

2005 Load & Capacity Report Load Forecast

- ↘ Procedure
 - ↘ Energy
 - ↘ Peaks
 - ↘ Regional
- ↘ Assumptions
- ↘ 2005 vs. 2004 L&C Forecasts and Misc.

Draft – for discussion purposes only

2005 Load & Capacity Report Load Forecast

- Statewide Energy Forecast
 - Model estimated for 1975 – 2004
 - Log/Log Form
 - Variables
 - (Health + Education)Employment Share (Elasticity = 0.34)
 - Manufacturing Employment Share (0.18)
 - Real Residential Electricity Price (-0.086)
 - Real Total Income (0.45)
 - Heating and Cooling Degree Days

2005 Load & Capacity Report Load Forecast

➤ Statewide Summer Peak Forecast

- Log/Log Form
- Model estimated for 1975 – 2004
- Variables
 - Annual Gwh (Elasticity = 0.59)
 - Households (1.436)
 - Cooling Degree Days
- Starting Point is 2005 ICAP Load Forecast (31,960 MW)

➤ Statewide Winter Peak Forecast

- Model estimated for 1975 – 2004
- Log/Log Form
- Variables
 - Annual Gwh (Elasticity = 0.76)

2005 Load & Capacity Report Load Forecast

Annual Energy Model
Log-Log Form

Econometric Variable	Estimate	t-Value
Constant	5.9465	4.13
Employment Share - Education & Health	0.3398	4.06
Employment Share - Manufacturing	0.1798	2.45
Total Income (Real)	0.4547	5.43
Residential Electric Price (Real)	-0.0864	-1.50
Cooling Degree Days	0.057	4.28
Heating Degree Days	0.1153	3.09
AR: 1-Year Lag	-0.4092	-2.10

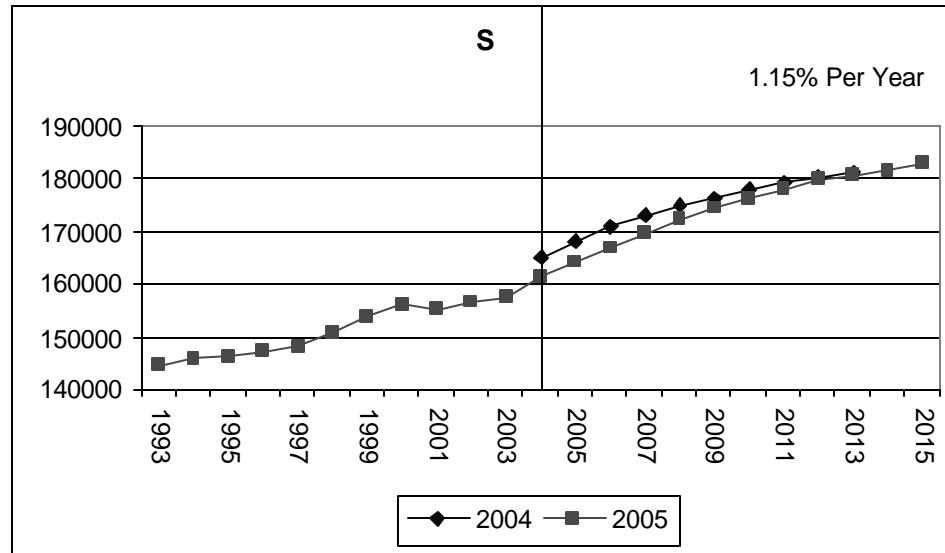
Adjusted r^29853
Durbin-Watson.....	1.45
F-statistic	302

Summer Peak Model
Log-Log Form

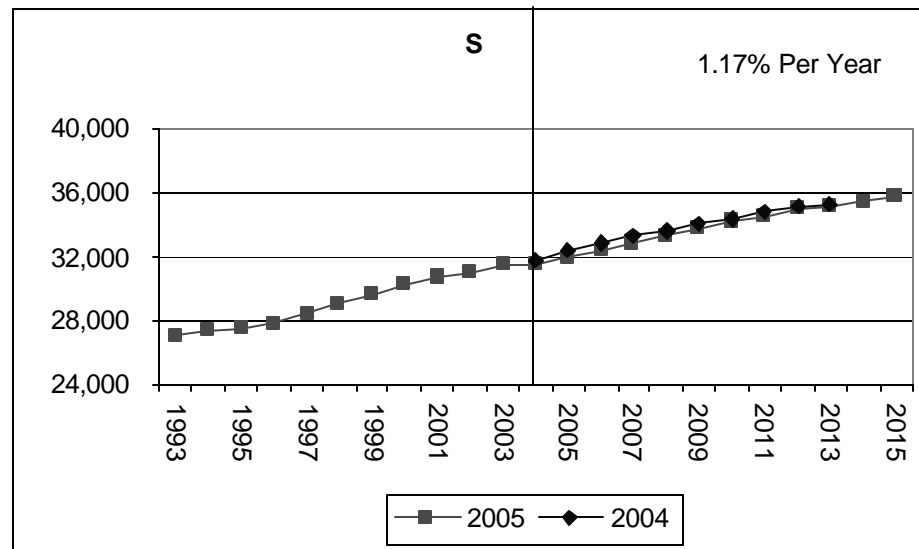
Econometric Variable	Estimate	t-Value
Constant	-10.3123	-5.95
Annual Energy	0.5866	4.68
Households	1.4352	4.10
Cooling Degree Days	0.128	3.72
AR: 1-Year Lag	0.4372	2.43

