

UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF WASHINGTON

ROGELIO MONTES and MATEO ARTEAGA, Plaintiffs, vs. CITY OF YAKIMA, MICAH CAWLEY, in his official capacity as Mayor of Yakima, and MAUREEN ADKISON, SARA BRISTOL, KATHY COFFEY, RICK ENSEY, DAVE ETTL, and BILL LOVER, in their official capacity as members of the Yakima City Council, Defendants.	NO. CV-12-3108-TOR DECLARATION OF PETER MORRISON, Ph.D. IN SUPPORT OF DEFENDANTS' RESPONSE
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1. Central to any complete remedy in this case is the growing presence of Latinos among the City's eligible voters and Latinos' broadening geographic reach as a force to be reckoned by prospective candidates for City Council. This demographic maturation, which impends over the next several forthcoming elections, has important implications for the Court's choice between the competing plans that Defendants and Plaintiffs have presented. Each plan will have markedly different consequences over the next four election cycles (from 2015 through 2021) prior to when the 2020 decennial redistricting would take effect.

2. Defendants' Proposed Remedial Plan is attuned to both the pace and the geographic reach of this evolutionary change. First, Defendants' plan capitalizes on Latinos' increasing numerical presence among the City's citizen voting-age population (CVAP). That increase is being spurred by youthful Latinos (most of

them citizens by birth) reaching adulthood, along with added momentum as even more adult Latinos naturalize and become eligible to vote. Second, Defendants' plan will enable Latino voters to exercise political influence on issues affecting the entire City, to a degree that is commensurate with their increasing numbers.

3. Defendants' Proposed Remedial Plan is an adaptive remedy, capable of translating Latinos' predictable growth across the City into an ability to elect candidates whom they favor. This Plan will distill the political expression of that growth in two ways: by concentrating that expression in two single-member districts¹ (as Plaintiffs' plan would do) and also by permitting that expression across the City, as Latinos ripen into an electoral force to be reckoned with in the future, which Plaintiffs' plan would not do. In doing so, Defendants' Proposed Plan would institute an enduring cure to the violation.

4. Plaintiffs' plan, by contrast, is narrowly focused on empowering just 41% of all Latinos in the City—but doing so immediately (as I detailed in my prior declaration at Paragraph #10, Document #114). Like Defendants' plan, it would distill the political expression of Latinos' numbers by concentrating them in two single-member districts. Thereafter, though, Plaintiffs' plan would do nothing further to permit the political expression of Latinos numbers anywhere else within the City. Indeed, 59% of the City's eligible Latino voters would be effectively

¹ Mr. Cooper has called attention to a single 5-person census bock that was assigned to Defendants' proposed District 2 rather than their District 3. This is a meaningless discrepancy, for two reasons. First, subtracting (or adding) "5" to the total population of either district does not materially affect the overall plan balance. Second, the Census Bureau typically suppresses any characteristics of the population for a geographic unit with just 5 inhabitants, to preserve individual confidentiality. Such suppression rules out any possibility of knowing how many of these 5 inhabitants are citizens, or Hispanic citizens, or Hispanic citizens under or over age 18, etc.

disenfranchised—and not over just the next four election cycles but even further into the future, as I shall detail below.

FORECASTING LATINOS' EMERGING VOTING STRENGTH

5. I have calibrated a straightforward demographic accounting model to trace the future emergence of Latino voting strength both Citywide and also within Defendants' Districts 1 and 5 and within Plaintiffs' districts. My validation study of this model, based on eight cities and counties across the nation (including Yakima), lends credence to its predictive applicability here in foreseeing Latinos' intrinsic future voting strength, both citywide and in each remedial district. (See Appendix for details of this evaluation study.)

6. The following forecasts are intended to help the Court anticipate how Defendants' and Plaintiffs' proposed remedial plans would function in forthcoming elections from 2015 through 2027—that is, up until the next decennial redistricting based on 2020 census data, and in subsequent elections through 2027.

FORECAST OF DEFENDANTS' PROPOSED REMEDIAL PLAN

7. My projection for the City of Yakima is shown in Table 1. Details for Defendants' District 1 and 5 are shown in Tables 2 and 3.² Citywide, I foresee that Latinos will increase from 22.7% of the CVAP in 2010 to at least 30.9% by 2021 and at least 34.0% by 2027.³

² For Defendants' District 1 and District 5, I have adopted the conservative approach of using whole census block groups to approximate the precise territory within which Latinos' increasing share of CVAP will emerge in future years. This approach avoids any concern with data suppression or other statistical limitations with the ACS estimates of the under-18 population for individual census blocks. My use of whole block group approximations here has the effect of slightly over-bounding each district, thereby "diluting" Latinos' actual concentration there. This undoubtedly renders my projections overly conservative: that is, the projected Latino shares of CVAP shown in Table 2 most likely understates that share for the district had I defined it using individual census blocks. That is why I have characterized certain projected values in Table 2 as being "at least" the values appearing in Table 2.

