



Palm Beach County

POPULATION ESTIMATES & PROJECTIONS

League of Cities – February 25, 2015

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PBC Planning Division



Presentation Outline

- Population Overview
 - Key Terms & Concepts
 - Decision making & population
- State & County Population
- Population Agencies & Products
 - US, State, County
- Question & Answer
 - Hand out – County Profile & Links



Palm Beach County

POPULATION OVERVIEW



Key Terms

- **Estimates**
 - Existing residential population as of a point in time
- **Projections**
 - Anticipated population in the future
- **Key Terms**
 - Person per household rate = average household size
 - Group Quarters = group facility residents
 - Permanent Population = residents year round
 - Seasonal = part time residents



Population Change Factors

- Demographic shifts – changes in PPH
 - Increase in Hispanics – increase in PPH
 - Surge in senior population - aging Baby Boomers
- Birth vs. death rates
- Migration and immigration
 - International
 - Domestic
 - Migration between Counties or States



Decision Making & Population

- Annexation
- Increasing Density
- Development & Redevelopment Approvals
- New development = new population

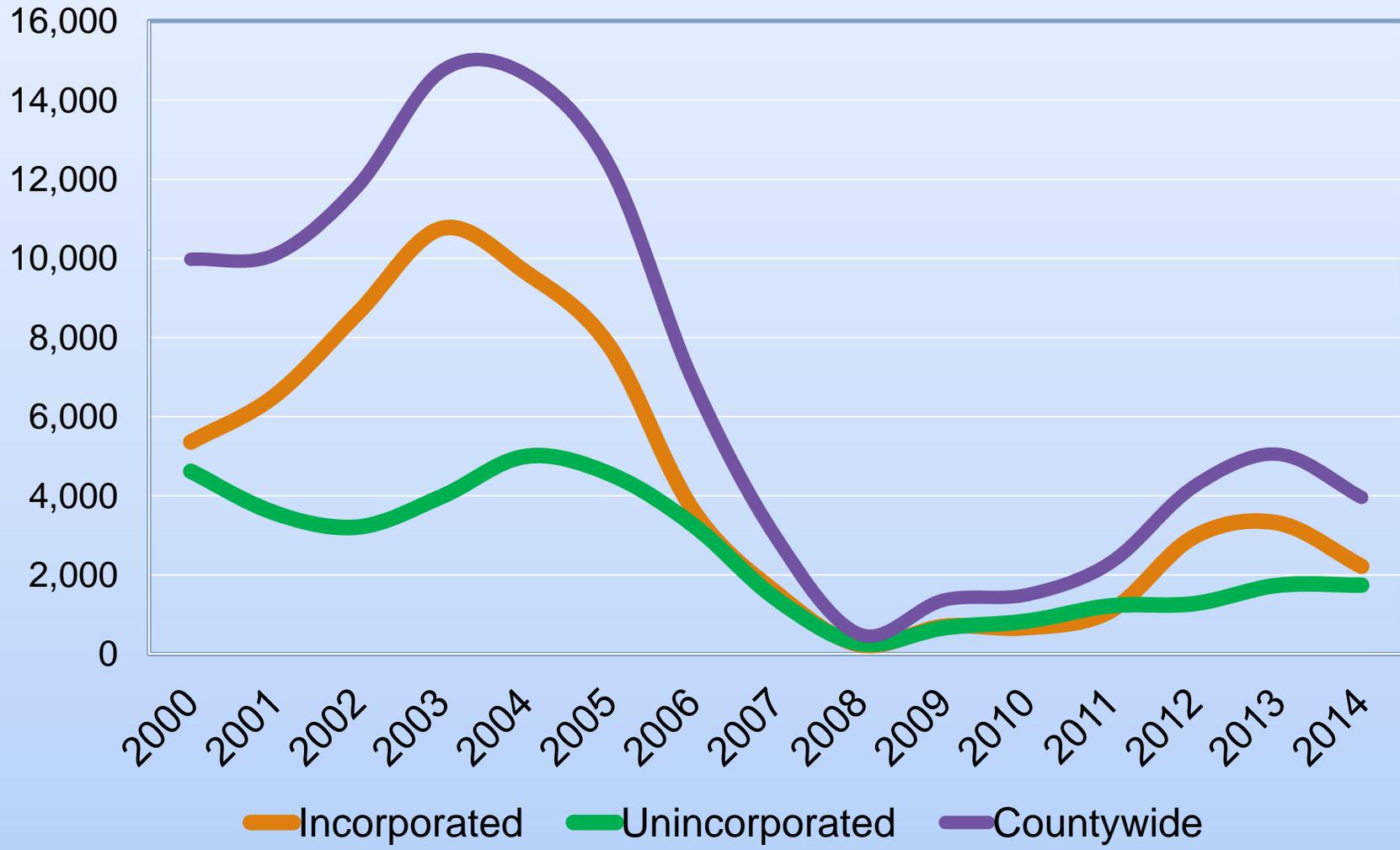
New Units

In-migration

Added
population

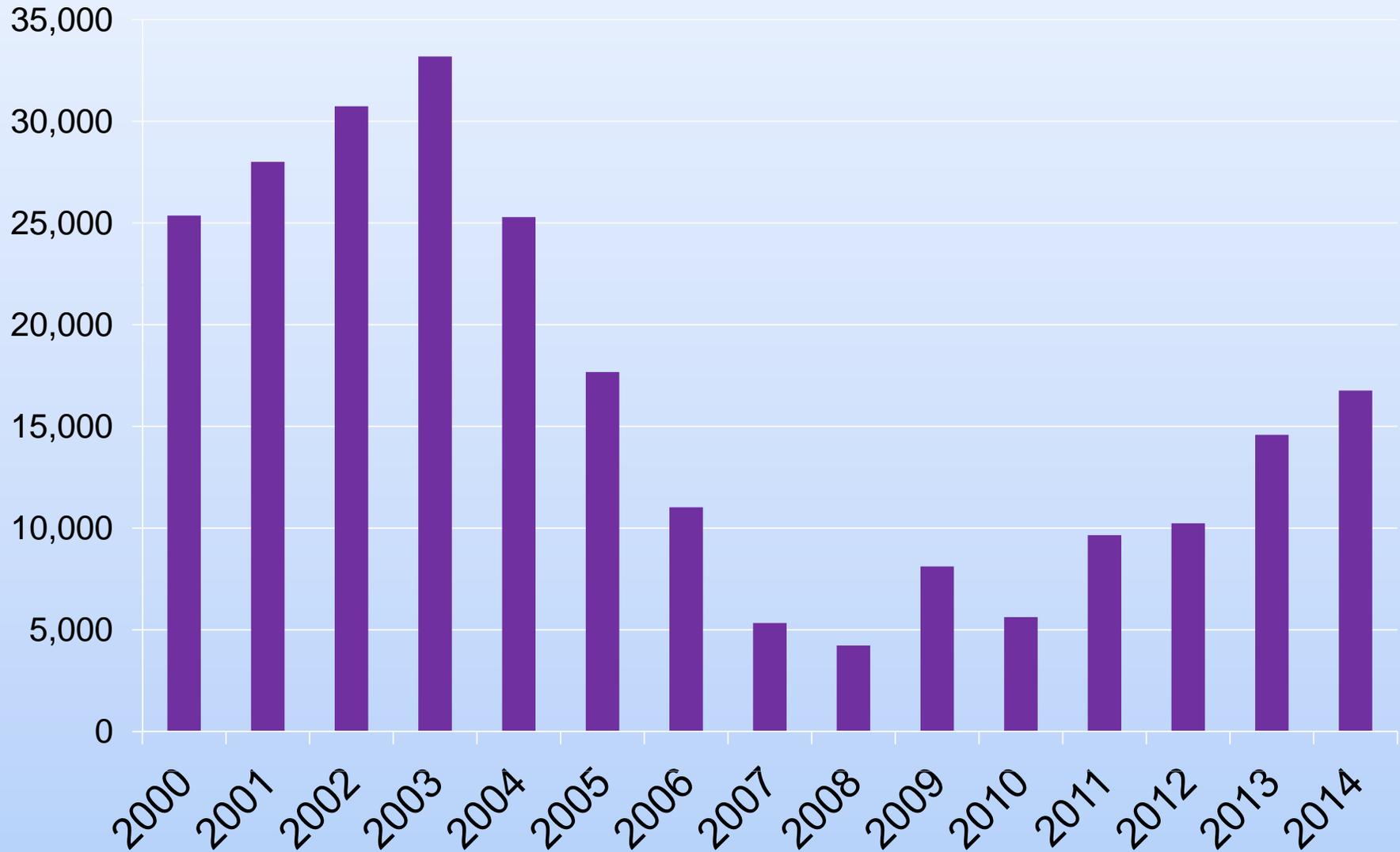


PBC Residential Permit Activity 2000-2014





PBC Annual Population Growth 1985-2013



Source: BEBR Estimates



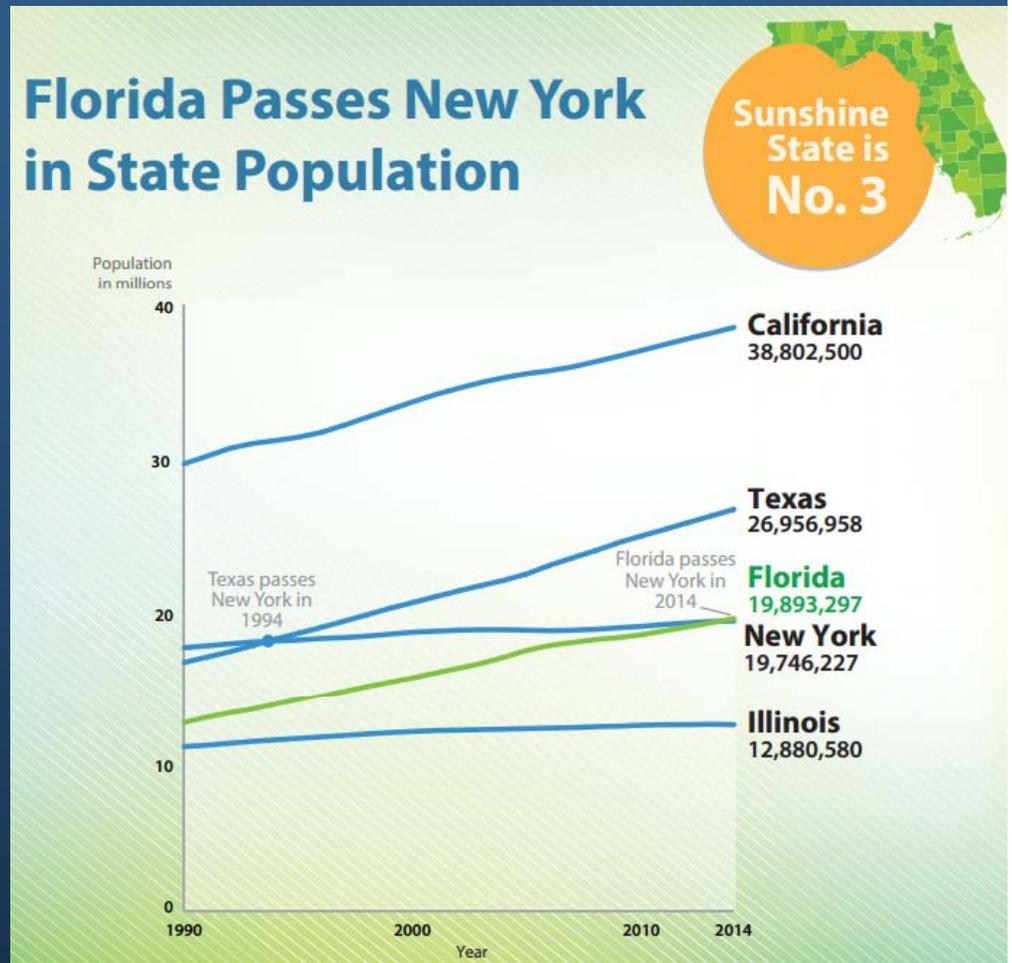
Palm Beach County

STATE & COUNTY POPULATION



State of Florida Population

- Nearly 20 million
- In-migration
- 30% in top 3 Counties
 - Miami-Dade - 2.6 mil
 - Broward - 1.8 mil
 - Palm Beach - 1.36 mil