Adjusted r^29870
Durbin-Watson.....	2.04
F-statistic.....	683

2005 L & C Report Load Forecast



**Annual
Sendout**



Summer Peak

2005 Load & Capacity Report Load Forecast

➤ Regional Models

➤ Regions:

- West: Zones A – E**
- Upper Hudson Valley: F**
- Lower Hudson Valley: G – I**
- New York City: J**
- Long Island: K**

➤ Models estimated for 1993 – 2004

➤ Linear form

➤ Variables: Depends on Region

2005 Load & Capacity Report Load Forecast

➤ Regional Models

➤ **Gwh**

➤ **Variables Selected from Employment (Business Services, Public Services, Manufacturing, Total Non-ag), Gross Regional Product, Population, Households, Real Personal Income**

➤ **Independent Variable: Weather-normalized Sendout**

➤ **Summer & Winter Peaks**

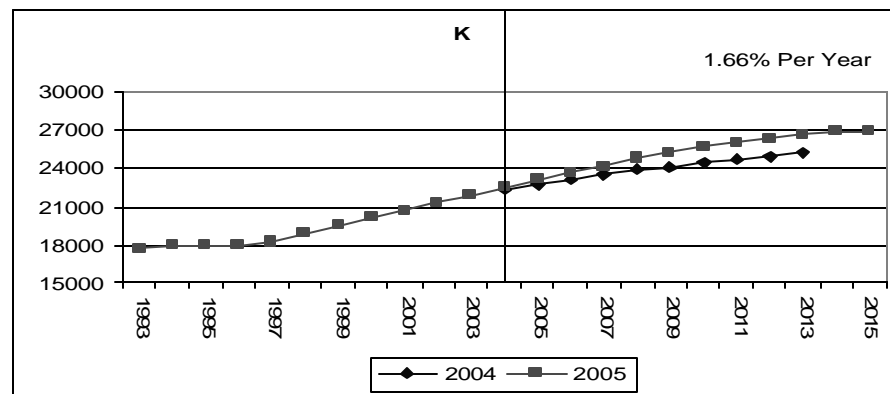
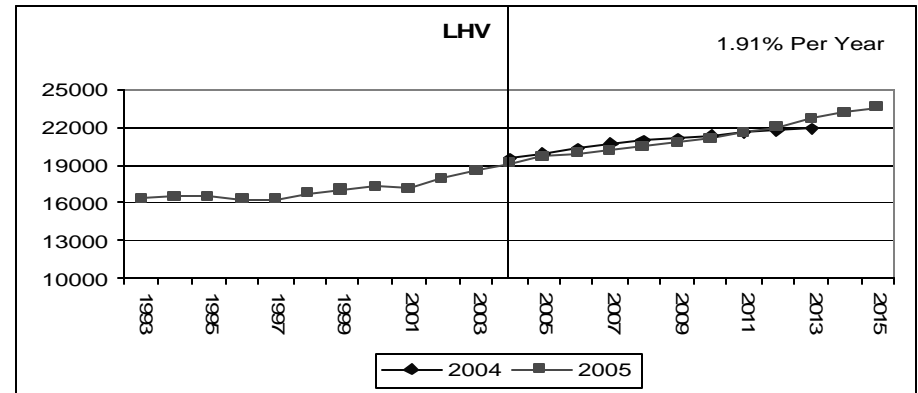
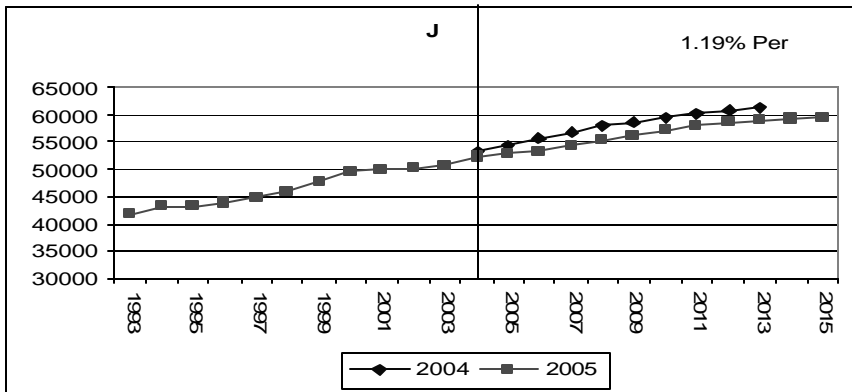
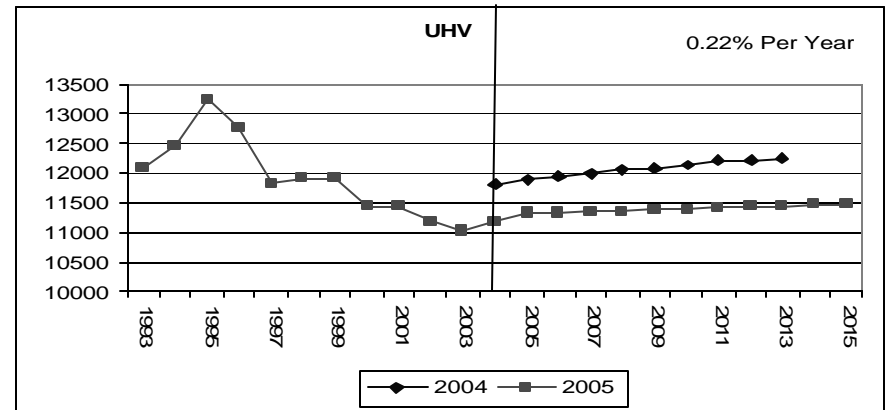
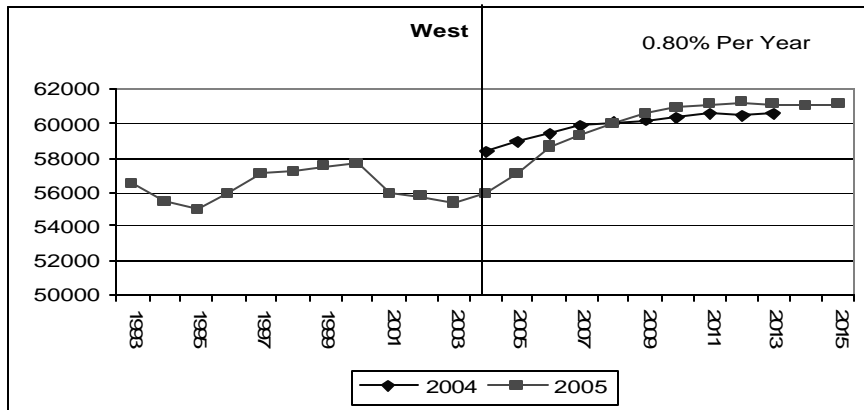
➤ **Load Factor & Trend Analysis**