³ I regard these projected percentages as conservative, and my *post hoc* evaluation of this model's predictive accuracy (detailed in the Appendix) supports this view. The model I have used here accounts for only one of the two demographic processes sure to boost Latinos' numbers among the City's CVAP: the addition over time of youthful Latino citizens who will mature into eligible voters 18 and older. It takes no account of a second process, which will further boost Latinos' share of the City's CVAP: subtraction of elderly (predominantly *non-Latino*) citizens dying off each year. This latter process will surely elevate Latinos' share among the City's surviving adult voters in future years. That is because the vast majority (91%) of persons ages 67 and older (those dying off in future years) are non-Latinos vs. a mere 9% who are Latinos.

**Table 1. Projected Hispanic Share of Citizen Voting-Age Population:
City of Yakima, 2015-2027**

City of Yakima		Projected Hispanic Share of Citizen Population 18+ Midyear 2015-2027						
		2015	2017	2019	2021	2023	2025	2027
Citizen Population (2010)								
<i>Citizens 18 & older:</i>	55,395	62,369	65,026	67,683	70,339	72,996	75,653	78,310
%Hispanic	22.7%	27.0%	28.4%	29.7%	30.9%	32.0%	33.0%	34.0%
<i>Citizens under age 18:</i>	23,911	x (5/18)	x (7/18)	x (9/18)	x (11/18)	x (13/18)	x (15/18)	x (17/18)
%Hispanic	61.4%							
Sources: US Census Bureau, 2010 Census, PL94 table; 2008-12 American Community Survey, Tables B05003 and B05003I.								

**Table 2. Projected Hispanic Share of Citizen Voting-Age Population in
Defendants' Remedial District 1 and District 5: 2015-2027**

Defendants' Remedial Dist. 1 (whole BG approximation)		Projected Hispanic Share of Citizen Population 18+ Midyear 2015-2027						
		2015	2017	2019	2021	2023	2025	2027
<i>Citizens 18 & older:</i>	7,390	9,147	9,817	10,486	11,156	11,825	12,495	13,164
%Hispanic	47.77%	55.4%	57.5%	59.4%	61.1%	62.6%	63.9%	65.1%
<i>Citizens under age 18:</i>	6,025	x (5/18)	x (7/18)	x (9/18)	x (11/18)	x (13/18)	x (15/18)	x (17/18)
%Hispanic	87.3%							
Sources: US Census Bureau, 2010 Census, PL94 table; 2008-12 American Community Survey, Tables B05003 and B05003I.								

Defendants' Remedial Dist. 5 (whole BG approximation)		Projected Hispanic Share of Citizen Population 18+ Midyear 2015-2027						
		2015	2017	2019	2021	2023	2025	2027
<i>Citizens 18 & older:</i>	13,385	15,616	16,466	17,316	18,166	19,016	19,866	20,716
%Hispanic	35.67%	41.4%	43.2%	44.8%	46.2%	47.5%	48.7%	49.8%
<i>Citizens under age 18:</i>	7,650	x (5/18)	x (7/18)	x (9/18)	x (11/18)	x (13/18)	x (15/18)	x (17/18)
%Hispanic	75.7%							
Sources: US Census Bureau, 2010 Census, PL94 table; 2008-12 American Community Survey, Tables B05003 and B05003I.								

8. In Defendants' proposed District 1, I foresee that Latinos will become at least 55.4% of the CVAP there by 2015, when the first district election would be held (Table 2).

9. In Defendants' proposed District 5, I foresee that Latinos will become at least 41.4% of the CVAP there by 2015, when the first district election would be held. By 2023 (two election cycles thereafter), Latinos will have increased to at least 47.5% of the CVAP there.

FORECAST OF PLAINTIFFS' PROPOSED REMEDIAL PLAN

10. My forecasts for the relevant districts of Plaintiffs' Proposed Plan are shown in Table 3. My forecasts document two key points. First, every one of Plaintiffs' proposed Districts 3, 4, 5, 6, and 7 will submerge Latino voters within a heavily *non-Latino* district, thereby silencing the voting preferences of most Latinos in the City. Put another way, each of these districts will persist as a Latino "non-opportunity district" through at least the election of 2027. Forecasts beyond 2027 become increasingly speculative. From a 2014 vantage point, though, I see no basis for anticipating that any of these five districts will evolve into a district where Latinos become a majority of Latino eligible voters.