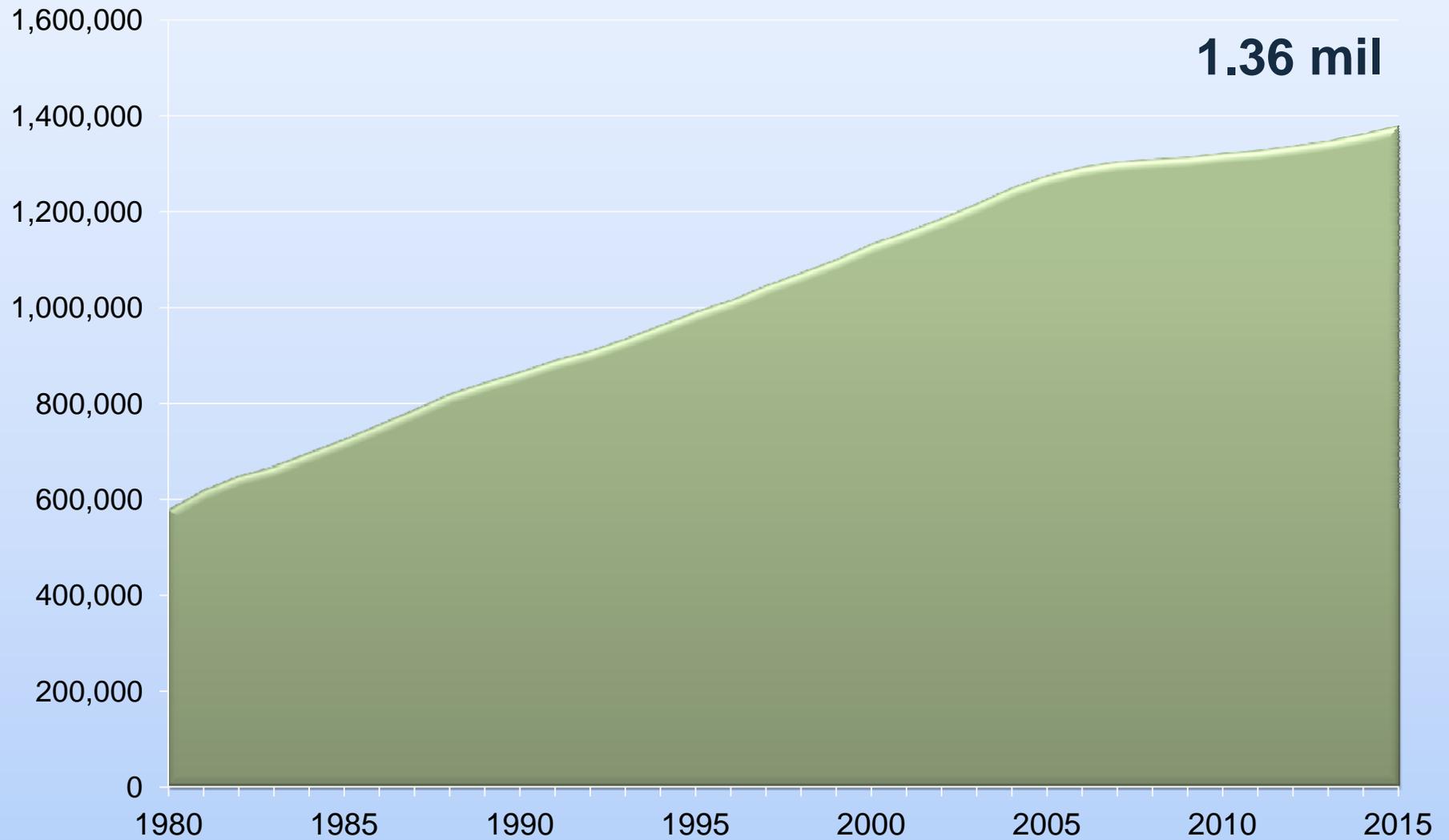
Palm Beach County Population

- 2014 Population = 1,360,200
 - Historically high growth rate
 - Predominately In-migration
 - Unincorporated = 600,000 (44%)
 - Incorporated = 760,245 (56%)
 - Most populous – West Palm Beach 104,600
 - Larger than smallest 26 cities
 - Least population – Cloud Lake 133



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PBC Population by Year

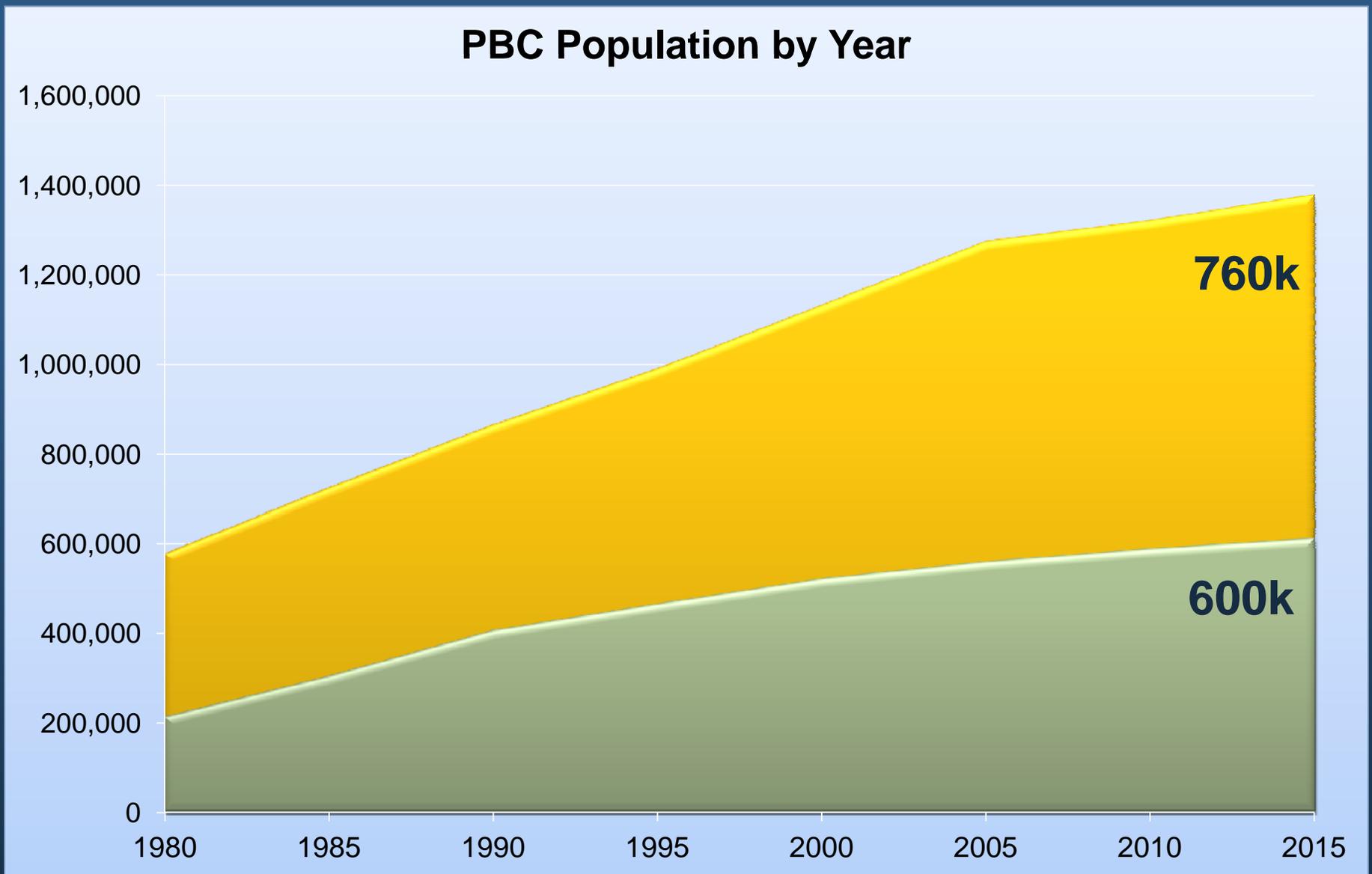


Source: US Census; Bureau of Economic & Business Research



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PBC Population by Year



Source: US Census; Bureau of Economic & Business Research



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POPULATION AGENCIES - UNITED STATES



US Population Agencies

- Decennial Census:
 - 100% count every 10 years
 - Legally obligated to respond
- American Community Survey (ACS):
 - 2% households survey annually
 - Legally obligated to answer all the questions
 - Replaces the 'long form'

