## 4.2. WHOLE-NUMBER PROPORTIONAL METHOD OF AWARDING ELECTORAL VOTES

## 4.2.1. Summary

- Under the whole-number proportional method for awarding electoral votes, a state's electoral votes would be divided proportionally according to the percentage of popular votes received in the state by each presidential candidate—*in whole-number increments.*<sup>58</sup>
- Because it would not abolish the position of presidential elector or the Electoral College and does not require the creation of fractional electoral votes, the whole-number proportional method can be enacted as state legislation on a state-by-state basis.
- The whole-number proportional method *would not* accurately reflect the nationwide popular vote—even if enacted by every state. In fact, the national popular vote winner would not have become President in three of the eight presidential elections between 1992 and 2020 under this method.
  - In two of these eight presidential elections (2000 and 2016), the winner of the national popular vote would not have won the most electoral votes.
  - In four of these eight elections (1992, 1996, 2000, and 2016), the choice of President would have been thrown into the U.S. House. Based on the composition of the House at the time, the national popular vote winner would not have been chosen by the House in three of those four cases (1996, 2000, and 2016).
- In practice, the whole-number proportional method would be a "winner-takeone" system in almost every state—with perhaps two electoral votes being in play in Texas, and three in California.
- Although it might appear that the whole-number proportional method would give candidates a reason to campaign in all 50 states, it would not do so. Candidates would only campaign in states where their level of support was a few percentage points away from a breakpoint that would gain or lose them an electoral vote. In practice, only about 29 electoral votes from about 26 states would typically be in play. Candidates would not have any reason to campaign in the 24 remaining states, because their level of support would be too far away from a breakpoint that would change an electoral vote. That is, almost half of the states would be politically irrelevant spectator states.
- The whole-number proportional method *would not* make every vote equal. There are five sources of significant inequality built into this method, including a
  - 3.81-to-1 inequality because of senatorial electors;
  - 1.72-to-1 inequality because of imprecision in apportioning U.S. House seats (and hence electoral votes);

<sup>&</sup>lt;sup>58</sup> Note that the allocation of electoral votes in *whole-number* increments is what distinguishes this method from the *fractional-proportional* (Lodge-Gossett) method (section 4.1).

- 1.67-to-1 inequality in favor of voters in low-turnout states;
- 1.39-to-1 inequality because of intra-decade population changes; and
- 50.2-to-1 inequality, because one electoral vote could be won with a few thousand popular votes in a low-population state, while requiring tens of thousands of popular votes in a bigger state.
- Minor-party and independent candidates would almost always be zeroed-out in small- and medium-sized states. The reason is that their level of support would be far less than the fraction of the state's popular vote required to win one electoral vote in such states. One electoral vote would correspond to 33% of the popular vote in a state with three electoral votes. One electoral vote would correspond to 14% of the popular vote of a median-sized state (that is, a state with seven electoral votes).
- The whole-number proportional method would transfer the choice of President from the people to Congress in about half of all elections. The reason is that this method would be adopted without amending the U.S. Constitution, thereby leaving the U.S. House in a position to pick the President if no candidate were to receive an absolute majority of the electoral votes. If the whole-number proportional method had been used by all states, the U.S. House would have picked the President in four of the eight presidential elections between 1992 and 2020 (1992, 1996, 2000, and 2016).
- A state reduces its own influence if it divides its electoral votes while other states continue to use winner-take-all. The whole-number proportional method would penalize first movers and early adopters. Moreover, a piecemeal state-by-state adoption process would quickly become self-arresting, because each new adherent would increase the influence of the remaining winner-take-all states—thereby reducing their incentive to make the change.
- In November 2004, Colorado voters defeated an initiative petition to enact the whole-number proportional method.

## 4.2.2. Description of the whole-number proportional method

Under the whole-number proportional method, each state's electoral votes are awarded *in whole-number increments*—according to each presidential candidate's percentage share of the state's popular vote.

The procedure for determining the number of electoral votes that each presidential candidate would receive under the whole-number proportional method is as follows:

- First, each candidate's percentage share of the popular vote in a state is computed by dividing the candidate's popular vote in the state by the total number of popular votes cast there.
- Second, each candidate's percentage share is multiplied by the number of electoral votes possessed by the state. In the unlikely event that only two candidates receive popular votes for President in a given state, the result of this

multiplication is simply rounded off, and each candidate receives that number of electoral votes.  $^{\rm 59}$ 

- Third, if more than two candidates receive popular votes in a given state (as would almost always be the case in a presidential race), at least one of the state's electoral votes will remain unallocated by the previous step. In this case, each candidate is initially given the whole number of electoral votes obtained by the multiplication in the second step.
- Fourth, each state's unallocated electoral vote(s) are then allocated to the candidate(s) with the largest fractional remainder(s) resulting from the multiplication in the second step.

### 4.2.3. History of the whole-number proportional method

We now discuss the history of the debate about this method in the two places where it was recently considered—Pennsylvania in 2012–2013 and Colorado in 2004.

## Debate in Pennsylvania in 2012-2013

There were three reasons why the Republican-controlled legislature and Republican Governor in Pennsylvania were interested in examining alternatives to the winner-take-all method of awarding electoral votes in the aftermath of the 2012 presidential election.

First, Pennsylvania proved to be a "jilted battleground" in 2012. As PoliticsPA said:

"Once a reliable battleground state, Pennsylvania spent most of the 2012 presidential campaign on the sidelines."<sup>60</sup>

Indeed, Pennsylvania received only five general-election campaign events in 2012 out of a nationwide total of 253. In contrast, there were 40 visits to the state in 2008.

Particularly galling to Pennsylvanians was the fact that neither incumbent President Obama nor Vice President Biden bothered to visit the state during the 2012 general-election campaign.

Even more galling was the fact that neighboring Ohio (with two fewer electoral votes than Pennsylvania) received 73 general-election campaign events—almost one-third of the nationwide total of 253.

Pennsylvania received so little attention because both presidential campaigns correctly predicted that the state would go Democratic in 2012.

Second, even though Pennsylvania was not overwhelmingly Democratic, the Republican presidential nominee had not won any electoral votes from the state in the six previous presidential elections.

<sup>&</sup>lt;sup>50</sup> Note that if more than two candidates were to receive popular votes for President in a state, simple "rounding off" would result in numerous anomalies. For example, if simple "rounding off" were applied to the results of the 2016 election (as discussed in detail below), it would allocate only 54 of the 55 electoral votes that California had at the time, and it would allocate 17 electoral votes in Michigan (which had only 16 electoral votes at the time).

<sup>&</sup>lt;sup>60</sup> Gibson, Keegan. House Republicans resurrect congressional-based Electoral College plan. *PoliticsPA*. December 20, 2012. http://www.politicspa.com/house-rs-resurrect-congressional-based-electoral-college-plan /44960/

Third, there were six states that President Obama carried in both 2008 and 2012 and where the Republican party controlled both houses of the legislature and the Governor's office (namely Pennsylvania, Wisconsin, Michigan, Ohio, Virginia, and Florida). That is, these six Republican-controlled state governments (with a combined total of 106 electoral votes) had the potential to make a dramatic change in the presidential election system.

Thus, in December 2012, Pennsylvania Senate Majority Leader Dominic Pileggi  $(R)^{61}$  announced that he planned to introduce a bill in 2013 to award 18 of Pennsylvania's 20 electoral votes using the whole-number proportional method, while continuing to award the state's two senatorial electoral votes to the candidate receiving the most popular votes statewide.<sup>62</sup>

In a state allocating 18 electoral votes proportionally, each electoral vote would represent 5.56% of the statewide vote.

Table 4.9 shows how Pennsylvania's 20 electoral votes would be divided under Pileggi's proportional proposal in a race with two major-party candidates.<sup>63</sup>

Note that a candidate receiving between 47.22% and 49.99% of the statewide vote would win nine electoral votes. However, because of the state's two senatorial electoral votes, a candidate receiving between 50.01% and 52.78% of the statewide vote would receive 11 electoral votes.

In a December 2012 article entitled "Electoral College Chaos: How Republicans Could Put a Lock on the presidency," Rob Richie from FairVote discussed the political effect if the six Republican-controlled states (Pennsylvania, Wisconsin, Michigan, Ohio, Virginia, and Florida) were to adopt Senator Pileggi's proposal.<sup>64</sup>

As Richie observed, President Obama won the electoral votes of these six states by a 106–0 margin in November 2012.

Meanwhile, Obama won the Electoral College by a 332–206 margin over Governor Mitt Romney—that is, with only 62 more electoral votes than the 270 required for election.

Table 4.10 shows the effect (using data from Richie's article) of applying Senator Pileggi's 2012 proportional proposal to the 2012 election returns from the six states being discussed.

The table shows that, under Pileggi's 2012 proposal (with each state's two senatorial electoral votes awarded to the statewide popular vote winner), President Obama would have received 61 electoral votes to Governor Romney's 45 electoral votes in the six states.

<sup>&</sup>lt;sup>61</sup> As discussed in section 4.3.3, Senator Pileggi had previously proposed (in September 2011) the congressional-district method for awarding Pennsylvania's electoral votes.

<sup>&</sup>lt;sup>©</sup> Varghese, Romy. Pennsylvania proposal may help Republicans win electoral votes. *Bloomberg*. December 3, 2012. http://www.bloomberg.com/news/2012-12-03/pennsylvania-proposal-may-help-republicans-win -electoral-votes.html

<sup>&</sup>lt;sup>63</sup> The whole-number proportional method can be implemented in several slightly different ways, depending how third parties, fractions, and round-offs are treated. Senator Pileggi did not release legislative language at the time of announcing his proposal in December 2012. The calculation here assumes use of the wholenumber proportional method as described in section 4.1 of this book and also assumes only two majorparty candidates.

<sup>&</sup>lt;sup>64</sup> Richie, Rob. 2012. Electoral College chaos: How Republicans could put a lock on the presidency. December 13, 2012. http://www.fairvote.org/electoral-college-chaos-how-republicans-could-put-a-lock-on-the-presidency

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Candidate receiving statewide popular vote of	Wins this number of "proportional" electoral votes	Wins this number of senatorial electoral votes	Wins this total number of electoral votes
Between 0% and 2.78%	0	0	0
Between 2.78% and 8.33%	1	0	1
Between 8.33% and 13.89%	2	0	2
Between 13.89% and 19.44%	3	0	3
Between 19.44% and 25.00%	4	0	4
Between 25.00% and 30.56%	5	0	5
Between 30.56% and 36.11%	6	0	6
Between 36.11% and 41.67%	7	0	7
Between 41.67% and 47.22%	8	0	8
Between 47.22% and 49.99%	9	0	9
Between 50.01% and 52.78%	9	2	11
Between 52.78% and 58.33%	10	2	12
Between 58.33% and 63.89%	11	2	13
Between 63.89% and 69.44%	12	2	14
Between 69.44% and 75.00%	13	2	15
Between 75.00% and 80.56%	14	2	16
Between 80.56% and 86.11%	15	2	17
Between 86.11% and 91.67%	16	2	18
Between 91.67% and 97.22%	17	2	19
Between 97.22% and 100%	18	2	20

### Table 4.9 Division of Pennsylvania's 20 electoral votes under Senator Pileggi's proportional proposal

Table 4.10	Political effect of Pileggi's 2012 proportional proposal in six states that Obama
	carried in 2012

State	D	R	D proportional	R proportional	D at-large	R at-large	D total	R total
FL	50%	49%	14	13	2	0	16	13
MI	54%	45%	8	6	2	0	10	6
ОН	51%	48%	8	8	2	0	10	8
PA	52%	47%	9	9	2	0	11	9
VA	51%	47%	6	5	2	0	8	5
WI	53%	46%	4	4	2	0	6	4
Total			49	45	12	0	61	45

That is, President Obama would have ended up with a narrow 287–251 win in the Electoral College, instead of his actual 332–206 win.

These six Republican-controlled states could potentially narrow the margin even more by awarding all of their electoral votes (instead of all but two) on a proportional basis.

For comparison, table 4.11 shows the effect of applying the whole-number proportional method to all 106 electoral votes possessed by the six states.

As can be seen in the table, if this method is applied to the election returns of these six states, President Obama would have received only 56 electoral votes to Governor

	method m 3/	v states that		
State	D	R	D total	R total
FL	50%	49%	15	14
MI	54%	45%	9	7
ОН	51%	48%	9	9
PA	52%	47%	11	9
VA	51%	47%	7	6
WI	53%	46%	% 5 5	
Total			56	50

	_	_	_	-	
	method in s	six states	that Obama	carried	in 2012
Table 4.11	Political eff	fect of the	whole-num	ber prop	ortional

Romney's 50 electoral votes. That is, Obama would have ended up with a 282–256 win in the Electoral College.

Not surprisingly, the Democrats did not like Pileggi's proposal.

Clifford B. Levine, a prominent Democrat in Pennsylvania, said the following in a speech to the Electoral College meeting in Harrisburg, Pennsylvania, on December 17, 2012:

"If Pennsylvania became the third state to split its electors—lightly populated Maine and Nebraska are the only states that do so now—it would have little influence in future presidential elections, diminishing the voice of Pennsylvania on the national stage.

"Worse, seems a more nefarious nationwide scheme is being orchestrated by far-right strategists.

"In 2010, Republicans took control of state legislatures in many battleground states, including Pennsylvania, Ohio, Michigan, Wisconsin, Virginia and Florida, which have voted Democratic in recent presidential elections. Instead of listening to voters, Republican leaders in those states have recently proposed similar drastic changes to the elector-selection process, seeking a pro rata allocation of electors in their states.

"These partisans assert this allocation is fair because the winner-take-all approach deprives the losing party of a voice. What these partisan Republicans do not address—and what every voter and journalist in America should ask—is whether the pro rata systems are being proposed in red states, where Republicans control the state government and which vote Republican in presidential elections. Texas, Georgia, Mississippi, North Carolina and Missouri apparently will retain the winner-take-all selection method. Only in blue states are proposals being made to dilute Democratic strength. **The result would be a country of red states and irrelevant states, with preordained election results**."<sup>65</sup> [Emphasis added]

<sup>&</sup>lt;sup>65</sup> Levine, Clifford B. Hands off the Electoral College! *Pittsburgh Post-Gazette*. December 30, 2012. http:// www.post-gazette.com/stories/opinion/perspectives/hands-off-the-electoral-college-668327/

When the Pennsylvania legislature met in 2013 and 2014, it took no action on Pileggi's proposal.

## Initiative petition in Colorado in 2004 for the whole-number proportional method (Amendment 36)

The practical political difficulties of enacting this method in a single state were illustrated in Colorado in 2004.

An initiative petition was filed in Colorado calling for a statewide vote on November 2, 2004, on a proposed amendment to the state constitution to install the whole-number proportional method.<sup>66,67,68</sup>

There were three main reasons why the voters defeated Amendment 36 in Colorado in 2004.

First, if Amendment 36 had been adopted, Colorado would have been the only state in the country to divide its electoral votes in this manner. Everyone agreed that the practical political effect of Amendment 36 would be to convert Colorado from a "winner-take-nine" state into a "winner-take-one" state. In his campaign against Amendment 36, Colorado Governor Bill Owens (R) argued that it did not make sense for just one state to adopt this method. Many voters agreed that Colorado's national influence would be reduced if Colorado were the only state in the country to divide its presidential electors proportionally. The Governor's argument was, in essence, the same that Thomas Jefferson had made in his January 12, 1800, letter to James Monroe (section 2.6.1) concerning the "folly" of dividing the electoral votes of states (Virginia and North Carolina) that supported Jefferson in the 1796 presidential election.

Second, Amendment 36 was presented to the voters by its proponents using the argument that it would take effect immediately and apply to the November 2004 presidential election. That is, the initiative would have applied to the very election in which the voters were deciding its fate. Many voters said that they would have approved the change for a subsequent election, but that they were troubled by changing the rules of the game in the midst of the presidential campaign.<sup>69</sup>

<sup>&</sup>lt;sup>66</sup> The text of Amendment 36 is found on pages 32–38 of Colorado's 2004 voter pamphlet, and the arguments for and against the proposition are found on pages 10–12. Legislative Council of the Colorado General Assembly. 2004. *Analysis of the 2004 Ballot Proposals*. Research Publication No. 527-8. http://hermes.cde.sta te.co.us/drupal/islandora/object/co:2995/datastream/OBJ/view

<sup>&</sup>lt;sup>67</sup> Johnson, Kirk. 2004. Coloradans to Consider Splitting Electoral College Votes. New York Times. September 19, 2004. https://www.nytimes.com/2004/09/19/politics/campaign/coloradans-to-consider-splitting-electoral -college-votes.html

<sup>&</sup>lt;sup>68</sup> The Colorado effort was inspired and supported by the late Professor John Sperling, who authored an analysis of the problems of the current political system. See Sperling, John; Helburn, Suzanne; George, Sam; Morris, John; and Hunt Carl. 2004. *The Great Divide: Retro vs. Metro America*. Polipoint Press.

<sup>&</sup>lt;sup>60</sup> Amendment 36 would almost certainly not have applied to the 2004 presidential election in Colorado even if it had been approved by the voters on Election Day in 2004. Section 5 of the Electoral Count Act of 1887 states that a state's appointment of presidential elector is conclusive as to the counting of the electoral votes by Congress only if the electors were appointed under laws "enacted *prior* to the day fixed for the appointment of the electors." Note that if current federal law (section 5 of the Electoral Count Reform Act of 2022) had been in effect in 2004, there is no question that no change in the law on or after Election Day can be applied to the presidential election at hand.

Third, the changing fortunes of the candidates during the campaign interacted with the claim (whether legally correct or not) that Amendment 36 would govern Colorado's awarding of its electoral votes in the 2004 presidential election. During the summer of 2004, it was taken for granted that President George W. Bush, would easily carry Colorado. Indeed, Colorado had voted Republican in most recent presidential elections. Given that political expectation, the political effect of Amendment 36 would have been to transfer four of Colorado's nine electoral votes from Bush to the candidate who was almost universally expected to lose the state, namely Democratic presidential nominee John Kerry.

The historical context of the 2004 campaign was that Bush received only 271 votes in the Electoral College in 2000—that is, only one more electoral vote than is necessary to win. Based on the closeness of the 2000 election and closeness of the 2004 race, it was widely predicted that the vote in the Electoral College was likely to be very close again in 2004.<sup>70</sup> Thus, there was little Republican support for Amendment 36 because it was perceived, from the beginning, to be a partisan effort to take four electoral votes from Bush.

Colorado's Republican Governor Bill Owens led a campaign that spent over a million dollars in opposition to Amendment 36.

Then, as Election Day approached, some polls unexpectedly showed Kerry virtually tied with Bush in Colorado. At that point, Democrats started believing that Kerry might win all nine of Colorado's electoral votes under the winner-take-all system, and Democratic support evaporated. Amendment 36 ended up with only 35% statewide support on Election Day.

## 4.2.4. The whole-number proportional method would not accurately reflect the nationwide popular vote.

At first blush, it might appear that this method would accurately reflect the nationwide popular vote.

However, the national popular vote winner would not have become President in three of the eight presidential elections between 1992 and 2020 if this method had been used in every state.

In two of these eight elections—namely 2000 and 2016—the winner of the national popular vote would not have won the most electoral votes under this method.

- In 2016, this method would have produced a *tie* between Clinton and Trump in the Electoral College (with 261 each)—even though Clinton received 2,868,518 more popular votes nationwide.
- In 2000, this method would have given Bush *more* electoral votes than Gore in 2000—even though Gore received 543,816 more popular votes nationwide.

In four of these eight elections—namely 1992, 1996, 2000, and 2016—no candidate would have received the constitutionally required absolute majority (270 of 538) in the Electoral College.

Consequently, the election for President would have been thrown into the U.S. House of Representatives (with each state having one vote).

<sup>&</sup>lt;sup>70</sup> In fact, this prediction turned out to be correct—Bush eventually received only 286 electoral votes in 2004.

- In three of these four elections (1996, 2000, and 2016), the composition of the newly elected U.S. House was such that the candidate who received the most popular votes nationwide would *not* have been chosen as President by the House.
- In one of these four elections (1992), the national popular vote winner (Bill Clinton) would have been chosen by the House.

To see how the whole-number proportional method operates, we now apply it to the results of the eight presidential elections between 1992 and 2020.

We start with the 2016 election, because it illustrates several of the method's most unexpected features.

### 2016 election

The total national popular vote for President in 2016 was 137,125,484.

The results of the 2016 election were:

- Hillary Clinton—65,853,652
- Donald Trump—62,985,134
- Gary Johnson—4,489,235
- Jill Stein—1,457,226
- Evan McMullin—732,273
- 26 other candidates—1,607,964.<sup>71</sup>

Table 4.12 shows, by state, the results of the 2016 presidential election.

- Columns 2 through 6 show the number of popular votes for each candidate.
- Column 7 shows the combined total vote for candidates other than the top five.
- Column 8 shows the total number of popular votes cast for President in each state.

Now let's illustrate the four steps of the whole-number proportional process by applying it to California (highlighted in the fifth row of this table).

First, Hillary Clinton received 8,753,792 of the 14,237,893 popular votes cast in California. Her percentage share of California's popular vote was 61.48%.

Second, Clinton's percentage share in California (61.48%) is multiplied by 55 (the state's number of electoral votes at the time) yielding 33.815.<sup>72</sup> That is, the result of this step is a whole number (33) and a fractional remainder (0.815). This is shown in table 4.13.

<sup>&</sup>lt;sup>71</sup> A combined total of 1,607,964 votes were scattered among 26 additional candidates (most of whom were on the ballot in only one state, or just a few states), various write-in candidates (notably Ron Paul), and votes cast in the state of Nevada for "none of the above." None of these 26 additional candidates received enough popular votes in any state to come close to winning any electoral votes under the whole-number proportional method. These 1,607,964 votes have been consolidated as "others" in this table.

<sup>&</sup>lt;sup>72</sup> An alternative way to think of this second step is that one electoral vote represented 258,871 popular votes cast in California in 2016. If you divide Clinton's statewide popular vote total in California (8,753,792) by 258,871, the result is 33 (the whole number portion of the quotient) plus a remainder of 211,056 (that is, a fractional remainder of 0.815).

State	Clinton	Trump	Johnson	Stein	McMullin	Others	Total
AL	729,547	1,318,255	44,467	9,391		21,712	2,123,372
AK	116,454	163,387	18,725	5,735		14,307	318,608
AZ	1,161,167	1,252,401	106,327	34,345	17,449	32,968	2,604,657
AR	380,494	684,872	29,829	9,473	13,255	12,712	1,130,635
CA	8,753,792	4,483,814	478,500	278,658	39,596	203,533	14,237,893
со	1,338,870	1,202,484	144,121	38,437	28,917	27,418	2,780,247
СТ	897,572	673,215	48,676	22,841	2,108	508	1,644,920
DE	235,603	185,127	14,757	6,103	706	1,518	443,814
DC	282,830	12,723	4,906	4,258		6,551	311,268
FL	4,504,975	4,617,886	207,043	64,399		108,444	9,502,747
GA	1,877,963	2,089,104	125,306	7,674	13,017	28,383	4,141,447
HI	266,891	128,847	15,954	12,737		4,508	428,937
ID	189,765	409,055	28,331	8,496	46,476	8,310	690,433
IL	3,090,729	2,146,015	209,596	76,802	11,915	59,768	5,594,825
IN	1,033,126	1,557,286	133,993	7,841		25,719	2,757,965
IA	653,669	800,983	59,186	11,479	12,366	28,348	1,566,031
KS	427,005	671,018	55,406	23,506	6,520	11,300	1,194,755
KY	628,854	1,202,971	53,752	13,913	22,780	1,880	1,924,150
LA	780,154	1,178,638	37,978	14,031	8,547	9,684	2,029,032
ME	357,735	335,593	38,105	14,251	1,887	356	747,927
MD	1,677,928	943,169	79,605	35,945	9,630	35,169	2,781,446
MA	1,995,196	1,090,893	138,018	47,661	2,719	50,559	3,325,046
MI	2,268,839	2,279,543	172,136	51,463	8,183	44,378	4,824,542
MN	1,367,825	1,323,232	112,984	36,991	53,083	51,118	2,945,233
MS	485,131	700,714	14,435	3,731	,	7,077	1,211,088
MO	1,071,068	1,594,511	97,359	25,419	7,072	32,837	2,828,266
MT	177,709	279,240	28,037	7,970	2,297	6,569	501,822
NE	284,494	495,961	38,946	8,775		16.051	844,227
NV	539,260	512,058	37,384	,		36,683	1,125,385
NH	348,526	345,790	30,777	6,496	1,064	11,643	744,296
NJ	2,148,278	1,601,933	72,477	37,772		46,263	3,906,723
NM	385.234	319.667	74.541	9.879	5.825	3.173	798.319
NY	4,556,142	2,819,557	176,600	107,937	10,413	51,146	7,721,795
NC	2,189,316	2,362,631	130,126	12,105	,	47,386	4,741,564
ND	93,758	216,794	21,434	3,780		8,594	344,360
ОН	2,394,169	2,841,006	174,498	46,271	12,574	68,029	5,536,547
OK	420,375	949,136	83,481			0	1,452,992
OR	1,002,106	782,403	94,231	50,002		72,594	2,001,336
PA	2,926,441	2,970,733	146,715	49,941	4,304	68,595	6,166,729
RI	252,525	180,543	14,746	6,220	759	9,351	464,144
SC	855,373	1,155,389	49,204	13,034	21,016	9,011	2,103,027
SD	117,458	227,721	20,850	- /	,	4,064	370,093
TN	870.695	1.522.925	70.397	15.993	11.991	16.026	2.508.027
ТХ	3.877.868	4.685.047	283,492	71.558	42,366	32.835	8.993.166
UT	310.676	515.231	39,608	9.438	243.690	24.958	1.143.601
VT	178,573	95,369	10,078	6,758	631	23,658	315,067
VA	1,981,473	1,769,443	118,274	27.638	54,054	31.870	3,982,752
WA	1,742,718	1,221,747	160,879	58,417	2.104	131,131	3,316.996
WV	188.794	489.371	23.004	8.075	1.104	10.885	721.233
WI	1,382.536	1,405.284	106.674	31.072	11.855	38.729	2,976.150
WY	55.973	174.419	13.287	2.515	_, 0	9.655	255.849
Total	65,853,652	62,985,134	4,489,235	1,457,226	732,273	1,607,964	137,125,484

Table 4.12	2016	election	results
	2010	010001011	1000110

The result of these first two steps for the top five candidates in California are:

- 33.815 for Hillary Clinton
- 17.321 for Trump
- 1.848 for Johnson
- 1.076 for Stein
- 0.153 for McMullin

Table 4.13 shows this same calculation for all 50 states and the District of Columbia for 2016. Specifically, the table shows, for each state and each candidate, the *whole number* and *fraction* resulting from multiplying each candidate's percentage share of the state's popular vote by each state's number of electoral votes.