Table 3. Projected Hispanic Share of Eligible Voters in ACLU's Districts #3 through #7: 2015-2027

ACLU's Latino "Non-Opportunity" Districts #3 - #7	2008-2012 ACS (2010)		Projected Hispanic Share of Citizen Population 18+ Midyear 2012-2024						
			2015	2017	2019	2021	2023	2025	2027
	Pls' data	BG approx.							
ACLU District 3									
Citizens 18 & older	8,653	13,440							
% Hispanic	25.2%	23.5%	26.7%	27.8%	28.7%	29.6%	30.4%	31.2%	31.9%
Citizens under age 18		5,825							
% Hispanic		52.0%							
ACLU District 4									
Citizens 18 & older	7,676	13,745							
% Hispanic	27.0%	26.8%	29.9%	30.9%	31.9%	32.8%	33.6%	34.3%	35.1%
Citizens under age 18		5,365							
% Hispanic		57.0%							
ACLU District 5									
Citizens 18 & older	8,702	12,560							
% Hispanic	12.3%	10.6%	12.6%	13.2%	13.9%	14.5%	15.0%	15.6%	16.1%
Citizens under age 18		3,495							
% Hispanic		36.8%							
ACLU District 6									
Citizens 18 & older	9,625	13,110							
% Hispanic	7.1%	7.0%	8.6%	9.2%	9.8%	10.3%	10.7%	11.2%	11.6%
Citizens under age 18		3,815							
% Hispanic		28.3%							
ACLU District 7									
Citizens 18 & older	9,823	17,630							
% Hispanic	15.2%	13.4%	15.9%	16.7%	17.5%	18.3%	19.0%	19.6%	20.2%
Citizens under age 18		6,020							
% Hispanic		41.3%							
Source: Morrison demographic accounting model using 2008-12 ACS BG approximations of ACLU's remedial Districts 3-7.									

11. Ironically, fully 60% of the City's Latinos eligible to vote now reside among the far more numerous non-Latino voters in each of these five districts. Thus, Plaintiffs' Proposed Plan will deprive the Latinos residing in these five districts of any meaningful political participation through at least 2027, and almost certainly beyond.

12. Plaintiffs' plan is premised on a static cure, which would merely concentrate Latinos' numbers where they were enumerated on the 2010 Census. This Plan ignores overwhelming evidence of Latinos' forthcoming demographic maturation into a citywide electoral force to be reckoned with by future candidates inclined to run at large. It would guarantee that Latino-favored candidates fill two seats right away. However, it also would strongly assure (and even guarantee) that non-Latino-favored candidates fill the five other seats through 2027. In that sense, Plaintiffs' plan would gradually disenfranchise a majority of the City's eligible Latino voters by depriving them of additional citywide opportunities to elect their preferred candidates in forthcoming election cycles.

FASHIONING AN EFFECTIVE REMEDY

13. By the 2020 decennial census, Latino eligible voters will have become excessively concentrated within Defendants' District 1, comprising about 60% of the eligible voters there (see Table 2). By then, decennial redistricting could plausibly form two Latino opportunity districts. This could be accomplished by transferring some of the heavily Hispanic territory in Defendants' D1 to Defendants' District 5, thereby further concentrating Latino eligible voters in District 5. This exchange could assure a *pair* of Hispanic opportunity districts on the City's heavily Hispanic east side.

14. Furthermore, Hispanics by 2019 will comprise 29.7% of all eligible voters citywide (see Table 1). From that year onward, Hispanics will constitute an increasingly influential *citywide* voting bloc in all future at-large elections. Indeed, Hispanics' share will be just 3.6 percentage points short of Professor Engstrom's hypothetical "threshold of exclusion." By 2019 or 2021, Hispanics will be within effective reach of Engstrom's hypothetical "threshold of exclusion." A modest crossover vote would afford Hispanics a meaningful chance to elect their candidate

of choice.

15. By the next decennial redistricting cycle following release of 2020 census data, then, Hispanics will be within effective reach of electing their candidate of choice at large; and in subsequent at-large elections, Hispanics will be able to elect their candidates of choice citywide regardless of how anyone else votes. In short, with each passing year Latino eligible voters will gain strength citywide, ushering in the prospect of full-fledged empowerment both citywide and in two districts as well.

16. In light of the *amicus curiae* brief filed by FairVote, and also Plaintiffs' use of Spanish-surnamed registrants as the benchmark for establishing an opportunity district, I was asked to assess whether it would be possible to create a four-district map with one district in which persons with Spanish surnames would be a majority of registered voters in the next election. This issue arose after William Cooper provided the registered voter data for Plaintiffs' proposed plan. These figures show that in two of Plaintiffs' seven districts, Latino (i.e., Spanish-surnamed) registrants now comprise the majority of registered voters--52.78% in District 1 and 53.35% in District 2. Mathematically, combining these two districts would create a single district in which Latinos again would be the majority of registered voters. However, the total population of this combined district would represent approximately two-sevenths of the City's overall total population and would need to be reduced to comply with the one-person, one-vote principle. It is beyond dispute that this could be accomplished without reducing the Latino share of registered voters. If anything, the concentration of Latino registered voters could be increased by reassigning a small portion of this combined district where Latinos are slightly less concentrated among registrants to neighboring districts instead when balancing out the total population figures.

