

Electronic Income Tax Filing:

Can Early Returns Take the Surprise Out of April?

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Conference
October 7-9, 2013

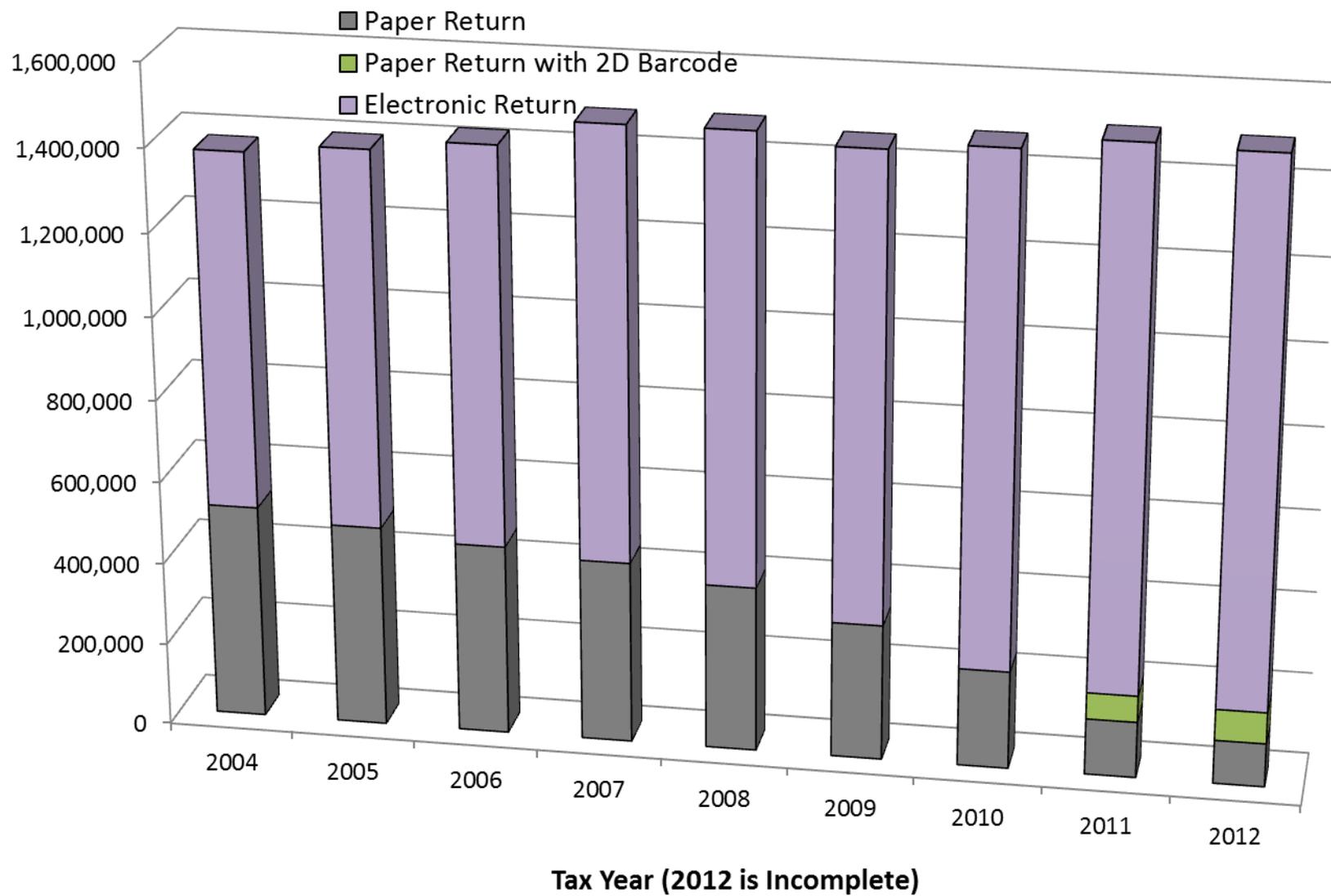
Topic on Back Burner

- Always looking for ways to improve revenue forecasts
- Wealth of data in electronic returns
- Desire to analyze value of early return information, no time
- Sign up to present – in theory moved to front burner
- In reality – still only scratched the surface

Electronic Filing in Iowa

- Started tax year 1994
 - 43,000 returns
 - 3.3% of all current year returns
- Tax year 2012
 - 1.3 million returns
 - 87.8% of all current year returns

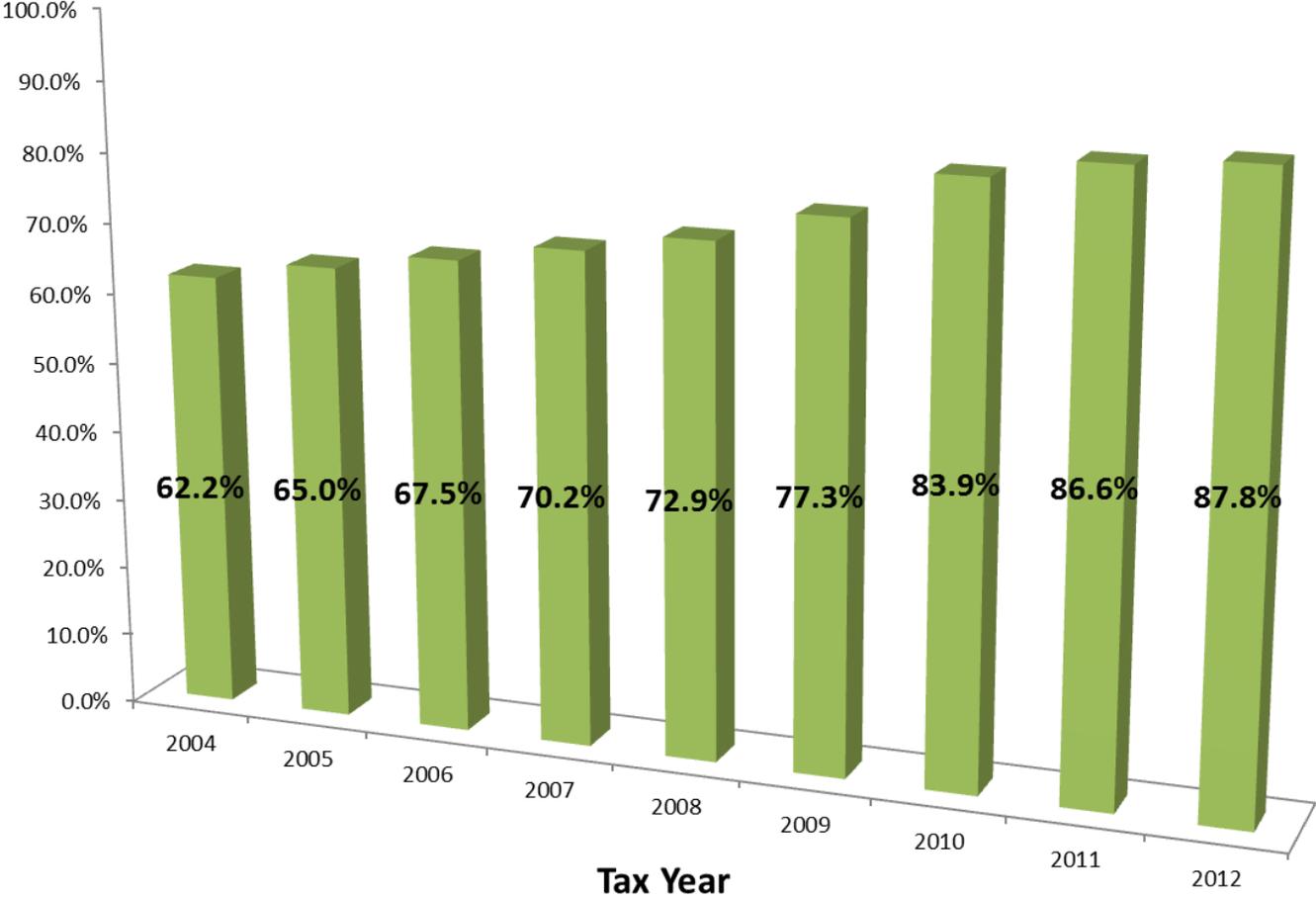
Figure 1. Iowa Individual Income Tax Returns by Filing Method