Note that these intermediate calculations for the whole-number proportional method are the very same calculations needed to implement the fractional-proportional method (section 4.1). That is, the totals on the bottom line of this table are the number of electoral votes that each candidate would receive under the fractional-proportional method.

Third, each candidate in California *initially* receives the *whole number* of electoral votes resulting from the second step above:

- 33 electoral votes for Hillary Clinton
- 17 electoral votes for Trump
- 1 electoral vote for Johnson
- 1 electoral vote for Stein
- 0 electoral votes for McMullin

Note that only 52 of California's 55 electoral votes have been allocated after this third step. That is, three of California's 55 electoral votes remain to be allocated at this point in the process.<sup>73</sup>

Fourth, in order to allocate California's three remaining electoral votes, we now examine the fractional remainders for each candidate resulting from the second step above.

- 0.815 for Hillary Clinton
- 0.321 for Trump
- 0.848 for Johnson
- 0.076 for Stein
- 0.153 for McMullin
- insignificant small fractions for each of the 26 other candidates

Johnson has the largest fraction (0.848), Clinton has the second largest fraction (0.815), and Trump has the third largest fraction (0.321).

Therefore, these three candidates each receive one additional electoral vote—thereby completing the allocation of all 55 of California's electoral votes.

Stein and McMullin would not have received any additional electoral votes in this final step, because of their smaller fractional remainders (0.076 and 0.153, respectively).

Note that this step is *not* a simple rounding-off of the numbers produced in the second step. Indeed, rounding-off would not produce a complete allocation of California's electoral votes.

<sup>&</sup>lt;sup>73</sup> On a nationwide basis, 82 of the 538 electoral votes remain unallocated after this third step.

State	Clinton	Trump	Johnson	Stein	McMullin	Others	EV
AL	3.092	5.587	0.188	0.040	0.000	0.092	9
AK	1.097	1.538	0.176	0.054	0.000	0.135	3
AZ	4.904	5.289	0.449	0.145	0.074	0.139	11
AR	2.019	3.634	0.158	0.050	0.070	0.067	6
CA	33.815	17.321	1.848	1.076	0.153	0.786	55
СО	4.334	3.893	0.467	0.124	0.094	0.089	9
СТ	3.820	2.865	0.207	0.097	0.009	0.002	7
DE	1.593	1.251	0.100	0.041	0.005	0.010	3
DC	2.726	0.123	0.047	0.041	0.000	0.063	3
FL	13.748	14.093	0.632	0.197	0.000	0.331	29
GA	7.255	8.071	0.484	0.030	0.050	0.110	16
HI	2.489	1.202	0.149	0.119	0.000	0.042	4
ID	1.099	2.370	0.164	0.049	0.269	0.048	4
IL	11.049	7.671	0.749	0.275	0.043	0.214	20
IN	4.121	6.211	0.534	0.031	0.000	0.103	11
IA	2.504	3.069	0.227	0.044	0.047	0.109	6
KS	2.144	3.370	0.278	0.118	0.033	0.057	6
KY	2.615	5.002	0.223	0.058	0.095	0.008	8
LA	3.076	4.647	0.150	0.055	0.034	0.038	8
ME	1.913	1.795	0.204	0.076	0.010	0.002	4
MD	6.033	3.391	0.286	0.129	0.035	0.126	10
MA	6.601	3.609	0.457	0.158	0.009	0.167	11
MI	7.524	7.560	0.571	0.171	0.027	0.147	16
MN	4.644	4.493	0.384	0.126	0.180	0.174	10
MS	2.403	3.471	0.072	0.018	0.000	0.035	6
MO	3.787	5.638	0.344	0.090	0.025	0.116	10
MT	1.062	1.669	0.168	0.048	0.014	0.039	3
NE	1.685	2.937	0.231	0.052	0.000	0.095	5
NV	2.875	2.730	0.199	0.000	0.000	0.196	6
NH	1.873	1.858	0.165	0.035	0.006	0.063	4
NJ	7.698	5.741	0.260	0.135	0.000	0.166	14
NM	2.413	2.002	0.467	0.062	0.036	0.020	5
NY	17.111	10.589	0.663	0.405	0.039	0.192	29
NC	6.926	7.474	0.412	0.038	0.000	0.150	15
ND	0.817	1.889	0.187	0.033	0.000	0.075	3
ОН	7.784	9.236	0.567	0.150	0.041	0.221	18
OK	2.025	4.573	0.402	0.000	0.000	0.000	7
OR	3.505	2.737	0.330	0.175	0.000	0.254	7
PA	9.491	9.635	0.476	0.162	0.014	0.222	20
RI	2.176	1.556	0.127	0.054	0.007	0.081	4
SC	3.661	4.945	0.211	0.056	0.090	0.039	9
SD	0.952	1.846	0.169	0.000	0.000	0.033	3
TN	3.819	6.679	0.309	0.070	0.053	0.070	11
ТΧ	16.386	19.796	1.198	0.302	0.179	0.139	38
UT	1.630	2.703	0.208	0.050	1.279	0.131	6
VT	1.700	0.908	0.096	0.064	0.006	0.225	3
VA	6.468	5.776	0.386	0.090	0.176	0.104	13
WA	6.305	4.420	0.582	0.211	0.008	0.474	12
WV	1.309	3.393	0.159	0.056	0.008	0.075	5
WI	4.645	4.722	0.358	0.104	0.040	0.130	10
WY	0.656	2.045	0.156	0.029	0.000	0.113	3
Total	255.377	249.022	18.034	5.795	3.255	6.517	538

 Table 4.13 Intermediate calculation for 2016 election

Overall, the final allocation of California's 55 electoral votes would have been:

- 34 electoral votes for Hillary Clinton
- 18 electoral votes for Trump
- 2 electoral votes for Johnson
- 1 electoral vote for Stein
- 0 electoral votes for McMullin
- 0 electoral votes for each of the 26 other candidates.

Table 4.14 carries out this process for all 50 states and the District of Columbia. It shows the number of electoral votes each candidate would have received from each state if the whole-number proportional method is applied to the 2016 election returns.

As can be seen from the bottom line in the table, the overall national results of applying the whole-number proportional method to the results of the 2016 election would have been as follows:

- 261 electoral votes for Hillary Clinton
- 261 electoral votes for Donald Trump
- 14 electoral votes for Johnson (two from California and one each from Arizona, Colorado, Florida, Georgia, Illinois, Indiana, Michigan, New Mexico, New York, Ohio, Texas, and Washington)
- 1 electoral vote for Jill Stein (from California)
- 1 electoral vote for McMullin (from Utah)
- 0 electoral votes for each of the 26 other candidates

In other words, the whole-number proportional method would have produced a 261–261 tie in electoral votes for Hillary Clinton and Donald Trump—even though Clinton received 2,868,518 more popular votes nationwide than Trump.

The reason for this 261–261 tie is that this method of allocating electoral votes yields only a very crude approximation of each state's popular vote. Indeed, in half of the states, one electoral vote corresponds to between 14% and 33% of a state's popular vote.

The most important consequence of this 261–261 tie is that no candidate in 2016 would have received the constitutionally required absolute majority of the electoral votes (270 of 538). Consequently, the presidential election would have been thrown into the newly elected U.S. House of Representatives.

In a so-called "contingent" election for President, each state would have one vote, and the House would be constitutionally limited to choosing among the three candidates receiving the most electoral votes, namely Clinton, Trump, and Johnson in 2016.

If all the members of the 50 delegations in the newly elected U.S. House of Representatives had voted in accordance with their party affiliations on January 6, 2017, Donald Trump would have been chosen President.

In summary, the whole-number proportional method would have initially produced a 261–261 tie in the Electoral College in 2016, and the resulting contingent election in the House would not have selected the candidate (Hillary Clinton) who received the most popular votes nationwide.

The contingent election for Vice President in the Senate is limited to choosing between the two candidates receiving the most electoral votes (Pence and Kaine in 2016). If each

State	Clinton	Trump	Johnson	Stein	McMullin	Others	EV
AL	3	6					9
AK	1	2					3
AZ	5	5	1				11
AR	2	4					6
CA	34	18	2	1			55
CO	4	4	1				9
СТ	4	3					7
DE	2	1					3
DC	3						3
FL	14	14	1				29
GA	7	8	1				16
HI	3	1					4
ID	1	3					4
IL	11	8	1				20
IN	4	6	1				11
IA	3	3					6
KS	2	4					6
KY	3	5					8
LA	3	5					8
ME	2	2					4
MD	6	4					10
MA	7	4					11
MI	7	8	1				16
MN	5	5					10
MS	2	4					6
MO	4	6					10
MT	1	2					3
NE	2	3					5
NV	3	3					6
NH	2	2					4
NJ	8	6					14
NM	2	2	1				5
NY	17	11	1				29
NC	7	8					15
ND	1	2					3
OH	8	9	1				18
OK	2	5					7
OR	4	3	· · · · · · · · · · · · · · · · · · ·				7
PA	10	10					20
RI	2	2					4
SC	4	5					9
SD	1	2					3
TN	4	7					11
ТХ	17	20	1				38
UT	2	3			1		6
VT	2	1					3
VA	7	6					13
WA	6	5	1				12
WV	1	4					5
WI	5	5					10
WY	1	2					3
Total	261	261	14	1	1	0	538

Table 4.14 2016 election under the whole-number proportional method

Method	Clinton	Trump	Johnson	Stein	McMullin	Others	EV
FP	255.377	249.022	18.034	5.795	3.255	6.517	538
WNP	261	261	14	1	1	0	538

### Table 4.15 2016 election under the whole-number proportional method and fractionalproportional (Lodge-Gossett) method

Senator had voted in accordance with party affiliations on January 6, 2017, Mike Pence would have been elected Vice President.

The conclusion is that the whole-number proportional method, if applied to the 2016 election returns, would not have accurately reflected the nationwide popular vote for President or Vice President.

Table 4.15 compares the results produced by the whole-number proportional method (WNP) to the fractional-proportional method (FP) to 2016 election returns.

The table shows that the three minor-party candidates would have received considerably fewer electoral votes under the whole-number proportional method than under the fractional-proportional method.

### 2020 election

The results of the 2020 election were:

- Joe Biden (Democrat)—81,268,586
- Donald Trump (Republican)—74,215,875
- Jo Jorgensen (Libertarian)—1,865,526
- Howie Hawkins (Green)—404,980
- 32 other candidates—470,032.<sup>74</sup>

The total national popular vote for President in 2020 was 158,224,999.

Table 4.16 shows, by state, the results for the 2020 presidential election.<sup>75</sup>

Table 4.17 shows the *whole number* and *fraction* resulting from multiplying each candidate's percentage share of the state's popular vote in 2020 by each state's number of electoral votes.

Table 4.18 shows, by state, the number of electoral votes each candidate would have received if the whole-number proportional method is applied to the results of the 2020 election.

<sup>&</sup>lt;sup>74</sup> A combined total of 470,032 popular votes were scattered among 32 additional candidates (most of whom were on the ballot in only one state, or just a few states), various write-in candidates, and votes cast in the state of Nevada for "none of the above." None of these other candidates received enough popular votes in any state to win any electoral votes under the whole-number proportional method.

<sup>&</sup>lt;sup>75</sup> The data in this table comes from the 51 Certificates of Ascertainment on file at the National Archives and found at https://www.archives.gov/electoral-college/2020?\_ga=2.79064146.774453085.1607395607-18571904 28.1606759205

AL849,6241,441,17025,1767,3122,323,24AK153,778189,9518,8972,6732,270357,56AZ1,672,1431,661,68651,4651,5574753,387,33AR423,932760,64713,1332,98018,3771,219,04CA11,110,2506,006,429187,89581,029115,26817,500,8CO1,804,3521,364,60752,4608,98626,5753,256,93CT1,080,831714,71720,2307,5385411,823,83	282 569 326 069 871 980 857 581 356 456 716 469 231 438
AK153,778189,9518,8972,6732,270357,50AZ1,672,1431,661,68651,4651,5574753,387,33AR423,932760,64713,1332,98018,3771,219,00CA11,110,2506,006,429187,89581,029115,26817,500,8CO1,804,3521,364,60752,4608,98626,5753,256,93CT1,080,831714,71720,2307,5385411,823,83	569 326 069 871 980 857 581 356 456 716 469 231 438
AZ1,672,1431,661,68651,4651,5574753,387,33AR423,932760,64713,1332,98018,3771,219,00CA11,110,2506,006,429187,89581,029115,26817,500,8CO1,804,3521,364,60752,4608,98626,5753,256,93CT1,080,831714,71720,2307,5385411,823,83	326 069 871 980 857 681 356 456 716 469 231 438
AR423,932760,64713,1332,98018,3771,219,00CA11,110,2506,006,429187,89581,029115,26817,500,8CO1,804,3521,364,60752,4608,98626,5753,256,98CT1,080,831714,71720,2307,5385411,823,83DF205,0222000,2274,0020,420500500	069 871 980 857 356 456 716 469 231 438
CA         11,110,250         6,006,429         187,895         81,029         115,268         17,500,8           C0         1,804,352         1,364,607         52,460         8,986         26,575         3,256,93           CT         1,080,831         714,717         20,230         7,538         541         1,823,83           DF         205,022         200,227         4,002         0,420         500,207	871 980 857 356 456 716 469 231 438
CO         1,804,352         1,364,607         52,460         8,986         26,575         3,256,94           CT         1,080,831         714,717         20,230         7,538         541         1,823,83           D5         205,022         200,227         4,002         0,420         500         500	980 857 356 456 716 469 231 438
CT 1,080,831 714,717 20,230 7,538 541 1,823,8 CT 0,080,831 7,938	857 681 356 456 716 469 231 438
	681 356 456 716 469 231 438
DE 295,933 200,327 4,993 2,138 290 503,66	356 456 716 469 231 438
DC 317,323 18,586 2,036 1,726 4,685 344,35	456 716 469 231 438
FL 5,297,045 5,668,731 70,324 14,721 16,635 11,067,4	716 469 231 438
GA 2,473,633 2,461,854 62,138 91 4,997,7	469 231 438
HI 366,130 196,864 5,539 3,822 2,114 574,40	231 438
ID 287,021 554,119 16,304 9,787 867,23	438
IL 3,471,915 2,446,891 66,544 30,494 17,594 6,033,43	
IN 1,242,413 1,729,516 59,232 988 963 3,033,1	112
IA 759,061 897,672 19,637 3,075 7,089 1,686,53	534
KS 570,323 771,406 30,574 1,372,30	303
KY 772,474 1,326,646 26,234 716 10,658 2,136,7	728
LA 856,034 1,255,776 21,645 14,607 2,148,00	062
ME 435.072 360.737 14.152 8.230 1.183 819.3	374
MD 1,985,023 976,414 33,488 15,799 7,195 3,017,92	919
MA 2.382.202 1.167.202 47.013 18.658 3.615.0	075
MI 2.804.040 2.649.852 60.381 13.718 11.293 5.539.28	284
MN 1.717.077 1.484.065 34.976 10.033 22.299 3.268.49	450
MS 539.398 756.764 8.026 1.498 8.073 1.313.75	759
M0 1.253.014 1.718.736 41.205 8.283 4.724 3.025.90	962
MT 244.786 343.602 15.252 603.64	640
NE 374.583 556.846 20.283 951.7	712
NV 703.486 669.890 14.783 3.138 1.391.2	297
NH 424.937 365.660 13.236 803.83	333
NI 2.608.335 1.883.274 31.677 14.202 11.865 4.549.3	353
NM 501.614 401.894 12.585 4.426 3.446 923.90	965
NY 5.230.985 3.244.798 60.234 32.753 22.587 8.591.3	357
NC 2,684,292 2,758,775 48,678 12,195 7,549 5,511,44	489
ND 114 902 235 595 9 393 1 929 361 8	819
OH         2.679.165         3.154.834         67.569         18.812         1.822         5.922.20	202
0K 503.890 1.020.280 24.731 11.798 1.560.69	699
OR         1 340 383         958 448         41 582         11 831         4 988         2 357 22	232
PA 3.458.229 3.377.674 79.380 6.915.26	283
RI         307.486         199.922         5.053         5.296         517.7	757
SC 1.091.541 1.385.103 27.916 6.907 1.862 2.513.33	329
SD 150 471 261 043 11 095 422 60	809
TN 1 143 711 1 852 475 29 877 4 545 23 243 3 053 8	851
TX 5 250 126 5 800 3/7 126 2/3 33 306 5 0// 11 315 0/	056
III         560 282         865 140         38 447         5 053         19 367         1 488 29	289
VT 242 820 112 704 3 608 1 310 6 086 367 A	428
VΔ 2 413 568 1 962 430 64 761 4 440 7	759
WΔ 2 369 612 1 584 651 80 500 18 280 7 327 4 060 3	379
WV 235 984 545 382 10.687 2 500 70 70 70 70 70 70	731
WI         1 630 866         1 610 184         38 401         18 500         3 202 0.	041
WY         73 491         193 559         5 768         2 202         275 0'	026
Total 81,268,586 74,215,875 1,865,526 404,980 470.032 158.224.99	999

## Table 4.16 2020 election results

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State	Biden	Trump	Jorgensen	Hawkins	Others	EV
AL	3.291	5.583	0.098	0.000	0.028	9
AK	1.290	1.594	0.075	0.022	0.019	3
AZ	5.430	5.396	0.167	0.005	0.002	11
AR	2.087	3.744	0.065	0.015	0.090	6
CA	34.916	18.876	0.590	0.255	0.362	55
CO	4.986	3.771	0.145	0.025	0.073	9
СТ	4.148	2.743	0.078	0.029	0.002	7
DE	1.763	1.193	0.030	0.013	0.002	3
DC	2.764	0.162	0.018	0.015	0.041	3
FL	13.880	14.854	0.184	0.039	0.044	29
GA	7.919	7.882	0.199	0.000	0.000	16
HI	2.549	1.371	0.039	0.027	0.015	4
ID	1.324	2.556	0.075	0.000	0.045	4
IL	11.509	8.111	0.221	0.101	0.058	20
IN	4.506	6.272	0.215	0.004	0.003	11
IA	2.700	3.194	0.070	0.011	0.025	6
KS	2.494	3.373	0.134	0.000	0.000	6
KY	2.892	4.967	0.098	0.003	0.040	8
LA	3.188	4.677	0.081	0.000	0.054	8
ME	2.124	1.761	0.069	0.040	0.006	4
MD	6.577	3.235	0.111	0.052	0.024	10
MA	7.249	3.552	0.143	0.057	0.000	11
MI	8.099	7.654	0.174	0.040	0.033	16
MN	5.253	4.541	0.107	0.031	0.068	10
MS	2.463	3.456	0.037	0.007	0.037	6
МО	4.141	5.680	0.136	0.027	0.016	10
MT	1.217	1.708	0.076	0.000	0.000	3
NE	1.968	2.925	0.107	0.000	0.000	5
NV	3.034	2.889	0.064	0.000	0.014	6
NH	2.115	1.820	0.066	0.000	0.000	4
NJ	8.027	5.796	0.097	0.044	0.037	14
NM	2.714	2.175	0.068	0.024	0.019	5
NY	17.657	10.953	0.203	0.111	0.076	29
NC	7.306	7.508	0.132	0.033	0.021	15
ND	0.953	1.953	0.078	0.000	0.016	3
OH	8.143	9.589	0.205	0.057	0.006	18
OK	2.260	4.576	0.111	0.000	0.053	7
OR	3.980	2.846	0.123	0.035	0.015	7
PA	10.002	9.769	0.230	0.000	0.000	20
RI	2.376	1.545	0.039	0.000	0.041	4
SC	3.909	4.960	0.100	0.025	0.007	9
SD	1.068	1.853	0.079	0.000	0.000	3
TN	4.120	6.673	0.108	0.016	0.084	11
ТХ	17.662	19.782	0.424	0.112	0.020	38
UT	2.259	3.488	0.155	0.020	0.078	6
VT	1.983	0.920	0.029	0.011	0.057	3
VA	7.066	5.745	0.190	0.000	0.000	13
WA	7.003	4.683	0.238	0.054	0.022	12
WV	1.485	3.431	0.067	0.016	0.000	5
WI	4.945	4.882	0.117	0.000	0.056	10
WY	0.802	2.111	0.063	0.000	0.024	3
Total	273.594	254.775	6.525	1.374	1.731	538

Table 4.17 Intermediate calculation for 2020 election

State	Biden	Trump	Jorgensen	Hawkins	Others	EV
AL	3	6				9
AK	1	2				3
AZ	6	5				11
AR	2	4				6
CA	35	19	1			55
CO	5	4				9
СТ	4	3				7
DE	2	1				3
DC	3					3
FL	14	15				29
GA	8	8				16
HI	3	1				4
ID	1	3				4
IL	12	8				20
IN	5	6				11
IA	3	3				6
KS	3	3				6
KY	3	5				8
LA	3	5				8
ME	2	2				4
MD	7	3				10
MA	7	4				11
MI	8	8				16
MN	5	5				10
MS	3	3				6
MO	4	6				10
MT	1	2				3
NE	2	3				5
NV	3	3				6
NH	2	2				4
NJ	8	6				14
NM	3	2				5
NY	18	11				29
NC	7	8				15
ND	1	2				3
OH	8	10				18
OK	2	5				7
OR	4	3				7
PA	10	10				20
RI	2	2				4
SC	4	5				9
SD	1	2				3
TN	4	7				11
TX	18	20				38
UT	2	4				6
VT	2	1				3
VA	7	6				13
WA	7	5				12
WV	2	3				5
WI	5	5				10
WY	1	2				3
Total	276	261	1	0	0	538

Table 4.18 2020 election under the whole-number proportional method

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This table shows the overall national results of applying this method to the results of the 2020 election:

- 276 electoral votes for Joe Biden
- 261 electoral votes for Donald Trump
- 1 electoral vote for Jo Jorgensen (from California)
- 0 electoral votes for Hawkins
- 0 electoral votes for the 32 additional candidates

Thus, the national popular vote winner (Biden) would have received an absolute majority of the electoral votes if this method had been applied to the 2020 election returns.

The very small separation between the winner's number of electoral votes (276) and loser's number (261) reflects the fact that very few electoral votes are actually in play under this method.

### 2012 election

The results of the 2012 election were:

- Barack Obama—65,918,036
- Mitt Romney—60,934,261
- Gary Johnson—1,275,912
- Jill Stein-469,643
- 23 other candidates—486,668

The total national popular vote for President was 129,084,520.<sup>76</sup>

Table 4.19 shows, by state, the results for the 2012 presidential election.

Table 4.20 shows, for each state and each candidate, the *whole number* and *fraction* resulting from multiplying each candidate's percentage share of the state's popular vote by each state's number of electoral votes.

Table 4.21 shows the number of electoral votes each candidate would have received if the whole-number proportional method is applied to the 2012 election returns.

The bottom line of this table shows the overall national results of applying this method to the 2012 election returns:

- 276 electoral votes for Obama
- 261 electoral votes for Romney
- 1 electoral vote for Johnson (from California)
- 0 electoral votes for Stein
- 0 electoral votes for the 23 additional candidates

Thus, the national popular vote winner (Obama) would have received an absolute majority of the electoral votes if this method had been applied to the 2012 election returns.

<sup>&</sup>lt;sup>76</sup> A combined total of 486,668 popular votes were scattered among 23 additional candidates (most of whom were on the ballot in only one state or just a few states), various write-in candidates, and votes cast in Nevada for "none of the above." None of these other candidates received enough popular votes in any state to win any electoral votes under the whole-number proportional method.

