# Fair Representation in the European Parliament 

Balinski, M.L. and Young, H.P.

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INTERNATIONAL INSTITUTE FOR APPLIED SYSTEMS ANALYSIS A-2361 Laxenburg, Austria
M.L. Balinski, Institut Auguste Comte, Paris, France
H.P. Young, International Institute for Applied Systems Analysis, Laxenburg, Austria

The number of seats currently apportioned to each nation in the European Parliament is far from the ideal of one-man, one-vote. It is likely to become even more so as populations shift and new nations join.

As European rather than national interests become more dominant pressure is likely to build for representation more closely tied to populations. The merits of different approaches to meeting fair representation are evaluated and compared in terms of basic principles that underlie one-man, one-vote.

# FAIR REPRESENTATION 

IN THE EUROPEAN PARLIAMENT
M.L. Balinski and H.P. Young

## 1. REPRESENTATION

The 434 seats of the European Parliament are currently apportioned among the ten member nations as follows: 81 to each of the Federal Republic of Germany, the United Kingdom, Italy, and France; 25 to the Netherlands; 24 to each of Belgium and Greece; 16 to Denmark; 15 to Ireland; and 6 to Luxembourg. Why were these members chosen?

Throughout the building of the European Community the numbers of delegates allotted to each of the member states have been the result of political negotiation and compromise. Delegations were thought of as blocs standing together to represent national interests. This view still prevailed when, in 1976 , the decision was made to expand the Assembly from 198 to 410 members elected by direct universal suffrage. This decision has had profound implications for the very nature of representation in the Parliament.

How many seats to give each nation in the reformed Assembly was a hotly contested issue. A resolution adopted by the Assembly in 1975 enunciated three criteria to govern the allocation of seats. ${ }^{1}$ The first and most significant of these is a widely shared concept of fair representation: "the highest degree of
proportionality should be achieved between the number of inhabitants of a State and the number of its representatives in the European Parliament." Together with this basic proportionality principle came two more conditions: "all the important political forces of a State should be represented in the European Parliament", and "the new distribution of seats should not lead to a reduction in the present number of any State's representatives." In effect these criteria impose a minimum required number of representatives for each nation (the second of them alone implying that the first must be satisfied). These numbers were: 36 each to the FRG, Italy, U.K., and France, 14 each to the Netherlands and Belgium, 10 each to Denmark and Ireland, and 6 to Luxembourg, for a total of 198.

The resolution also proposed a specific apportionment of 359 seats that amply satisfied the minimum requirements, but badly failed to meet the criterion of proportionality. Many competing proposals were advanced, and a deadlock developed. To resolve the deadlock, the French proposed that the status quo be maintained; simultaneously the Belgians put forward a plan that would add to the allocation of 198 seats that then existed 198 more apportioned according to populations. The final solution, based on the suggestion of the FRG to simply double the existing distribution, essentially satisfied the status quo position while admitting several delicate adjustments. Apparently, 72 (twice 36) did not suffice for the U.K. to allot seats internally among England, Scotland, Wales and Northern Ireland: the U.K. felt it needed 81. So the big four each got 81. In view of the populations, 28 was too much for Belgium and the Netherlands, 20 too much for Denmark and Ireland, and 12 too much for Luxembourg. 28 became 25; 20 became 15; and 12 became 6 . But the Danes had instructions not to accept less than 16 , and the Belgians, for internal reasons, preferred an even number, so Belgium ceded one seat to Denmark.

To students of the history of the United States the problem has a familiar ring. A considerable investment of time and thought was given to the apportionment of seats among the states at the Constitutional Convention in Philadelphia in 1787. The dominant
philosophical ideal of the time was, as James Madison stated it, that the states "ought to vote in the same proportion in which their citizens would do if the people of all the states were collectively met", yet this was checked by the fear of the small states "solicitous to guard ... against an improper consolidation" of the larger states. ${ }^{2}$ From this emerged a House apportioned among the states according to their populations but guaranteeing each at least one seat no matter how small, and a Senate with each state accorded two seats whatever its size. This concession of the larger to the smaller states (known to the students of American history as the Great Compromise) was necessary to create a federation of previously sovereign states. Very quickly, however, elected officials ceased to think of themselves as narrow sectional representatives of separate states, formed national political parties that transcended state boundaries, and came to represent people belonging to one, larger community.