Electronic Filing Across States

- FTA numbers for 2013 filing season
 - Share through August range 94% to 62%
 - Iowa ranks 12th
 - Iowa ranks 2nd highest of non-mandate states

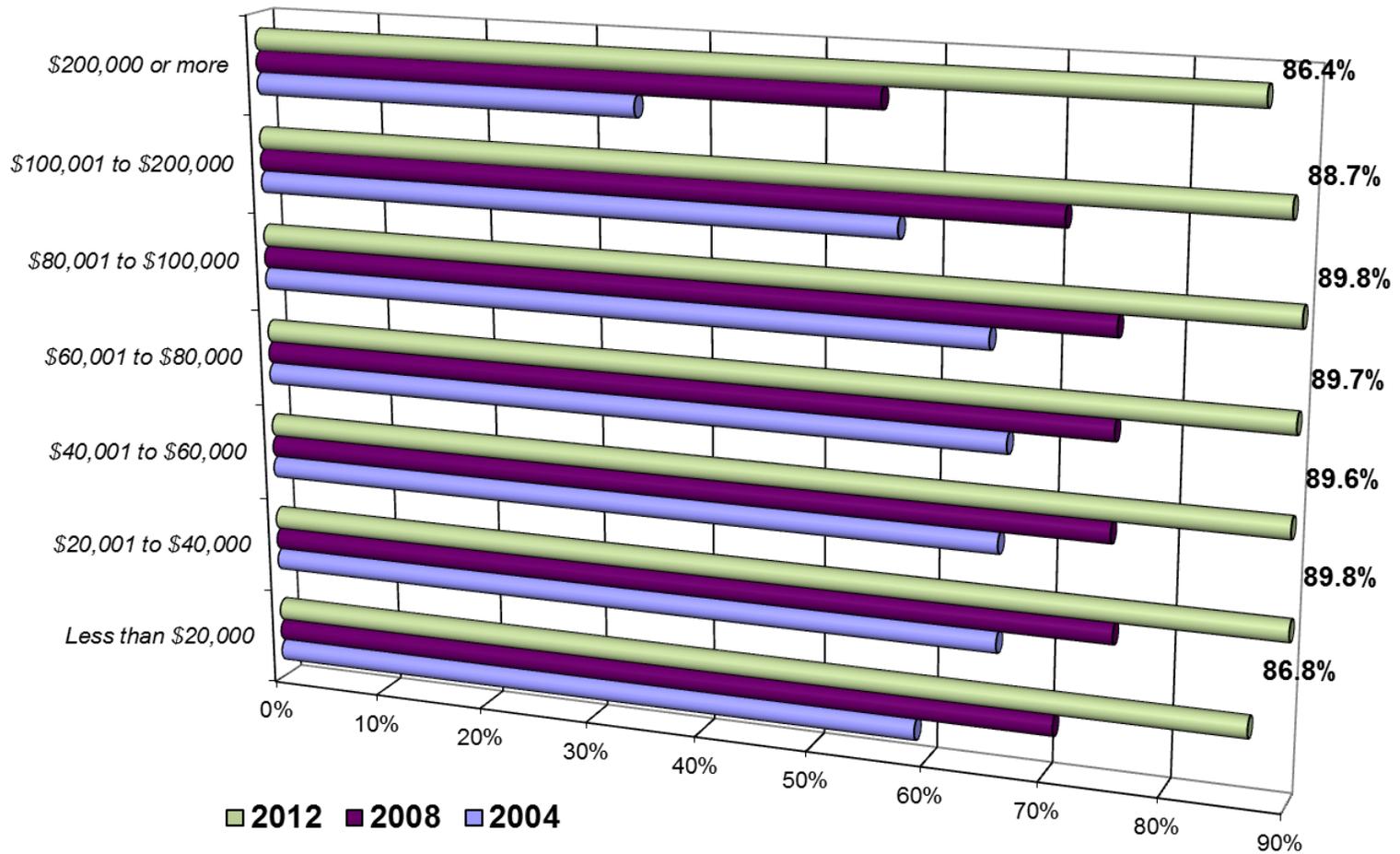
Figure 2. Share of Iowa Individual Income Returns Filed Electronically



Distribution of Electronic Filers

- In 2004, 62.2% filed electronically
 - Not representative at the tails
 - 59.0% below \$20,000 in AGI
 - 34.6% above \$200,000 in AGI
- In 2012, 87.8% filed electronically
 - 86.8% below \$20,000 in AGI
 - 86.4% above \$200,000 in AGI

Figure 3. Share Filing Electronically by Income Group



Electronic Representative

- Data suggests that income distribution of electronic filers is no longer different from paper filers
- Switch base file for micro model from lagged federal data to current electronic returns
 - Impute missing data for paper filers not matched to early federal file

