IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF PENNSYLVANIA

LOUIS AGRE, *et al.* **v.** **THOMAS W. WOLF**, Governor of the Commonwealth of Pennsylvania, **JONATHAN MARKS**, Commissioner of the Pennsylvania Bureau of Commissions, Elections and Legislation, **ROBERT TORRES**, Acting Secretary of the Commonwealth of Pennsylvania, **JOSEPH B. SCARNATI, III**, President Pro Tempore of the Pennsylvania Senate, and **MICHAEL C. TURZAI**, Speaker of the Pennsylvania House of Representatives, in their official capacities.	**CIVIL ACTION** **NO. 17-4392**

MEMORANDUM

Baylson, District Judge, Dissenting **January 10, 2018**

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I. Introduction

Gerrymandering is a wrong in search of a remedy. This case is brought under the Elections Clause of Article I of the United States Constitution, which is a novel legal claim, asserting the 2011 map redistricting Pennsylvania's congressional districts was in violation of the United States Constitution. There are no Supreme Court decisions addressing a gerrymandering claim under the Elections Clause.

This memorandum will develop the reasons why Plaintiffs' claim finds support in the Elections Clause, and in Supreme Court decisions interpreting the Elections Clause in other contexts. Prior precedents under the Equal Protection Clause of the Fourteenth Amendment can provide some background but do not preclude the granting of relief to the Plaintiffs under the Elections Clause.

Plaintiffs have proven their claim by clear and convincing evidence, which is the appropriate burden of proof. The analysis in this memorandum relies completely on the shape of the map and other objective criteria.

II. Procedural History

After the Complaint in this case was filed on October 2, 2017, this Court decided to expedite pretrial proceedings and commence a trial on December 4, 2017. This memorandum reviews in some detail the factual testimony presented at the trial and will make credibility determinations.

Although "partisan intent" is not part of the analysis leading to a verdict in favor of the Plaintiffs, I will make some findings on intent in case a reviewing court believes it is relevant.

The procedural history in this case is very brief and can be summarized succinctly. Both parties desired discovery, which was handled with professional skill and courtesy by all counsel, which the Court appreciates. The Court notes that there were two categories of defendants.

Original defendants, the Governor of Pennsylvania and several subordinates who supervised elections, referred to as "Executive Defendants." The leaders of the Pennsylvania Senate and House of Representatives intervened as defendants and are referred to as "Legislative Defendants." The claim of executive privilege and deliberative privilege asserted by the Legislative Defendants was overruled by this Court.

III. Brief Statement of the Issues

Have Plaintiffs proved, by the applicable burden of proof, clear and convincing evidence, that the 2011 map adopted by the Pennsylvania Legislature and signed by Governor Corbett, determines congressional districts in Pennsylvania without regard to neutral and traditional reapportionment principles, considered together with the unusual process by which the legislation was approved, and violates the Elections Clause of the United States Constitution?

(a) Can this Court determine this issue without consideration of partisan intent or any political considerations?

IV. Stipulated Facts

The parties submitted a "Joint Statement of Stipulated Facts" (ECF 150) which largely documented the events leading up to the 2011 map and the facts relating to political registration and official positions of the parties. These facts are discussed in the Memorandum.

V. Testimony

A. Plaintiffs' Testimony

Louis Agre

Louis Agre testified that he resides in Philadelphia, in the Second Congressional District, and that his representative is Dwight Evans, a Democrat. He has been the ward leader of the Twenty-First Ward of Philadelphia for sixteen years. He is also counsel to the International Union of Operating Engineers Local 542, a union consisting of heavy equipment operators and

repairmen. Mr. Agre testified that he has been a registered Democrat for forty-five years. He feels that his vote has been "watered down" by virtue of the fact that he lives in a highly Democratic district, and noted that Philadelphia voters might have more representatives if the City had "fair districts," as Philadelphia would in such an instance, he testified, have more districts entirely within City lines. He also expressed his view that "fair districts" would lead to views in "the middle" that solve problems, instead of allowing representatives to be re-elected while catering only to the views of voters to one side of the political spectrum.

Kristin Polston

Kristin Polston testified that she lives in Pottsville, Pennsylvania, which is located in Schuylkill County. Her address falls within the Seventeenth District, and she is represented by Congressman Matt Cartwright. Ms. Polston testified that she has been a registered Democrat since she was 18 years old. She is originally from Sacramento, California, and she moved to the Philadelphia area when she was 19 years old. Ms. Polston is a registered nurse with her advanced certification in lactation, and she works at Redding Hospital as a lactation specialist. She has two children. Ms. Polston explained that when she first moved to Schuylkill County, she was surprised that while most of the people she was meeting were Republican, and yet she had a Democratic Representative.

Ms. Polston expressed concern that her vote "is diluted" in her area. She stated that "we," referring to Pennsylvania voters, would have more Democratic representatives in Congress if the districting map were not drawn the way it is. She also testified that her access to her Representative is "not as great as I wish it were," and that "the shape of my district influences that." She testified that here representative had never held a town hall in Pottsville, and that town halls at one end of the district would be hard for voters who lived at the far end to attend.

Reagan Hauer

Reagan Hauer testified that she lives in Chester County, part of the Sixth Congressional District, and that her representative is Ryan Costello. She stated that her party registration is currently Democrat but she previously has been unaffiliated and independent. Ms. Hauer stated that Chester County is split with a slight Republican advantage but the Sixth District is more Republican. She asserted that the 2011 Plan harmed her as a moderate because competition for moderate voters has dropped. She also asserted that she has heard Representative Costello is hard to meet and that he has not responded to any of her letters or faxes. In sum, she contended, she does not feel it matters what she says because of the way the district's lines have been drawn.

Jean Shenk

Jean Shenk, a resident of Bethlehem, has been a registered Democrat her entire adult life. She lives in the Fifteenth Congressional District, and has as her representative Charlie Dent, who she feels does not reflect her values and views. She suffers from a connective tissue disorder and feels passionately (and worries daily) about affording healthcare in light of the potential for Congress to repeal the Affordable Care Act. She stated that the 2011 Plan "makes [her] vote a waste" and she feels that her "vote does not have any effect" because the Lehigh Valley had been divided, and Republicans from Central Pennsylvania had been added to her district.

Jason Magidson

Jason Magidson lives in Haverford Township, which is located within the Seventh District, which is represented by Republican Patrick Meehan. He is 53 years old, and has been a registered Democrat for somewhere between 15-20 years. Prior to that, he was briefly registered as a Republican, and was unaffiliated. He has worked in management consulting and then at GlaxoSmith Kline before opening his own business.

Mr. Magidson testified that he has been very politically active since Donald Trump was elected President. He is a member of the Haverford Area Community Action Network. He stated that the issues he cares most about are the environment, racial justice, women's rights, fair districting, and encouraging voter registration. Representative Meehan, he explained, does not reflect Mr. Magidson's values. For example, on issues affecting the environment, Representative Meehan has consistently voted in a way that Mr. Magidson did not approve of. This is particularly troublesome to Mr. Magidson because his daughter suffers with asthma, and the EPA published evidence on its website that suggests that a bill that Representative Meehan voted in favor of would make the air quality worse over time. Asked about the lines of the Seventh District, Mr. Magidson stated that the design was problematic. He went on to assert that the design of the 2011 map was "very disturbing to me because I don't think my vote counts for much." He added that the system "feels rigged, the way the district is stretched out." When asked why he became involved now and not before, Mr. Magidson explained that he became more knowledgeable on this issue after the 2016 election.

Brian Burychka

Plaintiff Brian Burychka, a resident of Conshohocken, is a registered Democrat who votes in the Thirteenth Congressional district, which, in Burychka's words, "winds all the way down into Philadelphia" and is currently represented by Democrat Brendan Boyle. (12/5/17, AM, 67:8-9) He has founded two political groups, Indivisible Conshy and Pennsylvania Together. Burychka, a high school teacher and self-described "avid hunter," identifies as a moderate Democrat who identifies with Democrats on social issues but supports gun rights. (Id. 67:13) He testified that because the Thirteenth Congressional includes parts of the City of Philadelphia, his views on gun control were "lost" in a "heavily Democratic area," and that the

"culture" "all the way down in the Philadelphia part of the district is way different than what [he] grew up in." (Id. 67:13-18) Invoking Reynolds v. Sims, he argued that because of the 2011 map his vote "d[idn't] really matter because it's so heavily one-sided" he was "not really getting the same one vote that someone in a…competitive district is." (Id. 67:25-68:4)

On cross-examination, Burychka testified that prior to May 2015, he had previously voted in the Seventh Congressional District, where he was represented by Pat Meehan. Meehan, he testified, "didn't share [his] values," but clarified that on some issues he was happy with Meehan's representation, such as Meehan's stances on the Second Amendment. (Id. 71:18-24) Burychka testified that the election of Donald Trump had spurred him to become politically active, but expressed concern that Republican representatives were "falling in line . . . including Pat Meehan." (Id. 73:16)

Joseph Landis

Joseph Landis is a resident of the Eighth Congressional District, represented by Republican Brian Fitzpatrick. He lives in Montgomery County and has a degree and career focused on the provision of services to individuals with intellectual disabilities and autism. He stated that he is a registered Democrat but identifies as an Independent. He also testified that he does not feel his representative matches his values and views, in particular due to Representative Fitzpatrick's vote on the recent tax bill, which may "gut services to individuals with intellectual disabilities and autism." He feels that his district will continue to elect Republicans regardless of his vote, as a result of which his "voice is squashed."

Bill Ewing

Bill Ewing testified that he is 78 years old and he is from Valley Forge, Pennsylvania. After attending Princeton University where he earned his Bachelor's in Public and International

Affairs, he attended law school at the University of Pennsylvania. During his legal career, he clerked for then-Judge Warren Burger when he was a Judge on the U.S. Court of Appeals for the District of Columbia, he worked as a professor, and he worked in private practice. Mr. Ewing has been a registered Democrat since 1970; prior to that he was a registered Republican. He lives in the Mt. Airy section of Philadelphia, which falls in the Second District, represented by Democrat Dwight Evans. Mr. Ewing stated that he is politically active. In 1978 he ran for state Senate and lost in the Democratic primary, but that he has since continued to remain engaged by volunteering his time, engaging with campaigns, and making donations.

When asked how the Pennsylvania districting map affects his civil rights, he explained that in general elections it does not matter whether he votes or not, as there is no contest in his District because it leans so heavily Democratic. He feels that under both the 2002 and the 2011 maps he "lost any meaningful voice in the general election." He stated that he has continued to support candidates in other districts, but that "the ability to elect a Democrat in many districts has diminished substantially." Despite this state of affairs, though, he "remains hopeful" and "keeps participating."

John Gallagher

Plaintiff John Gallagher testified that he lives in Media, part of Delaware County located in the First District. Mr. Gallagher testified that he registered as a Republican at the age of eighteen, then became a registered Democrat in 1971, switched back to Republican at some point thereafter, and then switched again to become a Democrat ten weeks before testifying. He is represented by Robert Brady, a Democrat based in Philadelphia, who Mr. Gallagher asserted has never visited his part of the district. Mr. Gallagher stated that as a result of the 2011 Map, he became part of the First District, with whose constituents he had previously had nothing to do.

In fact, Mr. Gallagher was "shocked" to show up to the polling place to vote, and seeing Rep. Brady on the ballot; Mr. Gallagher had "worked for some time" to "get [Representative Patrick Meehan] out of office" in the Seventh District, and was disappointed that he could not vote for Rep. Meehan's opponent. In fact, Mr. Gallagher stated that he had "no idea what issues" faced voters in the First District when he entered to vote and realized that Rep. Brady was on the ballot.

Ani Diakatos

Plaintiff Ani Diakatos testified that she is a resident of Wallingford, which is located in Delaware County, and votes in Pennsylvania's First Congressional District, which is represented by Democrat Bob Brady. She has been a registered Republican since she turned 18. She testified that became a Republican because of her father's admiration for President Eisenhower, who was president when her father came to the United States, and her own experience listening to Ronald Reagan speak at Upper Darby High School, an experience she testified gave her "goosebumps." When asked about her core values as a Republican, she said that the party, when she joined, was "fiscally conservative but inclusive" but she did not know if she "felt that way anymore."

When asked whether her civil rights had been violated, she complained that her "voice [wasn't] heard anymore." She asserted that Representative Brady, to whom she referred as "some guy in Philly," never came to Wallingford or Delaware County, and that he presumably never would. Although she acknowledged that lines would necessarily have to be drawn somewhere, she testified that she lived just a mile away from a district represented by Pat Meehan, who represents Delaware County. She testified to assuming that Representative Brady would put the interests of Philadelphia first, to the extent that the interests of Philadelphia were

in competition with those of Delaware County, such as over a potential Amazon headquarters. She testified that she had never attempted to contact his office because she assumed that Representative Brady would not respond.

Plaintiff Testimony Submitted via Deposition

Edwin Gragert

Plaintiffs' counsel proffered the deposition of Edwin Gragert, a Democratic voter in Milford. He votes in the Tenth District. He testified that he had been deeply involved in an unsuccessful Democratic congressional campaign, but that it was hard to campaign effectively in a district as spread out as the Tenth.[1]

Marina Kats

Plaintiffs' counsel proffered the deposition of Marina Kats, a lawyer, mother of two and an immigrant from the Ukraine who is a registered Republican. She lives in Meadowbrook and votes in the Thirteenth Congressional District. At her deposition, she testified that she had run for Congress in 2008 and lost, and believed that it would be fruitless to run again "because the way the district is drawn, there is complete unfairness to our Republican representative." (Kats Dep. 69:12-14)[2]

James Davis

Plaintiffs' counsel proffered the deposition of James Davis, an attorney and registered Democrat. He lives in Brownsville, in Fayette County, and votes in Ninth Congressional District, which he described as looking like a "snake." (Davis Dep. 35:11-12) At his deposition, Mr. Davis testified that his congressman's office was three hours away, and complained that his

[1] Mr. Gragert's deposition was taken telephonically while he was traveling in Argentina, and he was sworn in telephonically by the courtroom deputy in open court.
[2] The deposition was taken telephonically while Ms. Kats was traveling in Egypt, but she was sworn in by the court reporter.

county had been split from with Greene and Washington counties, which he said had "the same issues, natural gas, coal." (Id. 31:24-32:3) He testified to his belief that "this progression of the way we draw our districts in Pennsylvania…has made people apathetic, it's made people disengaged, it's made people not vote, it's made people feel that…the politicians are above the law," although he himself had remained politically active. (Id. 37:5-11)

Cindy Harmon

Plaintiffs also presented Cindy Harmon's deposition testimony. Ms. Harmon is a Democrat who resides in the Third District. She stated that she has been harmed by the fact that her Congressman is located far away from where she lives, and that the values her Congressman has are different because of where they focus their attention. Specifically, she stated that she feels that she does not "really have a chance when I'm voting."

Leigh-Anne Congdon

Plaintiffs also presented Leigh-Anne Congdon's deposition testimony. Ms. Congdon is a Democrat who resides in the Fifth District. She stated that Pennsylvania is "not really fairly represented by our Congressional delegation in DC."

Douglas Graham

Plaintiffs also presented Douglas Graham's deposition testimony. Mr. Graham is a Democrat who resides in the Fourteenth District. He testified that he has been harmed by "having a Democrat that many years that I don't have a choice," and that he is "not entirely happy with the fact that my district has no strong opposition party." He stated that he thinks "it's fair to say that [the shape of his district] has not caused [him] harm." However, he believes the other congressional districts in which he cannot vote have caused harm to people he is "involved

with [such as] family and friends." He also stated that "poorly drawn districts" in other States affect him "on a national level because the issues that affect [him] aren't just local issues."

Rayman Solomon

Plaintiffs also presented deposition testimony from Rayman Solomon, formerly the Dean of Rutgers Law School. Mr. Solomon is a Democrat from the Second District. He testified that he does not believe he was harmed either as a Federal or a Pennsylvania citizen by having Representative Dwight Evans as his Congressman. He stated, however, that he was harmed in the sense that he did not feel as involved in the election as he would have felt in a "competitive race, as opposed to one that's outcome is determined." He also stated that he was harmed by the belief that the congressional election in the Second District is "predetermined," although he acknowledged that sometimes there are "big surprises" in electoral outcomes, which can be "very remote" possibilities in some circumstances.

Joy Montgomery

Joy Montgomery is a resident of Lititz, Pennsylvania,[3] which is in Pennsylvania's Sixteenth Congressional District. Before moving to Lititz earlier in 2017, Ms. Montgomery lived in Lancaster, Pennsylvania for forty-seven years. Joy Montgomery is a registered Democrat and is currently represented by Congressman Smucker, a Republican. Ms. Montgomery asserts that the 2011 Plan has prevented her "from getting [her] choice." (Montgomery Dep. 29:10-11)

Virginia Mazzei

[3] Ms. Montgomery's husband, Floyd Montgomery, is also a plaintiff in this action (Am. Compl. ¶ 12), but he was not separately deposed and there is no testimony from him to summarize. It appears, however, that he was present for Ms. Montgomery's deposition and did interject at times.

Virginia Mazzei lives in Benton, Pennsylvania, which is located in Pennsylvania's Eleventh Congressional District and represented by Congressman Barletta, a Republican. Mazzei, who is self-employed as a massage therapist, yoga teacher and Ayurveda counselor, is a registered Democrat. Mazzei asserts that, under the 2011 Plan, her vote does not count "because of the way that the districts have been drawn with . . . [a] political advantage for one party over another." (Mazzei Dep. 22:23-23:2) She also asserts Congressman Barletta is "not responsive [to her concerns] . . . because he doesn't worry about [winning her] vote." (Id. 25:8-10)

Heather Turnage

Heather Turnage is a registered Democrat and resident of Spring Garden, Pennsylvania, located in Pennsylvania's Fourth Congressional District, which is represented by Congressman Scott Perry, a Republican. Turnage testified that her "particular district is not very gerrymandered" and that it is "one of the more compact ones[.]" (Turnage Dep. 48:4-5) She was unsure whether her particular district was fairly drawn. (Id. 48:11-12) She was also unsure how, if at all, the shape of her district harmed her. (Id. 50:15-23) When pressed on how specifically she was harmed by the 2011 Plan, she explained, "I can't know without having the information basically that . . . the redistricting committee has . . . because I'm not sure how things might change if districting [were] done differently." (Id. 52:1-5)

Dana Kellerman

Dana Kellerman testified that she lives in Fox Chapel Borough in the Twelfth Congressional District. Her congressman is Keith Rothfus, a Republican. She has been a registered Democrat since she was eighteen years old. She testified that she has been harmed by the current redistricting map because her "vote does not count as much as it should" and "has been purposely diluted by the addition of a whole bunch of other barely contiguous communities

that don't belong in [the] district." (Kellerman Dep. 12:23-24; 13:3-6) She further testified that, "[b]ecause [her] vote has been diluted, [her] representation has been diluted." (Id. 13:7-8) She stated that her district "shouldn't have these little fingers that reach out to grab another clump of Republicans, and it should not have these little carve-outs . . . leaving this bizarre hole in [the] district" and that it should not be the case that when she drives down a single road, she "cross[es] in and out of [the] district four times in five miles." (Id. 14:6-15) She testified further that her "district should be able to pick the representative who represents [them]" and that her district "should be about 50-50 [Democrats to Republicans] because that's who lives in the area," but because of vote dilution, the district's representative is instead "chosen by a bunch of people . . . who are in a community very different than [her] community." (Id. 41:1-10)

Shawndra Holmberg

Shawndra Holmberg testified that since 2015 she has lived in the City of Butler, which is part of the Third Congressional District. She explained that prior to the 2011 map, her district was competitive but now it is not, meaning that the district's representative, Mike Kelly, "does not have to listen to his voters," resulting in "another harm" of not being "heard." (Holmberg Dep. 16:24-17:1; 18:7) She is a registered Republican and testified that she changed from Democrat to Republican "for [her] vote to count" because she "was tired of being told, oh you're just a democrat[;] [that's why] [y]ou're unhappy with the [electoral] race [results]." (Id. 18:1-9)

Barbara Shah

Barbara Shah testified that she lives in Bethel Park, which is in the Eighteenth Congressional District. She is a Democrat Committeewoman. She stated that "in the last two elections [she] didn't have a chance to vote for any Democrats because there were no Democrats on the ballot." (Shah Dep. 12:21-24) She attributed that lack of choice to the 2011 redistricting

map because previously there had been Democrat representatives in her district but then since 2012, her understanding is that the district has been "gerrymandered" and "manufactured" for Tim Murphy, the Republican congressman. Additionally, when asked why she did not run for Congress as a Democrat in her district, she answered that her district "was so gerrymandered it is even difficult to get enough signatures on petitions." (Id. 19:21-20:6) She testified that the redistricting map restricted choices of representatives because gerrymandering makes it "very difficult to get campaign contributions" and "party support." (Id. 30:7-22) She also described a lack of responsiveness from her representative, Murphy, who "refused to attend" town hall meetings involving Shah's community and has "refused to respond" or "acknowledge in any way" her community. (Id. 35:15-23)

B. Testimony by Senator Andrew Dinniman

Senator Andrew Dinniman testified that he has represented Chester County in the Pennsylvania State Senate for twelve years. Chester County is split into three congressional districts, the Sixth, Seventh, and Sixteenth. He is a member of the Senate State Government Committee. Senator Dinniman is also a tenured professor at West Chester University where he teaches history, globalization, and public management.

Senator Dinniman testified about the first version of the 2011 redistricting bill, which was submitted to the State Government Committee on September 14, 2011. He referred to the bill as a "shell bill," that is, "a placeholder." The bill came into the Committee in connection with the committee's statutory responsibility for redistricting. The bill listed the 18 congressional districts without any description. The introduction of an empty bill like this, Senator Dinniman explained, is unusual. Typically bills come filled with information, and after meetings regarding the substance, changes are made by stripping the existing content and replacing it with new content, or modifying the existing content in some other way. In this case, the shell bill was

completely empty other than the districts being listed. The committee voted it out in this form, however, merely as a "procedural matter," to allow the bill to proceed at the pace necessary to be completed by the end of the year.

Senator Dinniman also testified about the second version of the bill, introduced on December 14, 2011. Until that morning, minority (i.e., Democratic) members of the committee had not seen amended versions of the bill after the "shell bill" had been introduced three months prior. This second version, printer number 1862, was voted on by the State Government Committee the same day that it was introduced, December 14. Senator Dinniman expressed opposition to 1862 in front of the State Government Committee, and voted against it. However, the bill was "voted out of" the State Government Committee and moved on to the Appropriations Committee. There it was further amended. Then it was voted out of the Appropriations Committee. The Appropriations Committee suspended a Senate rule requiring a delay of six hours between the proposal of a particular bill and a vote on it, in order to take a vote before six hours had passed. The bill made it to the Senate floor for a final vote the same day it was introduced, December 14.

Senator Dinniman again expressed opposition to the bill, this time on the Senate floor. He urged to his fellow Senators that the partisan manner in which it was developed was "an inappropriate way to do business." One amendment to the bill was proposed on the Senate floor—Democratic Senator Costa proposed an alternate map, one that "would have significantly lessened" the number of split districts. This amendment failed, largely along party lines. Senator Dinniman clarified that while he believed that the map proposed by Senator Costa was an improvement over the Republican sponsored map, he emphasized that there were only about

ten hours in which to develop it in response to the Republican plan because details of that plan were withheld until late on the evening of December 13.

Senator Dinniman testified that that day the Senate suspended the rule that requires sessions to end at 11 p.m., an unusual move, and the Senate continued debating the bill past 11 p.m. Several Republican senators objected on the Senate record that the bill had harmed their districts because counties in their district were divided into three and in some cases four districts. The bill, presented as printer number 1869, passed that night on a 26-24 vote.

Senator Dinniman expressed serious disapproval of the way in which this bill was passed. He stated that usually the Senate tries to be deliberative, and that a rule requiring three considerations of any bill is designed to ensure this deliberative approach. He commented that it was very unusual "to proceed in such a rapid manner" on a bill that deals with this subject matter. He compared this process to the process that was used when a voter identification law was considered—the consideration and passage of that bill, which similarly addresses the issue of suffrage, took place over a much longer period of time. Senator Dinniman also pointed out that citizens and relevant advocacy groups did not have time to review the bill because of the rushed manner in which it was proposed and passed.

Senator Dinniman testified that there was no time to conduct hearings on the bill that ultimately passed as the 2011 redistricting map, and that as a result he was denied the opportunity to hear from advocacy groups, his constituents, and in general to "go about this in a thoughtful way."

He explained that the sophisticated nature of software that has been developed to create these maps has given legislators "the ability to deprive voters of their influence in the voting process" by manipulating data to achieve partisan advantage. He explained that between

September 14 and December 14, he had personally approached the Chairman of the State Government Committee, Senator McIlhenny, in or near the floor of the Senate, and asked him, with regard to a map proposal, what the committee was "waiting for" because his constituents were asking.

Senator Dinniman stated that he believes that the software used to create districting maps has become far more sophisticated in the past several years, and that we now have the capacity to utilize voter data in a different way. He referred to Federalist Paper 52 in which James Madison speaks to the threat of suffrage by potential state interference to identify why he believes this type of data manipulation is so dangerous. Senator Dinniman noted that "Madison can only speak to his time, and could never have imagined" the scope of the threat that he identified as it exists today. Senator Dinniman said that he is concerned about any kind of challenges to suffrage, including partisan gerrymandering done by either party.

Senator Dinniman, when asked on cross, agreed that he was not involved in drawing the map proposed on December 14 to the Senate floor and passed as the 2011 redistricting plan, and objected to his lack of involvement. He testified that he was "denied the opportunity" to participate in the drafting process and therefore he had no opportunity to know how the lines were drawn. He agreed that both Senate caucuses had access to the census data, voter registration data, and voter history data used in drawing the map. He also stated that the Democrats, like the Republicans, had a map drawing room in advance of the legislation passing, and that the Senate Democratic caucus was involved in drawing up its own maps. When asked why one Democrat, Tina Tartaglione, voted in favor of the bill he explained that she did so to help her congressional delegation in Philadelphia because the map made the First and Second

Districts heavily Democratic. Senator Dinniman explained that some Republicans voted against the bill on the Senate floor, leading to the 26-24 result.

C. Testimony by Representative Vitali

Representative Vitali's deposition testimony was also presented to the Court. Rep. Vitali is a Democratic State Representative for Pennsylvania's 166th Legislative District, and he is a resident of the Seventh Congressional District. He testified, among other things, that in caucus, Democrat William Keller indicated that Congressman Brady wanted his district to be a "safe" Democratic district. Thus, Congressman Brady supported the 2011 Plan out of "political self-interest."

Rep. Vitali also stated that he did not have personal knowledge about how the specific contours of the 2011 Plan were made, because "they were made behind closed doors" and he was not "party to any of those discussions." He believed the introduction of the 2011 Plan bill as a "shell bill" was unique. (Vitali Dep. 40:7-64:9) He also testified that there was "no good policy reason to break up" so many counties to form the Seventh District. He believes the new shape of the Seventh District creates problems because "we don't have competitive elections. . . . [I]f an elected official knows he can lose an election, he's much more likely to be responsive to the voice" of voters, but if "he has no chance of losing, he really can be more influenced by the powers, his own party, which may differ from the views of his constituents." (Id. 79:20-80:6)

D. Testimony by Senator Daylin Leach

Plaintiffs entered the deposition testimony of Senator Daylin Leach into evidence. Senator Leach testified that he lives in Wayne, Pennsylvania, and he is a Senator in the 17th State District. The 17th District encompasses 11 municipalities throughout Northern Delaware County and Southern Montgomery County. He has been a state senator since 2008; prior to that he represented the 149th District in the State House from 2002-2008. He is currently running for

Congress in the Seventh Congressional District, and would face incumbent Pat Meehan in the general election, if he makes it through the primary. Senator Leach has run once prior for Congress, in 2014 in the Thirteenth District, which he stated "was one of the five Democrat seats that are not competitive for Republicans. (Leach Dep. 11:9-10) He lost in the primary.

Senator Leach testified that he is very active on the issue of gerrymandering, having introduced legislation to try to combat it, and speaking out publicly against it. During his first term in the State House Senator Leach introduced and sponsored "a reapportioning and redistricting reform bill." (Id. 15:11-12) He has reintroduced such a bill as a Senator several times. (Id. 16:10-21) With respect to gerrymandering reform, Senator Leach stated that he would like to see "the focus [ ] on keeping communities of interest together, keeping municipal boundaries intact to the extent possible and ensuring that the voters have a legitimate opportunity to express their views in a meaningful way." (Id. 24:1-5) He stated that he does not believe that partisan factors should come into play at all in redistricting efforts.

With respect to the 2011 plan, Senator Leach stated that "Democrats were not invited to participate in any way" in the processing of creating the map, thus he has no "eyeball observation of how the map was drawn." (Id. 19:23-24; 20:1) When the bill was passed, he said he remembered it occurred very quickly, and that the proposal of the bill "took until the very end because of what we were told by Democratic and Republican members and the media were internal fights in the Republican congressional caucus as to whose district would be more Republican." (Id. 26:10-15) There was only a short period of debate regarding the 2011 map, occurring on one day. (Id. 35:20-21) The day before the 2011 map passed Senator Leach was provided with "an analysis" of it, though not the actual map, for the first time. He voted against the 2011 map. (Id. 33:2) No Democratic Senator voted in favor of the map, and the Democratic

alternative proposal was "voted down on largely a party line vote." (Id. 33:12-13; 34:21-22) Senator Leach described the Seventh Congressional District in the 2011 map as including "a series of very thin land bridges from one part of the district to another…technically contiguous, but essentially a series of islands." (Leach Dep. 42:3-6) He added that "it is made up of portions of many municipalities," and that "[t]here's very little or no effort to keep them together." (Leach 42:7-10) He offered as an example that "[t]here is a parking lot in my township, Upper Merion Township, of a restaurant which is where three congressional districts converge." (Leach 42:13-16)

E. Plaintiff's Expert Witnesses

1. Anne Hanna

Ms. Hanna completed her undergraduate degree in physics at the California Institute of Technology, and her Masters in Physics at the University of Illinois Urbana Champaign. She is currently working towards her Ph.D. as a mechanical engineer at Georgia Institute of Technology, having transferred there from Drexel University. Ms. Hanna described her experience in image analysis and processing, which she explained serves as an important basis for her work analyzing redistricting maps. She described her experience further with data and statistical analysis in general, regression methodology, and multiple computer software languages. She described the purpose of data analytics as reviewing a possibly novel data set in order to discover what is interesting about it.