The same development can be seen in the European Parliament. Trans-national parties have formed. Members of Parliament no longer vote in national blocs; instead of representing purely national interests they represent people in one larger European Community.

This new situation means, however, that representatives ought properly to represent equal numbers of constituents no matter in what nation they happen to reside. The present allocation is grossly distorted from this standpoint. For example, one representative of the F.R.G. stands for 759,420 people, whereas one representative of recently admitted Greece stands for 381,958 people: the voice of a Greek in electing a member of Parliament is worth two times that of a German. The large discrepancies in the representation of people in different nations may be seen by comparing their average constituency sizes (see Table 1). The more the Community unifies the less will its inhabitants be willing to accept such differences.

|  |  | - |  |
| :---: | :---: | :---: | :---: |
|  | Population | Representatives | No. people per Repr. |
|  | (000's) |  |  |
| F.R.G. | 61,513 | 81 | 759,420 |
| Italy | 56,168 | 81 | 693,432 |
| U.K. | 55,885 | 81 | 689,938 |
| France | 52,891 | 81 | 652,975 |
| Netherlands | 13,770 | 25 | 550,800 |
| Belgium | 9,818 | 24 | 409,083 |
| Greece | 9,167 | 24 | 381,958 |
| Denmark | 5,073 | 16 | 317,063 |
| Ireland | 3,162 | 15 | 210,800 |
| Luxembourg | 356 | 6 | 59,333 |

Table 1. Number of people per representative (1976 populations)

The ad hoc character of the 1976 solution creates other problems. How many seats should be allotter to a new entrant? The one case so far is Greece, which received 24 seats -- apparently because, while it was much smaller than the Netherlands and therefore deserved less than 25 , it could be reasonably bracketed with Belgium and therefore get 24. Thus does one ad hoc solution beget another. And there will almost certainly be still more new entrants in the years to come, such as Portugal, Spain or Turkey.

Shifting populations are further eroding the legitimacy of the present apportionment. Projections suggest that between 1976 and 1985 France's population will have increased by some 2 million and Germany's decreased by about the same amount. Such shifts should entail periodic reapportionments to maintain a fair balance among the voices of the people no matter where they happen to reside in the Community.

In a word, the force of events in the Community increasingly supports the logic of representation in the Parliament that is proportional to populations, and so to the choice of a formula for determining periodic apportionments that guarantee one-man, one-vote.

## 2. PRINCIPLES

Ideally, every delegate to the European Parliament should represent the same number of constituents. But the ideal cannot be met. Allocating seats precisely in proportion to populations is impossible because representatives are by nature indivisible: they do not come in half- or quarter-sizes. Further the practical provision for minimum numbers of representatives, designed to protect the interests of the smaller states, forces a modification in the ideal.

Nevertheless, as stated over a century and a half ago by the great American statesman and constitutional lawyer Daniel Webster, "that which cannot be done perfectly must be done in a manner as near perfection as can be." The objective is to achieve the highest degree of proportionality subject to the minimum requirements. Our aim is to interpret this objective in terms of common-sense principles that the objective implies, and then to ask what methods satisfy these principles. ${ }^{3}$

The ideal number of constituents per representative or constituency size is found by dividing the total population by the total number of seats. A state's fair share or quota is its population divided by the constituency size. The quotas of the ten member states of the European Parliament are shown in Table 2. As they are not whole numbers they must be rounded in some fashion. But how?

