

# CONGRESSIONAL APPORTIONMENT

*By*

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## INTRODUCTION

My choice of the subject for this year's annual Conference of the Philippine Statistical Association was dictated by a desire to call the attention of the authorities concerned to the inequalities of the existing system of congressional apportionment. These inequalities are the results of internal shifts of population from the more densely populated provinces of Luzon and the Visayas to those of the less densely populated provinces, principally those found in the island of Mindanao. The matter of congressional representation is fundamental in any democratic society and since we had time and again reaffirmed our desire to maintain such a form of social organization, it is of great importance that we revise the current system of representation if it is to remain democratic. It was the announced intention of the Nacionalista Party which was elected into power by the people recently to hold a convention for the purpose of introducing some changes in our Constitution. I have no knowledge whether or not they had in mind to revise the existing law on congressional apportionment and I take this opportunity to arouse public attention on the matter so that it may be given due consideration when the convention is finally convened. The theoretical aspects of the paper are fully discussed in a book entitled "Congressional Apportionment" and this portion of the subject is omitted entirely from this discussion.

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CURRENT CONGRESSIONAL APPORTIONMENT

On account of the fact that Congress has not enacted a law on apportionment based on the results of the 1948 enumeration, the congressional representation followed at present is the one fixed by law for the National Assembly, as follows:

TABLE I

<i>Province</i>	<i>Population 1948</i>	<i>Number of Representatives</i>
1. Abra	86,600	1
2. Agusan	126,448	1
3. Albay	394,694	3
4. Antique	233,506	1
5. Bataan	92,901	1
6. Batanes	10,705	1
7. Batangas	510,224	3
8. Bohol	553,407	3
9. Bukidnon	63,470	1
10. Bulacan	411,382	2
11. Cagayan	311,088	2
12. Camarines Norte	103,702	1
13. Camarines Sur	553,691	2
14. Capiz	441,871	3
15. Catanduanes	112,121	1
16. Cavite	262,550	1
17. Cebu	1,123,107	7
18. Cotabato	439,669	1
19. Davao	364,854	1
20. Ilocos Norte	251,455	2
21. Ilocos Sur	276,278	2
22. Iloilo	816,382	5
23. Isabela	264,495	1
24. La Union	237,540	2
25. Laguna	321,247	2
26. Lanao	343,918	1
27. Leyte	1,006,891	5
28. Manila	983,906	4

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<i>Province</i>	<i>Population 1948</i>	<i>Number of Representatives</i>
29. Marinduque	85,906	1
30. Masbate	211,113	1
31. Misamis Occidental	207,575	1
32. Misamis Oriental	369,671	2
33. Mountain Province	278,120	3
34. Negros Occidental	1,038,758	3
35. Negros Oriental	443,461	1
36. Nueva Ecija	467,769	2
37. Nueva Vizcaya	82,718	1
38. Occidental Mindoro	43,149	1
39. Oriental Mindoro	124,556	1
40. Palawan	106,269	1
41. Pampanga	416,583	2
42. Pangasinan	920,491	5
43. Quezon	416,719	2
44. Rizal	673,060	2
45. Romblon	108,817	1
46. Samar	757,212	3
47. Sorsogon	291,138	2
48. Sulu	240,826	1
49. Surigao	264,952	1
50. Tarlac	327,018	2
51. Zambales	138,536	1
52. Zamboanga del Norte	167,700	1
53. Zamboanga del Sur	354,241	1

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Total ..... 102

To bring forth the discrepancies of this system of apportionment, let us rank the provinces according to their population in the following manner:

TABLE II

<i>Province</i>	<i>Population</i>	<i>Number of Representatives</i>
1. Cebu	1,123,107	7
2. Negros Occidental	1,038,758	3
3. Leyte	1,006,891	5
4. Manila	983,906	4
5. Pangasinan	920,491	5
6. Iloilo	816,382	5
7. Samar	757,212	3
8. Rizal	673,060	2
9. Camarines Sur	553,691	2
10. Bohol	553,407	3
11. Batangas	510,224	3
12. Nueva Ecija	467,769	2
13. Negros Oriental	443,461	1
14. Capiz	441,871	3
15. Cotabato	439,669	1
16. Quezon	416,719	2
17. Pampanga	416,583	2
18. Bulacan	411,382	2
19. Albay	394,694	3
20. Misamis Oriental	369,671	2
21. Davao	364,854	1
22. Zamboanga del Sur	354,241	1
23. Lanao	343,918	1
24. Tarlac	327,018	2
25. Laguna	321,247	2
26. Cagayan	311,088	2
27. Sorsogon	291,138	2
28. Mountain Province	278,120	3
28. Ilocos Sur	276,278	2
30. Surigao	264,952	1
31. Isabela	264,495	1
32. Cavite	262,550	1
33. Ilocos Norte	251,455	2
34. Sulu	240,826	1
35. La Union	237,340	2

