Individual Income Tax Nonwithholding in Virginia: Data Analysis and Revenue Forecasting

2007 FTA Revenue Estimating Conference



John R. Layman
Director/Chief Economist
Office of Revenue Forecasting
Virginia Department of Taxation

Fundamentals of Nonwithholding Receipts...

- Nonwithholding receipts are comprised of quarterly estimated payments and a final payment.
 - Estimated payments are due for a taxable year as follows:
 - May 1st, June 15th, September 15th, January 15th
 - Final payments for the prior taxable year are due May 1st.
- Based on the above due dates, a fiscal year is composed of estimated payments for two different tax years.
 - For example, in FY07:
 - Estimated payments for 2006 liability:
 - September 15, 2006, January 15, 2007
 - Estimated payments for 2007 liability:
 - May 1, 2007, June 15, 2007
 - Final payment for 2006 liability:
 - May 1, 2007
- Historically, estimated payments represent about 64% of total nonwithholding payments in a fiscal year, with final payments representing 36%.
 - In FY07, the composition was 58% estimated payments and 42% attributable to final payments.
 - The share is conditional on the strength of financial markets and gains in non-wage income and the extent to which taxpayers adjust payments to reflect changing income prospects.

About 75% of Nonwithholding Receipts Are Received in the Second Half of the Fiscal Year...

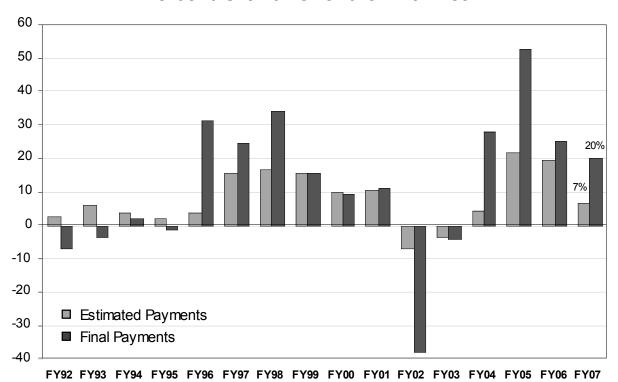
- In Virginia, the fall forecasting process is concluded in December when the Governor presents his proposed budget to the General Assembly.
- The revised revenue forecast incorporates collections data for the first quarter of the fiscal year; however, when it comes to nonwithholding, this provides little information.

Growth in Nonwithholding CollectionsSeptember Year-to-Date and Fiscal Year Total

FY	Jul-Sep	FY Total
1991	(4.1)	(5.7)
1992	2.9	(0.7)
1993	9.1	3.1
1994	6.5	3.2
1995	(3.3)	1.0
1996	3.6	12.1
1997	4.7	18.6
1998	18.9	23.3
1999	16.8	15.8
2000	12.2	9.7
2001	10.9	10.7
2002	(6.8)	(19.2)
2003	(2.7)	(3.9)
2004	1.6	11.4
2005	19.2	32.7
2006	21.8	22.0
2007	5.3	12.2

Nonwithholding Has Become an Increasingly Volatile Revenue Source...

Growth in Estimated and Final Payments, FY92-07 Percent Growth Over the Prior Year

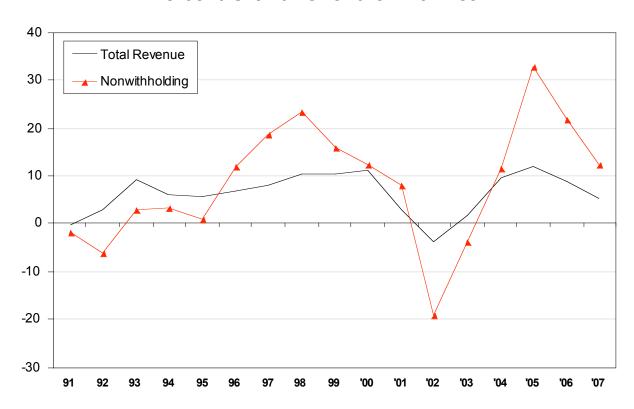


- Total nonwithholding payments increased 12.2 percent in FY07, the fourth consecutive year of double-digit growth.
 - Average annual growth over the last four years is 19.6 percent, the strongest on record.
- Since FY92, the average annual increase in nonwithholding is 9.5%. Taken together with a standard deviation of 12.4%, the coefficient of variation is 1.3.
 - This makes nonwithholding the 3rd most volatile revenue source in the Commonwealth.

Total General Fund Revenues Have Become More Volatile as the Relative Share of Nonwithholding Has Increased...

- The increased significance of individual nonwithholding has introduced additional variability into total revenue collections.
 - Since FY00, nonwithholding has represented about 15% of total revenues compared with the historical average of 13%.
 - Nonwithholding represented about 19% of total revenues in FY07.

