

Consultant Report: District Analysis for the City of Lake Worth Beach

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Introduction

The City of Lake Worth Beach contracted with Florida Atlantic University (FAU) to conduct an analysis of their City Commission election districts. The contract outlines a two-part process: Part A, a population analysis of the current election districts and recommendation for redistricting and Part B, if necessary, the creation of redistricting options for the City.

This report transmits a general analysis of the 2020 U.S. Census apportionment dataset, adjusted for future growth to the year 2024, as well as a population analysis of the existing City Commission election districts for the City. The report then provides a recommendation as to whether the City should conduct a full redistricting analysis.

The districting requirements in the City Charter are unique, as the Charter defines the specific district boundaries. The consulting team was tasked by the City to prepare an analysis of population balance among the districts that accounts for the 2020 U.S. Census population count to determine if the districts have fallen out of alignment.

The 2020 Census

There are two primary differences that make the 2020 U.S. Census stand out from those that preceded it: a significant delay in its release due to the COVID-19 pandemic, and the implementation of a new 'differential privacy' policy. We will briefly address both of these here for the sake of posterity and context.

The decennial census aims to capture a snapshot in time of the population of the United States of America. Understanding that the population is constantly changing, with births, deaths, and migration patterns constantly adjusting the fabric of the American people, Census Day represents a single moment in time for which the U.S. population is enumerated with the greatest precision possible. This day is always April 1st. By this date, every household in America received an invitation to participate in the 2020 census, with three options to respond: online, by mail, or by phone. 2020 represented the first census to include an online response option. Subsequent to this day is a period of time in which the U.S. Census Bureau follows up with non-responders and begins a quality control process. Traditionally, the Census Bureau would deliver an apportionment count to the U.S. President on December 31st, followed by a distribution of redistricting data to the states exactly one year to the day after Census Day: in this case, April 1, 2021.

However, due to complications caused by the COVID-19 pandemic, the Census Bureau sought statutory relief from Congress that would allow for apportionment counts to be delivered to the President by April 30, 2021, and redistricting data to be delivered to the states no later than September 30, 2021. Additionally, the Census Bureau compressed the typical three-month nonresponse follow up enumeration period to two and half months. Ultimately, redistricting data were released in a 'legacy format' on August 12, 2021. This delay inevitably and unavoidably complicated redistricting efforts for every electoral district in the nation. It also meant that the amount of error in the data, inherent to every census where 100% accuracy is impossible, would likely be greater in the 2020 census. The Census Bureau has since confirmed that the rate of missing information was higher in the 2020 census than in the 2010 census. However, they have also stated that this rate was lower than they initially feared.

The 2020 redistricting data are the first to employ 'differential privacy protection'. This represents the Census Bureau's introduction of 'noise' into the data at the more local geographic scale (Blocks and Block Groups) with the intent to strike a balance between data protection and precision. The effect is that while the enumeration counts can be trusted at the Census Tract level, we must anticipate a certain degree of 'fuzziness' at the Block level. Specifically, while the aggregate count of population for a Census Tract will be accurate, a certain proportion of people/housing units will have been *deliberately* misallocated by the Census Bureau at the Block level. While this may not be problematic in the realignment of Congressional Districts, for example, it certainly represents a challenge for Municipal Districts, for which the geographic precision of Census Blocks is highly desirable.

Taken together, therefore, the complications related to the COVID-19 pandemic and the implementation of 'differential privacy' introduce a certain amount of additional uncertainty to the primary source of data for this analysis (2020 Census Redistricting Data (PL 94-171)) that is unprecedented. Nevertheless, these data remain the standard upon which municipal redistricting efforts shall be based across the nation.

Lake Worth Beach City Charter

The Charter does not provide procedural language as it pertains to redistricting or evaluation of election district population.

Article II (Territorial Boundaries: Election Precincts) Sec. 2 – Election Districts:

The City of Lake Worth is hereby divided into four (4) election districts, as follows:

District 1. All that territory lying west of Dixie Highway and south of Lake Avenue.

District 2. All that territory lying west of Dixie Highway and north of Lake Avenue.

District 3. All that territory lying east of Dixie Highway and north of Lake Avenue.

District 4. All that territory lying east of Dixie Highway and south of Lake Avenue.

Current Districts

An Evaluation of the Existing Districts:

Referring to the 2020 Census Blocks, the City of Lake Worth Beach has a population of 42,219 which means the ideal district size for each of the four election districts is 10,555 people. District 2 is the largest district with 14,149 people and District 4 is the smallest District with 6,539 people. Based on 2020 data, the election districts have a total deviation of **133.31%** and a spread between the largest and smallest districts of **72.10%**. Based on the 2020 Census block data, the current districts are well above the 10% deviation (spread) threshold used to evaluate election districts for population equity.