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<i>Province</i>	<i>Population</i>	<i>Number of Representatives</i>
36. Antique	233,506	1
37. Masbate	211,113	1
38. Misamis Occidental	207,575	1
39. Zamboanga del Norte	167,700	1
40. Zambales	138,536	1
41. Agusan	126,448	1
42. Oriental Mindoro	124,556	1
43. Catanduanes	112,121	1
44. Romblon	108,817	1
45. Palawan	106,269	1
46. Camarines Norte	103,702	1
47. Bataan	92,901	1
48. Abra	86,600	1
49. Marinduque	85,906	1
50. Nueva Vizcaya	82,718	1
51. Bukidnon	63,470	1
52. Occidental Mindoro	43,149	1
53. Batanes	10,705	1
Total . . . . .		102

The above table shows that there are provinces with bigger population than others and yet their representation is less. Moreover, there are provinces with small differences in population but the differences in their representation are significantly big. Examples for the first observation need not be mentioned again because they are evident from the table. Some examples of the second observation are shown in the following table:

TABLE III  
PROVINCES WITH SMALL DIFFERENCES IN POPULATION  
BUT WITH BIG DIFFERENCES IN REPRESENTATION

<i>Province</i>	<i>Population</i>	<i>Actual Representation</i>
1. Cebu	1,123,107	7
Negros Occidental	1,038,758	3
Difference . . . . .	84,349	4

<i>Province</i>	<i>Population</i>	<i>Actual Representation</i>
2. Iloilo	816,382	5
Samar	757,212	3
Difference .....	<u>59,170</u>	<u>2</u>
3. Iloilo	816,382	5
Rizal	673,060	2
Difference .....	<u>143,322</u>	<u>3</u>
4. Cebu	1,123,107	7
Leyte	1,006,891	5
Difference .....	<u>116,216</u>	<u>2</u>
5. Capiz	441,871	3
Zamboanga del Sur	354,241	1
Difference .....	<u>87,630</u>	<u>2</u>
6. Albay	394,694	3
Zamboanga del Sur	354,241	1
Difference .....	<u>40,453</u>	<u>2</u>

Another way of discovering the discrepancies is by showing the number of representatives to which these provinces are entitled by either the Method of Equal Proportions or the Method of Major Fractions if the present number (102) of representatives is maintained.

TABLE IV

<i>Province</i>	<i>Actual Representation</i>	<i>By the Method of Equal Proportions (102)</i>
Cebu	7	5
Negros Occidental	3	5
Leyte	5	5
Manila	4	5
Pangasinan	5	4

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<i>Province</i>	<i>Actual Representation</i>	<i>By the Method of Equal Proportions (102)</i>
Iloilo	5	4
Samar	3	4
Rizal	2	3
Camarines Sur	2	3
Bohol	3	3
Batangas	3	3
Nueva Ecija	2	2
Negros Oriental	1	2
Capiz	3	2
Cotabato	1	2
Quezon	2	2
Pampanga	2	2
Bulacan	2	2
Albay	3	2
Misamis Oriental	2	2
Davao	1	2
Zamboanga del Sur	1	2
Lanao	1	2
Tarlac	2	2
Laguna	2	2
Cagayan	2	2
Sorsogon	2	2
Mountain Province	3	1
Ilocos Sur	2	1
Surigao	1	1
Isabela	1	1
Cavite	1	1
Ilocos Norte	2	1
Sulu	1	1
La Union	2	1
Antique	1	1
Masbate	1	1
Misamis Occidental	1	1
Zamboanga del Norte	1	1
Zambales	1	1
Agusan	1	1
Oriental Mindoro	1	1

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<i>Province</i>	<i>Actual Representation</i>	<i>By the Method of Equal Proportions (102)</i>
Catanduanes	1	1
Romblon	1	1
Palawan	1	1
Camarines Norte	1	1
Bataan	1	1
Abra	1	1
Marinduque	1	1
Nueva Vizcaya	1	1
Bukidnon	1	1
Occidental Mindoro	1	1
Batanes	1	1
	Total . . . . 102	102

The results of the above analysis show conclusively that the existing system of apportionment is clearly not in consonance with the constitutional requirement that the members of the House of Representatives shall be apportioned among the several provinces, as nearly as may be, according to the number of their respective inhabitants.

