



Presented to the HRTPO
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HAMPTON ROADS 2045

Socioeconomic Forecast

2045 Socioeconomic Forecast

In 28 years...

Unknowns

- Demographic
 - Cultural
 - Technological
 - Unknown
- Employment trends
 - Household trends
 - Vehicles per household
 - Population density
 - Migration
 - Labor force participation
 - Commuting patterns
 - Planning and zoning
 - Employment
 - Federal, State, and Local Policy
 - Gas prices
 - Natural Increase
 - Persons per household
 - Land Availability
 - Transportation Modes and Costs
 - Retail Purchases
 - Sea level rise

2045 Socioeconomic Forecast

What the forecast is:

- Input data for the HRTPO 2045 Long-Range Transportation Plan
- An impartial and consistent set of socioeconomic projections that can assist organizations when planning for the region's future

What the forecast is not:

- An economic development tool (optimistic)
- A growth management tool (pessimistic)
- Destiny

What is included in the forecast?

- Population
- Employment by place of residence
- Employment by place of work
 - Retail
 - Industrial
 - Office
 - Other
- Households
- Passenger Vehicle Registrations

Socioeconomic Forecast Process

1. Literature Review of Forecasting Techniques
2. Review Best Practices
3. Begin Data Collection
 - Raw Data
 - Input from Localities
 - Research Assumptions
 - Model Inputs
4. Produce Draft Control Totals
5. Produce Draft Jurisdiction Totals
6. Review Draft with Planning Staff/TTAC
7. Present Control Totals for Approval
8. Provide Approved Control Totals to Localities for Assignment to TAZs
9. Final Approval of 2045 Socioeconomic Forecast

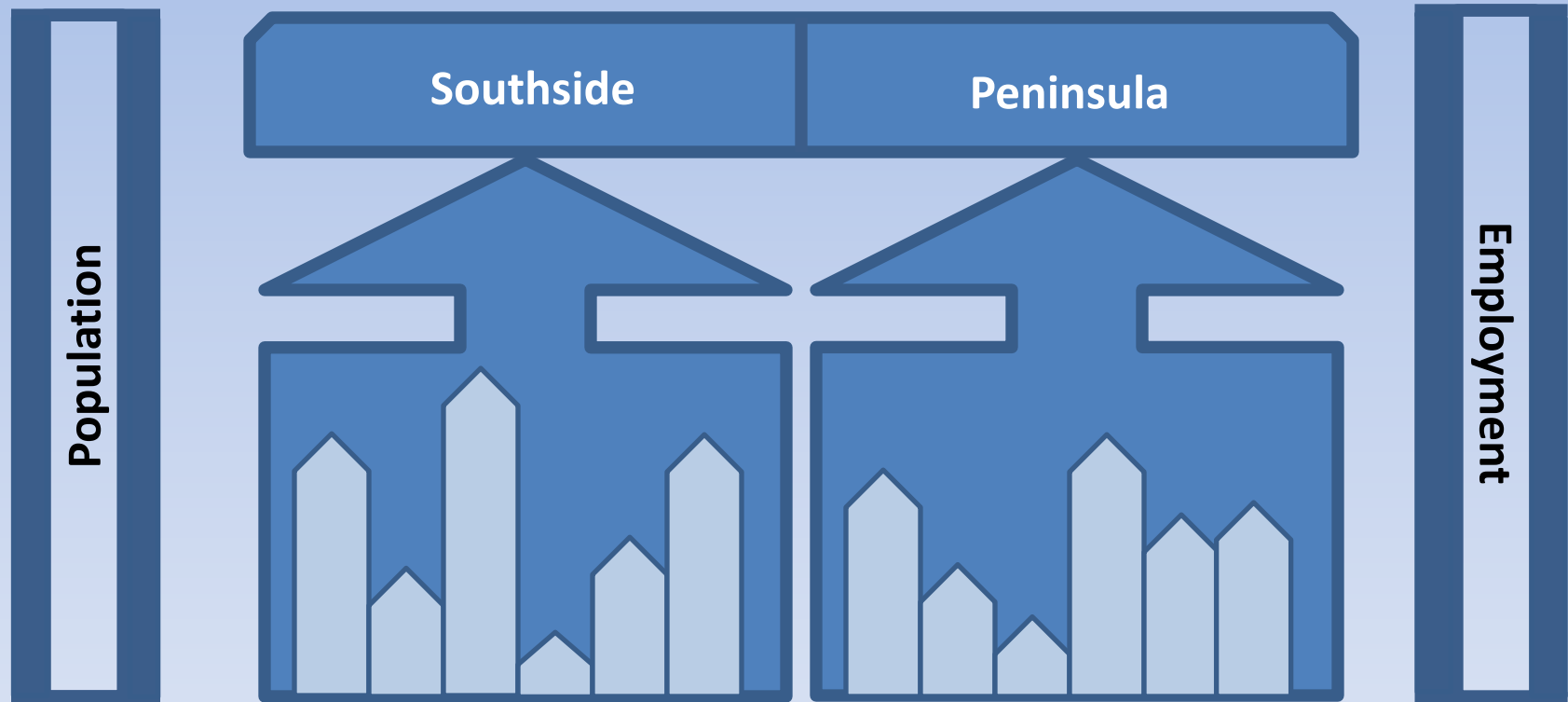
Forecast Process

- April 2016 – Presentation to Planning Directors
 - Met with Planning Directors/Staff from Every Jurisdiction
- July 2016 – Presentation to TTAC on draft methodology
- April 2017 – Presentation made to the LRTP Subcommittee
- May 2017 – Presentation to TTAC; draft tables made available for public comment
- June 2017 – Regional control totals presented to and approved by TTAC