2005 Load & Capacity Report Load Forecast

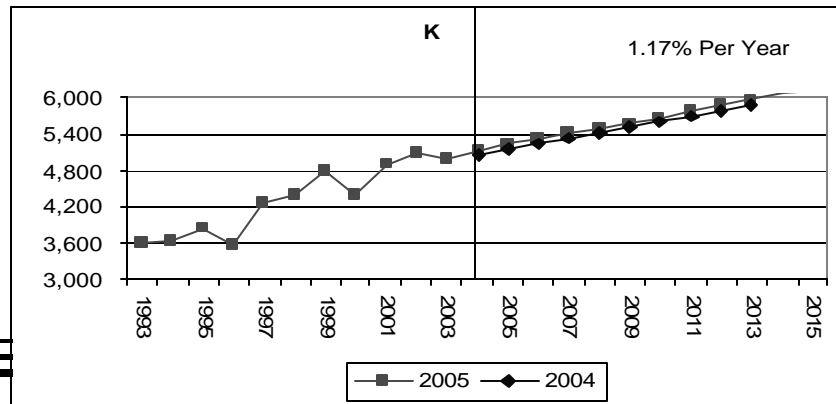
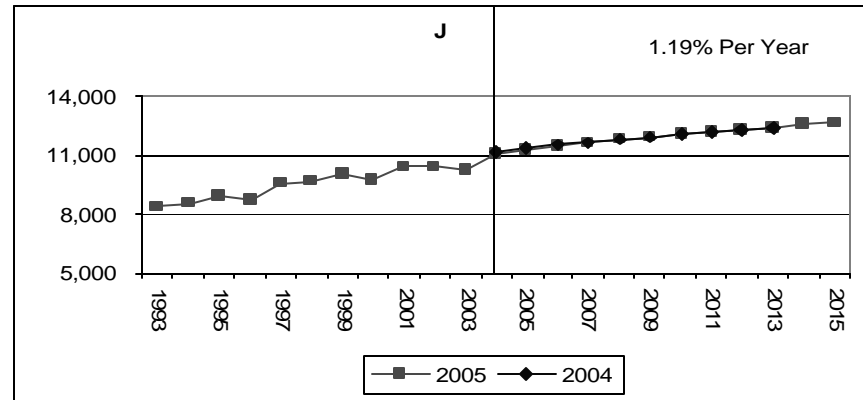
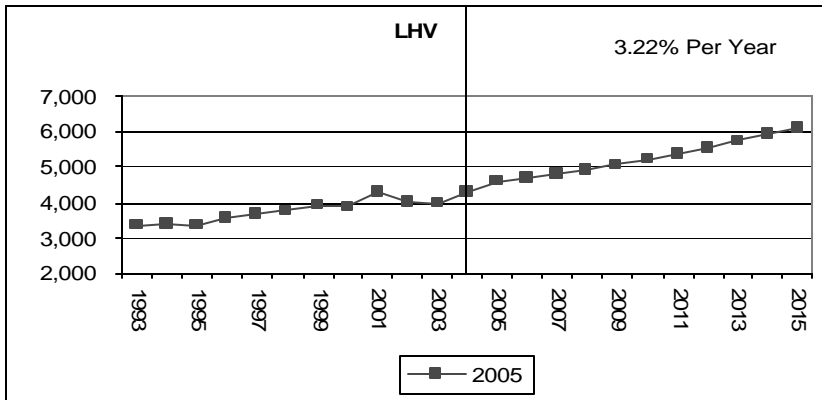
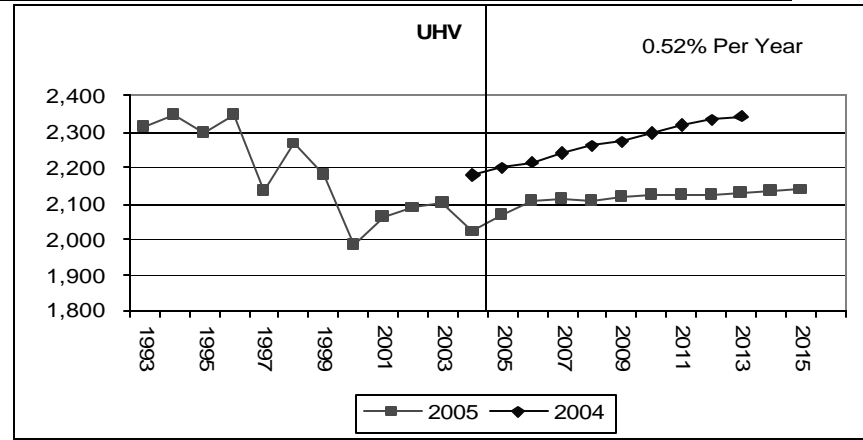
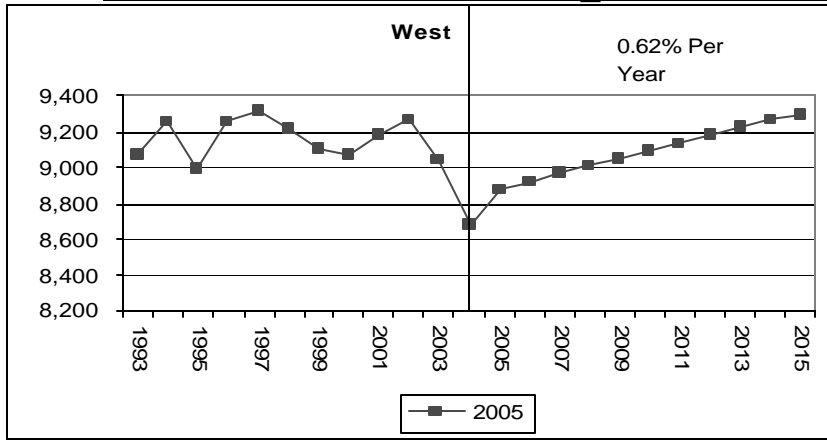
➤ GWh Models:

<u>Variable Coefficients by Region</u>					
	West	UHV	LHV	J	K
BusSvcs					
PubSvcs			-110.0684	27.1512	
Mfg	47.8	-85.4557			
Tot Non-ag					
GDP			0.2742	0.0316	0.0247
HH	1874.49				
Pop		11.8701	18.8829	0.824	24.6523
Real PI	114587.86	-0.3228			