With respect to congressional districting in particular, Ms. Hanna has worked on a volunteer basis for at least ten hours per week for the past nine months with a group called Concerned Citizens for Democracy that is studying gerrymandering, including by developing data sets to analyze districting maps. She described redistricting as "an engineering problem," in that it reflects conflicting stakeholder needs, and resolutions must take multiple perspectives into

account. Her experience as an engineer, her knowledge of computational and statistical analytics, and of computer programming languages, enabled her to address these issues. Ms. Hanna has also studied the literature on gerrymandering, including historical sources for traditional neutral districting criteria, in order to refer to these features in analyzing redistricting maps. In her work on redistricting she has developed data sets for the Pennsylvania redistricting map. Ms. Hanna has not published any materials on politics or redistricting, has not drawn detailed state or local redistricting maps, and has limited overall experience in the political science field. She was admitted by the Court as an expert in engineering, mathematics, computer science, and data analytics, to the extent that they enabled her to comment on the subject matter at hand.

Ms. Hanna reviewed a set of data ("Turzai data set"), provided in discovery, that was used by Defendant Turzai and his staff in creating the 2011 Pennsylvania districting map. Ms. Hanna described the Turzai data set as "a challenging set" because the file names were "garbled," likely the result of the addition of Bates numbers to each file, as is standard practice in discovery. She explained that she consulted with two other GIS researchers upon receiving the data to confirm that she was interpreting it correctly. Ms. Hanna was able to "unscramble" most of the data, however, and identified the files in the Turzai data set as GIS shape files, that is, the lines of maps, and attribute data, that is, information about the map lines. The "attribute" was in the form of tables, and included, among other information, population data, voting age data, and partisan voting results and voter registration data from 2004-2010. Results from 33 different elections—all statewide and district specific elections from 2004-2010, broken down by party identifier—as well as voter registration, is included in this information set. In particular the data

set included partisan voting indices ("PVI") which identify whether Republicans or Democrats won in each area across the map. (N.T. 12/5/17, AM, 24-28)

Ms. Hanna analyzed the data at each level that it was provided, from the municipality level, down to the "census block" level, that is, a block within a particular voting precinct. She created several different maps for comparison purposes. For example, using information from a particularly strong Democratic performance year (2008) she plotted a color-coded map with census block level information, using red to represent Republican support, and blue to represent Democratic support. She then compared this map to the 2011 Pennsylvania redistricting plan. She produced one map using that 2008 data, onto which she overlaid the district lines set out in the 2011 plan, as well as green stars to represent home address locations of each of the 19 incumbents from the 2010 Pennsylvania election. She reproduced this same map however replaced the 2011 plan district lines with the district lines from the 2002 reapportionment plan. She created more detailed maps for selected sections of Pennsylvania, for example one series of maps which detailed the area around Pittsburgh. She indicated in her testimony that the 2011 map did not comply with the neutral districting criteria that she is familiar with, including have non-compact districts and multiple unnecessary splits of municipalities. Ms. Hanna explained that she used two different, well accepted "compactness measures"—the Schwartzberg measurement, and the Polsby-Popper—in reaching her conclusions. These measurement techniques are simple formulas, used across many areas of mathematics.

Ms. Hanna reviewed all of the communications that were provided with the Turzai data set. No communications of substance had been written to or were sent by a Democrat. One map included in the Turzai data set, labeled Bates 01364, was a close up map of the southwestern corner of Pennsylvania, including the Pittsburgh area, and was labeled at the top of the page

"CD18 Maximized." (N.T. 12/5/17, AM, 9-11) Ms. Hanna believed this label to be a reference to Congressional District 18. She testified that she believes this map represented a potential proposal for how to draw the district boundary lines in this region. Stars included on the map, she determined, represented the home address locations of then-incumbent Representatives, including Representative Doyle in the Fourteenth District, Representative Murphy in the Eighteenth District, Representative Kritz in the Twelfth District, Representative Shuster in the Ninth District, and Jason Altmeyer, who was then the incumbent in the Fourth District. This map included Republican incumbent Altmeyer in the same district as Democratic incumbent Murphy.

Ms. Hanna believed there were three possibilities to explain a table of numbers following either a D or R, in the upper left hand corner, each of which was a different form of vote prediction: first, that these numbers reflected the Cook Partisan Voting Index; second, that they represented a raw dominance metric, that is, how much higher in percentage points Republicans will likely perform; or third, the net difference between Republican and Democratic performance, that is, how far off from 50% Republicans will likely perform. Ms. Hanna concluded from her observations of this map that it was likely intended to "maximize" the performance of Democrats in the Eighteenth District specifically.

Ms. Hanna indicated that she has studied map drawing with traditional, neutral districting criteria. She has drawn maps (crude hand drawings, without the benefit of software), and engaged in literature review of traditional districting criteria. Specifically, she cited the 1911 Federal Reapportionment Act, and Article Two, Section 16 of the Pennsylvania Constitution as important sources. She identified as important traditional districting criteria contiguity, compactness, population equality, and the goal of avoiding splitting counties, cities, incorporated

towns, and townships unless absolutely necessary. Ms. Hanna offered the 1972 and 1982 Pennsylvania districting maps as examples of maps which incorporated these themes. (Id. 32-33) She pointed to two important features of these maps that are missing from subsequent Pennsylvania maps. First, compactness: where districts needed to add more population, they added directly contiguous counties, rather than reaching out with narrow "tentacles" to "grab" territory further away. Second, respect for communities of interest: very few counties on the 1972 map are divided, and they are only divided where it appears that it was needed to add population to neighboring districts. She commented that, from an engineer's perspective, a rule requiring a districting map to incorporate abutting territory to add population is both feasible and desirable. Ms. Hanna did note that the 1982 map was not as successful on this front, and also made clear that on both maps counties that are larger than the target population of an individual district were obviously divided as many times as necessary to create a proper district size.

With regard to the goal of breaking apart the fewest counties and maintaining compactness as best possible when drawing a districting map, Ms. Hanna explained that map makers should start with the largest building blocks—counties. Then, map makers should add in the next largest building blocks, municipalities, along the edges, with the goal of maintaining smooth boundaries. They should continue this process with smaller and smaller building blocks, down to voting precincts and voting blocks, until the proper population is achieved. She indicated that it would be technically possible to draw such maps by hand, but that it would be very challenging and time consuming. With computer software, however, it is very feasible.

Ms. Hanna then read the five rules she proposed in her report for achieving the best possible districting outcomes into the record. She stated that this was not intended as an exhaustive list. Those five rules, roughly stated, are:

(1) No county shall be divided unless absolutely necessary to achieve equal population;

(2) No precinct, borough, or township shall be divided unless absolutely necessary to achieve equal population;

(3) Where additional territory is needed for additional population in a district, it shall be added from the border of a contiguous County to the extent possible;

(4) If a county's population is greater than the average Congressional district size, any additional population may not be added to adjoining counties that have a population greater than that of an average district. Such additional population must instead be added to adjoining Counties whose population is smaller than the average district, where possible;

(5) Districts shall be "reasonably compact."

(N.T. 12/5/17, AM, 58:21-62:8)

On cross-examination, defense counsel pointed out some notable absences from Ms. Hanna's proposed rules. First, there was no mention or consideration of the Voting Rights Act in her rules. Second, there was no mention of two other factors that the Supreme Court of Pennsylvania has identified as important—maintaining cores of existing districts and avoiding pairings of incumbents (the court also highlighted the Voting Rights Act). She clarified that after creating a map according to her rules, it would be possible to make slight modifications to the resulting map in order to take both incumbents and the Voting Rights Act into account. Ms. Hanna also stated that if redistricting were to be done pursuant to her five guidelines, it should not include considerations of partisan intent at all. Though she did not rule out considerations of incumbency in districting in accordance with her rules, she noted that it certainly should not be a key factor.

2. Daniel McGlone

Plaintiffs' first witness at trial was Daniel McGlone. Mr. McGlone was qualified as an expert witness in the fields of data analytics, Geographic Imaging Software (GIS),[4] and redistricting. (N.T. 12/4/17, AM, 86) He testified that he received a Bachelor of Science degree in Geography and Geospatial Imaging from Harrisburg University of Science and Technology and a Master's Degree in Urban Spatial Analytics from the University of Pennsylvania. He also testified that he works at Azavea, a geospatial software company, and that he has worked in the field of spatial analysis and GIS for over ten years. His work has included dozens of projects involving geospatial mapping as well as political and legislative districting, and he has managed and maintained a database called Cicero for several years, which contains GIS data for nine counties, including the fifty United States. In 2011, for example, he worked on Amanda Holt's appeal to the Pennsylvania Supreme Court of the Final Plan for the Pennsylvania Legislative Districts. (Id. 58)

GIS software played a major role in preparing the 2011 map. Based on the Hanna and McGlone testimony about the Turzai dataset, supra, it is clear that the underlying information used to draw the 2011 map was organized into GIS data files. (Id. 162) The testimony

[4] GIS software creates digital maps and manages the attributes associated with each point on the map. The software can be used to combine thousands of "layers" of information, where each layer displays a different geographical component. For example, one layer could display highways and roads, another could display where U.S. congressmen live, and a third could display county lines, with another 900 displaying other pieces of spacial data (rivers, landmarks, stores, violent crime locations, churches, etc.). Then by mapping census or other public data, the GIS software can display population concentration, registered political party concentration, prior voting information for each voting precinct, racial demographic concentrations, educational levels in each area, and other highly detailed information. Thus, when paired with this public-available information, GIS software becomes a particularly powerful tool, particularly for the redistricting purposes. Moreover, as "big data" becomes even more ubiquitous (2.5 quintillion bytes of data are created every day), GIS layers can be added to GIS software to make it even more "powerful." (The preceding information is derived from trial and deposition testimony in this case, as well as from "A Tutorial on Geographic Information Systems: A Ten-year Update," (Daniel Farkas, et al., 2016).)

established that the availability of sophisticated technologies, many if not all of which involve GIS data, present a greater risk of gerrymandering than ever before.

Mr. McGlone testified about the effects of "cracking and packing" in Pennsylvania. He defined "cracking" as the splitting of a voting bloc amongst multiple districts to prevent them from forming a majority. "Packing," on the other hand, involves concentrating members of a certain group into a single district to provide a super-majority, thereby reducing the numbers of that group in surrounding districts. (Id) Using publicly available data from the "Harvard Election Dataset,"[5] and then later, data gleaned from the "Turzai Data," Mr. McGlone utilized "cracking and packing" to explain the effects of the 2011 Plan on likely voting results. He also compared the 2011 Plan to the 2002 plan, on a virtually district-by-district basis.

With respect to the First District in Pennsylvania, Mr. McGlone testified that, due to "packing,' the district contains the borough of Swarthmore, creating an even more pronounced super-majority Democratic district. (Id. 119)

According to Mr. McGlone, the Second District also demonstrates packing of Democrats, most notably due to the fact that it grouped Lower Merion Township with other parts of Philadelphia. (Id. 126)

According to Mr. McGlone, the Third District demonstrates cracking, as it includes Erie's suburbs but not Erie itself, creating a narrow Republican majority. (Id. 128)

The Fourth District also involved cracking according to Mr. McGlone, as it created a narrow Republican majority by including part of Harrisburg and its suburbs but also extensive Republican representation from far outside the Harrisburg area. (Id. 132)

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[5] Stephen Ansolabehere; Jonathan Rodden, 2011, "Pennsylvania Data Files," hdl:1902.1/16389, Harvard Dataverse, V1. This dataset includes information for all elections from 2004 to 2008 in Pennsylvania.

According to Mr. McGlone, the Sixth District was also an example of cracking to create a narrow Republic majority, as the County was redrawn to extend northward and westward, and as a result, it incorporates a substantial number of Republican voters from Berks and Lebanon Counties. (Id. 133-36)

According to Mr. McGlone, the Seventh District has a narrow Republican majority because it connects Republican areas of central Montgomery County with Republican areas of Delaware County by a narrow strip of land at times only 170 meters wide. (Id. 138-140)

According to Mr. McGlone, the Eighth District narrowly favors the Democrats, which would appear to undermine Plaintiffs' assertions somewhat. However, Mr. McGlone stated that he still views it as an example of a district redrawn to take in more heavily Republican areas, such as northeastern Montgomery County. (Id. 141-43)

According to Mr. McGlone, the Ninth District narrowly favors the Republicans, as its redrawn lines add the Monongahela Valley and include more Democrats in what is otherwise a heavily Republican district. (Id. 143-44)

The Eleventh District, which also narrowly favors Republicans, is according to Mr. McGlone a district that became more Republican by packing of Democratic areas into the Seventeenth District. (Id. 144-46)

According to Mr. McGlone, the Twelfth District is narrowly favorable to Republicans as a result of cracking heavily Democratic areas in nearby Monongahela Valley and Cambria County areas into other districts. (Id. 149)

The Thirteenth District is another example of a Democratic super-majority created by packing, according to Mr. McGlone, as it encompasses part of Philadelphia as well as suburbs to

its north and northwest, extending out in three appendages to pick up Democratic areas in Ambler, Upper Dublin, Conshohocken, Norristown, and Upper Merion. (Id. 150-52)

The Fourteenth District is, according to Mr. McGlone, another "packed" Democratic district, and it includes Pittsburgh along with most of its most Democrat-heavy suburbs. (Id. 152-53)

The Fifteenth District "cracks" Bethlehem, says Mr. McGlone, such that there is a narrow Republic advantage. (Id. 153-54)

The Sixteenth District, on the other hand, includes heavily Republican voting areas, such that, according to Mr. McGlone, it tempers what would otherwise be an extensive Republican advantage by including the heavily Democratic cities of Reading and Coatesville. (Id. 154-55)

The Seventeenth District, asserts Mr. McGlone, also maintains a narrow Republican advantage in what would otherwise be an overwhelmingly Republican district by pulling out of other districts Democratic areas in Scranton and Wilkes-Barre. (Id. 147-49)

Lastly, Mr. McGlone noted a narrow Republican advantage in the Eighteenth District, due to the fact that it "cracks" the Democrat-heavy Monongahela Valley between it and the Ninth District. (Id. 155-56)

The end result, testified Mr. McGlone, is that the 2011 Plan "consistently" confers 13 out of 18 Pennsylvania congressional seats to Republicans.

F. Testimony by William Schaller—Introduced by Plaintiffs and Defendants

Designated portions of the deposition of William Schaller were read into the record. At his deposition, Mr. Schaller testified that he has worked for the Republican caucus of the Pennsylvania General Assembly since 1995. He worked Pennsylvania congressional maps in 2001 and 2011 as "Director of Apportionment Services." He was responsible for creating the congressional map for the western part of the state.

Mr. Schaller testified that he used software called Autobound to construct the map. He testified that adding municipalities to particular districts was a "manual" process of clicking and adding municipalities to an overlay of the 2002 map, which had contained 19 districts; because of the loss of a seat, he and his colleagues "ha[d] to work out how [they] addressed that geography that [was] left behind with that lost seat." (Schaller Dep. 30:4-5)

He testified that population equality was "the leading factor for compiling congressional districts." (Id. 31:14-15) He testified that partisan data, including voter registration and voter performance in past elections, was "one of many factors" used in developing the maps (Id. 12:3), and that partisan data was "information that elected officials," both state and federal, "were interested in seeing." (Id.13:9-10) When asked to list the other factors that he considered in creating the map, he mentioned population, "[w]hat the districts looked like previously," "[v]oting rights," "incumbent residency," and "standard factors of split geography and contiguity." (Id. 18:2-19) He denied that compactness was a factor. (Id. 19:2-3)

Mr. Schaller testified that when drawing the map, he had precinct-level election results by party, which he had obtained from the Pennsylvania Department of State and which he believed were publicly available. (Id. 19:8-20:5) These election results by party, available at the county, municipal, and precinct levels, and census population by race, were included in a Republican caucus database that was used for state and congressional redistricting. (Id. 37:3-39:2)

When asked about how the map took shape, Mr. Schaller repeatedly referenced "consultations" and "discussions"—and, at one point, "conversations and discussions of consultations"—"stakeholders," a group that he testified consisted of state legislators, congressmen, leadership staff, and those negotiating on behalf of the state senate. (Id. 49:18-24)

He testified that he never met with any Democratic legislators in connection with drawing the map. (Id. 16:19-22) He testified that "in many instances" the composition of districts as he devised them in Autobound was the result of "agreements that were reached." (Id. 50:8-17) He also acknowledged submitting a reimbursement for travel to Washington, DC to meet with Republican congressmen to discuss redistricting. (Id. 61:1-20)

Eventually, the following colloquy occurred:

> Q [H]ow did you decide what map to come out with? Given all of the factors to consider.
>
> A Based on consultation on how the districts should be put together from the negotiations and discussions with the stakeholders.
>
> Q With the Republican stakeholders, am I right?
>
> A Republican stakeholders.
>
> Q Is it fair for me to say that the information you got about the discussions among the Republican stakeholders in that legislative process was probably the most important factor that you used in drawing the maps?
>
> A Yes. I would say so.

(Id. 76:16-77:5)

G. Testimony by Erik Arneson—Introduced by Plaintiffs and Defendants

Plaintiffs and Defendants both read into the record designated portions of the sworn deposition testimony of Erik Arneson, who worked as Senator Dominic Pileggi's Communication and Policy Director during the relevant time period.

During Plaintiffs' questioning, Mr. Arneson stated that his involvement with the 2011 Plan was fairly limited, but that he knew during the lead-up to the passage of the 2011 Plan that the Plan needed to comply with equal population principles, the Constitution, and the Voting Rights Act. He also asserted that the Plan had to account for the population shift from west-to-east in the State, had to receive twenty-six state senate votes (to pass and be presented to the

Governor to sign into law) and had to reduce the prior plan by one seat as a result of the new census count. However, Mr. Arneson stated that the person most involved as the "granular level" with the 2011 Plan was Dr. John Memmi, who performed the "technical work" on the map.

Mr. Arneson stated that, at some point in the redistricting process, as predecessor drafts of what in later, final form was the 2011 Plan were considered, he changed district boundary lines on a draft map. However, he was not sure that the changes were ultimately incorporated into the final Plan.

Mr. Arneson also testified that Congressmen from both the Republican and Democratic Parties, including Congressmen Brady and Shuster, expressed preferences on the outline of congressional districts, and at least some of the input was "taken into account when drawing the map."

He further testified that, in making the map, the redistricting team of Mr. Arneson and Dr. Memmi used "publicly available, historical voting data from previous elections that had taken place." They "intended to respect incumbency," but did not have the "kind of prognostication powers" required to establish a "fixed outcome" for the election results. They used software known as Autobound to save draft maps, and in drawing such maps, "partisan voting tendencies was one of the factors used."

During Defendants' question, Mr. Arneson provided more detailed responses regarding the above topics. Mr. Arneson stated that he had "some" involvement in the creation of the 2011 Plan, but that he did not "draw the map." He testified that there were two sets of data available to him at the time that the map was drawn: census data from the United States Census Bureau and historic election data from the Pennsylvania Department of State. He also testified that,

among the questions asked by State Senators about the maps that were being drawn were questions about historic voting data. With respect to John Memmi, who did the actual, technical map-drawing, he testified that Senator Pileggi, Dave Woods, and Mr. Arneson were the only ones who provided instruction on how to draw boundary lines.

Mr. Arneson further testified, among other things, that Democratic Senator Tina Tartaglione voted to report the 2011 Plan out of committee to the Senate Floor, and that an Amendment to the bill by Democratic Senator Jay Costa failed to gather enough votes to pass on the Floor. He testified that the 2011 Plan later passed the Senate with 26 votes, with three Republican Senators voting against it. He also testified that, to the best of his knowledge, Senator Scarnati has never denied that the 2011 Plan was a partisan gerrymander. Lastly, he testified that the shape of some congressional districts looks "odd" but that odd shapes can be explained by the fact that districts must "comply" with "mandatory requirements" such as the Voting Rights Act and equal apportionment. "Odd" shapes can at times be explained, he suggested, by "very good mutual objective[s]."

H. Testimony by Defense Experts

1. Nolan McCarty

Nolan McCarty, Ph.D., a professor of politics at Princeton University, testified for the defense in response to the McGlone report. After Professor McCarty testified that he taught and worked on legislative polarization, electoral and bureaucratic politics, elections, and voting behavior, he was proffered, and accepted, as an expert in the areas of electoral analysis, elections, redistricting, and voting behavior.

Professor McCarty, who testified that the 2011 map was not significantly more gerrymandered than the 2002 map, had several criticisms of the methodology employed in the McGlone report. First, he expressed "concerns" about the Harvard data that McGlone had

employed, which he testified undercounted votes compared to the number of votes cast according to the Secretary of State's website, and which therefore suggested "underlying measurement error." (N.T. 12/5/17, AM, 131:2-21)

McCarty described for the court how he had calculated the expected number of Democratic seats in Pennsylvania by using the nationwide probability of a Democratic win from 2004 to 2014 in districts with a similar partisan lean—known as the Cook Partisan Voter Index, or PVI. According to Professor McCarty, the PVI is a measure of how many percentage points more Republican or Democratic than the nation as a whole, averaged over the last two election cycles, which for the 2011 map were 2004 and 2008; thus, a district that was R+1 was one that was one percentage point more Republican than the country as a whole. He testified that his calculations showed a 60.3% chance of a Republican win in an R+1 district, and a 54.5% chance of a Republican win in an R-1 district. At various points in his testimony, he defined a competitive district as having a PVI of +/- 5 or +/- 9. (Id. 132:21-136:21)

He explained that in Table 1 of his expert report, he calculated the probabilities of a Democratic win in each of the districts (each of which was based on the district's PVI), averaged them, and then multiplied that percentage by the number of seats in the Pennsylvania delegation. His expected probability of Democratic wins for the 2002 map, when Pennsylvania had 19 seats, was .503, which he testified yielded an expected value of 9.555 Democratic seats in a 19-seat delegation. His expected probability for the 2011 map was .453, which he testified yielded an expected value of 8.15 seats out of the 18 seats Pennsylvania had in the wake of the 2010 census. In his table, 9 out of 19 districts in the 2002 map had more than a 50% chance of Democratic victory, whereas under the 2011 map, only 6 out of 18 seats had more than a 50% chance of Democratic victory. When asked about the discrepancy between his expected numbers of

Democrats and the only 5 seats won by Democrats in Pennsylvania, Professor McCarty testified that Democrats had underperformed due to any of a variety of factors, such as national party funding or the individual candidate. (Id. 136:22-139:23)

Professor McCarty then testified to his "many reservations" about McGlone's visual analysis. He had three main criticisms: (1) McGlone's visual methods were "necessarily selective" in that they ignored boundary lines that did not support his narrative; (2) were insufficiently quantified; and (3) insufficiently considered the performance of the entire map. (Id. 141:8-142:2) Before he moved into his specific criticisms, he added that McGlone overstated the efficacy of packing and cracking in the examples in his report; in particular, if boundary lines are moved so as to increase the PVI in one district in one direction, that change is offset in a neighboring district with a decrease in PVI. Moving a solidly Democratic district to solidly Republican would require change in PVI of some 18 points, which he said was unlikely; rather, the advantages for the parties would cancel out overall.

Professor McCarty then testified that in his view, the 2011 map showed a "lot of deference" to the 2002 map, and the two would have performed very similarly, although the district boundaries would necessarily have had to change with the loss of a seat. As one example of what he described as the selective focus on the boundary lines McGlone did not like, Professor McCarty described how line-drawers could have tried to crack Democratic voters in the Seventh District, but did not. Professor McCarty concluded that McGlone's unquantified visual analysis "lack[ed] rigor." (Id. 146:23-149:12)

On cross-examination, Professor McCarty explained that his task was to respond to the McGlone report. He made no claim as to whether the 2002 map itself was gerrymandered, only that the 2011 map was not more gerrymandered. He admitted that he had not looked at the data

that the legislature had used in making the 2011 report. He acknowledged rounding some of his numbers. (Id. 149:18-154:9)

Plaintiffs' counsel thereafter pointed Professor McCarty to a passage in his expert report that, Plaintiffs' counsel implied, overstated or even double-counted the effect of Pennsylvania's loss of one congressional seat. He was then questioned about a particular passage in his expert report, which stated as follows:

> Based on my calculations, the number of expected Democratic seats fell by about 1.4 (from 9.55 to 8.15). If the 2011 map performed similarly to the old map in partisan terms, Democratic candidates would have been expected to win about 9 seats. And, the rest of the decline in expected Democratic seats (.85) is therefore due to the state's loss of a congressional district following the 2010 Census. In short, the estimated increase Republican advantage [sic] is much smaller than that implied by Mr. McGlone's analysis.

(Leg. Def. Ex. 12)[6]

He acknowledged that his report stated under the 2011 map, Pennsylvania had 18 seats and Democrats had a 45.3% average probability of winning, for an expected number of 8.15 seats, and under the 2002 map, Pennsylvania had 19 seats and a 50.3% average probability of winning, for an expected value of 9.55 seats. Plaintiff's counsel then asked whether if the Democrats' probability of winning seats in an 18-seat map had stayed constant at 50.3%, the expected number of seats would be 9.05, which he said "sound[ed] right." (N.T. 12/5/17, PM, 7:14) He then agreed that if the 2011 map were equally favorable to Republicans as the 2002 map, Democrats would be expected to win approximately nine seats. (Id. 7:23-8:1) He was then confronted with the potential error in how much of the 1.4 decline in seats was due to the loss of a seat in the Census and how much was due to other factors:

[6] This portion of the expert report was not admitted into evidence, and is presented here for explanatory purposes only.

> Q But with your calculation of the expectations for the 2011 map, Democrats are only expected to win about 8.15 seats?
> A That's correct.
> Q Now, you then say the rest of the decline in expected Democratic seats, that I assume, meaning from nine to 8.15 – because you quantify that as .85 – is, therefore, due to the state's loss of a congressional district following the 2010 census, right?
> A Yes.
> Q Now, I'm confused by that statement because, to me, when you've multiplied .503 times the 18 congressional districts, you've already accounted for the loss of one seat, have you not?

(Id. 8:2-8:17) After some pauses and repetition of the calculations, Professor McCarty acknowledged that he was "mistaken." (Id. 10:16) He then testified that he "believe[d] .55 should be the amount that's attributable to a loss" of a congressional seat. (Id. 10:15-19) He then testified that the decline from 9 to 8.15 was attributable to "some other factors." (Id. 10:24-11:1)

He acknowledged that his expected values were far off from the only 5 seats that Democrats had won in the three congressional elections since the map was drawn; when asked why he might have been so far off, and whether Democrats might have underperformed to the very same degree on three occasions, he asserted that his numbers were probabilities, and such underperformance was consistent with the data. He testified that he had not taken into account incumbent advantage in his analysis, but did not disagree with Plaintiffs' counsel that in 2010, immediately prior to the redrawing of the map, the Pennsylvania delegation consisted of 12 Republicans and 7 Democrats. (Id. 13:13-17:2)

He admitted that he did not believe that gerrymandering was "intrinsically" good, but in some cases could actually create more competitive districts. When asked about the work of the scholar Nicholas Stephanopoulos and the professional literature asserting that Pennsylvania was

one of the most gerrymandered states in the nation, he said that he did not agree with the measures employed, namely the "efficiency gap." (Id. 17:22-26:7)

In response to a question from the panel regarding turnout, Professor McCarty explained that voting is less frequent in midterm elections, and the composition of the midterm electorate is different than in presidential election years. He testified that he was currently studying voting patterns among low-income voters, whose participation dropped off substantially in midterm elections. (Id. 30:19-32:16)

2. James G. Gimpel

Professor James G. Gimpel, a political scientist, earned his bachelor's degree at Drake University in Des Moines, Iowa. He attended graduate school at the University of Toronto before earning his PhD in political science at the University of Chicago. He is a tenured professor at the University of Maryland in College Park, where he has worked for 26 years. His teaching specialties include political behavior and political geography of political behavior. Asked to expand on the areas that he focuses on, he explained that it includes forms of political participation, public opinion attitudes, the distribution of party identification and voters across space, and movement patterns of voters. He added that his work involves GIS, or "geographic informational systems" software, and that he has taught courses in GIS for seven years, and that he is currently teaching a class called "Introduction to GIS" and a class called "GIS for Redistricting." He stated that he has published several books as well as over 50 shorter publications on these topics. Professor Gimpel was certified by the Court as an expert in election analysis and probability, voting behavior, redistricting, election performance, GIS, and statistics.

Professor Gimpel explained that the U.S. House of Representatives is apportioned by population, with each Representative representing a district made up of approximately 710,000 constituents. After each decennial census the districts are reapportioned based on any population

changes, in order to comply with a "pretty strict equal population" requirement. (N.T. 12/6/17, PM, 5:20-6:2) He explained that the reapportionment task has "traditionally fallen in the hands of state legislatures." The 2010 census revealed that the western part of Pennsylvania had experienced a population loss, and thus Pennsylvania as a whole needed to transition from 19 to 18 districts. Professor Gimpel noted that this was the case even though the population loss was much less than the size of a district. The loss was of about 100,000 people around the Allegheny County area, leaving about 500-600,000 people from the lost district that had to be "parceled out across the state." (Id. 6:2-7:13)

Asked about what ought to guide reapportionment efforts, Professor Gimpel stated that the criteria identified by Plaintiffs' expert Daniel McGlone in the report he submitted were important, but McGlone had omitted other important criteria. He highlighted consistency with past districts, equal population, communities of interest, political balance between parties, and incumbency protection in particular. With regard to communities of interest, Professor Gimpel noted that this is not simply a matter of avoiding splitting counties, but also keeping together other types of communities. (Id. 7:14-8:13) Because apportionment requires equal population, political geography is central to how the lines must be drawn—"because we must draw the lines around people, not rocks and trees, population settlement is critical," he said. (Id. 8:20-21)

With regard to the goal of drawing "compact" district lines, Professor Gimpel commented that achieving "territorial density of the district" and "a small perimeter" are "desirable." He explained that this "enhances accessibility" and might help maintain communities of interest." (Id. 9:5-10) However, he emphasized that any measure of compactness "must be judged with other criteria in mind," and that it is "not helpful on its own." He did not see how "compactness alone [could] tell you another about the intent of the

mapmaker," because it "depends on how population has settled." (Id. 10:10-13) A very compact shape—such as a circle—could be moved around the map to create a major partisan advantage, for example. He pointed to Defense Exhibit 10 to illustrate this point—this figure shows a map of a part of Western Pennsylvania with hypothetical districts marked out as spheres, demonstrating that by taking the most compact shape possible and shifting it around the map can create very different partisan outcomes. The shape of the district, he emphasized over and over, "does not tell you much," rather, "you must look at the population underlying the shape." (Id. 12:19-21) Asked about the relationship between compactness and competitiveness of a district, Professor Gimpel said, "I'm not sure there is a relationship." (Id. 17:2) It is entirely possible to use a compact shape to obtain a competitive result, but might also be necessary to draw an odd looking district to achieve competitiveness.