Forecast Methodology

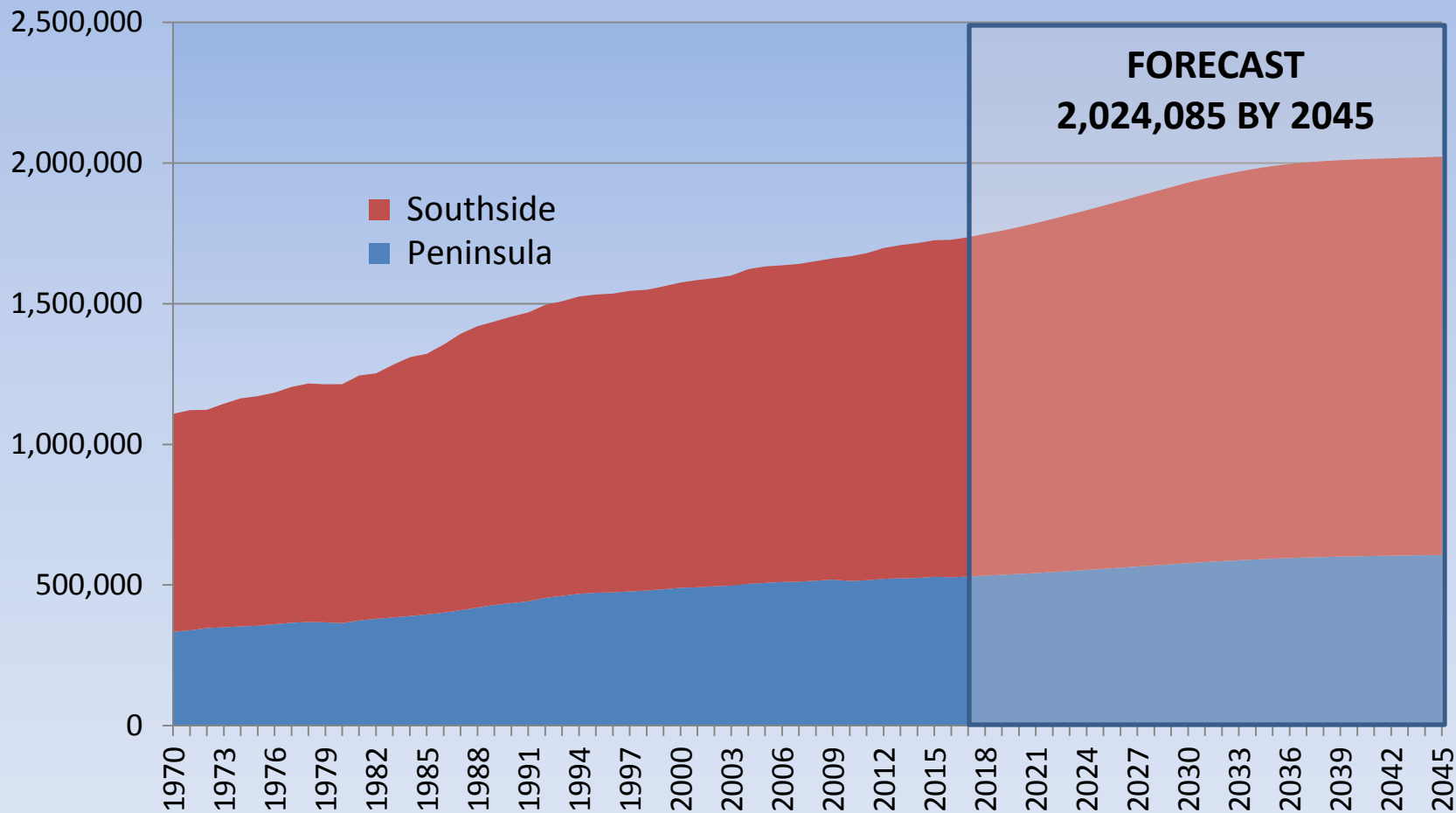
Top-Down, Bottom-Up

Hampton Roads Total

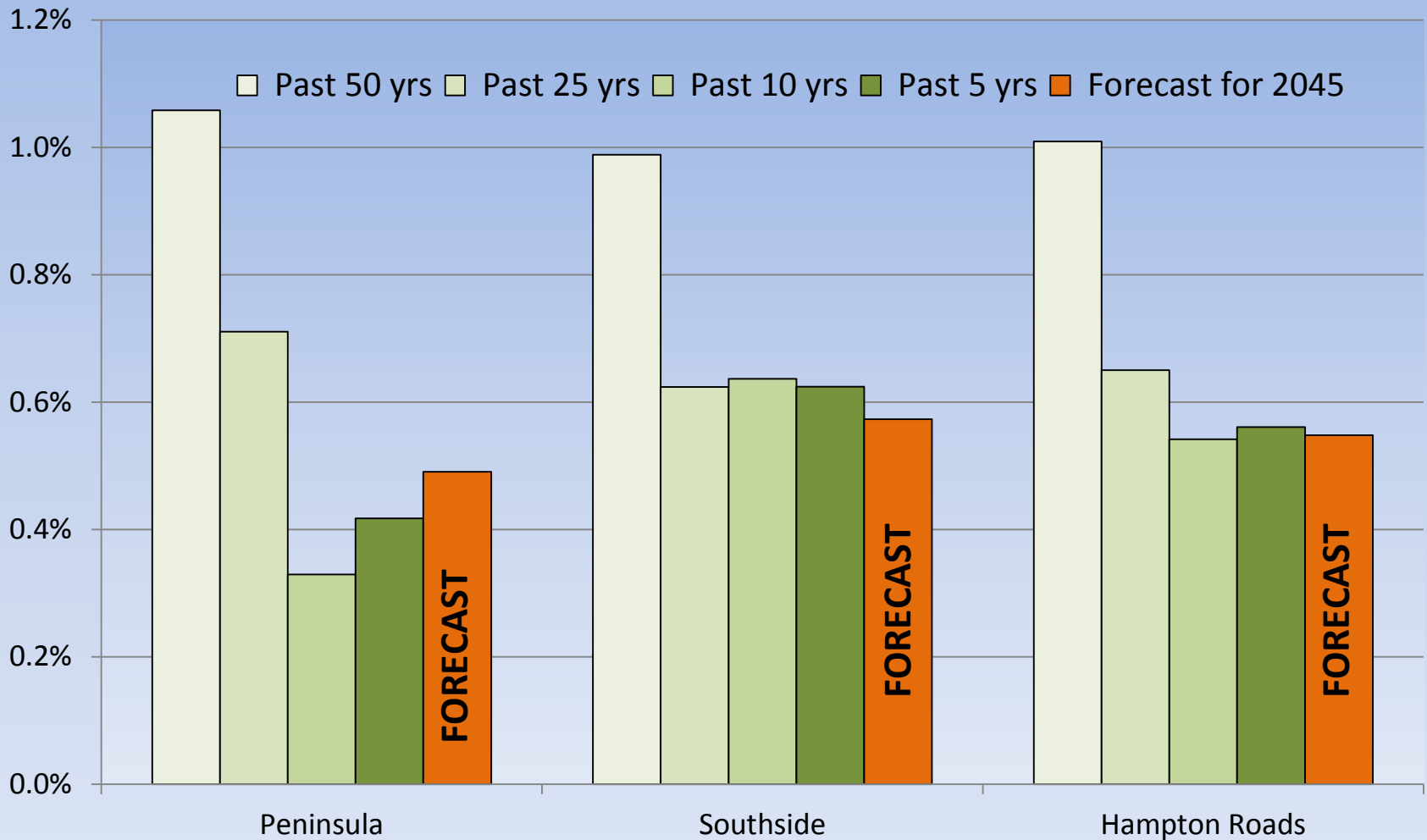


Locality Growth Rates

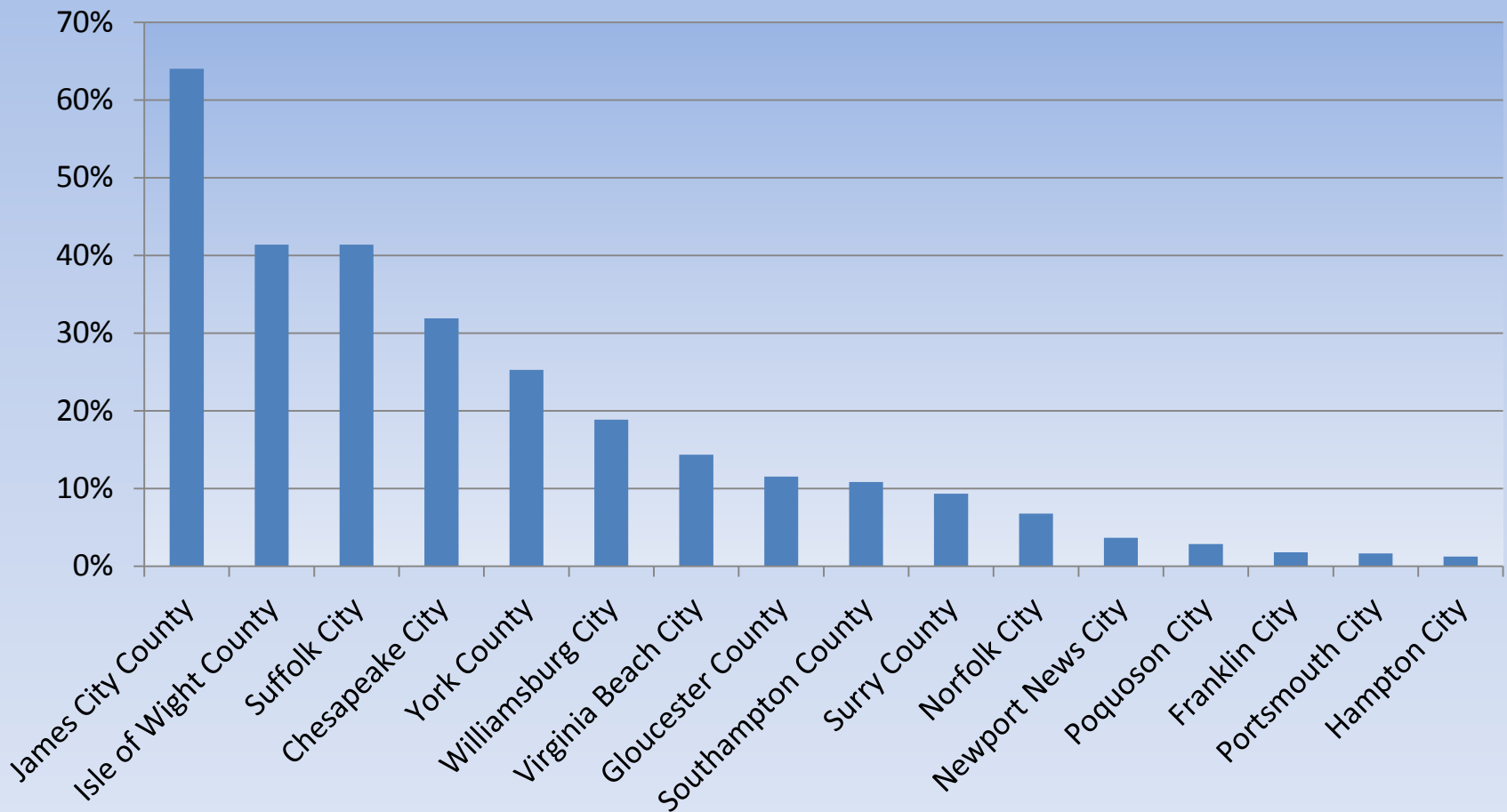
Hampton Roads Population Growth Through 2045



