

Slides Accompanying Direct Examination Testimony of:

Dr. Cory McCartan

Cubanos Pa'lante, et al., v. Florida House of Representatives, et al.

Case No. 1:24-cv- 21983-JB

January 12, 2026

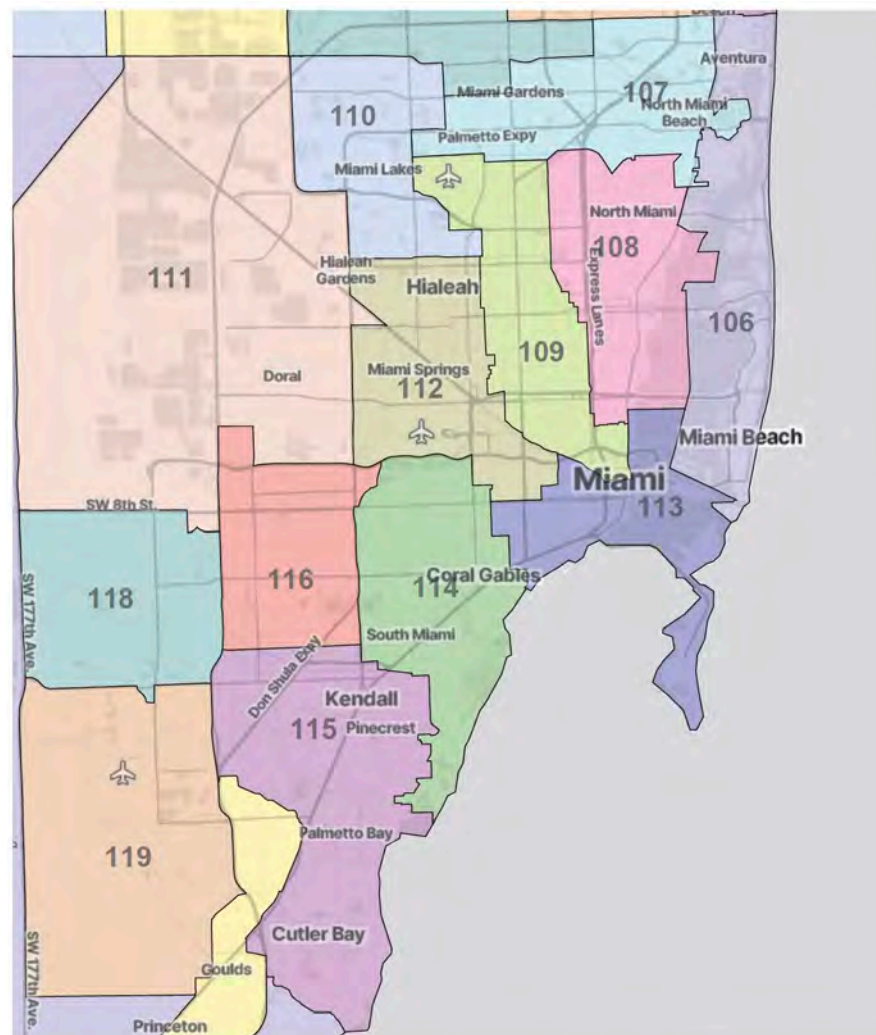


Figure 1: Illustrative House plan D



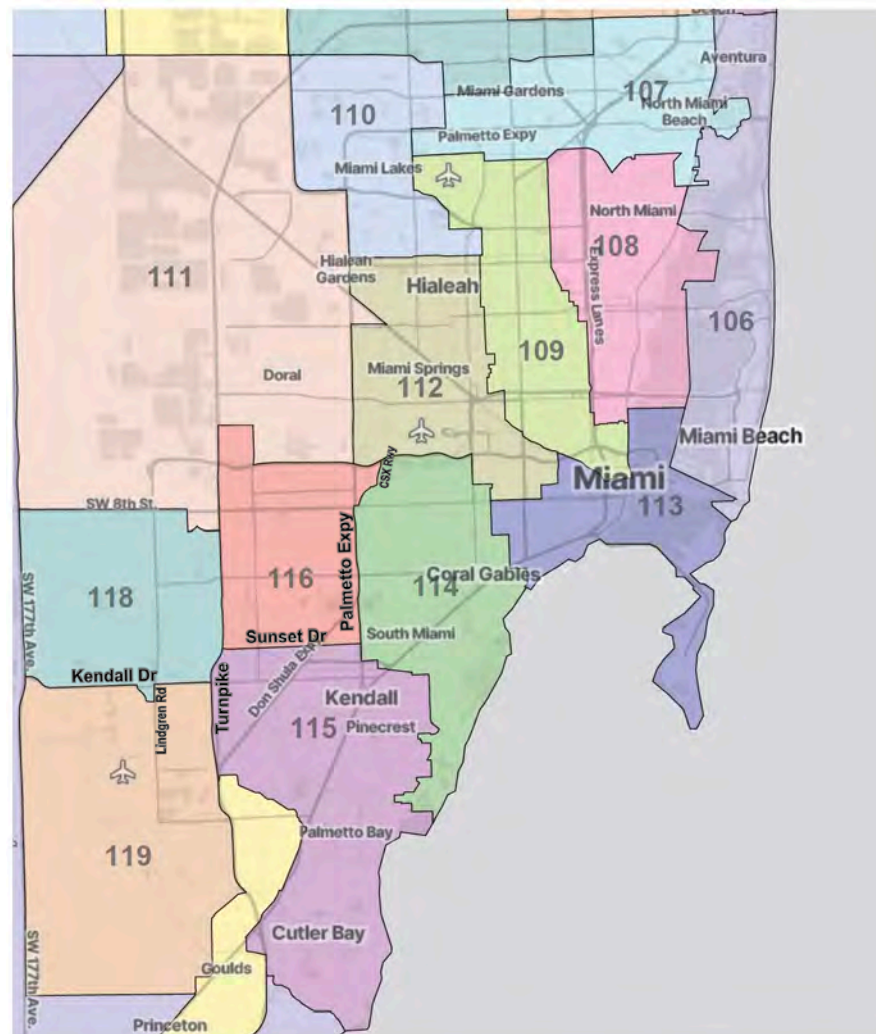


Figure 1: Illustrative House plan D

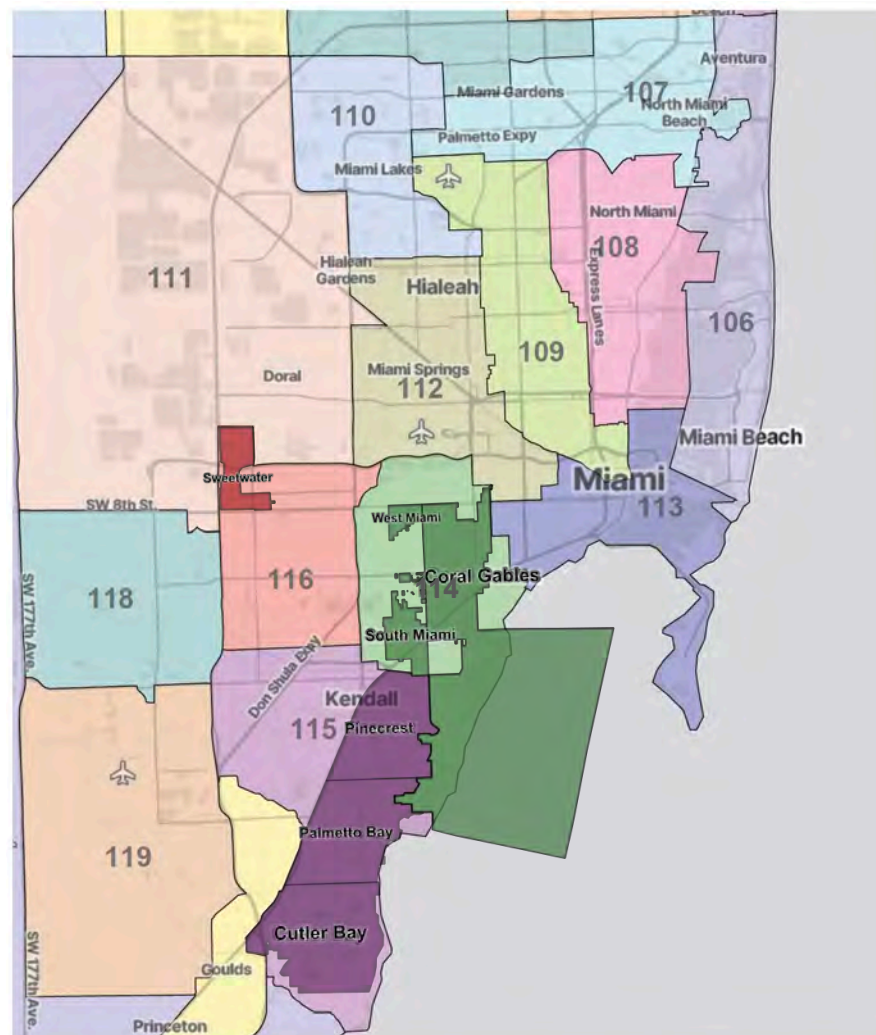


Figure 1: Illustrative House plan D

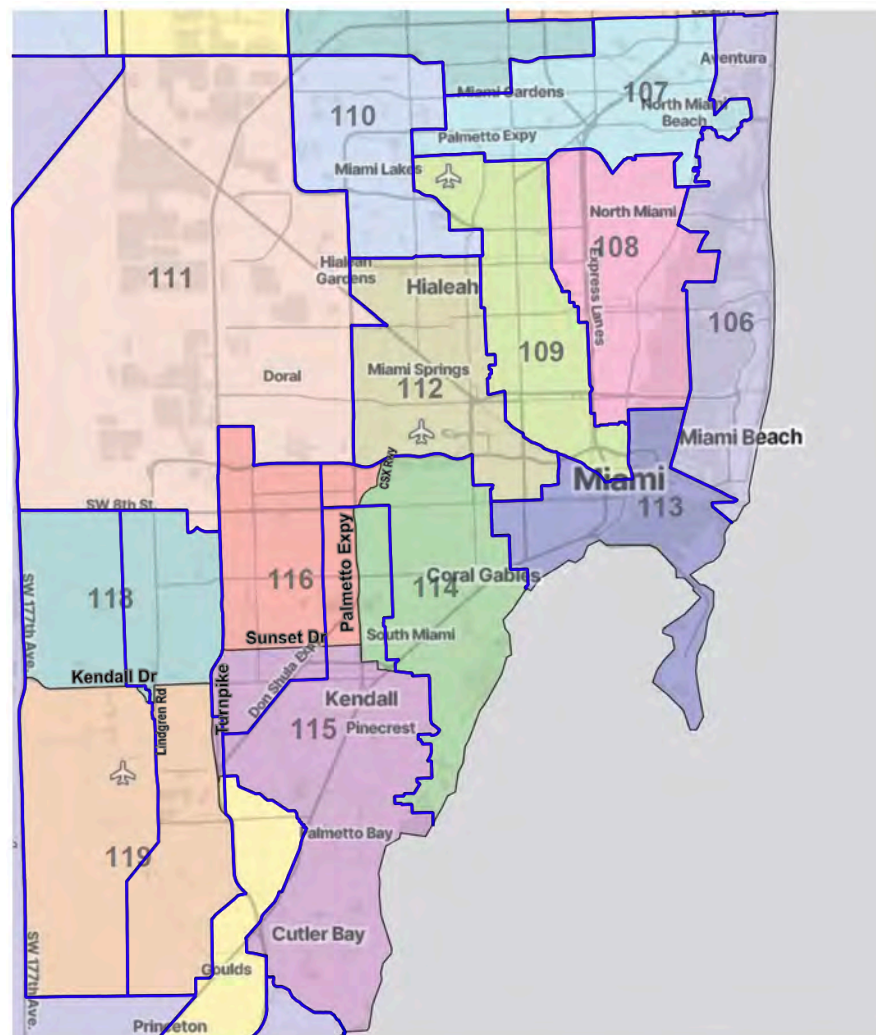


Figure 1: Illustrative House plan D

District	Boundary Score					
	City	County	Road	Water	Rail	Other
HD-D						
114	65%	0%	28%	49%	1%	5%
115	36%	0%	32%	49%	0%	1%
116	15%	0%	83%	8%	2%	0%
118	0%	0%	89%	0%	0%	11%
119	0%	0%	70%	0%	0%	30%
HD-Enacted						
114	67%	0%	26%	42%	0%	8%
115	40%	0%	29%	40%	0%	8%
116	9%	0%	85%	4%	0%	7%
118	0%	0%	42%	0%	4%	54%
119	0%	0%	59%	0%	4%	37%

Table 3: Boundary scores for Illustrative Plan D and the enacted plan.



