5 Years, and 55% of them File Franchise Taxes after 5 Years.
- ✓ For Those QHTC Companies Stays in DC, Their DC Payrolls Grow Faster Than Their National Payrolls and the QHTC's DC Payrolls also Grow Faster Than the Comparable Non-QHTC Companies' DC Payrolls.
- ✓ Regression Analysis Using Fixed Effects Models Confirms That the QHTC Policy Has a Significant Impact on QHTC Payroll Growth.



# Policy Recommendations

Need Clawback Provision: Certain Percentage of Credit and Incentives Need to Be Paid Back if a QHTC Company Receives Credit/Incentives in One Year and Either

- 1) Is No Longer a QHTC, or
- 2) Is No Longer Doing Business in DC in After a Few Years (i.e. 3 Years)

To Reduce Administrative Cost, the District May Want to Focus on Large Credit Receivers (>\$0.5 million in a Single Year).