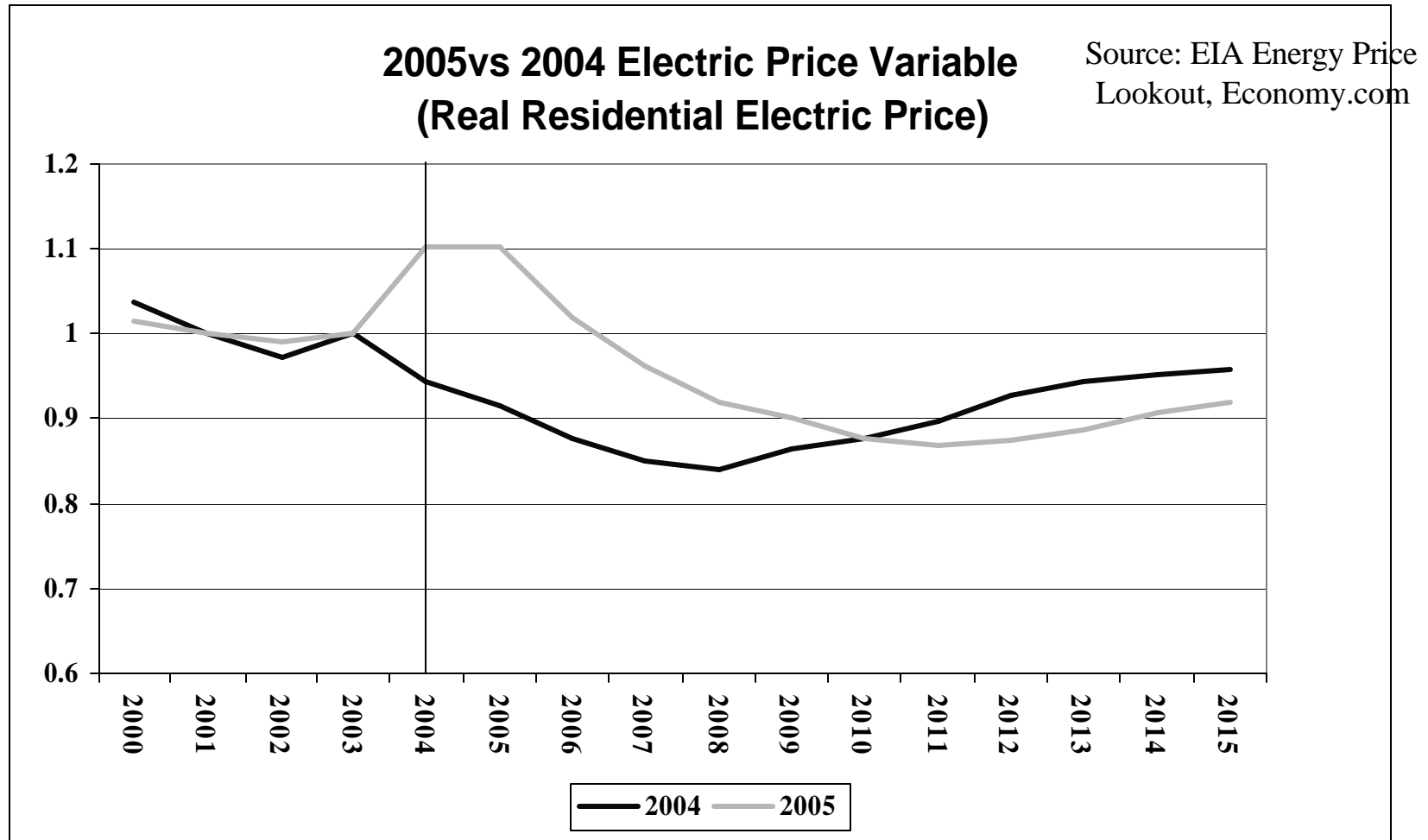
2005 Load & Capacity Report Load Forecast GWH