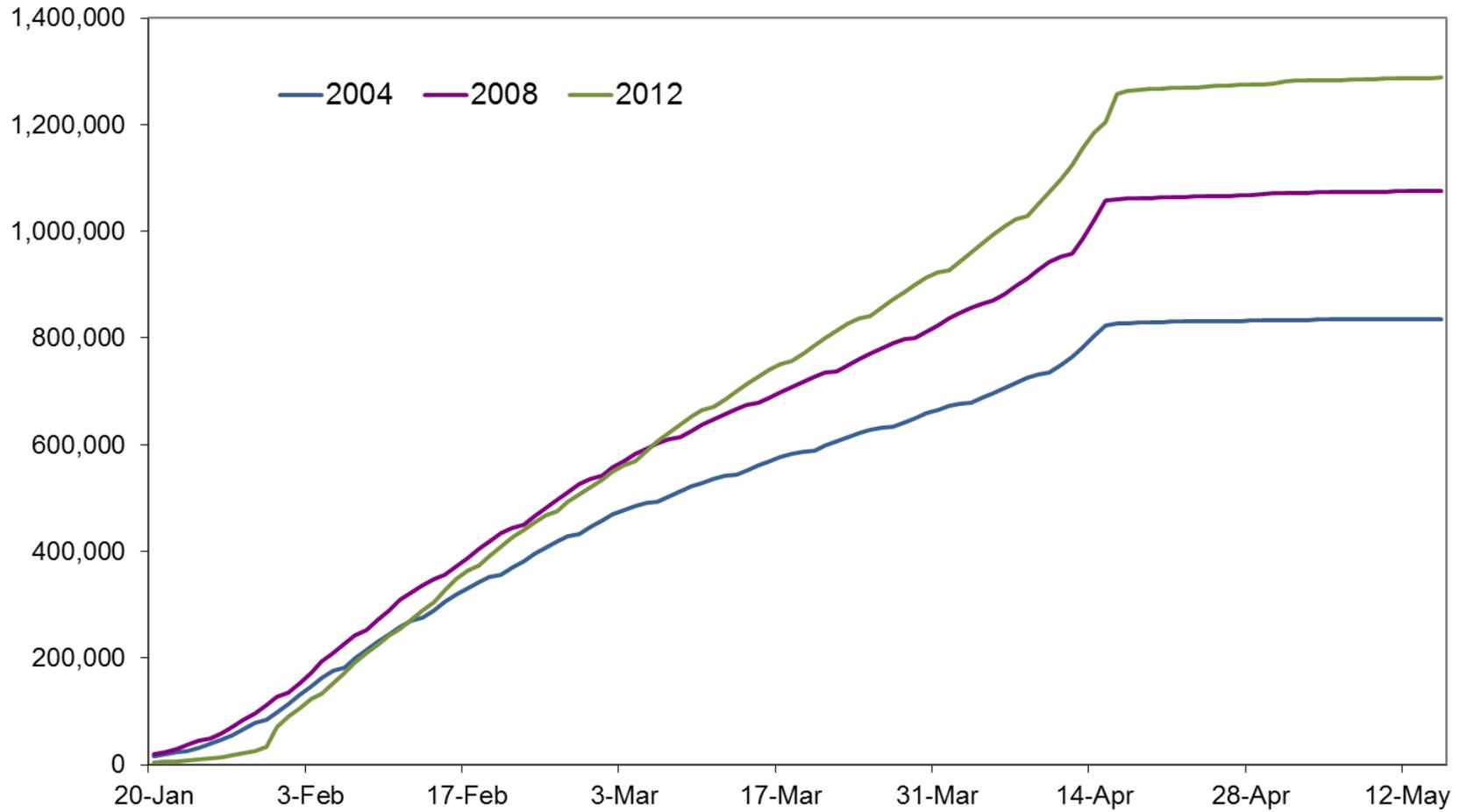
Forecasting with Electronic

- Can early electronic returns (Jan-Feb) forecast total refunds and final payments (March-April)?

Iowa Filing Patterns

- Opening follows IRS
 - Delayed in 2010 and 2012
- Iowa due date – April 30
 - Filers peak with April 15 federal due date
- Farm due date – March 1
 - No estimate payments if return filed and 100% paid
 - 2012 delay to April 15

Figure 4. Daily Cumulative Count of Electronic Returns



Revenue Estimating Conference

- Three member group responsible for the official forecast receipts and refunds for current and next fiscal year
 - October
 - Preliminary numbers accounting for law changes
 - December
 - Baseline for Governor's budget
 - Legislature limited to budget 99% of next FY
 - Early March
 - Reduction in forecast requires reduction in budgeting
 - Increase in forecast should have no change in budgeting
- Legislature approves next FY budget in late April

Problems with April Surprise

- Large unexpected increase in refunds in April could result in revenue shortfall while budget is in final stages
- Leaves legislature and Governor little time to adjust
- Reduces confidence in Department's forecasting skills

Current Forecast Method

- Regression on Annual Historic Data
 - $\text{Returns} = f(\text{trend, WH, Est, 1-year rate, tax cut indicator, farm income, Fiscal Cliff dummy})$
 - $\text{Refunds} = f(\text{WH, Est, Returns, 10-yr rate, wages})$
- In March – no current processing year data included in regression estimation
- Adjust forecast for actual deposits/claims paid in January and February

Electronic Return Data

- For last five years, track income growth and refunds for electronic filers to share with REC
 - To remove bias from growing number of filers, compare same filers in prior and current year
 - Check on weekly basis to watch for changes

Did Early Returns Reveal Final Growth?

o March 14

AGI in TY 2012	Count of Returns	% Change in Wages	% Change in Capital Gains	% Change in Farm Income	% Change in Adjusted Gross Income	% Change in Refunds
\$20,001 to 30,000	89,146	8.51%	-58.83%	-52.92%	5.76%	1.26%
\$50,001 to 60,000	10,775	4.97%	55.09%	63.91%	8.28%	0.35%
\$100,001 to 125,000	22,704	5.17%	-16.05%	61.05%	5.91%	-3.42%
\$250,001 or more	2,452	13.67%	606.86%	81.90%	37.23%	22.31%
Total	579,646	5.29%	20.99%	53.99%	5.62%	-0.05%