CONSTITUTIONAL PROVISION

Article VI, Section 5 of the Constitution of the Philippines provides that "the House of Representatives shall be composed of not more than one hundred and twenty members who shall be apportioned among the several provinces as nearly as may be according to the number of their respective inhabitants, but each province shall have at least one Member. The Congress shall by law make an apportionment within three years after the return of every enumeration, and not otherwise. Until such apportionment shall have been made, the House of Representatives shall have the same number of Members as that fixed by law for the National Assembly, who shall be elected by the qualified electors from the present assembly districts. Each representative district shall comprise, as far as practicable, contiguous and compact territory." In



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an effort to comply with this constitutional requirement, the First Congress of the Republic created a Committee on Apportionment after the results of a population census made in 1948 was published.

### METHODS OF EQUAL PROPORTIONS AND MAJOR FRACTIONS

Desirous of making the apportionment as much as possible on a scientific and non-partisan basis in order to eliminate undesirable partisan consideration which could easily predominate in the selection of any method because of the overwhelming control of Congress by the Liberal Party, the Committee took cognizance of the method used by the Congress of the United States.

In the United States the method of Equal Proportions is used for apportionment although the method of Major Fractions may also be used if the U. S. Congress should so desire. These methods were recommended by a Committee of Mathematicians out of the several methods evolved by them and it was for the purpose of applying one of these methods to the Philippines that the assistance of the Speaker was requested by the Committee on Apportionment.

When these methods were used on the Philippine data, the following results were obtained on the assumption that there will be 120 members of Congress, thus giving that body full membership according to our Constitution.

TABLE V

<i>Province</i>	<i>Number of Representatives (120)</i>		
	<i>Actual</i>	<i>Equal Proportions</i>	<i>Major Fractions</i>
1. Abra	1	1	1
2. Agusan	1	1	1
3. Albay	3	2	2
4. Antique	1	1	1
5. Bataan	1	1	1
6. Batanes	1	1	1
7. Batangas	3	3	3
8. Bohol	3	3	3
9. Bukidnon	1	1	1
10. Bulacan	2	2	2

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Province	Number of Representatives (120)		
	Actual	Equal Proportions	Major Fractions
11. Cagayan	2	2	2
12. Camarines Norte	1	1	1
13. Camarines Sur	2	3	3
14. Capiz	3	3	3
15. Catanduanes	1	1	1
16. Cavite	1	2	2
17. Cebu	7	7	7
18. Cotabato	1	3	3
19. Davao	1	2	2
20. Ilocos Norte	2	2	2
21. Ilocos Sur	2	2	2
22. Iloilo	5	5	5
23. Isabela	1	2	2
24. La Union	2	1	1
25. Laguna	2	2	2
26. Lanao	1	2	2
27. Leyte	5	6	6
28. Manila	4	6	6
29. Marinduque	1	1	1
30. Masbate	1	1	1
31. Misamis Occidental	1	1	1
32. Misamis Oriental	2	2	2
33. Mountain Province	3	2	2
34. Negros Occidental	3	6	6
35. Negros Oriental	1	3	3
36. Nueva Ecija	2	3	3
37. Nueva Vizcaya	1	1	1
38. Occidental Mindoro	1	1	1
39. Oriental Mindoro	1	1	1
40. Palawan	1	1	1
41. Pampanga	2	2	2
42. Pangasinan	5	5	5
43. Quezon	2	2	2
44. Rizal	2	4	4
45. Romblon	1	1	1
46. Samar	3	4	4
47. Sorsogon	2	2	2
48. Sulu	1	1	1

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<i>Province</i>	<i>Number of Representatives (120)</i>		
	<i>Actual</i>	<i>Equal Proportions</i>	<i>Major Fractions</i>
49. Surigao	1	2	2
50. Tarlac	2	2	2
51. Zambales	1	1	1
52. Zamboanga del Norte	1	1	1
53. Zamboanga del Sur	1	2	2
Total . . . . .	102	120	120