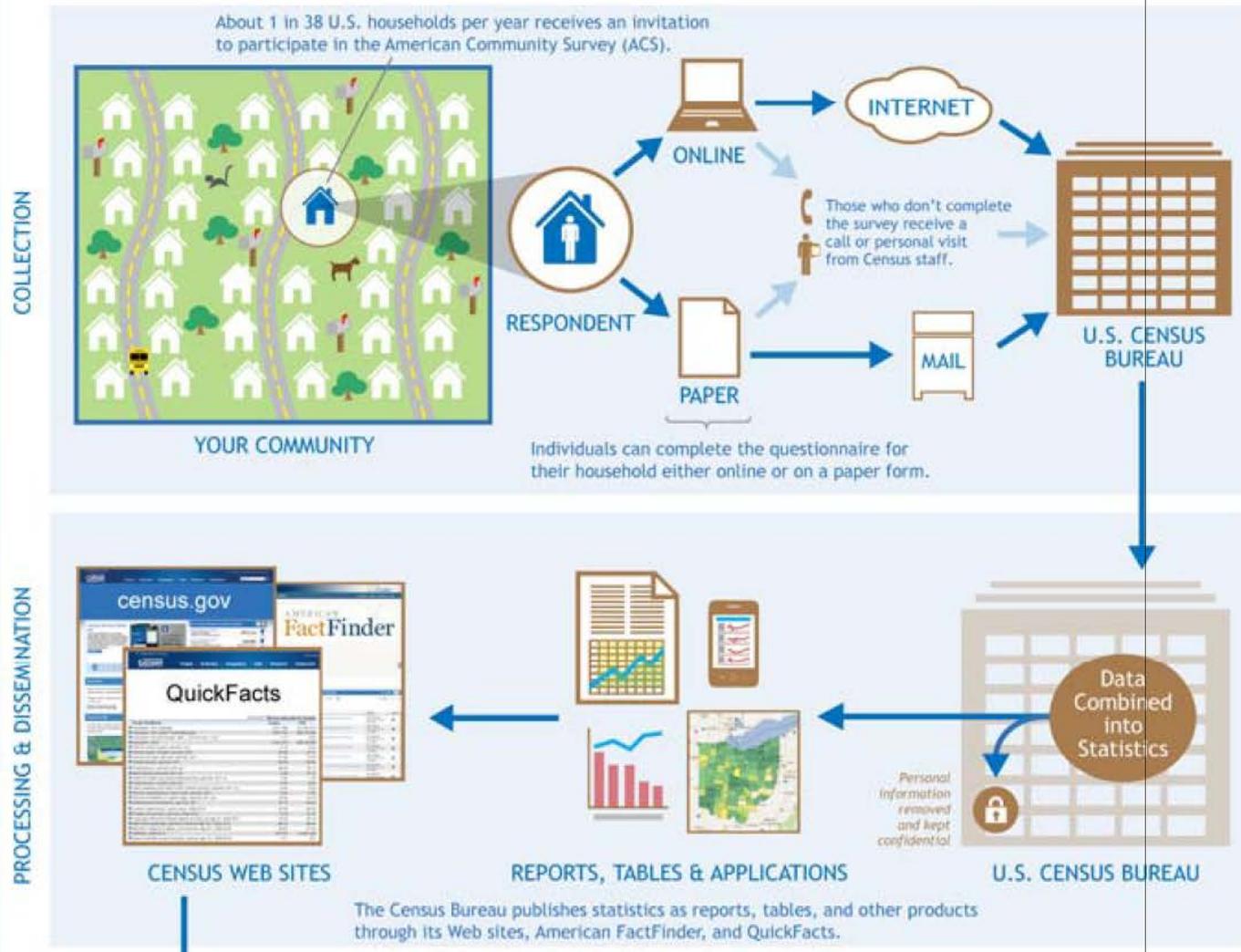


US Census Bureau Products

- Decennial Census
 - Counts
 - Age, Sex, Race, Family, Housing
- American Community Survey
 - Socio-economic data
 - Income, Education, Disabilities, Where you live, Where you work
- Data published at County and Place level
- Extensive data online



How the American Community Survey Works for Your Community





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POPULATION AGENCIES - STATE OF FLORIDA



State Population Agencies

- Office of Economic and Demographic Research
 - State staffed
 - Official economic, demographic, revenue, and agency workload forecasts
 - Official estimates & projections – Contracts with:
- Bureau of Economic & Business Research (**BEBR**)
 - University of Florida staff & graduate students
 - Annual Estimates & Projections
 - Special Population Studies



Palm Beach County

BEBR ESTIMATES



BEBR Estimates

- Florida's official Estimates
 - Issued Annually
 - State, County & City
 - Contracted by OEDR
 - Statutes require OEDR to provide population estimates (Ch. 186.901, FS)





BEBR Estimate Methodology

1. Occupied Housing Units
 - Building Permits
 - Active Electric Customers
 - Number of Homestead Exemptions
2. Persons Per Household
 - 2010 Census PPH
 - Housing mix
3. Group Quarter Population

$$\text{Population} = (1 \times 2) + 3$$

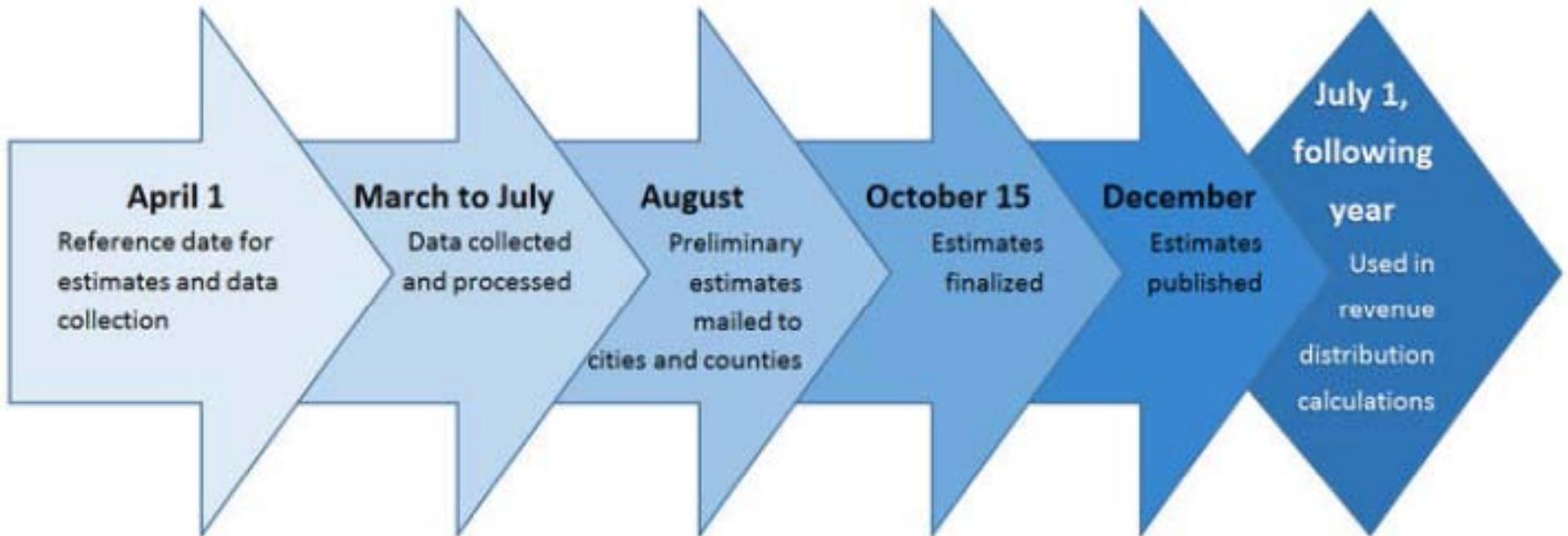


Estimate Accuracy

- Generally accurate
- Estimate errors
 - Lowest for larger stable communities
 - Higher for smaller or rapidly growing communities
- PPH estimates have the lowest errors
- Group Quarter Population has the most errors