Ordinary rounding, in which fractions below . 5 are dropped and those above .5 are rounded up, does not work because it may not result in the required number of seats. In Table 2 , for example, ordinary rounding would yield 435 seats instead of the required 434. Therefore, some state having a fraction greater than . 5 must be rounded down. The problem is to decide which one it should be.

In 1832 Daniel Webster suggested a principle by which to test what would be an unreasonable solution. An apportionment can not be as near the ideal as may be, said Webster, if it is possible to transfer a seat between two states and bring both of them nearer to their quotas. For example, if Belgium with quota 15.911 got only 15 seats and the Netherlands, with quota 22.316 got 23 , then transferring one seat from the Netherlands to Belgium would bring both of them nearer to their quotas. This principle is called staying near the quota.

| Country | $\frac{\text { Population }}{\left(000^{\prime} \mathrm{s}\right)}$ |  |
| :--- | ---: | :--- |
| F.R.G. |  | (Ideal Constituency $=617,058)$ |
| Italy | 61,513 | 99.688 |
| U.R. | 56,168 | 91.026 |
| France | 55,885 | 90.567 |
| Netherlands | 52,891 | 85.715 |
| Belgium | 13,770 | 22.316 |
| Greece | 9,818 | 15.911 |
| Denmark | 9,167 | 14.856 |
| Ireland | 5,073 | 8.221 |
| Luxembourg | 3,162 | 5.124 |
| Total | 356 | 0.577 |
|  | 267,803 | 434 |

Table 2. Quotas for the European Parliament (1976 populations ${ }^{4}$ )

A related and seemingly innocuous criterion is that no state should get more than its quota rounded up (its upper quota) nor less than its quota rounded down (its lower quota). Thus the U.K., with quota 90.567, should presumably get either 90 or 91
seats, but not 89 or 92. This principle is called staying within the quota. An apportionment may be near the quota without staying within the quota. For example, if all states in Table 2 are rounded in the ordinary way except for the Netherlands, which is given only 21 seats, the result is an apportionment of 434 seats in which no transfer can bring both states involved nearer to their quotas. Staying near the quota is considerably less demanding than staying within the quotas.

When minimum requirements are imposed, as in the European Parliament, the concept of quota must be modified. The reason is evident from Table 2: if Denmark, Ireland, and Luxembourg got their minimum requirements (10, 10 , and 6 respectively) not enough seats would remain for the others to get even their lower quotas. (The sum of the lower quotas of the seven remaining nations is 416 , which added to the 26 required for the smallest three gives a total of 442.)

To find the fair shares of the states in the presence of minimum requirements, first compute the shares without requirements using the ideal constituency size, then reduce all the shares in the same proportion by increasing the constituency size until the larger of the reduced shares or requirements, summed over all states, equals the number of seats to be apportioned. The modified quota of a state is its reduced share or requirement, whichever is larger. Table 3 shows the modified quotas for the European Parliament obtained by increasing the constituency size from 617,058 to 635,324. The modified quotas of Denmark, Ireland, and Luxembourg are the same as their minimum requirements and the shares of the remaining states are reduced proportionally so that they sum up to the remaining 408 seats. For situations with minimum requirements, staying within or near the quota is defined relative to these true fair shares or modified quotas.

| Country | Minimum | Reduced Share | Modified Quota |
| :---: | :---: | :---: | :---: |
| F.R.G. | 36 | 96.822 | 96.822 |
| Italy | 36 | 88.408 | 88.408 |
| U.K. | 36 | 87.963 | 87.963 |
| France | 36 | 83.250 | 83.250 |
| Netherlands | 14 | 21.674 | 21.674 |
| Belgium | 14 | 15.454 | 15.454 |
| Greece | 14 | 14.429 | 14.429 |
| Dermark | 10 | 7.985 | 10.000 |
| Ireland | 10 | 4.977 | 10.000 |
| Luxembourg | 6 | 0.560 | 6.000 |
| Total | 212 | 434 | 434 |

Table 3. Modified Quotas for the European Parliament (1976 populations)

An important but more subtle aspect of one-man, one-vote is that solutions should harbor no systematic tendency to favor certain states or groups of states at the expense of others. Whereas in a specific problem some states will necessarily get more than their true fair shares and other less (because of the need to round), over many problems an apportionment method should on average give each state, large and small, its fair share. This is the principle of being unbiased.