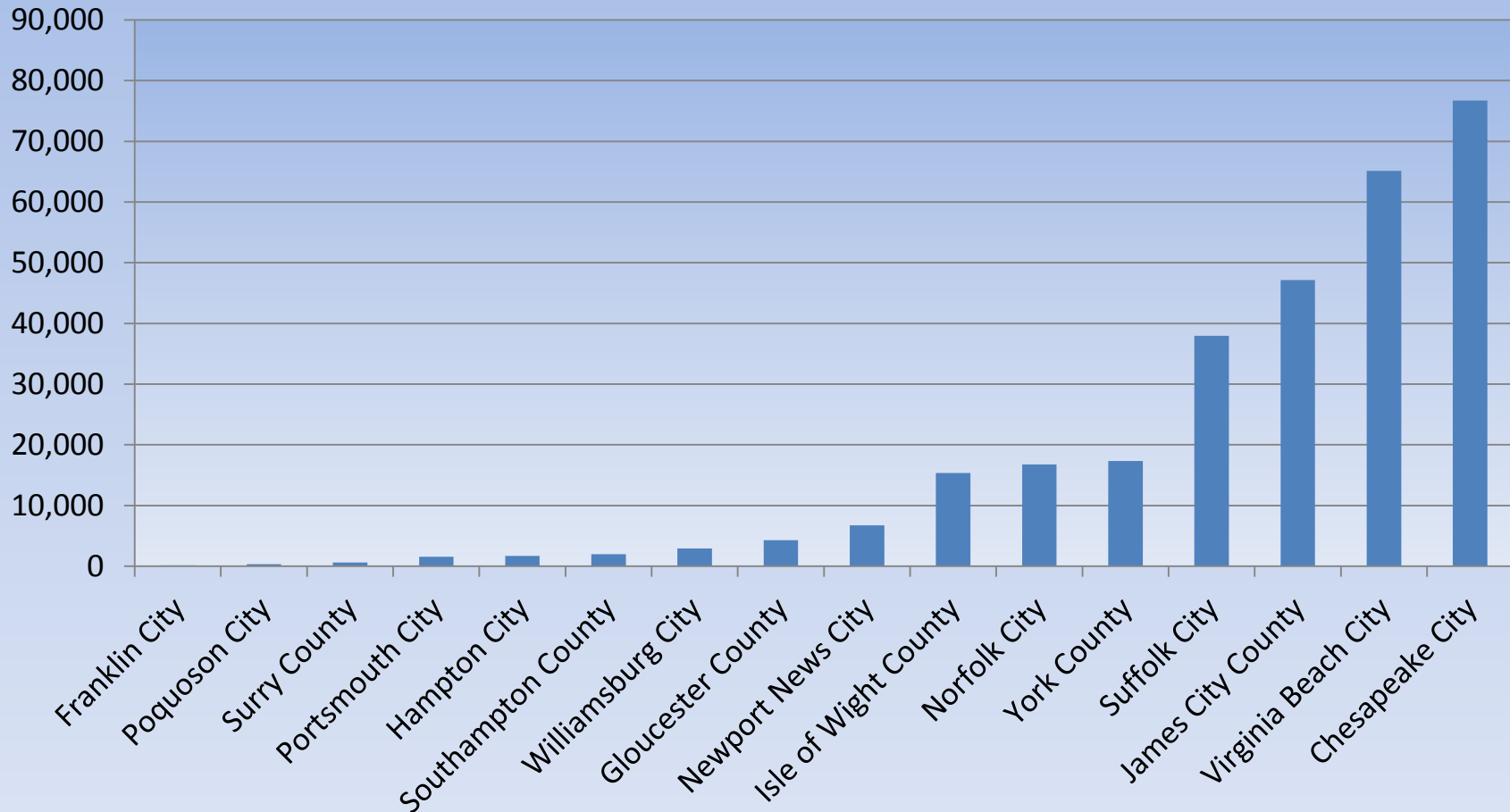
Population Growth Rates



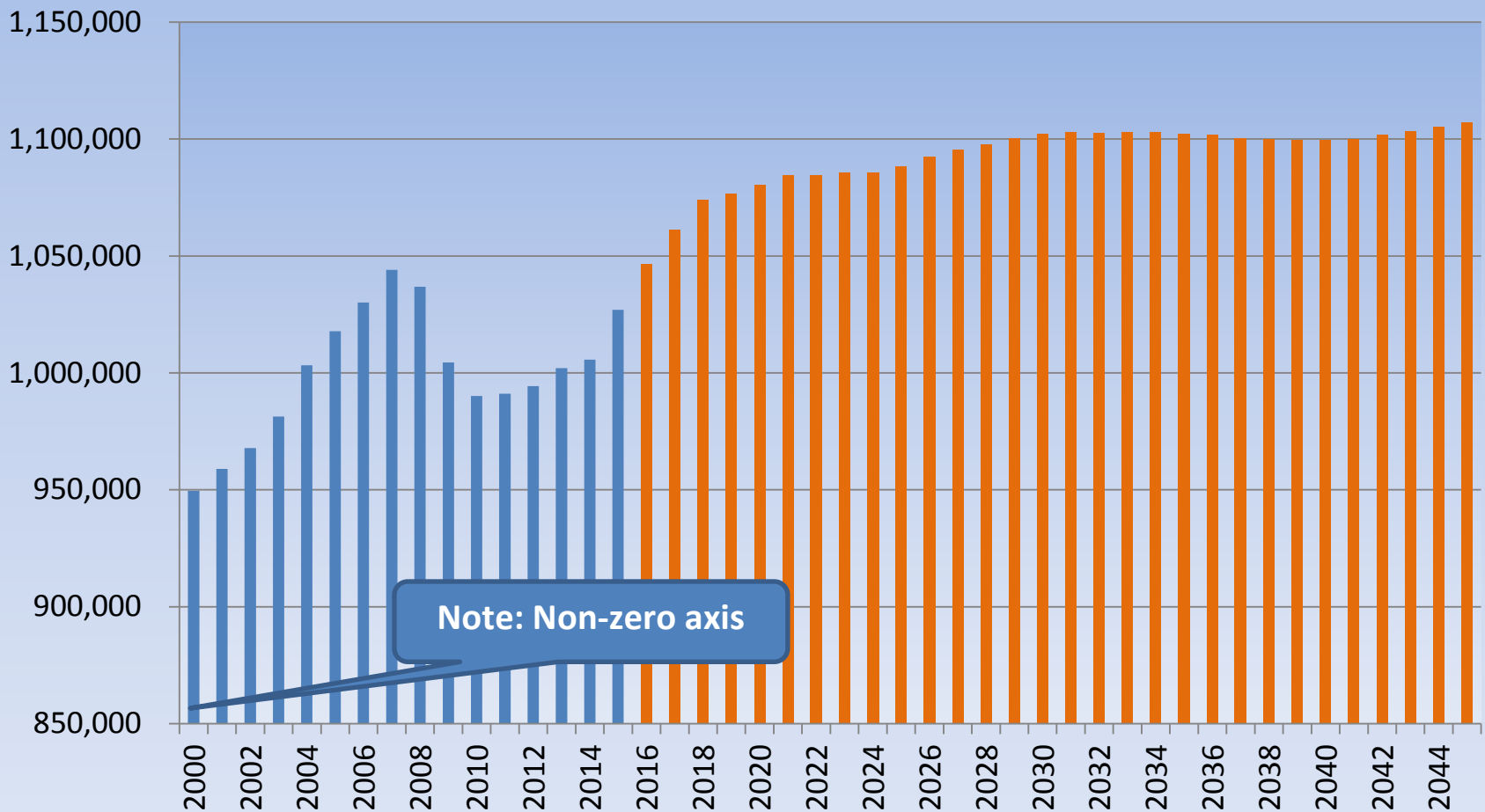
Forecast of Jurisdiction