An Evaluation of Future Growth:

To ensure that any recommendations for redistricting reflect the most up-to-date information about population growth, they are based on projections to 2024. City staff identified developments that were not included in the 2020 Census counts but are expected to be constructed and occupied by 2024. These projects add a total of 1,554 new units to the city's existing housing stock. Population projections were established for each of these projects by multiplying the number of units by the Persons Per Household (PPH) value established by the U.S. Census American Community Survey for the City of Lake Worth Beach (2016-2020): 2.9 (with the result rounded to the nearest whole number). These results are listed in **Table 1** below. (Note: Population projections were made at the census block level, rather than on a project by project basis. Rounding error will thus produce a slight discrepancy in the population column if the reader attempts to multiply the total units per project by the PPH value, rather than summing the projected population for each block, as was done in this case.) In total, 4,508 people will be added to the city's total population count, with the majority (3,588) being allotted to District 2.

*Table 1 – City of Lake Worth Beach
Population Estimates for Approved Developments*

Subdivision	Units	Population Estimate	Current District	Completion Date
The One	14	41	4	2020
The Mid	230	667	2	2021
Aviara	49	142	3	2022
The Bohemian	200	580	1	2022
129 South K Street	4	12	4	2023
1303/1305 Lucerne Avenue	4	12	2	2023
15 North E Street	2	6	2	2023
211 Ocean Breeze	3	9	4	2023
230 North L Street	6	17	3	2023
320 Lake Osborne Drive	6	17	1	2023
509 North H Street	3	9	2	2023
Advantix	189	548	2	2023
Alora	12	35	4	2023
Casa Bella	18	52	2	2023
Deco Green	125	363	2	2023
Detroit Street Apartments	81	235	2	2023
Lake Worth Apartments	24	70	2	2023/2024
Lake Worth Station	81	235	2	2023/2024
Serendipity	12	35	2	2023/2024
Solimar	8	23	3	2023/2024
The Avery	200	580	2	2023/2024
The Cloisters Phase III	15	44	4	2023/2024
The Perch	18	52	2	2023/2024
Village Flats Phase I	41	119	2	2023/2024
Village Flats Phase II and III	12	35	2	2023/2024
Lake Worth Residences	197	571	2	2024
	1,554	4,509		

Note: The U.S. Census average persons per household (2016-2020) for the City of Lake Worth Beach (2.9) was used to calculate the population estimate, rounded to the nearest whole number.

Accounting for this anticipated growth, the 2024 projected population for the City of Lake Worth Beach will be 46,727. Dividing by four puts the projected average population for each district at 11,682. The **Existing Districts Map** and **Table 2** show the geographic boundaries and projected population counts for the current districts. The district with the greatest projected population is District 2 with 17,737 residents; the district with the smallest projected population is District 4 with 6,680 residents.

Under these projections, District 2 will account for the greatest portion of the city's population at 37.96%. This deviates from the theoretical average population of 11,682 by 51.84%. District 4, the smallest district, has 14.30% of the population and deviates from the average by -42.82%. This represents a difference of 11,057 people between the two districts, and a spread of **94.66%** (42.82% + 51.84%). The sum deviation of all districts, meanwhile, is **153.51%** and the mean deviation is **38.38%**. As such, the current districts are severely unbalanced and the anticipated growth will exacerbate the situation. While the current district configuration is geographically compact and utilizes easy to understand boundaries consistent with the descriptions in the City Charter, the current population imbalance exceeds the standard criterion for redistricting: there must be no more than a 10% deviation between districts.

Table 2 – Current Commission Districts – City of Lake Worth Beach
2020 Enumeration and 2024 Population Projection

Current Districts	2020 Population	% of City	Deviation From Average	2024 Population Projection	% of City	Deviation From Average
District 1	13,996	33.15	32.60%	14,593	31.23	24.92%
District 2	14,149	33.51	34.05%	17,737	37.96	51.84%
District 3	7,535	17.85	-28.61%	7,717	16.52	-33.94%
District 4	6,539	15.49	-38.05%	6,680	14.30	-42.82%
Total	42,219	100	133.31%	46,727	100	153.51%
Average	10,555	25	33.33%	11,682	25	38.38%

The overall pattern of district boundary changes would need to increase the population of District 3 and District 4. This will, of course, necessitate an adjustment of their geographic boundaries where District 3 and 4 gain territory, while districts 1 and 2 lose territory.

