

# Florida's Revenue Estimating Conference

A Cross-Sectional Multivariate Forecast  
Evaluation

## Why a Multivariate Evaluation?

- State revenue estimates are used in state budgeting.
- More accurate forecasts reduce the likelihood of either having to convene a special session or “leaving money on the table.”
- Single variable forecast evaluation ignores the likely covariance among variables.

## Florida's Estimating Process

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- Florida, like many states, uses a consensus estimating process.
- For General Revenue, estimates are brought for each tax source by the Governor's Office, the Legislature, and the Department of Revenue.
- The principals, 3 from the Legislature and 1 from the Governor's Office, must all agree to have a state forecast.

## Methodology

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- Assumes forecast errors are multivariate normally distributed.
- A vector of forecast errors is created for each joint forecast.
- This vector can be shown to have a Chi-square distribution with degrees of freedom equal to the number of forecast variables.

## Methodology

- The p-value of this vector is the score of the forecast.
- This score represents the likelihood of a forecast being further away from the true value than the forecast under evaluation.
- We evaluated forecasts from November 1996 through March 2004.

## Results

Forecaster	Average Score	Std Dev	Current-Year		Next-Year	
			Average Score	Std Dev	Average Score	Std Dev
EOG	68.3	40.8	95.2	14.51	41.3	41.12
REC	67.4	41.5	94.1	18.49	40.7	41.21
DOR	66.6	41.9	92.6	22.63	40.5	40.84
EDR	64.9	41.9	94.2	16.48	35.5	38.85

## Conclusions

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- There is no statistical difference between the abilities of Florida's revenue forecasters.
- All forecasters are superior to the average forecast for the current year.

## Thank You

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