State	Obama	Romney	Johnson	Stein	Others	Total
AL	795,696	1,255,925	12,328	3,397	6,992	2,074,338
AK	122,640	164,676	7,392	2,917	2,870	300,495
AZ	1,025,232	1,233,654	32,100	7,816	7,757	2,306,559
AR	394,409	647,744	16,276	9,305	1,734	1,069,468
CA	7,854,285	4,839,958	143,221	85,638	115,445	13,038,547
СО	1,323,102	1,185,243	35,545	7,508	18,124	2,569,522
СТ	905,109	634,899	12,580	863	5,542	1,558,993
DE	242,584	165,484	3,882	1,940	31	413,921
DC	267,070	21,381	2,083	2,458	772	293,764
FL	4,237,756	4,163,447	44,726	8,947	19,303	8,474,179
GA	1,773,827	2,078,688	45,324	1,516	695	3,900,050
HI	306,658	121,015	3,840	3,184		434,697
ID	212,787	420,911	9,453	4,402	4,793	652,346
IL	3,019,512	2,135,216	56,229	30,222	835	5,242,014
IN	1,154,275	1,422,872	50,148	625	368	2,628,288
IA	822,544	730,617	12,926	3,769	12,324	1,582,180
KS	439,908	689,809	20,409	714	5,414	1,156,254
KY	679,370	1,087,190	17,063	6,337	7,252	1,797,212
LA	809,141	1,152,262	18,157	6,978	7,527	1,994,065
ME	401,306	292,276	9,352	8,119	2,127	713,180
MD	1,677,844	971,869	30,195	17,110	10,309	2,707,327
MA	1,921,290	1,188,314	30,920	20,691	6,552	3,167,767
MI	2,564,569	2,115,256	7,797	21,897	21,465	4,730,984
MN	1,546,167	1,320,225	35,098	13,023	22,048	2,936,561
MS	562,949	710,746	6,676	1,588	3,625	1,285,584
MO	1,223,796	1,482,440	43,151		7,936	2,757,323
MT	201,839	267,928	14,165		116	484,048
NE	302,081	475,064	11,109		6,125	794,379
NV	531,373	463,567	10,968		9,010	1,014,918
NH	369,561	329,918	8,212	324	2,957	710,972
NJ	2,126,610	1,478,749	20,974	9,902	6,699	3,642,934
NM	415,335	335,788	27,787	2,691	2,156	783,757
NY	4,485,877	2,490,496	47,256	39,984	17,923	7,081,536
NC	2,178,391	2,270,395	44,515		12,071	4,505,372
ND	124,827	188,163	5,231	1,361	3,045	322,627
ОН	2,827,709	2,661,437	49,493	18,573	23,658	5,580,870
OK	443,547	891,325				1,334,872
OR	970,488	754,175	24,089	19,427	21,091	1,789,270
PA	2,990,274	2,680,434	49,991	21,341		5,742,040
RI	279,677	157,204	4,388	2,421	2,359	446,049
SC	865,941	1,071,645	16,321	5,446	4,765	1,964,118
SD	145,039	210,610	5,795		2,371	363,815
TN	960,709	1,462,330	18,623	6,515	10,400	2,458,577
ТΧ	3,308,124	4,569,843	88,580	24,657	2,647	7,993,851
UT	251,813	740,600	12,572	3,817	8,638	1,017,440
VT	199,239	92,698	3,487	594	3,272	299,290
VA	1,971,820	1,822,522	31,216	8,627	20,304	3,854,489
WA	1,755,396	1,290,670	42,202	20,928	16,320	3,125,516
WV	238,269	417,655	6,302	4,406	4,035	670,667
WI	1,620,985	1,407,966	20,439	7,665	11,379	3,068,434
WY	69,286	170,962	5,326		3,487	249,061
Total	65,918,036	60,934,261	1,275,912	469,643	486,668	129,084,520

Table 4.19	2012	election	results

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State	Ohomo	Domnov	lohnoon	Stain	Othoro	EV
State		Komney	Jonnson	Stein	Utners	EV
AL	3.452	5.449	0.053	0.015	0.030	9
AN	1.224	1.644	0.074	0.029	0.029	3
AZ	4.889	5.883	0.153	0.037	0.037	
AR	2.213	3.634	0.091	0.052	0.010	6
CA	33.131	20.416	0.604	0.361	0.487	55
<u>co</u>	4.634	4.151	0.124	0.026	0.063	9
	4.064	2.851	0.056	0.004	0.025	(
DE	1.758	1.199	0.028	0.014	0.000	3
DC	2.727	0.218	0.021	0.025	0.008	3
FL	14.502	14.248	0.153	0.031	0.066	29
GA	1.277	8.528	0.186	0.006	0.003	16
HI	2.822	1.114	0.035	0.029	0.000	4
ID	1.305	2.581	0.058	0.027	0.029	4
IL	11.520	8.147	0.215	0.115	0.003	20
IN	4.831	5.955	0.210	0.003	0.002	11
IA	3.119	2.771	0.049	0.014	0.047	6
KS	2.283	3.580	0.106	0.004	0.028	6
KY	3.024	4.839	0.076	0.028	0.032	8
LA	3.246	4.623	0.073	0.028	0.030	8
ME	2.251	1.639	0.052	0.046	0.012	4
MD	6.197	3.590	0.112	0.063	0.038	10
MA	6.672	4.126	0.107	0.072	0.023	11
MI	8.673	7.154	0.026	0.074	0.073	16
MN	5.265	4.496	0.120	0.044	0.075	10
MS	2.627	3.317	0.031	0.007	0.017	6
MO	4.438	5.376	0.156	0.000	0.029	10
MT	1.251	1.661	0.088	0.000	0.001	3
NE	1.901	2.990	0.070	0.000	0.039	5
NV	3.141	2.741	0.065	0.000	0.053	6
NH	2.079	1.856	0.046	0.002	0.017	4
NJ	8.173	5.683	0.081	0.038	0.026	14
NM	2.650	2.142	0.177	0.017	0.014	5
NY	18.370	10.199	0.194	0.164	0.073	29
NC	7.253	7.559	0.148	0.000	0.040	15
ND	1.161	1.750	0.049	0.013	0.028	3
OH	9.120	8.584	0.160	0.060	0.076	18
OK	2.326	4.674	0.000	0.000	0.000	7
OR	3.797	2.950	0.094	0.076	0.083	7
PA	10.415	9.336	0.174	0.074	0.000	20
RI	2.508	1.410	0.039	0.022	0.021	4
SC	3.968	4.911	0.075	0.025	0.022	9
SD	1.196	1.737	0.048	0.000	0.020	3
TN	4.298	6.543	0.083	0.029	0.047	11
ТХ	15.726	21.723	0.421	0.117	0.013	38
UT	1.485	4.367	0.074	0.023	0.051	6
VT	1.997	0.929	0.035	0.006	0.033	3
VA	6.650	6.147	0.105	0.029	0.068	13
WA	6.740	4.955	0.162	0.080	0.063	12
WV	1.776	3.114	0.047	0.033	0.030	5
WI	5.283	4.589	0.067	0.025	0.037	10
WY	0.835	2.059	0.064	0.000	0.042	3
Total	272.247	256.138	5.537	1.988	2.091	538

Table 4.20 Intermediate calculation for 2012 election

State	Obama	Romney	Johnson	Stein	Others	EV
AL	4	5				9
AK	1	2				3
AZ	5	6				11
AR	2	4				6
CA	33	21	1			55
CO	5	4				9
СТ	4	3				7
DE	2	1				3
DC	3					3
FL	15	14				29
GA	7	9				16
HI	3	1				4
ID	1	3				4
IL	12	8				20
IN	5	6				11
IA	3	3				6
KS	2	4				6
KY	3	5				8
LA	3	5				8
ME	2	2				4
MD	6	4				10
MA	7	4				11
MI	9	7				16
MN	5	5				10
MS	3	3				6
MO	5	5				10
MT	1	2				3
NE	2	3				5
NV	3	3				6
NH	2	2				4
NJ	8	6				14
NM	3	2				5
NY	19	10				29
NC	7	8				15
ND	1	2				3
OH	9	9				18
OK	2	5				7
OR	4	3				7
PA	11	9				20
RI	3	1				4
SC	4	5				9
SD	1	2				3
TN	4	7				11
ТХ	16	22				38
	2	4				6
VT	2	1				3
VA	7	 6				13
WA	7	5				12
WV	2	.3				5
WI	5	5				10
WY	1	2				3
Total	276	261	1	0	0	538

 Table 4.21
 2012 election under the whole-number proportional method

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### 2008 election

The results of the 2008 election were:

- Barack Obama—69,499,428
- John McCain—59,950,323
- Ralph Nader—739,278
- Bob Barr—523,433
- 19 other candidates—749,119.77

The total national popular vote for President in 2008 was 131,461,581.

Table 4.22 shows the results by state for the 2008 presidential election.

Table 4.23 shows, for each state and each candidate, the *whole number* and *fraction* resulting from multiplying each candidate's percentage share of the state's popular vote by each state's number of electoral votes.

Table 4.24 shows, for each state, the number of electoral votes each candidate would have received if the whole-number proportional method is applied to the 2008 election returns.

The bottom line of this table shows that the overall national results of applying this method to the results of the 2008 election would have been:

- 289 electoral votes for Obama
- 248 electoral votes for McCain
- 1 electoral vote for Nader (from California)
- 0 electoral votes for Barr
- 0 electoral votes for 19 additional candidates.

Thus, the national popular vote winner (Obama) would have received an absolute majority of the electoral votes if the whole-number proportional method had been applied to the 2008 election returns.

## 2004 election

The results of the 2004 election were:

- John Kerry—59,028,432
- George W. Bush—62,040,611
- Ralph Nader—465,650
- Michael Badnarik (Libertarian)—397,266
- 12 other candidates—371,577.78

The total national popular vote for President in 2004 was 122,303,536.

<sup>&</sup>lt;sup>77</sup> A combined total of 749,119 popular votes were scattered among 19 additional candidates (most of whom were on the ballot in only one state or just a few states), various write-in candidates, and votes cast in Nevada for "none of the above." None of these other candidates received enough popular votes in any state to win any electoral votes under the whole-number proportional method.

<sup>&</sup>lt;sup>78</sup> A combined total of 371,577 popular votes were scattered among 12 additional candidates (most of whom were on the ballot in only one state or just a few states), various write-in candidates, and votes cast in Nevada for "none of the above." None of these other candidates received enough popular votes in any state to win any electoral votes under the whole-number proportional method.

State	Obama	McCain	Nader	Barr	Others	Total
AL	813,479	1,266,546	6,788	4,991	8,015	2,099,819
AK	123,594	193,841	3,783	1,589	3,390	326,197
AZ	1,034,707	1,230,111	11,301	12,555	15,164	2,303,838
AR	422,310	638,017	12,882	4,776	8,632	1,086,617
CA	8,274,473	5,011,781	108,381	67,582	115,048	13,577,265
CO	1,288,633	1,073,629	13,352	10,898	14,950	2,401,462
СТ	997,773	629,428	19,162		430	1,646,793
DE	255,459	152,374	2,401	1,109	1,273	412,616
DC	245,800	17,367	958		1,728	265,853
FL	4,282,367	4,046,219	28,128	17,220	37,927	8,411,861
GA	1,844,123	2,048,759	1,165	28,731	9,380	3,932,158
HI	325,871	120,566	3,825	1,314	1,992	453,568
ID	236,440	403,012	7,175	3,658	8,169	658,454
IL	3,419,348	2,031,179	31,152	19,642	27,034	5,528,355
IN	1,374,039	1,345,648	909	29,257	5,737	2,755,590
IA	828,940	682,379	8,014	4,590	13,200	1,537,123
KS	514,765	699,655	10,527	6,706	7,220	1,238,873
KY	751,985	1,048,462	15,378	5,989	5,773	1,827,587
LA	782,989	1,148,275	6,997		22,500	1,960,761
ME	421,923	295,273	10,636	251	3,080	731,163
MD	1,629,467	959,862	14,713	9,842	17,712	2,631,596
MA	1,904,098	1,108,854	28,841	13,189	26,087	3,081,069
MI	2,872,579	2,048,639	33,085	23,716	32,175	5,010,194
MN	1,573,354	1,275,409	30,152	9,174	22,280	2,910,369
MS	554,662	724,597	4,011	2,529	4,066	1,289,865
MO	1,441,911	1,445,814	17,813	11,386	12,025	2,928,949
MT	232,159	243,882	3,699	1,358	11,652	492,750
NE	333,319	452,979	5,406	2,740	6,837	801,281
NV	533,736	412,827	6,150	4,263	10,872	967,848
NH	384,826	316,534	3,503	2,217	3,890	710,970
NJ	2,215,422	1,613,207	21,298	8,441	19,039	3,877,407
NM	472,422	346,832	5,327	2,428	3,149	830,158
NY	4,804,945	2,752,771	41,249	19,596	22,387	7,640,948
NC	2,142,651	2,128,474	1,454	25,722	12,488	4,310,789
ND	141,403	168,887	4,199	1,067	2,182	317,738
ОН	2,940,044	2,677,820	42,337	19,917	41,697	5,721,815
OK	502,496	960,165				1,462,661
OR	1,037,291	738,475	18,614	7,635	25,849	1,827,864
PA	3,276,363	2,655,885	42,977	19,912	20,339	6,015,476
RI	296,571	165,391	4,829	1,382	3,593	471,766
SC	862,449	1,034,896	5,053	7,283	11,288	1,920,969
SD	170,924	203,054	4,267	1,835	1,895	381,975
TN	1,087,437	1,479,178	11,560	8,547	15,260	2,601,982
ТΧ	3,528,633	4,479,328	5,751	56,116	17,380	8,087,208
UT	327,670	596,030	8,416	6,966	18,399	957,481
VT	219,262	98,974	3,339	1,067	2,404	325,046
VA	1,959,532	1,725,005	11,483	11,067	16,173	3,723,260
WA	1,750,848	1,229,216	29,489	12,728	30,970	3,053,251
WV	303,857	397,466	7,219		6,326	714,868
WI	1,677,211	1,262,393	17,605	8,858	17,350	2,983,417
WY	82,868	164,958	2,525	1,594	2,713	254,658
Total	69,499,428	59,950,323	739,278	523,433	749,119	131,461,581

Table 4.22 2008 election results

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State	Obama	McCain	Nader	Barr	Others	EV
AL	3.487	5.429	0.029	0.021	0.034	9
AK	1.137	1.783	0.035	0.015	0.031	3
AZ	4.491	5.339	0.049	0.054	0.066	10
AR	2.332	3.523	0.071	0.026	0.048	6
CA	33.519	20.302	0.439	0.274	0.466	55
CO	4.829	4.024	0.050	0.041	0.056	9
СТ	4.241	2.676	0.081	0.000	0.002	7
DE	1.857	1.108	0.017	0.008	0.009	3
DC	2.774	0.196	0.011	0.000	0.019	3
FL	13.745	12.987	0.090	0.055	0.122	27
GA	7.035	7.815	0.004	0.110	0.036	15
HI	2.874	1.063	0.034	0.012	0.018	4
ID	1.436	2.448	0.044	0.022	0.050	4
IL	12,989	7.716	0.118	0.075	0.103	21
IN	5.485	5.372	0.004	0.117	0.023	11
IA	3,775	3.108	0.036	0.021	0.060	7
KS	2,493	3.389	0.051	0.032	0.035	6
KY	3 292	4 589	0.067	0.026	0.025	8
	3 594	5 271	0.032	0.020	0.020	9
MF	2,308	1 615	0.058	0.001	0.017	4
MD	6,192	3.647	0.056	0.037	0.067	10
MA	7 416	4,319	0.112	0.051	0.102	12
MI	9 747	6 951	0.112	0.080	0.109	17
MN	5.406	4 382	0.112	0.032	0.100	10
MS	2 580	3 371	0.104	0.002	0.019	6
MO	5 415	5 430	0.013	0.012	0.045	11
MT	1 413	1 485	0.023	0.008	0.071	3
NF	2.080	2.827	0.034	0.017	0.043	5
NV	2.757	2.133	0.032	0.022	0.056	5
NH	2.165	1.781	0.020	0.012	0.022	4
NI	8 571	6 241	0.082	0.033	0.074	15
NM	2.845	2.089	0.032	0.015	0.019	5
NY	19 494	11 168	0.167	0.080	0.091	
NC	7 4 5 6	7 406	0.005	0.000	0.031	15
ND	1.335	1.100	0.040	0.010	0.021	.3
OH	10 277	9,360	0.148	0.070	0.146	20
	2 405	4 595	0.000	0.000	0.000	7
	3 972	2 828	0.071	0.029	0.099	7
	11 438	9 272	0.150	0.070	0.071	21
RI	2 515	1 402	0.041	0.012	0.030	4
SC	3.592	4.310	0.021	0.030	0.047	8
SD	1.342	1 595	0.034	0.014	0.015	
	4 597	6 253	0.049	0.036	0.065	11
тх	14 835	18 832	0.024	0.236	0.073	34
UT	1 711	3,112	0.044	0.036	0.096	5
VT	2 024	0.913	0.031	0.010	0.022	
VA	6,842	6.023	0.040	0.039	0.056	13
WA	6,308	4,429	0.106	0.046	0.112	11
WV	2,125	2,780	0.050	0.000	0.044	5
WI	5.622	4.231	0.059	0.030	0.058	10
WY	0.976	1.943	0.030	0.019	0.032	3
Total	283.146	246.455	3.124	2.128	3.147	538

 Table 4.23 Intermediate calculation for 2008 election

State	Obama	McCain	Nader	Barr	Other	EV
AL	4	5				9
AK	1	2				3
AZ	5	5				10
AR	2	4				6
CA	34	20	1			55
СО	5	4				9
СТ	4	3			· · · · · · · · · · · · · · · · · · ·	7
DE	2	1				3
DC	3					3
FL	14	13				27
GA	7	8				15
HI	3	1				4
ID	1	3				4
IL	13	8				21
IN	6	5				11
IA	4	3				7
KS	3	3				6
KY	3	5				8
LA	4	5				9
ME	2	2				4
MD	6	4				10
MA	8	4				12
MI	10	7				17
MN	6	4				10
MS	3	3	·			6
MO	5	6				11
MT	1	2				3
NF	2	3				5
NV	3	2				5
NH	2	2				4
NI	9	6	·			15
NM		2				5
NY	20	11			·	31
NC	8	7				15
ND	1	2				.3
OH	10	10				20
	2	5				7
OR	4	3				7
PA	12	9				21
RI	3	1				4
SC	4	4				
SD	1	2	·		·	3
TN	5	6				11
ТХ	15	19	·			34
UT	2	3				5
VT	2	1				3
VA	7	6				13
WA	. 6	5				11
WV	2	3				5
WI	6	4				10
WY	1	2				3
Total	289	248	1	0	0	538

Table 4.24 2008 election under the whole-number proportional method

Table 4.25 shows, for each state, the results for the 2004 presidential election.

Table 4.26 shows, for each state and each candidate, the *whole number* and *fraction* resulting from multiplying each candidate's percentage share of the state's popular vote by each state's number of electoral votes.

Table 4.27 shows, for each state, the number of electoral votes each candidate would have received if the whole-number proportional method is applied to the results of the 2004 election.

The bottom line of this table shows the overall national results of applying this method to the 2004 election returns:

- 258 electoral votes for Kerry
- 280 electoral votes for George W. Bush
- 0 electoral votes for Nader and Badnarik
- 0 electoral votes for 12 additional candidates

Thus, the national popular vote winner (George W. Bush) would have received an absolute majority of the electoral votes if the whole-number proportional method had been applied to the 2004 election returns.

### 2000 election

The results of the 2000 election were:

- Al Gore—51,003,926
- George W. Bush—50,460,110
- Ralph Nader—2,883,105
- Pat Buchanan—449,225
- Harry Browne—384,516
- 11 other candidates—236,593.79

The total national popular vote for President in 2000 was 105,417,475.

Table 4.3 (located earlier in this chapter) shows the results of the 2000 presidential election by state.

Table 4.4 shows the *whole number* and *fraction* resulting from multiplying each candidate's percentage share of the state's popular vote by each state's number of electoral votes.

Table 4.28 shows, for each state, the number of electoral votes each candidate would have received if the whole-number proportional method is applied to the 2000 election returns.

<sup>&</sup>lt;sup>79</sup> A combined total of 236,593 popular votes were scattered among 11 additional candidates (most of whom were on the ballot in only one state or just a few states), various write-in candidates, and votes cast in Nevada for "none of the above." None of these other candidates received enough popular votes in any state to win any electoral votes under the whole-number proportional method.

State	Kerry	Bush	Nader	Badnarik	Other	Total
AL	693,933	1,176,394	6,701	3,529	2,892	1,883,449
AK	111,025	190,889	5,069	1,675	3,940	312,598
AZ	893,524	1,104,294	2,773	11,856	1,446	2,013,893
AR	469,953	572,898	6,171	2,352	3,571	1,054,945
CA	6,745,485	5,509,826	21,213	50,165	95,168	12,421,857
СО	1,001,725	1,101,256	12,718	7,665	6,961	2,130,325
СТ	857,488	693,826	12,969	3,367	11,119	1,578,769
DE	200,152	171,660	2,153	586	719	375,270
DC	202,970	21,256	1,485	502	1,373	227,586
FL	3,583,544	3,964,522	32,971	11,996	16,777	7,609,810
GA	1,366,149	1,914,254	2,231	18,387	3,460	3,304,481
HI	231,708	194,191		1,377	1,737	429,013
ID	181,098	409,235	1,115	3,844	3,155	598,447
IL	2,891,550	2,345,946	3,571	32,442	813	5,274,322
IN	969,011	1,479,438	1,328	18,058	167	2,468,002
IA	741,898	751,957	5,973	2,992	4,088	1,506,908
KS	434,993	736,456	9,348	4,013	2,946	1,187,756
KY	712,733	1,069,439	8,856	2,619	2,432	1,796,079
LA	820,299	1,102,169	7,032	2,781	10,825	1,943,106
ME	396,842	330,201	8,069	1,965	3,675	740,752
MD	1,334,493	1,024,703	11,854	6,094	9,534	2,386,678
MA	1,803,800	1,071,109	4,806	15,022	17,651	2,912,388
MI	2,479,183	2,313,746	24,035	10,552	11,736	4,839,252
MN	1,445,014	1,346,695	18,683	4,639	13,356	2,828,387
MS	458,094	684,981	3,177	1,793	4,320	1,152,365
МО	1,259,171	1,455,713	1,294	9,831	5,355	2,731,364
MT	173,710	266,063	6,168	1,733	2,771	450,445
NE	254,328	512,814	5,698	2,041	3,305	778,186
NV	397,190	418,690	4,838	3,176	5,693	829,587
NH	340,511	331,237	4,479	372	1,139	677,738
NJ	1,911,430	1,670,003	19,418	4,514	6,772	3,612,137
NM	370,942	376,930	4,053	2,382	1,997	756,304
NY	4,314,280	2,962,567	99,873	11,607	3,414	7,391,741
NC	1,525,849	1,961,166	1,805	11,731	456	3,501,007
ND	111,052	196,651	3,756	851	523	312,833
ОН	2,741,167	2,859,768		14,676	12,297	5,627,908
OK	503,966	959,792				1,463,758
OR	943,163	866,831		7,260	19,528	1,836,782
PA	2,938,095	2,793,847	2,656	21,185	13,807	5,769,590
RI	259,760	169,046	4,651	907	2,770	437,134
SC	661,699	937,974	5,520	3,608	8,929	1,617,730
SD	149,244	232,584	4,320	964	1,103	388,215
TN	1,036,477	1,384,375	8,992	4,866	2,609	2,437,319
ТХ	2,832,704	4,526,917	9,159	38,787	3,198	7,410,765
UT	241,199	663,742	11,305	3,375	8,223	927,844
VT	184,067	121,180	4,494	1,102	1,466	312,309
VA	1,454,742	1,716,959	2,393	11,032	13,241	3,198,367
WA	1,510,201	1,304,894	23,283	11,955	11,380	2,861,713
WV	326,541	423,778	4,063	1,405	100	755,887
WI	1,489,504	1,478,120	16,390	6,464	6,529	2,997,007
WY	70,776	167,629	2,741	1,171	1,111	243,428
Total	59,028,432	62,040,611	465,650	397,266	371,577	122,303,536