District	Boundary Score “Other”	
	HD-Enacted	HD-D
114	8%	5%
115	8%	1%
116	7%	0%
118	54%	11%
119	37%	30%

“Other” boundary scores for Illustrative Plan D and the enacted plan.

Plan	Mean Boundary Score					
	City	County	Road	Water	Rail	Other
House (Districts 114–116 and 118–119)						
HD-D	23.2%	0.0%	60.4%	21.2%	0.6%	9.4%
HD-Enacted	23.2%	0.0%	48.2%	17.2%	1.6%	22.8%

Table 2: Mean boundary scores in redrawn districts for Illustrative Plan D and the enacted plan.



Compactness Scores

Reock Score

$$R = \frac{A_D}{A_{MBC}}$$



The ratio of the area of the district (A_D) to the area of a minimum bounding circle (A_{MBC}) that encloses the district's geometry. A district's Reock Score falls within the range of [0,1] and a score closer to 1 indicates a more compact district.

Convex-Hull Score

$$CH = \frac{A_D}{A_{MCP}}$$



The ratio of the area of the district (A_D) to the area of the minimum convex polygon (A_{MCP}) that can enclose the district's geometry. A district's Convex-Hull score falls within the range of [0,1] and a score closer to 1 indicates a more compact district.

Polsby Popper Score

$$PP = 4\pi \times \frac{A_D}{P_D^2}$$



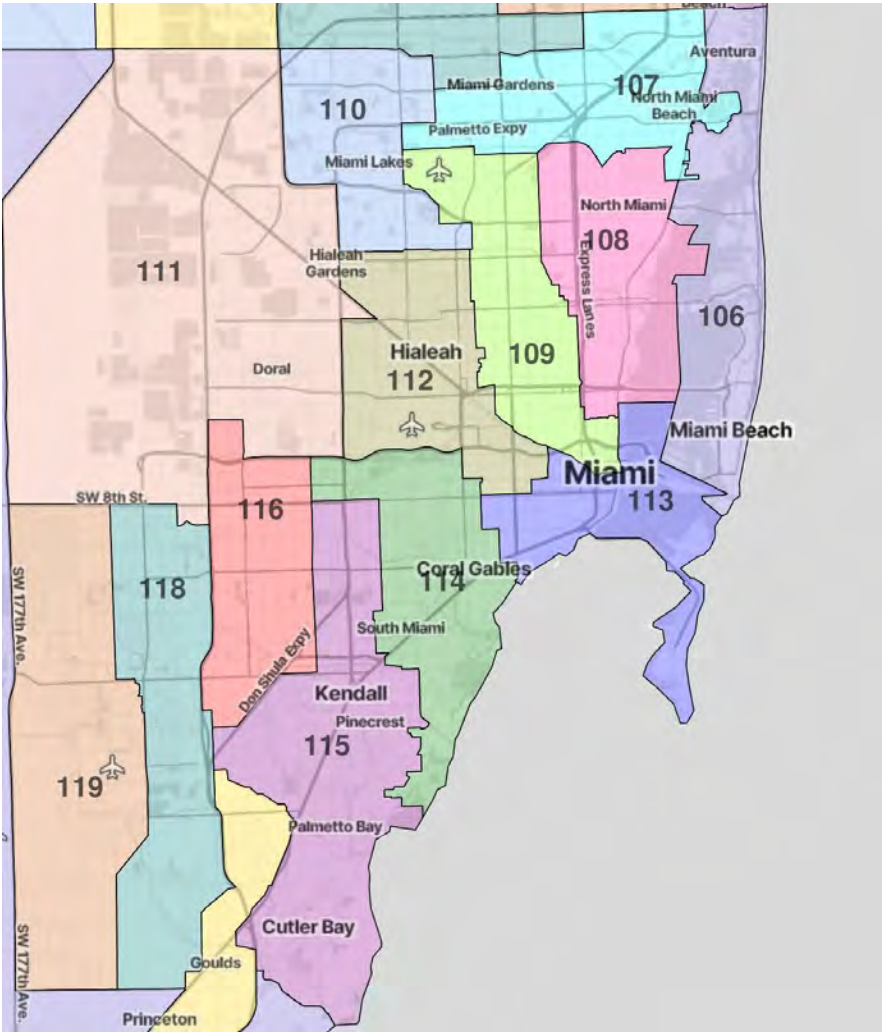
The ratio of the area of the district (A_D) to the area of a circle whose circumference is equal to the perimeter of the district (P_D). A district's Polsby-Popper score falls within the range of [0,1] and a score closer to 1 indicates a more compact district.



Source: <https://fisherzachary.github.io/public/r-output.html>

District	Polsby-Popper		Reock		Convex Hull	
	HD-Enacted	HD-D	HD-Enacted	HD-D	HD-Enacted	HD-D
114	0.351	0.427	0.355	0.418	0.733	0.816
115	0.302	0.409	0.278	0.439	0.723	0.818
116	0.509	0.575	0.356	0.512	0.877	0.857
118	0.333	0.734	0.216	0.656	0.788	0.952
119	0.466	0.676	0.285	0.584	0.919	0.938

Compactness scores for Illustrative Plan D and the enacted plan.



Enacted House Plan

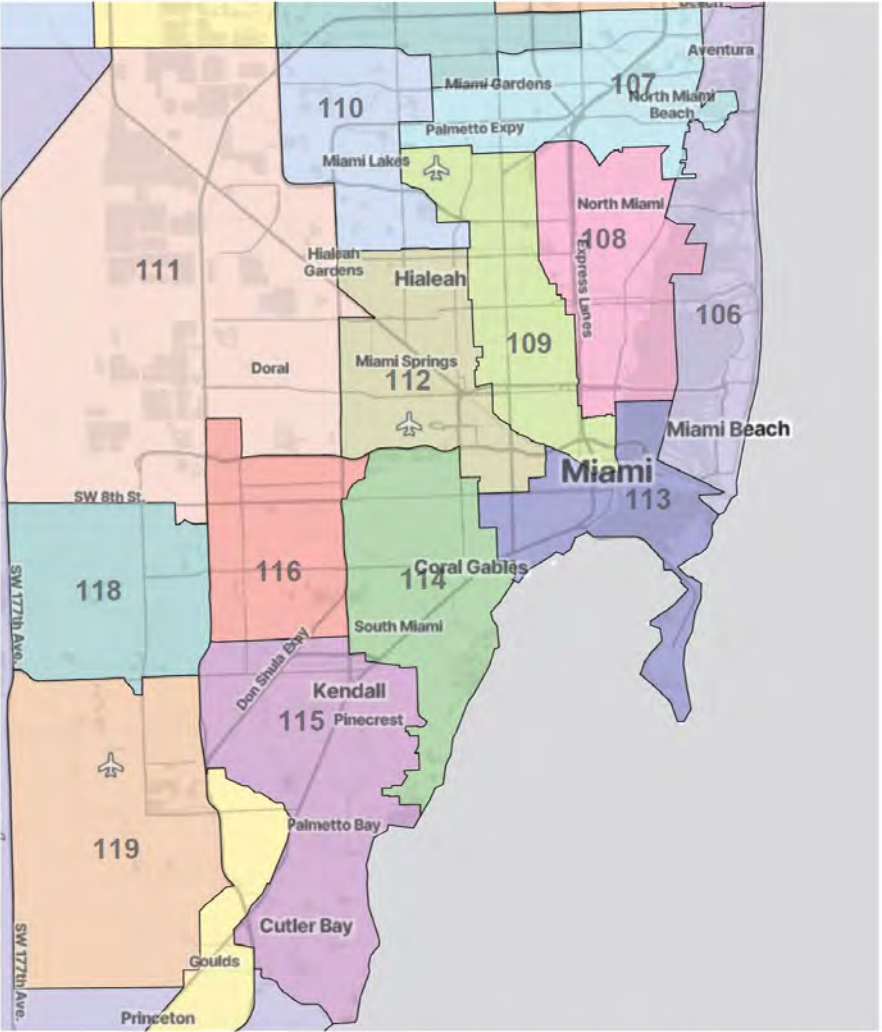


Figure 1: Illustrative House plan D

B. ADDITIONAL DEMOGRAPHIC STATISTICS

	Plan D	Enacted Plan	Difference
HD 115			
2020 Census VAP, % Hispanic	64.2%	65.9%	-1.7pp
General election registered voters, % Hispanic (avg. 2012-2020)	48.8%	51.3%	-2.4pp
Primary election Democratic primary voters, % Hispanic (avg. 2012-2020)	24.2%	25.1%	-0.9pp
2020 general election registered voters, % Hispanic	53.4%	55.3%	-1.9pp
2020 general election Democratic registered voters, % Hispanic	42.4%	43.1%	-0.7pp
2020 general election Republican registered voters, % Hispanic	61.5%	64.3%	-2.8pp
2020 primary election Democratic primary voters, % Hispanic	34.0%	34.5%	-0.5pp
2020 primary election Republican primary voters, % Hispanic	61.5%	65.1%	-3.6pp
HD 118			
2020 Census VAP, % Hispanic	91.2%	85.7%	+5.4pp
General election registered voters, % Hispanic (avg. 2012-2020)	82.4%	74.8%	+7.6pp
Primary election Democratic primary voters, % Hispanic (avg. 2012-2020)	70.0%	51.7%	+18.3pp
2020 general election registered voters, % Hispanic	83.6%	77.0%	+6.6pp
2020 general election Democratic registered voters, % Hispanic	80.0%	67.9%	+12.2pp
2020 general election Republican registered voters, % Hispanic	87.1%	83.7%	+3.4pp
2020 primary election Democratic primary voters, % Hispanic	76.0%	60.4%	+15.6pp
2020 primary election Republican primary voters, % Hispanic	88.4%	84.9%	+3.5pp
HD 119			
2020 Census VAP, % Hispanic	79.8%	85.2%	-5.4pp
General election registered voters, % Hispanic (avg. 2012-2020)	67.6%	75.4%	-7.8pp
Primary election Democratic primary voters, % Hispanic (avg. 2012-2020)	43.4%	57.2%	-13.8pp
2020 general election registered voters, % Hispanic	71.1%	77.6%	-6.5pp
2020 general election Democratic registered voters, % Hispanic	62.1%	71.7%	-9.5pp
2020 general election Republican registered voters, % Hispanic	78.8%	83.2%	-4.4pp
2020 primary election Democratic primary voters, % Hispanic	53.5%	65.0%	-11.5pp
2020 primary election Republican primary voters, % Hispanic	78.8%	84.0%	-5.2pp