Professor Gimpel explained that the primary reason for the traditional redistricting criteria of minimizing split municipalities and counties is that they have governments of their own, and it is best not to split the government units among districts. He noted that the 2011 map had a "modest reduction" in county splits and a "more noticeable reduction" in municipality splits, as compared with the 2002 map. (Id. 14:11-13) He said that the equal population requirement creates a lot of difficulty in avoiding split municipalities and counties, especially when dealing with a loss of a district, and a statewide "ripple effect" of moving boundaries. (Id. 7:8) Overall, redistricting after losing a seat is a "complicated balancing act." (Id. 15:12)

Asked about the impact of the equal population requirement on map drawing, Professor Gimpel explained this as a "very strict" and "preeminent" criterion, and thus it is where the map makers "have to start." (Id. 17:20-25) It is not easy to achieve, he said, especially in the fact of a lost district. Because Pennsylvania lost a district between the 2002 and the 2011 map, and only

lost 100,000 people, all of the other district boundaries had to be adjusted with all of the leftover individuals from the lost district being parceled out. This is why we see southward modification of the boundaries on the 2011 map. He described this whole process as "a chain reaction," that is, "an extremely complicated series of adjustments." (Id. 19:14-16) Adding to the complexity, map makers must shift people "in chunks," such as voting precincts, blocks, or cells, not just individuals. Because they end up moving sometimes 1,000 people at a time, this makes it even more complicated, as each move seriously alters the population of both districts impacted by the move. (Id. 19:21-20:10)

Professor Gimpel said that past district lines play an important role in redistricting efforts. "No map maker that I've ever seen starts with a clean slate," he said; "[e]very map maker starts with the prior districts in place." (Id. 20:14-17) The presumption, he explained, is to move people as little as possible from the prior district formulations. The reason for this is to promote continuity. Continuity is very good, in Professor Gimpel's view, and moving people out of their prior districts can be bad—in particular, evidence shows that when voters are moved, they are less likely to participate in elections. (Id. 20:19-21:4)

With respect to incumbency protection, Professor Gimpel cited to a long history of these efforts, noting that incumbency is a very important part of representation. In particular, incumbents develop expertise in certain areas of representation over time, which is a serious benefit to their districts. In addition, seniority in Congress is very important to the congressional committee system. Senior members have acquired a good deal of knowledge in various areas, they are likely to have earned respect within the congressional chamber, and they are likely to be have a chance to become a leader in the congressional chamber. All of these features of

incumbency "redound to the benefit of constituents back home in Pennsylvania." (Id. 21:7-22:13)

Professor Gimpel then discussed the political geography of Pennsylvania. There are two major concentrations population, he explained, around Philadelphia and Pittsburgh. There are also some additional significant population centers throughout the middle of the state. It is often easier to draw more compact districts in denser areas. Population density, he explained, "seems to be associated with a Democratic voting bloc, and increasingly so with time." (Id. 23:2-3) Thus Allegheny county and Southeastern Pennsylvania—the areas around Pittsburgh and Philadelphia—are the most Democratic-leaning areas in the state. (Id. 23:14-17) He added that in Pennsylvania, people register by political party, and there is a "pretty strong correlation" between party registration and election performance, though there remains substantial deviation at times. (Id. 24:7-15) This deviation exists because "voters are thoughtful," and are "not prisoners of their party ID." (Id. 24:15-22) Professor Gimpel observed that based on available data, it appears that if every voter voted in accordance with his or her party registration, Democrats would win nine seats across Pennsylvania. (Id. 28:6-10)

Commenting on Plaintiff's Expert Witness Daniel McGlone's "visual test," Professor Gimpel stated that McGlone was "hasty" in reaching the conclusion that partisan intent was used in creating the 2011 map; he observed that if partisan intent was in fact used, it was not used well—that the 2011 map is "incompetent" as a partisan gerrymander in that it does not achieve nearly as strong partisan results as might have been possible. (Id. 31:22-32-8) Mr. McGlone, he said, did not consider the alternative explanations for how the map was drawn, and reached a hasty and unreasonable conclusion that it was the result of partisan intent. (Id. 32:15-33:7)

VI. Findings of Fact

A. Credibility of Witnesses

I found all of the Plaintiffs who gave live testimony at the trial to be completely credible. They identified their voting history and their political preferences in a mature way and did not attempt to exaggerate and embellish their testimony.

As to the Plaintiffs whose testimony was presented by deposition, they were of course not observed in the Courtroom, but I accept their testimony as well as being consistent with the Plaintiffs who testified at the trial. There was no cross examination requiring any reduced weight to their testimony.

Senator Dinniman was completely creditable. His recollection was very good about the circumstances of the adoption of the 2011 map, which is the principal fact issue in this case. He testified in significant detail about the events that took place and his recollection, including on cross examination, was strong. Indeed, on cross examination he continued his same consistent narrative. Although this Court need not consider any political intent in its primary legal analysis, Senator Dinniman's testimony about the process that was used, without regard to political affiliations or parties' intent, is accurate and is entitled to significant weight in the analysis of this case.

As to the other two state congressmen who presented testimony by deposition, Representative Vitali and Senator Leach, I do not have any reason to disbelieve their testimony from the deposition transcripts. I find them credible and give weight to their testimony on issues other than dealing with political affiliation or intent.

The testimony of the three state legislators was not contradicted by any other witness. Their testimony established that the 2011 map was enacted by the state Senate without any

hearings, without public notice, without advance publication, and as a result the public had no input, and no opportunity for input.

Plaintiffs' expert witness Hanna accurately described her experience in the nascent discipline of image analysis and processing, which provided an appropriate fit for the issues in this case. For the most part she answered questions directly, although on a few occasions she tended to expand her answer beyond what was necessary. She made clear that her sympathies rested with the Plaintiffs, as a matter of political philosophy, over and above the fact that she was to testify as an expert for the Plaintiffs. However, I found her general testimony, in terms of how the maps of the different congressional districts were drawn, to be of value. She testified truthfully about the facts of which she had knowledge, despite her interest in the outcome of the case.

Plaintiffs' expert Daniel McGlone has significant expertise in the topic of Geographic Imaging Software (GIS), which is a relatively new discipline. He testified accurately about his review of the "mapping" of the Pennsylvania congressional districts following the 2010 census. Although Mr. McGlone does not have a Ph.D., and has no prior experience as an expert, this is a brand new field and I doubt that there are very many people in the United States who have similar expertise. Also, this is not a scientific field for which advanced degrees and peer publications are necessary. Mr. McGlone testified with candor, he recognized areas where he could give opinions based on experience and personal knowledge, and was respectful of political traditions, the contentions of the defendants, and generally came across as an outstanding expert witness. His testimony about the redistricting of the map itself, without any consideration of intent, deserves great weight.

As to the testimony of William Schaller and Erik Arneson, their testimony was taken by depositions and portions were introduced by both Plaintiffs and Defendants. I have summarized their testimony without significant indication whether the testimony was introduced by the Plaintiffs or the Defendants. However, I note that both witnesses seemed to give much more detailed answers to the questions posed by Legislative Defendants' counsel than those posed by Plaintiffs' counsel. Although I have no reason to find that either witness testified untruthfully, the relative lack of responsiveness to questions by Plaintiffs warrants caution with respect to their testimony in response to Legislative Defendants' questions. Nevertheless, Mr. Schaller made a notable admission that the redistricting process was highly influenced by the Republican legislators. (Schaller Dep. 76:16; 77:5)

Mr. Arneson expanded his factual recollection significantly when questioned by Defendants' counsel compared to the very sparse testimony he gave to Plaintiffs' counsel. For this reason, I am inclined to give very low weight to his testimony.

Concerning Defendants' expert Dr. Nolan McCarty, he has outstanding credentials and his demeanor and responsiveness to questions was exceptional. Nonetheless, as he himself stated, his retention in this case was solely to express criticism of the methodology employed in the McGlone report. As noted in the summary of Dr. McCarty's testimony above, Plaintiffs' counsel demonstrated significant inaccuracy in Dr. McCarty's report during his cross-examination. Furthermore, some of the reasons and explanations he gave for the 2011 redistricting results are at odds with the "plain view" of the Pennsylvania map, which is described in this memorandum. For these reasons, I give low weight to Dr. McCarty's testimony.

As to Defendants' expert Professor James Gimpel, he also brought to the Court significant expertise in the districting practices, significant publications and prior experience

testifying as an expert. Nonetheless, his criticism of the Plaintiffs' factual evidence, and particularly his testimony regarding Ms. Hanna and Mr. McGlone, has failed to persuade me that the weight which I ascribe to those witnesses should be changed. Professor Gimpel was very general in a lot of his answers. Further, as the recorded testimony will show, but the written testimony will not, he raised his voice and started shouting on a number of occasions when his conclusions were under attack during cross examination. This is highly unusual behavior by an experienced expert, and warrants the Court's giving low weight to all of his testimony.

B. Intent

Although I do not believe that "intent" should be a relevant or necessary element of a claim of alleged gerrymandering, for reasons stated in this memorandum, it is quite possible that the other members of this Court, or a reviewing Court, will conclude that intent is relevant. For these reasons, I will set forth below my findings on this issue in the event intent is to be considered.

As a general matter, Plaintiffs have shown, by clear and convincing evidence, that the intent of the majority of the Pennsylvania legislature—i.e. members of the Republican Party in control, in particular Speaker Turzai, and President Scarnati, and the staff under their direction who were preparing the maps—was to draw congressional districts, as much as possible, by the "packing and cracking" techniques, to ensure the districts that were created were highly likely, if not virtually guaranteed, to result in a larger number of Republican congressmen being elected than Democratic congressmen.

This intent, and purpose, was admitted by Mr. Schaller, who had significant responsibilities to act on behalf of the Republican leadership in the Republican Caucus. He admitted that the "Republican stakeholders," i.e., Republican state senators and Republican state

representatives, made clear their desire that districts be created so that more Republicans than Democrats would be elected. See supra, (Schaller Dep. 49:18-24; 16:19-22; 76:16-77:5)

It appears from the testimony that Mr. John Memmi added significant input into this process. Plaintiffs clearly knew of Mr. Memmi's involvement because he, and his role in making the map, are specifically mentioned in the Legislative Journal for December 14, 2011. (Pl.'s Exh. 29, 1406; 1410). Plaintiffs moved this exhibit into evidence at the close of the testimony. Chief Judge Smith requested Plaintiffs' counsel to supply detailed page numbers for the "relevant" parts of this lengthy exhibit, but as far as the trial record shows, Plaintiffs never did so. It is inexplicable that with this information about Mr. Memmi's involvement, Plaintiffs did not take his deposition. Plaintiffs do not mention Exhibit P-29 in their post-trial brief; they do note the "irony" of Mr. Memmi being retained by defense counsel as a "consultant," and highlight defendants' collective failure to present his perspective on how the map was drawn. Although Legislative Defendants obviously knew of Mr. Memmi's involvement, they did not list him on their witness list, ECF 164, but Mr. Arneson did mention him at times. In view of these facts concerning Mr. Memmi, I cannot draw any inferences from either party's failure to introduce any testimony by him.

Mr. McGlone's testimony established partisan intent by clear and convincing evidence. He detailed, for nearly every congressional district in Pennsylvania, significant, undisputed, and accurate data showing that the "packing and cracking" technique was effectuated in the 2011 map. This itself is sufficient for the showing of intent by clear and convincing evidence.

One item of very persuasive proof of intent from Mr. McGlone's direct testimony bears particular emphasis: while he was on the witness stand, he drew on the computer screen facing him, for all the courtroom to see, two instances where the redistricting map strictly followed the

division of voters between the Republican and Democrats in the Seventh and Thirteenth Congressional Districts. (N.T. 12/4/17, AM, 185:16-197:12)

McGlone's "block-by-block" tracing of the redistricting of both of these congressional districts, from actual election data, showed specific results of votes split between Republicans and Democrats. This testimony proved the ability of contemporary digital technology, including proprietary but available GIS software, to compose congressional districts which will give a high degree of probability along with a high degree of reliability of results favoring voters of one political persuasion versus the other in specific congressional districts.

The intent to favor Republican leaning districts was also shown by the testimony of the three state legislators: Senator Dinniman, Representative Vitali, and Senator Leach.

In addition, Plaintiffs introduced into evidence a number of documents which tend to prove the intent or purpose of a Republican-dominated congressional delegation from Pennsylvania.

Although it can be argued that Plaintiffs may have been able to secure some of the testimony from the depositions of speaker Turzai and President Scarnati, they did not do so. The record shows the Plaintiffs did not have the highly incriminating exhibits until they were made available just before trial. Mr. McGlone was able to review these documents and he relied on them in his testimony.

Notwithstanding this, after the Plaintiffs had rested, Legislative Defendants certainly had the opportunity to call Speaker Turzai and President Scarnati as their own witnesses, to refute this evidence, but they did not do so. Thus, I rely to some extent on adverse inferences available from this omission.

VII. Supreme Court Case Summary—Non-Election Clause Decisions

A. Baker v. Carr, 369 U.S. 186 (1962)

Baker v. Carr addressed a 1901 Tennessee apportionment statute that continued in operation into 1961, without any redistricting being undertaken, despite the fact that the population of eligible voters in the state more than quadrupled over that six decade span. Baker v. Carr, 369 U.S. 186 (1962). As a result, the statute permitted drastic differences in the numbers of constituents represented by each of the state's elected officials. Plaintiffs challenged the statute as violating their Fourteenth Amendment equal protection rights "by virtue of the debasement of their votes." Id. at 194. The three-judge district court dismissed the case as non-justiciable. Id. at 197. The Supreme Court reversed, holding that the Plaintiffs had pled a justiciable cause of action upon which they would be entitled to relief; that the district court had subject matter jurisdiction; and that Plaintiffs had standing to bring the suit. The case was remanded for a trial. Id. at 197–98. Justices Frankfurter and Harlan dissented.

The Court articulated Plaintiffs' Constitutional claim as follows: "Their constitutional claim is, in substance, that the 1901 statute constitutes arbitrary and capricious state action, offensive to the Fourteenth Amendment in its irrational disregard of the standard of apportionment prescribed by the State's Constitution or of any standard, effecting a gross disproportion of representation to voting population." Id. at 705. While the Court did not address the merits of this claim, it did provide a very careful analysis of the justiciability of Plaintiffs' theory. The Court explained that the District Court had wrongly understood Supreme Court precedent as requiring any Constitutional challenge to a legislative apportionment plan to be classified as a nonjusticiable political question. The Court rejected that interpretation of its precedent, and ultimately held "that this challenge to an apportionment presents no nonjusticiable 'political question.'" Id. at 209.

The Court engaged in a lengthy review of case law addressing nonjusticiable political questions in order to demonstrate that the issue presented here did not implicate that doctrine. The Court articulated six categories of political questions, each of which "has one or more elements which identify it as essentially a function of the separation of powers":

> Prominent on the surface of any case held to involve a political question is found a textually demonstrable constitutional commitment of the issue to a coordinate political department; or a lack of judicially discoverable and manageable standards for resolving it; or the impossibility of deciding without an initial policy determination of a kind clearly for nonjudicial discretion; or the impossibility of a court's undertaking independent resolution without expressing lack of the respect due coordinate branches of government; or an unusual need for unquestioning adherence to a political decision already made; or the potentiality of embarrassment from multifarious pronouncements by various departments on one question.

Id. at 217. The opinion identifies several areas of law that have been found to implicate the political question doctrine, including foreign relations, "[d]ates of duration of hostilities," "[v]alidity of enactments," "[t]he status of Indian tribes," and the Guaranty Clause. Id. at 210, 211-225. The Court concluded that the Equal Protection challenge brought by Plaintiffs did not implicate any of the defining features of claims which have been determined to present political questions:

> The question here is the consistency of state action with the Federal Constitution. We have no question decided, or to be decided, by a political branch of government coequal with this Court. Nor do we risk embarrassment of our government abroad, or grave disturbance at home if we take issue with Tennessee as to the constitutionality of her action here challenged. Nor need the appellants, in order to succeed in this action, ask the Court to enter upon policy determinations for which judicially manageable standards are lacking. Judicial standards under the Equal Protection Clause are well developed and familiar, and it has been open to courts since the enactment of the Fourteenth Amendment to determine, if on the particular facts they must, that

> discrimination reflects no policy, but simply arbitrary and capricious action.

Id. at 226. The Court gave special and separate attention to the potential that the claim before the Court was nonjusticiable in the same way as claims brought under the Guaranty Clause. This contention was rejected given the distinctiveness of the Equal Protection claim as compared with a hypothetical similar claim that might have been brought under the Guaranty Clause. Id. at 227-29.

B. Gaffney v. Cummings, 412 U.S. 735 (1973)

In Gaffney, the Supreme Court considered whether a Connecticut districting plan for its own state legislature was unconstitutional for two reasons: first, whether it violated the Equal Protection Clause because the state house and senate districts varied too greatly in population, and second, whether it was unconstitutional under the Fourteenth Amendment "where its purpose [was] to provide districts that would achieve 'political fairness' between the political parties." Gaffney v. Cummings, 412 U.S. 735, 736. The maximum population deviation of the state Senate map—a measure of the population difference of the largest and smallest districts—was 1.81%, whereas the state house map had a maximum population deviation of 7.83%. Id. at 737. After a trial, a three-judge panel of the district court invalidated the map.

A six-justice majority of the Supreme Court held that this showing of numerical deviations from population equality "failed to make out a prima facie violation of the Equal Protection Clause of the Fourteenth Amendment." Id. at 741. The majority acknowledged that those creating district maps had to consider other factors besides perfect numerical equality, and warned that the goal "of fair and effective representation" would not be "furthered by making the standards of reapportionment so difficult to satisfy that the reapportionment task is recurringly removed from legislative hands and performed by federal courts which themselves must make

the political decisions necessary to formulate a plan or accept those made by reapportionment plaintiffs." Id. at 749.

The final section of the majority opinion addressed the "political fairness principle" whereby the drawers of the map had attempted to approximate "the statewide political strengths of the Democratic and Republican Parties." Id. at 752. The Supreme Court held that this did not violate the Fourteenth Amendment, and added in a footnote that "compactness" and "attractiveness" were not constitutionally required of districts. Id. at 752 n.18. The majority concluded that "[p]olitics and political considerations are inseparable from districting and apportionment…[t]he reality is that districting inevitably has and is intended to have substantial political consequences." Id. at 753.

C. Davis v. Bandemer, 478 U.S. 109 (1986)

In Davis v. Bandemer, the Supreme Court reviewed a decision by a three-judge district court in the Southern District of Indiana which held unconstitutional Indiana reapportionment plans from 1981. 478 U.S. 109, 115-118 (1986). The three-judge district court had stated that any reapportionment statute "which purposely inhibits or prevents proportional representation cannot be tolerated," and held that because the Indiana plans were intentionally designed to disproportionately favor Republicans they violated the Equal Protection Clause of the Fourteenth Amendment. Id. at 117. Although the decision was reversed, a majority of the Court agreed that partisan gerrymandering claims are indeed justiciable under the Equal Protection Clause. There was, however, no majority agreement on what the standard should be for evaluating such a claim. Bandemer, 478 U.S. at 121-126.

Justice White, writing for a six-Justice majority, relied heavily on the Baker v. Carr justiciability holding. He applied the same principles of analysis that were applied there in reaching the same conclusion reached with respect to the subject of numeric proportionality of

voting districts: the legitimacy of partisan gerrymandering under the Equal Protection Clause represents a justiciable issue.

> Disposition of this question does not involve us in a matter more properly decided by a coequal branch of our Government. There is no risk of foreign or domestic disturbance, and in light of our cases since Baker we are not persuaded that there are no judicially discernible and manageable standards by which political gerrymander cases are to be decided.

Id. at 123.

The Court explained that substantive distinctions between these types of claims and other types of gerrymandering claims arising under the Equal Protection Clause that have been approved of, may weigh on how the claim should be evaluated, but not on the threshold issue of whether it can be evaluated at all: "[t]hat the characteristics of the complaining group are not immutable or that the group has not been subject to the same historical stigma may be relevant to the manner in which the case is adjudicated, but these differences do not justify a refusal to entertain such a case." Id. at 125.

Four Justices agreed on the specific reasoning to reverse the district court that "a threshold showing of discriminatory vote dilution is required for a prima facie case of an equal protection violation," and that showing was not made in this case. Id. at 143. Justice O'Connor, joined by Chief Justice Burger and Justice Rehnquist, dissented. This group would have held partisan gerrymandering claims to raise nonjusticiable political questions. Id. at 144. She wrote that "the legislative business of apportionment is fundamentally a political affair," and that "[t]o turn these matters over to the federal judiciary is to inject the courts into the most heated partisan issues." Id. at 145. Justice O'Connor was persuaded that recognizing a justiciable cause of action for partisan gerrymandering claims under the Equal Protection Clause was both impractical and inappropriate: "The Equal Protection Clause does not supply judicially

manageable standards for resolving purely political gerrymandering claims, and no group right to an equal share of political power was ever intended by the Framers of the Fourteenth Amendment." Id. at 147. She explained that the standard proposed by the plurality reflected her general prediction that any attempt to develop standards by which to judge a partisan gerrymander would inevitably result in "a drift towards proportional representation." Id. at 158. "This preference for proportionality is in serious tension with essential features of state legislative elections," and actually undermines "the legitimacy of districting itself" as compared with an at-large election scheme. Id. at 159. Ultimately, because the Fourteenth Amendment was not intended to protect against partisan intent in districting, because of the difficulty in developing standards to evaluate claims of partisan gerrymandering, and because of the impropriety of the judiciary meddling in this heavily political realm, the dissenting three Justices would have held these claims to be nonjusticiable.

The members of the Court who joined the justiciability majority splintered when it came to defining the standard by which partisan gerrymandering claims should be evaluated. Justice White wrote for a four-Justice plurality, joined by Justices Brennan, Marshall, and Blackmun. This group would have held that intent to discriminate, along with discriminatory effect, must be proven. Id. at 127. They would have permitted some amount of partisan intent, and required a showing of a substantial disadvantage to a particular group of voters, in terms of their opportunity to influence the political process, in order to establish an Equal Protection Violation:

> "[A]n equal protection violation may be found only where the electoral system substantially disadvantages certain voters in their opportunity to influence the political process effectively. In this context, such a finding of unconstitutionality must be supported by evidence of continued frustration of the will of a majority of the voters or effective denial to a minority of voters of a fair chance to influence the political process."

Id. at 133.

Justice Powell, joined by Justice Stevens, joined in the justiciability holding, however dissented, and proposed a separate and distinct standard from that proposed by the four Justice plurality. Justice Powell's opinion endorsed the plurality's requirement that a plaintiff should be required to prove discriminatory intent and effect. However, he would have added a "totality-of-the-circumstances" test evaluating the following factors: the shapes of voting districts; adherence to established political subdivision boundaries; the nature of the legislative procedures by which the apportionment law was adopted; and legislative history reflecting contemporaneous legislative goals. Id. at 162, 173. Under this proposal, "[t]o make out a case of unconstitutional partisan gerrymandering, the plaintiff should be required to offer proof concerning these factors…as well as evidence concerning population disparities and statistics tending to show vote dilution. No one factor should be dispositive." Id. at 173. Ultimately, unconstitutional gerrymandering would be found to exist where "the boundaries of the voting districts have been distorted deliberately and arbitrarily to achieve illegitimate ends." Id. at 165.

Justice Powell's opinion attached maps of the state showing what he characterized as irregular district shapes. Id. at 184. Looking at those maps compared to the maps of the present case, those attached by Justice Powell look quite normal.

D. Burdick v. Takushi, 504 U.S. 428 (1992)

Burdick, which was an appeal from the Ninth Circuit rather than a three-judge panel, concerned whether Hawaii's ban on write-in candidates violated the First and Fourteenth Amendment rights of voters. A six-justice majority upheld the ban.

The majority mentioned the Elections Clause in passing as a source of authority for states to regulate election procedures for their congressional representatives: "[t]he Constitution provides that States may prescribe '[t]he Times, Places and Manner of holding Elections for

Senators and Representatives,' Art. I, § 4, cl. 1, and the Court therefore has recognized that States retain the power to regulate their own elections." Burdick, 504 U.S. at 433. Accordingly, constitutional law "compel[led] the conclusion that government must play an active role in structuring elections" so that elections are to be "fair and honest" and "some sort of order, rather than chaos, is to accompany the democratic processes." Id. (quotations and citations omitted)

The majority specifically rejected the petitioner's argument that any law burdening the right to vote must necessarily be subject to strict scrutiny. Id. at 432. Building on the earlier analysis contained in Anderson v. Celebrezze, 460 U.S. 780 (1983), the majority developed a balancing test that was "more flexible" than strict scrutiny, whereby a court must weigh

> the character and magnitude of the asserted injury to the rights protected by the First and Fourteenth Amendments that the plaintiff seeks to vindicate against the precise interests put forward by the State as justifications for the burden imposed by its rule, taking into consideration the extent to which those interests make it necessary to burden the plaintiff's rights…. When those rights are subjected to "severe" restrictions, the regulation must be narrowly drawn to advance a state interest of compelling importance. But when a state election law provision imposes only reasonable, nondiscriminatory restrictions upon the First and Fourteenth Amendment rights of voters, the State's important regulatory interests are generally sufficient to justify the restrictions.

Id. at 434 (internal quotations and citations omitted).

Justice Kennedy, joined by two other dissenting justices, accused the majority of "ignor[ing] the inevitable and significant burden a write-in ban imposes upon some individual voters by preventing them from exercising their right to vote in a meaningful manner." Burdick v. Takushi, 504 U.S. 428, 448 (1992) (Kennedy, J., dissenting). Because the write-in ban, considered alongside Hawaii's ballot access laws, imposed a significant burden on those seeking to write in candidates, the dissent would have required a state to "put forward the state interests which justify the burden" for a court then to assess. Id. However, the dissent declined to specify

the necessary level of scrutiny because, in its view, Hawaii had "failed to justify the write-in ban under any level of scrutiny." Id.

E. League of United Latin Am. Citizens v. Perry, 548 U.S. 399 (2006)

League of United Latin Am. Citizens v. Perry ("LULAC") affirmed most holdings of a decision from a three-judge district court, rejecting Plaintiffs' theory that a mid-decade legislative redrawing of the district lines in Texas necessarily constituted an unconstitutional partisan gerrymander under the Equal Protection Clause of the Fourteenth Amendment.[7] 548 U.S. 399 (2006). Justice Kennedy, writing for the Court, reflected on the impact of Vieth, noting that "[a] plurality of the Court … would have held [political gerrymandering] challenges to be nonjusticiable political questions, but a majority declined to do so," and a majority of the Court in LULAC chose not to "revisit the justiciability holding [from Vieth]." Id. at 414. Justice Kennedy, writing alone, expressed that he was unpersuaded that the Texas legislature's decision to replace a court-drawn redistricting plan mid-decade, when it was not required to do so, was sufficient evidence to conclude that the resulting plan must be an unconstitutional partisan gerrymander under the First Amendment or the Equal Protection Clause. Id. at 416-20.

Justice Kennedy took issue with the Plaintiffs' theory about the necessary implications of a mid-decade legislative action redrawing Texas's district lines, as well as with Plaintiffs' suggestion that the Court focus exclusively on this one piece of evidence. On the first point, he expressed skepticism of Plaintiffs' claim that a court could conclude, based on the timing of the changes to the map, that the sole intent in making those changes was necessarily to gain partisan advantage. He further observed that "[t]he legislature does seem to have decided to redistrict with the sole purpose of achieving a Republican congressional majority, but partisan aims did

[7] LULAC also considered challenges to the 2003 Texas redistricting under the Voting Rights Act, and as an unconstitutional racial gerrymander.

not guide every line it drew," noting that "the contours of some contested district lines were drawn based on more mundane and local interests," and "a number of line-drawing requests by Democratic state legislators were honored." Id. at 417-18. He went on to emphasize that "[e]valuating the legality of acts arising out of mixed motives can be complex, and affixing a single label to those acts can be hazardous, even when the actor is an individual performing a discrete act. When the actor is a legislature and the act is a composite of manifold choices, the task can be even more daunting." Id. at 418.

With respect to Plaintiffs' narrowing of the perspective to this singular point—the timing of the redraw—Justice Kennedy criticized this theory for obscuring the most important feature of an unconstitutional partisan gerrymander: "[the] burden, as measured by a reliable standard, on the complainants' representational rights." Id. He cited to precedent endorsing the point of view that some partisan intent is permitted in the act of drawing district lines, so long as it does not predominate or dictate the outcome. Id. Justice Kennedy also highlighted the fact that the proposed test would surely capture some constitutionally legitimate redistricting plans, while leaving out some clearly suspect ones. Id. at 419.

Justice Stevens, writing also on behalf of Justice Breyer, concurred in part and dissented in part. He would hold that where there is sufficient evidence to conclude that a redistricting plan was designed for the sole purpose of advantaging a particular political group, the plan is unconstitutional under both the Fourteenth Amendment's prohibition against invidious discrimination, and the First Amendment's protection of citizens from official retaliation based on their political affiliation, which taken together "reflect the fundamental duty of the sovereign to govern impartially." Id. at 461-62.

Justice Stevens, writing alone on this point, articulated a complete standard for evaluating partisan gerrymandering claims. He would have held that a plaintiff should have to prove that he is either a candidate or a voter who resided in the challenged district, and should be required to prove both improper purpose and effect. Id. at 475. The standard for evaluating purpose, he would have held, should be imported from the racial gerrymandering context: a plaintiff must show that neutral districting criteria was subordinated to political considerations and that the predominant motive of the redistricting was to maximize one party's power. Id. The standard for evaluating effects would require a plaintiff to demonstrate three facts: (1) her candidate of choice was elected under the old plan; (2) her residence is now in a district where it can be safely assumed that the opposite party will win; (3) her new district is less compact than the old district. Id. at 475-76.

F. Harris v. Arizona Indep. Redistricting Comm'n, 136 S. Ct. 1301 (2016)

Plaintiffs, Arizona voters, attacked a state districting map adopted by an independent redistricting commission on the grounds that the districts created were "insufficiently equal in population" in violation of the Fourteenth Amendment. Harris v. Arizona Indep. Redistricting Comm'n, 136 S. Ct. 1301, 1306 (2016). The initial grid-like plan considered by the commission "produced a maximum population deviation (calculated as the difference between the most populated and least populated district) of 4.07%." Id. After altering some district lines to account for factors like geographic features and locality boundaries—and, critically, to comply with the Voting Rights Act—the commission produced a map, the subject of the lawsuit, with an 8.8% population deviation. Id. A split three-judge district court panel entered judgment for the defendants.