Different problems of apportionment have different data for populations change, nations may join or secede from the Parliament and the total number of seats to be allocated may vary. A formula for determining apportionments must give solutions that change consistently with the changes in the data. A state whose population
is growing should never lose seats to a state whose population is declining. Incredibly, there is a well-known and much used method that does not respect this population principle.

New members will undoubtedly be added to the European Community and it is conceivable that some members will depart. This should not disrupt the existing distribution of seats among the remaining states. Specifically, if a state enters (or leaves) with the correct number of seats -- as determined by its population and the method being used -- then the existing allotments to the other states should not change. This is the new states principle. There are methods that violate it.

The total number of seats in a Parliament often undergoes changes (usually increases). If more seats are added, the membership and populations being fixed, then surely one would not expect that a state could lose seats. It would be as perverse to suppose a profit-sharing formula for a firm in which some partner's share of the profits decreased as the total profits of the firm increased. Nevertheless there is a seemingly reasonable method in use that violates this size principie.

Armed with these six fundamental principles it is possible to examine apportionment formulas to determine which best meet the ideal of one-man, one-vote.

## 3. METHODS

The three best known and most used methods of apportionment have many aliases in both name and description. We will call them by the names of their first inventors and describe them as they did.

Alexander Hamilton's method ${ }^{5}$ (also known as the method of largest remainders). Begin by giving to each nation the whole number contained in its (modified) quota. The seats left over are assigned to those states having the largest fractional remainders. For the example of Table 4 the first process allots 430 seats and the remaining 4 are given one each to the F.R.G., the U.K., the Netherlands and Belgium.

|  | Minima | With Greece |  |  | Without Greece |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Population(000's) | Modified | Hamilton | Modified | Hamilton |
|  |  |  | Quota | Appt. | Quota | Appt. |
| F.R.G. | 36 | 61513 | 96.822 | 97 | 96.927 | 97 |
| Italy | 36 | 56168 | 88.408 | 88 | 88.505 | 89 |
| U.K. | 36 | 55885 | 87.963 | 88 | 88.059 | 88 |
| France | 36 | 52891 | 83.250 | 83 | 83.341 | 83 |
| Netherlands | 14 | 13770 | 21.674 | 22 | 21.698 | 22 |
| Belgium | 14 | 9818 | 15.454 | 16 | 15.470 | 15 |
| Greece | 14 | 9167 | 14.429 | 14 | - | - |
| Denmark | 10 | 5073 | 10 | 10 | 10 | 10 |
| Ireland | 10 | 3162 | 10 | 10 | 10 | 10 |
| Iuxembourg | 6 | 356 | 6 | 6 | 6 | 6 |
| Total |  | 267803 | 434 | 434 | 420 | 420 |

Table 4. Hamilton Apportionments with and without Greece showing violation of the new states principle (1976 populations)

Hamilton's method clearly stays within the quota, since each (modified) quota is either rounded up or rounded down. It also stays near the quota, for even if some state's allotment under Hamilton were not as close as possible to its quota (such as Belgium in Table 4 with quota 15.454 and 16 seats) the transfer of a seat would put any other state further from its quota (e.g. Greece or the U.K.).

Hamilton's method also has no bias in favor of larger or of smaller states. This is because the size of the remainders of the modified quotas that determine which states get extra seats are independent of the size of the states themselves. Thus, the chance of a small state getting an extra seat is the same as for a large one.