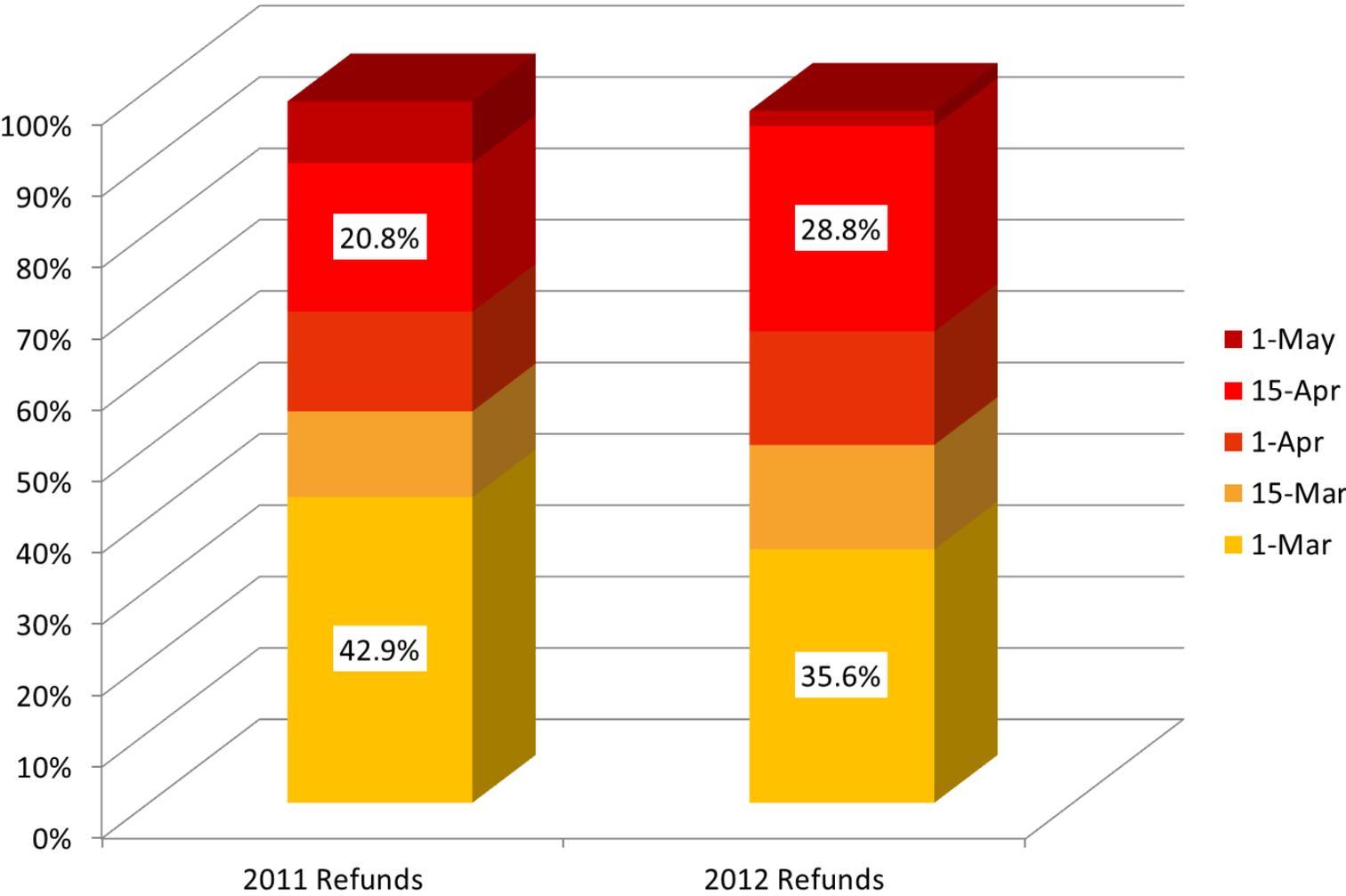
o May 12

AGI in TY 2012	Count of Returns	% Change in Wages	% Change in Capital Gains	% Change in Farm Income	% Change in Adjusted Gross Income	% Change in Refunds
\$20,001 to 30,000	133,142	6.50%	-44.98%	-32.27%	2.40%	2.25%
\$50,001 to 60,000	71,490	3.85%	-15.49%	39.66%	3.80%	-3.05%
\$100,001 to 125,000	53,955	4.18%	16.32%	58.20%	6.95%	-3.34%
\$250,001 or more	16,826	11.44%	320.90%	108.76%	37.19%	0.58%
Total	1,006,976	4.44%	82.67%	69.37%	8.33%	-1.49%

Electronic Filers: Refund/Pay?

- Tax year 2012 refunds:
 - 89% of refund returns
 - 89% of total refunds dollars
- Electronic filers more likely to claim a refund
 - Speed of Department turnaround desirable
- Tax year 2012 final returns pays:
 - 87% of pay returns
 - 86% of total final return payments

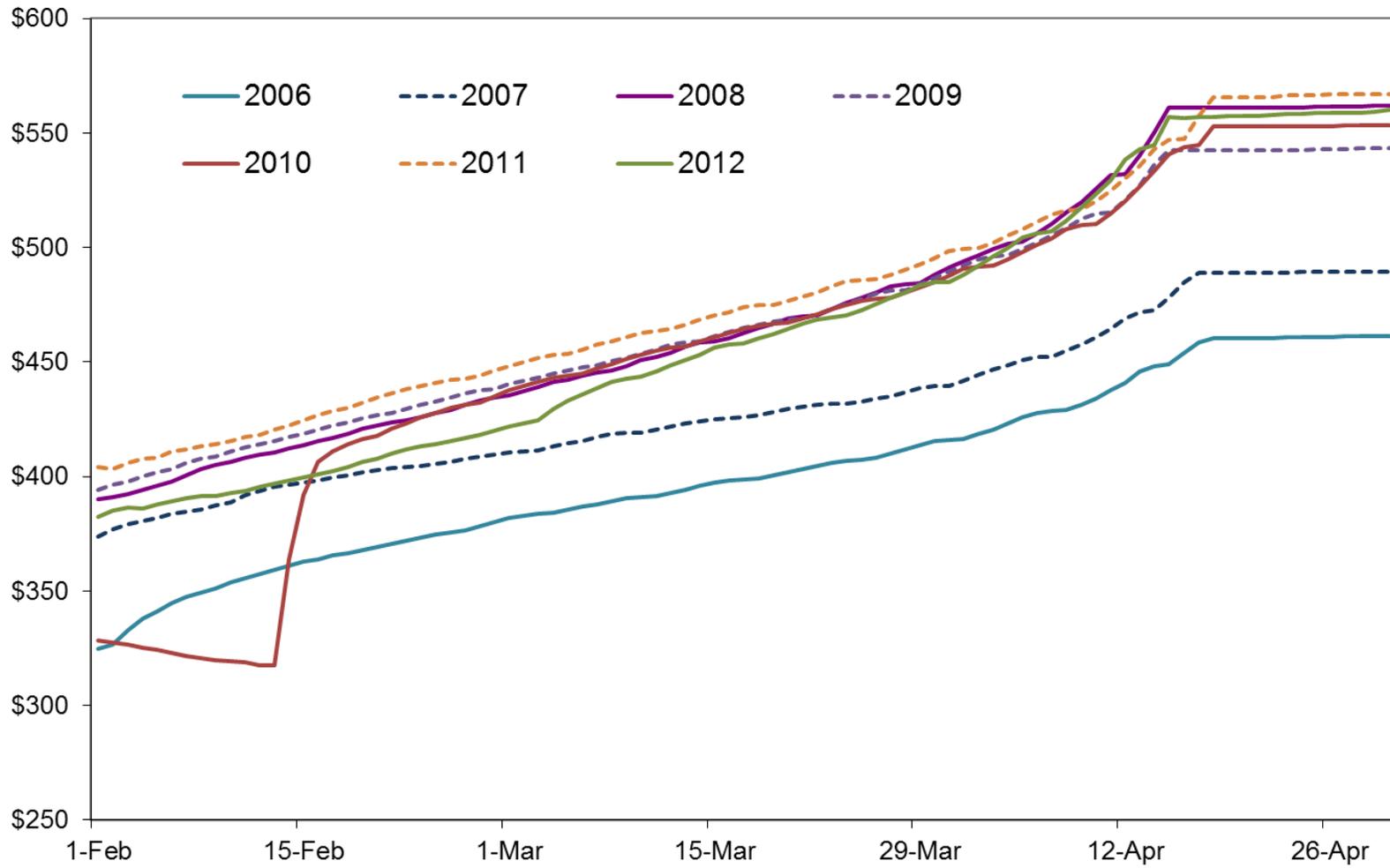
Figure 5. Timing of Refunds Claimed on Electronic Returns



Refund Claims

- 35-40% of refunds claimed by March 1
 - Warrants usually mailed within days
- 2012 – late start to filing season with “fiscal cliff” in D.C. slowed claims
- What information can be gleaned from early returns?