Growth Rates from 2016 to 2045



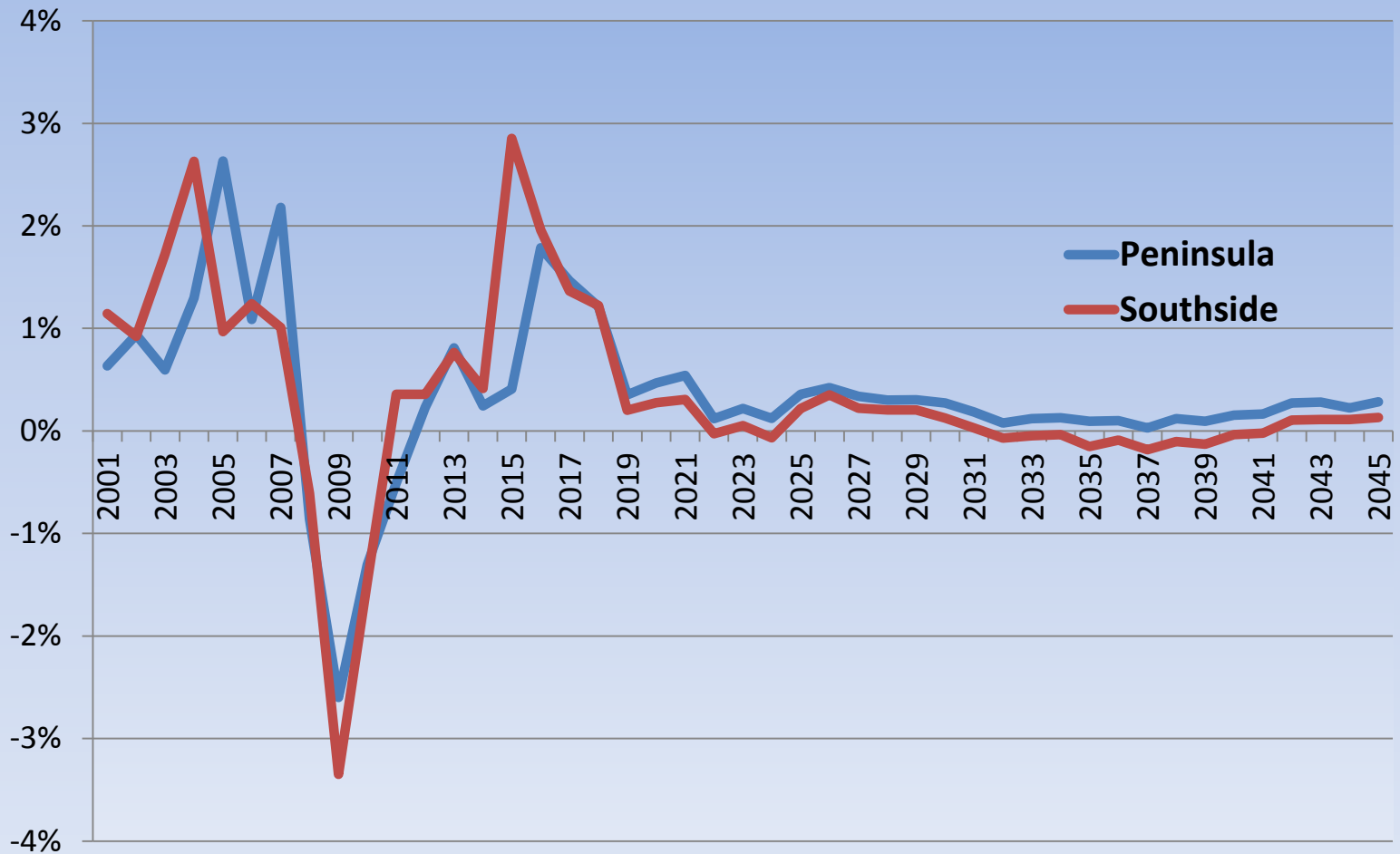
Forecast of Population Increase from 2016 to 2045