Table 11



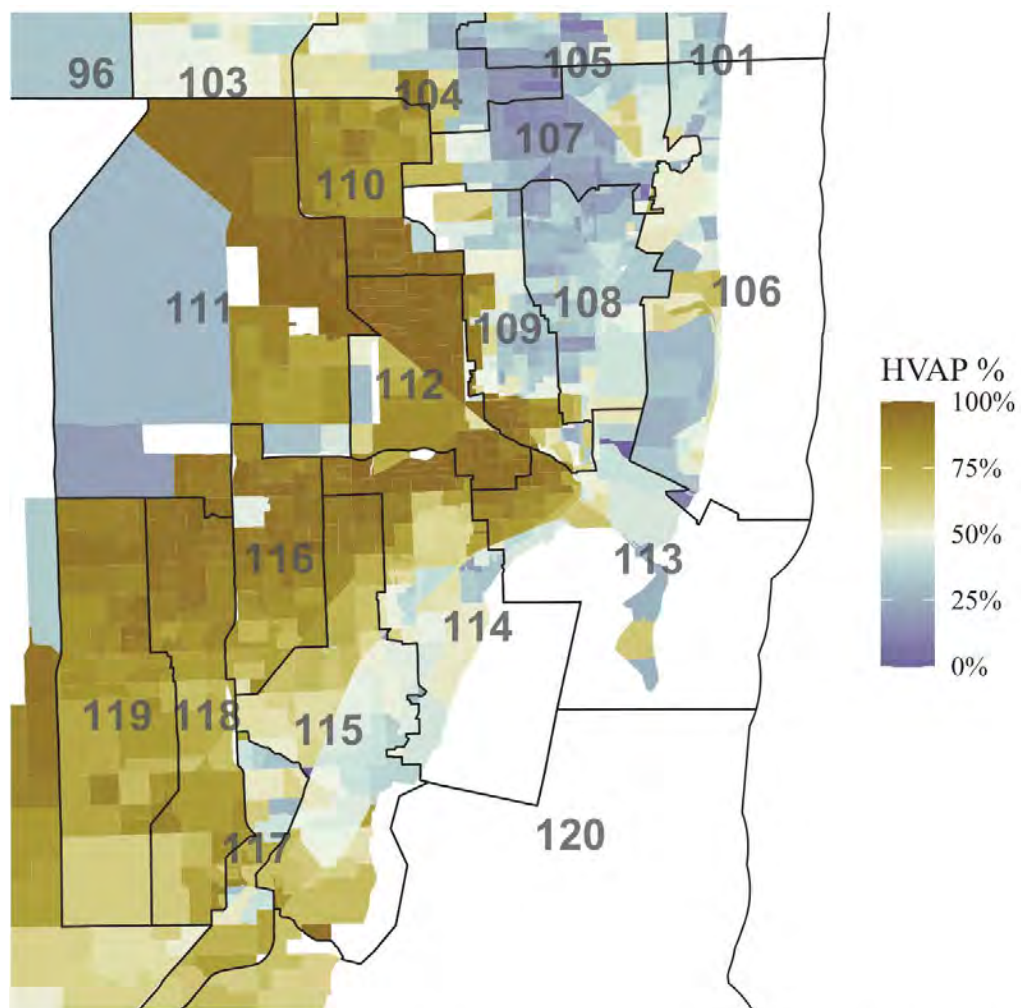
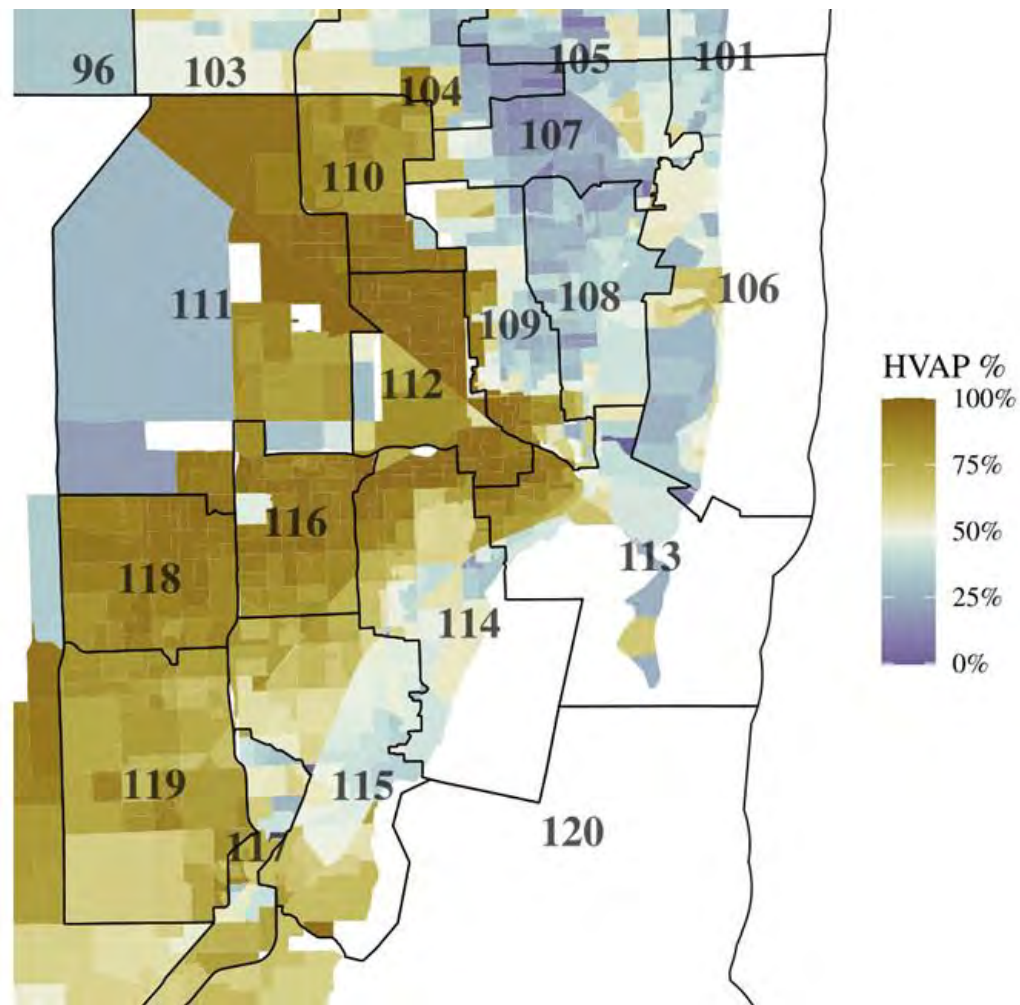
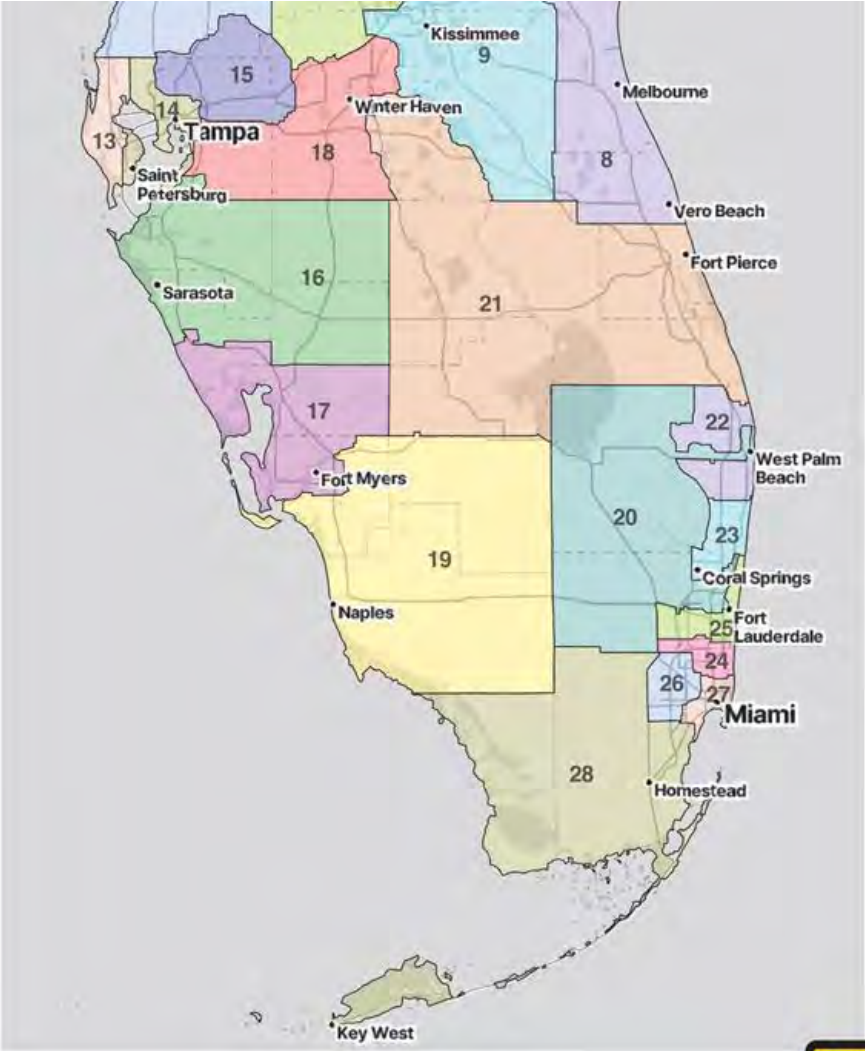


Figure 10: Hispanic fraction of the voting-age population in each voting tabulation district in the area of Districts 110–118 and 119



Hispanic fraction of the voting-age population in each voting tabulation district, Illustrative House plan D