The Supreme Court unanimously held that "those attacking a state-approved plan must show that it is more probable than not that a deviation of less than 10% reflects the

predominance of illegitimate reapportionment factors rather than…legitimate considerations." Id. at 1307 (quotation omitted). The Court spent substantial time reviewing the record evidence, particularly with respect to attempts to comply with the Voting Rights Act, which supported the district court majority's finding that "the population deviations were primarily a result of good-faith efforts to comply with the Voting Rights Act [] even though partisanship played some role." Id. at 1309 (quoting Harris v. Arizona Indep. Redistricting Comm'n, 993 F. Supp. 2d 1042, 1046 (D. Ariz. 2014)). Accordingly, because the plaintiffs "ha[d] not shown that it was more probable than not that illegitimate considerations were the predominant motivation behind the plan's deviations from mathematically equal district populations," which were under 10%, their Equal Protection challenge failed. Id. The Court rejected a number of other arguments, including that the boundaries reflected "unreasonable use of partisan considerations" for lack of record evidence that partisan considerations, rather than the need to comply with the Voting Rights Act, might have left Democratic-leaning districts underpopulated. Id.

G. Vieth v. Jubelirer, 541 U.S. 267 (2004)

The Scalia plurality opinion in Vieth acknowledged that in Davis v. Bandemer, supra, a six justice majority held that gerrymandering claims were justiciable. As demonstrated by Bandemer itself, and subsequent decisions, in the intervening 18 years, no judicially-discoverable and manageable standard had been found controlling by a majority of the Supreme Court. As Justice Scalia noted, "Laws promulgated by the Legislative Branch can be inconsistent, illogical, and ad hoc; law pronounced by the courts must be principled, rational, and based upon reasoned distinctions." Id. at 278.

The Scalia plurality characterized the Bandemer plurality, which attempted to articulate a standard as follows:

> The plurality concluded that a political gerrymandering claim could succeed only where plaintiff showed "both intentional discrimination against an identifiable political group and actual discriminatory effect on that group."

The Plaintiffs in Vieth articulated a somewhat different standard which Justice Scalia, quoting from the Plaintiffs' brief, summarized as:

> [a] plaintiff must "show that the mapmakers acted with a predominant intent to achieve partisan advantage" which can be shown "by direct evidence or by circumstantial evidence that other neutral and legitimate redistricting criteria were subordinated to the goal of achieving partisan advantage."

Id. at 285.

Justice Scalia went on to criticize the concepts of "partisan intent" and "predominant intent" as being inherently impossible for judicial review.

He then noted that an alternative standard would focus on the "effect" of the gerrymander and whether that analysis would lead to a better and more justiciable result, as had been suggested by the plurality in Bandemer, which Justice Scalia summarized as follows:

> The requisite effect is established when "(1) the plaintiffs shows that the district systematically' 'pack' and 'crack' the rival party's voters, and (2) the court's examination of the 'totality of circumstances' confirms that the map can thwart the plaintiffs' ability to translate a majority of votes into a majority of seats.

541 U.S. at 287 (footnote omitted).

Justice Scalia described this test as "loosely based" on cases applying Section 2 of the Voting Rights Act of 1965.

Justice Scalia was very critical of the use of the "pack and crack" theory of gerrymandering as a general proposition.[8] He went on to state why the Vieth plurality rejected

[8] Query whether, if the Hanna/McGlone details about modern "pack and crack" methodology was part of the record in the Vieth case, Justice Scalia would not have been able to dismiss this theory so quickly?

the plurality of Bandemer including looking at "the shapes of voting districts and adherence to established political subdivision boundaries . . . nature of legislative procedures . . . legislative history . . . ." He also criticized what he characterized "essentially a totality of the circumstances analysis, where all conceivable factors, none of which is dispositive, are weighed with an eye to ascertaining whether the particular gerrymander has gone too far – or in Justice Powell's terminology, whether it is 'fair.'" He concluded that "'Fairness' does not seem to us a judicially manageable standard." 541 U.S. at 292.

Justice Stevens, dissenting, would have held that if the predominant purpose of creating a particular district's shape is to increase partisan strength, and there is no other rational explanation for the bizarre shape of a particular district, then the equal protection rights of disadvantaged voters in that district have been violated.

> The standard applied in the Shaw cases (racial gerrymandering) should be applied to partisan gerrymandering: "in evaluating a district-specific political gerrymander, courts should ask whether the legislature allowed partisan considerations to dominate and control the lines drawn, forsaking all neutral principles…if no neutral criterion can be identified to justify the lines drawn, and if the only possible explanation for a district's bizarre shape is a naked desire to increase partisan strength, then no rational basis exists to save the district from an equal protection challenge.

Id. at 339.

> [T]he critical issue in both racial and political gerrymandering cases is the same: whether a single nonneutral criterion controlled the districting process to such an extent that the Constitution was offended.

Id. at 327

> Political gerrymandering challenges should be district-specific and focus on the representational harm that occurs when an individual

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See "Rat F**ked, The True Story Behind the Secret Plan to Steal America's Democracy" (David Daley, 2016).

> voter is situated within a district which has been drawn to disproportionately advantage members of another identifiable group—namely, the risk that "the winner of an election in a gerrymandered district inevitably will infer that her success is primarily attributable to the architect of the district rather than to a constituency defined by neutral principles.

Id. at 330.

Justice Souter, joined by Justice Ginsburg, dissenting, would have held that partisan gerrymandering claims should be district-specific, and a statewide claim should be based on an amalgamation of district-specific claims. Id. at 353. They would have required plaintiffs to provide evidence to satisfy a prima facie cause of action with five elements designed to prove that the state acted intentionally to dilute plaintiff's vote, despite the existence of reasonable alternatives consistent with traditional districting criteria; if done successfully, the burden would shift to defendants to justify their decision on grounds other than intent to gain political advantage. Id. at 346, 351–52. The five elements of the prima facie case proposed were:

1. Identify a cohesive political group to which the plaintiff belongs;
2. Demonstrate that the district of plaintiff's residence "paid little or no heed to [ ] traditional districting principles": contiguity, compactness, respect for political subdivisions, and conformity with geographic features like rivers and mountains";
3. Establish specific correlations between the district's deviations from traditional districting principles and the distribution of the population of plaintiff's group;
4. Present the court with a hypothetical district including plaintiff's residence, in which the proportion of plaintiff's group was lower (in a packing claim) or higher (in a cracking claim) and which deviated less from traditional districting principles than the actual district;
5. Show that the defendants acted intentionally to manipulate the shape of the district in order to pack or crack plaintiff's group, at which point the burden shifts to the State to rebut the evidence and/or offer an affirmative justification.

Id. at 347-350.

In Justice Breyer's dissent, he proposed the following standard: "the unjustified use of political factors [in districting] to entrench a minority in power" constitutes an unconstitutional partisan gerrymander. Id. at 361. Unjustified use of political factors refers to a situation in

which "the minority's hold on power is purely the result of partisan manipulation and not other factors" such as happenstance, the existence of more than two major parties, reliance on traditional criteria, etc. Id. at 360–61.

> [W]here the risk of entrenchment is demonstrated, where partisan considerations render the traditional district-drawing compromises irrelevant, where no justification other than party advantage can be found," courts should invalidate such a scheme as unconstitutional.

Id. at 367.

Justice Kennedy concurred separately, and although he saw "weighty arguments for holding cases like these to be nonjusticiable" he was unwilling to bar all future partisan gerrymandering claims. Id. at 309.

Kennedy's comment about the rise of "political classifications" bears quoting:

> Because, in the case before us, we have no standard by which to measure the burden appellants claim has been imposed on their representational rights, appellants cannot establish that the alleged political classifications burden those same rights. Failing to show that the alleged classifications are unrelated to the aims of apportionment, appellants' evidence at best demonstrates only that the legislature adopted political classifications. That describes no constitutional flaw, at least under the governing Fourteenth Amendment standard. See Gaffney, 412 U.S. at 752. As a consequence, appellants' complaint alleges no impermissible use of political classifications and so states no valid claim on which relief may be granted. It must be dismissed as a result. See Fed. Rule Civ. Proc. 12(b)(6); see also Davis v. Bandemer, 478 U.S., at 134.
>
> The plurality thinks I resolve this case with reference to no standard, see ante, at 1790, but that is wrong. The Fourteenth Amendment standard governs; and there is no doubt of that. My analysis only notes that if a subsidiary standard could show how an otherwise permissible classification, as applied, burdens representational rights, we could conclude that appellants' evidence states a provable claim under the Fourteenth Amendment standard.

He also suggested that the "First Amendment m[ight] offer a sounder and more prudential basis for intervention than does the Equal Protection Clause" because the "First Amendment analysis concentrates on whether the legislation burdens the representational rights of the complaining party's voters for reasons of ideology, beliefs, or political association." Id. at 315.

VIII. History and Decisions Under the Elections Clause

A. History of the Elections Clause: Constitutional Convention and Related Materials

In the records of the Constitutional Convention, several state Ratifying Conventions, and the Federalist Papers, different perspectives are expressed on the choice of who should be tasked with regulating congressional elections. A common theme that runs through these records is the great threat of placing that power to regulate entirely in the hands of one group, either state legislatures on the one hand, or Congress on the other hand. Specifically, many writers highlight the potential to regulate in ways designed to manipulate the outcome of congressional elections. While they disagreed over which group was more likely to engage in such abuse, and what checks would most effectively combat this type of behavior, all of the commentary on this topic is essentially unified in viewing these threats to fair elections as a potential injury to the people.

1. The Risk of State Legislatures Seeking to Manipulate Congressional Elections Through the Regulatory Power

At the Constitutional Convention, Madison expressed a view in favor of the congressional override built into the Elections Clause. He saw it as necessary to mitigate the risk that state legislatures would abuse their power over regulating federal congressional elections in order to manipulate election outcomes. He emphasized the significance of the structure of House elections—that is, enabling the people to directly elect their Representatives rather than leaving it to the state Legislatures—noting that this approach "seems to decide that the Legislatures of the

States ought not to have the uncontrolled right of regulating the times places & manner of holding elections." Max Farrand ed., The Records of the Federal Convention of 1787, 2:239; Madison, 9 Aug. Rev. ed. 4 vols. New Haven and London: Yale University Press, 1937. If state legislatures were given the power to regulate congressional elections without any oversight, "[i]t was impossible to foresee all the abuses that might be made of the discretionary power…Whenever the State Legislatures had a favorite measure to carry, they would take care so to mould their regulations as to favor the candidates they wished to succeed." Id. While Madison does not consider the implications of partisan intent, his general point is applicable here: if state legislatures were given an unchecked power to regulate congressional elections, it would permit them to control the outcomes of those elections, regardless of their precise motivation in exercising that control.

Timothy Pickering, writing to Charles Tillinghast, espoused a similar sentiment. He viewed the Elections Clause as creating an appropriate balance of power between state and congressional actors in regulating congressional elections, specifically in light of what he viewed as the crucial check on state legislatures' power: the congressional override. Charles W. Upham, The Life of Timothy Pickering. 2 vols. Boston: Little, Brown & Co., 1873, Timothy Pickering to Charles Tillinghast, 24 Dec. 1787, Life 2:356–57. He urged that congressional oversight is necessary to avoid abuse of power by the state actors: "if any particular State government should be refractory, and, in the pride of sovereignty, or influenced by any other motive, should either make no such regulations or improper ones, then the Congress will have power to make such regulations as will ensure to the people their rights of election and establish a uniformity in the mode of constituting the members of the Senate and House of Representatives." Id. (emphasis added). Pickering was not concerned with the possibility that Congress would abuse this power,

however, because that would likely put their own positions in jeopardy: "does any man of common sense, really believe that the Congress will ever be guilty of so wanton an exercise of power? Will the immediate Representatives of the people, in Congress, ever consent to so oppressive a regulation? For whose benefit would they do it? Would not the first attempt certainly exclude themselves? And would not the State legislatures, at their next election of Senators, as certainly reject every one who should give his assent to such a law?" Id.

Theophilus Parsons, in a Debate in the Massachusetts Ratifying Convention, argued that while the congressional override power was unlikely to be abused, given the check that the Senate and the House would have on one another, it would be an enormous risk to vest the power absolutely with the state legislatures. Jonathan Elliot ed. The Debates in the Several State Conventions on the Adoption of the Federal Constitution as Recommended by the General Convention at Philadelphia in 1787, 5 vols. 2d ed. 1888. New York: Burt Franklin, Debate in Massachusetts Ratifying Convention, 16-17, 21 Jan. 1788, 2:22-35. He identified the state legislatures as the constituents of the Senate, and the people as the constituents of the House. The Senate and the House, he said, would be engaged in a near constant power struggle. As such,

> The Senate will call upon their constituents, the legislatures, for aid; the Representatives will look up to the people for support. If, therefore, the power of making and altering the regulations [for congressional elections], is vested absolutely in the legislature, the Representatives will very soon be reduced to an undue dependence upon the Senate, because the power of influencing and controlling the election of the representatives of the people, will be exerted without control by the constituents of the senators.

Id.

He described the particular harm that could result, in part, as the danger that "in times of popular commotion, and when faction and party spirit run high, [the state legislature] would

introduce such regulations as would render the rights of the people insecure and of little value." Id.

There was further concern that the power to regulate elections would be exercised in favor of voters living in areas of concentrated wealth or power, by holding the elections in those locations and nowhere else, thereby making it extremely inconvenient for voters who lived in other parts of the state to participate, and ultimately excluding their influence. "Supposing Congress should direct, that the representatives of this commonwealth should be chosen all in one town, (Boston for instance)…Would not there be at least nine-tenths of the landed interest of this commonwealth intirely unrepresented?" J. Herbert Storing ed., The Complete Anti-Federalist, 7 vols. Chicago: University of Chicago Press, 1981, Vox Populi, No. 1, 29 Oct. 1787.

2. State Legislatures as a Threat to the Continued Existence of the Federal Government

Alexander Hamilton very strongly approved of the Elections Clause—"I am greatly mistaken [ ] if there be any article in the whole plan more completely defensible than this"—most specifically in light of the built in congressional override. Jacob E. Cooke ed., The Federalist, Middletown, Connecticut: Wesleyan University Press, 1961, Alexander Hamilton, Federalist Number 59, 397, 22 Feb. 1788. He urged that "[i]ts propriety rests upon the evidence of this plain proposition, that every government ought to contain in itself the means of its own preservation," and observed that "[n]othing can be more evident, than that an exclusive power of regulating elections for the National Government, in the hands of the State Legislatures, would leave the existence of the Union entirely at their mercy." Id. (emphasis added). Several members of the New York Ratifying Convention likewise focused on the importance of the congressional override as a power of self-preservation for Congress, including John Jay and Richard Morris.

Vox Populi Number One explored the significance of this consideration—the importance of the self-preservation power inherent in giving Congress a congressional check on state legislatures' power to regulate congressional elections. If the regulation of national elections is left to state representatives, they may abdicate their duty altogether "in which case there could be no election, and consequently the federal government weakened." Vox Populi, No. 1, 29 Oct. 1787. Following on this theme James Wilson, in a debate in the Pennsylvania Ratifying Convention, highlighted the "self-preserving power" that Congress retains as a result of its oversight role in regulating congressional elections, per the Elections Clause. Elliot, Debate in Pennsylvania Ratifying Convention, 28 Oct. 11 Nov. 1787. Taking this idea to its logical conclusion, Luther Martin wrote that the congressional override power built into the Elections Clause is "a provision, expressly looking forward to, and I have no doubt designed for the utter extinction and abolition of all State governments." Storing, The Complete Anti-Federalist, Luther Martin, Genuine Information, 1788, Storing 2.4.43.

Mr. Cabot of Beverly, Massachusetts, speaking in the course of the Massachusetts Ratifying Convention, also emphasized the danger of giving state legislatures the exclusive control to regulate House elections: "if the state legislatures are suffered to regulate conclusively the elections of the democratic branch, they may, by such an interference, first weaken, and at last destroy, that check; they may at first diminish, and finally annihilate, that control of the general government, which the people ought always to have through their immediate representatives." Elliot, Debate in Massachusetts Ratifying Convention, 16 Jan. 1788, 2:22-35, 1888. On the 21st of January, as this debate continued, Mr. King likewise argued that it would be too dangerous to give state legislatures complete power to regulate congressional elections. He used South Carolina as an example. The City of Charleston initially had been given a large

number of seats in the state legislature initially, and despite the growth in population in "the back parts of Carolina," individuals from this part of the state were unsuccessful in gaining additional representation to match this growth. Id. He explained that "the members from Charleston, having the balance so much in their favor, will not consent to an alteration," and as a result, "the delegates from Carolina in Congress have always been chosen by the delegates of the city." Elliot, Debate in Massachusetts Ratifying Convention, 21 Jan. 1788, 2:22-35. Mr. King observed that "[t]he representatives, therefore, from that state, will not be chosen by the people, but will be the representatives of a faction of that state," and emphasized the harm to the people: "[i]f the general government cannot control in this case, how are the people secure?" Id.

3. The Risk of Congress Seeking to Manipulate Congressional Election Outcomes Through the Regulatory Power

Many writers and commentators expressed the flip side of Madison's view, namely that the real threat is that Congress would abuse their grant of power to override the state legislatures' regulations. As the Historians' Amici Brief in support of Appellees in Gill v. Whitford aptly points out, both sides of this debate operated under the assumption that, inherent in the power to regulate elections is the likelihood of abusing that power: "delegates arguing against Madison did not claim that such entrenchment was a state's right or somehow acceptable—rather, they countered that the greater fear was that Congress might abuse its power to entrench itself." Brief of Amici Curiae Historians in Support of Appellees, Gill v. Whitford, No. 16-1161.

Federal Farmer Number Three picks up on this theme. Rather than looking at the potential that state legislatures will abuse their power if their regulatory power under the Elections Clause is not cabined, however, this document urges that giving the national legislature an oversight power would enable this same type of abuse by members of Congress: "[Pursuant to] Art. 1 Sect. 4, the general legislature…may evidently so regulate elections as to secure the

choice of any particular description of men… it is easy to perceive how the people who live scattered in the inland towns will bestow their votes on different men—and how a few men in a city, in any order or profession, may unite and place any five men they please highest among those that may be voted for—and all this may be done constitutionally, and by those silent operations, which are not immediately perceived by the people in general." Federal Farmer Number Three, 10 Oct. 1787, Storing 2.8.25.

Brutus Number Four likewise takes the position that giving Congress power to override congressional election regulations promulgated by state legislatures is dangerous, because "the federal legislature may institute such rules respecting elections as to lead to the choice of one description of men," namely, "the rich and well-born." Brutus Number Four, 29 Nov. 1787, Storing 2.9.51-54. They would do this by "mak[ing] the whole state one district, and direct, that the capital…shall be the place for holding the election; the consequence would be, that none but men of the most elevated rank in society would attend, and they would as certainly choose men of their own class." Id. If the candidate with the majority of votes is declared the winner, "the people, who are dispersed in the interior parts of the state, would give their votes for a variety of candidates, while any order, or profession, residing in populous places, by uniting their interests, might procure whom they pleased to be chosen—and by this means the representatives of the state may be elected by one tenth part of the people who actually vote." Id. Moreover, "[t]his may be effected constitutionally, and by one of those silent operations which frequently takes place without being noticed, but which often produces such changes as entirely to alter a government." Id. Tasking the state legislatures with the absolute power to regulate federal elections would have more likely secured the rights of the people, because in the state legislatures "the people are not only nominally but substantially represented" and so too are their

interests. This document proposes voting across geographic districts across the state, for candidates who actually reside in each district, as a superior approach to congressional elections.

Speaking in a Debate in the Massachusetts Ratifying Convention, Mr. Pierce expressed concern with giving Congress the override power, given the threat that they could manipulate the place and manner of House elections to dictate the results. He summarized the harm as follows: "As the federal representatives, who are to form the democratical part of the general government, are to be a check on the representatives of the sovereignty, the senate, he thought the utmost caution ought to be used to have their elections as free as possible." Elliot, Debate in Massachusetts Ratifying Convention, 16 Jan. 1788, 2:22-35, 1888.

"Cornelius" pursues the idea that Congress is certainly not more qualified than the state legislatures to set out regulations for congressional elections that would be most convenient for individual voters. In fact, he argued, this would only empower Congress to deliberately leave certain voters out of the process:

> This power being vested in the Congress may enable them, from time to time, to throw the elections into such particular parts of the several States where the dispositions of the people shall appear to be the most subservient to the wishes and views of that honourable body; or, where the interests of the major part of the members may be found to lie. Should it so happen (as it probably may) that the major part of the Members of Congress should be elected in, and near the seaport towns; there would, in that case, naturally arise strong inducements for fixing the places for holding elections in such towns, or within their vicinity. This would effectually exclude the distant parts of the several States, and the bulk of the landed interest, from an equal share in that government, in which they are deeply interested.

Herbert J. Storing ed., The Complete Anti-Federalist, Cornelius, 18 Dec. 1787, Storing 4.10.10, 7 vols. Chicago: University of Chicago Press, 1981.

B. Case Law Discussion

1. Smiley v. Holm, 285 U.S. 355 (1932)

In Smiley v. Holm, the Supreme Court reviewed a decision by the Minnesota Supreme Court holding that the Elections Clause bestows an agency-like power upon state legislators to create districts within their state; when acting in this capacity, the Minnesota Supreme Court held, state legislators are not engaging in their normal lawmaking function, and the typical procedures attendant to lawmaking, including obtaining the Governor's final approval, therefore need not be followed. 285 U.S. 355 (1932).

The unanimous Court held that in fact, the Elections Clause confers to state legislators the specific authority to make laws governing federal elections, rather than the authority to engage in some other agency-like function. Id. at 366–67. In light of this conclusion, the Court went on to clarify "that the exercise of the authority must be in accordance with the method which the state has prescribed for legislative enactments," whatever those might be: "We find no suggestion in the [Elections Clause] of an attempt to endow the Legislature of the state with power to enact laws in any manner other than that in which the Constitution of the state has provided that laws shall be enacted." Id. at 367–68. Thus, in Minnesota, where the state Constitution requires the Governor's participation in the lawmaking process (in the form of a veto power), the Elections Clause does not authorize the Minnesota Legislature to operate outside of this procedural requirement when enacting regulations regarding federal elections. Id. at 373. The authorization to make laws pursuant to the Elections Clause is in no way distinct from the state's generalized power to make laws.

2. U.S. Term Limits, Inc. v. Thornton, 514 U.S. 779 (1995)

Thornton concerned an amendment to the Arkansas State Constitution prohibiting candidates, including to Congress, from appearing on the general election ballot if they had

already served a specified number of terms. U.S. Term Limits, Inc. v. Thornton, 514 U.S. at 784. A plurality of the Arkansas Supreme Court found that the provision pertaining to congressional candidates violated the Qualifications Clauses of the U.S. Constitution, Art. I, § 2, cl. 2 and § 3, cl. 3, which set forth the sole requirements for election to Congress.

A five-Justice majority of the U.S. Supreme Court affirmed, holding that "[a]llowing individual States to adopt their own qualifications for congressional service would be inconsistent with the Framers' vision of a uniform National Legislature representing the people of the United States," and invalidating the Arkansas enactment. Thornton, 514 U.S. at 783 (Stevens, J.). The majority discussed the Elections Clause in two contexts: first, to bolster its conclusion that the power to add qualifications was not a power reserved to the states, and, later in the opinion, to rebut the petitioner's argument that the Elections Clause permitted the Arkansas enactment as simply a regulation of the "manner" of conducting elections.

Expanding on its conclusion that "the power to add qualifications is not part of the original powers of sovereignty that the Tenth Amendment reserved to the States" because no national government had existed prior to the Constitution, id. at 802, the majority looked to the Elections Clause as an example of "the Framers' understanding that powers over the election of federal officers had to be delegated to, rather than reserved by, the States." Id. at 804. Thus, the Elections Clause, which required that "[t]he Times, Places and Manner of holding Elections for Senators and Representatives… be prescribed in each State by the Legislature thereof," Art. I, § 4, cl. 1, was an "express delegation[] of power to the States to act with respect to federal elections." Id. at 805. The majority went on to discuss the Framers' "evident concern that States would try to undermine the National Government," which it sought to address, among other ways, by enacting the Elections Clause. Id. at 810. According to the majority, the Elections

Clause was at once a delegation of power and a safeguard against abuses of power by states in conducting national elections; although the Elections Clause "g[ave] the States the freedom to regulate the 'Times, Places and Manner of holding Elections,' the Framers created a safeguard against state abuse by giving Congress the power to 'by Law make or alter such Regulations.'" Id. at 808. Examining debates at the Constitutional Convention and the Federalist Papers, the majority concluded that "the Framers' overriding concern was the potential for States' abuse of the power to set the 'Times, Places and Manner' of elections." Id. at 808–09. Alexander Hamilton, for instance, in Federalist 59, wrote that "[n]othing can be more evident than that an exclusive power of regulating elections for the national government, in the hands of the State legislatures, would leave the existence of the Union entirely at their mercy." Id. at 809 (quoting Federalist 59 at 363).

The majority returned to the Elections Clause later in its opinion when it addressed, and quickly dispensed with, petitioners' argument that the Elections Clause permitted the Arkansas enactment as simply a regulation of the "manner" of conducting elections. Id. at 832. Discussing convention and ratification debates, the majority asserted that the Framers "intended the Elections Clause to grant States authority to create procedural regulations, not to provide States with license to exclude classes of candidates from federal office." Id. at 832–33. The majority noted Madison's statement that the Elections Clause applied to "[w]hether the electors should vote by ballot or vivâ voce, should assemble at this place or that place; should be divided into districts or all meet at one place, sh[oul]d all vote for all the representatives; or all in a district vote for a number allotted to the district." Id. at 833 (alterations original) (quoting Records of the Federal Convention of 1787 at 240 (M. Farrand ed. 1911)). It also quoted a statement from the North Carolina Ratifying Convention to the effect that "[t]he power over the

manner only enables them to determine how these electors shall elect—whether by ballot, or by vote, or by any other way." Id. at 833.

Thus, according to the majority, "the Framers understood the Elections Clause as a grant of authority to issue procedural regulations, and not as a source of power to dictate electoral outcomes, to favor or disfavor a class of candidates, or to evade important constitutional restraints." Id. at 833–34. Such an understanding was also consistent with Supreme Court precedent: the Elections Clause "gives States authority "to enact the numerous requirements as to procedure and safeguards which experience shows are necessary in order to enforce the fundamental right involved." Id. at 834 (quoting Smiley v. Holm, 285 U.S. 355, 366 (1932)). It continued:

> However, [t]he power to regulate the time, place, and manner of elections does not justify, without more, the abridgment of fundamental rights." States are thus entitled to adopt "generally applicable and evenhanded restrictions that protect the integrity and reliability of the electoral process itself. For example, in Storer v. Brown… we emphasized the States' interest in having orderly, fair, and honest elections rather than chaos. We also recognized the States' strong interest in maintaining the integrity of the political process by preventing interparty raiding, and explained that the specific requirements applicable to independents were expressive of a general state policy aimed at maintaining the integrity of the various routes to the ballot. In other cases, we have approved the States' interests in avoiding voter confusion, ballot overcrowding, or the presence of frivolous candidacies, in seeking to assure that elections are operated equitably and efficiently and in guard[ing] against irregularity and error in the tabulation of votes. In short, we have approved of state regulations designed to ensure that elections are fair and honest and ... [that] some sort of order, rather than chaos, ... accompan[ies] the democratic processes.'

Id. at 834–35 (internal quotations and citations omitted). Thus, the provisions upheld in prior Elections Clause cases were constitutional because "they regulated election procedures and …

served the state interest in protecting the integrity and regularity of the election process" and did not impose substantive qualifications or disfavor a class of candidates. Id. at 835.

Justice Kennedy, who had joined the majority opinion and provided its fifth vote, mentioned the Elections Clause only in passing in his separate concurrence.

Four justices dissented, on the grounds that "nothing in the Constitution deprives the people of each State of the power to prescribe eligibility requirements for the candidates who seek to represent them in Congress" and that because the Constitution was silent on that point, the power was reserved to the states. The dissent read the Elections Clause as being consistent with that power. U.S. Term Limits, Inc. v. Thornton, 514 U.S. 779, 845 (1995) (Thomas, J., dissenting).

3. Cook v. Gralike, 531 U.S. 510 (2001)

In response to the Supreme Court's decision in Thornton, which had left open the possibility of amending the Qualifications Clause, Missouri voters adopted an amendment to the Missouri state constitution "'instruct[ing]' each Member of Missouri's congressional delegation 'to use all of his or her delegated powers to pass the Congressional Term Limits Amendment'" to the U.S. Constitution. Cook v. Gralike, 531 U.S. 510, 514 (2001) (quoting Mo. Const., Art. VIII, § 17(1)). It also specified that ballots for Congress were to be marked with statements regarding the views and actions of the candidates with respect to term limits: the words "DISREGARDED VOTERS' INSTRUCTION ON TERM LIMITS" were to be printed next to the names of Senators and Representatives who failed to take one of eight legislative actions in favor of the federal term limits amendment, while the names of non-incumbents who did not pledge to perform those acts were to be accompanied by the words "DECLINED TO PLEDGE TO SUPPORT TERM LIMITS." Id. at 514–15. A non-incumbent candidate challenged this enactment, and both the district court and the Eighth Circuit held this enactment unconstitutional.

The Supreme Court affirmed. The majority opinion, authored by Justice Stevens, held that the Missouri enactment was not a permissible "exercise of the right of the people to instruct their representatives reserved by the Tenth Amendment," nor was it a permissible regulation of the "manner" of elections pursuant to the Elections Clause. Id. at 518.

Following the majority opinion in Thornton, seven justices reasoned that "regulat[ing] election to [congressional] offices could not precede their very creation by the Constitution" and therefore was not a reserved power. Id. at 522. Because no other constitutional provision besides the Elections Clause granted states authority to regulate congressional elections, "States may regulate the incidents of such elections, including balloting, only within the exclusive delegation of power under the Elections Clause." Id. at 523.

The Court then turned to the Elections Clause itself, reiterating the holding of Thornton and prior cases that "the Elections Clause grants to the States broad power to prescribe the procedural mechanisms for holding congressional elections" but was not a "'source of power to dictate electoral outcomes, to favor or disfavor a class of candidates, or to evade important constitutional restraints.'" Id. (quoting Thornton, 514 U.S. at 833–34). The ballot labels at issue did not constitute procedural regulations of time, place, or manner, in the majority's view; they "b[ore] no relation to the "manner" of elections … for in our commonsense view that term encompasses matters like 'notices, registration, supervision of voting, protection of voters, prevention of fraud and corrupt practices, counting of votes, duties of inspectors and canvassers, and making and publication of election returns.'" Id. at 523–24 (quoting Smiley, 285 U.S. at 366). Because the Missouri enactment was "plainly designed to favor candidates who are willing to support the particular form of a term limits amendment…and to disfavor those who

either oppose term limits entirely or would prefer a different proposal," the ballot labels it mandated were not authorized by the Elections Clause.