It should be noted that:

- (1) The two methods give the same representation for all provinces.
- (2) The following provinces are over-represented:

<i>Province</i>	<i>Actual</i>	<i>Equal Prop.</i>	<i>Maj. Fractions</i>	<i>Reduction</i>
Albay	3	2	2	1
La Union	2	1	1	1
Mountain Province	3	2	2	1
Total . . . . .				3

- (3) The following provinces are entitled to additional representations:

<i>Province</i>	<i>Actual</i>	<i>Equal Prop.</i>	<i>Maj. Fractions</i>	<i>Additional</i>
Camarines Sur	2	3	3	1
Cavite	1	2	2	1
Cotabato	1	3	3	2
Davao	1	2	2	1
Isabela	1	2	2	1
Lanao	1	2	2	1
Leyte	5	6	6	1
Manila	4	6	6	2
Negros Occidental	3	6	6	3
Negros Oriental	1	3	3	2
Nueva Ecija	2	3	3	1
Rizal	2	4	4	2
Samar	3	4	4	1
Surigao	1	2	2	1
Zamboanga del Sur	1	2	2	1
Total . . . . .				21

If the results of either one of these methods could be applied without any modification then nothing more need be done by Congress than to enact a law to the effect that the representation of each province be changed to the number designated above and subdividing each province having more than one representative into as many representative districts as they are entitled to have.

However, the Committee on Apportionment appointed by the House of Representatives which was entrusted with the matter felt that they would not be able to secure passage of a law involving the reduction of representation of the provinces of Albay, La Union and Mountain Province. Moreover, the representatives from the provinces having the biggest number of representation banded together and demanded that their province be given additional representation. Their demand has the effect of depriving additional representation to those provinces which are entitled to it either by the method of Equal Proportions or Major Fractions.

These are the reasons that prevented Congress from passing a law on congressional apportionment as required by the Constitution. I am of the belief that unless a system of apportionment operating automatically without further intervention of Congress except for defining the limits of congressional districts is adopted, Congress may not succeed in enacting a new law on apportionment based on a method that is acceptable to a great majority of the people.

#### METHOD OF APPLICATION

In the application of the Method of Equal Proportions and the Method of Major Fractions, as well as any of the methods evolved by the Mathematical Committee mentioned previously, to the results of any enumeration it is required that priority numbers be set up corresponding to any desired number of representation in Congress. For the Method of Equal Proportions these priority numbers are obtained by dividing the population of each province successively by the

Square root of	1 x 2	Reciprocal	0.70710678
"	"	"	"
"	2 x 3	"	0.40824829

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Square root of 3 x 4	Reciprocal	0.28867513
" " " 4 x 5	"	0.22360680
" " " 5 x 6	"	0.18257419
" " " 6 x 7	"	0.15430335

Since division by any number gives the same result as multiplication by its reciprocal, we may arrive at the priority numbers for each province by multiplying the population of each province by the decimal fractions set against the corresponding divisor.

For the Philippine data for 1948, the above procedure yields the following priority numbers:

TABLE VI

<i>Province</i>	<i>Additional Representatives</i>					
	1	2	3	4	5	6
Cebu	794,156	458,507	324,213	251,135	205,050	173,299
Neg. Occ.	734,512	424,071	299,864	232,273	189,650	
Leyte	711,979	411,062	290,664	225,143	183,832	
Manila	695,727	401,678	284,029	220,008	179,636	
Pang.	650,885	375,789	265,723	205,828	168,058	
Iloilo	577,269	333,287	235,669	182,549		
Samar	525,430	309,131	218,588	169,318		
Rizal	475,925	274,776	194,296			
Cam. Sur	391,519	226,043				
Bohol	391,318	225,927				
Batangas	360,783	208,298				
N. Ecija	330,763	190,965				
Neg Or.	313,574	181,042				
Capiz	312,450	180,393				
Cotabato	310,983	179,494				
Quezon	294,665	170,125				
Pampanga	294,569	170,069				
Bulacan	290,891	167,946				
Albay	279,091					
Mis. Or.	261,397					
Davao	257,991					
Z. del Sur	250,827					