(a) Plan A



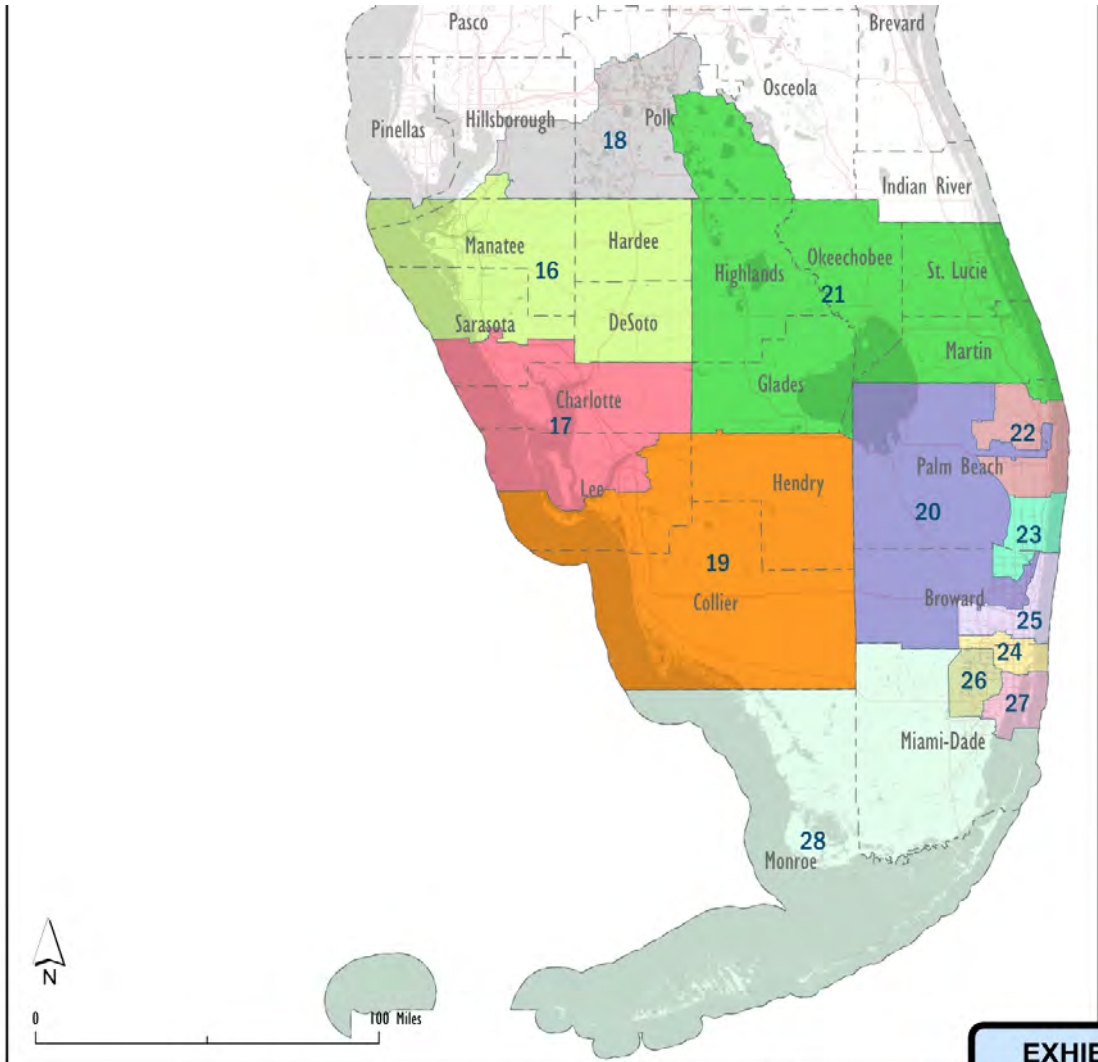
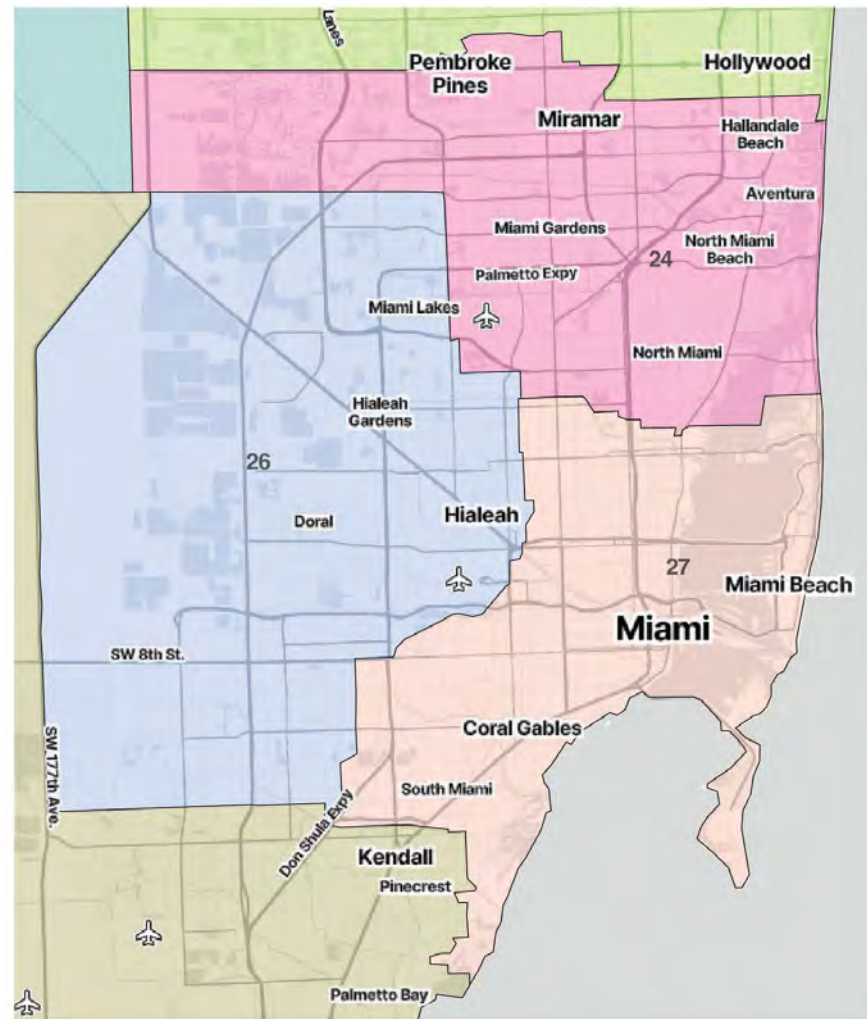
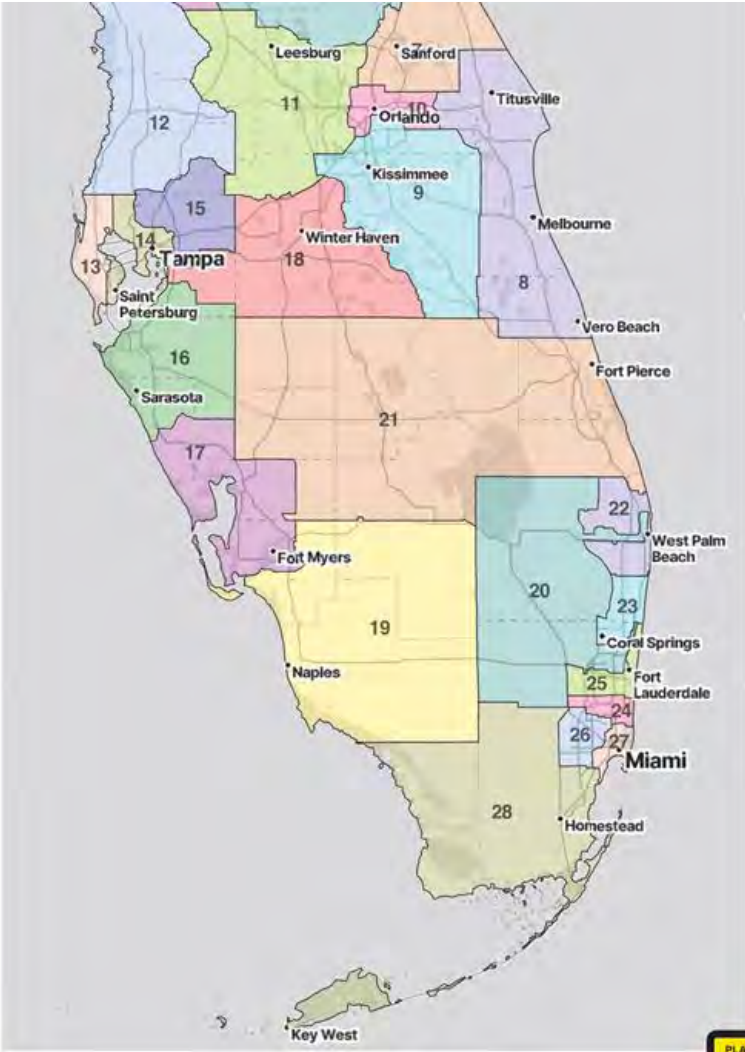


