

II. FISCAL IMPACT ANALYSIS

A. Five Year Summary of Fiscal Impact:

Fiscal Years	2018	2019	2020	2021	2022
Capital Expenditures	-0-	-0-	-0-	-0-	-0-
Operating Costs	14,000	5,000	-0-	-0-	-0-
External Revenues	-0-	-0-	-0-	-0-	-0-
Program Income(County)	-0-	-0-	-0-	-0-	-0-
In-Kind Match(County)	-0-	-0-	-0-	-0-	-0-
NET FISCAL IMPACT	-0-	-0-	-0-	-0-	-0-
#ADDITIONAL FTE	-0-	-0-	-0-	-0-	-0-
POSITIONS (CUMULATIVE)	14,000	5,000	-0-	-0-	-0-

Is Item Included in Current Budget?

Yes X No

Does this item include the use of federal funds?

Yes No X

Budget Account No:

Fund: 0001

Agency: 600

Organization: 6207

Object: 3401

B. Recommended Sources of Funds/Summary of Fiscal Impact:





Extension of contract only after completion of study. The fiscal impact was \$19,000, which has already been allocated to the above account.

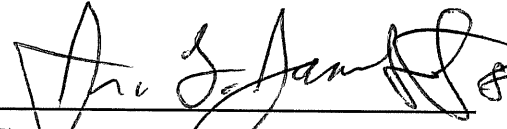

C. Departmental Fiscal Review:



III. REVIEW COMMENTS:

A. OFMB Fiscal and/or Contract Dev. and Control Comments:

 8/23/18
OFMB  8/23  8/23  8/22

 8/30/18
Contract Dev. & Control
8/30/18 

B. Legal Sufficiency


_____ Assistant County Attorney

C. Other Department Review

Department Director

(THIS SUMMARY IS NOT TO BE USED AS A BASIS FOR PAYMENT.)

**FIRST AMENDMENT TO CONTRACT FOR
CONSULTING/PROFESSIONAL SERVICES BETWEEN PALM BEACH
COUNTY AND UNIVERSITY OF FLORIDA BOARD OF TRUSTEES**

THIS FIRST AMENDMENT TO CONTRACT FOR CONSULTING is made and entered into on May 23, 2017, by and between the Board of County Commissioners of Palm Beach County, Florida, hereinafter referred to as "COUNTY" and UNIVERSITY OF FLORIDA BOARD OF TRUSTEES, a public body corporate of the State of Florida, authorized to do business in the State of Florida, hereinafter referred to as "CONSULTANT", whose Federal I.D. is 59-6002052.

WITNESSETH:

WHEREAS, on May 23, 2017, COUNTY and CONSULTANT entered into a Contract for professional and consultation services; hereinafter referred to as the "Contract"; and

WHEREAS, the schedule in the Contract was scheduled to begin on August 1, 2017, and end on October 31, 2017; and

WHEREAS, under Exhibit "A" Scope of Services of the Contract states that the CONSULTANT will begin work provided that they receive the COUNTY'S Build-Out Submodel data in Week 1 of the project; and

WHEREAS, the COUNTY has not provided this data and therefore resulted in extensions of time to CONSULTANT to perform the services under this contract; and

WHEREAS, both parties desire to amend the Contract.

NOW THEREFORE, in consideration of the mutual covenants and agreements contained herein, COUNTY and CONSULTANT hereby agree as follows:

1. Article 2 of the Contract is amended to state that the CONSULTANT shall commence services on July 10, 2018 and complete all services by October 10, 2018.
2. CONSULTANT will perform this work after the notice to proceed, assuming the COUNTY provides the Build-out-Submodel data in Week 1 of the Project.
3. Except as provided herein, each and every other term of the Contract shall remain in full force and effect and the Contract is reaffirmed as modified herein.

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IN WITNESS WHEREOF, the parties, by and through their duly authorized agents, have hereunto set their hands and seals on the date indicated above.

WITNESS

CONSULTANT UNIVERSITY OF FLORIDA
BOARD OF TRUSTEES, A PUBLIC BODY
CORPORATE OF THE STATE OF FLORIDA

Melissa Cecil
Signature

[Signature]
CONSULTANT Signature

Melissa Cecil, sponsored programs administrator
Name (Type or Print)

Lisa C. Stroud
Name ~~Assistant Director~~
University of Florida

6/15/2018
Title (Type or Print)

PALM BEACH COUNTY, FLORIDA FOR ITS
BOARD OF COUNTY COMMISSIONERS
BY: KATHLEEN M. SCARLETT
DIRECTOR OF PURCHASING

[Signature]
Kathleen M. Scarlett, Director

APPROVED AS TO FORM AND
LEGAL SUFFICIENCY

[Signature]
County Attorney

APPROVED AS TO TERMS AND
CONDITIONS

[Signature]
Executive Director/Deputy Director
Palm Beach County Planning, Zoning & Building

SCOPE OF WORK

**University of Florida Bureau of Economic and Business Research Proposal to Palm Beach
County**

To Develop Small-Area Population Estimates and Projections

BACKGROUND

The University of Florida's Bureau of Economic and Business Research (BEBR) produces the official population estimates and projections for the State of Florida, and also develops small-area population estimates and projections for local governments, water management and utilities. Because Palm Beach County (COUNTY) requires regularly updated small-area population estimates and projections, BEBR is submitting this proposal to the county to develop updated, defensible, and updateable small-area population estimates and projections for the county.