Figure 6. Daily Cumulative Average Refund on Electronic Returns



Average Refund Growth

- Between March 1 and April 30 – 25.4% is average over last 7 years
- One large tax credit refund pushed up 2012 growth by nearly 2% points

Tax Year	Refunds
2006	20.8%
2007	19.2%
2008	29.1%
2009	23.4%
2010	26.5%
2011	26.0%
2012	32.8%

Figure 7. Refund Summary Statistics by Date of Filing, TY 2012

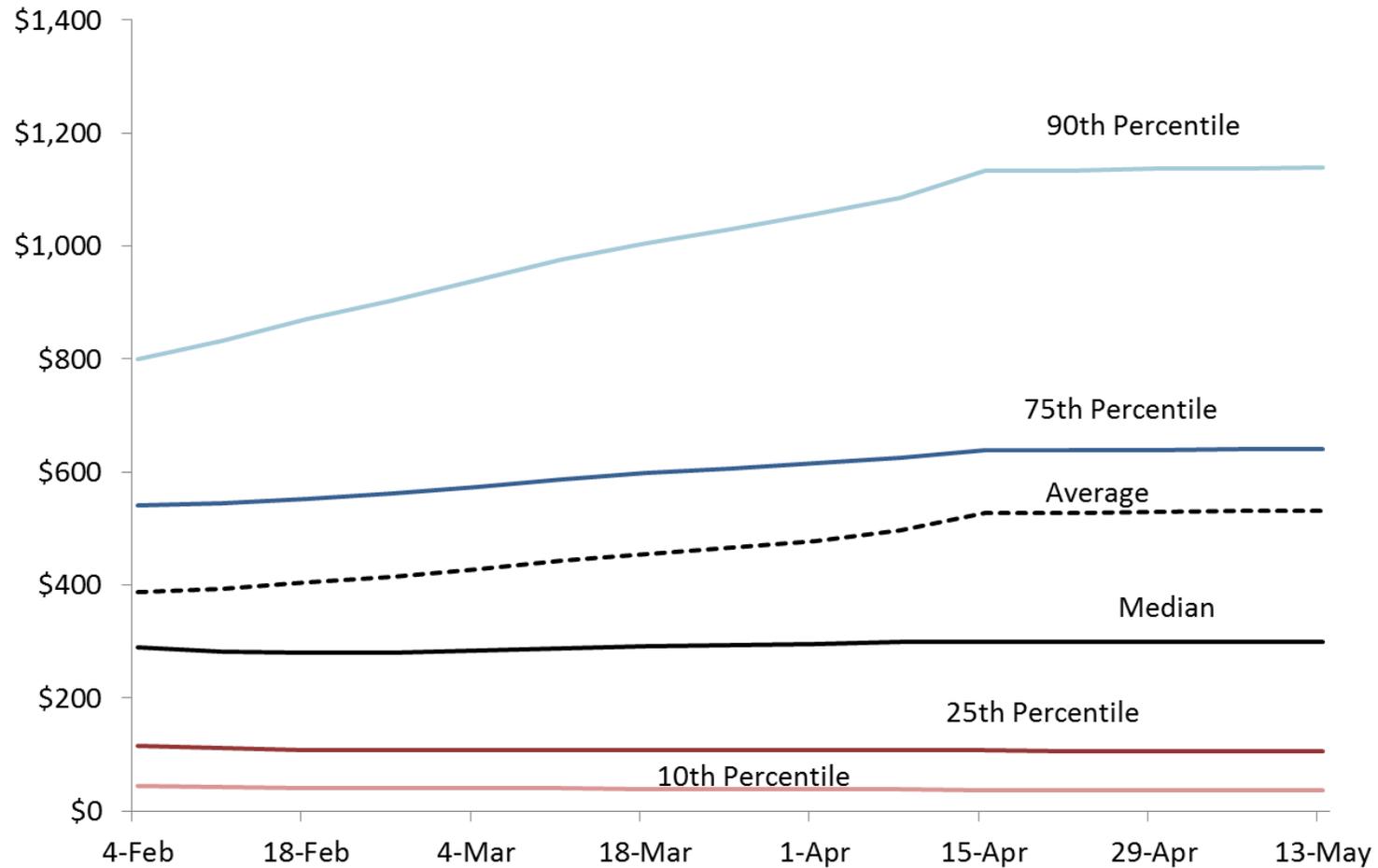
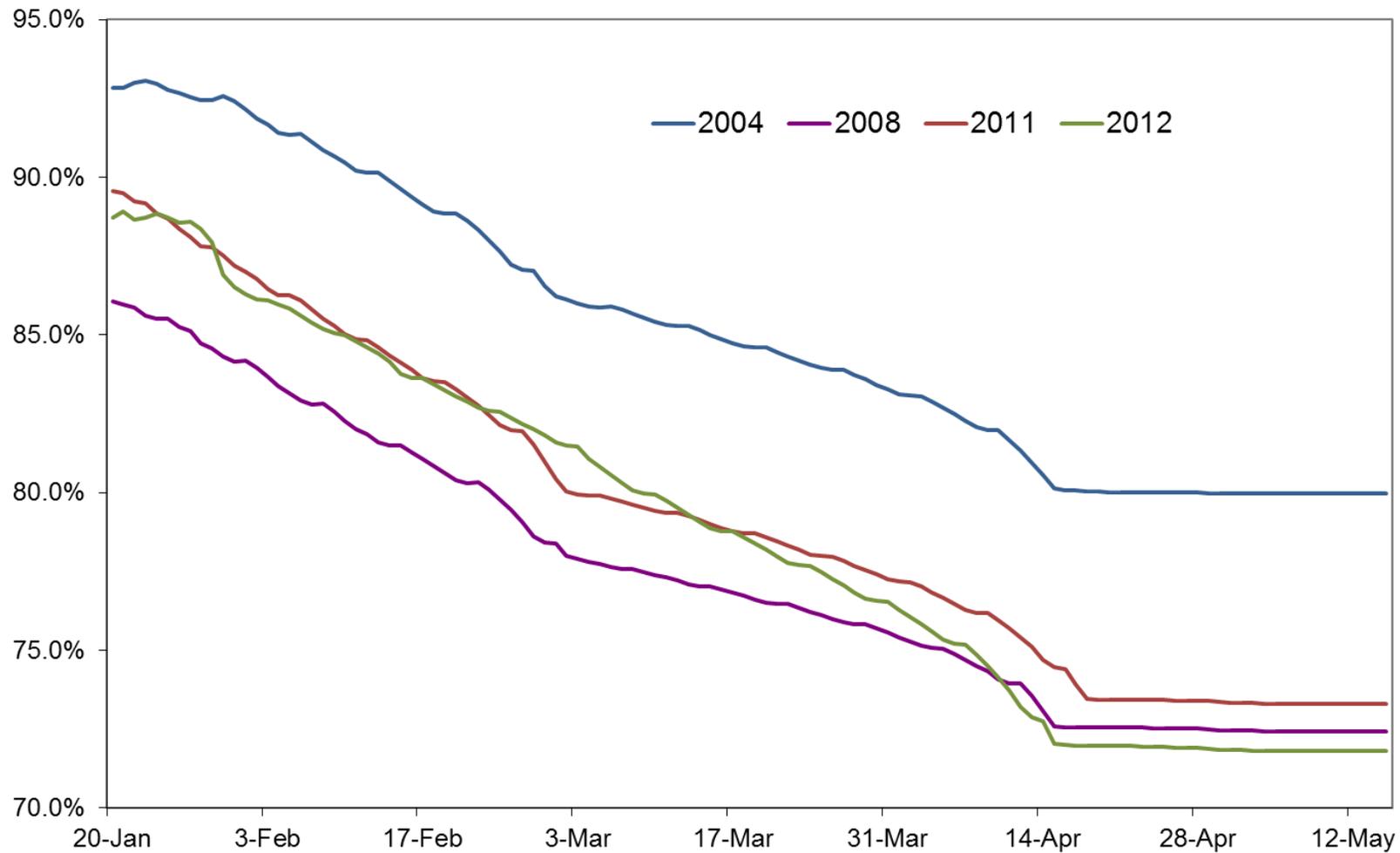