Volatility in Total Revenues, FY91-07 Percent Growth Over the Prior Year



Large Individual Payments Reflect Capital Gains and Substantial Non-wage Income...

Large Individual Payments

	Number of Payments	Total \$ Amt of Payments*
FY00	832	\$266.2
FY01	885	\$270.9
FY02	639	\$168.8
FY03	617	\$177.5
FY04	864	\$242.3
FY05	1,320	\$394.8
FY06	1,749	\$523.1
FY07	1,929	\$638.5

^{*} Millions of

• Of the 1,481 taxpayers making a payment over \$100,000 this year, only 365 made a large payment last year, and only 205 made a large payment in each of the last 3 years.

Large Individual Payments April - May

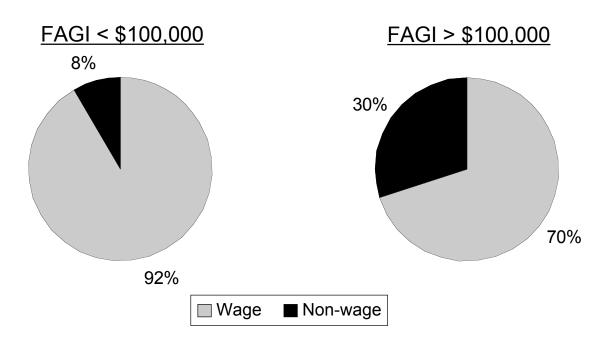
	Number of Payments	Total \$ Amt of Payments*
FY00	299	\$84.0
FY01	174	\$53.1
FY02	205	\$51.1
FY03	195	\$56.4
FY04	343	\$93.6
FY05	596	\$163.1
FY06	876	\$274.3
FY07	930	\$330.8

^{*} Millions of

Of the 928 taxpayers making a large payment in April or May this year, only 156 made a large payment last year, and only 65 made a large payment in each of the last 3 years.

Non-wage Income Represents A Significant Portion of Total FAGI for Upper Income Groups...

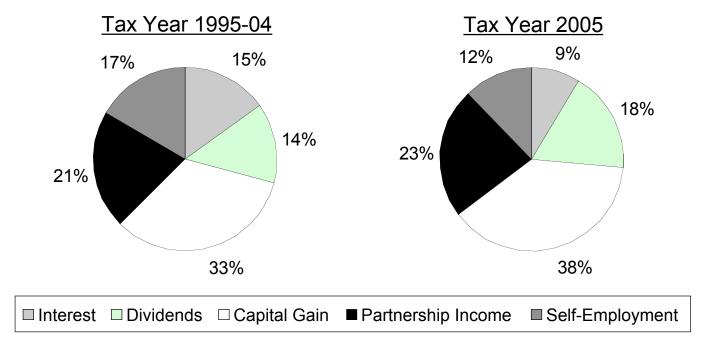
Tax Year 2005



- The relative share of wage and non-wage income has a significant impact on FAGI growth prospects.
 - From TY96 to TY05, non-wage income, adjusted for inflation, increased an annual average of 8.7%.
 - For the same time period, wage income increased an annual average of 3.7%.
- From TY03 to TY05, non-wage income for the upper two FAGI groups increased 48%, driven by strong growth in financial markets and reduced tax rates.
 - For the same period, real wages for the lower two FAGI groups declined about 3%.

Components of Non-wage Income...

 Nonwithholding sources of income include business income, interest income, dividends, capital gains realizations, and self-employment income.



- Non-wage income represented 19% of total FAGI in tax year 2005.
 - This was up substantially from the 15% share averaged from TY01 to TY04 and nearly equal to the all-time high of 20% reached in TY99 and TY00.
- In TY05, 78% of total non-wage income was held by individuals reporting FAGI of \$100,000 or greater.
 - Individuals with FAGI greater than \$500,000 represented 43% of total non-wage income.

Modeling Virginia Nonwithholding Payments...

- The revenue model for nonwithholding considers the two payment types independently.
 - Estimated payments are modeled as a function of nonwage income and the S&P 500 index.
 - EP = f(S&P 500, total proprietor's income, dividends, interest, and rental income)
 - Quarterly model utilizing a year-over-year difference to control for seasonality in payment patterns and nonstationary trends.
 - Final payments are driven solely by growth in the S&P 500 index.
 - FP = f(S&P 500)
 - Annual model utilizing annual percent change (loglog specification) to estimate the historical elasticity.
 - The forecast for the current year is anchored to year-to-date growth in the index.
- The nonwithholding model was very accurate in fiscal year 2007.
 - Estimated payments were predicted to increase 4.9% for the year actual growth was 6.8%.
 - Final payments were predicted to increase 17.8% actual growth was 20.0%.
 - Overall, total nonwithholding receipts exceeded the annual estimate by about \$50 million (1.9%), with the surplus split evenly between the two components.