BEBR Estimate Timeline





Estimate Review Process

- In August BEBR issues preliminary estimates
 - Each Local Government review
 - Form letter to sign off or appeal
- City staff review city estimates
- County staff review County & city estimates
 - County staff coordinate with City staff
 - County appeals only unincorporated estimate



BEBR Review Form

Each September, BEBR sends preliminary estimation notices to Planning Office of each community:

_____ I have reviewed this preliminary population estimate and consider it to be reasonably correct.

_____ I have reviewed this preliminary population estimate and do not consider it to be reasonably accurate. I believe a more accurate estimate would be _____. I request that you reconsider your preliminary estimate.

_____ I have reviewed this preliminary population estimate and do not consider it to be reasonably accurate. I am enclosing documentation which I believe supports an April 1, 2014 estimate of _____. I request that you review this documentation and reconsider your preliminary estimate.



What to look for in Review

- Compare to prior year & trends
- Does estimate reflect population increases?
 - Sizable annexation of built residential areas
 - Recent new development with issued Certificates of Occupancy (COs)
 - Recent new large group home development
- If not, file appeal



Appeal Process

- BEBR staff generally is:
 - Very responsive
 - Respectful of local knowledge
 - Uses professional judgment for final estimates
- Successful appeals in the last 10 years
 - West Palm Beach
 - Briny Breezes
 - Palm Beach County (1 appeal over past 20 years)



How do Estimates impact Revenue?

- Used to calculate Adjusted Municipal Population
(BEBR Estimate x Adjustment Factor) /
Total Adjusted Statewide Municipal Population

Population Class	Adjustment Factor
< 2k	1.000
2 - 5k	1.135
5 - 20k	1.425
20k - 50k	1.709
+ 50k	1.791



State Revenue Sharing

- Adjusted Municipal Population is 1 of 3 factors
- State Revenue Sharing based upon:
 1. Derived municipal sales tax collections
 2. Municipality's relative ability to raise revenue
 3. Adjusted Municipal Population
- *For Methodology of Revenue Distribution, see page 82 of the 2014 Local Government Financial Information Handbook*
- *<http://www.edr.state.fl.us/Content/local-government/reports/lgfih14.pdf>*



Palm Beach County

BEBR PROJECTIONS



BEBR Projections

- Florida's official Projections
 - Issued Annually
 - State & County only
 - Contracted by OEDR
 - Statutes require Comprehensive Plans to be based on Local Government or published by OEDR
 - Ch. 163.3177(1)(f)(3), FS

College of Liberal Arts and Sciences
Bureau of Economic and Business Research



Florida Population Studies

Volume 47, Bulletin 168, April 2014

Projections of Florida Population by County, 2015–2040, with Estimates for 2013

Stanley K. Smith, Population Program Director
Stefan Rayer, Research Demographer

The Bureau of Economic and Business Research (BEBR) has been making population projections for Florida and its counties since the 1970s. This report presents our most recent set of projections and describes the methodology used to construct those projections. To account for uncertainty regarding future population growth, we publish three series of projections. We believe the medium series is the most likely to provide accurate forecasts in most circumstances, but the low and high series provide an indication of the uncertainty surrounding the medium series. It should be noted that these projections refer solely to permanent residents of Florida; they do not include tourists or seasonal residents.

State projections

The starting point for the state-level projections was the 2010 census count by age and sex as reported by the U.S. Census Bureau. Projections were made in five-year intervals using a cohort-component methodology in which births, deaths, and migration were projected separately for each age/sex group. We applied three different sets of assumptions to provide low, medium, and high series of projections. Although the low and high series do not provide absolute bounds on future population growth, they provide a reasonable range in which Florida's future population is likely to fall.

Survival rates were applied to each age/sex group to project future deaths in the population. These rates were based on Florida Life Tables for 2009–2011, using mortality data published by the Office of Vital Statistics in the Florida Department of Health. The survival rates were adjusted upward in 2015, 2020, 2025, 2030, and 2035 to account for projected increases in life expectancy. These adjustments were based on projected increases in survival rates released by the U.S. Census Bureau. We used the same mortality assumptions for all three series of projections because there

is much less uncertainty regarding future changes in mortality rates than is true for migration and fertility rates.

Domestic migration rates by age and sex were based on data from Public Use Microdata Sample (PUMS) files from the 2005–2009 American Community Survey (ACS). Since migration estimates from the ACS cover a one-year period, we developed a methodology for converting one-year data into five-year data. Using PUMS files, IRS migration records, and 1990 and 2000 census data, we developed a set of conversion factors and applied them to the 2005–2009 PUMS data. The conversion process raised the one-year migration estimates by a factor of 3.4 for in-migration and by 3.0 for out-migration. We calculated in-migration rates by dividing the number of persons moving to Florida from other states by the 2007 population of the United States (minus Florida) and calculated out-migration rates by dividing the number of persons leaving Florida by Florida's 2007 population. In both instances, rates were calculated separately for males and females for each five-year age group up to 85+.

These in- and out-migration rates were weighted to account for recent changes in Florida's population growth rates and to provide alternative scenarios regarding future growth. For each of the three series, projections of domestic in-migration were made by applying weighted in-migration rates to the projected population of the United States (minus Florida), using the most recent set of national projections produced by the U.S. Census Bureau. Projections of out-migration were made by applying weighted out-migration rates to the Florida population.