EXHIBIT
D31



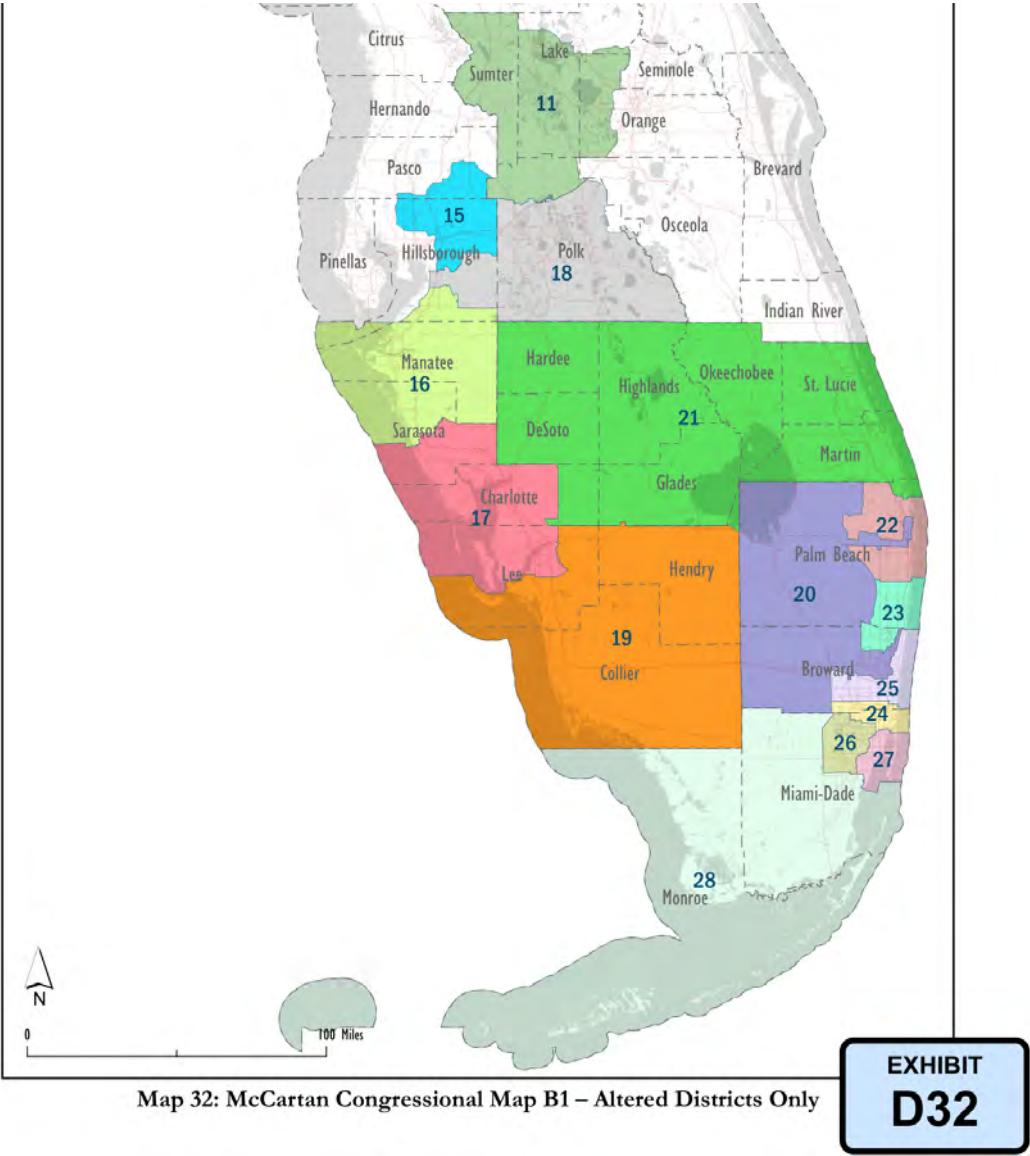
(a) Plans A, C1, C2, D

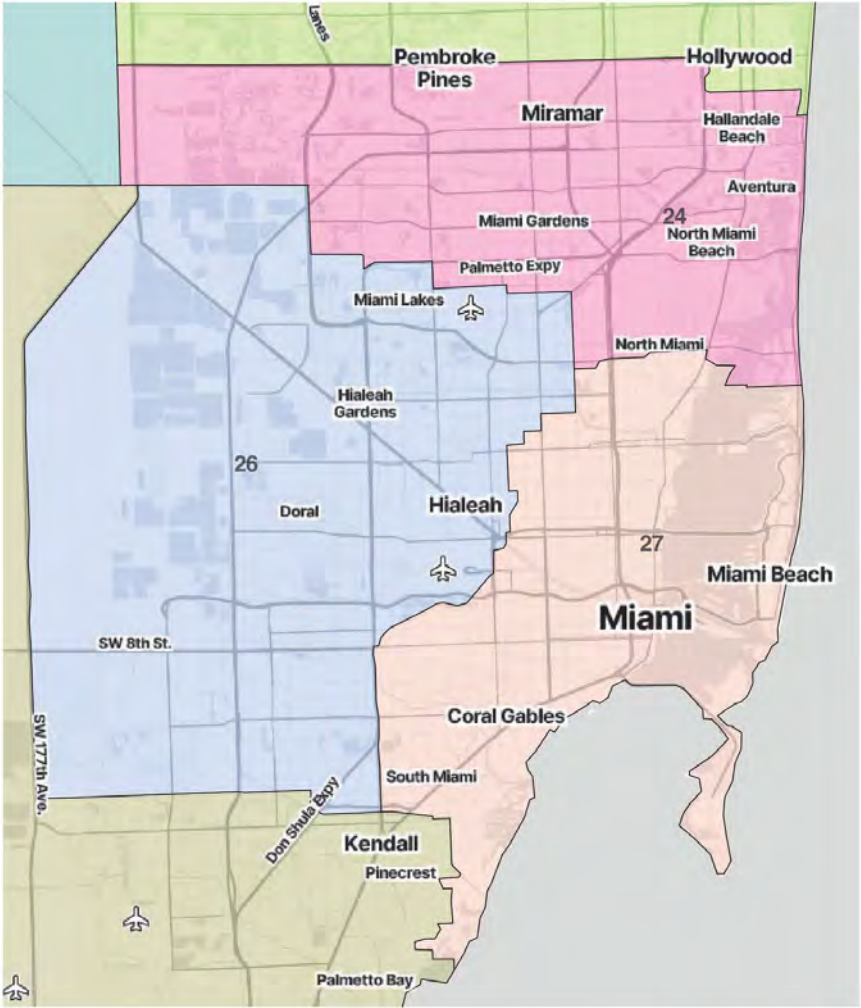




(b) Plan B1

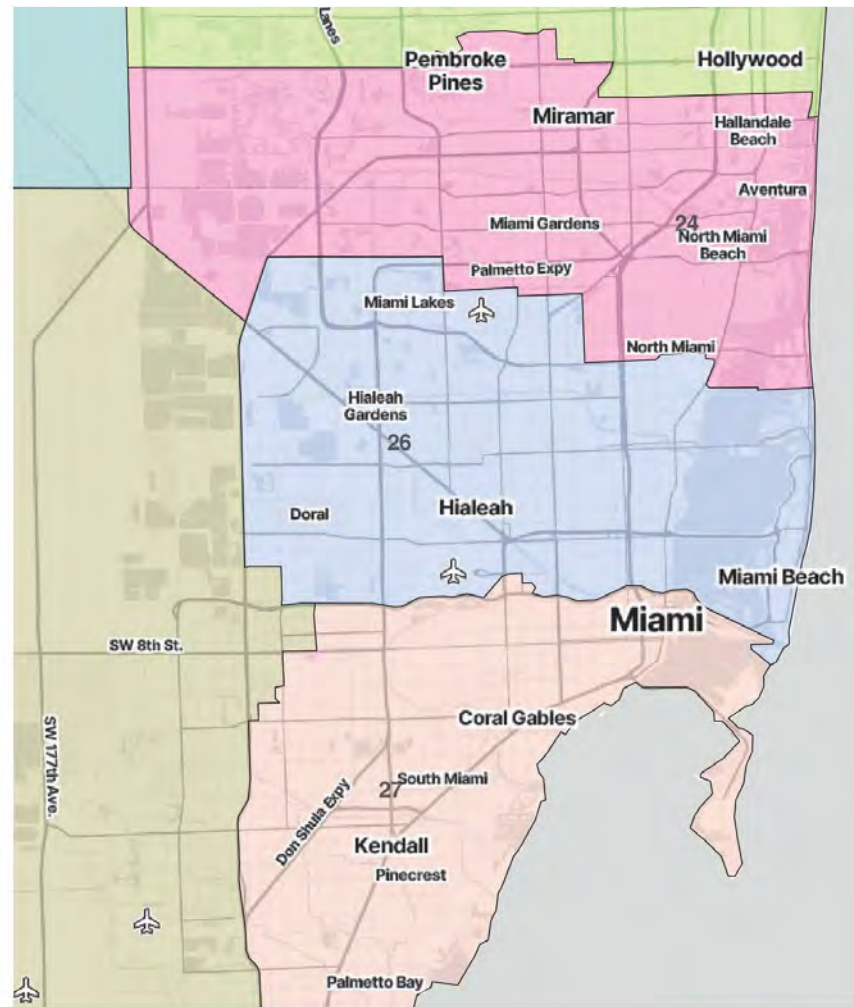
PLAINTIFFS' TRIAL
EXHIBIT
P210
1/21/2026