2005 L & C Report Load Forecast Summer Peak

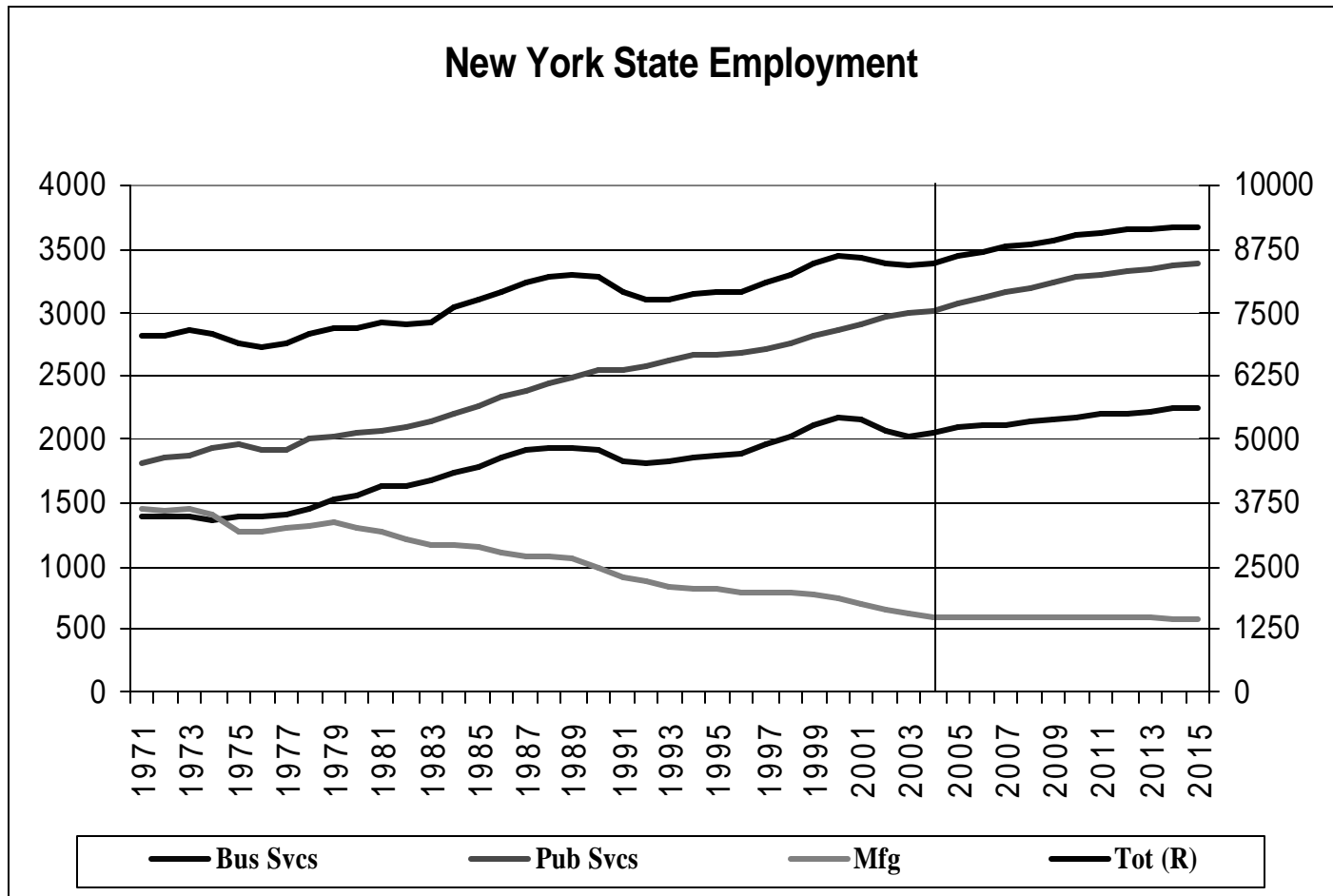


2005 L & C Report Load Forecast Assumptions



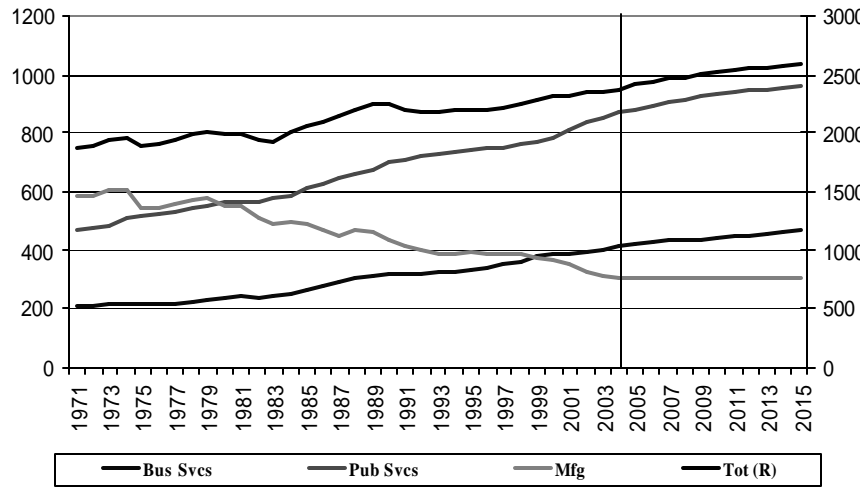
2005 L & C Report Load Forecast Assumptions