Projected Employment in Hampton Roads



Projected Employment Growth, Southside and Peninsula

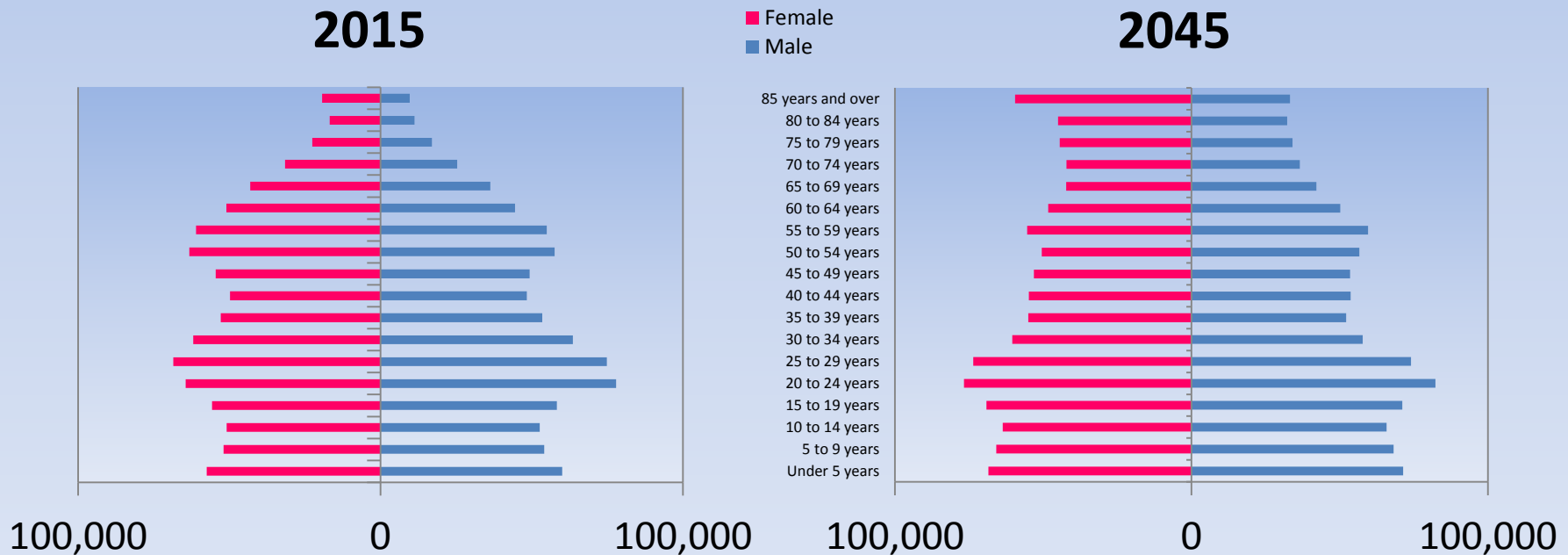


Feedback – Why are the employment numbers so low?

- Demographics
- Employment Trends
- Labor Force Trends

Feedback - Population Growth Rates

- Demographics
 - Aging of the population
 - Fewer replacement workers in the next generation



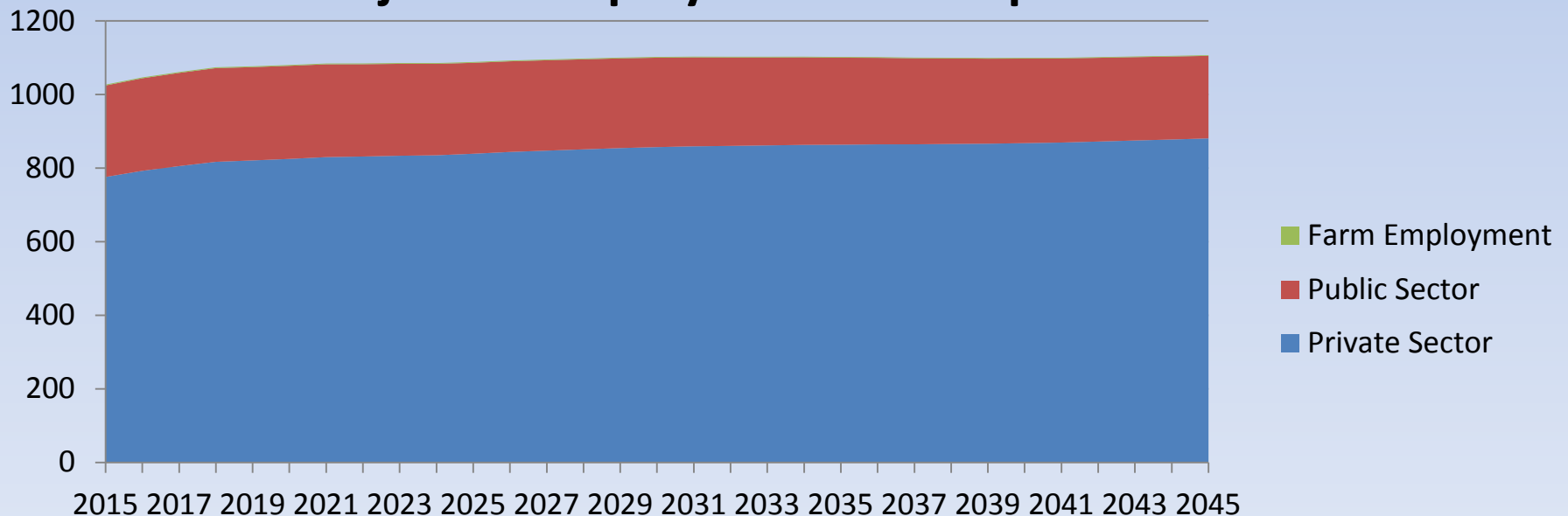
Sources: Regional Economic Models, Inc, the Weldon Cooper Center and HRPDC

Feedback – Why are the employment numbers so low?

- Employment Trends

- Established industries in Hampton Roads are not poised for long-term robust growth

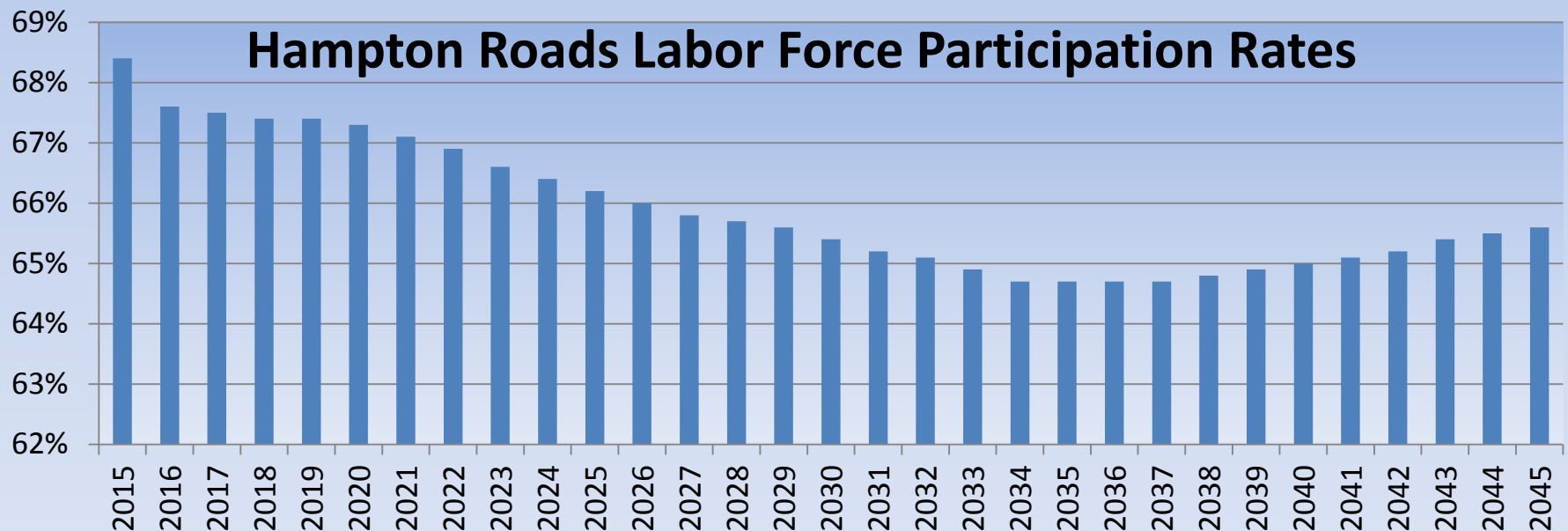
Projected Employment in Hampton Roads



Feedback – Why are the employment numbers so low?