But Hamilton's method violates the new states principle. The example of Table 4 shows that without Greece Hamilton's method applied to the 1976 populations and 420 seats would give Italy 89 seats and Belgium 15. But if Greece entered with 14 seats, bringing the total to the current 434 , then Italy would receive one less (88) and Belgium one more (16).

Hamilton's method also violates the population principle. Suppose it were discovered that the populations of the F.R.G. and the U.K. had both been over-counted by 200,000 persons, Italy over-counted by 10,000, and Belgium under-counted by 10,000. This gives the populations of Table 5. The apportionment differs only in that Italy, a state that Zoses popuZation, gains one seat, whereas Belgium, a state that gains popuZation, loses one seat.

|  | Minim | Population (000's) | Modified Quota | Hamilton Appt. | Modified <br> Quota | Hamilton <br> Appt. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| F.R.G. | 36 | 61313 | 96.656 | 97 | 96.182 | 96 |
| Italy | 36 | 56158 | 88.529 | 89 | 88.095 | 88 |
| U.K. | 36 | 55685 | 87.784 | 88 | 87.353 | 87 |
| France | 36 | 52891 | 83.379 | 83 | 82.970 | 83 |
| Netherlands | 14 | 13770 | 21.707 | 22 | 21.601 | 22 |
| Belgium | 14 | 9828 | 15.493 | 15 | 15.417 | 16 |
| Greece | 14 | 9167 | 14.451 | 14 | 14.380 | 14 |
| Denmark | 10 | 5073 | 10 | 10 | 10 | 10 |
| Ireland | 10 | 3162 | 10 | 10 | 10 | 10 |
| Luxembourg | 6 | 356 | 6 | 6 | 6 | 6 |
| Total |  | 267403 | 434 | 434 | 432 | 432 |

Table 5. Hamilton Apportionments for slightly modified 1976 populations - showing violation of population and size principles

The same example shows that Hamilton's method violates the size principle. For when 434 seats are allocated among the nations Belgium receives 15 seats, whereas if only 432 seats are to be shared Belgium's assignment jumps to 16.

These violations of principles come about because Hamilton's approach uses remainders to determine the priority for "extra" seats rather than the relative sizes of the states. The remainders of large states change more rapidly in absolute amount than those of small states when the total number of seats to be apportioned changes, a state is added or dropped, or there are some small shifts in the population data.

The method of Thomas Jefferson ${ }^{6}$ (also known as d'Hondt's, Hagenbach-Bischoff's, the method of highest averages and the method of greatest divisors). First, compute the fair shares using the ideal constituency size. Then, increase all the shares in the same proportion by reducing the constituency size until the whole numbers contained in the increased shares (or the minimum requirements, whichever is larger) summed over all states, equals the total number to be apportioned.

|  | Minima | Quota | Quota | number | apportionment |
| :---: | :---: | :---: | :---: | :---: | :---: |
| F.R.G. | 36 | 99.688 | 96.822 | 97.693 | 97 |
| Italy | 36 | 91.026 | 88.408 | 89.204 | 89 |
| U.K. | 36 | 90.567 | 87.963 | 88.755 | 88 |
| France | 36 | 85.715 | 83.250 | 84.000 | 84 |
| Netherlands | 14 | 22.316 | 21.674 | 21.869 | 21 |
| Belgium | 14 | 15.911 | 15.454 | 15.593 | 15 |
| Greece | 14 | 14.856 | 14.429 | 14.559 | 14 |
| Denmark | 10 | 8.221 | 10 | 10 | 10 |
| Ireland | 10 | 5.124 | 10 | 10 | 10 |
| Luxembourg | 6 | 0.572 | 6 | 6 | 6 |
| Total | - | 434 | 434 | - | 434 |

Table 6. Jefferson apportionment (1976 populations)

The largest constituency size (or "common divisor") for which the correct sum is obtained is called the Jefferson divisor (in this case 629,654 ) and the associated shares (or minimum requirements, whichever is larger) are the Jefferson numbers. For example, the U.K.'s Jefferson number is 88.755 so it receives 88 seats and France's is 84.0001 so it is assigned 84.