Table 4.25 2004 election results

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State	Kerry	Bush	Nader	Badnarik	Others	EV
AL	3.316	5.621	0.032	0.017	0.014	9
AK	1.066	1.832	0.049	0.016	0.038	3
AZ	4.437	5.483	0.014	0.059	0.007	10
AR	2.673	3.258	0.035	0.013	0.020	6
CA	29.867	24.396	0.094	0.222	0.421	55
CO	4.232	4.652	0.054	0.032	0.029	9
CT	3.802	3.076	0.058	0.015	0.049	7
DE	1.600	1.372	0.017	0.005	0.006	3
DC	2.676	0.280	0.020	0.007	0.018	3
FL	12.715	14.066	0.117	0.043	0.060	27
GA	6.201	8.689	0.010	0.083	0.016	15
HI	2.160	1.811	0.000	0.013	0.016	4
ID	1.210	2,735	0.007	0.026	0.021	4
	11 513	9 341	0.014	0.129	0.003	21
	4 319	6 594	0.006	0.080	0.000	11
	3 4 4 6	3 493	0.028	0.014	0.001	7
KS	2 197	3 720	0.020	0.020	0.015	6
KV	3 175	4 763	0.039	0.020	0.010	8
	3 799	5 105	0.033	0.012	0.050	9
MF	2 143	1 783	0.000	0.010	0.020	<u>3</u>
MD	5 591	4 293	0.050	0.026	0.020	10
MΔ	7 4 3 2	4 413	0.020	0.062	0.073	12
MI	8 709	8 1 2 8	0.020	0.002	0.010	17
MN	5 109	4 761	0.066	0.001	0.041	10
MS	2 385	3 566	0.000	0.010	0.022	6
MO	5.071	5.863	0.017	0.000	0.022	11
MT	1 157	1 772	0.000	0.040	0.022	3
NF	1 634	3 295	0.037	0.012	0.010	5
NV	2.394	2 523	0.029	0.019	0.034	5
NH	2.010	1.955	0.026	0.002	0.007	4
NJ	7.938	6.935	0.081	0.019	0.028	15
NM	2 452	2 492	0.027	0.016	0.013	5
NY	18 094	12 425	0.419	0.049	0.014	
NC	6.537	8.403	0.008	0.050	0.002	15
ND	1 065	1 886	0.036	0.008	0.005	.3
OH	9,741	10,163	0.000	0.052	0.044	20
OK	2.410	4.590	0.000	0.000	0.000	7
OR	3.594	3.304	0.000	0.028	0.074	7
PA	10.694	10.169	0.010	0.077	0.050	21
RI	2.377	1.547	0.043	0.008	0.025	4
SC	3.272	4.638	0.027	0.018	0.044	8
SD	1.153	1.797	0.033	0.007	0.009	3
TN	4.678	6.248	0.041	0.022	0.012	11
ТХ	12.996	20.769	0.042	0.178	0.015	34
UT	1.300	3.577	0.061	0.018	0.044	5
VT	1.768	1.164	0.043	0.011	0.014	3
VA	5.913	6.979	0.010	0.045	0.054	13
WA	5.805	5.016	0.089	0.046	0.044	11
WV	2.160	2.803	0.027	0.009	0.001	5
WI	4.970	4.932	0.055	0.022	0.022	10
WY	0.872	2.066	0.034	0.014	0.014	3
Total	257.830	274.545	2.176	1.762	1.688	538

Table 4.26 Intermediate calculation for 2004 election

State	Kerry	Bush	Nader	Badnarik	Others	EV
AL	3	6				9
AK	1	2				3
AZ	4	6				10
AR	3	3				6
CA	30	25				55
CO	4	5				9
СТ	4	3				7
DE	2	1				3
DC	3					3
FL	13	14				27
GA	6	9				15
HI	2	2				4
ID	1	3				4
IL	12	9				21
IN	4	7				11
IA	3	4				7
KS	2	4				6
KY	3	5				8
LA	4	5				9
ME	2	2				4
MD	6	4				10
MA	8	4				12
MI	9	8				17
MN	5	5				10
MS	2	4				6
MO	5	6				11
MT	1	2				3
NE	2	3				5
NV	2	3				5
NH	2	2				4
NJ	8	7				15
NM	2	3				5
NY	18	13				31
NC	7	8				15
ND	1	2				3
OH	10	10				20
OK	2	5				7
OR	4	3				1
PA	11	10				
RI	2	2				4
SC	3	5				8
SD		2				3
	5	6				11
	13	21				34
	1	4				5
	2					<u> </u>
VA	6					13
	0	5				<u>_</u>
		3				0 10
	CC	2				0T
Total	 258	∠ 	0	0	0	538
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 Table 4.27
 2004 election under the whole-number proportional method

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State	Gore	Bush	Nader	Buchanan	Browne	All others	EV
AL	4	5					9
AK	1	2					3
AZ	4	4					8
AR	3	3					6
CA	29	23	2				54
СО	3	4	1				8
СТ	5	3					8
DE	2	1					3
DC	3	0					3
FL	12	12	1				25
GA	6	7					13
HI	2	2					4
ID	1	3					4
IL	12	9	1				22
IN	5	7					12
IA	4	3					7
KS	2	4					6
KY	3	5					8
LA	4	5					9
ME	2	2					4
MD	6	4					10
MA	7	4	1				12
MI	9	8	1				18
MN	5	5					10
MS	3	4					7
MO	5	6					11
MT	1	2					3
NE	2	3					5
NV	2	2					4
NH	2	2					4
NJ	8	6	1				15
NM	3	2					5
NY	20	12	1				33
NC	6	8					14
ND	1	2					3
ОН	10	10	1				21
OK	3	5					8
OR	3	3	1				7
PA	12	11					23
RI	3	1					4
SC	3	5					8
SD	1	2					3
TN	5	6					11
ТΧ	12	19	1				32
UT	1	4					5
VT	2	1					3
VA	6	7					13
WA	6	5					11
WV	2	3					5
WI	5	5	1				11
WY	1	2					3
Total	262	263	13	0	0		538

 Table 4.28
 2000 election under the whole-number proportional method

The bottom line of this table shows the overall national results of applying the wholenumber proportional method to the 2000 election returns:

- 262 electoral votes for Gore
- 263 electoral votes for George W. Bush
- 13 electoral votes for Ralph Nader, including two electoral votes in California and one electoral vote in each of 11 other states (Colorado, Florida, Illinois, Massachusetts, Michigan, New Jersey, New York, Ohio, Oregon, Texas, and Wisconsin)
- 0 electoral votes for Buchanan
- 0 electoral votes for Brown
- 0 electoral votes for 11 additional candidates

Note that Gore received *fewer* electoral votes than Bush under the whole-number proportional method—despite the fact that Gore received over a half million more popular votes than Bush.

The reason that the second-place candidate (Bush) would have had a 263–262 lead in electoral votes is that this method produces only a very rough approximation to the national popular vote.

In any case, no candidate would have received "a majority of the whole number of Electors appointed" as required by the Constitution if this method is applied to the 2000 election returns. Consequently, the election for President would have been thrown into the newly elected U.S. House of Representatives on January 6, 2001.

If the members of the 50 delegations in the U.S. House of Representatives had voted in accordance with their party affiliations in the contingent election on January 6, 2001, George W. Bush would have been elected President.

In summary, the whole-number proportional method would have initially produced a 263–262 lead for the second-place candidate (Bush), and the contingent election in the House would have resulted in the election of the second-place candidate as President.

The newly elected Senate was equally divided on January 6, 2001. The U.S. Constitution is not entirely clear as to whether, in the event of a tie in the Senate in a contingent election for Vice President, the sitting Vice President (namely Al Gore, whose term of office ran until January 20, 2001) would have been entitled to vote to break the tie.

If Gore had voted, and all the Senators had voted in accordance with their party affiliation, the Democratic nominee for Vice President (Senator Joseph Lieberman) would have been elected Vice President by the Senate. If Gore had not voted, and all the Senators had voted in accordance with their party affiliations, the office of Vice President would have remained unfilled.

Then, the President whom the House would have elected (George W. Bush) would have filled the vacant office of Vice President under terms of the 25<sup>th</sup> Amendment after he was inaugurated on January 20, 2001.

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### **1996 election**

The results of the 1996 election were:

- Bill Clinton—47,400,125
- Bob Dole—39,198,755
- Ross Perot—8,085,402
- Ralph Nader—685,435
- Harry Browne—485,798
- 17 additional candidates—420,125.80

The total national popular vote for President in 1996 was 96,275,640.

Table 4.29 shows, for each state, the results for the 1996 presidential election.

Table 4.30 shows, for each state and each candidate, the *whole number* and *fraction* resulting from multiplying each candidate's percentage share of the state's popular vote by each state's number of electoral votes.

Table 4.31 shows, for each state, the number of electoral votes each candidate would have received if the whole-number proportional method is applied to the 1996 election returns.

The bottom line of this table shows the overall national results of applying this method to the results of the 1996 election:

- 267 electoral votes for Bill Clinton
- 224 electoral votes for Dole
- 46 electoral votes for Perot (coming from a total of 35 states)
- 1 electoral vote for Nader (from California)
- 0 electoral votes for Browne
- 0 electoral votes for 17 additional candidates

No candidate would have received "a majority of the whole number of Electors appointed" as required by the Constitution if this method had been applied to the results of the 1996 election. Consequently, the election for President would have been thrown into the newly elected U.S. House of Representatives on January 6, 1997, and the election for Vice President would have been thrown into the newly elected U.S. Senate.

If the members of the 50 delegations in the U.S. House of Representatives had voted in accordance with their party affiliations in the contingent election on January 6, 1996, Bob Dole would have been elected President.

Thus, after the contingent election in the House, the whole-number proportional method would not have resulted in the election of the candidate who received the most popular votes nationwide in 1996, namely Bill Clinton.

<sup>&</sup>lt;sup>80</sup> This total of 96,275,640 includes 420,125 popular votes scattered among 17 additional candidates (most of whom were on the ballot in only one state or just a few states), various write-in candidates, and votes cast in Nevada for "none of the above." None of these other candidates received enough popular votes in any state to win any electoral votes under the whole-number proportional method.