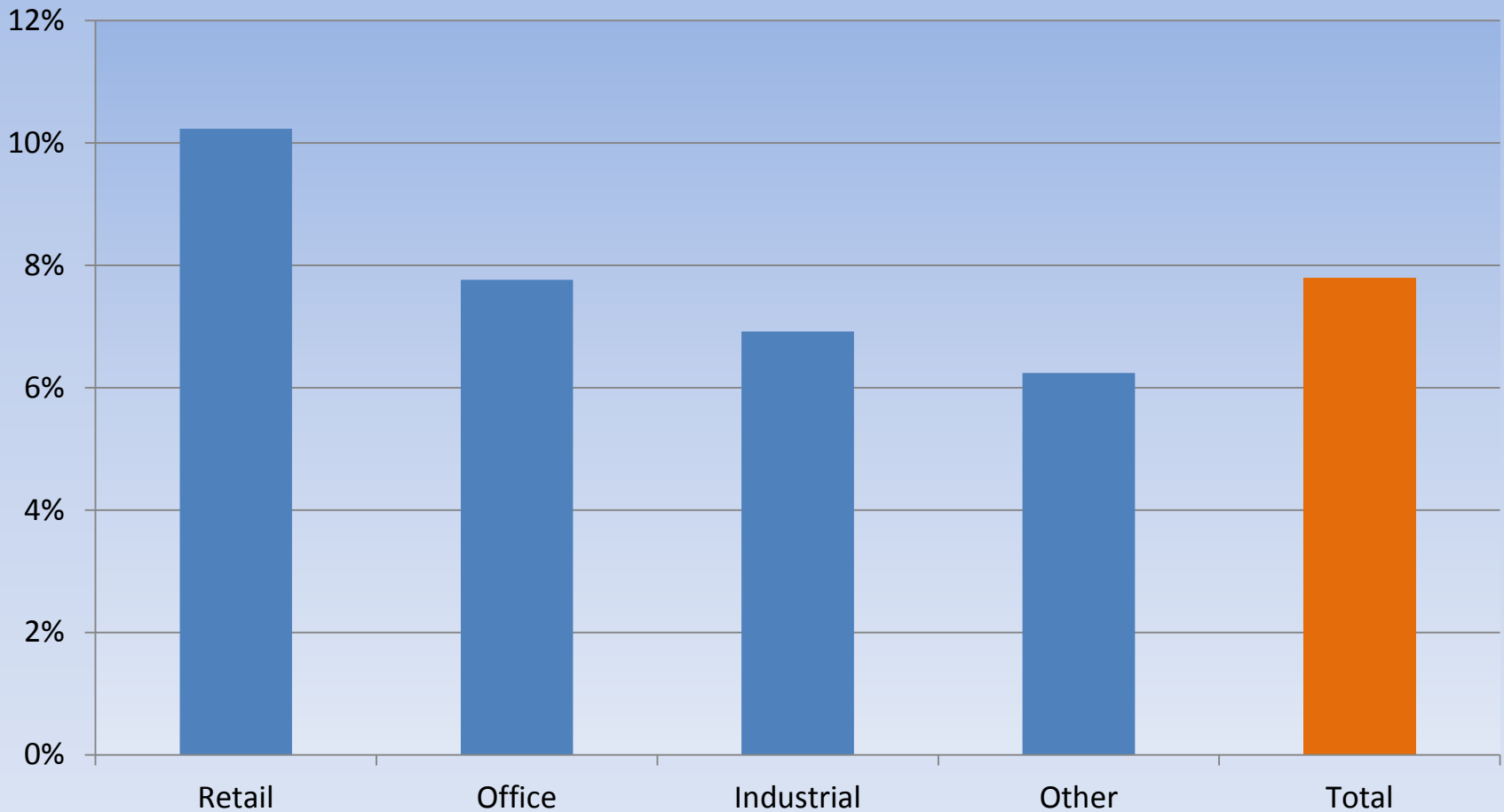
- Labor Force Trends

- The labor force participation rate is declining and is projected to continue to decline until the late 2030s



Sources: Regional Economic Models, Inc & HRPDC

Employment Growth Forecast by Category



Employment Categories

- Retail
- Office
- Industrial
- Other

Industry Sector	2-Digit NAICS*	Retail	Office	Industrial	Other
Agriculture, Forestry and Fisheries	11			100%	
Mining	21			100%	
Construction	23		10%	90%	
Manufacturing	31,32,33		10%	80%	10%
Transportation & Warehousing	48	5%	15%	50%	30%
Communications, Utilities	22	10%	10%	70%	10%
Wholesale Trade	42	40%	10%	20%	30%
Retail Trade	44,45	90%	10%		
Information	51		60%	10%	30%
Finance, Insurance, Real Estate	52,53,55		100%		
Administration & Support	56	30%	30%	10%	30%
Personal Services	72,81	40%	30%	10%	20%
Entertainment, Recreation	71	30%	10%		60%
Health Services	62	30%	30%	10%	30%
Educational Services	61		20%		80%
Other Professional and Related Services	54		90%		10%
Public Administration	92	10%	40%	20%	30%

* North American Industrial Classification System

Draft 2045 Socioeconomic Forecast

Population

	1970	1980	1990	2000	2010	2015	Forecast 2045
Southside	775,253	849,550	1,018,986	1,085,471	1,152,606	1,196,615	1,416,015
Chesapeake	89,580	114,486	151,982	199,184	222,209	238,283	317,206
Franklin	6,880	7,308	7,864	8,346	8,582	8,535	8,751
Isle of Wight Co.	18,285	21,603	25,053	29,728	35,270	36,438	52,417
Norfolk	307,951	266,979	261,250	234,403	242,803	247,189	263,837
Portsmouth	110,963	104,577	103,910	100,565	95,535	96,874	97,752
Southampton Co.	18,582	18,731	17,550	17,482	18,570	18,551	20,218
Suffolk	45,024	47,621	52,143	63,677	84,585	90,426	129,682
Surry Co.	5,882	6,046	6,145	6,829	7,058	6,819	7,374
Virginia Beach	172,106	262,199	393,089	425,257	437,994	453,500	518,777
Peninsula	333,140	364,449	435,197	481,330	513,704	529,162	608,070
Gloucester Co.	14,059	20,107	30,131	34,780	36,858	37,072	41,252
Hampton	120,779	122,617	133,811	138,437	137,436	138,626	139,207
James City Co.	17,853	22,339	34,859	48,102	67,009	73,325	120,741
Newport News	138,177	144,903	171,439	180,150	180,719	183,454	189,962
Poquoson	5,441	8,726	11,005	11,566	12,150	12,359	12,637
Williamsburg	9,069	10,294	11,530	11,998	14,068	14,860	18,341
York Co.	27,762	35,463	42,422	56,297	65,187	69,466	85,930
Hampton Roads	1,108,393	1,213,999	1,454,183	1,566,801	1,666,310	1,725,777	2,024,085