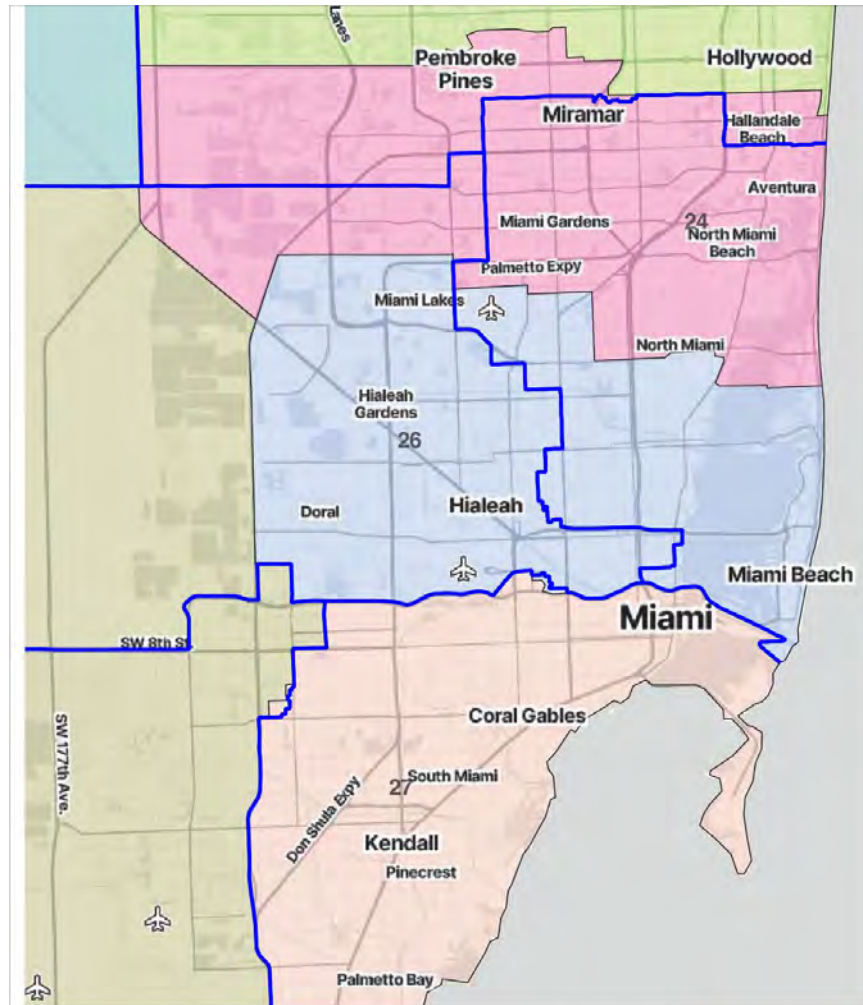
(b) Plan B1



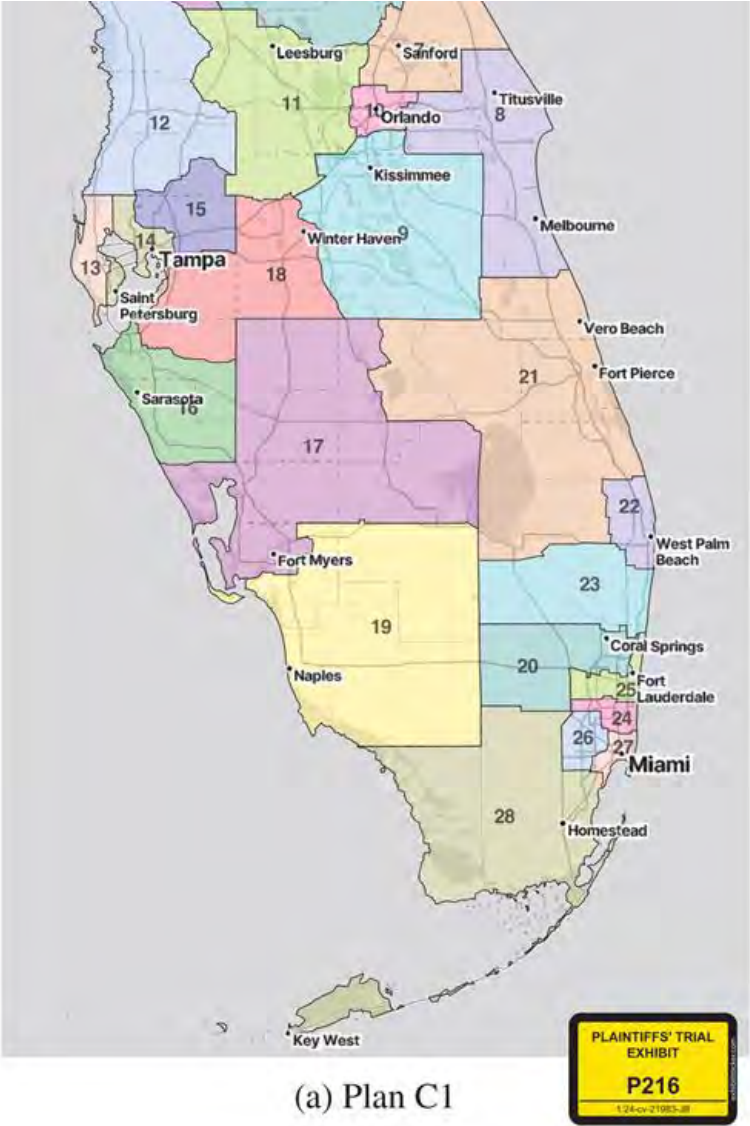


(c) Plan B2

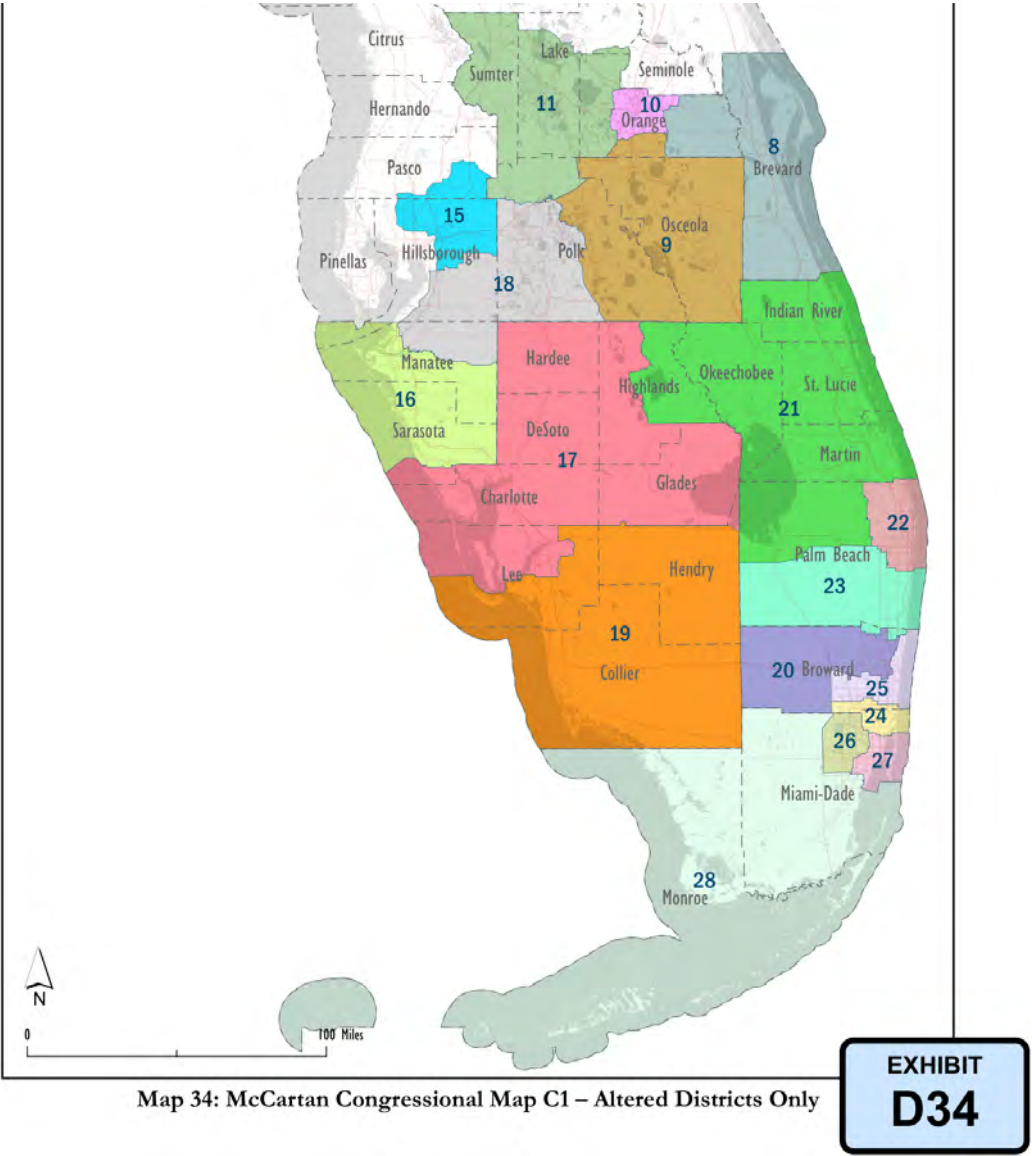


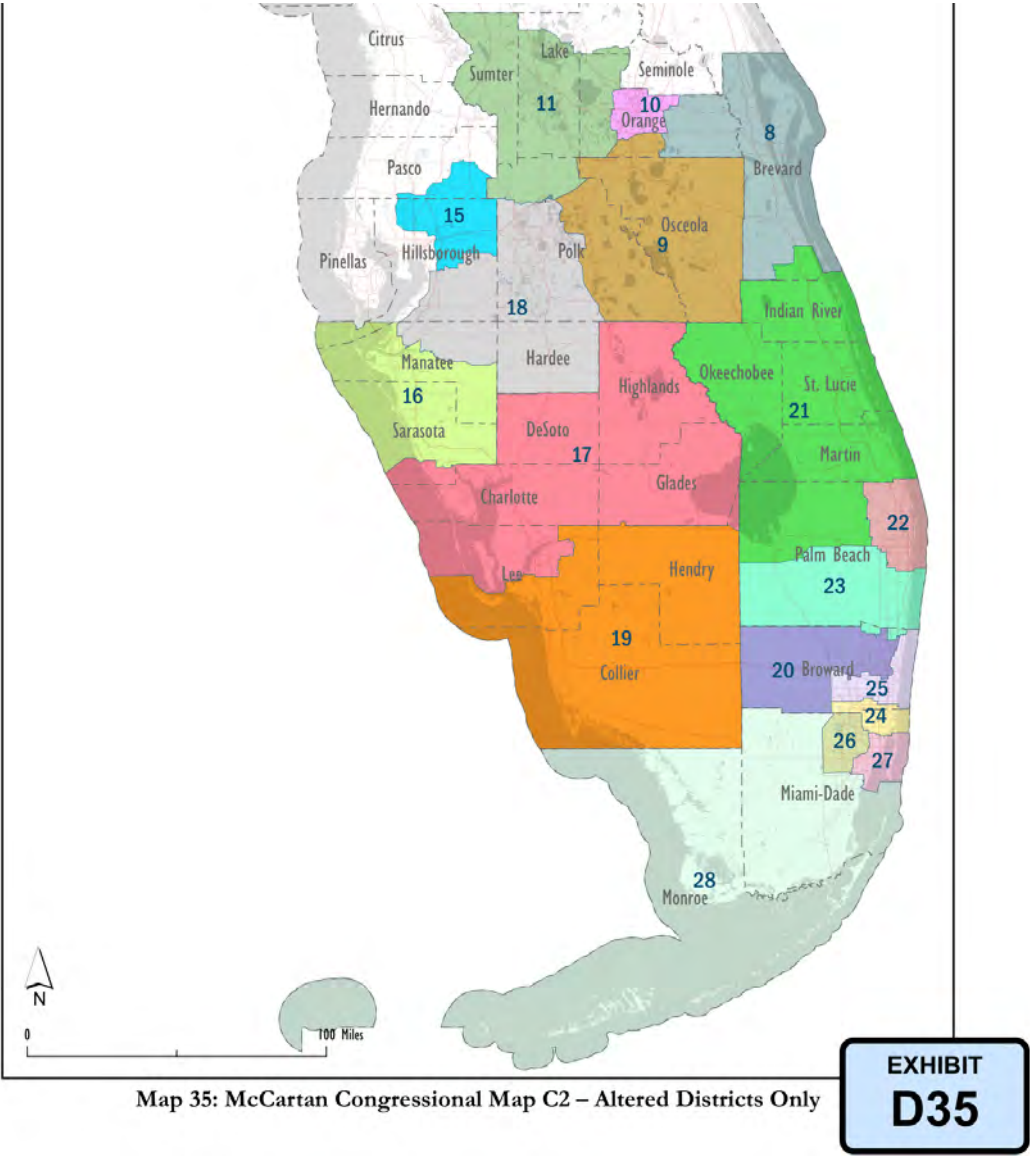


(c) Plan B2



(a) Plan C1







(b) Plan C2

PLAINTIFFS' TRIAL
EXHIBIT
P217
1-24-25-21983-JB

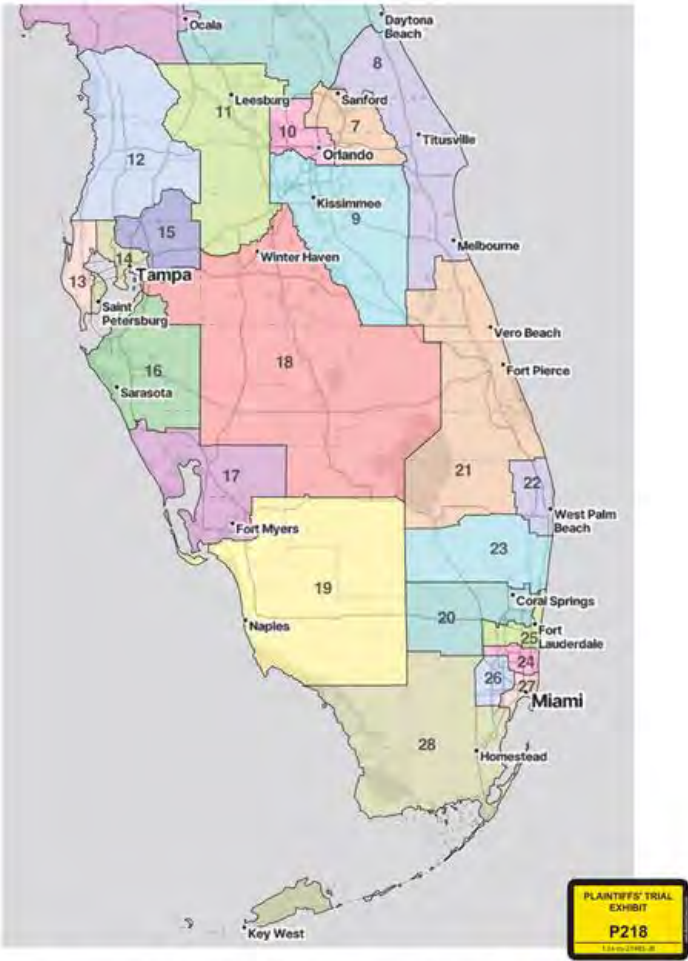
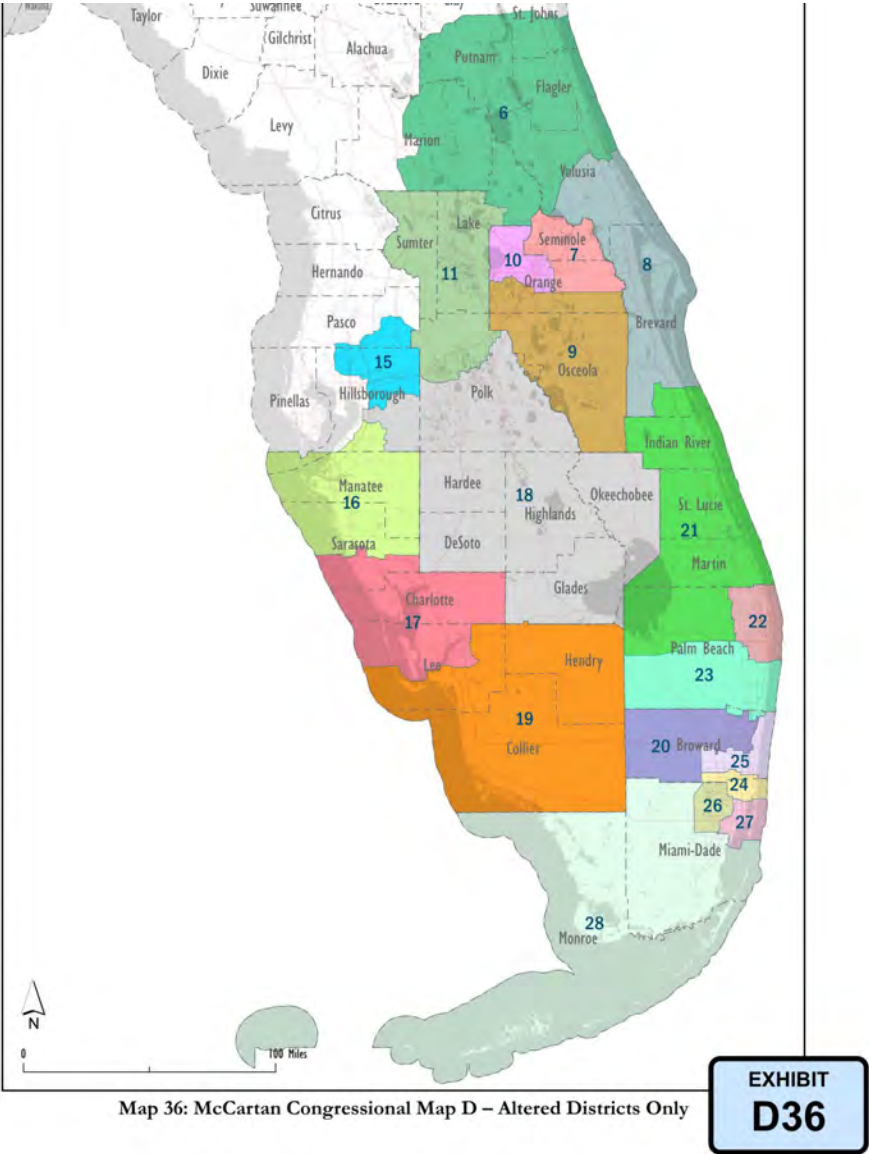


Figure 8: Illustrative congressional Plan D



Plan	Counties			Municipalities		
	Split 1+	Split 2+	Total splits	Split 1+	Split 2+	Total splits
CD-A	17	6	30	15	2	17
CD-B1	18	6	29	16	3	19
CD-B2	18	6	29	15	2	17
CD-C1	19	6	28	11	1	13
CD-C2	19	6	28	12	1	14
CD-D	18	6	27	13	1	14
CD-Enacted	17	7	29	16	4	20

Table 2: County and municipality splits for illustrative and enacted congressional plans.