For the medium projection series, in-migration weights were 0.93 for 2010–15, 1.12 for 2015–2020, and 1.11 thereafter, while out-migration weights were 1.06 for 2010–15 and 1.0 thereafter. For the high series, in-migration weights were



BEBR Projections Overview

- Countywide projections
 - Annually issues High, Medium, and Low
 - 5 year increments up to 2040
 - Projections by Age, Race & Sex
- Adjusted from year to year to reflect growth
- Greatest accuracy in short time frames



BEBR Projection Methodology

- Each County = 9 projections using 5 techniques
 - Linear
 - Exponential
 - Share-of-growth
 - Shift-share
 - Constant population
- Based on past trends
 - High past growth yields higher projections
 - Low past growth yields lower projections

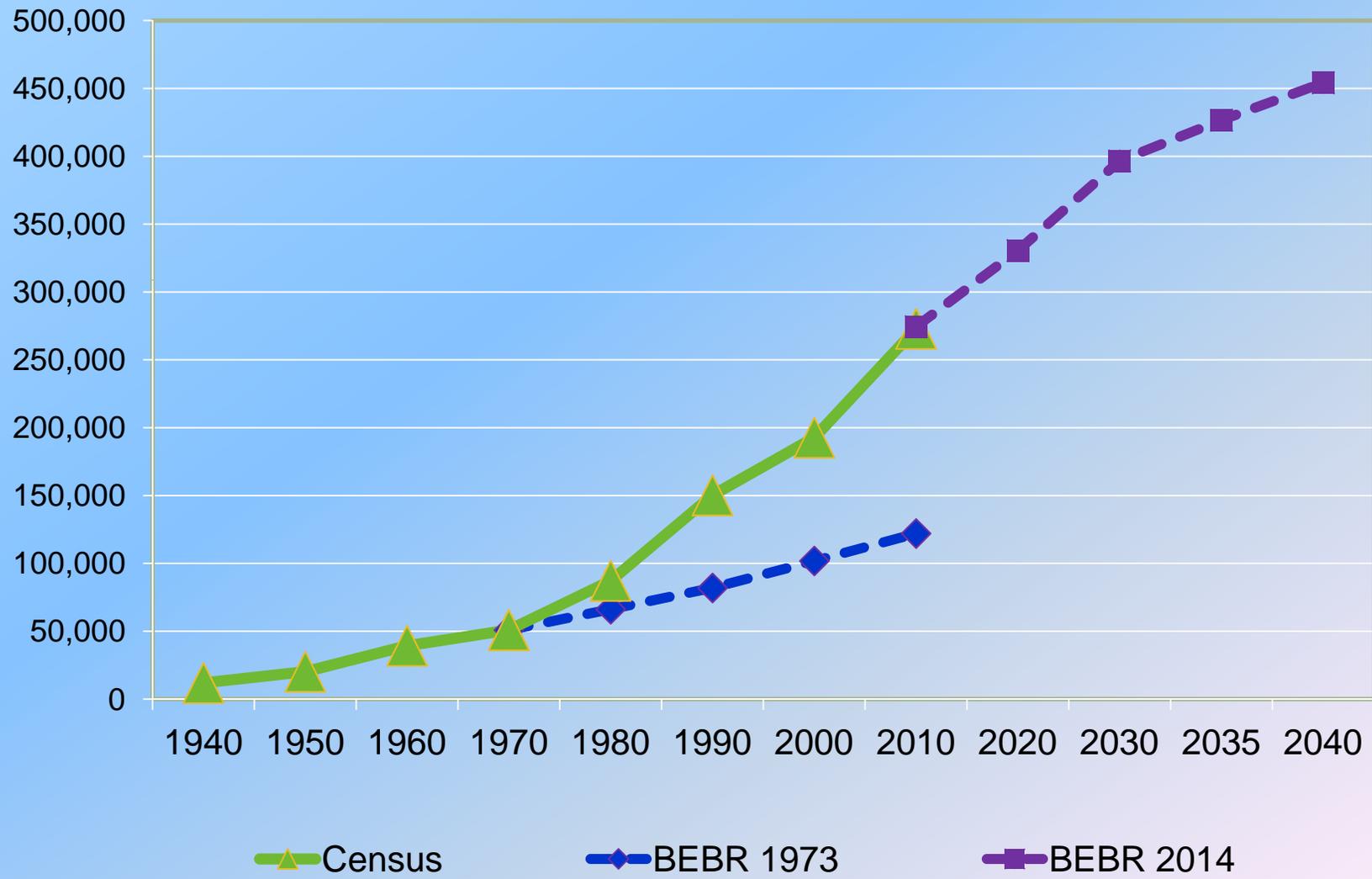


Decision Making & Projections

- Adding units = adding population
 - Increased growth contributes to higher projections
- Constraining units = constrained population
 - Policy based constraints or Land based constraints
 - Contributes to lower projections