Source: Economy.com 04 and 05
Fall Forecasts

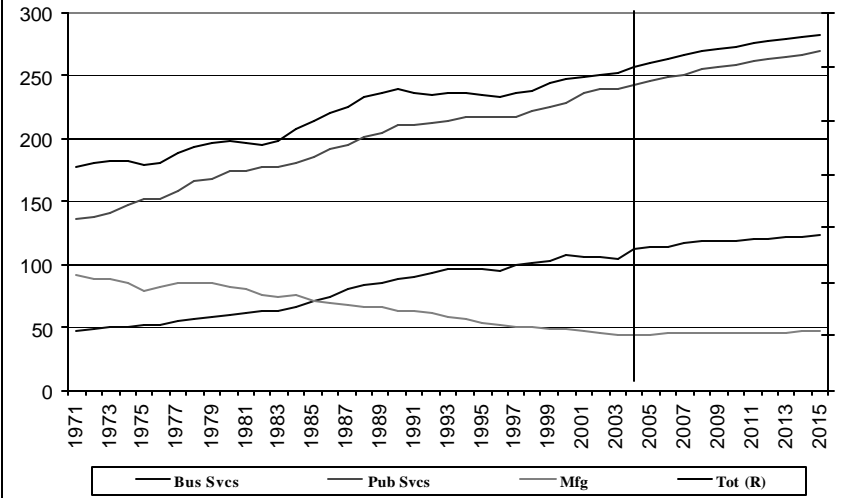


2005 L & C Report Load Forecast Assumptions