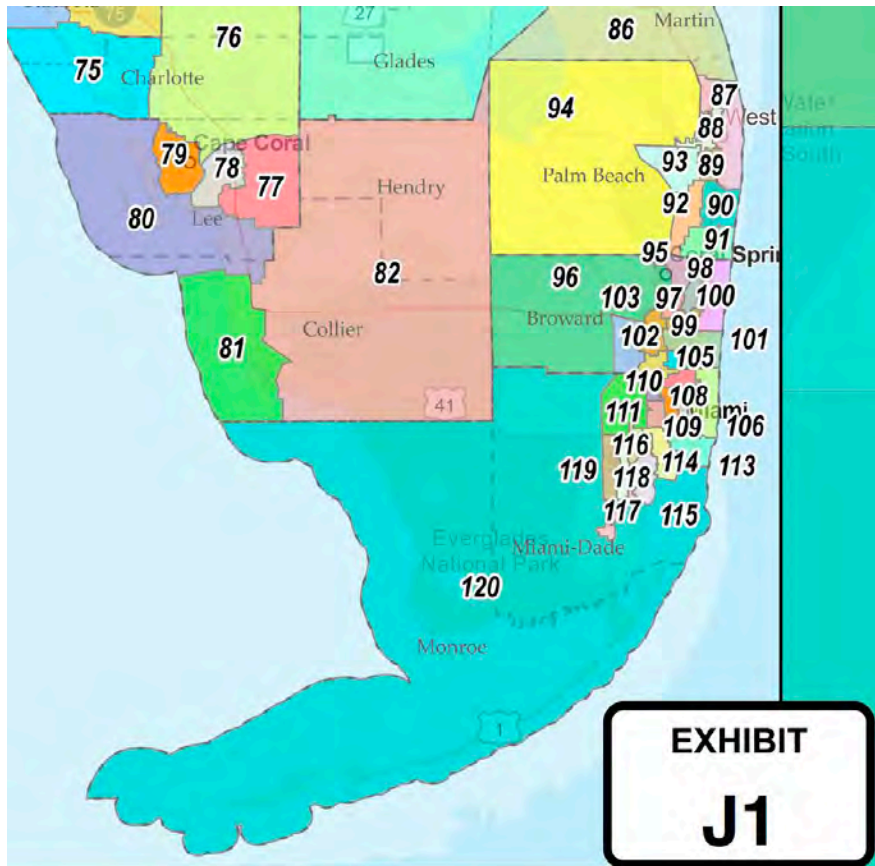
Plan	Mean Boundary Score					
	City	County	Road	Water	Rail	Other
Congressional (Districts 5–11, 15–28)						
CD-A	19.4%	45.4%	20.8%	31.8%	1.3%	14.4%
CD-B1	16.9%	46.7%	19.9%	33.7%	0.8%	14.5%
CD-B2	16.2%	46.5%	19.8%	35.4%	0.9%	13.9%
CD-C1	20.0%	47.9%	17.8%	30.7%	1.5%	14.0%
CD-C2	20.3%	48.7%	17.6%	31.3%	1.4%	14.2%
CD-D	20.3%	52.2%	16.3%	35.1%	0.5%	11.9%
CD-Enacted	16.1%	51.3%	20.0%	34.4%	0.9%	13.5%

Table 3: Mean boundary scores in redrawn areas districts for each illustrative plan and the enacted plan. Not all listed districts were changed in every plan.

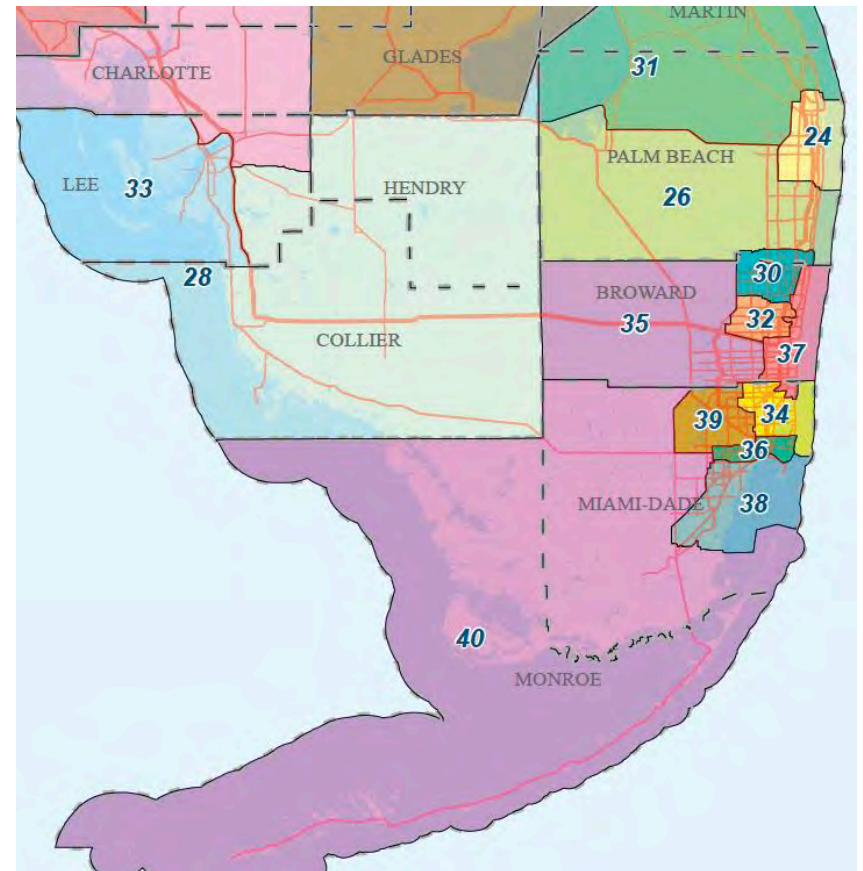
Plan	Congressional		
	Polsby–Popper	Reock	Convex Hull
CD-A	−0.0038	0.0061	0.0035
CD-B1	−0.0019	0.0132	0.0079
CD-B2	−0.0014	0.0142	0.0050
CD-C1	0.0139	0.0293	0.0102
CD-C2	0.0104	0.0280	0.0135
CD-D	0.0015	0.0068	0.0086

Table 4: Difference in average compactness scores from the enacted plan.

Comparing illustrative plans with other districts the Florida Legislature has adopted

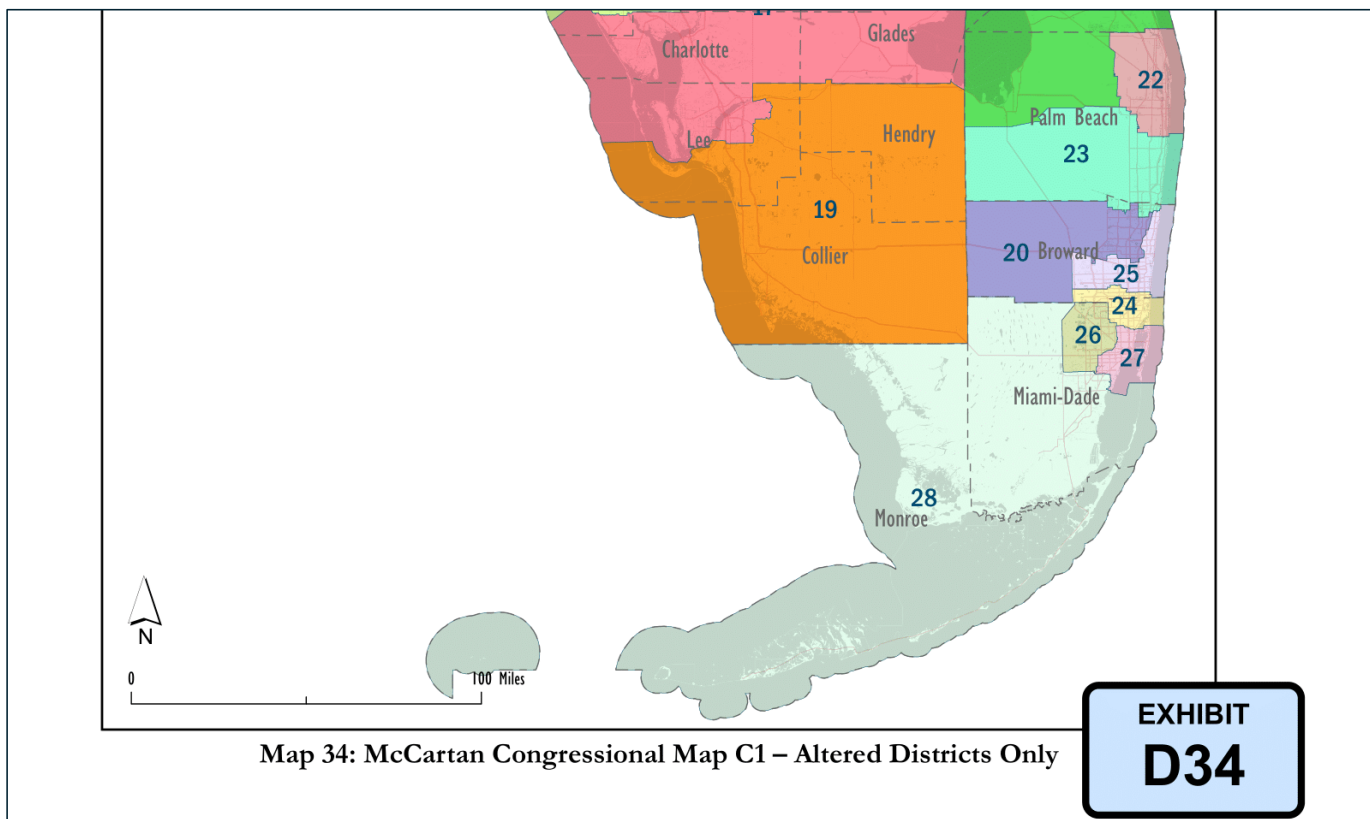


J1 – Enacted State House Plan

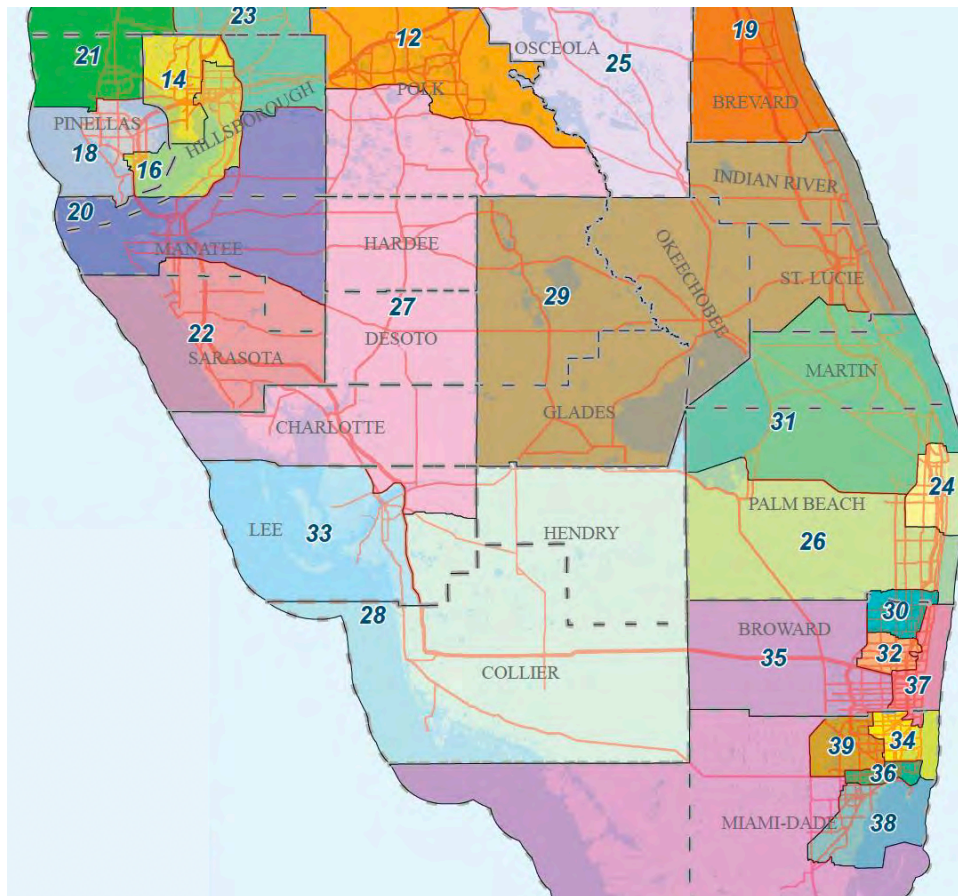


J55, p. 639 – Enacted State Senate Plan

Comparing illustrative plans with other districts the Florida Legislature has adopted



Comparing illustrative plans with other districts the Florida Legislature has adopted