AL         662,165         769,044         92,149         5,290         5,701         1,534,349           AK         80,380         122,746         26,333         7,597         2,276         2,288         241,620           AZ         653,288         62,2073         112,072         2,062         14,358         552         1,404,405           AR         475,171         325,416         69,884         3,649         3,076         7,068         884,262           C         5,119,835         3,828,80         697,847         237,016         73,600         62,806         10,019,844           C0         671,152         691,848         99,629         25,070         12,392         10,613         1,510,704           C1         158,200         17,339         3,611         4,780         588         1,488         1,857,26           C1         158,200         17,339         3,611         4,101         23,965         452         5,303,794           C1         105,614         143,565         62,18         3,325         3,838         491,719           L1         2,546,870         2,444,14         1,5650         2,315         7,144         1,234,075           K1 </th <th>State</th> <th>Clinton</th> <th>Dole</th> <th>Perot</th> <th>Nader</th> <th>Browne</th> <th>Others</th> <th>Total</th>	State	Clinton	Dole	Perot	Nader	Browne	Others	Total
AK         80,380         122,746         26,333         7,597         2,276         2,288         24,620           AZ         653,288         622,073         112,072         2,062         14,358         552         1,404,405           AR         475,171         325,416         69,884         3,649         3,076         7,066         884,262           CA         5,119,835         3,828,380         697,847         237,016         73,600         62,806         10,019,484           CO         671,152         691,848         9,962         25,701         12,392         10,613         1,510,704           DL         158,220         17,339         3,611         4,780         588         1,188         188,726           GL         1,053,849         1,080,843         146,337         17,870         172         2,299,071           H         205,012         113,943         27,358         10,386         2,493         928         360,120           D         165,443         26,595         62,518         3,325         3,838         49,179           L         2,34,174         1,587,021         346,408         1,447         25,254         12,224         311,391	AL	662,165	769,044	92,149		5,290	5,701	1,534,349
AZ         653,288         622,073         112,072         2,062         14,358         552         1,404,065           AR         475,171         325,416         69,844         237,016         73,600         62,806         10,019,484           C0         671,152         691,848         99,629         25,070         12,392         10,613         1,510,704           C1         735,740         483,109         139,523         24,321         5,788         4,133         1,392,614           DE         140,355         99,062         28,719         156         2,052         740         271,084           DC         158,220         17,339         3,611         4,780         588         1,188         188,726           FL         2,546,870         2,244,536         483,870         4,101         23,965         492,9071           H1         205,012         113,943         27,358         10,386         2,449         928         360,120           D1         165,443         256,595         62,518         3,325         3,838         491,719           IL         2,341,744         1,587,021         346,408         1,447         2,2548         12,234,075 <t< td=""><td>AK</td><td>80,380</td><td>122,746</td><td>26,333</td><td>7,597</td><td>2,276</td><td>2,288</td><td>241,620</td></t<>	AK	80,380	122,746	26,333	7,597	2,276	2,288	241,620
AR         475,171         325,416         69,884         3,649         3,076         7,066         884,262           CA         5,119,835         3,828,380         697,847         237,016         73,600         62,806         10,019,484           CI         735,740         483,109         139,523         24,321         5,788         4,133         1,510,704           CI         158,220         17,339         3,611         4,780         588         1,188         185,726           FL         2,546,870         2,244,536         483,870         4,101         23,965         452         5,303,794           GA         1,053,449         1,008,0843         146,337         1,7870         172         2,299,071           HI         205,012         113,943         26,538         10,386         2,433         928         360,120           IL         2,341,744         1,587,021         346,408         1,447         2,2548         12,234         4,313,391           IN         887,424         1,006,693         2,24299         1,121         15,632         6,73         2,135,842           IA         620,783         71,256         12,233         4,719         7,499         8,025<	AZ	653,288	622,073	112,072	2,062	14,358	552	1,404,405
CA         5,119,835         3,828,380         697,847         237,016         73,600         62,806         10,019,484           C0         671,152         691,848         99,629         25,070         12,392         10,613         1,510,704           L1         140,355         99,062         28,719         156         2,052         740         271,084           DE         158,220         17,339         3,611         4,780         588         1,188         188,726           FL         2,546,870         2,244,536         483,870         4,101         23,965         452         5,303,794           GA         1,053,849         1,080,843         146,337         17,870         172         2,299,071           IL         2,341,744         1,587,021         346,408         1,447         2,548         12,223         4,311,391           IL         2,341,744         1,056,59         6,550         2,315         7,149         1,234,075           IS         387,69         582,459         92,639         914         4,557         5,266         1,733,00           K         636,614         623,283         120,396         701         4,009         3,055         1,388,708	AR	475,171	325,416	69,884	3,649	3,076	7,066	884,262
CO         671,152         691,848         99,629         25,070         12,392         10,613         1,510,704           CT         735,740         483,109         139,523         24,321         5,788         4,133         1,392,614           DE         140,355         99,062         28,719         156         2,052         740         271,084           DC         158,220         17,339         3,611         4,780         588         1,188         158,726           GA         1.053,849         1.080,843         146,337         17.870         172         2,299,071           HI         205,012         113,943         27,358         10,386         2,493         928         360,120           IL         2,341,744         1.587,021         346,408         1,447         22,548         12,233         4,311,391           IL         8,3659         583,245         92,639         914         4,557         5,286         1,074,300           KY         636,614         623,283         12,293         4,719         7,499         3,025         1,387,704           IA         92,787         7,1256         12,293         4,719         7,499         3,025         1,783,9	CA	5,119,835	3,828,380	697,847	237,016	73,600	62,806	10,019,484
CT         735,740         483,109         139,523         24,321         5,788         4,133         1,392,614           DE         140,355         99,062         28,719         156         2,052         740         271,084           DE         158,220         17,339         3,611         4,780         588         1,188         185,726           FL         2,546,870         2,244,536         483,870         4,101         23,965         452         5,303,794           GA         1,053,849         1,060,843         146,337         17,870         172         2,299,071           IL         2,341,744         1,587,021         346,408         1,447         2,2548         12,223         4,311,391           IL         2,341,744         1,587,021         346,408         1,447         2,2548         12,234,075           KS         387,659         583,245         92,639         914         4,557         5,286         1,074,300           KY         636,614         623,283         120,396         701         4,009         3,705         1,388,708           LA         927,837         712,586         15,704         2,460         8,765         5,5950         1,780,879	CO	671,152	691,848	99,629	25,070	12,392	10,613	1,510,704
DE         140,355         99,062         28,719         156         2,052         740         271,084           DC         158,220         17,339         3,611         4,780         588         1,188         185,726           FL         2,56,6870         2,244,536         483,870         4,101         23,965         452         5,33,794           GA         1,053,849         1,080,843         146,337         17,870         172         2,299,071           HI         205,012         113,943         27,358         10,386         2,493         928         360,120           ID         165,443         256,595         62,518         3,325         3,838         491,719           IL         2,341,744         1,587,021         346,408         1,447         22,548         1,234,075           KS         387,659         583,245         92,639         914         4,557         5,266         1,763,305           IA         627,681,530         115,812         2,606         8,765         9,705         1,388,708           LA         927,837         712,586         123,293         4,719         7,499         3,025         1,783,999           ME         31,2788	СТ	735,740	483,109	139,523	24,321	5,788	4,133	1,392,614
DC         158,220         17,339         3,611         4,780         588         1,188         185,726           FL         2,546,870         2,244,536         483,870         4,101         23,965         452         5,303,794           GA         1,053,849         1,008,843         146,337         17,870         172         2,299,071           HI         205,012         113,943         27,358         10,386         2,493         928         360,120           ID         165,443         266,595         62,518         3,325         3,838         491,719           IN         887,424         1,006,693         224,299         1,121         15,632         673         2,135,842           IA         620,258         492,644         105,159         6,550         2,315         7,149         1,234,075           KS         387,659         583,245         92,830         701         4,009         3,705         1,388,708           LA         927,837         712,586         127,293         4,719         7,499         8,025         1,783,959           ME         31,577         714,340         2,466         805,897         15,279         2,966         1,780,870 <t< td=""><td>DE</td><td>140,355</td><td>99,062</td><td>28,719</td><td>156</td><td>2,052</td><td>740</td><td>271,084</td></t<>	DE	140,355	99,062	28,719	156	2,052	740	271,084
FL         2,546,870         2,244,536         483,870         4,101         23,965         452         5,303,794           GA         1,053,849         1,080,843         146,337         17,870         172         2,299,071           II         205,012         113,943         27,358         10,386         2,493         928         360,120           ID         165,443         256,595         62,518         3,325         3,838         491,719           IL         2,341,744         1,587,021         346,408         1,447         22,548         12,223         4,311,391           IL         2,347,424         1,006,693         224,299         1,121         15,632         673         2,135,842           IA         620,258         492,644         105,159         6,550         2,315         7,149         1,234,075           KS         387,659         583,245         92,639         914         4,557         5,266         1,074,300           LA         927,837         712,586         123,293         4,719         7,499         8,025         1,783,959           ML         312,788         186,370         2,322         2,670         11,317         3,848,84	DC	158,220	17,339	3,611	4,780	588	1,188	185,726
GA         1,053,849         1,080,843         146,337         17,870         172         2,299,071           HI         205,012         113,943         27,358         10,386         2,493         928         360,120           IL         2,341,744         1,587,021         346,408         1,447         22,548         12,223         4,311,391           IN         887,424         1,006,693         224,299         1,121         15,632         673         2,135,842           IA         620,258         492,644         105,159         6,550         2,315         7,149         1,234,075           KS         387,659         583,245         92,639         914         4,557         5,286         1,074,300           KY         636,614         623,283         120,396         701         4,009         3,705         1,388,708           LA         927,837         712,586         123,293         4,719         7,499         8,025         1,788,399           MD         966,207         681,530         115,812         2,606         8,765         5,950         1,780,870           MI         1,899,653         1,481,212         336,670         2,322         7,670         11,4843 <td>FL</td> <td>2,546,870</td> <td>2,244,536</td> <td>483,870</td> <td>4,101</td> <td>23,965</td> <td>452</td> <td>5,303,794</td>	FL	2,546,870	2,244,536	483,870	4,101	23,965	452	5,303,794
HI         205,012         113,943         27,358         10,386         2,493         928         360,120           ID         165,443         256,595         62,518         3,325         3,838         491,719           IL         2,341,744         1,587,021         346,408         1,427         22,648         12,223         4,311,391           IN         887,424         1,006,693         224,299         1,121         15,632         673         2,135,842           IA         620,258         492,644         105,159         6,550         2,315         7,149         1,234,075           KS         387,659         583,245         92,639         914         4,557         5,286         1,074,300           KY         636,614         623,283         120,396         701         4,009         3,705         1,388,708           IA         927,837         712,586         133,293         4,719         7,499         8,025         1,780,870           MA         1,571,763         718,107         22,217         4,734         20,426         14,538         2,556,785           MI         1,120,438         766,476         257,704         24,908         8,271         14,843	GA	1.053.849	1.080.843	146.337	,	17.870	172	2.299.071
D         165,443         256,595         62,518         3,325         3,838         491,719           IL         2,341,744         1,587,021         346,408         1,447         22,548         12,223         4,311,391           IN         887,424         1,006,693         224,299         1,121         15,632         673         2,135,842           IA         620,258         492,644         105,159         6,550         2,315         7,149         1,234,075           KS         387,659         583,245         92,639         914         4,557         5,286         1,074,300           KY         636,614         623,283         120,396         701         4,009         3,705         1,388,708           LA         927,837         712,586         132,279         2,996         2,486         605,897           MD         966,207         681,530         115,812         2,606         8,765         5,550         1,780,870           MA         1,571,763         718,107         227,217         4,734         2,0426         14,538         2,156,665           MI         1,026,33         890,016         217,188         534         10,522         13,870         2,158,665	HI	205,012	113,943	27,358	10,386	2,493	928	360,120
L         2,341,744         1,587,021         346,408         1,447         22,548         12,223         4,311,391           IN         887,424         1,006,693         224,299         1,121         15,632         673         2,135,842           IA         620,258         492,644         105,159         6,550         2,315         7,149         1,234,075           KS         387,659         583,245         92,639         914         4,557         5,286         1,074,300           LA         927,837         712,586         123,293         4,719         7,499         8,025         1,783,959           ME         312,788         186,378         85,970         15,279         2,996         2,486         605,897           MD         966,207         681,530         115,812         2,606         8,765         5,950         1,780,870           MA         1,1571,763         718,107         227,17         4,734         20,426         14,843         2,192,640           MS         394,022         439,838         52,222         2,609         4,966         833,857           MO         1,025,935         890,016         217,188         534         10,527         34,7826	ID	165,443	256,595	62,518	,	3,325	3,838	491,719
N         887,424         1,006,693         224,299         1,121         15,632         673         2,135,842           IA         620,258         492,644         105,159         6,550         2,315         7,149         1,234,075           KS         387,659         583,245         92,639         914         4,557         5,286         1,074,300           KY         636,614         623,283         120,396         701         4,009         3,705         1,388,708           IA         927,837         712,586         123,293         4,719         7,499         8,025         1,783,959           ME         312,788         186,378         85,970         15,279         2,996         2,486         605,897           MD         966,207         664,760         27,704         24,908         8,271         14,843         2,192,640           MS         394,022         439,838         52,222         2,809         4,966         893,857           MO         1,025,935         890,016         217,188         534         10,522         13,870         2,158,065           MT         167,922         179,652         52,229         2,526         1,932         407,261	IL	2.341.744	1.587.021	346.408	1.447	22.548	12.223	4.311.391
IA         620,258         492,644         105,159         6,550         2,315         7,149         1,234,075           KS         387,659         583,245         92,639         914         4,557         5,286         1,074,300           KY         636,614         623,283         120,396         701         4,009         3,705         1,388,708           LA         927,837         712,586         123,293         4,719         7,499         8,025         1,783,3959           ME         312,788         186,378         85,970         15,279         2,996         2,486         605,897           MD         966,207         681,530         115,812         2,606         8,765         5,950         1,780,870           MA         1,571,763         718,107         227,217         4,734         20,426         14,538         2,556,785           MI         1,989,653         1,481,212         336,670         2,322         2,7670         11,317         3,848,844           MN         1,102,438         766,476         257,704         24,908         8,271         14,843         2,192,640           MS         394,022         179,852         55,229         2,526         1,932 <td>IN</td> <td>887.424</td> <td>1.006.693</td> <td>224.299</td> <td>1.121</td> <td>15.632</td> <td>673</td> <td>2.135.842</td>	IN	887.424	1.006.693	224.299	1.121	15.632	673	2.135.842
KS         387,659         583,245         92,639         914         4,557         5,286         1,074,300           KY         636,614         623,283         120,396         701         4,009         3,705         1,388,708           LA         927,837         712,586         123,293         4,719         7,499         8,025         1,783,359           ME         312,788         186,378         85,970         15,279         2,996         2,486         605,897           MD         966,207         681,530         115,812         2,606         8,765         5,950         1,780,870           MA         1,571,763         718,107         227,217         4,734         20,426         14,538         2,556,785           MI         1,20,438         766,476         257,704         24,908         8,271         14,843         2,192,640           MS         394,022         439,838         52,222         2,809         4,966         893,857           MO         1,025,935         890,016         217,188         534         10,522         13,870         2,158,065           NE         236,761         363,467         71,278         2,792         3,117         677,415	IA	620.258	492.644	105.159	6.550	2.315	7.149	1.234.075
KY       636,614       623,283       120,396       701       4,009       3,705       1,388,708         LA       927,837       712,586       123,293       4,719       7,499       8,025       1,783,959         ME       312,788       186,378       85,970       15,279       2,996       2,486       605,897         MD       966,207       681,530       115,812       2,606       8,765       5,950       1,780,870         MA       1,571,763       718,107       227,217       4,734       20,426       14,538       2,556,785         MI       1,989,653       1,481,212       336,670       2,322       2,809       4,966       893,857         MO       1,025,935       890,016       217,188       534       10,522       13,870       2,158,065         MT       167,922       179,652       55,229       2,526       1,932       407,261         NE       236,761       363,467       71,278       2,792       3,117       677,415         NV       203,974       199,244       43,986       4,730       4,460       7,885       464,279         NH       246,214       196,532       48,390       4,237       3,802	KS	387.659	583.245	92.639	914	4.557	5.286	1.074.300
LA         927,837         712,586         123,293         4,719         7,499         8,025         1,783,959           ME         312,788         186,378         85,970         15,279         2,996         2,486         605,897           MD         966,207         681,530         115,812         2,606         8,765         5,950         1,780,870           MA         1,571,763         718,107         227,217         4,734         20,426         14,538         2,556,785           MI         1,989,653         1,481,212         336,670         2,322         27,670         11,317         3,848,844           MN         1,120,438         766,476         257,704         24,908         8,271         14,843         2,192,640           MS         394,022         439,838         52,222         2,809         4,966         893,857           MO         1,025,935         890,016         217,188         534         10,522         13,870         2,158,065           MT         167,922         179,652         55,229         2,526         1,932         407,261           NE         236,761         363,467         71,278         2,792         3,117         677,415	KY	636.614	623,283	120.396	701	4.009	3,705	1.388.708
ME         312,788         186,378         85,970         15,279         2,996         2,486         605,897           MD         966,207         681,530         115,812         2,606         8,765         5,950         1,780,870           MA         1,571,763         718,107         227,217         4,734         20,426         14,538         2,556,785           MI         1,989,653         1,481,212         336,670         2,322         27,670         11,317         3,848,844           MN         1,120,438         766,476         257,704         24,908         8,271         14,843         2,192,640           MS         394,022         439,838         52,222         2,809         4,966         893,857           MO         1,025,935         890,016         217,188         534         10,522         13,870         2,158,065           MI         246,214         196,532         48,390         4,237         3,802         499,175           NU         203,974         199,244         43,986         4,730         4,460         7,885         464,279           NH         246,214         196,532         48,390         4,237         3,802         499,175		927 837	712 586	123 293	4 719	7 4 9 9	8 025	1 783 959
Int         Original         Interve         Interve <thinterve< th="">         Interve         <thint< td=""><td>MF</td><td>312 788</td><td>186.378</td><td>85 970</td><td>15 279</td><td>2 996</td><td>2 486</td><td>605 897</td></thint<></thinterve<>	MF	312 788	186.378	85 970	15 279	2 996	2 486	605 897
MA         1.571,763         718,107         227,217         4,734         20,426         14,538         2.556,785           MI         1,989,653         1,481,212         336,670         2,322         27,670         11,317         3,848,844           MN         1,120,438         766,476         257,704         24,908         8,271         14,843         2,192,640           MS         394,022         439,838         52,222         2,809         4,966         893,857           MO         1,025,935         890,016         217,188         534         10,522         13,870         2,158,065           MT         167,922         179,652         55,229         2,526         1,932         407,261           NE         236,761         363,467         71,278         2,792         3,117         677,415           NV         203,974         199,244         43,986         4,730         4,460         7,885         464,279           NH         246,214         196,532         48,390         4,237         3,802         499,175           NJ         1,652,329         1,103,078         262,134         32,465         14,763         11,038         3,075,807           NM	MD	966 207	681 530	115 812	2 606	8 765	5 950	1 780 870
Init       1,989,653       1,481,212       336,670       2,322       27,670       11,317       3,848,844         MN       1,120,438       766,476       257,704       24,908       8,271       14,843       2,192,640         MS       394,022       439,838       52,222       2,809       4,966       893,857         MO       1,025,935       890,016       217,188       534       10,522       13,870       2,158,065         MI       167,922       179,652       55,229       2,526       1,932       407,261         NE       236,761       363,467       71,278       2,792       3,117       677,415         NV       203,974       199,244       43,986       4,730       4,460       7,885       464,279         NH       246,214       196,532       48,390       4,237       3,802       499,175         NJ       1,652,329       1,103,078       262,134       32,465       14,763       11,038       3,075,807         NM       27,3495       232,751       32,257       13,218       2,996       1,357       556,074         NY       3,766,177       1,933,492       503,458       75,956       12,220       34,826 <t< td=""><td>MA</td><td>1 571 763</td><td>718 107</td><td>227 217</td><td>4 734</td><td>20.426</td><td>14 538</td><td>2 556 785</td></t<>	MA	1 571 763	718 107	227 217	4 734	20.426	14 538	2 556 785
Init	MI	1 989 653	1 481 212	336 670	2 322	20,420	11 317	3 848 844
MN       1120,400       120,104       124,000       1211       14,040       1212,1040         MS       394,022       439,838       52,222       2,809       4,966       893,857         MO       1,025,935       890,016       217,188       534       10,522       13,870       2,158,065         MI       167,922       179,652       55,229       2,526       1,932       407,261         NE       236,761       363,467       71,278       2,792       3,117       677,415         NV       203,974       199,244       43,986       4,730       4,460       7,885       464,279         NH       246,214       196,532       48,390       4,237       3,802       499,175         NJ       1,652,329       1,103,078       262,134       32,465       14,763       11,038       3,075,807         NM       273,495       232,751       32,257       13,218       2,996       1,357       556,074         NY       3,756,177       1,933,492       503,458       75,956       12,220       34,826       6,316,129         NC       1,107,849       1,225,938       168,059       2,108       8,740       3,113       2,515,807	MN	1 1 20 / 38	766 476	257 704	2,022	8 271	1/ 8/3	2 192 6/0
MO         1504,022         150,030         12,222         1,000         1,000         1503,037         1503,037         1503,037         1503,037         1503,037         1503,037         1503,037         1503,037         1503,037         1503,037         1503,037         1503,037         1503,037         2,158,065           MT         167,922         179,652         55,229         2,526         1,932         407,261           NE         236,761         363,467         71,278         2,792         3,117         677,415           NV         203,974         199,244         43,986         4,730         4,460         7,885         464,279           NH         246,214         196,532         48,390         4,237         3,802         499,175           NJ         1,652,329         1,103,078         262,134         32,465         14,763         11,038         3,075,807           NM         273,495         232,751         32,257         13,218         2,996         1,357         556,074           NY         3,756,177         1,933,492         503,458         75,956         12,220         34,826         6,316,129           NC         1,107,849         1,225,938         168,059 <t< td=""><td>MS</td><td>39/ 022</td><td>/39.838</td><td>52 222</td><td>24,000</td><td>2 809</td><td>4 966</td><td>893 857</td></t<>	MS	39/ 022	/39.838	52 222	24,000	2 809	4 966	893 857
M0       1,022,030       030,010       211,100       0304       10,022       10,010       21,0010         MT       167,922       179,652       55,229       2,526       1,932       407,261         NE       236,761       363,467       71,278       2,792       3,117       677,415         NV       203,974       199,244       43,986       4,730       4,460       7,885       464,279         NH       246,214       196,532       48,390       4,237       3,802       499,175         NJ       1,652,329       1,103,078       262,134       32,465       14,763       11,038       3,075,807         NM       273,495       232,751       32,257       13,218       2,996       1,357       556,074         NY       3,756,177       1,933,492       503,458       75,956       12,220       34,826       6,316,129         NC       1,107,849       1,225,938       168,059       2,108       8,740       3,113       2,515,807         ND       106,905       125,050       32,515       847       1,094       266,411         OH       2,148,222       1,859,883       483,207       2,962       12,851       27,309       4,5	MO	1 025 935	890.016	217 188	53/	10 522	13 870	2 158 065
Int         101,022         113,032         03,223         1,023         1,032         101,032           NE         236,761         363,467         71,278         2,792         3,117         677,415           NV         203,974         199,244         43,986         4,730         4,460         7,885         464,279           NH         246,214         196,532         48,390         4,237         3,802         499,175           NJ         1,652,329         1,103,078         262,134         32,465         14,763         11.038         3,075,807           NM         273,495         232,751         32,257         13,218         2,996         1,357         556,074           NY         3,756,177         1,933,492         503,458         75,956         12,220         34,826         6,316,129           NC         1,107,849         1,225,938         168,059         2,108         8,740         3,113         2,515,807           ND         106,905         125,050         32,515         847         1,094         266,411           OK         488,105         582,315         130,788         5,505         1,206,713           OR         649,641         538,152	MT	167 922	179.652	55 229	554	2 526	1 932	407 261
NL       236,101       363,401       11,210       2,102       3,311       311,141         NV       203,974       199,244       43,986       4,730       4,460       7,885       464,279         NH       246,214       196,532       48,390       4,237       3,802       499,175         NJ       1,652,329       1,10,078       262,134       32,465       14,763       11,038       3,075,807         NM       273,495       232,751       32,257       13,218       2,996       1,357       556,074         NY       3,756,177       1,933,492       503,458       75,956       12,220       34,826       6,316,129         NC       1,107,849       1,225,938       168,059       2,108       8,740       3,113       2,515,807         ND       106,905       125,050       32,515       847       1,094       266,411         OH       2,148,222       1,859,883       483,207       2,962       12,851       27,309       4,534,434         OK       488,105       582,315       130,788       5,505       1,206,713       0       1,428       1,377,760         PA       2,215,819       1,801,169       430,984       3,086 <t< td=""><td>NE</td><td>236 761</td><td>363 / 67</td><td>71 278</td><td></td><td>2,320</td><td>3 1 1 7</td><td>677/15</td></t<>	NE	236 761	363 / 67	71 278		2,320	3 1 1 7	677/15
NH       246,214       196,532       48,390       4,430       1,480       1,480         NH       246,214       196,532       48,390       4,237       3,802       499,175         NJ       1,652,329       1,103,078       262,134       32,465       14,763       11,038       3,075,807         NM       273,495       232,751       32,257       13,218       2,996       1,357       556,074         NY       3,756,177       1,933,492       503,458       75,956       12,220       34,826       6,316,129         NC       1,107,849       1,225,938       168,059       2,108       8,740       3,113       2,515,807         ND       106,905       125,050       32,515       847       1,094       266,411         OH       2,148,222       1,859,883       483,207       2,962       12,851       27,309       4,534,434         OK       488,105       582,315       130,788       5,505       1,206,713         OR       649,641       538,152       121,221       49,415       8,903       10,428       1,377,760         PA       2,215,819       1,801,169       430,984       3,086       28,000       27,060       4,506,118 <td></td> <td>203 974</td> <td>100 244</td> <td>13 986</td> <td>4 730</td> <td>2,192</td> <td>7885</td> <td>164 279</td>		203 974	100 244	13 986	4 730	2,192	7885	164 279
NII       240,214       190,332       40,330       42,237       3,802       493,173         NJ       1,652,329       1,103,078       262,134       32,465       14,763       11,038       3,075,807         NM       273,495       232,751       32,257       13,218       2,996       1,357       556,074         NY       3,756,177       1,933,492       503,458       75,956       12,220       34,826       6,316,129         NC       1,107,849       1,225,938       168,059       2,108       8,740       3,113       2,515,807         ND       106,905       125,050       32,515       847       1,094       266,411         OH       2,148,222       1,859,883       483,207       2,962       12,851       27,309       4,534,434         OK       488,105       582,315       130,788       5,505       1,206,713         OR       649,641       538,152       121,221       49,415       8,903       10,428       1,377,760         PA       2,215,819       1,801,169       430,984       3,086       28,000       27,060       4,506,118         RI       233,050       104,683       43,723       6,040       1,109       1,679 </td <td></td> <td>205,974</td> <td>199,244</td> <td>43,380</td> <td>4,750</td> <td>4,400</td> <td>3,803</td> <td>404,275</td>		205,974	199,244	43,380	4,750	4,400	3,803	404,275
NM       273,495       232,751       322,257       13,218       2,996       1,357       556,074         NY       3,756,177       1,933,492       503,458       75,956       12,220       34,826       6,316,129         NC       1,107,849       1,225,938       168,059       2,108       8,740       3,113       2,515,807         ND       106,905       125,050       32,515       847       1,094       266,411         OH       2,148,222       1,859,883       483,207       2,962       12,851       27,309       4,534,434         OK       488,105       582,315       130,788       5,505       1,206,713         OR       649,641       538,152       121,221       49,415       8,903       10,428       1,377,760         PA       2,215,819       1,801,169       430,984       3,086       28,000       27,060       4,506,118         RI       233,050       104,683       43,723       6,040       1,109       1,679       390,284         SC       504,051       573,458       64,386       4,271       3,291       1,149,457         SD       139,333       150,543       31,250       1,472       1,228       323,826		1 652 220	1 102 079	262 124	22.465	14,257	11 029	2 075 907
NN       275,493       222,131       32,231       13,216       2,936       1,337       356,074         NY       3,756,177       1,933,492       503,458       75,956       12,220       34,826       6,316,129         NC       1,107,849       1,225,938       168,059       2,108       8,740       3,113       2,515,807         ND       106,905       125,050       32,515       847       1,094       266,411         OH       2,148,222       1,859,883       483,207       2,962       12,851       27,309       4,534,434         OK       488,105       582,315       130,788       5,505       1,206,713         OR       649,641       538,152       121,221       49,415       8,903       10,428       1,377,760         PA       2,215,819       1,801,169       430,984       3,086       28,000       27,060       4,506,118         RI       233,050       104,683       43,723       6,040       1,109       1,679       390,284         SC       504,051       573,458       64,386       4,271       3,291       1,149,457         SD       139,333       150,543       31,250       1,472       1,228       323,826		273 /05	232 751	202,134	13 218	2 996	1 357	556 074
N1       3,130,177       1,933,492       503,438       13,930       12,220       34,820       6,310,129         NC       1,107,849       1,225,938       168,059       2,108       8,740       3,113       2,515,807         ND       106,905       125,050       32,515       847       1,094       266,411         OH       2,148,222       1,859,883       483,207       2,962       12,851       27,309       4,534,434         OK       488,105       582,315       130,788       5,505       1,206,713         OR       649,641       538,152       121,221       49,415       8,903       10,428       1,377,760         PA       2,215,819       1,801,169       430,984       3,086       28,000       27,060       4,506,118         RI       233,050       104,683       43,723       6,040       1,109       1,679       390,284         SC       504,051       573,458       64,386       4,271       3,291       1,149,457         SD       139,333       150,543       31,250       1,472       1,228       323,826         TN       909,146       863,530       105,918       6,427       5,020       4,064       1,894,105		2756 177	1 022 /02	502,257	75.056	12,330	24,926	6 216 120
NC       1,107,849       1,223,938       108,039       2,108       8,740       3,113       2,013,807         ND       106,905       125,050       32,515       847       1,094       266,411         OH       2,148,222       1,859,883       483,207       2,962       12,851       27,309       4,534,434         OK       488,105       582,315       130,788       5,505       1,206,713         OR       649,641       538,152       121,221       49,415       8,903       10,428       1,377,760         PA       2,215,819       1,801,169       430,984       3,086       28,000       27,060       4,506,118         RI       233,050       104,683       43,723       6,040       1,109       1,679       390,284         SC       504,051       573,458       64,386       4,271       3,291       1,149,457         SD       139,333       150,543       31,250       1,472       1,228       323,826         TN       909,146       863,530       105,918       6,427       5,020       4,064       1,894,105         TX       2,459,683       2,736,167       378,537       4,810       20,256       12,191       5,611,644		1 107 940	1,933,492	169.050	2 109	9 740	2 1 1 2	2 515 907
ND       100,903       125,030       32,013       847       1,094       200,411         OH       2,148,222       1,859,883       483,207       2,962       12,851       27,309       4,534,434         OK       488,105       582,315       130,788       5,505       1,206,713         OR       649,641       538,152       121,221       49,415       8,903       10,428       1,377,760         PA       2,215,819       1,801,169       430,984       3,086       28,000       27,060       4,506,118         RI       233,050       104,683       43,723       6,040       1,109       1,679       390,284         SC       504,051       573,458       64,386       4,271       3,291       1,149,457         SD       139,333       150,543       31,250       1,472       1,228       323,826         TN       909,146       863,530       105,918       6,427       5,020       4,064       1,894,105         TX       2,459,683       2,736,167       378,537       4,810       20,256       12,191       5,611,644         UT       221,633       361,911       66,461       4,615       4,129       6,880       665,629		106.005	125,950	20 515	2,108	0,740	1 004	2,515,607
OH       2,148,222       1,839,883       483,207       2,962       12,831       27,809       4,334,434         OK       488,105       582,315       130,788       5,505       1,206,713         OR       649,641       538,152       121,221       49,415       8,903       10,428       1,377,760         PA       2,215,819       1,801,169       430,984       3,086       28,000       27,060       4,506,118         RI       233,050       104,683       43,723       6,040       1,109       1,679       390,284         SC       504,051       573,458       64,386       4,271       3,291       1,149,457         SD       139,333       150,543       31,250       1,472       1,228       323,826         TN       909,146       863,530       105,918       6,427       5,020       4,064       1,894,105         TX       2,459,683       2,736,167       378,537       4,810       20,256       12,191       5,611,644         UT       221,633       361,911       66,461       4,615       4,129       6,880       665,629         VT       137,894       80,352       31,024       5,585       1,183       2,411       2		2 1 4 8 2 2 2	1 950 992	492 207	2 062	12 951	27 200	1 524 424
OK       488,05       582,515       155,788       5,505       1,200,715         OR       649,641       538,152       121,221       49,415       8,903       10,428       1,377,760         PA       2,215,819       1,801,169       430,984       3,086       28,000       27,060       4,506,118         RI       233,050       104,683       43,723       6,040       1,109       1,679       390,284         SC       504,051       573,458       64,386       4,271       3,291       1,149,457         SD       139,333       150,543       31,250       1,472       1,228       323,826         TN       909,146       863,530       105,918       6,427       5,020       4,064       1,894,105         TX       2,459,683       2,736,167       378,537       4,810       20,256       12,191       5,611,644         UT       221,633       361,911       66,461       4,615       4,129       6,880       665,629         VT       137,894       80,352       31,024       5,585       1,183       2,411       258,449         VA       1,091,060       1,138,350       159,861       9,174       18,197       2,416,642		2,140,222	592 215	120 799	2,902	5 505	21,309	4,534,434
OR       049,041       536,152       121,221       49,415       8,905       10,428       1,377,760         PA       2,215,819       1,801,169       430,984       3,086       28,000       27,060       4,506,118         RI       233,050       104,683       43,723       6,040       1,109       1,679       390,284         SC       504,051       573,458       64,386       4,271       3,291       1,149,457         SD       139,333       150,543       31,250       1,472       1,228       323,826         TN       909,146       863,530       105,918       6,427       5,020       4,064       1,894,105         TX       2,459,683       2,736,167       378,537       4,810       20,256       12,191       5,611,644         UT       221,633       361,911       66,461       4,615       4,129       6,880       665,629         VT       137,894       80,352       31,024       5,585       1,183       2,411       258,449         VA       1,091,060       1,138,350       159,861       9,174       18,197       2,416,642         WA       1,123,323       840,712       201,003       60,322       12,522		640.641	529 152	101 001	10 115	3,505	10 409	1,200,713
PA       2,213,613       1,801,109       430,984       3,080       28,000       21,000       4,00,118         RI       233,050       104,683       43,723       6,040       1,109       1,679       390,284         SC       504,051       573,458       64,386       4,271       3,291       1,149,457         SD       139,333       150,543       31,250       1,472       1,228       323,826         TN       909,146       863,530       105,918       6,427       5,020       4,064       1,894,105         TX       2,459,683       2,736,167       378,537       4,810       20,256       12,191       5,611,644         UT       221,633       361,911       66,461       4,615       4,129       6,880       665,629         VT       137,894       80,352       31,024       5,585       1,183       2,411       258,449         VA       1,091,060       1,138,350       159,861       9,174       18,197       2,416,642         WA       1,23,323       840,712       201,003       60,322       12,522       15,955       2,253,837         WV       327,812       233,946       71,639       3,062       636,459       3,		2 215 810	1 901 160	121,221	2 0 96	28,903	27.060	1,577,700
N1       233,030       104,083       43,723       6,040       1,103       1,073       330,284         SC       504,051       573,458       64,386       4,271       3,291       1,149,457         SD       139,333       150,543       31,250       1,472       1,228       323,826         TN       909,146       863,530       105,918       6,427       5,020       4,064       1,894,105         TX       2,459,683       2,736,167       378,537       4,810       20,256       12,191       5,611,644         UT       221,633       361,911       66,461       4,615       4,129       6,880       665,629         VT       137,894       80,352       31,024       5,585       1,183       2,411       258,449         VA       1,091,060       1,138,350       159,861       9,174       18,197       2,416,642         WA       1,123,323       840,712       201,003       60,322       12,522       15,955       2,253,837         WV       327,812       233,946       71,639       3,062       636,459       636,459       9         WI       1,071,971       845,029       227,339       28,723       7,929       15,178 <td></td> <td>2,213,019</td> <td>104 692</td> <td>430,384</td> <td>6.040</td> <td>1 100</td> <td>1 670</td> <td>200 294</td>		2,213,019	104 692	430,384	6.040	1 100	1 670	200 294
SC       504,051       575,458       64,386       4,271       5,291       1,149,457         SD       139,333       150,543       31,250       1,472       1,228       323,826         TN       909,146       863,530       105,918       6,427       5,020       4,064       1,894,105         TX       2,459,683       2,736,167       378,537       4,810       20,256       12,191       5,611,644         UT       221,633       361,911       66,461       4,615       4,129       6,880       665,629         VT       137,894       80,352       31,024       5,585       1,183       2,411       258,449         VA       1,091,060       1,138,350       159,861       9,174       18,197       2,416,642         WA       1,123,323       840,712       201,003       60,322       12,522       15,955       2,253,837         WV       327,812       233,946       71,639       3,062       636,459       636,459         WI       1,071,971       845,029       227,339       28,723       7,929       15,178       2,196,169         WY       77,934       105,388       25,928       1,739       582       211,571       516		504.051	572 459	43,723	0,040	1,109	2,079	1 1 40 457
SD       139,333       150,543       31,250       1,472       1,228       323,826         TN       909,146       863,530       105,918       6,427       5,020       4,064       1,894,105         TX       2,459,683       2,736,167       378,537       4,810       20,256       12,191       5,611,644         UT       221,633       361,911       66,461       4,615       4,129       6,880       665,629         VT       137,894       80,352       31,024       5,585       1,183       2,411       258,449         VA       1,091,060       1,138,350       159,861       9,174       18,197       2,416,642         WA       1,123,323       840,712       201,003       60,322       12,522       15,955       2,253,837         WV       327,812       233,946       71,639       3,062       636,459       636,459         WI       1,071,971       845,029       227,339       28,723       7,929       15,178       2,196,169         WY       77,934       105,388       25,928       1,739       582       211,571         Total       47,400,125       39,198,755       8,085,402       685,435       485,798       420,125	50	120 222	150 543	21.250		4,271	1 2291	202 826
IN       909,146       809,346       809,346       109,918       0,427       3,020       4,004       1,094,103         TX       2,459,683       2,736,167       378,537       4,810       20,256       12,191       5,611,644         UT       221,633       361,911       66,461       4,615       4,129       6,880       665,629         VT       137,894       80,352       31,024       5,585       1,183       2,411       258,449         VA       1,091,060       1,138,350       159,861       9,174       18,197       2,416,642         WA       1,123,323       840,712       201,003       60,322       12,522       15,955       2,253,837         WV       327,812       233,946       71,639       3,062       636,459         WI       1,071,971       845,029       227,339       28,723       7,929       15,178       2,196,169         WY       77,934       105,388       25,928       1,739       582       211,571         Total       47,400,125       39,198,755       8,085,402       685,435       485,798       420,125       96,275,640		000 146	262 520	105.019	6 4 2 7	5.020	1,220	1 904 105
IX       2,459,683       2,736,167       378,537       4,810       20,256       12,191       5,611,644         UT       221,633       361,911       66,461       4,615       4,129       6,880       665,629         VT       137,894       80,352       31,024       5,585       1,183       2,411       258,449         VA       1,091,060       1,138,350       159,861       9,174       18,197       2,416,642         WA       1,123,323       840,712       201,003       60,322       12,522       15,955       2,253,837         WV       327,812       233,946       71,639       3,062       636,459         WI       1,071,971       845,029       227,339       28,723       7,929       15,178       2,196,169         WY       77,934       105,388       25,928       1,739       582       211,571         Total       47,400,125       39,198,755       8,085,402       685,435       485,798       420,125       96,275,640		909,140	0 726 467	105,916	0,427	3,020	4,004	1,694,105
01       221,033       301,911       00,401       4,613       4,129       6,680       603,629         VT       137,894       80,352       31,024       5,585       1,183       2,411       258,449         VA       1,091,060       1,138,350       159,861       9,174       18,197       2,416,642         WA       1,123,323       840,712       201,003       60,322       12,522       15,955       2,253,837         WV       327,812       233,946       71,639       3,062       636,459         WI       1,071,971       845,029       227,339       28,723       7,929       15,178       2,196,169         WY       77,934       105,388       25,928       1,739       582       211,571         Total       47,400,125       39,198,755       8,085,402       685,435       485,798       420,125       96,275,640		2,459,683	2,730,107	66 461	4,810	20,256	12,191	5,611,644
V1       137,994       80,352       31,024       5,585       1,183       2,411       258,449         VA       1,091,060       1,138,350       159,861       9,174       18,197       2,416,642         WA       1,123,323       840,712       201,003       60,322       12,522       15,955       2,253,837         WV       327,812       233,946       71,639       3,062       636,459         WI       1,071,971       845,029       227,339       28,723       7,929       15,178       2,196,169         WY       77,934       105,388       25,928       1,739       582       211,571         Total       47,400,125       39,198,755       8,085,402       685,435       485,798       420,125       96,275,640		221,033	301,911	21 004	4,015	4,129	0,000	000,029
VA       1,091,060       1,136,350       159,861       9,174       18,197       2,416,642         WA       1,123,323       840,712       201,003       60,322       12,522       15,955       2,253,837         WV       327,812       233,946       71,639       3,062       636,459         WI       1,071,971       845,029       227,339       28,723       7,929       15,178       2,196,169         WY       77,934       105,388       25,928       1,739       582       211,571         Total       47,400,125       39,198,755       8,085,402       685,435       485,798       420,125       96,275,640		1 001 000	80,352	31,024	5,585	1,183	2,411	258,449
WA       1,123,523       840,712       201,003       60,322       12,522       15,955       2,253,837         WV       327,812       233,946       71,639       3,062       636,459         WI       1,071,971       845,029       227,339       28,723       7,929       15,178       2,196,169         WY       77,934       105,388       25,928       1,739       582       211,571         Total       47,400,125       39,198,755       8,085,402       685,435       485,798       420,125       96,275,640		1,091,060	1,138,350	159,861	60.200	9,174	18,197	2,410,042
WV         521,612         235,946         11,639         3,062         636,459           WI         1,071,971         845,029         227,339         28,723         7,929         15,178         2,196,169           WY         77,934         105,388         25,928         1,739         582         211,571           Total         47,400,125         39,198,755         8,085,402         685,435         485,798         420,125         96,275         640	WA	1,123,323	840,712	201,003	00,322	12,522	10,900	2,203,837
Wi         1,071,971         045,029         227,559         28,725         7,929         15,178         2,196,109           WY         77,934         105,388         25,928         1,739         582         211,571           Total         47,400,125         39,198,755         8,085,402         685,435         485,798         420,125         96,275,640		327,812	233,940	11,039	00 700	3,062	15 170	2 106 160
wit         11,334         103,300         23,320         1,133         362         211,571           Total         47,400,125         39,198,755         8,085,402         685,435         485,798         420,125         96,275,640		T,U(T,9/1	105 200	221,339	20,123	1,929	10,1/8	2,130,109
1000 TITOSIZZO GALZOLIGO GAUGATUZ (NALMAN MALIZO MZILIZO MALIZO MALIZO MALIZO	Total	47 400 125	39 198 755	8 085 402	685 435	485 799	420 125	96 275 6/0