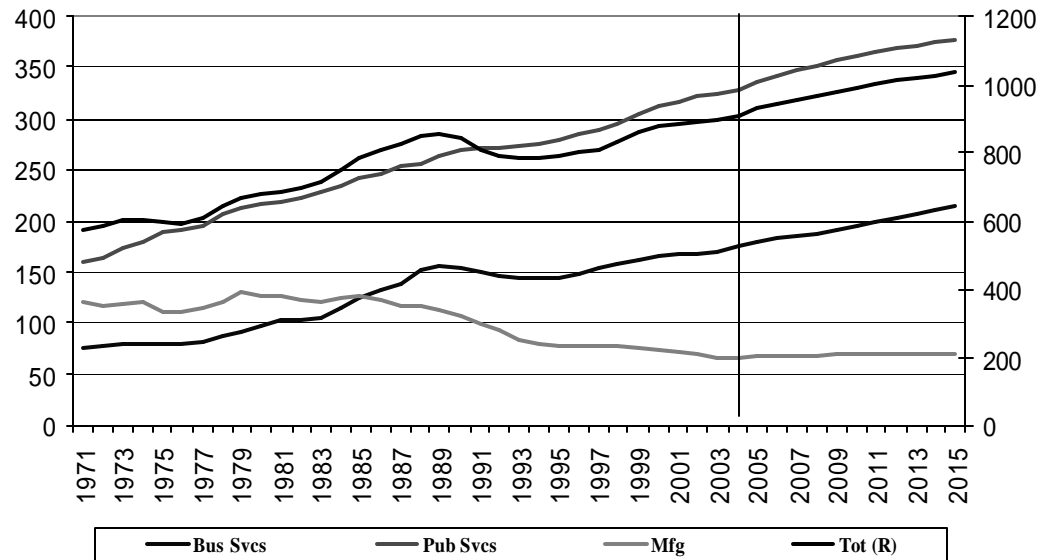
West Employment



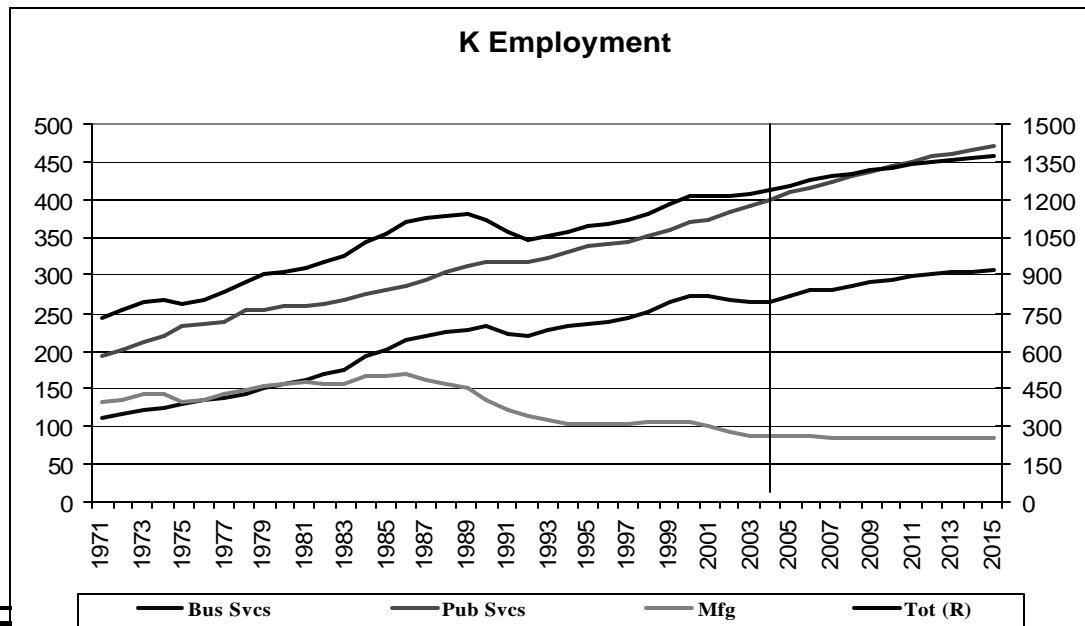
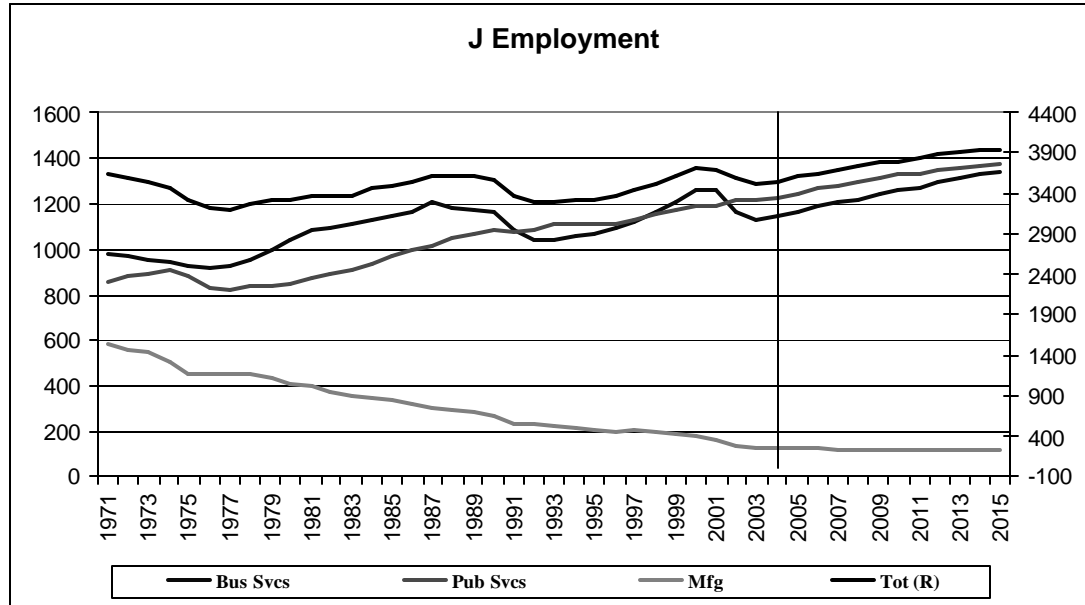
UHV Employment