Jefferson's method assures each state at least its lower quota, because the Jefferson numbers used to determine the apportionment are larger than the modified quotas. However, Jefferson's method may not stay near the quota. In the example of Table 6 taking one seat from France and transferring it to the Netherlands would bring both closer to their modified quotas. Moreover, although this example does not show it, the method can give to large states more seats than its upper quota, so it does not necessarily stay within the quota. For example, according to the 1980 United States Census California's modified quota is 45.653, but Jefferson's method would assign it 48 seats.

Jefferson's method is strongly biased in favor of the larger states. This can be observed in practice: for example, France receiving 84 seats when it deserves only 83.250 and the Netherlands 21 when it deserves 21.674 (and California 48 when it deserves 45.653). This happens systematically because the Jefferson numbers of the larger states differ from the modified quotas by larger absolute amounts than those of the smaller states. For example, in Table 6 the F.R.G.'s Jefferson number is 0.871 larger than its modified quota, while Greece's is only 0.170 larger. So the chance that a state receives more seats than its lower quota is much greater for the big states than for the small.

On the other hand, the method of Jefferson satisfies the new states, population, and size principles. If a state and the number of seats it deserves is dropped (or vice versa) then the identical Jefferson numbers give the solution for the states that remain. If between two apportionments some states population decreases but its representation increases, then its Jefferson number must also have increased; hence any state whose
population increases cannot have a smaller Jefferson number and so it cannot have received fewer seats. Finally, if more seats are to be allocated then the Jefferson numbers that change all increase, so no state can possibly lose a seat.

Daniel Webster's method ${ }^{7}$ (also known as Saint-Lagle's, the method of odd numbers, and the method of major fractions). First compute the fair shares of each state using the ideal constituency size. Then change all the shares in the same proportion by altering the constituency size until the whole numbers closest to the altered shares (or the minimum requirements, whichever is larger) summed over all states, equals the total number to be apportioned.

|  | Minimum | Quota | Modified Quota | Webster <br> number | Jefferson number |
| :---: | :---: | :---: | :---: | :---: | :---: |
| F.R.G. | 36 | 99.688 | 96.822 | 96.922 | 97 |
| Italy | 36 | 91.026 | 88.408 | 88.500 | 89 |
| U.R. | 36 | 90.567 | 87.963 | 88.054 | 88 |
| France | 36 | 85.715 | 83.250 | 83.337 | 83 |
| Netherlands | 14 | 22.316 | 21.674 | 21.696 | 22 |
| Belgium | 14 | 15.911 | 15.454 | 15.470 | 15 |
| Greece | 14 | 14.856 | 14.429 | 14.444 | 14 |
| Denmark | 10 | 8.221 | 10 | 10 | 10 |
| Ireland | 10 | 5.124 | 10 | 10 | 10 |
| Luxembourg | 6 | 0.577 | 6 | 6 | 6 |
| Total | - | 434 | 434 | - | 434 |

Table 7. Webster apportionment (1976 populations)

The largest constituency size (or "common divisor") for which the correct sum is obtained is called the Webster divisor (in this case 634 666) and the associated shares (or minimum requirements, whichever is larger) are the Webster numbers. For example, Italy's Webster number is 88.5001 so it receives 89 , Belgium's 14.470 so it receives 14 . Sometimes the Webster numbers are greater than the modified quotas, sometimes smaller (e.g., for the apportionment of 434 seats of Table 5 they are smaller).

Webster's method does not invariably stay within the quota: it is mathematically possible for a state either to receive more seats than its upper quota or less than its lower quota. But in practice the likelihood of this happening is nil. Computer simulations done on United States apportionments revealed that Webster's method would have violated quota less than one apportionment in a thousand. However, Webster's method always stays near the quota for essentially the same reason that Hamilton's does. It is also unbiased because the Webster numbers have the same chance of being greater than the modified quotas as being smaller and the chance that a state has a remainder above or below . 5 is the same regardless of its size. Finally, Webster's method satisfies the population, new states and size principles for exactly the same reasons (applied to Webster numbers) as does Jefferson's.