Signed,

A handwritten signature in black ink, appearing to read "P. Morrison". The signature is fluid and cursive, with a large initial "P" and a long, sweeping underline.

Peter A. Morrison, Ph.D.

October 23, 2014

APPENDIX

Post Hoc Evaluation of Demographic Accounting Model Predictive Accuracy

1. I have calibrated a straightforward demographic accounting model to trace the emergence of Latinos' future voting strength over time. My validation study of this model is based on eight cities and counties across the nation (including Yakima). The study lends credence to the model's predictive accuracy and its applicability in the City of Yakima to foresee Latinos' intrinsic future voting strength (i.e., their future share among eligible voters) citywide and in each remedial district.

2. The logic underlying this model is transparent and straightforward. With each passing year following the decennial census, the process of cohort succession adds new eligible voters to an electorate as juvenile citizens reach age 18. Where two subgroups—here, Latinos and non-Latinos—differ markedly in citizenship and age structure, cohort succession influences the composition of that electorate in a predictable way. My demographic accounting model simply quantifies the evolution of Hispanics' intrinsic voting strength over time through cohort succession.

3. My *post hoc* evaluation of this model's predictive accuracy is based on a sample of eight communities similar to Yakima, which have registered Hispanic immigrant influx. Simply put, my evaluation entailed pretending that it is 2000, affording me access just to Census 2000 data. How accurately might one “forecast” Hispanics' increasing share of CVAP for each of these eight communities over the next decade? I compared this simulated forecast with the actual 2000-2010 increase as documented in official 2010 Census Bureau data. This *post hoc* evaluation of predictive accuracy reveals the strengths and

limitations of this approach.⁴

4. Table A-1 documents how well this model “predicts” Yakima’s future in 2010, based solely on what could be measured as of 2000. The model calculates a Latino share of CVAP that increases from 14.25% to 21.12% between 2000 and 2010. The actual increase over that ten-year period was from 14.25% to 22.66%.⁵ Table 2 summarizes the model’s overall *post hoc* predictive accuracy in the 8 communities where I have evaluated its performance.

**Table A-1. *Post Hoc* Evaluation of Predictive Accuracy for Yakima
(Based on 2000 Data)**

Yakima city, WA		Projected Hispanic Share of Citizen Population 18+ Midyear 2002-2010				Actual Share (2010 Census & 2008-12 ACS)
Citizen Population (2000)	Number	2002	2004	2005	2010	
<i>18 & older:</i>	43,282	45,720	47,887	48,970	54,387	55,395
Hispanics	6,169	7,337	8,375	8,894	11,489	12,550
NonHispanics	37,113	38,383	39,512	40,076	42,899	
%Hispanic	14.25%	16.05%	17.49%	18.16%	21.12%	22.66%
<i>Under 18:</i>	19,502	x (2/18)	x (4/18)	x (5/18)	x (10/18)	
Hispanics	9,342					
NonHispanics	10,160					
%Hispanic	47.9%					

Sources: US Census Bureau, 2000 Census, SF2 Table QT-P1 and SF4 Table PCT044; 2010 Census, SF2 Table QT-P1 and 2008-12 American Community Survey, Tables B05003 and B05003I.

⁴ The full evaluation is reported in Peter A. Morrison, “A Method to Forecast Hispanic Voting Strength at Local Scales,” presented at the 2014 Applied Demography Conference, San Antonio, Texas, January 8-10.

⁵ The model’s tendency to underestimate the future share of Latinos of CVAP (estimated 21.12% vs. actual 22.66%) has a ready explanation. In virtually all the communities studied (including Yakima), the fraction of the adult population who are of elderly age (older than, say, 67 years) is larger among non-Latinos than Latinos. Accordingly, the eligible voters who die off each year are predominantly non-Latinos, further increasing the Latino share among those adults still alive. This effect is tricky to model, and it surely introduces a tendency for my accounting model to understate the future Hispanic share of CVAP.

Table 2. *Post Hoc* Evaluation of Predictive Accuracy for All Eight Communities (Based on 2000 Data)

City or County	Percentage-point change, 2000-2010		
	Actual	Projected	Difference
Anaheim, CA	9.6	7.9	-1.8
Chelsea, MA	9.0	7.2	-1.8
Yakima, WA	8.4	6.9	-1.5
Orange Cnty, FL	7.6	1.1	-6.5
Gainesville, GA	4.3	4.9	0.5
Cook Cnty, IL	3.4	2.5	-1.0
Boston, MA	2.8	1.9	-0.9
Milwaukee, WI	2.4	1.5	-0.9
Source: Author's calculations using Youthful Cohort Projection model.			