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<i>Province</i>	<i>Additional Representatives</i>					
	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>
Lanao	243,187					
Tarlac	231,237					
Laguna	227,156					
Cagayan	219,972					
Sorsogon	205,866					
Mt. Prov.	196,661					
Ilocos Sur	195,358					
Surigao	187,349					
Isabela	187,026					
Cavite	185,651					
I. Norte	177,806					
Sulu	170,290					
La Union	167,825					
Antique						
Masbate						
Misamis Occ.						
Zambo. del Norte						
Zambales						
Agusan						
Or. Mindoro						
Catanduanes						
Romblon						
Palawan						
Camarines Norte						
Bataan						
Abra						
Marinduque						
Nueva Vizcaya						
Bukidnon						
Occ. Mindoro						
Batanes						

One seat is allotted to each province and the City of Manila. That means that Congress cannot have less than 53 members. Additional members are allotted to the different provinces as they appear in the following list:

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TABLE VII

<i>Seat Number</i>	<i>Allotted to the Province of</i>	<i>Priority Number</i>
54	Cebu	794,156
55	Negros Occidental	734,512
56	Leyte	711,979
57	Manila	695,727
58	Pangasinan	650,885
59	Iloilo	577,269
60	Samar	535,925
61	Rizal	475,925
62	Cebu	458,507
63	Negros Occidental	424,071
64	Leyte	411,062
65	Manila	401,678
66	Camarines Sur	391,519
67	Bohol	391,318
68	Pangasinan	375,789
69	Batangas	360,783
70	Iloilo	333,287
71	Nueva Ecija	330,763
72	Cebu	324,213
73	Negros Oriental	313,574
74	Capiz	312,450
75	Cotabato	310,893
76	Samar	309,131
77	Negros Occidental	299,864
78	Quezon	294,665
79	Pampanga	294,569
80	Bulacan	290,891
81	Leyte	290,664
82	Manila	284,029
83	Albay	279,091
84	Rizal	274,776
85	Pangasinan	265,723
86	Misamis Oriental	261,397
87	Davao	257,991
88	Cebu	251,135
89	Zamboanga del Sur	250,827
90	Lanao	243,187

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<i>Seat Number</i>	<i>Allotted to the Province of</i>	<i>Priority Number</i>
91	Iloilo	235,669
92	Negros Occidental	232,273
93	Tarlac	231,237
94	Laguna	227,156
95	Camarines Sur	226,043
96	Bohol	225,927
97	Leyte	225,148
98	Manila	220,008
99	Cagayan	219,972
100	Samar	218,588
101	Batangas	208,298
102	Sorsogon	205,866
103	Pangasinan	205,828
104	Cebu	205,050
105	Mountain Province	196,661
106	Ilocos Sur	195,358
107	Rizal	194,296
108	Nueva Ecija	190,965
109	Negros Occidental	189,650
110	Surigao	187,349
111	Isabela	187,026
112	Cavite	185,651
113	Leyte	183,832
114	Iloilo	182,549
115	Negros Oriental	181,042
116	Capiz	180,393
117	Manila	179,636
118	Cotabato	179,494
119	Ilocos Norte	177,806
120	Cebu	173,299
	Sulu	170,290
	Quezon	170,125
	Pampanga	170,069
	Samar	169,318
	Pangasinan	168,058
	Bulacan	167,946



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From the above table it is seen that if the number of seats in the house of Representatives is made less than 120 we will have the following changes in representation:

If there are only 119 seats, then Cebu will have 6 instead of 7.

If there are only 118 seats, then Cebu will have 6 and Ilocos Norte will have 1 instead of 2.

If there are only 117 seats, then Cebu will have 6, Ilocos Norte will have 1 and Cotabato will have 2 instead of 3, and so on.

### SUMMARY

It is believed that sufficient data have been exhibited to show that the existing system of apportionment does not conform substantially to the requirements of our Constitution. It is also believed that the failure of our Congress to pass a law on apportionment within three years after the return of the 1948 enumeration was adequately explained. In view of these findings, it is hoped that efforts would be exerted by those who have the authority to revise the existing system of apportionment so that justice may be served to the people of those provinces who deserve a greater representation in our Congress than they have now. In so doing we shall give substance to our assertion of our faith and belief in democracy as well as our acceptance of the collective wisdom of the framers of our Constitution.