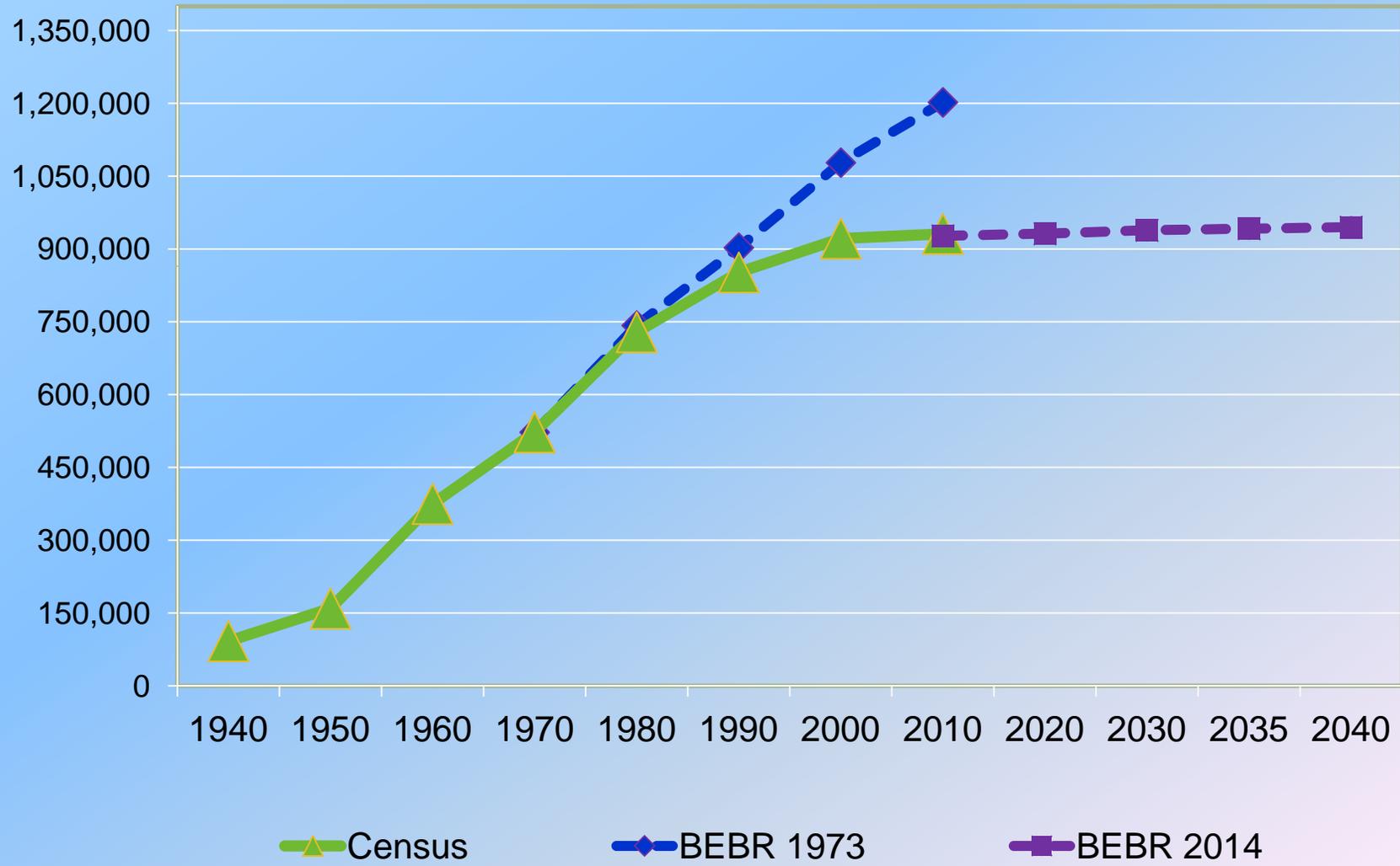


St. Lucie County Growth & Projections





Pinellas County Growth & Projections





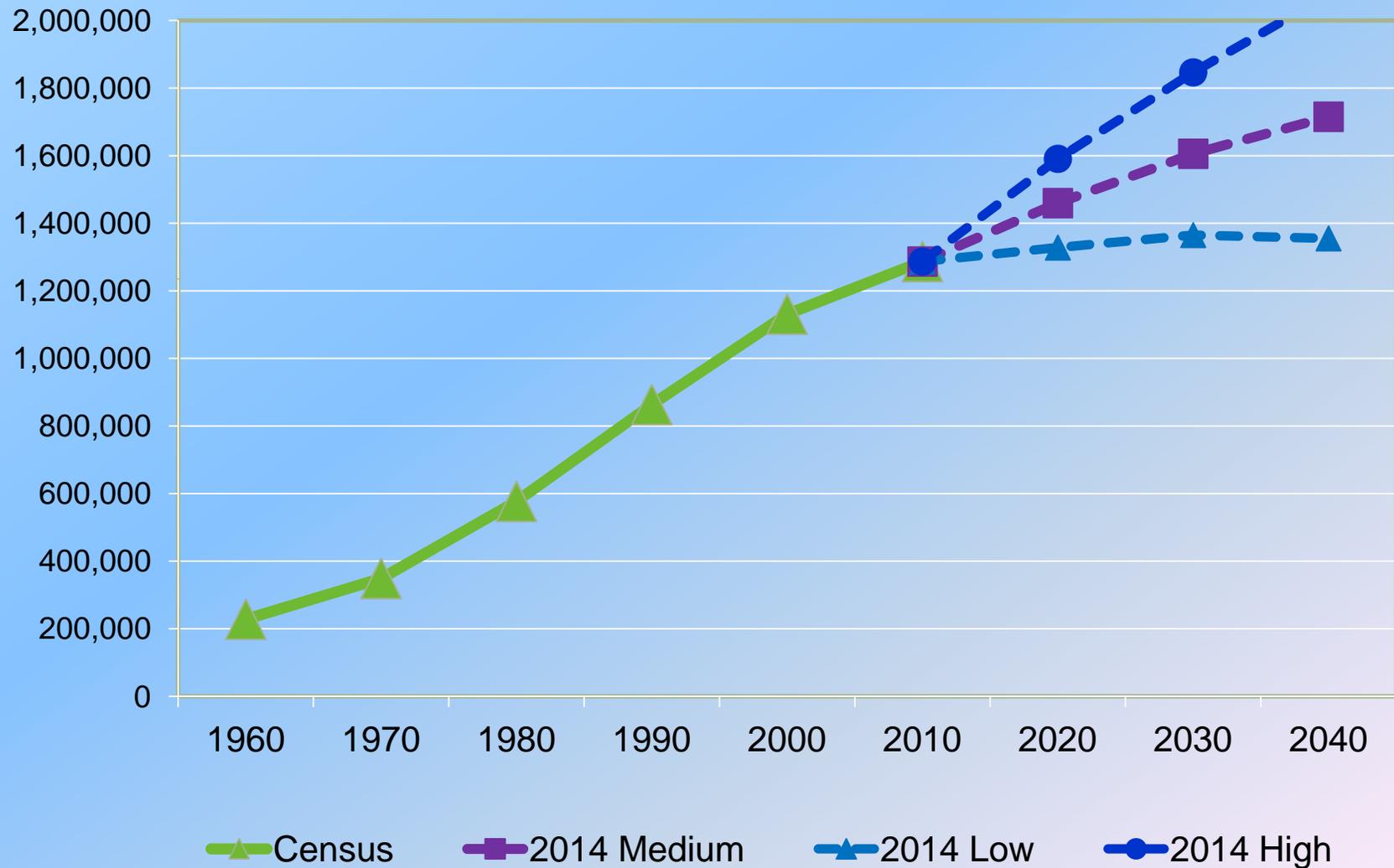
BEBR Projections 2014

- Palm Beach County

	2015	2020	2025	2030	2035	2040
Low	1,291,900	1,328,100	1,352,200	1,364,900	1,361,800	1,355,100
Medium	1,374,300	1,459,500	1,536,600	1,605,700	1,660,700	1,715,300
High	1,456,800	1,590,800	1,721,000	1,846,600	1,959,600	2,075,500