The case is summarized in Table 7. Not one of the three methods meets all principles. Is there one that does? The answer is no; there is no perfect method. It is mathematically impossible to have a method that always stays within the quota and satisfies the population principle. However, Webster's "almost" always stays within the quota. It is also the one and only method that absolutely satisfies all principles except staying within the quota.

| Methods | Hamilton | Jefferson | Webster |
| :--- | :---: | :---: | :---: |
| Principles | Yes | No | No |
| stay within quota | Yes | No | Yes |
| unbiased | Yes | No | Yes |
| population | No | Yo | Yes |
| new states | No | Yes | Yes |
| size |  | Yes | Yes |

Table 7. Methods meeting principles

Jefferson's is the one and only method that satisfies the population, new states and size principles and always assures each state its lower quota. However, it is very biased in favor of the larger states and frequently gives large states seats in excess of their upper quotas.

Hamilton's method is unbiased and always stays within the quota, but frequently violates the population, new states, and size principles.

The conclusion seems inescapable that Webster's method comes closest to meeting the principles of one-man, one-vote.

## 4. IMPLEMENTATION

The historical evolution of representation in federal systems and the theory developed in the preceding sections lead to certain conclusions and recommendations concerning the future allocation of seats in the European Parliament. The formation of parties across national houndaries will inevitably lead to greater integration and pressure for representation in proportion to populations. Sooner or later, as populations shift and new states enter the European Community, the existing allocation will lose any justification it may once have had.

What are the requirements for a solution with more enduring legitimacy?

First, some provision must be made for a periodic census of populations, for example every 5 or 10 years. Only thus can growing and changing populations be reflected promptly and fairly by changes in representation. Further, the numbers on which representation is based must be made consistent for all member states. Whether the basis should be the number of voters or the number of inhabitants, or should include overseas citizens, noncitizens, illegal immigrants, or prisoners is a matter for the legislators to decide.

Second, some definite method of apportionment must be established by law to prevent the inevitable scramble for seats that would otherwise result after each census. The choice in terms of satisfying the most principles of fairness is Webster's method.

Third, there must be a definite and equitable procedure for assigning representation to new states. One approach is to determine the number of seats the entering state would deserve based on the estimate of its population at the previous census date. The precise number assigned would depend of course on the method being used. Under Webster's method the largest common divisor used to find the previous apportionment would be applied to the new state as well. For example, if Portugal were to enter the Community, then its 1976 population of $9,664,000$ would be divided by the 1976 Webster divisor of 634666 , resulting in a Webster number of 15.227 and so an allocation of 15 seats and the other delegations would stay the same, since Webster's method satisfies the new states principle.

Fourth, to protect the interests of the smallest states, equitable minima must be fixed in advance. The present minima originated in making sure that all the major forces of a state would be represented. For Luxembourg this originally meant a minimum of 3 representatives but was later doubled to 6 . The result is that the average citizen of Luxembourg has 12 times more representation than does a citizen of the FRG. While the
choice of minima is ultimately up to the members of the European Community simple equity and common sense suggest that they should be reduced -- perhaps to one-half their present values, or perhaps to a uniform minimum of 1 per state.

It is essential, however, that the minima be fixed. A politically tempting alternative is to legislate that no state can ever lose seats in a redistribution. This can yield one of two results, both deleterious: either the total number of seats increases without limit, resulting in a hopelessly unwieldy body; or if the number of seats is fixed but no state can lose, then as populations shift proportional representation eventually cease to exist.