Figure 8. Daily Cumulative Share Filing Refund Claim



Potential Refunds Forecast Using Electronic Returns

- Average refund
 - \$422 – 3/1/2013
- Pattern of growth
 - 26.76% - 3/1/2012 to 5/15/202
- Share claiming refund
 - 81.60% - 3/1/2013
- Pattern share change
 - -8.85% - 3/1/2013 to 5/15/2013

Tax Year 2012 Test

- March 1, 2013 – forecast for FY 2013
- Estimated total refunds through June 30 =
2012 Average Refund*2011 Growth*2011
Total Return Count Through June 30*2012
Share Refunds*2011 Share Change
 \$511.7 million
- \$535.0 million actual 2013 processing year
through June 30 – 4.6% higher

Pays – Receipts Harder

- Final return payments reported does not mean money received
 - E-pay allows for separate payment date
- Early receipts provide less information than filed returns

Figure 9. Timing of Final Return Payments Reported on Electronic Returns

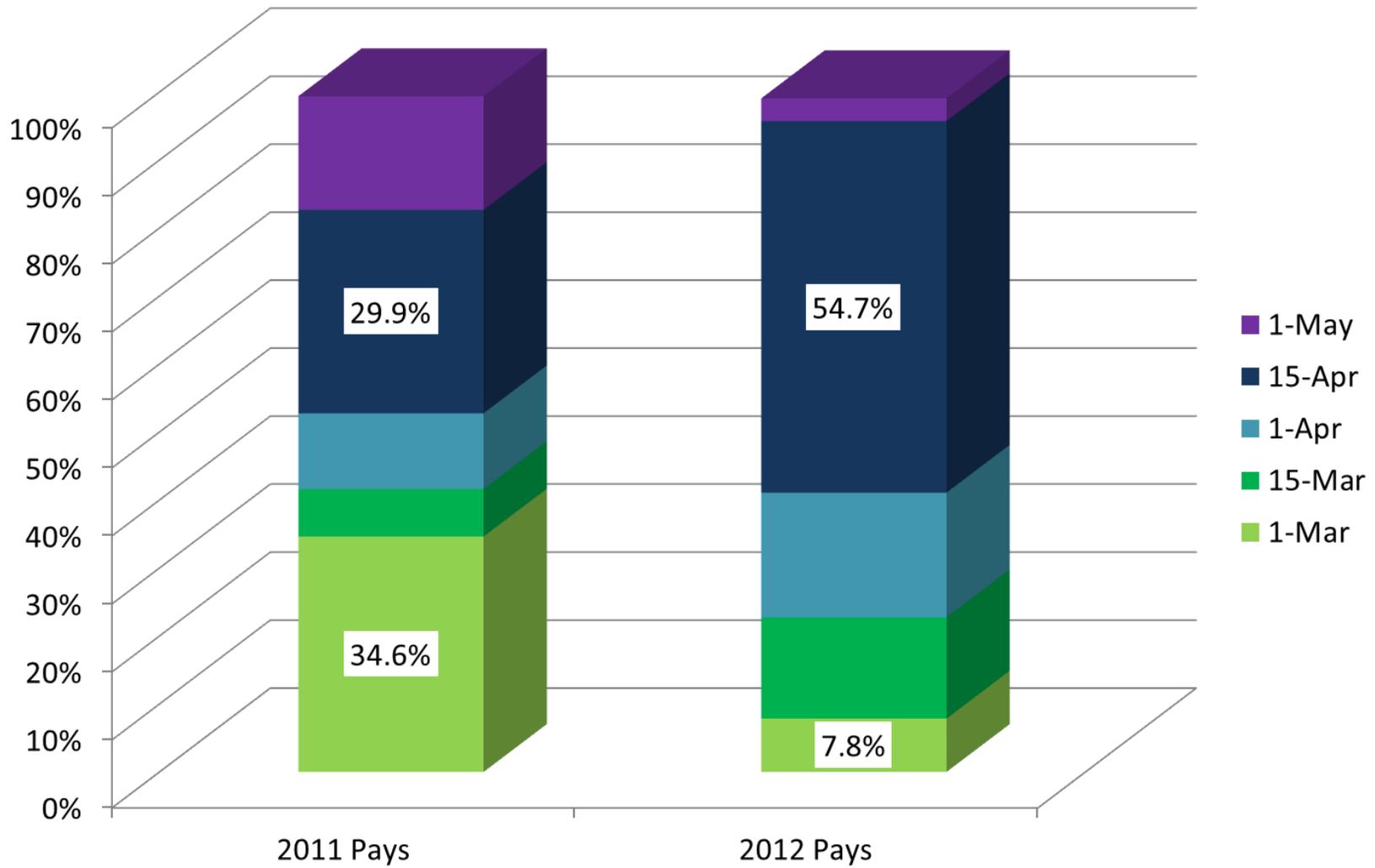
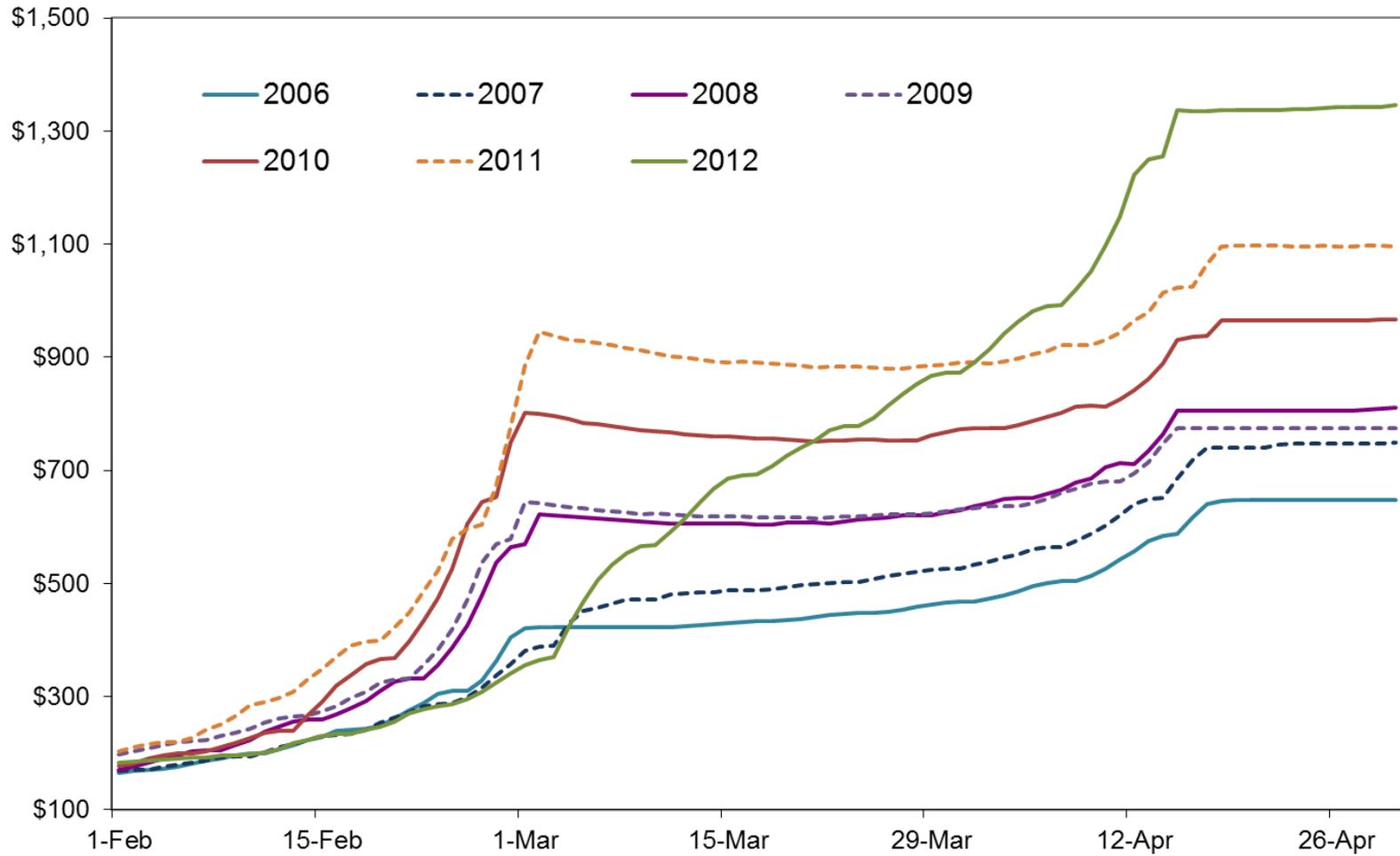