J55, p. 639 – Enacted State Senate Plan

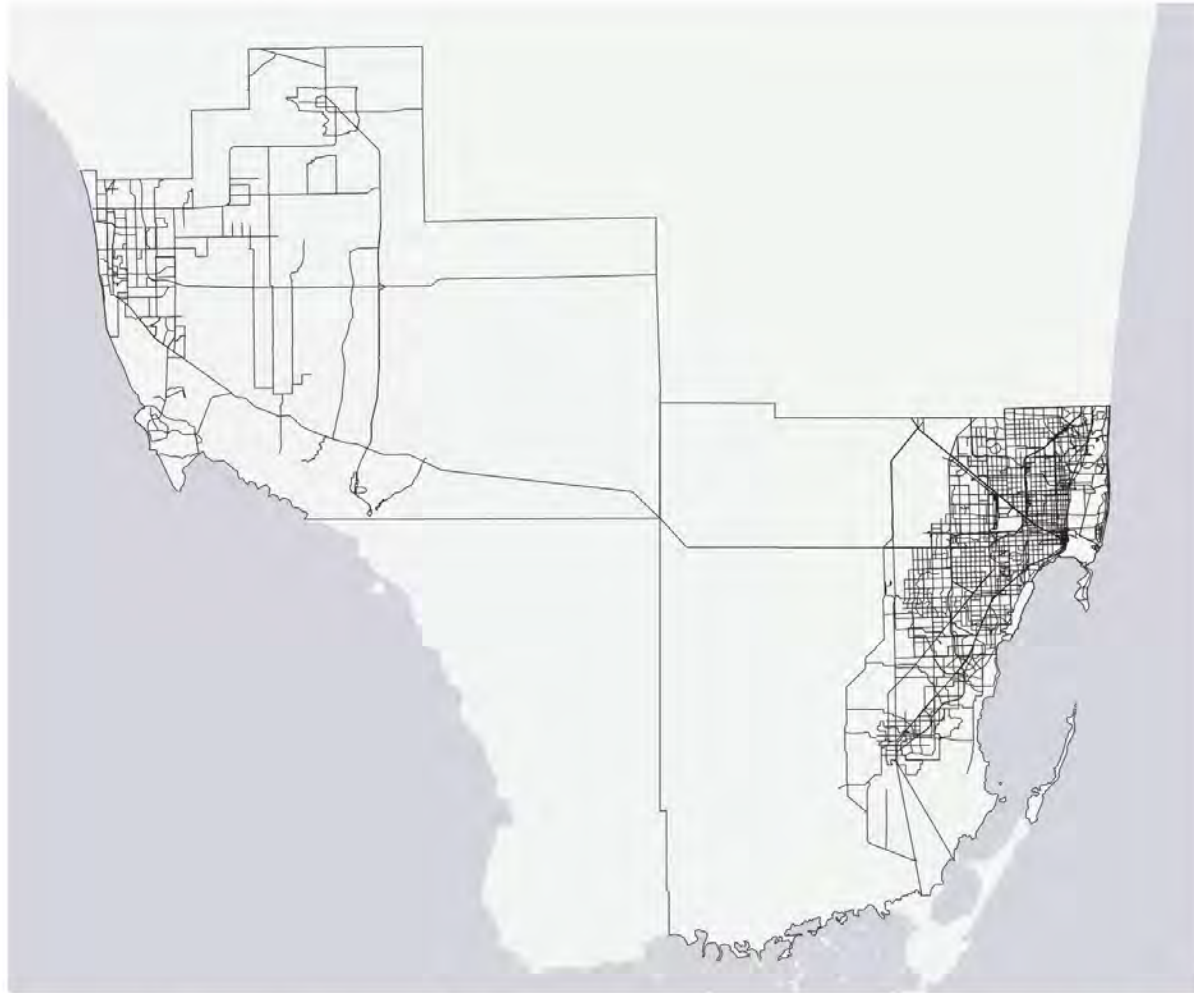


Figure 1: “Commonly understood and ascertainable” boundaries in Collier and Miami-Dade counties.





Figure 2: “Commonly understood and ascertainable” boundaries in central Miami–Dade county.



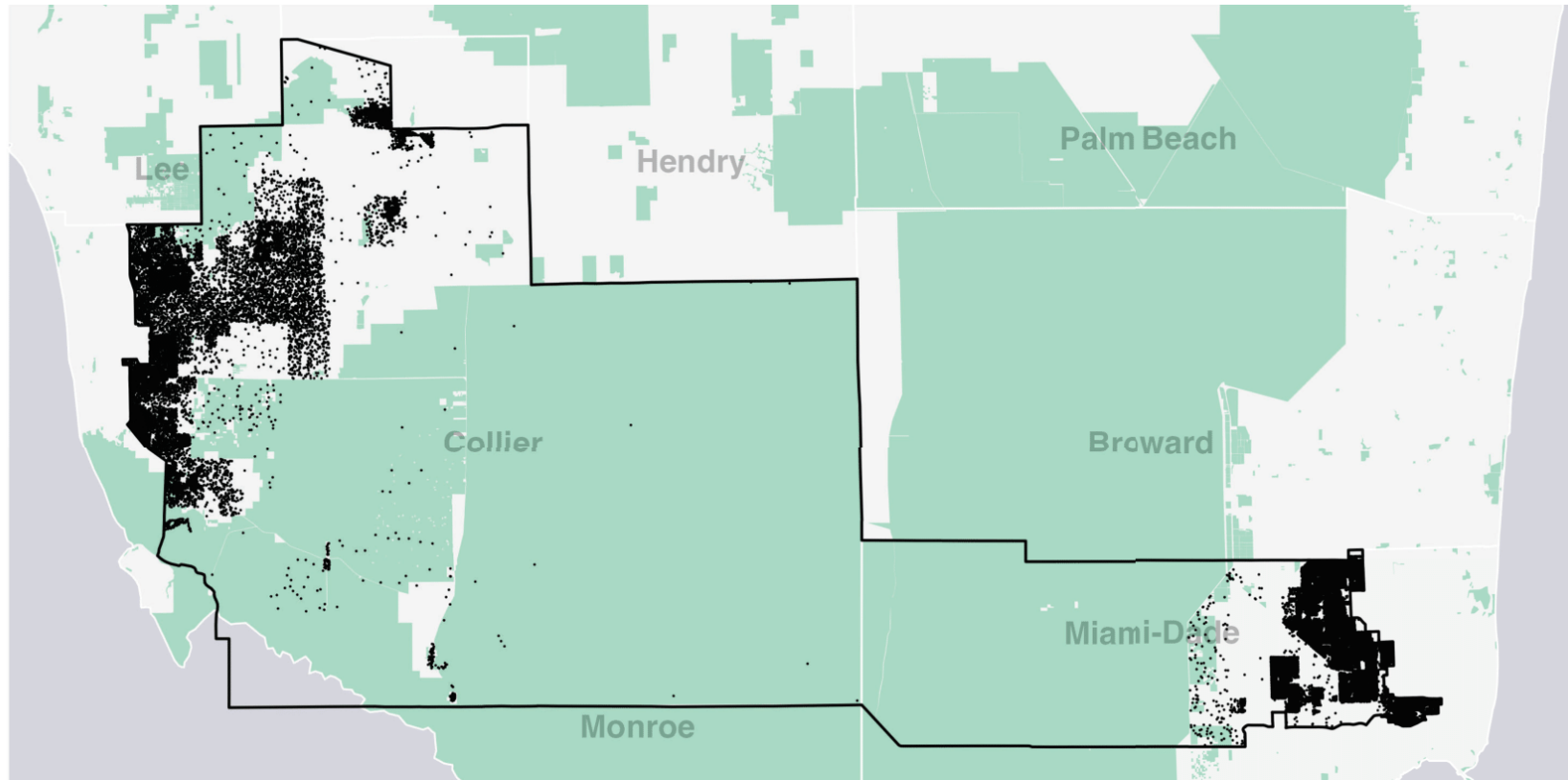
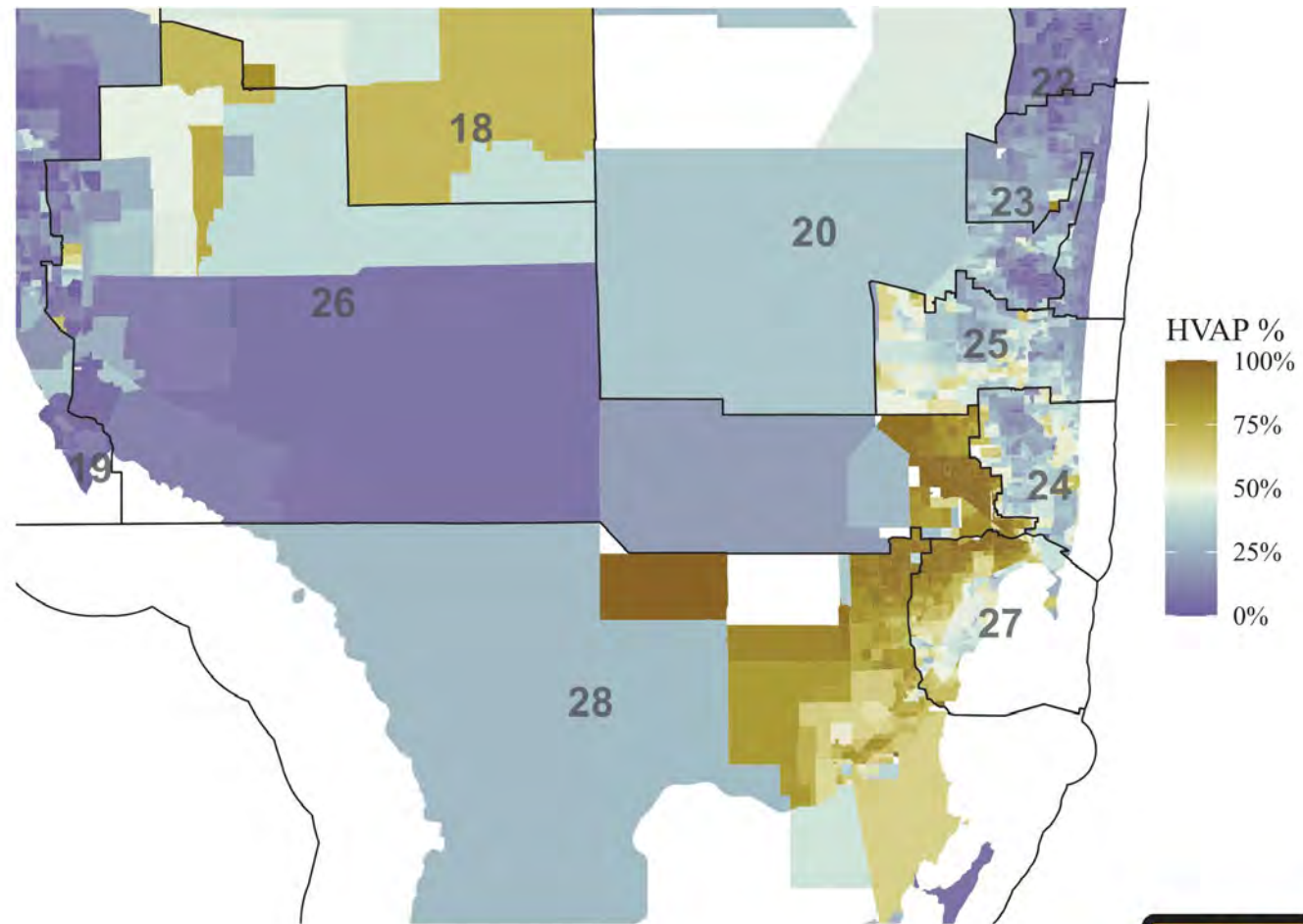


Figure 3: Population dot map of District 26, with managed areas shaded in green. Each dot represents at least 1 and at most 10 people.



HVAP % with Enacted Congressional Plan



(a) Area of Districts 26–28

HVAP % with Enacted Congressional Plan, Miami-Dade Detail