Redistricting Criteria and Data Sources

The City's Charter defines the geographic boundaries of the election districts, but does not clarify the process as to how and when election districts should be evaluated. To conduct the City's redistricting process, the consultant will abide by the following standards by which rational districts are developed nationwide and which are supported by case law and practice throughout the nation. These criteria can be summarized as follows:

1) Reasonable population equality across districts:

- Districts should have approximately the same number of people when all persons, regardless of age, are counted. Ideal district size is based on the total population divided by the number of districts.
- Redistricting should adhere to Section 2 of the Voting Rights Act of 1965, as amended and interpreted through case law. This criterion requires that minority population clusters be respected in the development of district boundaries. Arbitrary dilution and other discriminatory practices are prohibited.
- Redistricting should adhere to Florida's Fair Districting Amendment.
- Although deviations should be avoided wherever possible, there must be no more than a 10% overall deviation from the ideal size across districts.

2) Geographic contiguity and appropriate compactness:

- Follow major natural and manmade boundaries to the extent possible in defining boundaries of voting districts.
- Maintain the integrity of communities of interest based on race, life cycle/age, income, and other community identity characteristics such as subdivisions.
- Minimize the degree of change in pre-existing patterns of districts, to promote continuity of citizen identification with a district.
- Maintain district compactness and spatial contiguity. A compact shape for each district will be sought in each redistricting option presented to the city.

The first criterion is of primary importance; the second is significant in guiding decisions in reaching reasonable population balance.

In developing revised Lake Worth Beach City Commission election districts, the spatial units used in composing or building the districts are residential housing subdivisions (communities) and U.S. Census blocks. Subdivisions are typically homogeneous in their housing characteristics and thus serve households with broadly similar interests. Therefore, district borders are typically subdivision boundaries and associated major roadways or other obvious physical features. U.S. Census blocks are typically subunits in subdivisions and are the smallest spatial unit used in tabulating Census data.

Recommendation

It is the opinion of the FAU redistricting team, that the existing City Commission election district boundaries are severely imbalanced and that a realignment of these boundaries, to better balance their population, is required. Without redistricting, the sum of the deviations from the ideal average population is expected to be 153.51%, with a mean deviation of 38.38%, and a spread of 94.66%. This far exceeds the 10% desired maximum.

The overall pattern of district boundary changes will need to increase the population of District 3 and 4 to achieve the desired population equity between districts. This will necessitate an adjustment of the geographic boundaries where District 1 and 2 decrease in size. Should the City of Lake Worth Beach opt to proceed, it is the intent of the FAU team to provide the City's Commission with redistricting map alternatives for their consideration, consistent with the terms of the agreement between FAU and the City. FAU will work with City staff to schedule future meetings to present the redistricting map alternatives to the City Commission.

Appendix

District Demographics

The table below depict the demographics taken from the 2020 U.S. Census for the existing commission districts. Note that the columns 'White' through 'Other' sum to the City's population total. These categories represent the U.S. Census' definition of race. The last two columns ('Hispanic or Latino' and 'Not Hispanic or Latino') also sum to the City's population total (the U.S. Census' classification of ethnicity).

Current Commission Districts – City of Lake Worth Beach

Expanded Demographics, U.S. Census 2020

District (Existing)	Total Population	White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Other	Hispanic or Latino	Not Hispanic or Latino
1	13,996	3,785 (27.04%)	3,515 (25.11%)	993 (7.09%)	89 (0.64%)	8 (0.06%)	5,606 (40.05%)	7,422 (53.03%)	6,574 (46.97%)
2	14,149	4,490 (31.73%)	2,767 (19.56%)	1,087 (7.68%)	182 (1.29%)	14 (0.1%)	5,609 (39.64%)	7,740 (54.7%)	6,409 (45.3%)
3	7,535	5,056 (67.1%)	512 (6.79%)	134 (1.78%)	77 (1.02%)	6 (0.08%)	1,750 (23.22%)	1,950 (25.88%)	5,585 (74.12%)
4	6,539	3,149 (48.16%)	1,266 (19.36%)	237 (3.62%)	69 (1.06%)	0 (0%)	1,818 (27.8%)	2,245 (34.33%)	4,294 (65.67%)
	42,219	16,480 (39.03%)	8,060 (19.09%)	2,451 (5.81%)	417 (0.99%)	28 (0.07%)	14,783 (35.02%)	19,357 (45.85%)	22,862 (54.15%)