Justice Kennedy joined the majority opinion, but authored a separate concurrence in which he discussed his view that the ability of citizens to elect representatives of Congress was incident to federal citizenship. Cook v. Gralike, 531 U.S. 510, 527–30 (2001) (Kennedy, J., concurring). Because the Elections Clause allowed only "neutral provisions as to the time, place, and manner of elections," id. at 527, "[n]either the design of the Constitution nor sound principles of representative government are consistent with the right or power of a State to interfere with the direct line of accountability between the National Legislature and the people who elect it." Id. at 528.

Justice Thomas joined the portion of the majority opinion discussing the Elections Clause, but authored a separate concurrence in which he repeated his prior assertion from Thornton that states could add qualifications to serving in Congress incident to their reserved powers, but acknowledged that the parties had accepted the proposition that states did not have authority to regulate elections except as delegated by the constitution. Cook v. Gralike, 531 U.S. 510, 530 (2001) (Thomas, J., concurring). Two other justices concurred in the judgment only, stating that the ballot labels violated the First Amendment. Cook v. Gralike, 531 U.S. 510, 530–31 (2001) (Rehnquist, J., concurring).

4. Arizona State Legislature v. Arizona Indep. Redistricting Comm'n, 135 S. Ct. 2652 (2015)

In Arizona State Legislature v. Arizona Indep. Redistricting Comm'n, the Supreme Court considered a ballot initiative intended to end partisan gerrymandering by establishing an independent redistricting body to draw congressional districts. 135 S. Ct. 2652 (2015). The state legislature filed suit, asserting that the new procedure violated the text of the Elections Clause,

which states in relevant part: "The Times, Places and Manner of holding Elections for Senators and Representatives, shall be prescribed in each State by the Legislature thereof." U.S. Const. Art. I, § 4, cl. 1 (emphasis added). At issue in Arizona State Legislature was what constituted the "Legislature" for purposes of the Elections Clause. In its complaint, the state legislature alleged that "[t]he word 'Legislature' in the Elections Clause means [specifically and only] the representative body which makes the laws of the people," rendering the redistricting commission unconstitutional. Arizona State Legislature, 135 S. Ct. 2652, 2659 (2015) (alteration original). The redistricting commission responded that the term "Legislature" in the Elections Clause included all sources of legislative power conferred by the Arizona state constitution, which included initiatives adopted by voters. Id. A three-judge panel of the district court found that the state legislature had standing, but dismissed the complaint.

A five-justice majority affirmed, holding that the state legislature had standing to sue and the Arizona Independent Commission did not violate the Elections Clause. Reviewing prior Elections Clause cases, the majority held that "redistricting is a legislative function, to be performed in accordance with the State's prescriptions for lawmaking, which may include the referendum and the Governor's veto." Arizona State Legislature, 135 S. Ct. at 2668. Because eighteenth-century dictionaries defined "legislature" as "the power that makes laws" and the people of Arizona had the power to make laws by initiative under the Arizona constitution, the majority reasoned that redistricting through a commission created by ballot initiative did not violate the Elections Clause. Id. at 2671.

The majority engaged in some historical discussion of the adoption of the Elections Clause, whose "dominant purpose" at the time of the Founding "was to empower Congress to override state election rules, not to restrict the way States enact legislation." Id. at 2672.

Examining convention and ratification debates, the majority argued that it "was also intended to act as a safeguard against manipulation of electoral rules by politicians and factions in the States to entrench themselves or place their interests over those of the electorate." Id. The majority noted Madison's statement at the Constitutional Convention—made in response to a motion by delegates from South Carolina, who had apportioned their state legislature in favor of the coastal elite—that "[w]henever the State Legislatures had a favorite measure to carry, they would take care so to mould their regulations as to favor the candidates they wished to succeed." Id. (quoting 2 Records of the Federal Convention 241 (M. Farrand rev. 1966)).

Similarly, statements made at the Massachusetts ratifying convention bolstered the majority's view, including Theophilus Parsons' warning that a state legislature could make "an unequal and partial division of the states into districts for the election of representatives," as well as statements warning of the potential for abuse of power by state legislatures. Id. (quoting Debate in Massachusetts Ratifying Convention (16–17, 21 Jan. 1788), in 2 The Founders' Constitution 256 (P. Kurland & R. Lerner eds. 1987)). Thus, the Framers focused their attention on "potential abuses by state-level politicians, and the consequent need for congressional oversight." Id.

Ultimately, the majority concluded that the Elections Clause was

> in line with the fundamental premise that all political power flows from the people…The people of Arizona turned to the initiative to curb the practice of gerrymandering and, thereby, to ensure that Members of Congress would have "an habitual recollection of their dependence on the people." The Federalist No. 57, at 350 (J. Madison). In so acting, Arizona voters sought to restore the core principle of republican government, namely, that the voters should choose their representatives, not the other way around. The Elections Clause does not hinder that endeavor.

Id. at 2677.

Four dissenting justices disagreed with such an expansive reading of the word "legislature," arguing that "[u]nder the Elections Clause, 'the Legislature' is a representative body that, when it prescribes election regulations, may be required to do so within the ordinary lawmaking process, but may not be cut out of that process." Arizona State Legislature v. Arizona Indep. Redistricting Comm'n, 135 S. Ct. 2652, 2687 (2015) (Roberts, J., dissenting). Justices Thomas and Scalia joined Justice Roberts' dissent, but wrote separately to emphasize additional issues.

In summary, the history of the Elections Clause and the United States Supreme Court decisions, discussed above, establish that there are substantive restrictions on states when they determine the "manner" of apportioning voters into congressional districts.

IX. Standing

To demonstrate a case or controversy, a party must demonstrate standing, which in turn has three familiar prerequisites: (1) concrete and particularized, actual or imminent "injury in fact"; (2) causation; and (3) redressability. Lujan v. Defs. Of Wildlife, 504 U.S. 555, 560-61 (1992). A "generally available grievance about government" does not suffice to confer standing. Id. at 573.

When a voter demonstrates that his or her congressional district has been gerrymandered, has the voter not already suffered enough?

Because the 2010 United States census required Pennsylvania to lose one of its congressional seats, it was necessary for the Pennsylvania legislature to redistrict. The legislature had substantial discretion about how to go about this process—as long as it did not violate the constitutional rights of voters, Rutan, supra.

The legislature likely could not have limited the redistricting to just a few districts. Given prior Pennsylvania experience with the "one-person, one-vote" rule, and the need to have

near perfect equalization of population among all congressional districts in Pennsylvania, redistricting efforts would certainly impact all congressional districts.

Pennsylvania is the "Keystone State." Because individual congressional districts must be equally populated, each congressional district is like a "keystone." The reduction of one seat in Congress causes removal of a "keystone." The legislature then has to develop a reasonable redistricting for the entire state so that each "keystone" will be replaced and all districts will be in balance.

A. Injury

Proving injury in the context of a violation of the Election Clause is not a monetary issue. No Plaintiff has lost anything of tangible pecuniary value. The injury from gerrymandering is an inchoate injury, which will be suffered over a period of time. Substantive rules about "injury" as of a specific point in time, as in the usual case, are not valid.

The harms of gerrymandering have been discussed at length elsewhere in this opinion. That gerrymandering perverts the political process in a broad sense—for instance, by suppressing turnout—does not rob it of the capacity to inflict concrete and particularized harms on individual voters. The essence of gerrymandering is that districts have been constructed or manipulated with an eye not to neutral concepts but to the makeup of the electorate. This, in turn, reflects choices about whose votes are allowed to matter, and whose votes are made insignificant. The Supreme Court has allowed standing where voters assert that their votes were diluted in importance as a result of the drawing of district lines. Baker v. Carr, 369 U.S. 186, 207-08 (1962).[9]

[9] Distinguishing Baker v. Carr, the Supreme Court denied standing in an Elections Clause case for lack of particularized harm where the plaintiffs alleged only that proper redistricting procedures were not followed. Lance v. Coffman, 549 U.S. 437, 442 (2007).

Although the trial record is replete with references to vote dilution and the difficulties of engaging politically given Pennsylvania's gerrymandered reality, the law does not require that any individual plaintiff must necessarily show additional personal injury beyond gerrymandering itself, much less say magic words at trial. Many plaintiffs have no real concept of their injuries, in cases involving antitrust, medical malpractice, product liability, etc. Many plaintiffs have to rely on testimony of economists, physicians or engineers they have retained to satisfy the requirement of injury.

However, if Plaintiffs were legally required to show individualized injury through their own testimony, they did so. Judge Shwartz has reviewed the testimony and prepared a concise summary of the injury described by every plaintiff, including Plaintiff Kellerman, whose deposition transcript was added to the record recently.

As to Plaintiff Turnage, she did not testify with the same specificity as the other plaintiffs as to her own subjective feelings about injury. She admitted that her district was not as "gerrymandered" as others. (Turnage Dep. 48) Ms. Turnage can rely on other plaintiffs' witnesses' testimony about the nature of the 2011 redistricting, across Pennsylvania, which established that all Pennsylvania voters, including residents of the Fourth Congressional District, were injured. She made very clear her belief that the redistricting of Pennsylvania was not fair:

> Q. What would the political makeup composition of a fair district be, in your opinion?
>
> A. A fair district wouldn't depend on the political makeup of the district.
>
> Q. What would it depend on?
>
> A. On where the communities are, geographic boundaries, natural boundaries.

(Id. 49)

When asked specifically whether she had been harmed as to her district, she testified as follows:

> A. Let me get my wording here. I can't know without having the information basically that the district people have, that the redistricting committee has, I can't really say because I'm not sure how things might change if districting was done differently.
>
> Q. If you were to draw the map, how would you draw it fairly?
>
> A. I would not have legislators doing it. I would have people represented from different political affiliations.
>
> Q. Non-legislators do you mean?
>
> A. Yes.

(Id. 52)

Ms. Turnage was cautious about stating facts and opinions. However, it is clear that she objected to the 2011 map as not being "fair." As a voter, that is enough.

The second and third standing requirements present no hurdle: Plaintiffs have shown that the 2011 map caused the harms they allege, and that those harms could be redressed through the creation of a new map.

B. District-by-District Injury-in-Fact Requirements

In order to have standing to challenge a racial gerrymander, a plaintiff must reside in the district she seeks to challenge. See United States v. Hays, 515 U.S. 737 (1995). Although the Supreme Court has not specifically addressed this issue in the context of partisan gerrymandering, in Vieth v. Jubelirer, Justice Stevens distinguished in his dissenting opinion between statewide and district-by-district challenges. 541 U.S. 267, 327–28 (2004). More specifically, Justice Stevens wrote that while the specific injured voter in Vieth should have standing to challenge her specific district, she should not have standing to challenge the redistricting scheme on a statewide basis. Id.

Although it did not involve exactly the same context, Whittman v. Personhuballah, 136 S. Ct. 1732 (2016) implicated some of the same standing issues. It was a racial gerrymandering case that also involved incumbent congressional candidates who had been moved out of their prior districts. Ultimately, the Supreme Court dismissed the appeal for lack of standing because the incumbents did not live in or represent the challenged districts.

Notably, a few months ago, the three-judge panel in Ala. Legis. Black Caucus v. Alabama, 12-cv-691, 2017 WL 4563868, at *5 (M.D. Ala. Oct. 12, 2017) decided to apply Hays in the partisan gerrymandering context because both forms of gerrymandering have "the effect of muting the voices of certain voters within a given district."

Vieth provides no guidance on the issue of district-by-district standing in the context of political gerrymandering, as the four-judge plurality made no findings on standing at all, and only Justice Stevens specifically addressed the idea of district-by-district standing. One is left to guess as to what the Justices will require in terms of district-by-district standing. Nonetheless, given the Court's prior jurisprudence, it appears likely that the Supreme Court requires an injured plaintiff from each challenged district in order to confer district-by-district standing.

C. Statewide Challenge Injury-in-Fact Requirements

Justice Stevens wrote in his Vieth dissent that "racial and political gerrymanders are species of the same constitutional concern [such that] the Hays standing rule"—requiring a plaintiff to reside in each state district—should apply to statewide partisan gerrymandering challenges. Id. Justice Souter (joined by Justice Ginsburg) made similar contentions in a separate Vieth dissent. Id. at 353, 350 ("I would limit consideration of a statewide claim to one built upon a number of district-specific ones"; "[P]laintiff would have to show that the defendants acted intentionally to manipulate the shape of [her] district.").

Thus, all three Justices suggested they would require an injured plaintiff from each state district in order to confer standing for a statewide challenge. The other six Justices, as discussed above, made no findings as to whether the plaintiffs had standing, instead discussing the standard (or lack thereof) used in assessing the merits of such cases.

However, in Whitford v. Gill, 218 F.Supp.2d 837 (W.D. Wis. 2016) (pending Supreme Court review) a three-judge panel held that a plaintiff could have standing to challenge a statewide districting scheme for political gerrymandering. This is a central question in the case, and one on which several Justices focused at the Court's oral argument.

In sum, there is no controlling precedent on the issue of whether an individual plaintiff has standing to lodge a statewide political gerrymandering challenge. In fact, most of the current justices on the Supreme Court have not taken a position on this issue.

D. Conclusion Re Standing and Injury

As discussed below, I limited my findings in favor of Plaintiffs as to five separate Congressional Districts. Although I would conclude that there is standing for a statewide challenge as a matter of law, I believe there is no issue as to the standing of the five plaintiffs in this case to assert that their rights under the Elections Clause were violated in this case, and there is no issue from the testimony of the five plaintiffs from these five districts, that they satisfied any requirement of "injury," as follows:

District No.	
6	Reagan Hauer
7	Jason Magidson
10	Edwin Gragert
11	Virginia Mazzei
15	Jean Shenk

X. Privileges or Immunities Clause of the Fourteenth Amendment and Relationship to This Case

The Privileges or Immunities Clause of the Fourteenth Amendment[10] states: "No State shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States . . . ." U.S. Const. Am. XIV § 1, Cl. 2.

Plaintiffs allege that Defendants violated their rights under the Privileges or Immunities Clause by implementing a redistricting plan that exceeded the scope of their authority under the Elections Clause. However, Plaintiffs acknowledge that there is little precedent interpreting the Privileges or Immunities Clause. In fact, only four cases exist in which the Supreme Court's majority opinion relied on the Privileges or Immunities Clause of the Fourteenth Amendment: The Slaughter-House Cases, 83 U.S. 36 (1873), Colgate v. Harvey, 296 U.S. 404 (1935), Madden v. Commonwealth of Kentucky, 309 U.S. 83 (1940), and Saenz v. Roe, 526 U.S. 489 (1999).

A. The Slaughter-House Cases, 83 U.S. 36 (1873)

The Slaughter-House Cases involved a constitutional challenge by several butchers to a Louisiana public health law that: incorporated a business, provided that business with a monopoly on the issuance of permits to slaughter animals for food, and specified localities in which slaughtering would be permitted. The Supreme Court, in a 5-4 decision, held there was no violation of the Privileges or Immunities Clause of the Fourteenth Amendment because the labor rights cited by the butchers were not rights granted to them by virtue of their United States citizenship, but rather rights that the butchers had by virtue of their state citizenship. In the

[10] Not to be confused with the Privileges **and** Immunities Clause, U.S. Const. Article IV, § 2, cl. 1, which was part of the original Constitution, the Privileges **or** Immunities Clause, U.S. Const. Am. XIV, § 1, cl. 2, was added as part of the Fourteenth Amendment in 1868.

majority opinion, Justice Miller construed the text of the Clause as protecting only rights conferred by federal, rather than state, citizenship:

> Having shown that the privileges and immunities relied on in the argument are those which belong to citizens of the States as such, and that they are left to the State governments for security and protection, and not by this article placed under the special care of the Federal government, we may hold ourselves excused from defining the privileges and immunities of citizens of the United States which no State can abridge, until some case involving those privileges may make it necessary to do so.
>
> But lest it should be said that no such privileges and immunities are to be found if those we have been considering are excluded, we venture to suggest some which own their existence to the Federal government, its National character, its Constitution, or its laws. . . .

83 U.S. at 78–79.

The Court then went on to provide several examples of rights that are protected under the Privileges or Immunities Clause, based on cases in other courts. These "privileges or immunities" protected by virtue of national citizenship include the rights:

> "[T]o come to the seat of government to assert any claim he may have upon that government, to transact any business he may have with it, to seek its protection, to share its offices, to engage in administering its functions";
>
> to "free access to its seaports . . . to the subtreasuries, land offices, and courts of justice in the several states" ;
>
> "to demand the care and protection of the Federal government over his life, liberty, and property when on the high seas or within the jurisdiction of a foreign government";
>
> "to peaceably assemble and petition for redress of grievances, the privilege of the writ of *habeas corpus*";
>
> "to use navigable waters of the united States, however they may penetrate the territory of the several States";
>
> those "rights secured to our citizens by treaties with foreign nations";
>
> to "become a citizen of any State of the Union by a *bona fide* residence therein";

> those "rights secured by the thirteenth and fifteenth articles of amendment, and by the other clause of the fourteenth [equal protection]."

Id. at 79–80.

B. Colgate v. Harvey, 296 U.S. 404 (1935)

In Colgate v. Harvey, the plaintiff challenged a Vermont tax statute on Equal Protection and Privileges or Immunities Clause ground. The act, among other things, provided disparate tax treatment to money loaned within the state versus money loaned outside the state. 296 U.S. 404 (1935). The Court first held that the Privileges or Immunities Clause was implicated because, "the right of a citizen of the United States to . . . make a lawful loan of money in any state other than that in which the citizen resides is a privilege [] attributable to his national citizenship." Id. at 430. The Court went on to describe the purpose of the Clause as "requir[ing] each state to accord equality of treatment to the citizens of other states in respect of the privileges and immunities of state citizenship." Id. at 431. The Court then concluded that the tax act violated the Clause: "[I]t well cannot be doubted that legislation of one state denying the privilege or taxing the transaction when it occurs in another state, while leaving the transaction wholly free from taxation when it takes place in the former state, would abridge that privilege of citizenship." Id. at 432.

C. Madden v. Commonwealth of Kentucky, 309 U.S. 83 (1940)

In Madden v. Commonwealth of Kentucky, Supreme Court took up the question of whether a state statute which imposed on its citizens an annual ad valorem tax on their deposits in banks within Kentucky at a rate of ten cents per hundred dollars, and outside of the state at a rate of fifty cents per hundred dollars, violated the Privileges or Immunities Clause. 309 U.S. 83, 86 (1940) (emphasis added). Plaintiff claimed that his "right to carry on business beyond the lines of the State of his residence," a right he contended pertained to his "national citizenship,"

was abridged in violation of the Privileges or Immunities Clause. Id. at 90. The Court overruled Colgate, concluding as follows:

> This Court declared in the Slaughter-House Cases that the Fourteenth Amendment as well as the Thirteenth and Fifteenth were adopted to protect the negroes in their freedom. This almost contemporaneous interpretation extended the benefits of the privileges and immunities clause to other rights which are inherent in national citizenship but denied it to those which spring from state citizenship. . . . The Court has consistently refused to list completely the rights which are covered by the clause, though it has pointed out the type of rights protected. *We think it quite clear that the right to carry out an incident to a trade, business or calling such as the deposit of money in banks is not a privilege of national citizenship.*

Id. at 91–93 (emphasis added).

By overruling Colgate, Madden appeared to complete what Slaughter-House had begun: the gutting of the Privileges or Immunities Clause to render it largely insignificant. From 1940 to 1999, no majority opinion at the Supreme Court relied on the Privileges or Immunities Clause, and litigants could point to no Supreme Court decision to assert a federal right under the Clause. Then, in Saenz v. Roe, the Supreme Court breathed new life into the Privileges or Immunities Clause.

D. Saenz v. Roe, 526 U.S. 489 (1999)

Saenz currently stands as the only Supreme Court case that remains good law, which found a federal right protected under the Privileges or Immunities Clause.

In Saenz, the Court considered the constitutionality of a California statute limiting the welfare benefits of state residents, for the first year they live in California, to the benefits they would have received in the state of their prior residence. 526 U.S. 489 (1999). Because California typically provided more generous benefits to needy families than other states, the statute was passed as a mechanism for preserving state resources. However, it was challenged on the ground that it created disparities between newcomers and those residing in the state for

more than one year, in violation of the Fourteenth Amendment's Naturalization Clause and Privileges or Immunities Clause.

The Supreme Court held that the "constitutional right to travel from one State to another" is firmly embedded in jurisprudence, and, because it is a right incident to federal citizenship, it is protected by the Privileges or Immunities Clause. Id. at 498. The Court then determined that California's classification of its welfare-eligible population by residency duration was justified by the purpose for the statute. The Court ultimately found,

> these classifications may not be justified by a purpose to deter welfare applicants from migrating to California . . . although it is reasonable to assume that some persons may be motivated to move for the purpose of obtaining higher benefits, the empirical evidence reviewed by the District Judge . . . indicates that the number of such persons is quite small—surely not large enough to justify a burden on those who had no such motive.

Id. at 506.[11]

When Saenz held in 1999 that a federal right to travel was protected by the Fourteenth Amendment's Privileges or Immunities Clause, it opened the door to litigants seeking protection under the Clause of other constitutionally protected rights. Thus, this Court looks to Saenz as a guidepost for determining whether a constitutionally-protected right, in this case the right to vote, has been infringed. See also McDonald v. City of Chicago, 561 U.S. 742, 805–858 (2010) (Thomas, J., concurring).

XI. Burden of Proof – Clear and Convincing Evidence

The burden of proof in this case on the plaintiffs should be clear and convincing evidence. Adopting a heightened burden of proof such as "clear and convincing evidence" is

[11] Note that the Supreme Court engaged in a form of balancing test, although it did not state that it was doing so (or explicitly lay out a step-by-step process). First, it determined whether the allegedly infringed right was constitutionally-protected. Second, it determined whether the right was federal in character. Third, it determined whether the state's infringement on the right was justified.

appropriate and defensible. If "mere preponderance" were the test, a judge would be able to upset a state legislature's determination as to congressional districts merely upon finding the evidence to support plaintiffs at 50.1% versus 49.9% for defendants. This would render judges very powerful on a very thin margin. Unelected federal judges must be modest in asserting our power. A decision for plaintiffs should require something more than 50.1% evidentiary support before creating a "political earthquake" in requiring redistricting. If the clear and convincing test were adopted, a court would necessarily engage in a more searching analysis of the evidence propounded by the plaintiffs, thereby reducing the margin of error, and ensuring that decisions requiring redistricting rely on substantially more or "better" evidence than under the "preponderance" test.

The common law tradition of using preponderance as the appropriate test in most civil cases is wise. However, on a topic as sensitive as reapportionment, a higher burden of proof is justifiable, and would increase respect for the judicial decision, where the court has potential to apply a strong exercise of judicial power. Voiding a legislatively determined congressional district is much more intrusive, however defensible, than most judicial rulings, which usually only affect disputes between private parties, or disputes between an individual and the government. In a redistricting case, a judge is requiring a co-equal branch of government—the state legislature—to "do over" an apportionment of voters into congressional districts achieved through duly enacted legislation. This is much more serious business than other judicial adjudications.

While the concept of burden of proof at one time existed along a continuum,[12] U.S. law has apparently settled on three distinct formulations: preponderance of the evidence being the lowest, clear and convincing evidence in the middle, and beyond a reasonable doubt the highest standard. See Addington v. Texas, 441 U.S. 418, 423 (1979) ("Generally speaking, the evolution of this area of the law has produced across a continuum three standards or levels of proof for different types of cases.") The intermediate category, often articulated as "clear and convincing," is arguably the most versatile, both in terms of its formulation and meaning, and in terms of when it is applied. On the first point, courts have articulated this intermediate standard in various manners[13]; courts also differ in how they define it.[14] On the second point, while "preponderance of the evidence" is the default burden in civil litigation, and "beyond a reasonable doubt" is the constitutionally required standard in criminal matters,[15] "clear and convincing" has been applied in various areas of the law in a somewhat piecemeal manner over time.[16]

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[12] One publication cites to an 1826 treatise to make this point: "Even the most direct evidence can produce nothing more than such a high degree of probability as amounts to moral certainty. From the highest degree, it may decline by an infinite number of gradations, until it produce in the mind nothing more than a mere preponderance of assent in favour of the particular fact." Kevin M. Clermont, Procedure's Magical Number Three: Psychological Bases for Standards of Decision, 72 Cornell L. Rev. 1115, 1120 n. 20 (1986-87) (quoting T. Starkie, A Practical Treatise on the Law of Evidence 449 (Boston 1826)).

[13] "The intermediate standard [] usually employs some combination of the words "clear," 'cogent,' 'unequivocal,' and 'convincing.'" Addington, 441 U.S. at 424.

[14] See, e.g., City of Gadsden v. Scott, 61 So. 3d 296, 301 (Ala. Civ. App. 2010) ("[F]irm conviction as to each essential element of the claim and a high probability as to the correctness."); Reid v. Estate of Sonder, 63 So. 3d 7, 10 (Fla. Dist. Ct. App. 3d Dist. 2011) ("[O]f such weight that it produces in the mind of the trier of fact a firm belief or conviction, without hesitancy" of the truth of the matter); In re D.W., 791 N.W.2d 703, 706 (Iowa 2010) ("[N]o serious or substantial doubts as to the correctness" of the conclusions drawn from the evidence).

[15] In re Winship, 397 U.S. 358 (1970).

[16] See, e. g., Woodby v. INS, 385 U.S. 276, (deportation); Chaunt v. United States, 364 U.S. 350 (1960) (denaturalization); Addington v. Texas, 441 U.S. 418 (1979) (civil commitment).

The Supreme Court has discussed the unifying theory of justification for these applications: "not only does the standard of proof reflect the importance of a particular adjudication, it also serves as 'a societal judgment about how the risk of error should be distributed between the litigants.'" Cruzan by Cruzan v. Dir., Missouri Dep't of Health, 497 U.S. 261, 283 (1990) (quoting Santosky v. Kramer, 455 U.S. 745, 755 (1982))

The Supreme Court has multiple times discussed the reasoning behind applying the "clear and convincing" standard. In Addington v. Texas, 441 U.S. 418 (1979), which set the floor for the burden of proof required in a state civil commitment proceeding at "clear and convincing," the Court reviewed areas of law which have employed this standard:

> The intermediate standard, which usually employs some combination of the words "clear," "cogent," "unequivocal," and "convincing," is less commonly used, but nonetheless "is no stranger to the civil law." Woodby v. INS, 385 U.S. 276, 285 (1966). See also McCormick, Evidence § 320 (1954); 9 J. Wigmore, Evidence § 2498 (3d ed. 1940). One typical use of the standard is in civil cases involving allegations of fraud or some other quasi-criminal wrongdoing by the defendant. The interests at stake in those cases are deemed to be more substantial than mere loss of money and some jurisdictions accordingly reduce the risk to the defendant of having his reputation tarnished erroneously by increasing the plaintiff's burden of proof. Similarly, this Court has used the "clear, unequivocal and convincing" standard of proof to protect particularly important individual interests in various civil cases. See, e.g., Woodby v. INS, 385 U.S. at 285, (deportation); Chaunt v. United States, 364 U.S. 350 (1960) (denaturalization); Schneiderman v. United States, 320 U.S. 118 (1943) (denaturalization)."

Addington, 441 U.S. at 423–24. The Court went on to apply the reasoning behind the "clear and convincing" standard to the rights at stake in a civil commitment proceeding:

> In considering what standard should govern in a civil commitment proceeding, we must assess both the extent of the individual's interest in not being involuntarily confined indefinitely and the state's interest in committing the emotionally disturbed under a particular standard of proof. Moreover, we must be mindful that

> the function of legal process is to minimize the risk of erroneous decisions… This Court repeatedly has recognized that civil commitment for any purpose constitutes a significant deprivation of liberty that requires due process protection. Moreover, it is indisputable that involuntary commitment to a mental hospital after a finding of probable dangerousness to self or others can engender adverse social consequences to the individual…
>
> The state has a legitimate interest under its parens patriae powers in providing care to its citizens who are unable because of emotional disorders to care for themselves; the state also has authority under its police power to protect the community from the dangerous tendencies of some who are mentally ill. Under the Texas Mental Health Code, however, the State has no interest in confining individuals involuntarily if they are not mentally ill or if they do not pose some danger to themselves or others… The individual should not be asked to share equally with society the risk of error when the possible injury to the individual is significantly greater than any possible harm to the state.

Addington, 441 U.S. at 425–27 (internal citations and quotations omitted). Ultimately, the Court concluded that "clear and convincing" "strikes a fair balance between the rights of the individual and the legitimate concerns of the state." Id. at 431.

In Santosky v. Kramer the Court held the Constitution mandates, at a minimum, that courts employ a "clear and convincing" standard in parental rights termination proceedings. In reaching this conclusion, the Court expanded on its analysis from Addington:

> Like civil commitment hearings, termination proceedings often require the factfinder to evaluate medical and psychiatric testimony, and to decide issues difficult to prove to a level of absolute certainty, such as lack of parental motive, absence of affection between parent and child, and failure of parental foresight and progress. The substantive standards applied vary from State to State. Although Congress found a "beyond a reasonable doubt" standard proper in one type of parental rights termination case, another legislative body might well conclude that a reasonable-doubt standard would erect an unreasonable barrier to state efforts to free permanently neglected children for adoption.

Santosky v. Kramer, 455 U.S. 745, 769 (1982) (internal citations and quotations omitted). In light of the competing evidentiary interests and demands, the "clear and convincing evidence"

standard "adequately conveys to the factfinder the level of subjective certainty about his factual conclusions necessary to satisfy due process." Id.