Source of historical data: U.S. Census Bureau, Weldon Cooper Center, HRPDC

Draft 2045 Socioeconomic Forecast

Number of Households

	1970	1980	1990	2000	2010	2015	Forecast 2045
Southside	218,088	266,353	344,456	395,619	426,133	429,122	511,999
Chesapeake	25,178	36,362	52,024	69,900	79,574	81,518	111,673
Franklin	2,113	2,591	3,011	3,384	3,530	3,453	3,553
Isle of Wight Co.	5,028	7,050	9,031	11,319	13,718	13,769	20,197
Norfolk	86,607	74,955	79,518	86,210	86,485	87,045	92,387
Portsmouth	34,470	36,796	38,706	38,170	37,324	36,757	37,035
Southampton Co.	4,915	5,774	6,004	6,279	6,719	6,680	7,351
Suffolk	13,116	15,726	18,518	23,283	30,868	30,990	46,667
Surry Co.	1,576	2,002	2,279	2,619	2,826	2,668	2,868
Virginia Beach	45,085	85,097	135,365	154,455	165,089	166,242	190,268
Peninsula	92,909	124,178	159,724	183,488	199,950	197,470	230,966
Gloucester Co.	4,431	7,159	10,957	13,127	14,293	14,280	15,877
Hampton	34,564	41,550	49,680	53,887	55,031	52,940	53,252
James City Co.	4,551	7,493	12,990	19,003	26,860	28,000	47,825
Newport News	39,586	51,310	64,420	69,686	70,664	69,073	72,234
Poquoson	NA	2,763	3,763	4,166	4,525	4,642	4,829
Williamsburg	2,396	3,024	3,462	3,619	4,571	4,538	6,017
York Co.	7,381	10,879	14,452	20,000	24,006	23,997	30,933
Hampton Roads	310,997	390,531	504,180	579,107	626,083	626,592	742,965

Source of historical data: U.S. Census Bureau

Draft 2045 Socioeconomic Forecast

Number of Vehicles

	1970	1980	1990	2000	2010	2015	Forecast 2045
Southside	231,316	425,239	613,064	762,371	864,362	896,659	1,065,120
Chesapeake	31,108	62,967	101,571	148,000	176,139	187,620	252,166
Franklin	1,036	4,341	4,967	5,775	6,368	6,434	6,514
Isle of Wight Co.	5,736	12,410	19,248	26,062	33,625	35,029	50,446
Norfolk	86,358	114,263	129,858	144,024	153,058	157,062	165,107
Portsmouth	35,828	50,267	59,563	63,153	66,352	66,854	66,593
Southampton Co.	5,173	9,414	11,879	14,034	16,439	16,290	17,956
Suffolk	4,452	24,710	33,816	48,661	67,091	70,964	104,151
Surry Co.	1,723	3,599	5,102	6,283	7,370	7,289	7,653
Virginia Beach	59,902	143,268	247,060	306,379	337,920	349,117	394,534
Peninsula	110,481	192,989	279,223	357,595	412,325	419,756	484,392
Gloucester Co.	5,065	12,621	23,125	30,378	35,818	35,978	39,894
Hampton	42,797	66,132	87,366	97,982	104,189	102,290	101,837
James City Co.	3,958	11,319	22,776	37,423	52,673	54,084	93,067
Newport News	44,434	73,756	98,570	127,726	141,874	142,893	147,204
Poquoson	NA	5,272	8,470	10,031	11,336	11,398	11,976
Williamsburg	4,144	6,531	9,910	9,957	13,018	17,320	20,040
York Co.	10,083	17,358	29,006	44,098	53,417	55,793	70,375
Hampton Roads	341,797	618,228	892,287	1,119,966	1,276,687	1,316,415	1,549,512

Source of historical data: Virginia Department of Motor Vehicles

Draft 2045 Socioeconomic Forecast

Workers by Place of Residence

	1980	1990	2000	2010	2015	Forecast 2045
Southside	387,154	511,022	531,417	579,237	581,926	630,872
Chesapeake	48,649	75,610	96,977	110,539	110,653	135,259
Franklin	2,732	3,272	3,337	3,078	3,341	3,146
Isle of Wight Co.	9,299	11,637	13,986	17,380	17,249	22,784
Norfolk	127,689	130,549	112,083	121,083	123,302	120,846
Portsmouth	41,576	44,390	43,922	44,871	42,374	39,262
Southampton Co.	7,065	7,255	6,945	8,445	7,817	7,823
Suffolk	19,100	22,255	28,372	39,012	40,414	53,220
Surry Co.	2,382	2,622	3,147	3,217	3,129	3,107
Virginia Beach	128,662	213,432	222,648	231,612	233,647	245,425
Peninsula	165,816	212,763	229,790	250,121	245,409	277,742
Gloucester Co.	8,447	14,387	16,952	18,003	17,829	19,654
Hampton	54,862	66,008	66,101	66,680	64,027	63,694
James City Co.	10,133	17,692	21,922	30,264	31,537	51,445
Newport News	67,023	82,662	86,282	90,519	87,916	90,184
Poquoson	4,015	5,700	5,658	5,917	5,936	6,013
Williamsburg	4,366	4,894	4,239	5,705	5,784	7,072
York Co.	16,970	21,420	28,636	33,033	32,380	39,680
Hampton Roads	552,970	723,785	761,207	829,358	827,335	908,614

Source of historical data: U.S. Census Bureau

Draft 2045 Socioeconomic Forecast

Employment by Place of Work

	1970	1980	1990	2000	2010	2015	Forecast 2045
Southside	388,716	472,753	614,446	673,958	693,643	724,838	771,266
Chesapeake	22,566	32,288	62,605	102,765	121,687	127,190	138,475
Franklin	3,397	4,091	4,685	5,560	5,861	5,863	6,392
Isle of Wight Co.	9,301	11,880	12,133	16,134	14,230	15,599	17,498
Norfolk	211,278	230,199	259,481	225,319	210,988	211,869	216,143
Portsmouth	48,087	53,996	58,979	52,831	57,413	60,795	65,692
Southampton Co.	6,124	5,927	5,461	6,026	5,171	5,743	6,255
Suffolk	18,055	19,692	20,660	26,273	34,747	39,549	45,789
Surry Co.	3,662	3,073	3,193	2,604	3,040	3,272	3,714
Virginia Beach	66,246	111,607	187,249	236,446	240,506	254,958	271,307
Peninsula	153,365	190,391	256,242	289,273	296,970	302,168	337,008
Gloucester Co.	3,493	6,468	9,700	13,002	14,029	13,960	15,906
Hampton	50,259	60,965	76,339	83,361	76,913	75,251	78,694
James City Co.	5,646	12,330	19,645	25,943	36,401	40,105	45,921
Newport News	75,753	85,370	110,589	115,678	119,642	123,464	137,977
Poquoson	999	1,611	2,160	2,674	2,607	2,083	2,585
Williamsburg	8,765	12,680	19,133	23,869	17,902	16,188	17,961
York Co.	8,450	10,967	18,676	24,746	29,476	31,117	37,963
Hampton Roads	542,081	663,144	870,688	963,231	990,613	1,027,006	1,108,274

Source of historical data: Bureau of Economic Analysis

Draft 2045 Socioeconomic Forecast

Retail Employment

	2010	2015	Forecast 2045
Southside	150,033	160,556	175,501
Chesapeake	30,619	32,527	36,307
Franklin	2,059	2,134	2,377
Isle of Wight Co.	2,713	3,165	3,807
Norfolk	38,439	39,401	40,510
Portsmouth	11,275	12,225	13,622
Southampton Co.	667	845	906
Suffolk	8,394	9,576	11,456
Surry Co.	439	470	558
Virginia Beach	55,427	60,213	65,958
Peninsula	66,700	69,473	78,179
Gloucester Co.	3,871	3,985	4,757
Hampton	16,883	17,472	17,581
James City Co.	9,247	9,875	10,927
Newport News	23,669	24,946	28,353
Poquoson	613	642	742
Williamsburg	4,473	4,340	4,756
York Co.	7,944	8,213	11,063
Hampton Roads	216,733	230,029	253,680