Figure 10. Daily Cumulative Average Final Pay on Electronic Returns



Average Pay Growth

- Between March 1 and April 30 – 41.0% is average over 2006-2011
- Delayed farm filing due date for 2012 explains high growth

Tax Year	Pays
2006	53.8%
2007	92.8%
2008	42.4%
2009	20.3%
2010	20.6%
2011	16.3%
2012	278.0%

Two Types of Pay Returns

- Likely need to introduce more data in a forecast of final pays
- Two distinct types of final pay returns
 - Farmers paying entire liability
 - Others meeting liability above estimates

Figure 11. Distribution of Pays for Wage Earners by Date of Electronic Filing

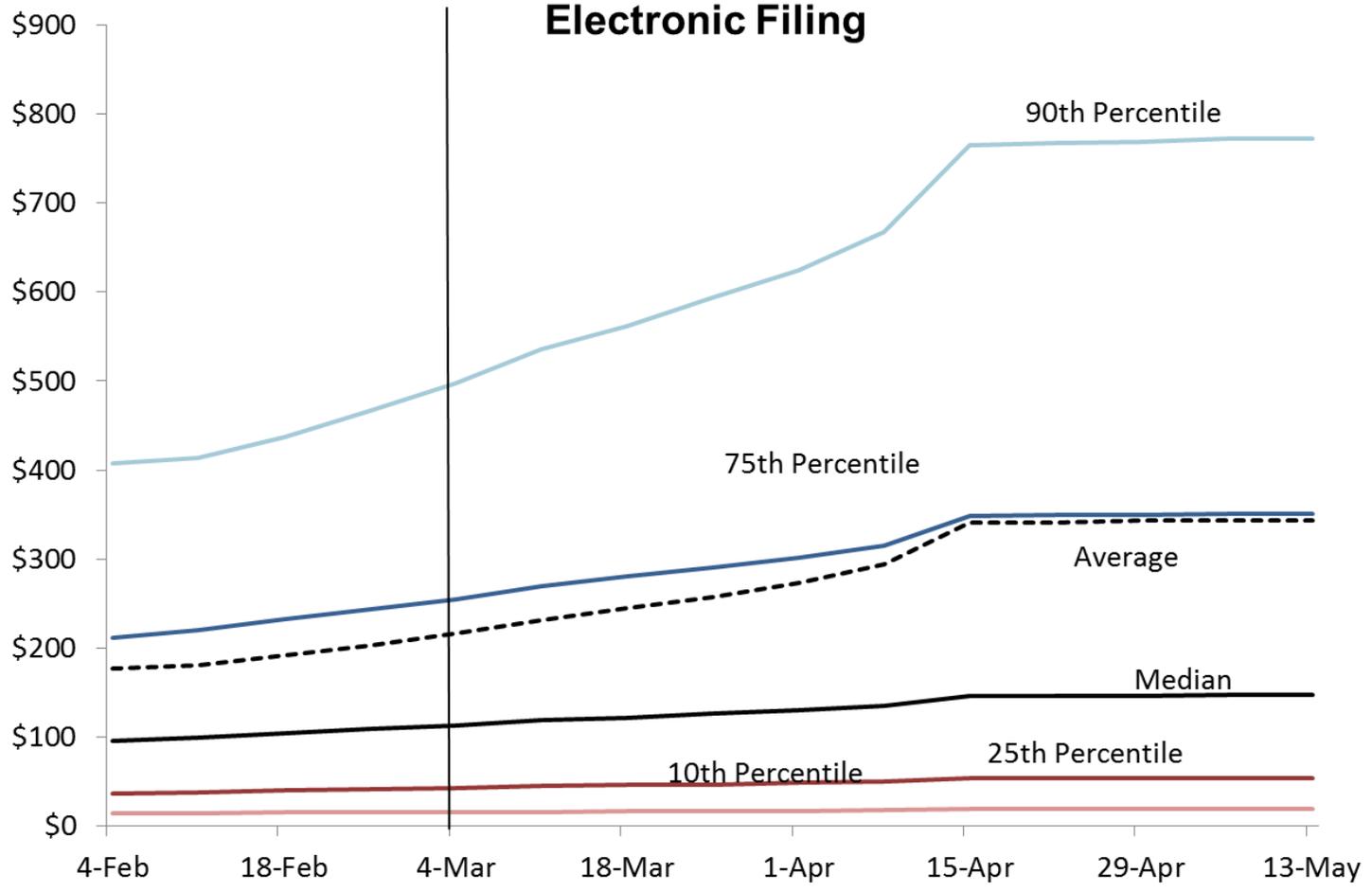


Figure 12. Distribution of Pays Reported on Farm Returns by Date of Electronic Filing