Table 4.29 1996 election results

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State	Clinton	Dole	Perot	Nader	Browne	Others	EV
AL	3.884	4.511	0.541	0.000	0.031	0.033	9
AK	0.998	1.524	0.327	0.094	0.028	0.028	3
AZ	3.721	3.544	0.638	0.012	0.082	0.003	8
AR	3.224	2.208	0.474	0.025	0.021	0.048	6
CA	27.593	20.633	3.761	1.277	0.397	0.338	54
CO	3.554	3.664	0.528	0.133	0.066	0.056	8
СТ	4.227	2.775	0.802	0.140	0.033	0.024	8
DE	1.553	1.096	0.318	0.002	0.023	0.008	3
DC	2.556	0.280	0.058	0.077	0.009	0.019	3
FL	12.005	10.580	2.281	0.019	0.113	0.002	25
GA	5.959	6.112	0.827	0.000	0.101	0.001	13
	2 277	1 266	0.304	0.115	0.028	0.010	4
	1.346	2.087	0.509	0.000	0.027	0.031	4
	11 949	8.098	1 768	0.007	0.115	0.062	22
	4 986	5.656	1 260	0.006	0.088	0.002	12
	3 518	2 79/	0.596	0.000	0.000	0.004	7
KS	2 165	3 257	0.530	0.005	0.015	0.030	6
	3.667	3 501	0.694	0.003	0.023	0.030	8
	1 681	3.591	0.094	0.004	0.023	0.021	0
	2.065	1 220	0.022	0.024	0.030	0.040	3
	5.425	2.230	0.508	0.101	0.020	0.010	10
	7 277	2 270	1.066	0.015	0.049	0.033	10
	0.205	3.370	1.000	0.022	0.096	0.068	12
	9.305	0.927	1.575	0.011	0.129	0.053	18
MIN	5.110	3.496	1.175	0.114	0.038	0.068	10
MS	3.086	3.444	0.409	0.000	0.022	0.039	1
MO	5.229	4.537	1.107	0.003	0.054	0.071	
	1.237	1.323	0.407	0.000	0.019	0.014	3
INE NU	1.748	2.683	0.526	0.000	0.021	0.023	5
NV	1.757	1./1/	0.379	0.041	0.038	0.068	4
NH	1.973	1.575	0.388	0.000	0.034	0.030	4
NJ	8.058	5.379	1.278	0.158	0.072	0.054	15
NM	2.459	2.093	0.290	0.119	0.027	0.012	5
NY	19.625	10.102	2.630	0.397	0.064	0.182	33
NC	6.165	6.822	0.935	0.012	0.049	0.017	14
ND	1.204	1.408	0.366	0.000	0.010	0.012	3
OH	9.949	8.614	2.238	0.014	0.060	0.126	21
OK	3.236	3.861	0.867	0.000	0.036	0.000	8
OR	3.301	2.734	0.616	0.251	0.045	0.053	7
PA	11.310	9.193	2.200	0.016	0.143	0.138	23
RI	2.389	1.073	0.448	0.062	0.011	0.017	4
SC	3.508	3.991	0.448	0.000	0.030	0.023	8
SD	1.291	1.395	0.290	0.000	0.014	0.011	3
TN	5.280	5.015	0.615	0.037	0.029	0.024	11
TX	14.026	15.603	2.159	0.027	0.116	0.070	32
UT	1.665	2.719	0.499	0.035	0.031	0.052	5
VT	1.601	0.933	0.360	0.065	0.014	0.028	3
VA	5.869	6.124	0.860	0.000	0.049	0.098	13
WA	5.482	4.103	0.981	0.294	0.061	0.078	11
WV	2.575	1.838	0.563	0.000	0.024	0.000	5
WI	5.369	4.233	1.139	0.144	0.040	0.076	11
WY	1.105	1.494	0.368	0.000	0.025	0.008	3
Total	264.878	219.047	45.182	3.830	2.715	2.348	538

Table 4.30 Intermediate calculation for 1996 election

State	Clinton	Dole	Perot	Nader	Browne	Others	EV
AL	4	4	1				9
AK	1	2					3
AZ	4	3	1				8
AR	3	2	1				6
CA	28	21	4	1			54
CO	4	4					8
СТ	4	3	1				8
DE	2	1					3
DC	3						3
FL	12	11	2				25
GA	6	6	1				13
HI	2	1	1				4
ID	1	2	1				4
IL	12	8	2				22
IN	5	6	1				12
IA	3	3	1				7
KS	2	3	1				6
KY	4	3	1				8
LA	5	3	1				9
ME	2	1	1				4
MD	5	4	1				10
MA	8	3	1				12
MI	9	7	2				18
MN	5	4	1				10
MS	3	4					7
MO	5	5	1				11
MT	1	1	1				3
NE	2	3					5
NV	2	2					4
NH	2	2					4
NJ	8	6	1				15
NM	3	2					5
NY	20	10	3				33
NC	6	7	1				14
ND	1	2					3
ОН	10	9	2				21
OK	3	4	1				8
OR	3	3	1				7
PA	12	9	2				23
RI	2	1	1				4
SC	4	4					8
SD	1	2					3
TN	5	5	1				11
ТХ	14	16	2				32
UT	2	3					5
VT	2	1					3
VA	6	6	1				13
WA	6	4	1				11
WV	3	2					5
WI	6	4	1				11
WY	1	2					3
Total	267	224	46	1	0	0	538

 Table 4.31
 1996 election under the whole-number proportional method

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### **1992** election

The results of the 1992 election were:

- Bill Clinton—44,909,806
- George H.W. Bush—39,104,550
- Ross Perot—19,743,821
- Andre Marrou—290,087
- 19 additional candidates—375,729.81

The total national popular vote for President in 1992 was 104,423,993.

Table 4.32 shows, by state, the results of the 1992 presidential election.

Table 4.33 shows, for each state and each candidate, the *whole number* and *fraction* resulting from multiplying each candidate's percentage share of the state's popular vote by each state's number of electoral votes.

Table 4.34 shows, for each state, the number of electoral votes each candidate would have received if the whole-number proportional method is applied to the 1992 election returns.

The bottom line of this table shows the overall national results of applying this method to the results of the 1992 election:

- 236 electoral votes for Bill Clinton
- 197 electoral votes for George H.W. Bush
- 105 electoral votes for Ross Perot (with at least one electoral vote coming from each of the 50 states, but none from the District of Columbia)
- 0 electoral votes for Andre Marrou
- 0 electoral votes for 20 additional candidates

No candidate would have received "a majority of the whole number of Electors appointed" as required by the Constitution. Consequently, the election for President would have been thrown into the newly elected U.S. House of Representatives on January 6, 1993, and the election for Vice President would have been thrown into the newly elected U.S. Senate.

If the members of the 50 delegations in the U.S. House of Representatives had voted in accordance with their party affiliations in the contingent election on January 6, 1993, Bill Clinton would have been elected President.<sup>82</sup>

Thus, the whole-number proportional method would, after the contingent election in the House, have resulted in the election of the candidate who received the most popular votes nationwide in 1992, namely Bill Clinton.

<sup>&</sup>lt;sup>81</sup> This total of 104,423,993 includes a total of 375,729 popular votes scattered among 19 additional candidates (most of whom were on the ballot in only one state or just a few states), various write-in candidates, and votes cast in Nevada for "none of the above." None of these other candidates received enough popular votes in any state to win any electoral votes under the whole-number proportional method.

<sup>&</sup>lt;sup>82</sup> The newly elected House in 1993 had 30 Democratic-controlled delegations, ten tied delegations, nine Republican delegations, and Independent Congressman Bernie Sanders as the sole member of the Vermont delegation.

State	Clinton	Buch	Porot	Marrou	Othors	Total
		P04 292	192 100	<b>Warrou</b>	4.951	1 699 060
	78.004	804,283	183,109	2,737	4,851	1,088,060
AN	78,294	102,000	73,481	1,378	3,353	258,506
AZ	543,050	572,086	353,741	6,781	11,348	1,487,006
AR	505,823	337,324	99,132	1,261	7,113	950,653
	5,121,325	3,630,574	2,296,006	48,139	35,677	11,131,721
<u>co</u>	629,681	562,850	366,010	8,669	1,970	1,569,180
	682,318	578,313	348,771	5,391	1,539	1,616,332
DE	126,054	102,313	59,213	935	1,105	289,620
DC	192,619	20,698	9,681	467	4,107	227,572
FL	2,072,698	2,173,310	1,053,067	15,079	238	5,314,392
GA	1,008,966	995,252	309,657	7,110	148	2,321,133
HI	179,310	136,822	53,003	1,119	2,588	372,842
ID	137,013	202,645	130,395	1,167	10,894	482,114
IL	2,453,350	1,734,096	840,515	9,218	12,978	5,050,157
IN	848,420	989,375	455,934	7,936	4,206	2,305,871
IA	586,353	504,891	253,468	1,076	8,819	1,354,607
KS	390,434	449,951	312,358	4,314	199	1,157,256
KY	665,104	617,178	203,944	4,513	2,161	1,492,900
LA	815,971	733,386	211,478	3,155	26,027	1,790,017
ME	263,420	206,504	206,820	1,681	1,074	679,499
MD	988,571	707,094	281,414	4,715	3,252	1,985,046
MA	1,318,662	805,049	632,312	7,458	10,093	2,773,574
MI	1,871,182	1,554,940	824,813	10,175	13,563	4,274,673
MN	1,020,997	747,841	562,506	3,374	13,230	2,347,948
MS	400,258	487,793	85,626	2,154	5,962	981,793
MO	1,053,873	811,159	518,741	7,497		2,391,270
MT	154,507	144,207	107,225	986	3,658	410,583
NE	217,344	344,346	174,687	1,344	1,562	739,283
NV	189,148	175,828	132,580	1,835	6,927	506,318
NH	209,040	202,484	121,337	3,548	806	537,215
NJ	1,436,206	1,356,865	521,829	6,822	21,872	3,343,594
NM	261,617	212,824	91,895	1,615	2,035	569,986
NY	3,444,450	2,346,649	1,090,721	13,451	31,654	6,926,925
NC	1,114,042	1,134,661	357,864	5,171	112	2,611,850
ND	99,168	136,244	71,084	416	1,221	308,133
ОН	1,984,942	1,894,310	1,036,426	7,252	17,034	4,939,964
OK	473,066	592,929	319,878	4,486		1,390,359
OR	621,314	475,757	354,091	4,277	7,204	1,462,643
PA	2,239,164	1,791,841	902,667	21,477	4,661	4,959,810
RI	213,299	131,601	105,045	571	2,961	453,477
SC	479,514	577,507	138,872	2,719	3,915	1,202,527
SD	124,888	136,718	73,295	814	539	336,254
TN	933,521	841,300	199,968	1,847	6,002	1,982,638
ТХ	2,281,815	2,496,071	1,354,781	19,699	1,652	6,154,018
UT	183,429	322,632	203,400	1,900	32,707	744,068
VT	133,592	88,122	65,991	501	1,495	289,701
VA	1,038,650	1,150,517	348,639	5,730	15,129	2,558,665
WA	993,037	731,234	541,780	7,533	13,981	2,287,565
WV	331,001	241,974	108,829	1,873		683,677
WI	1,041,066	930,855	544,479	2,877	11,837	2,531,114
WY	68,160	79,347	51,263	844	270	199,884
Total	44,909,806	39,104,550	19,743,821	290,087	375,729	104,423,993

Table 4.32 1992 election results

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State	Clinton	Bush	Perot	Marrou	Others	EV
AL	3.679	4.288	0.976	0.031	0.026	9
AK	0.909	1.184	0.853	0.016	0.039	3
AZ	2.922	3.078	1.903	0.036	0.061	8
AR	3.192	2.129	0.626	0.008	0.045	6
CA	24.844	17.612	11.138	0.234	0.173	54
CO	3.210	2.870	1.866	0.044	0.010	8
СТ	3.377	2.862	1.726	0.027	0.008	8
DE	1.306	1.060	0.613	0.010	0.011	3
DC	2.539	0.273	0.128	0.006	0.054	3
FL	9.750	10.224	4.954	0.071	0.001	25
GA	5.651	5.574	1.734	0.040	0.001	13
HI	1.924	1.468	0.569	0.012	0.028	4
ID	1.137	1.681	1.082	0.010	0.090	4
IL	10.688	7.554	3.662	0.040	0.057	22
IN	4.415	5.149	2.373	0.041	0.022	12
IA	3.030	2.609	1.310	0.006	0.046	7
KS	2.024	2.333	1.619	0.022	0.001	6
KY	3.564	3.307	1.093	0.024	0.012	8
LA	4.103	3.687	1.063	0.016	0.131	9
ME	1.551	1.216	1.217	0.010	0.006	4
MD	4.980	3.562	1.418	0.024	0.016	10
MA	5.705	3.483	2.736	0.032	0.044	12
MI	7.879	6.548	3.473	0.043	0.057	18
MN	4.348	3.185	2.396	0.014	0.056	10
MS	2.854	3.478	0.610	0.015	0.043	7
MO	4.848	3.731	2.386	0.034	0.000	11
MT	1.129	1.054	0.783	0.007	0.027	3
NE	1.470	2.329	1.181	0.009	0.011	5
NV	1.494	1.389	1.047	0.014	0.055	4
NH	1.556	1.508	0.903	0.026	0.006	4
NJ	6.443	6.087	2.341	0.031	0.098	15
NM	2.295	1.867	0.806	0.014	0.018	5
NY	16.409	11.179	5.196	0.064	0.151	33
NC	5.971	6.082	1.918	0.028	0.001	14
ND	0.966	1.326	0.692	0.004	0.012	3
ОН	8.438	8.053	4.406	0.031	0.072	21
OK	2.722	3.412	1.841	0.026	0.000	8
OR	2.974	2.277	1.695	0.020	0.034	7
PA	10.384	8.309	4.186	0.100	0.022	23
RI	1.881	1.161	0.927	0.005	0.026	4
SC	3.190	3.842	0.924	0.018	0.026	8
SD	1.114	1.220	0.654	0.007	0.005	3
TN	5.179	4.668	1.109	0.010	0.033	11
ТХ	11.865	12.979	7.045	0.102	0.009	32
UT	1.233	2.168	1.367	0.013	0.220	5
VT	1.383	0.913	0.683	0.005	0.015	3
VA	5.277	5.846	1.771	0.029	0.077	13
WA	4.775	3.516	2.605	0.036	0.067	11
WV	2.421	1.770	0.796	0.014	0.000	5
WI	4.524	4.045	2.366	0.013	0.051	11
WY	1.023	1.191	0.769	0.013	0.004	3
Total	231.379	201.469	101.722	1.495	1.936	538

 Table 4.33 Intermediate calculation for 1992 election

State	Clinton	Bush	Perot	Marrou	Other	EV
AL	4	4	1			9
AK	1	1	1			3
AZ	3	3	2			8
AR	3	2	1			6
CA	25	18	11			54
CO	3	3	2			8
СТ	3	3	2			8
DE	1	1	1			3
DC	3					3
FL	10	10	5			25
GA	6	5	2			13
HI	2	1	1			4
ID	1	2	1			4
IL	11	7	4			22
IN	5	5	2			12
IA	3	3	1			7
KS	2	2	2			6
KY	4	3	1			8
LA	4	4	1			9
ME	2	1	1			4
MD	5	4	1			10
MA	6	3	3			12
MI	8	7	3			18
MN	4	3	3			10
MS	3	3	1			7
MO	5	4	2			11
MT	1	1	1			3
NE	2	2	1			5
NV	2	1	1			4
NH	2	1	1			4
NJ	7	6	2			15
NM	2	2	1			5
NY	17	11	5			33
NC	6	6	2			14
ND	1	1	1			3
OH	9	8	4			21
OK	3	3	2			8
OR	3	2	2			7
PA	11	8	4			23
RI	2	1	1			4
SC	3	4	1			8
SD	1	1	1			3
TN	5	5	1			11
ТХ	12	13	7			32
UT	1	2	2			5
VT	1	1	1			3
VA	5	6	2			13
WA	5	3	3			11
WV	2	2	1			5
WI	5	4	2			11
WY	1	1	1			3
Total	236	197	105	0	0	538

 Table 4.34
 1992 election under the whole-number proportional method

## 4.2.5. The whole-number proportional method would not make every voter in every state politically relevant.

At first blush, it would appear that this method would give presidential candidates reason to campaign in all 50 states and the District of Columbia.

However, proper analysis of the whole-number proportional method cannot be accomplished qualitatively. Instead, a quantitative analysis of actual data is required to see how the system would work in practice.

As previously mentioned in this book, presidential candidates only campaign in places where they have something to gain or lose—that is, where they are within striking distance of gaining or losing one or more electoral votes.

For example, 100% of the general-election campaign events in 2012 occurred in the 12 particular states where the Republican percentage of the two-party vote was in the narrow six-percentage-point range between 45% and 51%—that is, where the separation between the major-party candidates was six percentage points or less.<sup>83</sup>

Another way of saying that is that the candidates are within three percentage points of the national outcome, which was 48% Republican in 2012.

Table 4.35 shows the 12 closely divided battleground states that received 100% of the nation's 253 general-election campaign events in 2012. The table is sorted according to the Republican percentage of the two-party vote.

Although all the general-election campaigning occurred in states where the candidates were within six percentage points, very little campaigning actually took place in states where the candidates were separated by the full six points. In fact:

- 98% of the 2012 general-election campaign events (249 of 253) were concentrated in the states where the Republican percentage of the two-party vote was in the narrow *four-percentage-point* range between 46% and 50%.
- 82% of the campaign events (208 of 253) were concentrated in the states where the Republican percentage of the two-party vote was in the narrow *two-percentage-point* range between 47% and 49%.

Now let's discuss what would happen when a presidential candidate formulates a plan to campaign under the whole-number proportional method.

The first thing to realize is that the share of a state's popular vote represented by one electoral vote varies enormously from state to state under this method.

Table 4.36 shows the percentage share of a state's popular vote corresponding to one electoral vote under the whole-number proportional method.

As can be seen from the table, one electoral vote corresponds to anywhere from 33.33% down to 1.82% of a state's popular vote under this method.

Half of the states (25) are median-sized or smaller. In the *median-sized* state (i.e., a state with seven electoral votes), one electoral vote corresponds to a 14.29% share of the state's popular vote.

<sup>&</sup>lt;sup>83</sup> In 2012, there were no general-election campaign events whatsoever (and virtually no advertising expenditures) in the 38 states outside this narrow six-percentage-point range. See table 1.10.

	2012 general- election campaign			
Romney percent	events (out of 253)	State	Ad spending	2010 population
51%	3	North Carolina	\$80,000,000	9,565,781
50%	40	Florida	\$175,776,780	18,900,773
48%	73	Ohio	\$148,000,000	11,568,495
48%	36	Virginia	\$127,000,000	8,037,736
47%	23	Colorado	\$71,000,000	5,044,930
47%	27	lowa	\$52,194,330	3,053,787
47%	13	Nevada	\$55,000,000	2,709,432
47%	13	New Hampshire	\$34,000,000	1,321,445
47%	5	Pennsylvania	\$31,000,000	12,734,905
47%	18	Wisconsin	\$40,000,000	5,698,230
46%	1	Minnesota	\$0	5,314,879
45%	1	Michigan	\$15,186,750	9,911,626
Total	253		\$829,157,860	93,862,019

# Table 4.35 The only states that received any attention in 2012 were those within three percentage points of the national outcome

Number of electoral votes	Share of a state's popular vote corresponding to one electoral vote	Number of states of this size	States
3	33.33%	8	Alaska, District of Columbia, Delaware, Montana, North Dakota, South Dakota, Vermont, Wyoming
4	25.00%	5	Hawaii, Idaho, Maine, New Hampshire, Rhode Island
5	20.00%	3	Nebraska, New Mexico, West Virginia
6	16.67%	6	Arkansas, Iowa, Kansas, Mississippi, Nevada, Utah
7	14.29%	3	Connecticut, Oklahoma, Oregon
8	12.50%	2	Kentucky, Louisiana
9	11.11%	3	Alabama, Colorado, South Carolina
10	10.00%	4	Maryland, Minnesota, Missouri, Wisconsin
11	9.09%	4	Arizona, Indiana, Massachusetts, Tennessee
12	8.33%	1	Washington
13	7.69%	1	Virginia
14	7.14%	1	New Jersey
15	6.67%	1	North Carolina
16	6.25%	2	Georgia, Michigan
18	5.56%	1	Ohio
20	5.00%	2	Illinois, Pennsylvania
29	3.45%	2	Florida, New York
38	2.63%	1	Texas
55	1.82%	1	California
538		51	Total

In the *average-sized* state (i.e., a state with 10 electoral votes), one electoral vote corresponds to a 10% share of the state's popular vote. Two-thirds of the states (34) are average-sized or smaller.

We now use the 2012 race to demonstrate how the whole-number proportional method would actually operate. Specifically, we ask whether a candidate would bother to campaign in each state.

### States with three electoral votes

Eight states are entitled to three presidential electors—Alaska, Delaware, the District of Columbia, Montana, North Dakota, South Dakota, Vermont, and Wyoming.

As we will see in this subsection, neither Obama nor Romney would have campaigned in any of these eight states if the whole-number proportional method had been in effect in 2012.

Under this method, one electoral vote corresponds to a 33.3% share of the state's popular vote in a state with three electoral votes.

In a state with three electoral votes:

- If a candidate receives less than 16.66% (half of the 33.3%) of the state's popular vote, then the candidate gets no electoral votes.
- If a candidate receives between 16.67% and 50% of the popular vote, then the candidate gets one electoral vote.
- If a candidate receives between 50.01% and 83.33% of the popular vote, then the candidate gets two electoral votes.
- Finally, if a candidate receives more than 83.33% of the popular vote, then the candidate gets all three of the state's electoral votes.

The *breakpoints*—where a candidate's number of electoral votes changes—are shown in table 4.37.

Percent of popular vote	Number of electoral votes	Breakpoint
0.00% to 16.66%	0	16.67%
16.67% to 50.00%	1	50.00%
50.01% to 83.33%	2	83.33%
83.33% to 100.00%	3	NA

Table 4.37 E	Breakpoints f	for states w	ith three e	lectoral votes
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Figure 4.3 graphically presents these breakpoints for states with three electoral votes.

- The horizontal line represents a candidate's percentage share of the popular vote—from 0% to 100%.
- The vertical tick marks show the breakpoints at 16.67%, 50%, and 83.33%.
- The small numbers (0, 1, 2, or 3) immediately under the horizontal line show the number of electoral votes that a candidate would receive by winning a particular share of the state's popular vote.

Candidates will decide whether to campaign in a state by comparing their level of support in the state with the breakpoints (16.67%, 50%, and 83.33%).



**Figure 4.3** Scale showing the number of electoral votes that a candidate would win by receiving a particular share of the popular vote in a state with three electoral votes

Presidential candidates only campaign in places where they have something to gain or lose.

In a two-person race such as we are discussing here, the two candidates will campaign in a state only if they are within three percentage points of the same breakpoint (and hence six percentage points or less from one another).

We start in Wyoming, where President Obama had a 29% share of the two-party popular vote in 2012.

Figure 4.4 is the same as the previous figure, except that a marker has been added at the 29% point along the scale to mark Obama's level of support in Wyoming. A candidate with 29% support on Election Day would win one electoral vote under the whole-number proportional method, because 29% lies between the breakpoint of 16.7% and the breakpoint of 50%.