Source of historical data: Bureau of Economic Analysis, VEC, and HRPDC

Draft 2045 Socioeconomic Forecast

Office Employment

	2010	2015	Forecast 2045
Southside	255,877	266,614	283,270
Chesapeake	42,041	44,083	48,438
Franklin	2,066	1,909	2,039
Isle of Wight Co.	4,197	4,458	4,878
Norfolk	79,789	79,799	81,398
Portsmouth	19,920	21,052	22,688
Southampton Co.	1,425	1,690	1,752
Suffolk	11,549	13,871	15,911
Surry Co.	739	796	877
Virginia Beach	94,152	98,956	105,289
Peninsula	98,748	99,466	111,706
Gloucester Co.	4,489	4,408	5,073
Hampton	27,528	26,444	27,619
James City Co.	12,127	14,503	17,415
Newport News	38,062	38,543	42,423
Poquoson	745	705	827
Williamsburg	6,165	4,279	4,982
York Co.	9,632	10,584	13,367
Hampton Roads	354,625	366,080	394,976

Source of historical data: Bureau of Economic Analysis, VEC, and HRPDC

Draft 2045 Socioeconomic Forecast

Industrial Employment

	2010	2015	Forecast 2045
Southside	124,471	126,521	132,869
Chesapeake	23,621	24,003	25,255
Franklin	679	588	653
Isle of Wight Co.	4,689	4,894	5,492
Norfolk	37,933	37,344	38,081
Portsmouth	11,816	12,174	12,999
Southampton Co.	1,843	1,914	2,262
Suffolk	7,137	7,466	8,852
Surry Co.	1,367	1,469	1,696
Virginia Beach	35,386	36,670	37,579
Peninsula	60,355	61,061	67,934
Gloucester Co.	2,784	2,642	2,786
Hampton	12,534	11,856	12,740
James City Co.	6,295	5,619	6,454
Newport News	32,204	33,539	38,147
Poquoson	475	195	206
Williamsburg	1,043	2,010	2,119
York Co.	5,020	5,200	5,483
Hampton Roads	184,826	187,582	200,803

Source of historical data: Bureau of Economic Analysis, VEC, and HRPDC

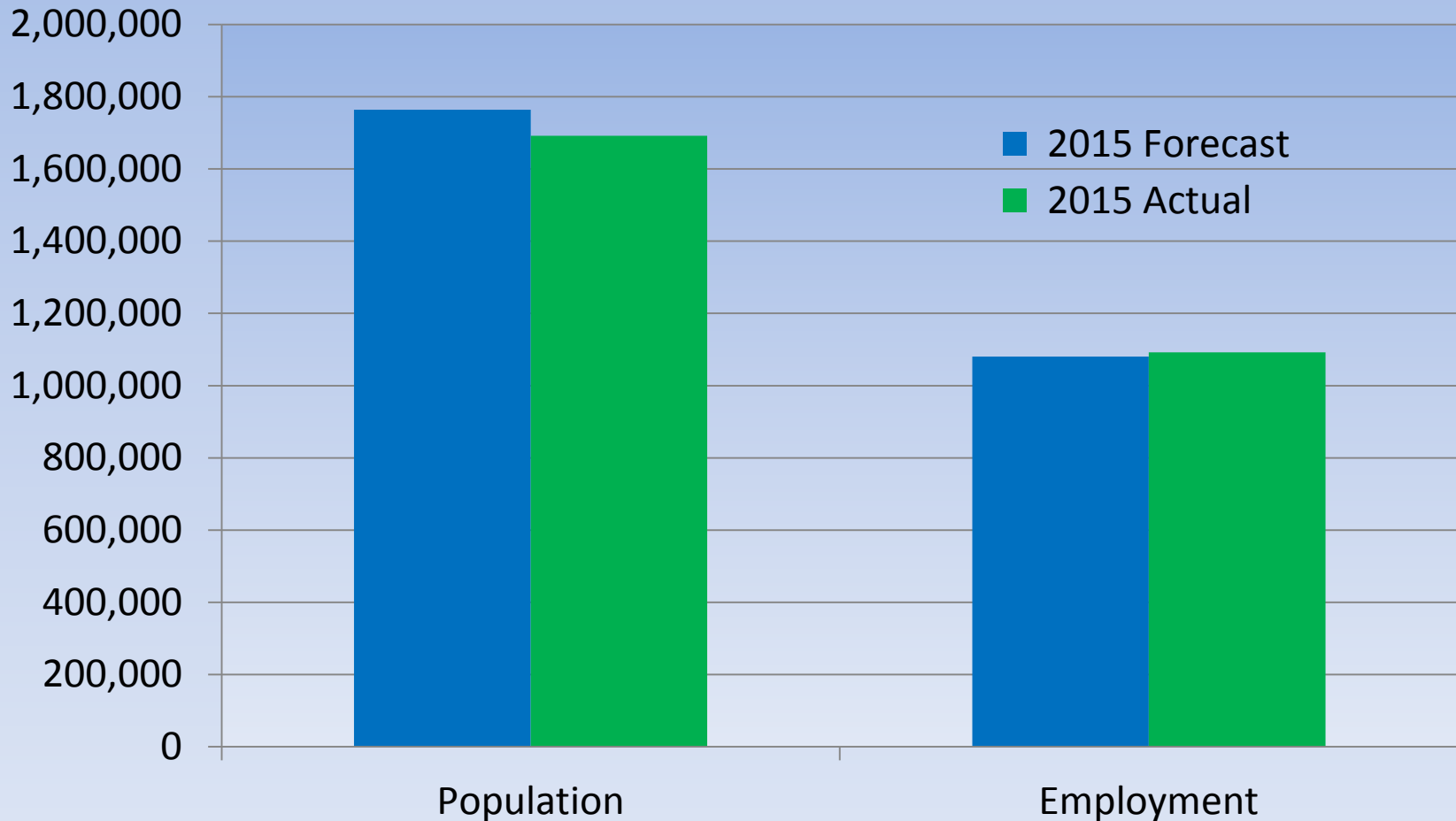
Draft 2045 Socioeconomic Forecast

Other Employment

	2010	2015	Forecast 2045
Southside	163,261	171,147	179,626
Chesapeake	25,406	26,578	28,475
Franklin	1,057	1,232	1,323
Isle of Wight Co.	2,631	3,082	3,322
Norfolk	54,827	55,325	56,154
Portsmouth	14,401	15,344	16,383
Southampton Co.	1,235	1,294	1,335
Suffolk	7,666	8,636	9,570
Surry Co.	496	537	584
Virginia Beach	55,541	59,119	62,481
Peninsula	71,166	72,167	79,188
Gloucester Co.	2,885	2,924	3,291
Hampton	19,968	19,479	20,754
James City Co.	8,732	10,108	11,125
Newport News	25,707	26,436	29,054
Poquoson	773	541	811
Williamsburg	6,221	5,559	6,104
York Co.	6,880	7,120	8,050
Hampton Roads	234,427	243,314	258,814

Source of historical data: Bureau of Economic Analysis, VEC, and HRPDC

Accuracy of Previous Forecasts?



Questions

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