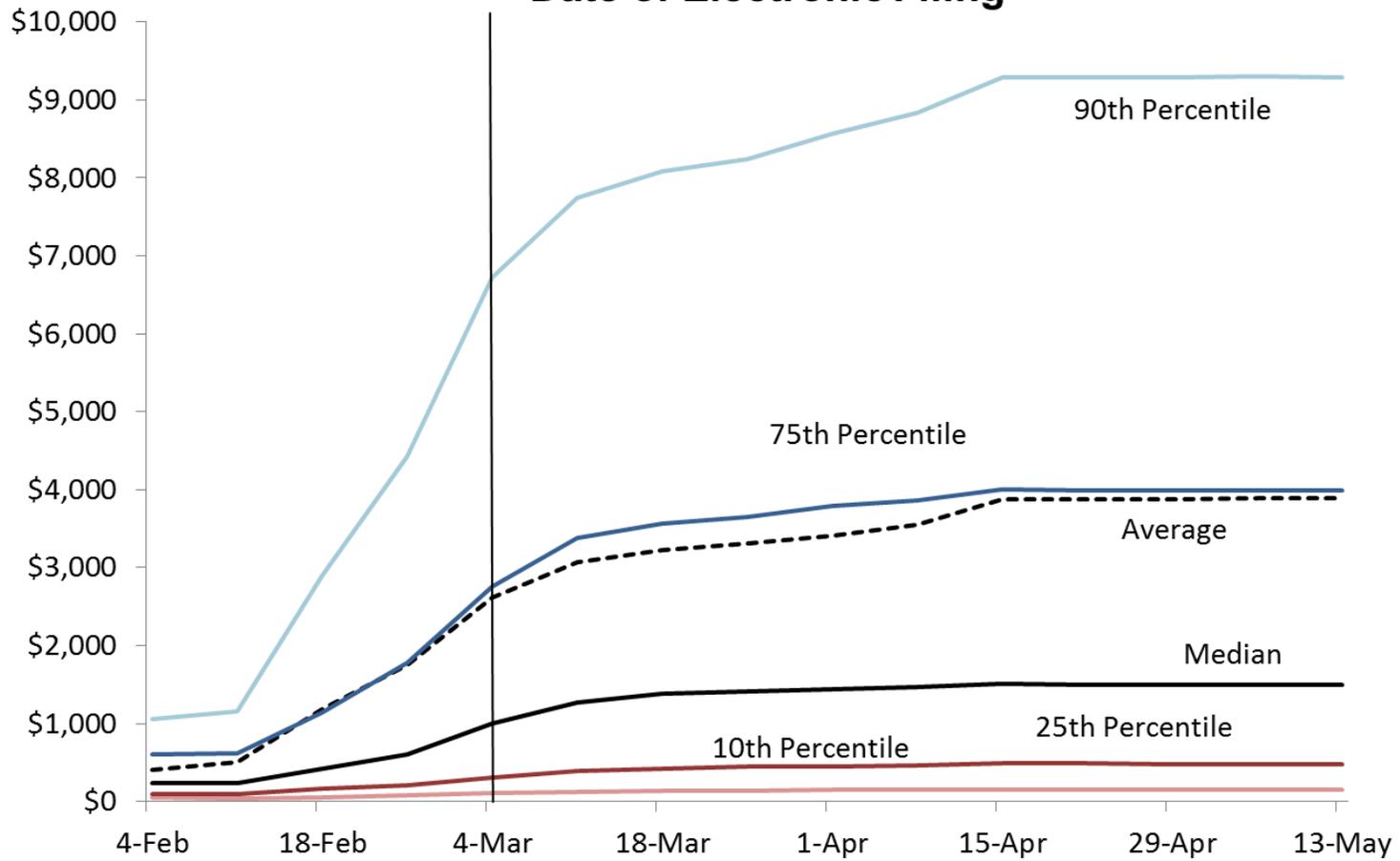
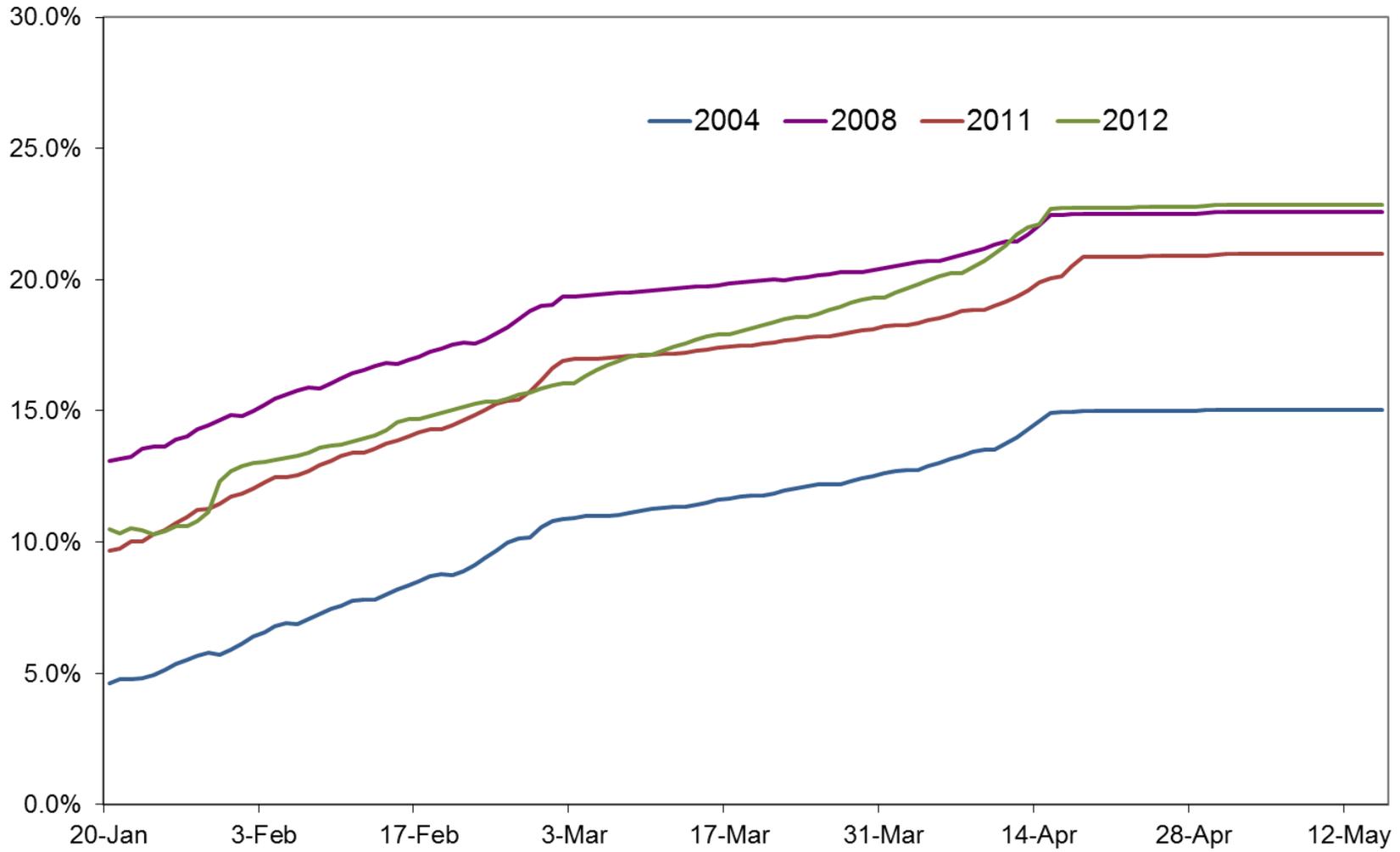


Figure 13. Daily Cumulative Share Reporting a Pay Return



Pays – Test Must Wait

- 2012 – farm return due date extension resulted in atypical patterns
- Test on both pays and refunds for tax year 2013

Can Early Returns Take the Surprise out of April?

- Moved off of back burner for last few weeks, hope to move this into practice next year
- Others use electronic returns to forecast revenues/refunds?
- Looking for other ideas of how the wealth of data can be used to end the surprise...