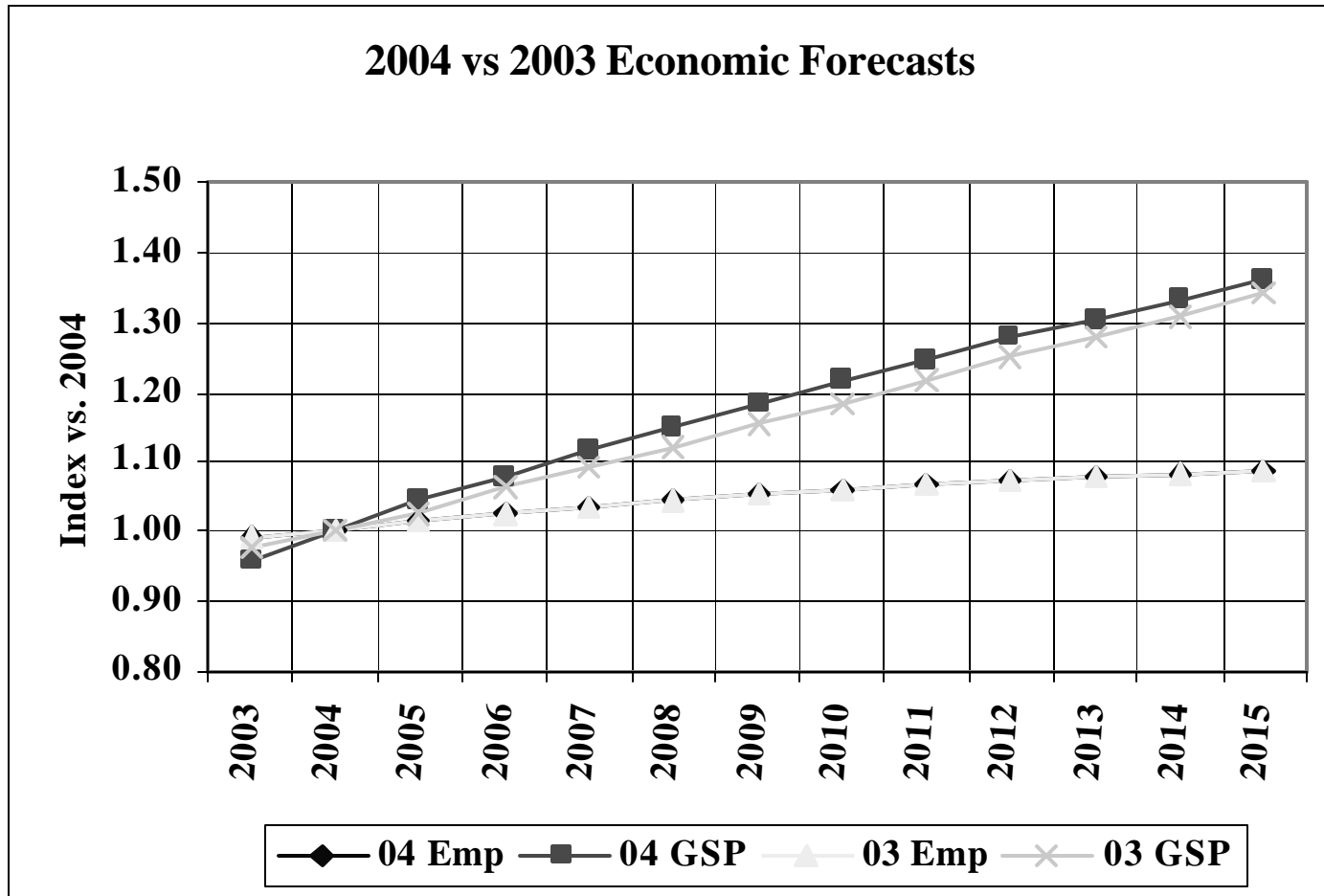
LHV Employment



2005 L & C Report Load Forecast Assumptions



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Questions