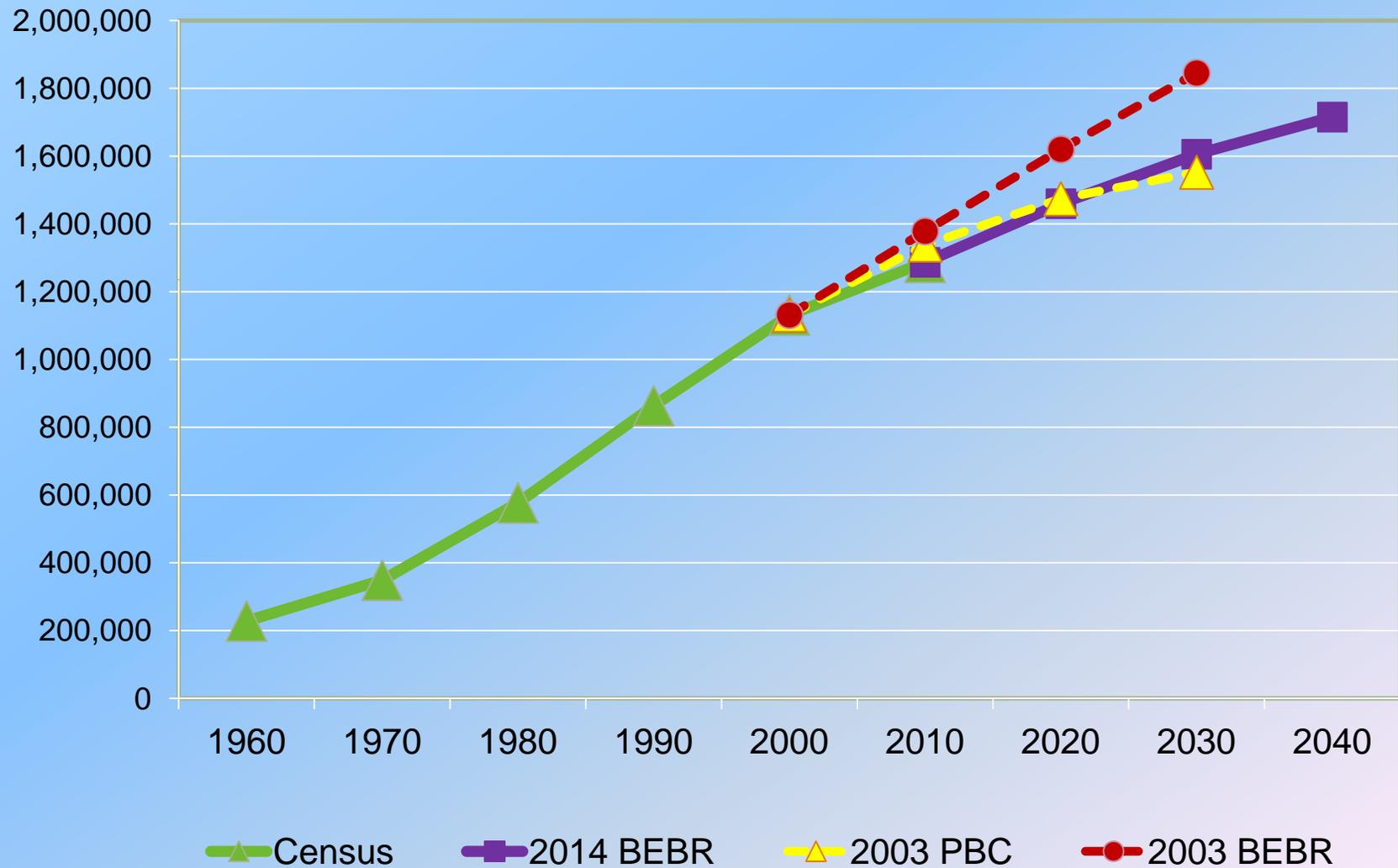


BEBR Projections – Palm Beach County





BEBR Projections – Palm Beach County





Palm Beach County

POPULATION AGENCIES - PALM BEACH COUNTY



County Population Agencies

- Palm Beach County Allocation Model
 - Planning Division Staff
 - Allocate BEBR Projections to smaller geographies
 - More useful for planning purposes
- Metropolitan Planning Organization (MPO)
 - Long Range Transportation Plan
 - Utilizes PBC Allocation Model as base data
- Municipalities



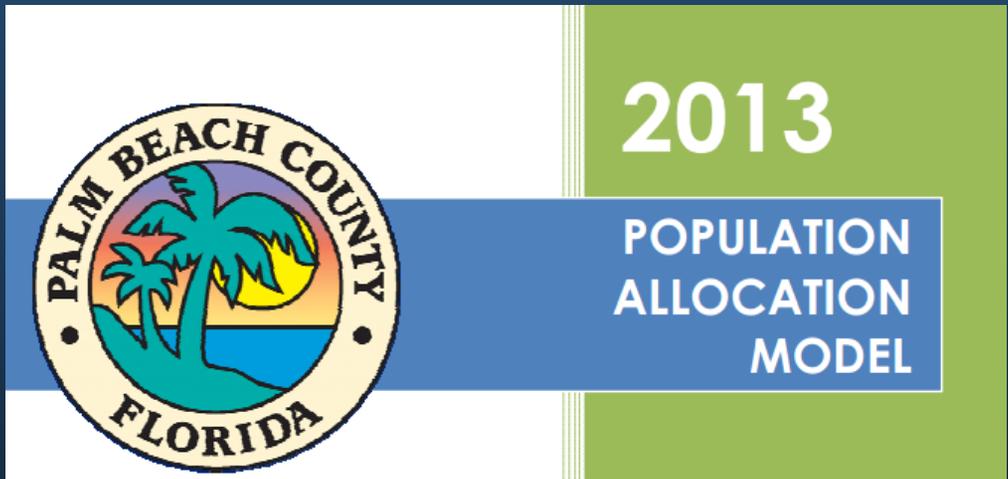
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PBC POPULATION ALLOCATION MODEL



PBC Population Allocation Model

- County Staff has prepared for past 20 years
 - Similar techniques used since 1970s
 - Professionally accepted methodology
 - ULAM, Interactive Growth Model, MPOs
- Distributes BEBR's projections
 - 2,000+ Traffic Analysis Zones





PBC Population Allocation Model

- **BEBR Projections**
 - Single County-wide figures
 - No local government projections
 - No service area projections
 - Do not take into account available land or approvals
- **Inadequate for service planning**
 - Parks, Libraries, Schools
 - Emergency Services - Fire Rescue, Sheriff
 - Infrastructure - Transportation, Water Utilities



Allocation Model Methodology

- Existing Land Use data
 - Tabulate built dwelling units
 - Assign current population (units x PPH)
- Future development potential
 - Assign future units from adopted future land use maps, development approvals, and redevelopment plans
 - Calculate future population (units x PPH)
- Factor in historical growth & trends
- Predict when & where growth will occur



Palm Beach County



Revision Date: December 9, 2010
 Contact: Betty Yiu
 Filename: SampleTAZ-292

 Residential Approvals

 Feet
 500 0

Planning, Zoning
 & Building
 2300 N Jog Rd
 West Palm Beach, FL 33411
 Phone (561) 233-5300





Allocation Model Data & Products

- Maps & Tabular data available
 - Existing & Future Land Use
 - Built & Potential dwelling units
 - Population Density, Growth patterns, Built by Year
 - Comparison data across attributes
- Data can be aggregated on any geography
 - Municipal, Zip Code, Service Area, District
- Model Documentation provided online
- No obligation for cities to use
 - Data exchange available as resource



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IN CONCLUSION



Presentation Conclusion

- **BEBR Estimates**
 - Generally accurate, but be sure to review
 - Pay close attention to Population Class/Adj. Factor
- **BEBR Projections**
 - Limited use at city level
- **County Allocation Model**
 - BEBR Projections at city & service level
 - Available, but optional for cities
- **Extensive Data Online**
 - Planning Staff always available as resource



Palm Beach County

LINKS & CONTACTS



US & State Links

2010 Census Interactive Map

<http://www.census.gov/2010census/popmap/>

American Community Survey Data Search Center,

<http://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml>

Office of Economic & Demographic Research

<http://edr.state.fl.us/Content/population-demographics/data/>

Bureau of Economic & Business Research (**BEBR**)

<http://www.bebr.ufl.edu/>

FL Local Government Financial Information Handbook,

<http://edr.state.fl.us/Content/local-government/reports/lgfi14.pdf>

FL Housing Data Clearinghouse

<http://flhousingdata.shimberg.ufl.edu/a/profiles?action=results&nid=5000>



PBC Links

PBC County Profile

<http://www.pbcgov.com/pzb/planning/population/countyprofile.pdf>

PBC Population Allocation Model

<http://www.pbcgov.com/pzb/planning/population/populationproj.htm>

Municipal Demographic Profiles

http://www.pbcgov.com/pzb/planning/population/2010_Dem_Profile.htm



Palm Beach County

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Palm Beach County

QUESTIONS & ANSWERS



Palm Beach County