This proposed project is to develop small-area estimates and projections of housing units and permanent population, which is consistent with the estimates and projections made by BEBR and the U.S. Census Bureau. These will be generated using a GIS-based model which spatially distributes BEBR's county level estimates and county level population forecasts to the property parcel level, allowing the estimates and projections to be summarized by any geographic units. BEBR will use the latest available data, including countywide parcels, land use, future land use, large planned developments, road networks (including proposed roads), public lands, census data, traffic analysis zone (TAZ) boundaries, and BEBR estimates and projections. The model and its results will be documented and defensible in a court of law.

SCOPE OF WORK

This scope provides for the development of a new small-area population estimation and projection model for Palm Beach County. This model will be used by BEBR to estimate current (2016) population and project population for 2020 through 2045 in five-year increments. Project deliverables will include GIS data (Esri File Geodatabase or Shapefile) of results disaggregated to the parcel level, spreadsheet summaries by TAZ, and technical documentation. The proposed tasks are presented below.

1. Population Estimation and Projection Model Development

Gather, standardize, combine, and process all the necessary data model inputs for all jurisdictions within Palm Beach County:

1.1. Develop County Build-out Submodel with Current and Historical Population Estimates
COUNTY will:

- 1.1.1. Create File Geodatabase (or Shapefile) of countywide parcels with current residential units and maximum residential units at build-out. This will be accomplished using a combination of parcel data, future land use data, development data, wetlands, public land ownership, and data on condominiums and mobile home parks.
- 1.1.2. Apply 2010 TAZ-level census metrics for occupancy (which excludes seasonal residents), household size, and group quarters population using data from the 2010

decennial census to develop current (2016) estimates of permanent population and housing units.

- 1.1.3. Develop historical residential unit estimates by TAZ for 1980, 1985, 1990, 1995, 2000, 2005, 2010, 2015 using the year built info from the Property Appraiser Data Base. These estimates will be used for BEBR's historical growth trend calculations.

BEBR will:

- 1.1.4. Apply trends from the American Community Survey (ACS) to adjust household size and occupancy.
- 1.1.5. Calibrate the resulting current population to BEBR's April 1, 2016 estimates, or to extrapolated estimates that coincide with the release date of the parcel data. Make any necessary adjustments to historical estimates to correspond to those made to the 2016 estimates.
- 1.1.6. Quality assure final File Geodatabase (or Shapefile) of countywide parcel-level estimates of historic, current and build-out permanent population and housing units.

Note that it is anticipated that this layer will be maintained by COUNTY to enable quick and inexpensive future projection updates.

1.2. Develop Historical Growth Rates

Develop TAZ growth trend calculations using historical estimates in the County Build-out Submodel. Similar to its county projection methods, BEBR will apply common techniques for growth trend calculations over multiple historical periods, exclude some of the highest and lowest values, and average the remaining calculations. COUNTY will have input regarding these calculations, as COUNTY staff may have insight into the appropriateness of certain techniques over certain time periods.

1.3. Develop County Growth Driver Submodel

Spatial drivers to residential growth are used as independent variables in a multivariate logistic regression for Palm Beach County. We will apply these values to create a probability for the development of undeveloped parcels or redevelopment of underdeveloped ones. These are used. The drivers used include:

- 1.3.1. Florida Department of Transportation roads and proposed roads identified in the future plans of the Metropolitan Planning Organizations (MPOs) and Transportation Planning Organizations (TPOs)
- 1.3.2. Selected commercial property drivers using property appraiser data
- 1.3.3. Residential property drivers using property appraiser data
- 1.3.4. Large development drivers using updated large development boundaries
- 1.3.5. Surface water drivers using land cover data

1.4. Develop Small-area Population Projections

- 1.4.1. Assign growth driver data from County Growth Driver Submodel to County Build-out Submodel.
- 1.4.2. Calculate 2020, 2025, 2030, 2035, 2040 and 2045 projections of permanent population and housing units by TAZ consistent with BEBR's latest available "medium" population forecast. These projections will be based on the TAZ growth trends with checks against build-out at the TAZ level.

1.4.3. Summarize population and housing unit projections by TAZ.

1.5. Deliverables

- 1.5.1. Geodatabase: The historical population and housing unit estimates and projections will be provided in GIS format (file geodatabase) at the property parcel level.
- 1.5.2. Spreadsheet: Parcel-level results will be summarized by TAZ and exported to Excel format.
- 1.5.3. Project Documentation: A technical report will be prepared in PDF format to present the data, methods and results.

PROJECT SCHEDULE

BEBR will perform this work six (6) weeks after the notice to proceed, assuming BEBR receives the COUNTY's Build-out Submodel data in Week 1 of the project. Delays in providing this data will result in subsequent extensions of time to BEBR to perform the services under this agreement.

PROJECT BUDGET

The total budget for this scope is \$19,000. This includes University of Florida overhead. *Note that depending on the amount of data updates, future model runs would be about a third of this cost.*

BEBR PROJECT MANAGER

Mr. Doty will serve as project manager. He has 25 years of experience with developing GIS-based small-area population estimation and projection models. He serves as an expert witness in the areas of population forecasting and GIS. His contact information is below.

Richard Doty
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richardldoty@ufl.edu