In Cruzan by Cruzan v. Director, Missouri Dept. of Health, the Court held that the Constitution does not prevent a state from applying a "clear and convincing" burden of proof in evaluating an incompetent person's desire to end life-sustaining medical treatment. 497 U.S. 261 (1990). The Court carefully considered the typical justifications for application of the "clear and convincing" standard, as applied to the facts at hand:

> The function of a standard of proof, as that concept is embodied in the Due Process Clause and in the realm of factfinding, is to 'instruct the factfinder concerning the degree of confidence our society thinks he should have in the correctness of factual conclusions for a particular type of adjudication." Addington v. Texas, 441 U.S. 418, 423 (1979) (quoting In re Winship, 397 U.S. 358, 370 (1970) (Harlan, J., concurring)). "This Court has mandated an intermediate standard of proof—'clear and convincing evidence'—when the individual interests at stake in a state proceeding are both 'particularly important' and 'more substantial than mere loss of money.'" Santosky v. Kramer, 455 U.S. 745, 756 (1982) (quoting Addington, 441 U.S. at 424).
>
> We think it self-evident that the interests at stake in the instant proceedings are more substantial, both on an individual and societal level, than those involved in a run-of-the-mine civil dispute. But not only does the standard of proof reflect the importance of a particular adjudication, it also serves as "a societal judgment about how the risk of error should be distributed between the litigants." Santosky, 455 U.S. at 755; Addington, 441 U.S. at 423. The more stringent the burden of proof a party must bear, the more that party bears the risk of an erroneous decision. We believe that Missouri may permissibly place an increased risk of an erroneous decision on those seeking to terminate an incompetent individual's life-sustaining treatment. An erroneous decision not to terminate results in a maintenance of the status quo; the possibility of subsequent developments such as advancements in medical science, the discovery of new evidence regarding the patient's intent, changes in the law, or simply the unexpected death of the patient despite the administration of life-sustaining treatment at least create the potential that a wrong decision will eventually be corrected or its impact mitigated. An erroneous decision to withdraw life-sustaining treatment, however, is not susceptible of

> correction. In Santosky, one of the factors which led the Court to require proof by clear and convincing evidence in a proceeding to terminate parental rights was that a decision in such a case was final and irrevocable. Santosky, 455 U.S. at 759. The same must surely be said of the decision to discontinue hydration and nutrition of a patient such as Nancy Cruzan, which all agree will result in her death.

Notably, the Court in Cruzan addressed the significance of the government's position in the litigation—seeking to protect an individual's rights—on the determination of the proper burden:

> We recognize that these cases involved instances where the government sought to take action against an individual. See Price Waterhouse v. Hopkins, 490 U.S. 228, 253, 109 S.Ct. 1775, 1792, 104 L.Ed.2d 268 (1989) (plurality opinion). Here, by contrast, the government seeks to protect the interests of an individual, as well as its own institutional interests, in life. We do not see any reason why important individual interests should be afforded less protection simply because the government finds itself in the position of defending them. "[W]e find it significant that ... the defendant rather than the plaintiff" seeks the clear and convincing standard of proof-"suggesting that this standard ordinarily serves as a shield rather than ... a sword." Id., at 253, 109 S.Ct., at 1792. That it is the government that has picked up the shield should be of no moment."

Cruzan, 497 U.S. at 282–83.

The Third Circuit, in Livingstone v. North Belle Vernon Borough, 91 F.3d 515 (3d Cir. 1996), analyzed the propriety of the "clear and convincing" burden of proof in the context of oral release-dismissal agreements. The Court echoed the themes articulated in Addington in reasoning that the "clear and convincing" standard, rather than "preponderance of the evidence" standard, must be employed in assessing whether an oral release-dismissal agreement was entered into voluntarily. The Court explained that "the enforcement of the oral release-dismissal agreement at issue in this case would indeed implicate important individual interests or rights" thereby justifying the higher standard. Livingstone, 91 F.3d at 535 (internal quotation omitted). Moreover, the nature of the underlying claim implicates broader societal interests: "section 1983

actions, when successful, do more than compensate injured plaintiffs: they serve the important public purpose of exposing and deterring official misconduct, and thereby protecting the rights of the public at large." Id. Finally, the Court highlighted the evidentiary difficulties in evaluating an oral agreement, and concluded that "[a] clear-and-convincing standard appropriately allocates more of the risk of error associated with oral release-dismissal agreements to those who seek to enforce them." The Court expanded on this concept:

> [O]ral release-dismissal agreements raise particularly significant questions of voluntariness, as the lack of a written document may inhibit negotiation as to an agreement's terms and render it difficult for prospective parties to reflect on those terms…an oral agreement ordinarily contains less evidence as to the course of the parties' negotiations than does a written agreement. As a result, there is a greater risk of error in a jury's evaluation of whether an oral release-dismissal agreement was concluded voluntarily.

Livingstone, 91 F.3d at 535–36. This drew upon the Third Circuit's reasoning in Batka v. Liberty Mutual Fire Insurance Co., where the Court explained that "the clear and convincing standard was developed by the chancery courts to avoid too ready circumvention of the Statute of Frauds and the Statute of Wills." Batka v. Liberty Mut. Fire Ins. Co., 704 F.2d 684, 689 (3d Cir. 1983) (holding that because the Defendant's fraudulent application defense was in essence an attempt to rescind the contract, "a classic example of equitable relief," the defense must be established by "clear and convincing" evidence).

The above discussion supports the use of the clear and convincing evidentiary standard as the burden of proof in this case.

XII. The Voting Rights Act and Racial Gerrymandering

A. Voting Rights Act

A hallmark piece of civil rights legislation, the Voting Rights Act of 1965 (VRA) was adopted to allow all citizens, regardless of race, to exercise their right to vote, and took as its

principal stated purpose "[t]o enforce the fifteenth amendment to the Constitution of the United States." Voting Rights Act of 1965, Pub. L. 89-110, 79 Stat. 437 (1965). In its initial form, the VRA contained numerous provisions intended to ameliorate racialized voter suppression, including banning tests as prerequisites for voting and allowing election observers. Id. The VRA has since been amended several times, most recently in 2006. Fannie Lou Hamer, Rosa Parks, and Coretta Scott King Voting Rights Act Reauthorization and Amendments Act. Pub. L. 109–246, 120 Stat 577 (2006).

As amended, Section 2(a) reads in part, "No voting qualification or prerequisite to voting or standard, practice, or procedure shall be imposed or applied by any State or political subdivision in a manner which results in a denial or abridgement of the right of any citizen of the United States to vote on account of race or color." 52 U.S.C. § 10301(a). The VRA also protects the rights of minority citizens to elect their preferred candidates of choice. 52 U.S.C. § 10304.

While the text of the VRA itself does not require the creation of congressional districts in which racial minorities are a majority of the population, some states, including Pennsylvania, create one or more majority-minority districts as a means of complying with the VRA. See, e.g., Bush v. Vera, 517 U.S. 952, 957 (1996) (districts at issue were created "with a view to complying with the Voting Rights Act of 1965"). It was uncontroverted at trial that the Second Congressional District is a majority-minority district.

B. Racial Gerrymandering Cases

Racial gerrymandering cases, which generally assert Equal Protection Clause violations for racially motivated district maps, often involve some discussion of the Voting Rights Act. To challenge an improper racial gerrymander, a plaintiff must show that "race was the predominant factor motivating the legislature's decision to place a significant number of voters within or

without a particular district." Cooper v. Harris, 137 S. Ct. 1455, 1463 (2017) (quoting Miller v. Johnson, 515 U.S. 900, 916 (1995)). Next, "if racial considerations predominated over others, the design of the district" is subject to strict scrutiny. Cooper, 137 S.Ct. at 1463.

As Cooper acknowledged, and critically for purposes of this case, plaintiffs may make the required initial showing either through direct evidence of legislative intent and/or "circumstantial evidence of a district's shape and demographics." Id. at 1464 (quoting Miller, 515 U.S. at 916). The shape of districts is a recurring theme throughout racial gerrymandering cases; in one foundational case, the Supreme Court stated that "reapportionment is one area in which appearances do matter." Shaw v. Reno, 509 U.S. 630, 647 (1993).

C. Prior Racial Gerrymandering Cases Involving Appearance

Shape as a consideration in racial gerrymandering even predates the VRA. In Gomillion v. Lightfoot, 364 U.S. 339 (1960), which preceded the VRA, a group of African-American plaintiffs challenged an Alabama enactment changing the shape of the city of Tuskegee "from a square to an uncouth twenty-eight-sided figure," which the plaintiffs asserted to been drawn to exclude nearly all potential African-American voters. Id. at 340. The Supreme Court found that the plaintiffs had stated a claim under the Fourteenth and Fifteenth Amendments.

In Shaw v. Reno, North Carolina had created a congressional district map that, to comply with the Voting Rights Act, included two majority-Black districts. 509 U.S. at 634. A group of white voters challenged the plan, which contained "boundary lines of dramatically irregular shape," as an unconstitutional racial gerrymander under the Equal Protection Clause. Id. at 633. The irregular shape of the districts, one of which was described as "snakelike," id. at 635, was central to the majority's analysis: a "reapportionment plan that includes in one district individuals who belong to the same race, but who are otherwise widely separated by geographical and political boundaries, and who may have little in common with one another but

the color of their skin, bears an uncomfortable resemblance to political apartheid." Id. at 647. Ultimately, the majority held that the plaintiffs had stated a claim "by alleging that the North Carolina General Assembly adopted a reapportionment scheme so irrational on its face that it can be understood only as an effort to segregate voters into separate voting districts because of their race." Id. at 658.

Two years later, in Miller v. Johnson, the Supreme Court clarified that although demonstrating irregular shape was not a "threshold showing," the shape of a district was nonetheless relevant "because it may be persuasive circumstantial evidence that race for its own sake, and not other districting principles, was the legislature's dominant and controlling rationale in drawing its districtlines." Miller v. Johnson, 515 U.S. 900, 913 (1995). As discussed above, this remains good law; plaintiffs may make out a case through "circumstantial evidence of a district's shape and demographics." Cooper, 137 S.Ct. at 1464 (citing id. at 916); Alabama Legislative Black Caucus v. Alabama, 135 S. Ct. 1257, 1267 (2015).

As Miller indicated, the necessity of determining whether race was the predominant factor in developing district boundaries has naturally led to discussion of the other reasons why district boundaries might have been drawn in a particular way. See also Bush v. Vera, 517 U.S. 952, 963 (1996) ("[w]e must therefore consider what role other factors played in order to determine whether race predominated"). The majority opinion in Shaw opined that "a case in which a State concentrated a dispersed minority population in a single district by disregarding traditional districting principles such as compactness, contiguity, and respect for political subdivisions" could appear so irregular that, on its face, it could be understood only as "an effort to 'segregat[e] ... voters' on the basis of race." 509 U.S. at 647 (quoting Gomillion, 364 U.S. at 341) (alteration original). Shaw did not purport to present an exhaustive list, and nothing

actually confines the application of traditional districting principles to racial gerrymandering cases alone; rather, the nature of the inquiry in such cases necessitates their discussion. Moreover, discussion of traditional districting criteria actually appears to originate in one-person, one-vote cases. See Reynolds v. Sims, 377 U.S. 533, 578 (1964) (discussing contiguity, compactness and preservation of natural boundary lines and political subdivisions).

The above decisions provide authority for considering the "appearance" of the 2011 map, and the use of neutral redistricting principles, as factors in assessing gerrymandering claims.

XIII. Justiciability

Legislative Defendants assert that this case is not "justiciable" because of the "political" nature of reapportionment. However, I must conclude that this case is justiciable for several distinct reasons.

A. Court Decisions

1. Under Davis v. Bandemer, 478 U.S. 109 (1986), a six-justice majority of the Supreme Court held that a gerrymandering dispute under the Equal Protection Clause of the Fourteenth Amendment was justiciable, although no standard commanded a majority of votes. Despite later plurality opinions calling this conclusion into question, the holding of Davis—that partisan gerrymandering cases are justiciable—has never been overturned. Indeed, a five-justice majority of the Supreme Court recently acknowledged as much, and declined to "revisit the justiciability holding" of Davis. League of United Latin Am. Citizens v. Perry, 548 U.S. 399, 414 (2006).

B. The Statute Authorizing this Three-Judge Court

The statute under which this three-judge court was created, 28 U.S.C. § 2284, supports a finding of justiciability. This three-judge court is one of the "inferior" courts which Article III of the Constitution empowered Congress to establish. The statute specifically mandates that "a district court of three judges shall be convened…when an action is filed challenging the

constitutionality of the apportionment of congressional districts." 28 U.S.C. § 2284(a). This clear recognition, by Congress, that courts are empowered to decide disputes over redistricting, reflects Congress's express view that courts should decide these disputes. While Congress may itself decide these issues under Article I, §4, Clause 1, Congress has made it clear by enacting this statute that courts may decide such issues as well.

Our research shows that § 2284 apparently has not been judicially cited to support this type of argument for justiciability. This is surprising, given the fact that, as discussed above, § 2284 contains an implication that courts should adjudicate redistricting claims.

C. Precedent Regarding Justiciability – Cases Involving Politics

Justiciability is also supported by a series of cases starting with Elrod v. Burns, which prove that the mere presence of "politics" in the background facts of the case, does not preclude justiciability. 427 U.S. 347 (1976). In Elrod, the Supreme Court recognized the right of state employees who allege adverse employment action based on political affiliation or belief to assert a claim for violation of the First and Fourteenth Amendments. In Elrod, a newly elected Democratic sheriff fired several non-civil service employees who did not support the Democratic Party. 427 U.S. at 351. Justice Brennan, writing for three justices, found that patronage dismissals for reasons of political affiliation were justiciable and judicial adjudication of the issue did not contravene the separation of powers. Id. at 351–53.

The Elrod plurality began its analysis with the potential cost to protected freedoms that partisan dismissal posed: if the price of a job was political allegiance or affiliation, patronage could essentially compel such allegiance or affiliation—or force an employee to risk his job. The plurality found this deeply concerning because "political belief and association constitute the core of those activities protected by the First Amendment." Id. at 356. Thus, patronage "to the extent it compels or restrains belief and association is inimical to the process which undergirds

our system of government and is at war with the deeper traditions of democracy embodied in the First Amendment." Id. at 357 (internal quotation omitted). In much the same way, the plurality saw political patronage as imposing unconstitutional conditions on public employment. Id. at 358–59.

The plurality then rejected three arguments that the petitioners advanced to support partisan dismissals: "the need to insure effective government and the efficiency of public employees," "the need for political loyalty," and "the preservation of the democratic process." Id. at 364–68. As to the last, the plurality opined that patronage dismissals could "result in the entrenchment of one or a few parties to the exclusion of others" and act as "a very effective impediment to the associational and speech freedoms which are essential to a meaningful system of democratic government." Id. at 369, 369–70.

Two additional justices chided the plurality for issuing such a sweeping opinion but concurred in the judgment, stating that a "nonpolicymaking, nonconfidential government employee [cannot] be discharged or threatened with discharge from a job that he is satisfactorily performing upon the sole ground of his political beliefs." Elrod v. Burns, 427 U.S. 347, 375 (1976) (Stewart, J., concurring). Three justices dissented. In total, five justices voted that the dismissed employees had stated a claim under the First and Fourteenth Amendments.

This doctrine was both expanded and endorsed by a majority of the Supreme Court. In Branti v. Finkel, a six-justice majority affirmed an injunction against firing on "purely political grounds" for two assistant public defenders who were Republicans, and who had received termination notices. 445 U.S. 507, 520 (1980). The assistant public defenders did not occupy policymaking positions, in the majority's view, and were therefore subject to the rule articulated in Elrod. Id. at 519.

This doctrine was later expanded to encompass "promotion, transfer, recall, and hiring decisions involving low-level public employees" on the basis of "party affiliation and support," Rutan v. Republican Party of Illinois, 497 U.S. 62, 65 (1990), and politically retaliatory dismissals of government independent contractors. O'Hare Truck Serv., Inc. v. City of Northlake, 518 U.S. 712, 715 (1996). Just last year, the Supreme Court held that a plaintiff stated a claim for deprivation of a constitutional right where he was demoted based on his employer's erroneous belief that he supported a particular mayoral candidate. Heffernan v. City of Paterson, N.J., 136 S. Ct. 1412, 1416 (2016).

Some justices have dissented in these cases because the issues tend to involve "patronage." In Rutan, in particular, Justice Scalia criticized the majority holding as lacking clarity and described the "shambles Branti has produced":

> A city cannot fire a deputy sheriff because of his political affiliation, but then again perhaps it can, especially if he is called the "police captain." A county cannot fire on that basis its attorney for the department of social services, nor its assistant attorney for family court, but a city can fire its solicitor and his assistants, or its assistant city attorney, or its assistant state's attorney, or its corporation counsel.

Rutan v. Republican Party of Illinois, 497 U.S. 62, 111–12 (1990) (Scalia, J., dissenting). Justice Scalia would also have committed the issue of patronage to the political branches; the "whole point" of his dissent, Scalia wrote, "is that the desirability of patronage is a policy question to be decided by the people's representatives." Id. at 104.

In his concurrence in Vieth, Justice Stevens stated that Elrod made clear that the fact that "politics" in a general sense are involved in the underlying facts of the case does not necessarily render a matter non-justiciable as a "political question," much less prevent a court from overlooking a deprivation of constitutional rights.

In Zivotofsky ex rel. Zivotofsky v. Clinton, the Supreme Court observed that the judiciary's duty to evaluate the constitutionality of federal statutes "will sometimes involve the 'resolution of litigation challenging the constitutional authority of one of the three branches,' but courts cannot avoid their responsibility merely 'because the issues have political implications.'" Zivotofsky ex rel. Zivotofsky v. Clinton, 566 U.S. 189, 196 (2012) (quoting INS v. Chadha, 462 U.S. 919, 943 (1983)) (holding that the question of whether a federal statute allowing Americans born in Jerusalem to identify "Israel" as their place of birth listed on their passports is constitutional does not implicate the political question doctrine and is therefore justiciable).

The lesson that these cases teach is that the presence of "politics" in the background facts, does not make justiciability "verboten." The above three authorities, one a controlling United States Supreme Court decision, one a statute, and the third a persuasive line of cases, show a claim for violation of this constitutional right, including a claim under the Elections Clause, is cognizable under the Fourteenth Amendment Privileges or Immunities Clause, and is justiciable.

Justice Scalia, in Vieth, and other commentators, have pointed out that the Constitution does contain at least one remedy for a state's violation of the "time, manner and place" requirement in Article I, Section 4: that Congress has the power to override the state legislature's regulations. Justice Scalia, in his Vieth plurality, states a clear preference and intimation that this should be the sole remedy for a gerrymander – that Congress has the sole power to remedy a state's gerrymandering, for whatever reason. However, the Bandemer majority rejected this argument and we are bound to follow that.[17]

[17] A snaking and complex legal history predates Bandemer. In 1946, petitioners in Colegrove v. Green challenged the Illinois congressional districting scheme on the basis that the districts were insufficiently compact and were not approximately equal in population. Colegrove v. Green, 328 U.S. 549 (1946). Writing for a plurality of four Justices, Justice Frankfurter concluded that the case presented a nonjusticiable political question. Id. at 556. In Baker v. Carr, the Court held justiciable the question of

As Justice Brennan stated at the beginning of his majority opinion in Rutan, "To the victor go only those spoils that can be constitutionally obtained." This Court can and should decide that the results of the Pennsylvania congressional redistricting process have not been "constitutionally obtained."

D. Technology and Public Policy

New technologies, not available until recently, require judges to recognize the digital world of today differently and to recognize that computer-based technologies have allowed politicians, as well as businesses, nations, terrorists, and others, to effectuate strategies that were never available before. To the extent those strategies threaten individual liberties, or guarantees in the Constitution, in ways which the framers could not have envisioned, the judicial branch is the branch responsible for remedying the wrong.

Justiciability can be a fancy word for "judicial abstinence," when a judge concludes the court should not decide a dispute. In deciding whether to abstain from ruling, Judges write their own rules. Judges must consider the nature of the wrong, the appropriateness of available remedies, and the consequences of abstaining.

Failure to act on gerrymandering of congressional districts is very likely to lead to further declines in voter turnout. Both defense experts agreed that voter turnout declines in non-competitive elections.[18] The average voter is likely to say, "Why bother?" Judges surely have a

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whether reapportionment plans are constitutional when they draw congressional districts of unequal population. Baker v. Carr, 369 U.S. 186 (1962). The Court in Baker distinguished Colegrove, holding that the "refusal to award relief in Colegrove resulted only from the controlling view of a want of equity," id. at 234, and that the plaintiffs' Equal Protection challenge was justiciable. Id. at 204. A recent case described Baker as "chang[ing] course" from earlier cases such as Colgrove. Evenwel v. Abbott, 136 S. Ct. 1120, 1134 (2016). Since Baker, many different kinds of challenges have been brought against gerrymandering, with varying levels of success.

[18] See also Lipsitz, Competitive Elections and the American Voter (Univ. of Pa. Press 2011), pp. 119-123, collecting studies which show competitive elections increase voter turnout.

stake in assuring a vibrant democracy. This case presents a challenge to the constitutional imperatives behind the Elections Clause. Judicial overview of gerrymandering is important and necessary to secure the basic tenet of a democracy – that eligible voters will vote. Even a cursory review of the United States Supreme Court jurisprudence shows gerrymandering is a wrong in search of a remedy.

The Supreme Court has failed to reach a consensus about the use of partisan political criteria in setting congressional districts. I have adopted a visual approach, which completely avoids partisan evidence. This approach is based on objective facts, which support justiciability.

E. Justiciability is Not a Concept Frozen in Time

Justiciability must necessarily be a fluid concept. It seems clear that the justiciability of any particular subject could change over time as the underlying subject matter itself changes, with resulting implications on the standards by which it can be judged. As technology changes, judges may have to decide issues previously considered non-justiciable. Public policy about the value of voting mandates new thinking about the justiciability of gerrymandering. It is exactly this idea that underscored Justice Kennedy's approach to the justiciability of political gerrymandering in Vieth:

> Technology is both a threat and a promise. On the one hand, if courts refuse to entertain any claims of partisan gerrymandering, the temptation to use partisan favoritism in districting in an unconstitutional manner will grow. On the other hand, these new technologies may produce new methods of analysis that make more evident the precise nature of the burdens gerrymanders impose on the representational rights of voters and parties. That would facilitate court efforts to identify and remedy the burdens, with judicial intervention limited by the derived standards. If suitable standards with which to measure the burden a gerrymander imposes on representational rights did emerge, hindsight would show that the Court prematurely abandoned the field. That is a risk the Court should not take.

Vieth, 541 U.S. at 312–13. As the subject matter itself changes, in many cases so might courts' capacity to evaluate it. With respect to partisan gerrymandering, not only might technology enable courts to better analyze a challenge, it also raises the stakes of the challenge itself, thus increasing the need for judicial intervention. Advanced technology has made the problem of political gerrymandering much worse—partisan intent can be factored into a districting map much more precisely, with much greater effect. As technology changes the law must keep up. This must include longstanding and well-established constitutional principles, such as the Fourth Amendment expectation of privacy, for example. See United States v. Jones, 565 U.S. 400 (2012); Kyollo v. United States, 533 U.S. 27 (2001).

As the Supreme Court clarified in Baker v. Carr and later cases, "there is a significant difference between determining whether a federal court has 'jurisdiction of the subject matter' and determining whether a cause over which a court has subject matter jurisdiction is 'justiciable.'" Powell v. McCormack, 395 U.S. 486 (1969) (citing Baker v. Carr, 369 U.S. 186 (1962)). In recent cases dealing with the political question doctrine, courts have reaffirmed this principle that jurisdiction is a separate question from justiciability. In Oryszak v. Sullivan, the D.C. Circuit Court distinguished between jurisdiction and justiciability:

> That a plaintiff complains about an action that is committed to agency discretion by law does not mean his case is not a civil action arising under the Constitution, laws, or treaties of the United States. It does not mean, therefore, the court lacks subject matter jurisdiction. It does mean there is no law to apply, because the court has no meaningful standard against which to judge the agency's exercise of discretion.

Oryszak v. Sullivan, 576 F.3d 522, 526 (D.C. Cir. 2009) (internal quotations and citations omitted). Judge Douglas Ginsburg, concurring, echoed this sentiment, and added that "[b]ecause justiciability is not jurisdictional, a court need not necessarily resolve it before addressing the

merits." Id. at 527. He urged the importance of maintaining clear separation between the concepts of jurisdiction and justiciability, and issued a plea that the en banc court engage in efforts to better establish that clarity.

Importantly, 28 U.S.C. § 2284 is not the source of jurisdiction for constitutional challenges to apportionment statutes. The Constitution and § 1331 are the source of that jurisdiction. Nonetheless, Congress's determination that constitutional challenges to congressional apportionment should be heard by three-judge panels supports this Court's jurisdiction over a political gerrymandering claim. But the primary significance of §2284 goes beyond jurisdiction. It reflects a congressional judgment that courts can and should decide constitutional challenges to apportionment laws. With respect to the justiciability of political gerrymandering challenges in particular, the existence of §2284 largely allays the concerns at the heart of three of the six elements of political questions identified in Baker v. Carr:

> [T]he impossibility of a court's undertaking independent resolution without expressing lack of the respect due coordinate branches of government; or an unusual need for unquestioning adherence to a political decision already made; or the potentiality of embarrassment from multifarious pronouncements by various departments on one question.

Baker v. Carr, 369 U.S. 186, 217 (1962). In providing explicit instruction for the procedures by which apportionment challenges should be decided, section 2284 implicitly approves of judicial review over this area. Political gerrymandering challenges in particular are in no way exempt from this endorsement. Certainly, in light of this specific and direct congressional delegation, deciding such questions runs little risk of "tread[ing] on legislative ground." M'Culloch v. Maryland, 17 U.S. 316, 423 (1819).

F. Let's Forget About Politics

To further prove justiciability, let us briefly depart totally from the allegations about politics or partisan intent. Suppose that a group of citizens alleged that the redistricting of Pennsylvania took place along economic lines—i.e. that rich people, defined perhaps as having an annual income of over $100,000—controlled the legislature, and that the 2011 map was prepared to ensure that the "rich people" enjoyed a thirteen-to-five margin in Congress.

Would the result be different if the "poor people" had taken control of the process?

Alternatively, let us suppose the classifications took place over educational lines. Voters in Pennsylvania who did not graduate from college decided to band together and take control of the legislature, and to "pack and crack" the congressional districts so that the college graduates would be located mostly in, and could only control five of the eighteen congressional seats. Thus, voters who did not graduate from college would control thirteen seats.

As a third alternative, suppose the Pennsylvania legislators were able to determine which Pennsylvania citizens had ancestors that came to the United States before 1900, and they were able to use this data to take control of the Pennsylvania legislature and gerrymander congressional districts to capture thirteen of the eighteen congressional seats.

Assume that all of these strategies result in congressional districts that have ignored traditional and neutral redistricting criteria. None of these has anything to do with politics or partisan intent.

Would a court rely on principles of non-justiciability to ignore, and allow, that kind of redistricting criteria?

What reasoning would support a court in abstaining from considering those criteria, if any of them were used to control Pennsylvania's congressional districts? Can the state legislature permissibly consider various traits of voters in crafting congressional districts? Is

there any difference between use of those criteria, and using prior voting results, "politics" or political partisanship? We expect legislators to be partisan, but we do not expect them to classify people along economic or educational status lines, or ancestry, in creating congressional districts. The point is that, in this case, the Court can avoid any of these criteria, including politics, altogether and conclude, from the objective and visual observations of the map alone, that the 2011 redistricting was unacceptable, because of the huge variations from traditional redistricting principles, in a number of districts.

If the resulting map satisfies the "neutral" principles, a court would have no reason to inquire into politics, or the hypotheticals I set forth above. The legislature's use of neutral criteria would be immune from court intervention. Thus, if the neutral factors were followed, then irrespective of the district's votes on key issues or the district's composition—the concentration of residents—based on politics, wealth, education, or length of citizenship—would be incidental results of these neutral criteria.

One inescapable lesson from this trial is that gerrymandering, if defined as ignoring the neutral and traditional principles, is wrong—and digging deep into the reasons is not necessary. The Court can exercise its fact-finding role and grant relief as a matter of equity, all while remaining well within the traditional boundaries of justiciability.

In summary, because courts are readily capable of assessing whether objective neutral criteria can explain district lines, the issue is justiciable.

XIV. Standards

A. Looking at this Case from the Viewpoint of the Voter

Most, if not all, of the gerrymandering cases in the past have looked at the situation from the point of the view of the legislature. The members of a state legislature are quite obviously politically involved; they have won elections, running under one party label against a member of

the opposite party. It is impossible to divorce any concept of "partisanship" from the electoral process as a necessary part of a democracy—and a Court should be mindful, tolerant, and indeed observant of these political traditions which, over two plus centuries, have served our country very well.

Largely because of revolutionary high technology, the use of algorithms and other digitally-based techniques, gerrymanders are more easily achieved than ever. This often leads to control over the legislative process. However, in Pennsylvania, registered voters are almost evenly split between parties. Thus, Plaintiffs assert a gerrymandered legislature is proof of some "artificially created" districts. The scientific basis of a gerrymandering in the digital world is markedly different from, and distinguishable from, the much more 'human-tinkering" to apportionment that existed in the pre-digital world. In other words, the technological revolution in which we are now living, and enjoying for the most part, can and does have some arguably negative effects—and one of them may very well be the ability to construct gerrymandered congressional districts to a precision point never known before, and keep them in existence over many years—probably until there is a large demographic change in the makeup of a district—which may be never.

The history of the Elections Clause, as reviewed in detail above, shows that its origin was based in protecting the rights of voters at that time, because the House of Representatives was the only national branch of government to be directly elected by the voters. As far as history goes, the Elections Clause looks exclusively at the rights of voters, and is not concerned with party partisanship or any other political factors.

Thus, in this case, based exclusively on the Elections Clause, we should look at the gerrymandering situation from the point of view of the voter and the right to vote. Judges

reviewing gerrymandering cases should not be concerned with winners or losers. The analysis should focus on legal principles and the overriding policy factor of preserving and protecting the value of voting. If the legislature's actions discourage voting, such as causing a voter to abstain from voting at all because his or her vote will not matter, harm results. Thus, a public policy factor judges should consider—grounded in the Constitution—is, the extent to which voters (of both parties) are discouraged from going to the polls, in a gerrymandered district, because it is so unlikely that their vote will matter.

The testimony of the various party plaintiffs at the trial illustrated this point of view. I discount any "complaints" Plaintiffs may have registered about particular votes by particular Congressman representing them in Washington. No citizen can expect, in a congressional district of approximately 700,000 people, that their congressional representative will vote consistent with their personal views on every issue. However, many Plaintiffs made the point that the elongated and artificial borders, resulting from the 2011 reapportionment, put them out of touch with their congressman because the 2011 map had so distorted the prior district, and had violated the concepts of contiguity and compactness. These plaintiffs gave specific examples and used adjectives such as "squashed" to vocalize their frustration at their districts having been so literally "bent out of shape" that they do not feel they are part of a community that has elected its own Congressperson.