If Webster's method were adopted and Portugal admitted on the basis of its 1976 population, Portugal would receive 15 seats and the Parliament would grow to 449 seats. Reapportionments based on projected 1985 populations under three different hypotheses of fixed minima -- a uniform guarantee of 1 seat to each state, the "old" minima, and the "old" divided by 2 -- are given by way of illustration in Table 8.

|  | $\begin{aligned} & \text { Population } \\ & \text { (000's) } \\ & \hline \end{aligned}$ | Mod. Quota $(\operatorname{Min} 1)$ | Webster Appt. | $\begin{gathered} \text { Mod. Quota } \\ \text { (Min old } \div 2 \text { ) } \\ \hline \end{gathered}$ | Webster Appt. | Mod. Quota <br> (Min old) | Webster Appt. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| F.R.G. | 59614 | 95.320 | 95 | 94.895 | 95 | 92.894 | 93 |
| Italy | 57078 | 91.265 | 91 | 90.858 | 91 | 88.942 | 89 |
| U.K. | 56164 | 89.804 | 90 | 89.403 | 89 | 87.518 | 88 |
| France | 54829 | 87.669 | 88 | 87.278 | 87 | 85.437 | 85 |
| Netherlands | 14250 | 22.785 | 23 | 22.683 | 23 | 22.205 | 22 |
| Portugal | 10206 | 16.319 | 16 | 16.246 | 16 | 15.904 | 16 |
| Belgium | 9840 | 15.734 | 16 | 15.663 | 16 | 15.333 | 15 |
| Greece | 9477 | 15.153 | 15 | 15.086 | 15 | 14.768 | 15 |
| Denmark | 5187 | 8.294 | 8 | 8.257 | 8 | 10 | 10 |
| Ireland | 3538 | 5.657 | 6 | 5.632 | 6 | 10 | 10 |
| Iuxembourg | 358 | 1 | 1 | 3 | 3 | 6 | 6 |
| Total | 280541 | 449 | 449 | 449 | 449 | 449 | 449 |

Table 8. Webster apportionments (1985 projected populations ${ }^{8}$ )

The European Parliament is only one of three policy making institutions of the Community, along with the Council of Ministers and the Commission. Its explicit powers are not extensive, although its potential influence may be great. In the words of one authority, "Its task is primarily that of providing a democratic input into the Community decision making process and providing an on-going forum for debate on Community matters." ${ }^{9}$ To consecrate its democratic character and to assure a fair representation of all the people of the Community, apportionment legislation incorporating Webster's method appears to be needed.

NOTES

1. Elections to the European Parliament by Direct Universal Suffrage, Draft Convention with Explanatory Statement, Special Issue based on Patijn report (Doc. 368/74), (Resolution adopted 14 January 1975).
2. Writings of James Madison, Vol. III, Ed. Gaillard Hunt, G.P. Putnam, New York, 1902, p. 385.
3. The discussion that follows is based on theory that is fully developed in M.I. Balinski and H.P. Young, Fair Representation: Meeting the Ideal of One-man, One-vote, Yale University Press, New Haven and London, to appear 1982.
4. The population data was taken from: Demographic Yearbook, Historical Supplement, United Nations, New York, 1979.
5. Harold C. Syrett (ed.), The Papers of Alexander Hamilton, Vol. XI, New York and London, Columbia University Press, 1966, pp. 226-230, Opinion sent to George Washington on April 4, 1792.
6. Paul Leicester Ford (ed.), The Works of Thomas Jefferson, Vol. VI, New York and London, G.P. Putnam's Sons, 1904, pp. 463-470. "Opinion on the Bill Apportioning Representatives" sent to George Washington on April 4, 1792.
7. The Writings and Speeches of Daniel Webster, Vol. VI, National Edition, Little, Brown and Company, Boston, 1903, pp. 101-123. Address to the United States Senate, April 5, 1832.
8. Basic Statistics of the Community 1980, Statistical Office of the European Communities, Luxembourg, 1980.
9. John Fitzmaurice, The European Parliament, Saxon House, Westmead, Farnborough, Harts., England, 1978, p. 8.