When Obama considers the question of whether he is within shooting distance of gaining or losing anything in Wyoming in 2012, it is immediately apparent that getting more than one electoral vote in Wyoming would have required him to perform the monumental task of increasing his level of support in the state by 21 percentage points during the course of the general-election campaign. If he could have increased his support up to the breakpoint at 50%, he would have won two electoral votes, instead of just one.

Meanwhile, Governor Mitt Romney would have considered the question of whether he could possibly win all three of Wyoming's electoral votes, instead of two. To accomplish that, Romney would have had to perform the daunting task of depressing Obama's support by 12.3 percentage points—that is, pushing Obama below the breakpoint at 16.7%.

Because Obama's level of support of 29% in Wyoming was so distant from the two nearest breakpoints in Wyoming (50% on the upside, and 16.67% on the downside), both Obama and Romney would have quickly reached the conclusion that they had nothing to gain or lose by bothering to campaign in Wyoming.

No amount of campaigning by either of them could possibly change the way Wyoming's three electoral votes would be divided under the whole-number proportional method.

Serious presidential candidates—advised by the nation's most astute political strategists—simply do not spend time and money in states where they have nothing to lose and nothing to gain.



Figure 4.4 Obama's popular vote in 2012 in Wyoming (three electoral votes)

Hence, Wyoming would have been ignored in 2012 under this method.

Note that the above analysis is essentially the same that the candidates make today under the current winner-take-all method of awarding electoral votes.

Under the winner-take-all system, the breakpoint is always at 50% in a two-candidate race, and the payoff to the winner is all three of Wyoming's electoral votes, rather than just one.

Wyoming would have been ignored by both political parties under the whole-number proportional method for the very same reason that it was ignored under the current winner-take-all system. Obama could not possibly increase his level of support by the 21 percentage points needed to reach the 50% breakpoint, and he therefore wrote off Wyoming. Similarly, Romney could not possibly lose 21 percentage points, and he took the state for granted.

We now modify the previous figure by adding markers for the other states with three electoral votes.

Figure 4.5 is the same as the previous figure, except that it shows Obama's level of support in all eight states with three electoral votes.



Figure 4.5 Obama's popular vote in 2012 in the eight states with three electoral votes

As can be seen, Obama was not within three percentage points of any breakpoint (16.67%, 50%, and 83.33%) in any of these eight states.

Table 4.38 provides the details as to how Obama and Romney would have analyzed their prospects in the eight states with three electoral votes under the whole-number proportional method.

- Column 2 of the table shows President Obama's percentage share of the twoparty 2012 vote for the eight states with three electoral votes.
- Columns 3 and 4 show the respective number of electoral votes that President Obama and Governor Romney would have received if this method had been used to award electoral votes in 2012.
- Column 5 shows the breakpoint (taken from table 4.37) just below Obama's level of support in 2012, while column 6 shows the breakpoint just above Obama's level of support.
- Column 7 shows the smallest change that could have shifted one electoral vote. It shows the difference between Obama's level of support in a state (column 2) and the *nearer* of the two breakpoints (columns 5 and 6) for that state.

For example, Obama's vote in Alaska was 42.68%. This percentage is nearer to the 50% breakpoint (column 6) than the 33.33% breakpoint (column 5). Therefore, a change of 7.32 percentage points is the smallest change that could shift one electoral vote in Alaska in 2012. If Obama could have increased his level of support from 42.68% to 50.01%, he could have won two electoral votes (instead of one) in Alaska.

State	Obama vote	Obama EV	Romney EV	Breakpoint just below Obama percent	Breakpoint just above Obama percent	Change needed to gain or lose 1 EV
AK	42.68%	1	2	16.67%	50.00%	7.32%
DC	92.59%	3	0	83.33%	100.00%	7.41%
DE	59.45%	2	1	50.00%	83.33%	9.45%
MT	42.97%	1	2	16.67%	50.00%	7.03%
ND	39.89%	1	2	16.67%	50.00%	10.11%
SD	40.78%	1	2	16.67%	50.00%	9.22%
VT	68.25%	2	1	50.00%	83.33%	15.09%
WY	28.84%	1	2	16.67%	50.00%	12.17%

Table 4.38 Whole-number proportional method in states with three electoral votes for 2012 election

The percentage in column 7 is the most important number in understanding how the whole-number proportional method works in practice. It indicates whether it is likely for a candidate to gain or lose one electoral vote in a particular state. That, in turn, indicates whether a candidate will campaign in the state.

Unless the percentage in column 7 is "small" for a given state, it would be very difficult for a candidate to gain or lose one electoral vote in that state.

Now let's discuss precisely how small is "small."

For the sake of argument, suppose that Obama's level of support in Alaska in column 2 of table 4.5 was a hair above 47% (instead of its actual level of 42.68%). That would mean that Romney's level of support was a tad below 53%. That is, Obama and Romney would be *within six percentage points of one another*.

Under that assumption, the percentage in column 7 for Obama would be 3%.

If Obama could increase his standing with the voters by three percentage points (which would mean *simultaneously* decreasing Romney's standing by three percentage points), Obama would then be a hair above 50% and therefore would win one additional electoral vote. In that case, Obama would likely decide to campaign in Alaska.

In other words, if column 7 is 3% or less, the candidates are within six percentage points of one another.

We know—from the actual behavior of the real-world presidential candidates over many elections—that the two major-party candidates campaign only in places where they are within six percentage points, more or less, of one another.

Of course, Alaska did not meet that criterion in 2012.

Moreover, a glance at table 4.5 shows that *none* of the numbers in column 7 is less than three percentage points. In fact, all the numbers are rather large—they range from seven to 15 percentage points. They are so large that no candidate would have any reasonable expectation of gaining or losing even a single electoral vote by campaigning in any of the eight states with three electoral votes.

Thus, all eight states would have been ignored under the whole-number proportional method.

The 2012 election was (like most presidential races) essentially a two-party competition. However, the above analysis is equally applicable in a race with a strong third-party candidate, such as George Wallace in 1968 or Ross Perot in 1992. Each of the candidates would carefully consider whether their level of support in a particular state is close enough to a breakpoint to offer them the chance of gaining or losing an electoral vote.

The division of electoral votes (columns 3 and 4) for the eight states with three electoral votes in 2012 would have been 12–12 under the whole-number proportional method, compared to nine for Obama and 15 for Romney under the existing statewide winner-takeall system.

### States with four electoral votes

There were five states with four electoral votes in 2012—Hawaii, Idaho, Maine, New Hampshire, and Rhode Island.

As we will see in this subsection, Rhode Island would have been the *only* state with four electoral votes where Obama and Romney would have had any chance of winning or losing an electoral vote if the whole-number proportional system had been in effect in 2012.

In states with four electoral votes, one electoral vote corresponds to a 25% share of the state's popular vote under this method.

Table 4.39 shows the number of electoral votes that a candidate would win as a result of receiving various percentages of the popular vote in the states with four electoral votes.<sup>84</sup> Column 3 shows the breakpoints (12.5%, 37.5%, 62.5%, and 87.5%).

Note that there is no breakpoint at 50% for the states with four electoral votes (or any

Percent of popular vote	Number of electoral votes	Breakpoint				
0.00% to 12.50%	0	12.50%				
12.51% to 37.50%	1	37.50%				
37.51 to 62.50%	2	62.50%				
62.51% to 87.50%	3	87.50%				
87.51% to 100.00%	4	NA				

Table 4.39 Breakpoints for states with four electoral votes

other state with an even number of electoral votes). In other words, the 50% mark has no special political relevance to the candidates in states with an even number of electoral votes. The issue is always whether a candidate is close enough to a breakpoint (wherever it is) to warrant campaigning in a particular state.

Figure 4.6 shows Obama's level of support in 2012 in the five states with four electoral votes. The figure contains tick marks along the horizontal line at the breakpoints of 12.5%,

<sup>&</sup>lt;sup>84</sup> The general rule for constructing this table (and other similar tables in this section) is that if *x* is the number of electoral votes, 1/2x is the breakpoint between zero and one electoral vote; 1/2x+1/x is the breakpoint between one and two electoral votes; 1/2x+2/x is the breakpoint between two and three electoral votes; 1/2x+3/x is the breakpoint between three and four electoral votes; and so forth.

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Figure 4.6 Obama's popular vote in 2012 in the five states with four electoral votes

37.5%, 62.5%, and 87.5%. The small numbers immediately under the horizontal line show the number of electoral votes (0, 1, 2, 3, or 4) that a candidate would win under the whole-number proportional method as a result of receiving a particular share of the popular vote.

Table 4.40 shows how the candidates would have analyzed their prospects in the five states with four electoral votes under the whole-number proportional method.

Hawaii, Idaho, Maine, and New Hampshire would have been ignored by candidates, because the change needed to gain or lose one electoral vote (column 7) was simply too large (9.20%, 3.92%, 4.64%, and 9.67%, respectively).

On the other hand, Obama's level of support in Rhode Island (64.02%) was very close to the breakpoint (62.5%). Therefore, Rhode Island would have been a battleground state (with one electoral vote at stake) under this method, because only a modest change (1.52%) would have been needed to change one electoral vote. In this case, Obama would have campaigned vigorously in Rhode Island so as to keep his support above the breakpoint of 62.5%, while Romney would have worked diligently to drive Obama below 62.5%.

In fact, among the 13 states with three or four electoral votes, Rhode Island would be the only place where a candidate would have had a reasonable expectation of winning or losing anything.

In fact, the whole-number proportional method would have performed very much like the current winner-take-all system among the 13 smallest states.

There was only one state (New Hampshire) that received any general-election campaign events under the current winner-take-all system. The reason was that Obama's level of support in New Hampshire (52.83%) was within three percentage points of the relevant breakpoint (that is, 50%).

Under the whole-number proportional method, the battle would have been for only one electoral vote in Rhode Island in 2012, whereas it was for four electoral votes in New Hampshire under the current winner-take-all system.

## Table 4.40 Whole-number proportional method in states with four electoral votes for 2012 election

State	Obama vote	Obama EV	Romney EV	Breakpoint just below Obama percent	Breakpoint just above Obama percent	Change needed to gain or lose 1 EV
HI	71.70%	3	1	62.50%	87.50%	9.20%
ID	33.58%	1	3	12.50%	37.50%	3.92%
ME	57.86%	2	2	37.50%	62.50%	4.64%
NH	52.83%	2	2	37.50%	62.50%	9.67%
RI	64.02%	3	1	62.50%	87.50%	1.52%

The next few sections present a similar analysis for each of the larger states. Some readers may want to skip ahead to table 4.47, which summarizes all of the results.

### States with five electoral votes

There were three states with five electoral votes in 2012—Nebraska, New Mexico, and West Virginia.

In states with five electoral votes, one electoral vote corresponds to a 20% share of the state's popular vote.

Table 4.41 shows the breakpoints for states with five electoral votes under the wholenumber proportional method.

Percent of popular vote	Number of electoral votes	Breakpoint
0.00% to 10.00%	0	10.00%
10.01 to 30.00%	1	30.00%
30.01% to 50.00%	2	50.00%
50.01% to 70.00%	3	70.00%
70.01% to 90.00%	4	90.00%
90.01% to 100.00%	5	NA

Table 4.41 Breakpoints for states with five electoral votes

Figure 4.7 shows Obama's level of support in 2012 in the three states with five electoral votes.



Figure 4.7 Obama's popular vote in 2012 in the three states with five electoral votes

Table 4.42 shows how candidates would have analyzed their prospects in the three states with five electoral votes under the whole-number proportional method.

All three states with five electoral votes would have been ignored by candidates, because the change (column 7) needed to gain or lose one electoral vote would have been too large (8.87%, 5.30%, and 6.33%, respectively).

Table 4.42	Whole-number proportional method in states with five electoral votes for	
	2012 election	

State	Obama vote	Obama EV	Romney EV	Breakpoint just below Obama percent	Breakpoint just above Obama percent	Change needed to gain or lose 1 EV
NE	38.87%	2	3	30.00%	50.00%	8.87%
NM	55.30%	3	2	50.00%	70.00%	5.30%
WV	36.33%	2	3	30.00%	50.00%	6.33%

#### States with six electoral votes

There were six states with six electoral votes in 2012—Arkansas, Iowa, Kansas, Mississippi, Nevada, and Utah.

In states with six electoral votes, one electoral vote corresponds to a 16.67% share of the state's popular vote.

Table 4.43 shows the breakpoints for states with six electoral votes under the wholenumber proportional method.

Percent of popular vote	Number of electoral votes	Breakpoint
0.00% to 8.33%	0	8.33%
8.34% to 25.00%	1	25.00%
25.01% to 41.66%	2	41.66%
41.67% to 58.33%	3	58.33%
58.34% to 75.00%	4	75.00%
75.00% to 91.66%	5	91.66%
91.67% to 100.00%	6	NA

 Table 4.43 Breakpoints for states with six electoral votes

Figure 4.8 shows Obama's level of support in 2012 in the six states with six electoral votes.



Figure 4.8 Obama's popular vote in 2012 in the six states with six electoral votes

Table 4.44 shows how candidates would have analyzed their prospects in the six states with six electoral votes under the whole-number proportional method.

Utah would have been a battleground state (for one electoral vote) under this method, because only a very small change (0.37%) would have been needed to gain or lose one

Table 4.44	Whole-number proportional	method in s	states with six	electoral	votes for
	2012 election				

State	Obama vote	Obama EV	Romney EV	Breakpoint just below Obama percent	Breakpoint just above Obama percent	Change needed to gain or lose 1 EV
AR	37.85%	2	4	25.00%	41.67%	3.82%
IA	52.96%	3	3	41.67%	58.33%	5.37%
KS	38.89%	2	4	25.00%	41.67%	2.78%
MS	44.20%	3	3	41.67%	58.33%	2.53%
NV	53.41%	3	3	41.67%	58.33%	4.93%
UT	25.37%	2	4	25.00%	41.67%	0.37%

electoral vote. The battle in Utah would have been about whether Obama's level of support would remain above the breakpoint of 25%.

Kansas also would have been a battleground state (for one electoral vote), because a change of 2.78% of the popular vote would have affected one electoral vote. The battle in Kansas would have been about whether Obama could increase his level of support above the breakpoint at 41.67%.

Mississippi also would have been a battleground state (for one electoral vote), because a change of 2.53% of the popular vote would have affected one electoral vote. The battle in Mississippi would have been about whether Obama's level of support would remain above the breakpoint of 41.67%.

On the other hand, Arkansas, Iowa, and Nevada would have been ignored, because the change (column 7) needed to gain or lose one electoral vote was too large (3.82%, 5.37%, and 4.93%, respectively).

#### States with seven electoral votes

There were three states with seven electoral votes in 2012—Connecticut, Oklahoma, and Oregon.

In states with seven electoral votes, one electoral vote corresponds to a 14.29% share of the state's popular vote.

Table 4.45 shows the breakpoints for states with seven electoral votes under the whole-number proportional method.

Percent of popular vote	Number of electoral votes	Breakpoint
0.00% to 7.14%	0	7.14%
7.15% to 21.43%	1	21.43%
21.44% to 35.71%	2	35.71%
35.72% to 50.00%	3	50.00%
50.01% to 64.28%	4	64.28%
64.29% to 78.57%	5	78.57%
78.58% to 92.86%	6	92.86%
92.87% to 100.00%	7	NA

Table 4.45 Breakpoints for states with seven electoral votes

Figure 4.9 shows Obama's level of support in 2012 in the three states with seven electoral votes.

Table 4.46 shows how candidates would have analyzed their prospects in the three states with seven electoral votes under the whole-number proportional method.



Figure 4.9 Obama's popular vote in 2012 in the three states with seven electoral votes

State	Obama vote	Obama EV	Romney EV	Breakpoint just below Obama percent	Breakpoint just above Obama percent	Change needed to gain or lose 1 EV
СТ	58.77%	4	3	50.00%	64.29%	5.51%
OK	33.23%	2	5	21.43%	35.71%	2.49%
OR	56.27%	4	3	50.00%	64.29%	6.27%

Table 4.46	Whole-number proportional method in states with seven electoral votes for
	2012 election

Oklahoma would have been a battleground state (for one electoral vote) under the whole-number proportional method, because only a modest change (2.49%) would have been needed to affect one electoral vote.

On the other hand, Connecticut and Oregon would have been ignored, because by the candidates, because the change needed to gain or lose one electoral vote was too large (5.51% and 6.27%, respectively).

### Summary for states with between three and seven electoral votes

In only four of the 25 smallest states would the candidates have had any expectation of winning or losing anything (namely one electoral vote) under the whole-number proportional method:

- Rhode Island (where a change of 1.52% could have caused a candidate to gain or lose one electoral vote),
- Utah (with a change of 0.37%),
- Kansas (with a change of 2.78%), and
- Mississippi (with a change of 2.53%).

The other 21 smallest states would have been ignored.

In other words, the whole-number proportional method would have operated almost exactly like the current winner-take-all method in the 25 smallest states.

Indeed, under the current winner-take-all system, only three of these 25 states (Iowa, Nevada, and New Hampshire) received any general-election campaign events in 2012.

#### States with eight electoral votes

Figure 4.10 shows Obama's level of support in 2012 in the two states with eight electoral votes.

Among states with eight electoral votes, Louisiana would have been a battleground state (for one electoral vote) under the whole-number proportional method, because Obama's level of support (41.2%) was close to the breakpoint (43.75%); however, Kentucky would have been ignored, because 38% was not close enough to the breakpoint of 43.75%.



Figure 4.10 Obama's popular vote in 2012 in the two states with eight electoral votes

### States with nine electoral votes

Figure 4.11 shows Obama's level of support in 2012 in the three states with nine electoral votes.

Among states with nine electoral votes, Alabama and Colorado would have been battleground states (for one electoral vote) under this method; however, South Carolina would have been ignored.



Figure 4.11 Obama's popular vote in 2012 in the three states with nine electoral votes

#### States with 10 electoral votes

Figure 4.12 shows Obama's level of support in 2012 in the four states with 10 electoral votes.

All four states with 10 electoral votes (Missouri, Minnesota, Wisconsin, and Maryland) would have been battleground states (for one electoral vote) under the whole-number proportional method.



Figure 4.12 Obama's popular vote in 2012 in the four states with 10 electoral votes

### States with 11 electoral votes

Figure 4.13 shows Obama's level of support in 2012 in the four states with 11 electoral votes.

Among states with 11 electoral votes, Tennessee and Massachusetts would have been battleground states (for one electoral vote) under the whole-number proportional method; however, Indiana and Arizona would have been ignored.



Figure 4.13 Obama's popular vote in 2012 in the four states with 11 electoral votes

#### States with 12 or more electoral votes

Figure 4.14 shows Obama's level of support in 2012 in Washington State (the only state with 12 electoral votes).

Washington State would have been ignored by the candidates under the whole-number proportional method, because Obama's level of support (57.6%) was too distant from the nearest breakpoints (54% and 62%).



Figure 4.14 Obama's popular vote in 2012 in the one state (Washington) with 12 electoral votes

Figure 4.15 shows Obama's level of support in 2012 in Virginia (the only state with 13 electoral votes).

Virginia would have been a battleground state (for one electoral vote) under the wholenumber proportional method, because Obama's level of support (52%) was sufficiently close to a breakpoint (50%).



Figure 4.15 Obama's popular vote in 2012 in the one state (Virginia) with 13 electoral votes

Obama's level of support in New Jersey (14 electoral votes), North Carolina (15), Georgia (16), and Michigan (16) was such that they all would have been battleground states in 2012 (with one electoral vote at stake) under this method.

Things change at 18 electoral votes. Because 5.6% of the popular vote corresponds to one electoral vote in a state with 18 electoral votes, *every* state with 18 or more electoral votes would be a battleground (for at least one electoral vote) under the whole-number proportional method. The reason is that a six percentage-point range always occupies all the space between breakpoints that are 5.6% apart or closer.

Thus, Ohio (18 electoral votes), Illinois (20), Pennsylvania (20), Florida (29), New York (29), Texas (38), and California (55) would have been battleground states under this method.

In fact, the very largest states (California, Texas, and New York) can be battlegrounds for more than one electoral vote.

In California, the nation's largest state (with 55 electoral votes), one electoral vote corresponded to a slender 1.82% share of the state's popular vote.

Obama's level of support was 61.87% in California in 2012. Obama could have gained one electoral vote if his support had risen by 0.86% (so that it would have ended up above

the next breakpoint on the upside at 62.73%). In fact, he could have gained two electoral votes if his support had risen by 2.68% (so that it would have ended up above the next-higher breakpoint at 64.55%). Also, Obama could have lost one electoral vote if his support had dropped by 0.96% (so that it would have ended up below the next breakpoint on the downside at 60.91%). Thus, three electoral votes would have been in play in California in 2012.

Note that only three additional electoral votes would have been in play in California in 2012, because the next breakpoint on the downside would have been at 58.09% (a little too far away from 61.87%), and the next breakpoint on the upside would have been at 66.37% (a little too far away from 61.87%).<sup>85</sup>

In Texas, the nation's second largest state (with 38 electoral votes), one electoral vote corresponds to a 2.63% share of the state's popular vote. Obama's level of support was 41.99% in Texas in 2012. He could have gained one electoral vote in Texas if his support had risen by 1.43% (so that it would have ended up above the next breakpoint on the upside at 43.42%). Also, he could have lost one electoral vote in Texas if his support had dropped by 1.20% (so that it would have ended up below the next breakpoint on the downside at 40.79%). Thus, two electoral votes would have been in play in Texas in 2012.

However, no additional electoral votes would have been in play in Texas in 2012, because the next breakpoint on the downside would have been at 38.17%, and the next breakpoint on the upside would have been at 46.05%.<sup>86</sup>

### Summary of the whole-number proportional method for all states

Table 4.47 shows the result of applying the whole-number proportional method to the 2012 election. The table is sorted in ascending order of the percentage change (column 8) that would have been needed in each state to change one electoral vote.

As can be seen from the top half of the table, there are 26 states where the number in column 8 is less than 3%. Among these 26 battleground states:

- only one electoral vote would be in play in 24 states (that is, the whole-number proportional method would be a one-state-one-vote system for these states);
- two electoral votes would be in play in Texas;
- three electoral votes would be in play in California;
- a total of only 29 electoral votes from 26 states would have been in play.

To say it another way, under the whole-number proportional method:

- The entire presidential election would have been about trying to change one electoral vote in each of 24 states, two in Texas, and three in California.
- Meanwhile, 509 of 538 electoral votes (95%) would have been preordained.

In this extremely narrow playing field of 29 electoral votes in 26 states, Obama would have won the 2012 election by a 276–262 margin in the Electoral College under the whole-number proportional method.

<sup>&</sup>lt;sup>85</sup> If a candidate were to have a particular (very unlikely) level of support in California, as many as four electoral votes could be in play in the state.

<sup>&</sup>lt;sup>86</sup> If a candidate were to have a particular (very unlikely) level of support in Texas, as many as three electoral votes could might be potentially in play there.

					Breakpoint just	Breakpoint just	Percent change to
State	EV	Obama vote	Obama EV	Romney EV	below D-percent	above D-percent	gain or lose 1 EV
AL	9	38.78%	3	6	27.78%	38.89%	0.11%
MO	10	45.22%	5	5	45.00%	55.00%	0.22%
PA	20	52.73%	11	9	52.50%	57.50%	0.23%
UT	6	25.37%	2	4	25.00%	41.67%	0.37%
FL	29	50.44%	15	14	50.00%	53.45%	0.44%
NY	29	64.28%	19	10	63.79%	67.24%	0.48%
GA	16	46.04%	7	9	40.63%	46.88%	0.83%
CA	55	61.87%	34	21	60.91%	62.73%	0.85%
NC	15	48.97%	7	8	43.33%	50.00%	1.03%
MN	10	53.94%	5	5	45.00%	55.00%	1.06%
IL	20	58.58%	12	8	57.50%	62.50%	1.08%
ТХ	38	41.99%	16	22	40.79%	43.42%	1.20%
TN	11	39.65%	4	7	31.82%	40.91%	1.26%
OH	18	51.51%	9	9	47.22%	52.78%	1.26%
RI	4	64.02%	3	1	62.50%	87.50%	1.52%
WI	10	53 46%	5	5	45.00%	55.00%	1.54%
MI	16	54.80%	9	7	53.13%	59.38%	1.68%
MD	10	63.32%	6	4	55.00%	65.00%	1.68%
NI	14	58.95%	8	6	53 57%	60.71%	1 76%
VA	13	51 97%	7	6	50.00%	57 69%	1 97%
	7	33.23%	2	5	21 / 3%	35 71%	2 / 9%
	8	/1 25%	3	5	31.25%	/3 75%	2.40%
MS	6	44.20%	3	3	/1 67%	58 33%	2.50%
	11	61 79%	7		59.09%	68.18%	2.55%
	- 11	52.75%	5	4	50.00%	61 11%	2.05%
	9	20 00%	2	4	25.00%	41.67%	2.75%
	10	57.63%	~ ~ ~		54 17%	41.07%	2.10%
	12	27.03%	2	5	25.00%	02.30%	3.40%
	11	31.65%	Z	4	25.00%	41.07%	3.02%
	11	44.00%	3	0	40.91%	30.00%	3.69%
	4	33.38%		3	12.50%	50.00%	3.92%
AZ		45.39%	5	0	40.91%	50.00%	4.48%
	4	57.86%	2	2	37.50%	62.50%	4.64%
	6	53.41%	3	3	41.67%	58.33%	4.93%
KY NA	8	38.46%	3	5	31.25%	43.75%	5.29%
	5	55.30%	3	2	50.00%	70.00%	5.30%
SC	9	44.69%	4	5	38.89%	50.00%	5.31%
	6	52.96%	3	3	41.67%	58.33%	5.37%
		58.77%	4	3	50.00%	64.29%	5.51%
OR		56.27%	4	3	50.00%	64.29%	6.27%
WV	5	36.33%	2	3	30.00%	50.00%	6.33%
MI	3	42.97%	1	2	16.67%	50.00%	7.03%
AK	3	42.68%	1	2	16.67%	50.00%	7.32%
DC	3	92.59%	3	0	83.33%	100.00%	(.41%
NE	5	38.87%	2	3	30.00%	50.00%	8.87%
HI	4	71.70%	3	1	62.50%	87.50%	9.20%
SD	3	40.78%	1	2	16.67%	50.00%	9.22%
DE	3	59.45%	2	1	50.00%	83.33%	9.45%
NH	4	52.83%	2	2	37.50%	62.50%	9.67%
ND	3	39.89%	1	2	16.67%	50.00%	10.11%
WY	3	28.84%	1	2	16.67%	50.00%	12.17%
VT	3	68.25%	2	1	50.00%	83.33%	15.09%
Total	538	51.96%	276	262			

 Table 4.47
 2012 election under the whole-number proportional method

### There would be about 27 battleground states in every election.

Recall that table 4.47 showed that there would have been the 26 battleground states if the 2012 Obama-Romney election had been conducted under the whole-number proportional method.