B. Adopting a Standard – Visual Analysis, Neutral Principles, and Absence of Usual Process

The Elections Clause states:

> The Times, Places and Manner of holding Elections for Senators and Representatives, shall be prescribed in each state by the Legislature thereof; but the Congress may at time by Law make or alter such Regulations, except as to the Places of chusing Senators.

U.S. Const. Art. I, § 4, Cl. 1.

1. Plaintiffs' Allegations

On November 11, 2017, Legislative Defendants filed a motion requesting that Plaintiffs be ordered to identify in their Amended Complaint the standard of proof applicable to their Elections Clause claim. (ECF 79) In opposition, Plaintiffs filed a brief stating that the complaint need not plead an evidentiary standard of proof. (ECF 82) However, Plaintiffs then spent nine pages laying out a standard of proof and evidentiary burden. Ultimately, Legislative Defendants' motion requesting Plaintiffs' be ordered to identify a standard of proof was denied. (ECF 83) However, the Court ordered on November 21, 2017 that the parties submit proposed standards for establishing a violation of the Elections Clause, including an evidentiary standard, burden of proof, and any possible burden-shifting. (ECF 104) Plaintiffs, Executive Defendants, and Legislative Defendants all submitted proposed standards on November 30, 2017. (ECF 155-157) The Court then ordered Plaintiffs to clarify their elements of proof because they were insufficiently specific in their November 30 submission. (ECF 169)

Thus, on the first day of trial, Plaintiffs submitted a shorter statement of the elements they contended they must prove (ECF 173):

> A. Intent
>
> To find a violation of the Elections Clause in a redistricting case, Plaintiffs must prove that those who created the map manipulated the district boundaries of one or more Congressional districts, intending to generate an expected number of winning seats for the party controlling the process that is greater than the expected number of winning seats that would be determined by the voters if the districts were drawn using even-handed criteria.
>
> B. Standard for Leave of Intent
>
> Plaintiffs must prove that the map-drawers' discriminatory intent was a substantial motivating factor in their line-drawing decisions, even if they also considered other factors.
>
> C. Effect

> Plaintiffs must prove that the drafters of the map achieved their intended goal, in that the map resulted in a Congressional delegation composition that even a majority of the people could not substantially change.
>
> D. Required Extent of the Effect
>
> [Plaintiffs may prevail by showing that the composition of the state's Congressional delegation as a whole] resulted from the use of partisan data, [such that the map itself], rather than the voters, solidified that composition. [It is no defense that a few districts remained competitive,] or that some districts were designed to protect incumbents of the disfavored party.

Although I reject Plaintiffs' proposed standard as set forth above, I have excerpted from it, similar to the "lesser included offense" jurisprudence in criminal law, limited elements that depend exclusively on the 2011 map—particularly as compared to the prior 2002 map, and the absence of the usual legislative process. Thus, I do use certain factors stated by Plaintiffs, which I have restated as follows:

> those who created the map manipulated the district boundaries of one or more Congressional districts . . . [and] the map resulted in a congressional delegation composition . . . [observable from the map itself] and resulted in distortions of five congressional districts [where the court can objectively observe and conclude that neutral redistricting principles were ignored.]

I have declined to consider partisan intent a relevant factor. Although "effect" is certainly a relevant factor, I have confined the analysis to visual inspection of the 2011 redistricting map.

2. Use of Traditional Neutral Standards

I have used as guidelines what the record disclosed are the traditional factors for redistricting as follows:

a) Preservation of government boundaries as much as possible (e.g. county, borough, township, town);
b) Compactness;

c) Contiguity (i.e., no parts of the district are "islands" apart from the rest of the district);
d) Preservation of communities of interest;
e) Continuity (i.e., maintaining voters in the same district over time);
f) Respect for geographic boundaries such as rivers or other natural boundaries;
g) Incumbency protection.[19]

Apportionment cases dating back to Reynolds v. Sims have discussed traditional districting principles. 377 U.S. 533, 578 (1964) (discussing contiguity, compactness, and preservation of natural boundary lines and political subdivisions). As discussed elsewhere in this Memorandum, Shaw v. Reno, a racial gerrymandering case, held that "disregarding traditional districting principles such as compactness, contiguity, and respect for political subdivisions" could raise an inference of segregating voters by race. 509 U.S. at 647. The Court then stressed "that these criteria are important not because they are constitutionally required—they are not—but because they are objective factors that may serve to defeat a claim that a district has been gerrymandered on racial lines." Id. (citing Gaffney v. Cummings, 412 U.S. 735, 752 n.18 (1973)).

This passage from Shaw was later described as standing for the proposition that "[t]he Constitution does not mandate regularity of district shape." Bush v. Vera, 517 U.S. 952, 962 (1996) (citing Shaw, 509 U.S. at 647). Vera held that a state's "substantial[] neglect[]" of "traditional districting criteria such as compactness," coupled with its manipulation of district

[19] Plaintiffs have disputed the relevance of this element but I believe it deserves some consideration. There is testimony by Dr. Gimpel and also, the Court can take judicial notice, that experienced legislators, regardless of party, may be able to "deliver" better results for their home state while in Washington. See N.T. 12/13, 22:2-13. However, at the trial, Defendants did not present any evidence to justify the entirety of the 2011 map by reference to incumbency protection. Plaintiffs assert that if incumbency protection may be a valid consideration, because some members of Congress can "deliver," it must be limited to those members who have seniority, and none of the present representatives who are allegedly being "protected" have seniority.

lines to exploit racial data, militated in favor of strict scrutiny, although the Court declined to hold that any one factor alone was sufficient to require strict scrutiny. Vera, 517 U.S. at 962.

Footnote 18 in Gaffney, on which Shaw relied, derived from a case regarding partisan gerrymandering in the Connecticut General Assembly. Shaw, 509 U.S. at 647. In that footnote, the Court discussed the difficulty of creating regularly shaped districts that would "follow Connecticut's oddly shaped town lines," and further noted that "compactness or attractiveness has never been held to constitute an independent federal constitutional requirement for state legislative districts." Gaffney, 412 U.S. at n.18. In support of this statement, Gaffney cited White v. Weiser, 412 U.S. 783 (1973), in which the Supreme Court reversed the district court's ruling because the state had not sufficiently adhered to the requirements of congressional districts equal in number. The Court noted that in order to achieve numerical equality, the state may have to ignore governmental boundaries and may consider preference for incumbents.

Thus, these cases together suggest that while the Constitution does not require any single districting criterion to be perfectly adhered to, ignoring traditional districting criteria altogether is deeply suspect.

In this case, decided under the Elections Clause, and deleting partisan politics from the Plaintiffs' theory of the case, the Court is charged with articulating a standard. The above-listed neutral and traditional factors provide the best grounding for an appropriate standard. Thus, I must determine, from the evidence, whether the Plaintiffs have shown by the appropriate burden of proof—i.e., clear and convincing evidence—that:

(1) From the point of view of an individual voter,
(2) Have objective, observable evidence (e.g. maps), and
(3) Credible, document-corroborated testimony,

Shown:

(4) Redistricting in which the Legislative Defendants ignored neutral factors,

(5) Thereby exceeding its authority to prescribe the "time, place, and manner" for congressional elections, and which,

(6) If not remedied, may discourage voters from voting on Election Day.[20]

One might ask how a Court can determine, solely from a map, whether there has been a violation of the Elections Clause merely because some or even all of the traditional factors were not followed. How can a Court determine whether this evidence is "sufficient"?

My answer is that a Court can and should reach an informed and reasonable decision on this issue just as a Court reviews the quantum of evidence in any civil case. Whether a case involves a right angle collision, or complex principles of antitrust, on a post-trial motion for judgment notwithstanding the verdict, the Judge must determine whether the evidence, in the light most favorable to the verdict winner, satisfies the elements of the claim. There are many widely cited Third Circuit and Supreme Court cases in which a Court entered judgment based on this review, with precedent playing a major role. See, e.g., Weisgram v. Marley Co., 528 U.S. 440 (2000); Parkway Garage, Inc. v. City of Philadelphia, 5 F.3d 685, 691 (3d Cir. 1993) (In granting judgment as a matter of law after a jury verdict, the district court must determine that the record does not contain "minimum quantum of evidence from which a jury might reasonably afford relief.").

I rely substantially on my credibility determinations, which are more favorable to Plaintiffs than Legislative Defendants, in part because the latter offered very little evidence. Indeed, there are substantial public policy reasons for a judicial standard that focuses on adherence to traditional neutral redistricting criteria, because the list of such criteria is largely agreed-upon as limited to the factors discussed above. Indeed, in this case, the trial record shows no dispute as to these criteria—with the possible, sole exception of "incumbency protection."

[20] It is this impact on voting that implicates the Privileges or Immunities Clause. See supra.

Since there is no controlling precedent for an Elections Clause gerrymandering challenge, reaching the merits in this case requires venturing into unknown territory. The usual remark is, "we write on a clean slate." As it is agreed that Plaintiffs' exclusive reliance on the Elections Clause is novel, I believe that we, as a Court, may and should, in the absence of specific precedent, apply general precedents and articulate our own standard. The Court is tasked with reaching a result, and I believe the best course of action is to review the evidence, principally the maps in evidence, and apply the above standard.

3. Application of Neutral Principles

The most persuasive evidence which Plaintiffs have presented in this case is the 2011 map itself—adopted by amendment to 2011 Pennsylvania Senate Bill 1249 (which was the focal point of this case)—particularly as compared to the 2002 map.

Attempting to base a claim on "partisan intent" is the most slippery of slippery slopes, and as United States Supreme Court decisions have shown, fails to allow for an appropriate standard.

However, visualization of the 2011 map, particularly when compared to the prior map adopted in 2002, allows for me to draw conclusions regarding improper redistricting, at least as to five of the districts. Pennsylvania lost one congressional seat as a result of the 2010 census, and this "seat loss" caused a reduction in the expected number of congressional districts. The testimony showed that most of the population lost in Pennsylvania was in the western part of the state, and that as a result, the leaders of the legislature involved in this process concluded that area should be the geographic focal point of redistricting. Two western districts were largely combined into one. However, the evidence shows redistricting efforts were thoroughly statewide. The fact that the legislature ended up redistricting the entire state requires a visual approach to be taken on a statewide basis.

The visual approach finds its support in two famous, modern proverbs (albeit, reflecting non-legal principles): "A picture is worth ten thousand words,"[21] and "[w]hen I see a bird that walks like a duck and swims like a duck and quacks like a duck, I call that bird a duck."[22]

Another concept, "which justifies the visual approach (and this one with legal support) is Justice Potter Stewart's famous comment in a case involving adult pornography, "I shall not today attempt further define [it] . . . [b]ut I know it when I see it." Jacobellis v. Ohio, 378 U.S. 184

One of the most influential law review articles in the 20th century was written by Columbia Law Professor (and Director of the American Law Institute), Herbert Wechsler, "Toward Neutral Principles of Constitutional Law," which included the following comments that I believe serve as a guiding light for the adoption of neutral principles in redistricting:

> I put it to you that the main constituent of the judicial process is precisely that it must be genuinely principled, resting with respect to every step that is involved in reaching judgment on analysis and reasons quite transcending the immediate result that is achieved.
>
> [I]t has become a commonplace to grant what many for so long denied: that courts in constitutional determinations face issues that are inescapably "political"—political in the third sense that I have used that word—in that they involve a choice among competing values or desires, a choice reflected in the legislative or executive action in question, which the court must either condemn or condone.
>
> At all events, is not the relative compulsion of the language of the Constitution, of history and precedent—where they do not combine to make an answer clear—itself a matter to be judged, so far as possible, by neutral principles—by standards that transcend the case at hand?

[21] This proverb appears at least as far back as a New York Times real estate advertisement on May 16, 1914, according to the Yale Book of Quotations (Fred Shapiro Editor, 2006). Another possible source is Russian author Ivan Turgenev's 1861 novel, Fathers and Sons: "A drawing shows me at one glance what might be spread over ten pages in a book."

[22] This quotation is typically attributed to American poet James Whitcomb Riley.

> The answer, I suggest, inheres primarily in that they are—or are obliged to be—entirely principled. A principled decision, in the sense I have in mind, is one that rests on reasons with respect to all the issues in the case, reasons that in their generality and their neutrality transcend any immediate result that is involved.[23]

73 Harvard Law Review 1 (1959).

The map itself has high evidentiary value in this case because it objectively documents, in a single glance, the distortion of neutral redistricting principles, especially when compared to the 2002 map.

4. Partisan Gerrymandering Decisions Discussing Appearance

"[B]izarre configuration is the traditional hallmark of the political gerrymander." Hunt v. Cromartie, 526 U.S. 541, 555 (1999) (Stevens, J., concurring in the judgment). The four-justice plurality in Davis v. Bandemer, suggested that the shapes of districts was evidence of partisan intent. Davis v. Bandemer, 478 U.S. 109, 128 (1986). Two dissenting justices would have found "the shapes of voting districts and adherence to established political subdivision boundaries" to be the "most important [] factors" in assessing partisan gerrymandering challenges. Davis v. Bandemer, 478 U.S. 109, 173 (1986) (Powell, J., dissenting). Moreover, in his dissent in Vieth, Justice Stevens—the only justice to include a map of the 2002 Pennsylvania congressional map at issue—invoked Gomillion to argue that it was a "well-settled principle[]" "that a district's peculiar shape might be a symptom of an illicit purpose in the line-drawing process." Vieth v. Jubelirer, 541 U.S. 267, 321 (2004) (Stevens, J., dissenting). Justice Stevens also took the viability of the Shaw line of cases as essentially settling the question of justiciability in partisan gerrymandering cases. Id. at 323.

[23] Professor Wechsler expressed doubt whether courts should entertain apportionment disputes in view of language in the Elections Clause that appears to confine these disputes to the province of Congress. Query whether the subsequent passage of §2284, and the digital revolution, would have changed his views.

1. Partisan Politics

We must recognize that individuals elected to a state legislature are almost always affiliated with, and often sponsored by, one of the two major political parties, Republican or Democrat. People who run for office are partisan by definition, regardless of the party to which they belong. Once elected, each party has an agenda and priorities. Individuals elected under that party's sponsorship are expected to advance that party's agenda. Partisanship cannot easily be avoided for an elected State Representative or Senator.

Thus, it is unrealistic to expect members of the legislature to completely forget that they are "partisan" when it comes to reapportionment. I doubt a legislature can legitimately divide its activity in the state legislature between "normal" legislation and apportionment, and forget about "partisanship" as to the latter.

As numerous Supreme Court cases have shown, there has been no agreement on assessing "partisan intent" in determining whether to find a violation of the Equal Protection Clause of the Fourteen Amendment. This is particularly true for the five justices in Vieth who asserted that these disputes are justiciable.

A judge can't set a "black line" to separate the "good" partisan voting of legislators on various important issues from the allegedly "bad" partisan voting on other issues.

However, I agree with Plaintiffs that legislators are bound under the Elections Clause to use neutral factors during the redistricting process.[24] Anything more violates the "time, place, and manner" limitations of the Elections Clause.

[24] If they cannot do that, they should adopt an independent commission—as exists under Article XVII of the Pennsylvania Constitution, added by a 1968 Amendment—establishing a Reapportionment Commission for the Pennsylvania State Legislature.

A judge cannot make a value judgment on what is "good" or "bad" partisanship. No judicial decision can require legislators to forget that they were elected on a partisan basis. Likewise, the citizens who vote for legislators cannot expect their elected representatives to forget that they were elected on a partisan basis.

However, citizens can expect a redistricting process that follows the traditional neutral factors. As long as the neutral factors are the primary consideration, and the results, as portrayed on the map, show equal population and application of neutral factors (perhaps with an explanation), a court should not inquire further.

I recognize some partisan politics, regardless of the party, may enter into the process. To the extent that use of traditional redistricting criteria can objectively explain redistricting decisions—even where partisan intent would also explain those decisions—a map should be upheld. Thus, the standard I employ does not completely forbid any partisanship, as long as neutral criteria have been primarily employed.

I have elected to ignore "partisan intent" and focus on the 2011 map as compared to the previous 2002 map, in determining that Plaintiffs have shown that traditional redistricting standards were not followed, and thus the Constitution has been violated.

This is a novel case. There is no precedent applying the Elections Clause in this context. I believe that as the triers of fact, this Court has an opportunity, and a duty, to determine from the evidence if the Elections Clause was violated. Applying the proposed standard, and the neutral principles credibly established at trial, I rely on the map, but also on the process—or better said, the lack of regular legislative process—which was unusual to say the least (see infra).

I conclude Plaintiffs have proven that the 2011 map violates the Elections Clause. Essential to this is my complete reliance on objective evidence, as I have determined the credible

facts as developed through trial, and applied the clear and convincing standard as the burden of proof. By law, judges, sitting without a jury and relying on the evidence, make judgment and credibility calls and conclusions about the sufficiency of evidence all the time.[25]

As the discussion below shows, I find, by clear and convincing evidence, that five of the Pennsylvania congressional districts were drawn in a manner inconsistent with traditional redistricting factors, thereby violating the Elections Clause.

C. Visual Map Review Proves Unconstitutional Gerrymandering in Five Districts

A comparison of the 2002 and 2011 maps reveals serious departures from neutral redistricting principles in Pennsylvania's Tenth, Eleventh, Fifteenth, Sixth, and Seventh Congressional Districts. This comparison takes into consideration the loss of a congressional seat, population changes in some regions of the state, and the increase in population per congressional district from approximately 646,400 to approximately 707,500.

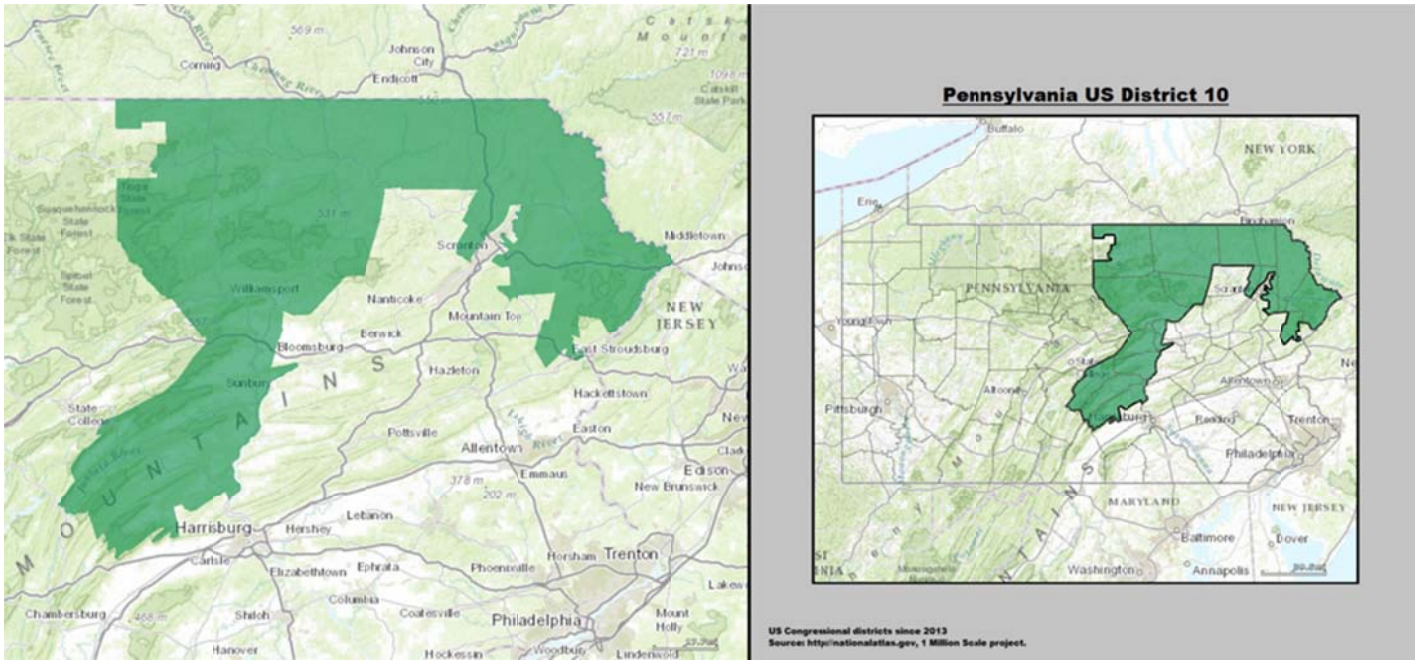
A map and a chart showing difference from 2002 to 2011 for each congressional district will further prove the distortions.

[25] I recognize that population numbers in each congressional district must be taken into account, and that all congressional districts in Pennsylvania must have essentially the same number of voters. The 2011 map did result, in part, from calculating the number of voters in each congressional district. Even so, the shape of the five districts (which I examine below) shows that assuming each has equal number of voters, their shape and also their "movement" of geographical area from 2002 to 2011, is quite obviously skewed or distorted, particularly when compared with 2002. There is no question that if one of the principal neutral factors, compactness, had been considered, none of these districts would look the way they do. In the future, population numbers must be considered along with the neutral factors.

1. Tenth District

2002 Map[26]

2011 Map



[26] All maps in this section were downloaded from http://nationalatlas.gov.

In the 2011 map, the Tenth Congressional District extends from Pike County at the far eastern tip of Pennsylvania along the Delaware River, up along the northern boundary counties of Wayne, Susquehanna, Bradford and (most of) Tioga, and then south to include the counties of Lycoming, Union, Snyder, Mifflin, Juniata, most of Perry, a portion of Northampton County and all of Sullivan County (which is entirely an "interior" county).

This is geographically a much longer extension, in terms of miles, than the 2002 Tenth Congressional District. The 2002 map for the Tenth Congressional District also included a broad swath of Northeastern Pennsylvania, plus portions of Lycoming County and all of Union, Snyder, Northumberland and Montour Counties. However, the 2011 map added almost all of Tioga County, deleted Wyoming County and also added three new counties in the central part of Pennsylvania: Mifflin, Juniata and most of Perry County. The last three listed counties are very far away from the eastern counties of Wayne and Pike. For reference, Pennsylvania is approximately 283 miles west-to-east at its widest point, and approximately 170 miles north-to-south at its longest point. The district now covers, from its point farthest east (Kistler) to its point farthest west (Matamoras), approximately 180 miles "as the crow flies"; and approximately 120 miles from the northern boundary of Pennsylvania in Tioga County (Brookfield) to the southernmost tip of Perry County (Toboyne).

Geographical elements may be considered as valid traditional redistricting criteria, but the extensions of the Tenth Congressional District in the 2011 map cannot be explained by any one, or any combination of, the traditional factors. Obviously the weird shape of this district not only suggests, but requires, a conclusion that the traditional redistricting criteria were ignored.

Comparing the 2011 map of the Tenth District with other large geographical districts in Pennsylvania—including the Fifth and Ninth Congressional Districts—it is clear that large

portions of rural Pennsylvania can be combined into logical congressional districts that generally respect the traditional redistricting criterion of compactness.

There appears to be no justification for failing to maintain compactness of the Tenth Congressional District. The Tenth District, like all other districts in Pennsylvania, needed to increase its number of residents by approximately 61,100. Nonetheless, it deleted Wyoming County entirely from the district (roughly 28,000 residents), and added counties as distant as Juniata (roughly 24,000 residents). Stretching west while also receding from the south made the district less compact on both fronts, which makes little sense in light of the fact that stretching south (to include, for example, the entirety of Lackawanna County rather than only half of it) would increase—rather than decrease—compactness, while respecting county lines.

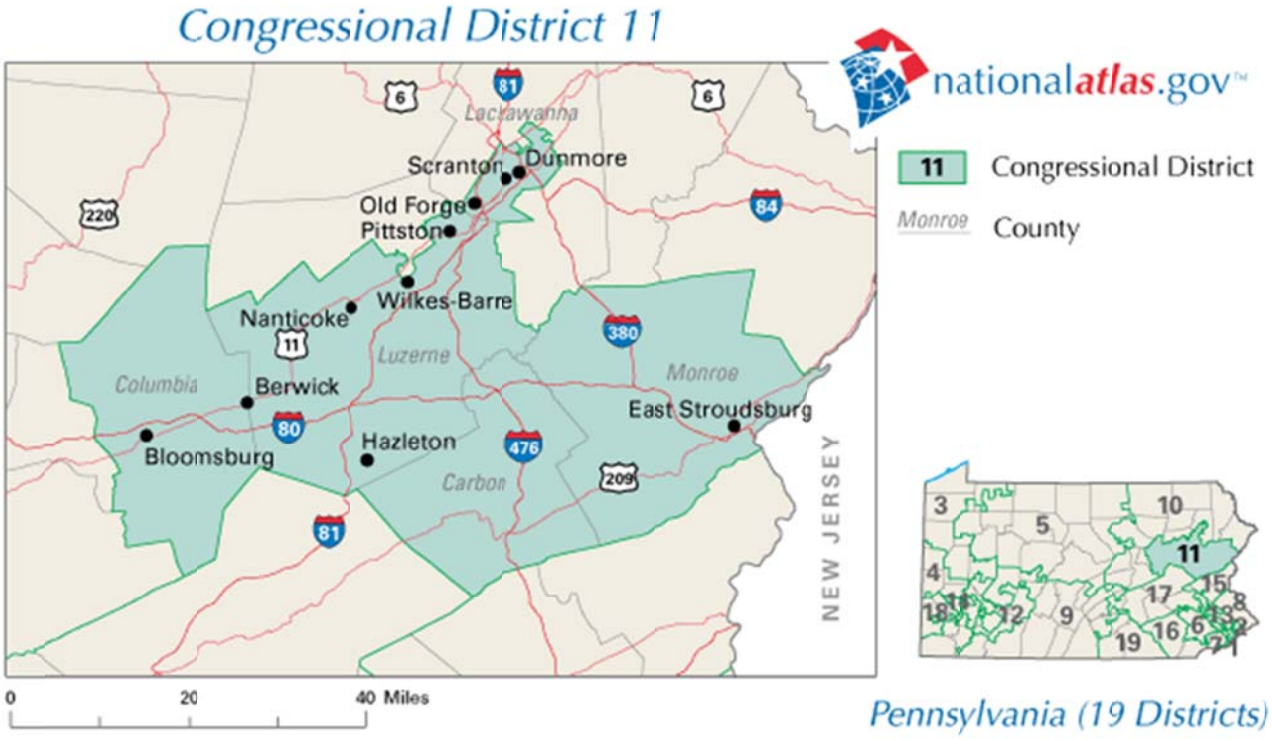
Tenth Congressional District[27]

County	Approximate Geographic Proportion of County Contained Within:	
	2002 Map	2011 Map
Bradford	100%	100%
Juniata	0%	100%
Lackawanna	85%	65%
Lycoming	50%	100%
Mifflin	0%	100%
Monroe	0%	30%
Montour	100%	0%
Northumberland	100%	25%
Perry	0%	70%
Pike	100%	100%
Snyder	100%	100%
Sullivan	100%	100%
Susquehanna	100%	100%
Tioga	5%	90%
Union	100%	100%
Wayne	100%	100%

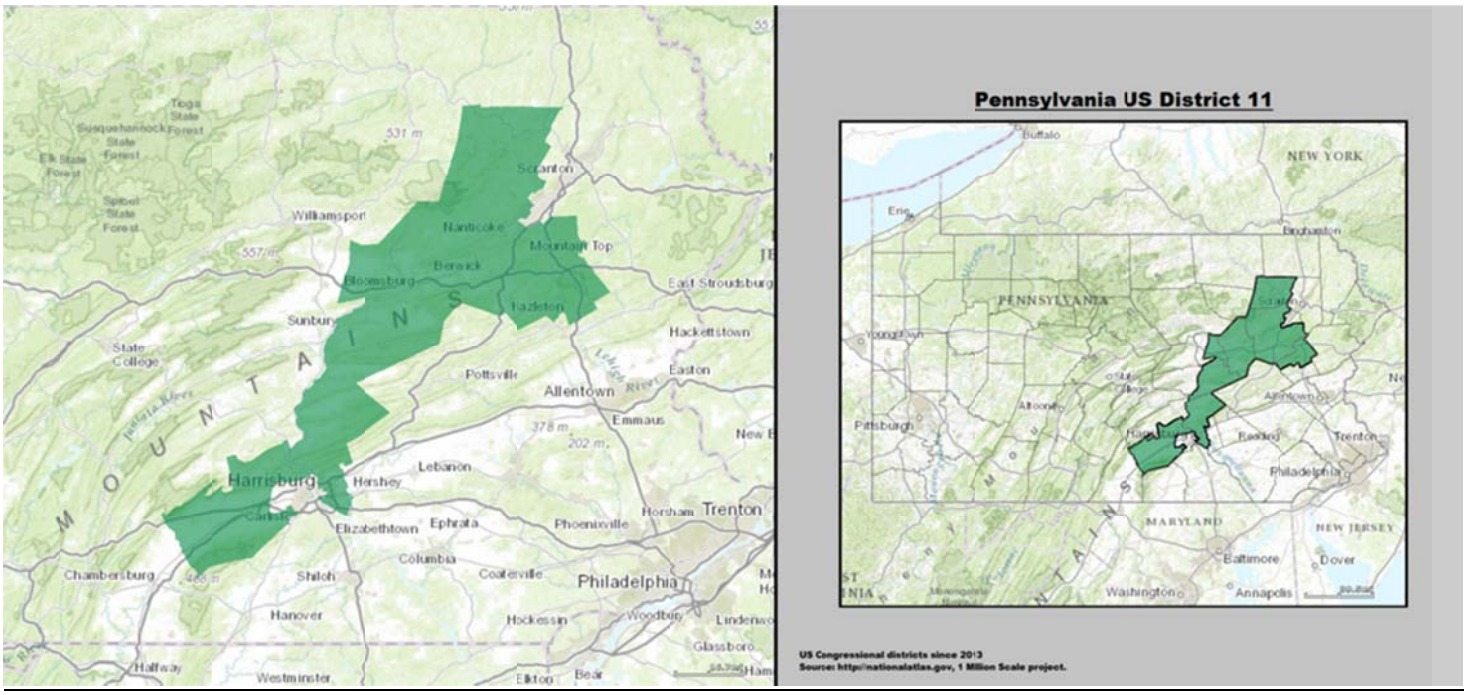
[27] All charts in this section expressing percentages are based on visual approximations. They are not intended to portray exact percentages of geographic coverage, nor are they intended to portray percentages based on population data.

2. Eleventh District

2002 Map



2011 Map



Under similar scrutiny, the Eleventh Congressional District also fails. Comparing the district from the 2002 to the 2011 maps, the differences are obvious. The prior Eleventh District was very compact and geographically sensible, because it included the entirety of Monroe, Carbon, and Columbia Counties, most of Luzerne County, and a small portion of Lackawanna County.

