

# **An Evaluation of Population Forecast Errors for Florida and Its Counties, 1980–2010**

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**Table 1. Forecast Errors for State Projections, Launch Years 1980–2005**

Horizon (Years)	Launch Year						Ave. 1	Ave. 2
	1980	1985	1990	1995	2000	2005		
5	-2.1	-2.6	0.8	-3.6	-2.3	6.0	2.9	-0.6
10	-5.1	-4.1	-1.6	-6.5	-0.1	---	3.5	-3.5
15	-7.3	-7.6	-4.7	-5.2	---	---	6.2	-6.2
20	-10.8	-11.4	-3.7	---	---	---	8.6	-8.6
25	-11.2	-11.2	---	---	---	---	11.2	-11.2
30	-16.3	---	---	---	---	---	16.3	-16.3

Ave. 1: Average ignoring the direction of error (precision)

Ave. 2: Average accounting for the direction of error (bias)

**Table 2. MAPEs for County Projections, Launch Years 1980–2005**

Horizon (Years)	Launch Year						Average
	1980	1985	1990	1995	2000	2005	
5	5.0	5.8	4.2	4.7	4.1	5.9	4.9
10	9.8	7.2	8.2	7.6	6.1	---	7.8
15	11.5	10.8	11.7	9.4	---	---	10.9
20	15.5	14.3	14.3	---	---	---	14.7

**Table 3. 67th Percentile Errors for County Projections,  
Launch Years 1980–2005**

Horizon (Years)	Launch Year						Average
	1980	1985	1990	1995	2000	2005	
5	5.2	6.6	5.0	5.5	4.2	7.2	5.6
10	10.6	8.8	9.0	8.5	7.3	---	8.8
15	12.4	12.4	12.7	10.3	---	---	12.0
20	17.4	15.8	16.9	---	---	---	16.7

**Table 4. MALPEs for County Projections, Launch Years 1980–2005**

Horizon (Years)	Launch Year						Average
	1980	1985	1990	1995	2000	2005	
5	-2.6	-1.5	-1.3	-1.4	-1.9	5.0	-0.6
10	-5.3	-4.2	-4.6	-4.2	-1.0	---	-3.9
15	-9.0	-7.9	-8.2	-3.6	---	---	-7.2
20	-12.9	-11.6	-8.4	---	---	---	-11.0

**Table 5. Percent Positive Errors for County Projections,  
Launch Years 1980–2005**

Horizon (Years)	Launch Year						Average
	1980	1985	1990	1995	2000	2005	
5	37.3	35.8	43.3	37.3	35.8	85.1	45.6
10	31.3	26.9	28.4	29.9	55.2	---	34.3
15	20.9	25.4	20.9	37.3	---	---	26.1
20	19.4	20.9	25.4	---	---	---	21.9

**Table 6. Forecast Errors for County Projections,  
by Population Size and Length of Horizon**

Population Size	MAPE				MALPE			
	5 Years	10 Years	15 Years	20 Years	5 Years	10 Years	15 Years	20 Years
< 15,000	5.6	8.8	12.6	18.3	-1.1	-5.3	-10.4	-17.2
15,000 to 49,999	5.5	8.9	12.5	16.6	-0.6	-4.5	-9.7	-13.8
50,000 to 199,999	4.8	8.0	11.0	14.2	-1.0	-3.6	-5.1	-8.0
> 200,000	4.1	5.5	7.2	9.7	0.1	-2.5	-4.1	-5.7
Population Size	67 PE				% POS			
	5 Years	10 Years	15 Years	20 Years	5 Years	10 Years	15 Years	20 Years
< 15,000	6.8	9.9	15.5	22.4	42.9	27.4	23.5	7.5
15,000 to 49,999	5.9	9.1	12.4	16.9	51.8	36.6	19.7	16.1
50,000 to 199,999	5.8	10.2	13.0	17.9	42.1	35.1	32.9	32.8
> 200,000	4.9	6.7	7.6	12.4	45.3	36.1	27.4	27.3

**Table 7. Forecast Errors for County Projections,  
by Growth Rate and Length of Horizon**

Growth Rate	MAPE				MALPE			
	5 Years	10 Years	15 Years	20 Years	5 Years	10 Years	15 Years	20 Years
< 10%	6.6	8.8	12.5	15.3	1.1	-4.4	-9.4	-13.3
10 - 25%	4.2	6.1	9.3	12.3	0.7	-2.2	-3.4	-6.9
25 - 50%	4.4	7.5	10.2	13.7	-1.1	-3.5	-7.3	-9.9
> 50%	6.4	9.9	12.8	17.2	-2.5	-6.3	-9.4	-14.0
Growth Rate	67 PE				% POS			
	5 Years	10 Years	15 Years	20 Years	5 Years	10 Years	15 Years	20 Years
< 10%	7.5	9.0	13.3	17.6	56.4	30.0	16.0	9.5
10 - 25%	4.5	7.5	10.5	13.3	50.8	38.6	32.8	27.0
25 - 50%	5.3	9.4	12.0	16.7	44.2	33.6	25.6	27.2
> 50%	6.0	10.9	14.2	20.8	36.3	32.9	25.0	16.1



**Table 8. Number of Counties with Populations Falling Below the Low Projection, Above the High Projection, or Within the Projected Range**

Launch Year	Projection Horizon			
	5 Years	10 Years	15 Years	20 Years
<b>1985</b>				
Below Low	11	2	0	0
In Range	41	53	55	53
Above High	15	12	12	14
<b>1990</b>				
Below Low	1	1	1	1
In Range	56	59	58	61
Above High	10	7	8	5
<b>1995</b>				
Below Low	3	1	1	---
In Range	59	62	63	---
Above High	5	4	3	---
<b>2000</b>				
Below Low	1	0	---	---
In Range	63	65	---	---
Above High	3	2	---	---
<b>2005</b>				
Below Low	6	---	---	---
In Range	61	---	---	---
Above High	0	---	---	---