If we wanted to construct a similar table for a different election, the candidates would, of course, be different. Those candidates would, in turn, have different levels of support in each state than Obama and Romney did in 2012.

As will be seen momentarily, even though the candidates will be different from election to election, and even though each candidate's level of support in each state will vary from election to election, *there will always be about 27 states in play* under the wholenumber proportional method.

The reason for this counter-intuitive conclusion is that a state is a battleground under this method if a candidate is within three percentage points of a breakpoint in a state. The distance between a state's breakpoints is the percentage of the popular vote that corresponds to one electoral vote in that state. This percentage is simply the reciprocal of the state's number of electoral votes (table 4.36).

The ratio of six percentage points to the total distance between breakpoints for a state is the probability that the state has a candidate within three percentage points of one of its breakpoints.

That ratio is, in turn, the *probability* that the state is a battleground state under the whole-number proportional method.

The sum of those probabilities is the expected number of battleground states under the whole-number proportional method.

Notably, these distances, these probabilities, and these ratios do *not* depend on the candidates.

Table 4.48 shows the probability that a state will be a battleground state under the whole-number proportional method.

- Column 2 shows the state's number of electoral votes.
- Column 3 is the percentage of the popular vote corresponding to one electoral vote in the state.
- Column 4 is the ratio of six percentage points to the number in column 3. This ratio is the probability that the state is a battleground state under this method.

The sum of all the probabilities in column 7 of table 4.48 is the expected number of battleground states under the whole-number proportional method.

This sum (26.74) depends on two things, namely the distribution of electoral votes among the states and the six-percentage point gap.

Thus, we can say that about 27 states would be battleground states in *any* future election conducted under the whole-number proportional method.

Note that the states that would be battlegrounds in a particular campaign would vary depending on each candidate's level of support in each state. However, the statistical expectation is that there would always be approximately 27 battleground states under the whole-number proportional method.

State	<b>Electoral Votes</b>	Percent of popular vote for one EV	Probability of being a battleground	
Alabama	9	11.11%	0.54	
Alaska	3	33.33%	0.18	
Arizona	11	9.09%	0.66	
Arkansas	6	16.67%	0.36	
California	55	1.82%	1.00	
Colorado	9	11.11%	0.54	
Connecticut	7	14.29%	0.42	
D.C.	3	33.33%	0.18	
Delaware	3	33.33%	0.18	
Florida	29	3.45%	1.00	
Georgia	16	6.25%	0.96	
Hawaii	4	25.00%	0.24	
Idaho	4	25.00%	0.24	
Illinois	20	5.00%	1.00	
Indiana	11	9.09%	0.66	
lowa	6	16.67%	0.36	
Kansas	6	16.67%	0.36	
Kentucky	8	12 50%	0.48	
Louisiana	8	12.50%	0.48	
Maine	<u>0</u>	25.00%	0.40	
Maryland	10	10.00%	0.60	
Massachusetts	11	9.09%	0.66	
Michigan	16	6.25%	0.00	
Minnosoto	10	10.00%	0.90	
Minnesola	10	16.67%	0.80	
Mississippi	10	10.00%	0.30	
Mentene		10.00%	0.80	
Nohracka	5	20.00%	0.20	
Neuraska	<u>5</u>	16.67%	0.30	
New Hampshire	0	25.00%	0.30	
New Tampshire	1.1	7 1 4%	0.24	
New Jersey	<u>14</u>	20.00%	0.84	
	5	20.00%	0.30	
New York	29	3.45%	1.00	
North Carolina	15	6.67%	0.90	
North Dakota	3	33.33%	0.18	
Ohio	18	5.56%	1.00	
Oklahoma	1	14.29%	0.42	
Oregon	/	14.29%	0.42	
Pennsylvania	20	5.00%	1.00	
Rhode Island	4	25.00%	0.24	
South Carolina	9	11.11%	0.54	
South Dakota	3	33.33%	0.18	
Tennessee	11	9.09%	0.66	
Texas	38	2.63%	1.00	
Utah	6	16.67%	0.36	
Vermont	3	33.33%	0.18	
Virginia	13	7.69%	0.78	
Washington	12	8.33%	0.72	
West Virginia	5	20.00%	0.30	
Wisconsin	10	10.00%	0.60	
Wyoming	3	33.33%	0.18	
Total	538		26.74	

 Table 4.48
 Probability that a state is a battleground state under the whole-number proportional method

### 4.2.6. The whole-number proportional method would not make every vote equal.

There are five sources of inequality in the whole-number proportional method, and each is substantial, including the:

- 3.81-to-1 inequality in the value of a vote because of the two senatorial electoral votes that each state receives in addition to the number of electoral votes warranted by its population;
- 1.72-to-1 inequality in the value of a vote because of the imprecision of the process of apportioning U.S. House seats (and hence electoral votes) among the states;
- 1.67-to-1 inequality in the value of a vote created by voter-turnout differences at the state level;
- 1.39-to-1 inequality in the value of a vote caused by the intra-decade population changes after each census; and
- 50.2-to-1 inequality because the one winnable electoral vote could be won with a few thousand popular votes in a low-population state while requiring tens of thousands of popular votes in a bigger state.

### Inequality because of the two senatorial electoral votes

First, under the whole-number proportional method, a vote cast in a large state has less weight than a vote cast in a small state because of the two senatorial electoral votes that each state receives above and beyond the number warranted by the state's population.

Table 1.34 shows, for each state, the ratio of the number of people per electoral vote, compared to the number of people per electoral vote in the nation's smallest state (Wyoming). For example, the ratio of California's population per electoral vote to that of Wyoming is 3.81-to-1.

### Inequality because of the imprecision of the process of apportioning U.S. House seats

Second, a vote cast in certain states has less weight than a vote cast in certain other states because of inequalities created by imprecision in apportioning U.S. House seats.

There is a 1.72-to-1 variation in the weight of a vote because of the imprecision of the process of apportioning U.S. House seats (table 1.35).

### Inequalities because of voter-turnout differences at the state level

Third, a voter in a low-turnout state has greater voting power than a voter in a high-turnout state.

Differences in voter turnout at the state level create variations of up to 1.67-to-1 in the value of a vote under this method (table 1.41).

## Inequalities because of population changes occurring during the decade after each census

Fourth, another source of variation in the value of a vote from state to state arises from the fact that state populations change at different rates during the decade after each census.

These differences create variations of up to 1.39-to-1 in the value of a vote under this method (table 1.40).

# Inequalities due to differences in the number of votes that enable a candidate to win an electoral vote

Fifth, recall that table 4.47 showed that, under the whole-number proportional method:

- only one electoral vote would be in play in 24 states;
- two electoral votes would be in play in Texas; and
- three electoral votes would be in play in California.

Winning the single electoral vote available in 24 states would require only a few thousand popular votes in a low-population state, while requiring tens of thousands of popular votes in a bigger state.

This inequality becomes apparent by focusing on the *number* of popular votes—rather than the percentages presented in the earlier table.

Table 4.49 shows the 26 states that would have been in play if the 2012 election had been conducted under the whole-number proportional method.

- Column 3 shows the number of popular votes that Obama received in each state.
- Column 4 shows the number of popular votes that Romney received in each state.
- Column 5 shows Obama's level of support in the state.
- Column 6 shows the percentage change needed to gain or lose one electoral vote in the state. Note that this change is measured to the nearest breakpoint (up or down).
- Column 7 shows the number of popular votes needed to gain or lose one electoral vote in the state. Again, this change is measured to the nearest breakpoint.

This table is sorted in ascending order of the percentage change needed to gain or lose one electoral vote (column 6) in 2012 under the whole-number proportional method.

A glance at rows 4 through 6 of the table (highlighted in bold) shows that changing 3,710 popular votes in Utah would have yielded one electoral vote, while the same oneelectoral-vote reward would have taken 36,812 popular votes in Florida and 33,591 popular votes in New York.

Table 4.50 presents the same information as the previous table, except that this table is sorted in ascending order of the number of popular votes (column 7) needed to affect one electoral vote in 2012 under the whole-number proportional method.

State	EV	Obama (D)	Romney (R)	D-Percent	Percent change to affect one EV	Popular-vote change to affect one EV
AL	9	795,696	1,255,925	38.78%	0.11%	2,157
MO	10	1,223,796	1,482,440	45.22%	0.22%	5,990
PA	20	2,990,274	2,680,434	52.73%	0.23%	13,152
UT	6	251,813	740,600	25.37%	0.37%	3,710
FL	29	4,235,965	4,162,341	50.44%	0.44%	36,812
NY	29	4,471,871	2,485,432	64.28%	0.48%	33,591
GA	16	1,773,827	2,078,688	46.04%	0.83%	32,039
CA	55	7,854,285	4,839,958	61.87%	0.85%	108,467
NC	15	2,178,391	2,270,395	48.97%	1.03%	46,002
MN	10	1,546,167	1,320,225	53.94%	1.06%	30,349
IL	20	3,019,512	2,135,216	58.58%	1.08%	55,543
ТΧ	38	3,308,124	4,569,843	41.99%	1.20%	94,743
TN	11	960,709	1,462,330	39.65%	1.26%	30,534
ОН	18	2,827,621	2,661,407	51.51%	1.26%	69,366
RI	4	279,677	157,204	64.02%	1.52%	6,626
WI	10	1,620,985	1,410,966	53.46%	1.54%	46,588
MI	16	2,564,569	2,115,256	54.80%	1.68%	78,412
MD	10	1,677,844	971,869	63.32%	1.68%	44,469
NJ	14	2,122,786	1,478,088	58.95%	1.76%	63,459
VA	13	1,971,820	1,822,522	51.97%	1.97%	74,649
ОК	7	443,547	891,325	33.23%	2.49%	33,193
LA	8	809,141	1,152,262	41.25%	2.50%	48,973
MS	6	562,949	710,746	44.20%	2.53%	32,243
MA	11	1,921,290	1,188,314	61.79%	2.69%	83,797
СО	9	1,322,998	1,185,050	52.75%	2.75%	68,974
KS	6	440,726	692,634	38.89%	2.78%	31,507

## Table 4.49 The 26 battleground states sorted by the percentage change needed to affect one electoral vote (column 6)

As can be seen from the table, there is considerable variation in the number of popular votes required to change one electoral vote.

Among the 24 states in table 4.50 where one electoral vote is in play, Alabama is the state requiring the fewest popular votes (2,157) to change one electoral vote. California is the state requiring the most popular votes (108,467) to change one electoral vote.

That is, the ratio of the number of popular votes required to change one electoral vote in California, compared to Alabama is 50.2-to-1.

We mentioned above that the very largest states (California, Texas, and New York) could potentially be battlegrounds for two or three electoral votes. However, another counter-intuitive feature of the whole-number proportional method is that the candidates would probably choose to ignore that opportunity. The reason would be that statewide campaigns in a large state are very expensive. The cost of campaigning for two or three electoral votes in California or Texas would be similar to that required to run a campaign for Governor or U.S. Senator in those states. There would be many smaller states where it would be far more cost-effective to campaign for an extra electoral vote.

				,		
State	EV	Obama (D)	Romney (R)	D-Percent	Percent change needed to gain or lose one EV	Popular-vote change needed to gain or lose one EV
AL	9	795,696	1,255,925	38.78%	0.11%	2,157
UT	6	251,813	740,600	25.37%	0.37%	3,710
МО	10	1,223,796	1,482,440	45.22%	0.22%	5,990
RI	4	279,677	157,204	64.02%	1.52%	6,626
PA	20	2,990,274	2,680,434	52.73%	0.23%	13,152
MN	10	1,546,167	1,320,225	53.94%	1.06%	30,349
TN	11	960,709	1,462,330	39.65%	1.26%	30,534
KS	6	440,726	692,634	38.89%	2.78%	31,507
GA	16	1,773,827	2,078,688	46.04%	0.83%	32,039
MS	6	562,949	710,746	44.20%	2.53%	32,243
OK	7	443,547	891,325	33.23%	2.49%	33,193
NY	29	4,471,871	2,485,432	64.28%	0.48%	33,591
FL	29	4,235,965	4,162,341	50.44%	0.44%	36,812
MD	10	1,677,844	971,869	63.32%	1.68%	44,469
NC	15	2,178,391	2,270,395	48.97%	1.03%	46,002
WI	10	1,620,985	1,410,966	53.46%	1.54%	46,588
LA	8	809,141	1,152,262	41.25%	2.50%	48,973
IL	20	3,019,512	2,135,216	58.58%	1.08%	55,543
NJ	14	2,122,786	1,478,088	58.95%	1.76%	63,459
СО	9	1,322,998	1,185,050	52.75%	2.75%	68,974
ОН	18	2,827,621	2,661,407	51.51%	1.26%	69,366
VA	13	1,971,820	1,822,522	51.97%	1.97%	74,649
MI	16	2,564,569	2,115,256	54.80%	1.68%	78,412
MA	11	1,921,290	1,188,314	61.79%	2.69%	83,797
ТХ	38	3,308,124	4,569,843	41.99%	1.20%	94,743
CA	55	7,854,285	4,839,958	61.87%	0.85%	108,467

Table 4.50 The 26 battleground states sorted by the number of popular votes needed to affect one electoral vote (column 7)

# **4.2.7.** Minor-party candidates would be zeroed-out in small- and medium-sized states under the whole-number proportional method.

Jerry Spriggs, an advocate of the whole-number proportional method of allocating electoral votes, describes the effect of this method of allocating electoral votes on minor-party candidates as follows:

"Third (or more) party candidate electoral votes are counted and remain in the system."<sup>87</sup>

<sup>&</sup>lt;sup>87</sup> Spriggs, Jerry. 2012. Equal Voice Voting: Making Our Votes Count in the Electoral College. Page 70. https:// equalvoicevoting.com. See also Spriggs, Jerry. 2021. All Votes Matter! Bloomington, IN: iUniverse.

The facts show otherwise. Minor-party candidates would:

- rarely win any electoral votes from small-and medium-sized states, and
- receive a significantly smaller percentage of electoral votes than warranted by their share of the national popular vote.

The reason is that the percentage of the popular vote needed to win one electoral vote—particularly in small- and medium-sized states—is typically far greater than a third party's level of support in the state.

Under the whole-number proportional method, it takes:

- 33.33% of the state's popular vote to win one electoral vote in the eight states with three electoral votes
- 25% of the state's popular vote to win one electoral vote in the five states with four electoral votes
- 14.3% of the state's popular vote to win one electoral vote in the three states with the *median* number of electoral votes (that is, seven electoral votes)
- 10% of the state's popular vote to win one electoral vote in the four states with the *average* number of electoral votes (that is, 10 electoral votes).

For example, consider the 2016 presidential election. In that election:

- Libertarian candidate Gary Johnson received 3.3% of the national popular vote
- Green candidate Jill Stein received 1.1% of the national popular vote.

Johnson would have received 14 electoral votes under the whole-number proportional method. As shown in table 4.14, two of those 14 electoral votes would have come from California, and one each would have come from Arizona, Colorado, Florida, Georgia, Illinois, Indiana, Michigan, New Mexico, New York, Ohio, Texas, and Washington. Except for former Governor Johnson's home state of New Mexico (with five electoral votes), all of these states have nine or more electoral votes (and most have considerably more than nine).

Similarly, Jill Stein would have received one electoral vote under this method in 2016 (table 4.14). California would have been the source of her electoral vote.

In 2012, Johnson received 1.1% of the national popular vote and would have received one electoral vote under this method. California would have been the source of Johnson's one electoral vote (table 4.21).

In 2008, Ralph Nader received 0.6% of the national popular vote and would have received one electoral vote under this method. Again, California would have been the source of Nader's one electoral vote (table 4.24).

In 2000, Ralph Nader received 2.7% of the national popular vote and would have received 13 electoral votes under the whole-number proportional method. As shown in table 4.28, two of those 14 electoral votes would have come from California, and one each would have come from Colorado, Florida, Illinois, Massachusetts, Michigan, New Jersey, New York, Ohio, Oregon, Texas, and Wisconsin. All of these states except Oregon have nine or more electoral votes (and most have considerably more than nine).

In 1996, Perot's support was 8% nationally and distributed fairly evenly across the country. He would have received 46 electoral votes from 35 states under the whole-number proportional method (table 4.31). However, he would not have received any electoral votes from 15 states or the District of Columbia. Thirteen of these 16 jurisdictions had only

three, four, or five electoral votes each (namely Alaska, Delaware, District of Columbia, Nebraska, Nevada, New Hampshire, New Mexico, North Dakota, South Dakota, Utah, Vermont, West Virginia, and Wyoming). Perot would not have won any electoral votes from these 13 jurisdictions, because one electoral vote corresponds to 33% of the popular vote in a three-electoral-vote jurisdiction, 25% in a four-electoral-vote state, or 20% in a five-electoral-vote state.

Moreover, Perot would have just barely missed winning one electoral vote in the remaining three of these 16 states, namely Colorado (8), Mississippi (7), and South Carolina (8). He would not have won any electoral votes from these three states, because one electoral vote corresponds to 14% of the popular vote in a seven-electoral-vote state and 12.5% in an eight-electoral-vote state.

### 4.2.8. Prospects of adoption for the whole-number proportional method

The whole-number proportional method

- would not accurately reflect the nationwide popular vote;
- would not make every vote equal; and
- *would not* significantly improve upon the current state-by-state winner-takeall method of awarding electoral votes in which three out of four states and about 70% of the voters in the United States are ignored in the general-election campaign for President.

That is, the whole-number proportional method would not satisfy any of the three criteria necessary for improving the current system.

In particular, the whole-number proportional method does not address the most conspicuous shortcoming of the current system from the point of view of the general public, namely that the second-place candidate can become President.

Moreover, the whole-number proportional method would fail to address any of the four sources of inequality in the value of a vote.

As the Making Every Vote Count Foundation correctly noted in their 2023 report *Improving Our Electoral College System*, the whole-number proportional method:

"would retain ... the greater weight given to smaller states under the Electoral College. As a result, [it] could also be criticized by progressives for **failing to adhere fully to the principle of all votes counting equally**."<sup>88</sup> [Emphasis added]

Furthermore, there are two prohibitive practical impediments to adoption of the whole-number proportional method.

First, a state reduces its own influence if it divides its electoral votes while other states continue to use winner-take-all. Thus, this method would penalize first movers and early adopters—leaving them with only minimal influence.

Thomas Jefferson summed up this objection in his January 12, 1800, letter to Virginia

<sup>&</sup>lt;sup>88</sup> Making Every Vote Count Foundation. 2023. Improving Our Electoral College System. November 2023. Page 7. https://static1.squarespace.com/static/5a7b7d95b7411c2b69bd666f/t/65b979baf7e8e411b2864a40/17 06654139098/MEVC+Report.pdf

Governor (and later President) James Monroe arguing that the state should switch from its existing district system<sup>89</sup> to the statewide winner-take-all system.

"All agree that an election by districts would be best, if it could be general; but while 10. states chuse either by their legislatures or by a general ticket, **it is folly & worse than folly** for the other 6 not to do it."<sup>90</sup> [Emphasis added; spelling and punctuation as per original]

The now-prevailing statewide winner-take-all system became entrenched in the political landscape between 1800 and 1830 precisely because each state's dominant political party came to realize that fragmentation of its electoral votes diminished its influence in comparison to states employing winner-take-all. Once a few states adopted the winnertake-all method, it became increasingly disadvantageous for other states not to follow. Once entrenched, winner-take-all is difficult to unwind.

If states were to ever start unilaterally adopting the whole-number proportional method on a state-by-state basis, each additional adherent would increase the influence of the remaining winner-take-all states—thereby decreasing the incentive of other states to adopt the method. That is, this state-by-state adoption process would quickly become self-arresting.<sup>91</sup>

For the sake of argument, suppose that as many as 49 states adopted the whole-number proportional method.

Recall that table 4.47 showed that only about 29 electoral votes would be in play nationally under this method.

Then, if just one closely divided state with approximately 29 electoral votes were to retain its winner-take-all law, then that state would immediately become, for all practical purposes, the only state that would matter in presidential politics.

The second prohibitive impediment to adoption of the whole-number proportional method stems from the fact that it is state legislation that may be enacted on a state-bystate basis without a federal constitutional amendment. That is, these state-level enactments would leave intact the existing federal constitutional provision that specifies that the President be chosen by the U.S. House of Representatives (on a one-state-one-vote basis) if no candidate receives an absolute majority of the electoral votes.

If the whole-number proportional method is applied to the results of the eight presidential elections between 1992 and 2020, the presidential election would have been thrown into the House in four of those elections.

In fact, the most salient feature of the whole-number proportional method would be that it would repeatedly throw presidential elections into the U.S. House.<sup>92</sup>

<sup>&</sup>lt;sup>89</sup> At the time, Virginia chose its 14 presidential electors from 14 special presidential elector districts.

 $<sup>^{90}</sup>$  The entire letter and citations appear in the text and footnotes of section 2.2.3 of this book.

<sup>&</sup>lt;sup>91</sup> The above problems associated with piecemeal adoption by the states of the whole-number proportional method would not apply if it were adopted on a uniform national basis in the form of a federal constitutional amendment. A federal constitutional amendment would, if ratified, take effect simultaneously in all 50 states and the District of Columbia. However, if there ever were support for a proportional amendment, the fractional-proportional (Lodge-Gossett) approach would be the more attractive approach.

<sup>&</sup>lt;sup>92</sup> Note that the National Popular Vote Compact guarantees the national popular winner a majority of the electoral votes, and hence avoids the possibility of a contingent election in the House.

Conceivably, this method could be adopted in the form of a federal constitutional amendment. However, if a constitutional amendment were being considered, the amendment could simply eliminate the contingent election in the House (as the 1950 Lodge-Gossett fractional-proportional amendment would have done).

Moreover, if amending the Constitution were being considered, the whole-number proportional method would be manifestly inferior to the fractional-proportional method in several ways. Specifically, the fractional-proportional method (section 4.1) would:

- make every voter in every state politically relevant in every president election, and
- less frequently give the presidency to a candidate who did not win the national popular vote. Specifically, the fractional-proportional method would not have elected Trump in 2016, although it would have elected George W. Bush in 2000.

## 4.3. CONGRESSIONAL-DISTRICT METHOD OF AWARDING ELECTORAL VOTES

### 4.3.1. Summary

- Under the congressional-district method of awarding electoral votes, one electoral vote is awarded to the presidential candidate who receives the most popular votes in each of a state's congressional districts. The state's two senatorial electoral votes are awarded on the basis of the statewide vote.
- The congressional-district method could be implemented in two ways, namely by means of a federal constitutional amendment or by state-level legislation enacted by individual states (as Maine did in 1969, Nebraska did in 1992, and many states did in the late 1700s and early 1800s).
- The congressional-district method *would not* accurately reflect the nationwide popular vote even if used nationwide. In three of the six presidential elections between 2000 and 2020, the winner of the most votes nationwide would not have won the presidency if this method had been applied to past election returns.
- The congressional-district method *would not* make every voter in every state politically relevant. It would worsen the current situation in which three out of four states and about 70% of the voters in the United States are ignored in the general-election campaign for President. Campaigns would be focused only on the small number of congressional districts that are closely divided in the presidential race. In 2020, 31% of the U.S. population lived in the dozen closely divided battleground states where the major-party presidential candidates were within eight percentage points of each other. In contrast, only 17% of the nation's congressional districts (72 of 435) were within eight percentage points of each other in 2020.
- The congressional-district method *would not* make every vote equal. There are six substantial sources of inequality built into this method, namely:
  - 3.81-to-1 inequality because of senatorial electors;
  - 1.72-to-1 inequality because of imprecision in apportioning U.S. House seats (and hence electoral votes);