The Eleventh District in the 2011 map now stretches north to include Wyoming County and southwest to include all of Northumberland County, most of Dolphin County, a portion of Perry County and most of Cumberland County.

This redistricting is also without respect for any of the traditional criteria.

The mileage distance from the southernmost town (Southampton Township) to the northernmost town (Nicholson) is approximately 140 miles, "as the crow flies."

I again mention the mileage factors because of the obvious difficulty of any particular congressperson providing effective coverage and service over such a broad geographical area that is fractured in its formation—and the fact that drawing a much more compact district appears feasible.

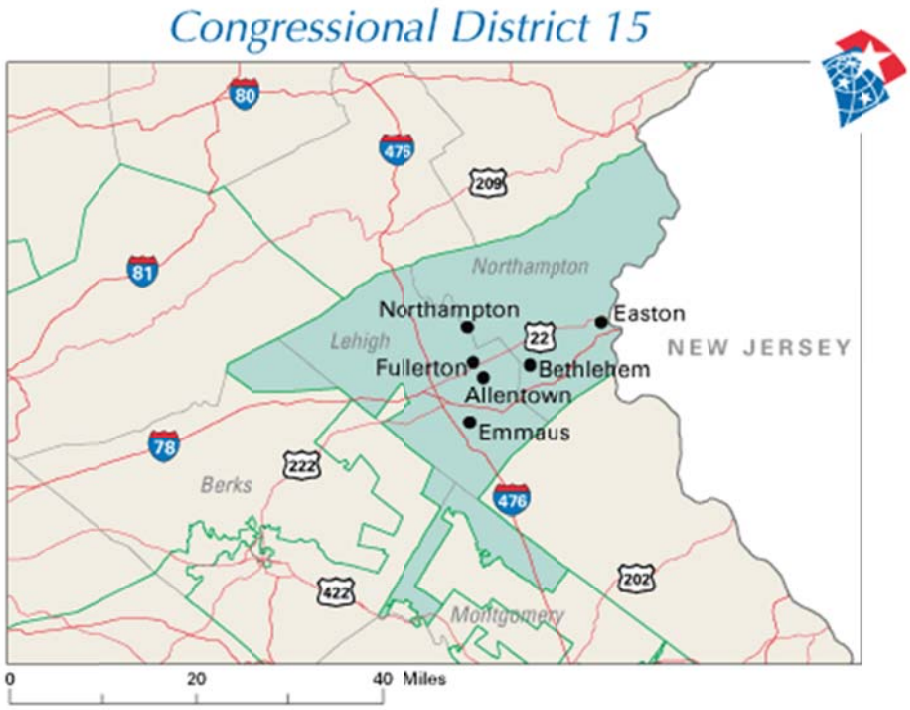
The 2011 map for this district is totally different from the 2002 map, in which it was very compact. The 2011 map adds portions of counties as far away as Perry (a county with a population of roughly 46,000) while removing half of Carbon County (roughly 65,000). Again, stretching southwest to become less compact makes even less sense when one considers that the county simultaneously receded from the south. Both decisions defy principles of compactness and continuity, as the district receded from Carbon County on its southern edge (thereby splitting it) while also adding portions of (and thereby splitting) Perry, Cumberland, Dauphin, and Northumberland Counties.

Eleventh Congressional District

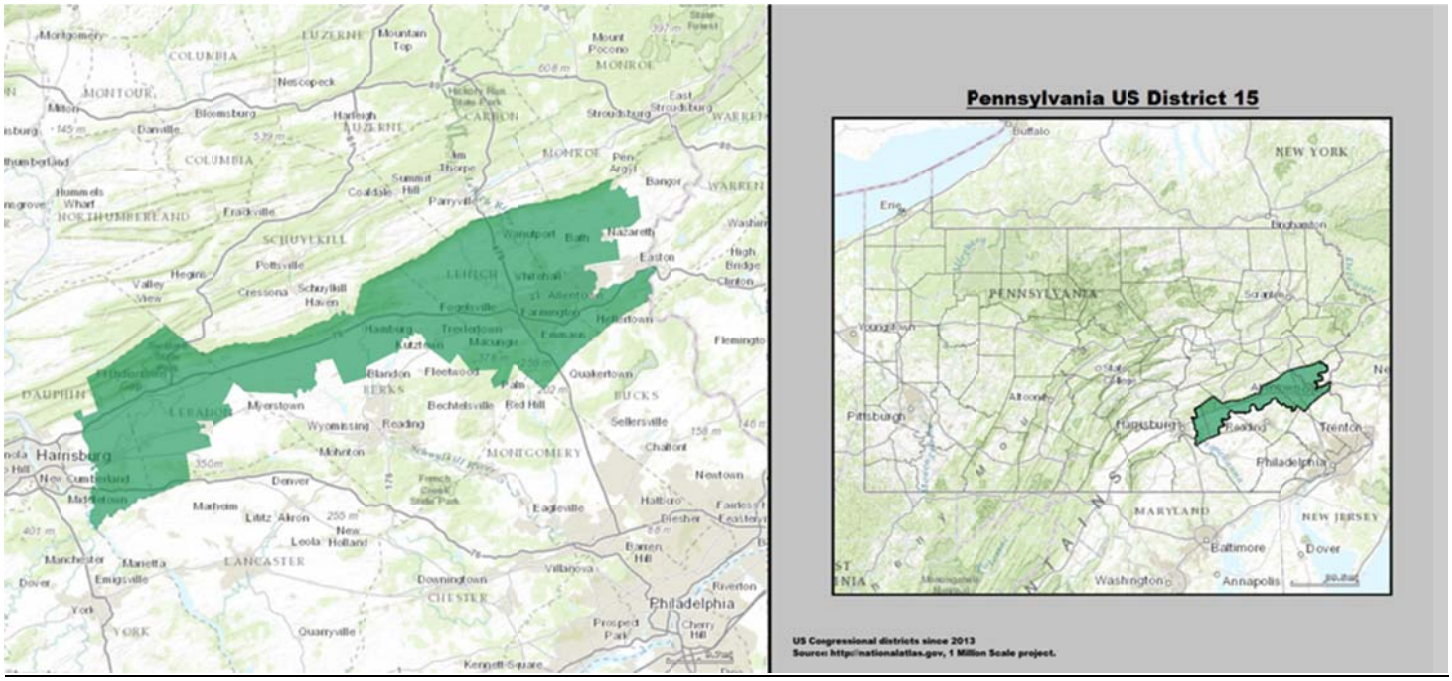
County	Approximate Geographic Proportion of County Contained Within:	
	2002 Map	2011 Map
Carbon	100%	50%
Columbia	100%	100%
Cumberland	0%	85%
Dauphin	0%	65%
Lackawanna	15%	0%
Luzerne	85%	90%
Monroe	100%	0%
Montour	0%	100%
Northumberland	0%	65%
Perry	0%	30%
Wyoming	0%	100%

3. Fifteenth District

2002 Map



2011 Map



The newly constructed Fifteenth Congressional District now contains southern portions of Northampton County, touching the Delaware River, as well as the entirety of Lehigh County, only the northern third of Berks County, a part of Lebanon County and a small portion of Dolphin County. There is nothing similar to the former Fifteenth District which covered all of Northampton and Lehigh Counties and a very small portion of Montgomery and Berks Counties. The northeast (Wind Gap) to southwest (Londonderry Township) stretch of approximately 90 miles in the 2011 map is impossible to justify by reference to any traditional criteria.

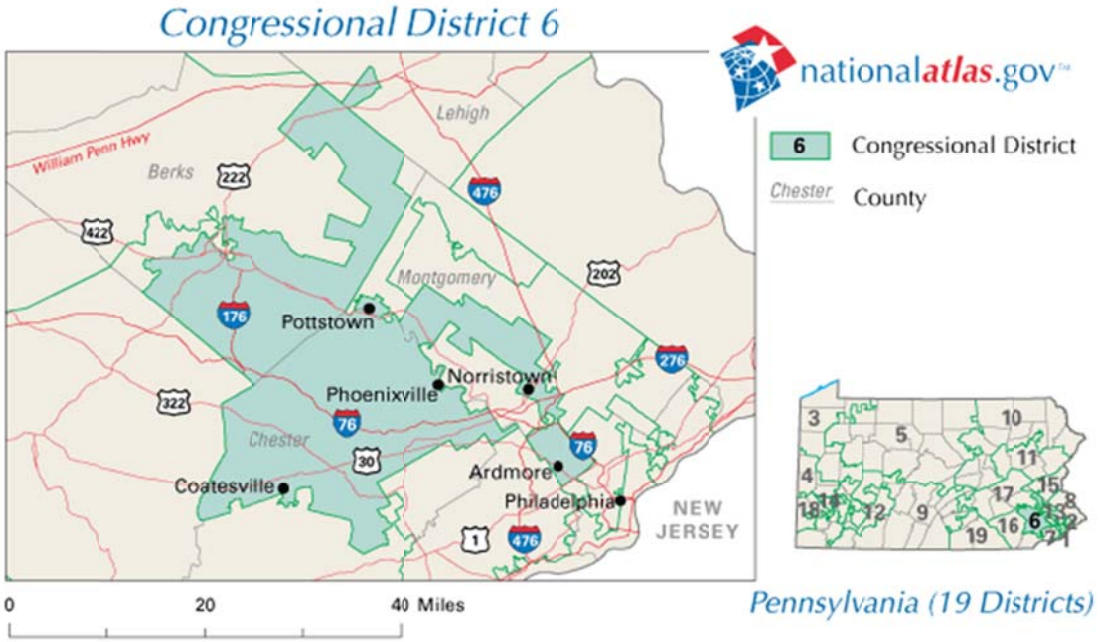
As with the Tenth and Eleventh Districts, the Fifteenth was "stretched" westward in the 2011 map. However, unlike the other two districts, the Fifteenth District was stretched substantially more "thin." It receded from the east while expanding west, which shifts the entire district westward, splits Northampton County (approximately 297,000 people), and splits far-away counties such as Dauphin (approximately 268,000 people) and Lebanon (approximately 134,000 people), thus upsetting the principles of continuity and respect for county boundaries without any justification.

Fifteenth Congressional District

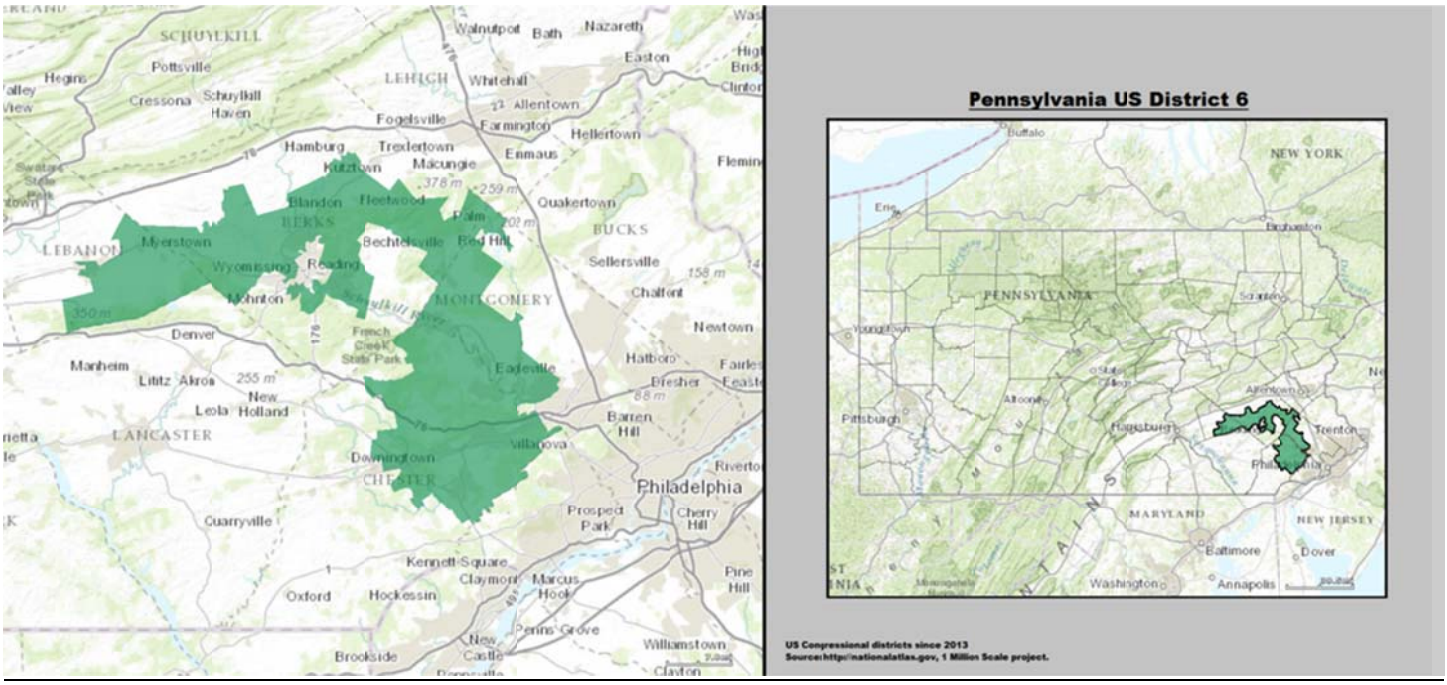
County	**Approximate Geographic Proportion of County Contained Within:**	
	2002 Map	**2011 Map**
Berks	4%	35%
Dauphin	0%	25%
Lebanon	0%	66%
Lehigh	98%	100%
Montgomery	10%	0%
Northampton	100%	50%

4. Sixth District

2002 Map



2011 Map



The Sixth Congressional District also shows a very unusual shape that is not compact, stretching to include large northern portions of Chester County and Montgomery County, a very small portion of Berks County, and a small southern portion of Lebanon County. It also violates traditional redistricting criteria.

Notably, the Sixth District's new enlargement to the west defies logic, as it extends to include only the middle of Berks County and then continues deep into Lebanon County (population of approximately 134,000). Although the shape of the Sixth District in the 2002 map is equally dubious, the 2011 Sixth District failed to maintain much continuity with that map and cannot be justified as simply maintaining the same counties. Most of the townships formerly included in the Sixth District (in the 2002 map) from both Berks and Montgomery Counties are no longer included, whereas many townships in each of those Counties were newly added. This makes little sense as a matter of continuity.

Then there is the obvious non-compactness of the district, which snakes north from its core in Chester County through part of Montgomery, then Berks, then Lebanon Counties, at a width of roughly two townships throughout.

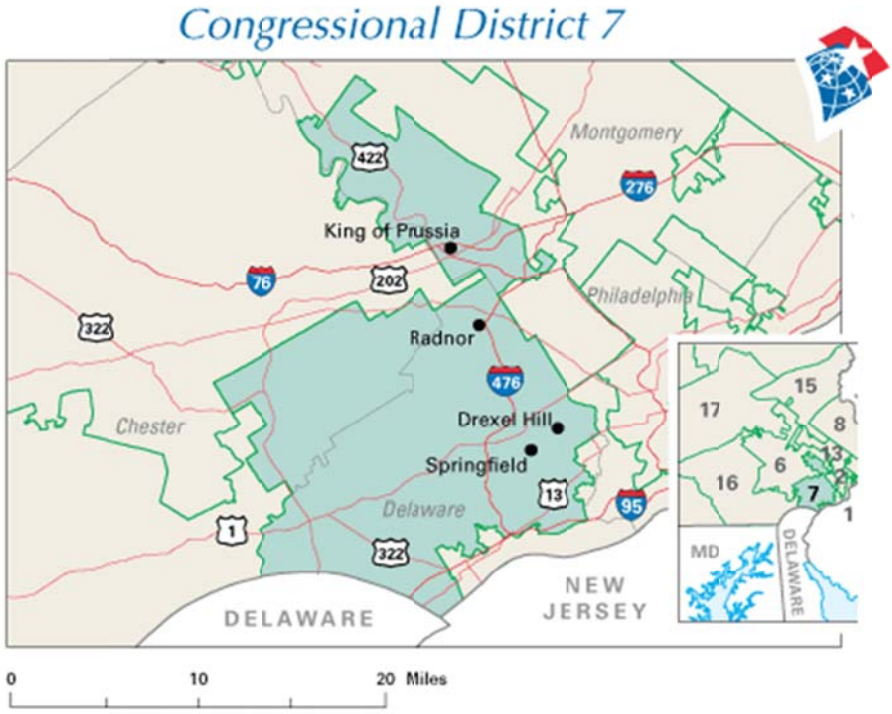
However, the most obvious strangeness to the shape of the Sixth District is the fact that it nearly "encircles" the city of Reading (approximately 88,000 people) without including it. When one considers the fact that the entirety of Reading could have been incorporated into the Sixth District—rather than having it expand to pick up far more than 88,000 people in western Berks and eastern Lebanon Counties—it becomes readily apparent that the district was not drawn in a manner that respects traditional redistricting principles.

Sixth Congressional District

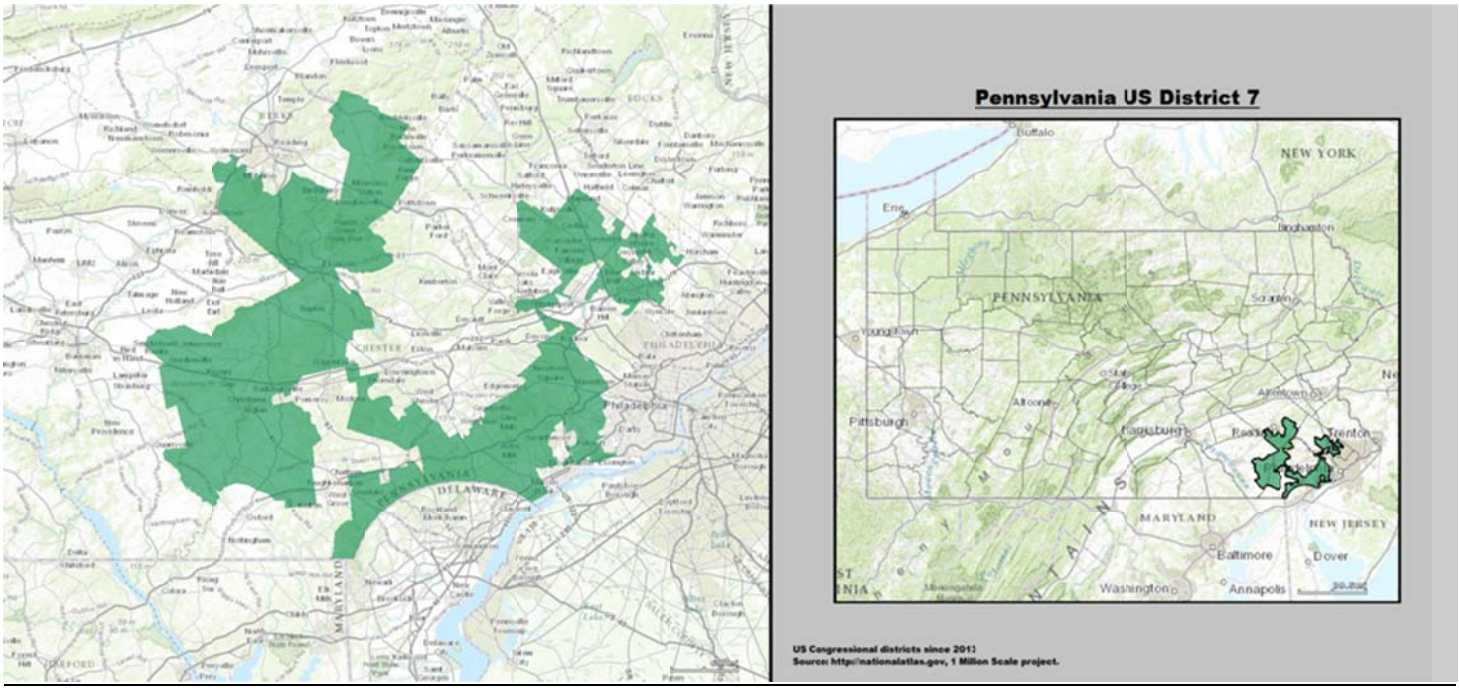
County	Approximate Geographic Proportion of County Contained Within:	
	2002 Map	**2011 Map**
Berks	33%	33%
Chester	50%	33%
Lebanon	0%	33%
Lehigh	2%	0%
Montgomery	20%	25%

5. Seventh District

2002 Map



2011 Map



The Seventh Congressional District presents the most unusual shape in Pennsylvania (and perhaps in the United States) which cannot be explained by any traditional factors. The Seventh District covers portions of Montgomery, Delaware, Chester, Lancaster and Berks Counties. The most unusual feature of this, aside from the shape itself, is that it has a "land-bridge" between two very divergent sections, where it is approximately 170 meters wide (only as wide as necessary to include a steakhouse there, named Creed's).

There are other portions of the Seventh District that are highly unusual as well, which cannot be justified by reference to traditional redistricting criteria. For example, all of the northwestern and southeastern townships in Chester County are included in the Seventh District, yet the center of Chester County is not included, such that a cluster of four townships (West Marlborough, East Marlborough, East Fallowfield, and Valley) in Chester County (in the Sixteenth District) are effectively surrounded by the Seventh District.

Also inexplicably, the 2011 map's Seventh District extends into the Lancaster County's eastern townships of Colerain, Sadsbury, Bart, Paradise, Salisbury, Leacock (combined population: approximately 31,000) rather than, at the very least, incorporating the "engulfed" four townships discussed above (combined population: approximately 22,000).

Seventh Congressional District

County	**Approximate Geographic Proportion of County Contained Within:**	
	2002 Map	**2011 Map**
Berks	0%	20%
Chester	10%	33%
Delaware	90%	80%
Lancaster	0%	15%
Montgomery	10%	20%

6. Other Districts

As visual review moves westward, there are very few adverse inferences that can be drawn from the 2011 map as compared to the 2002 map in terms of the violent departures in the traditional criteria that are described above. (In the 2002 map there were several instances of nontraditional configurations, particularly in the Twelfth and Thirteenth Congressional Districts, such that those districts in the 2011 map may be explained by reference to the traditional redistricting principle of continuity.)

None of the discussion above concerns politics. I have not taken into account any of the testimony about motivation, intent or purpose, as I am primarily comparing the 2011 map to the 2002 map for the above five districts, concluding that the 2011 map for these counties is a total departure from traditional criteria. I give some weight to the absence of the usual process. This raises in my mind a serious inference requiring an explanation, based on traditional criteria, from the defendants. In this case, no satisfactory explanation ever came.

Although trial was often focused on alleged partisan politics, in reaching the above conclusions, I have not taken into account, in any way, shape, or form, any of the testimony about politics as pervaded the trial.

As I have noted elsewhere in this memorandum, judges have failed to reach a consensus about using partisan political criteria. A visual approach completely avoids wading into the waters of this disjointed jurisprudential quagmire based on political participation.

D. Absence of Process

The parties presented witnesses who discussed, in detail, the process by which the 2011 Plan passed through the Pennsylvania Senate. These witnesses were: Senators Leach, Vitali, and Dinniman; and Eric Arneson and William Schaller. Their testimony was largely undisputed. See also Joint Stipulated Facts, ECF 150.

On September 14, 2011, redistricting legislation—with printer number 1520—was submitted to the State Government Committee. (Pl. Tr. Ex. 5) Number 1520 was a "shell bill" at that time, meaning that it was a placeholder without any description. (Leach Dep. 108:7-109:14) Given the timeframe for redistricting—required by the end of 2011—the State Government Committee voted unanimously to allow the bill to proceed. (N.T. 12/6/17, AM, 21) This was largely "procedural," as the bill contained no substance whatsoever at that time, aside from listing the congressional districts numerically. (Id.) In fact, prior to December 13, 2011, when details of the 2011 Plan were released, a large portion of the Senate was excluded entirely from the redistricting process. (Leach Dep. 19:22-20:14)

Then, on the morning of December 14, 2011, a near-final version of the map was introduced as printer number 1862. (Pl. Tr. Ex. 6) The State Government Committee voted on number 1862 on the same day that it was introduced, with several members of the committee expressing their opposition and voting against it. (N.T. 12/6/17, AM, 22:18-23) Nonetheless, the bill was "voted out of" the State Government Committee to the Appropriations Committee, where it was further amended to become printer number 1869, all on the same day. (Id. at 22:25-23:4) Also on the same day, it was voted out of the Appropriations Committee, after the Appropriations Committee suspended a Senate rule requiring six hours between the proposal of a bill and its final vote. (Id. 23:15-18) Again, that same day, December 14, 2011, the Senate approved the bill with a 26-24 vote tally, despite opposition on the floor of the Senate in the form of speeches and votes. (Leach Dep. 32:18-33:19) The Senate suspended the rule requiring sessions to end at 11 p.m. in order to continue debating the bill that night. (N.T. 12/6/17, AM, 25:4-7)

The two committees that voted on the bill were unable to hold any hearings, given the timeframe, and the suspension of various rules intended to slow the process meant there was sparse opportunity for public and legislative debate about the 2011 map. (N.T. 12/6/17, AM, 30:7-15)

Although little testimony was presented with respect to the passage of the 2011 Plan in the Pennsylvania House of Representatives, the map passed the House six days later. (Pl. Tr. Ex. 12) Two days after that, Governor Corbett signed the 2011 map into law. (Joint Stipulated Facts, ECF 150 ¶ 14)

I conclude the unusual process is additional evidence, non-partisan in nature, which supports my conclusion of an unconstitutional gerrymander.

XV. Declaratory Judgment and Remedy

The Declaratory Judgment Act grants federal district courts jurisdiction "to declare the rights and other legal relations of any interested party seeking such a declaration." 28 U.S.C. § 2201(a). The Act is somewhat unique, however, in that district courts have discretion over whether or not to exercise that jurisdiction. Id. (providing that a court "may" declare such rights and legal relationships); Brillhart v. Excess Ins. Co. of America, 316 U.S. 491, 494 (1942); Wilton v. Seven Falls Co., 515 U.S. 277, 287–88 (1995) ("In the declaratory judgment context, the normal principle that federal courts should adjudicate claims within their jurisdiction yields to considerations of practicality and wise judicial administration."); State Auto. Ins. Cos. V. Summy, 234 F.3d 131, 133 (3d Cir. 2000) ("The [Supreme] Court [in Brillhart] emphasized that the jurisdiction conferred by the Act was discretionary, and district courts were under no compulsion to exercise it." (citation omitted)).

If Plaintiffs are entitled to relief, the Court should require Executive and Legislative Defendants to coordinate in redrawing the redistricting map.

XVI. Conclusion

The extensive factual review above requires my conclusion that Plaintiffs have prevailed in proving the Legislative Defendants violated the Elections Clause. I summarize the reasons briefly as follows:

1. Supreme Court decisions have referenced what I term "neutral" or "traditional" factors in redistricting. In the absence of any Supreme Court precedent under the Elections Clause, for any gerrymandering[28] case, I have adopted these factors, as detailed in the testimony, as the appropriate standard.

2. Plaintiffs' evidence, principally the 2011 map, and the absence of usual legislative process, proves these standards were violated as to five districts.

3. The Legislative Defendants produced no credible evidence of any explanation. Plaintiffs' evidence has not been contradicted.

4. The facts require a conclusion that Plaintiffs have introduced clear and convincing evidence that they are entitled to relief.

Plaintiffs themselves described being alienated from the political process. Alienation as a human condition is as old as human existence itself, as reflected in the biblical Garden of Eden.[29]

The concept of alienation is also exemplified in literature and opera. In the Trial, Kafka's Joseph K wanders through an abstract courthouse, unable to learn the charges against him, or how he can defend against them; alienation is an important theme in Verdi's Don Carlo. Betrothed to a French princess, Don Carlo watches helplessly as his father, King Phillip of Spain,

[28] On March 26, 1812, the *Boston Gazette* originally coined the word "gerrymander" (originally written "Gerry-mander"). The word itself was intended to reflect the "salamander-like" shape of a state senate election district redrawn in Massachusetts as part of a map intended to benefit Governor Elbridge Gerry's own Democratic-Republican Party.

[29] See Stephen Greenblatt, The Rise and Fall of Adam and Eve (2017), which traces the Biblical account of the Garden of Eden into modern times through the Christian theologian, Augustine, the English poet, John Milton, and Charles Darwin.

takes the princess as his queen. Eventually, the King turns on his son and condemns Don Carlo to death, with the approval of the Grand Inquisitor.

With less drama, but similarly, the theme of alienation runs through the testimony of the Plaintiffs. Their malady is electoral alienation. They are registered to vote, and they do vote, but they feel, with justification, that their vote does not count.

Electoral alienation is accentuated by gerrymandering. Voter turnout for mid-term Congressional elections in Pennsylvania is very low.[30] In my opinion, gerrymandering will only cause voter turnout to decline even further. This is a major public policy issue, which I believe supports both the justiciability of the case, as well as deciding this case from the viewpoint of the voter, not counting winners or losers, and requires that the 2011 map be redrawn.[31]

For these reasons, I respectfully dissent.

/s/ Michael M. Baylson
MICHAEL M. BAYLSON
United States District Court Judge

[30] Last Four Congressional Midterm Elections

Year	Votes Cast	Voting Age Population	Voter Turnout %
2014	3,323,533	9,964,367	33%
2010	3,956,401	9,798,250	40%
2006	4,011,205	9,650,724	42%
2002	3,309,075	9,487,003	35%

Source: www.electionreturns.pa.gov

[31] Yesterday, a three-judge court in the Middle District of North Carolina ordered the state legislature to enact a new redistricting plan, finding that the current district map violated the Equal Protection Clause, First Amendment, and the Elections Clause. Common Cause v. Rucho, No. 16–CV–1026 (M.D.N.C. Jan. 9, 2018), and reiterated its earlier ruling that partisan gerrymandering claims are justiciable. See id. at 45; Common Cause v. Rucho, 240 F. Supp. 3d 376, 387 (M.D.N.C. 2017). In its Elections Clause analysis, the court noted that the Framers saw the Elections Clause as a grant of procedural power to regulate the time, place and manner of congressional elections, and that the debate over the scope of states' authority under the Clause reflected a conviction that "the Elections Clause should not empower legislative bodies—be they state or federal—to impose election regulations that would favor or disfavor a particular group of candidates or voters." Id. at 179–80. The court concluded that the North Carolina district map violated the Elections Clause for three reasons: "(1) the Elections Clause did not empower State legislatures to disfavor the interests of supporters of a particular candidate or party in drawing congressional districts; (2) the Plan's pro-Republican bias violates other constitutional provisions, including the First Amendment, the Equal Protection Clause, and Article I, section 2; and (3) the Plan represents an impermissible effort to 'dictate electoral outcomes' and 'disfavor a class of candidates.'" Id. at 178.