U. S. House of Representatives: By law, there are 435 members of the U.S, House of Representatives. The number of members assigned to each State is based on its population relative to the national population. This demarcation of congressional districts takes place shortly after each decennial census.

Problem: The party that controls the government in the state often (usually) lays out the congressional districts in ways that favor certain candidates and/or ways that favor electing candidates of the governing party. This is the well known process of gerrymandering. For example, Congressional lines may be drawn in such a way as create a district packed with persons with a history of voting for candidates of the opposite party, and/or creating districts with smaller majorities of voters that are favorable to the controlling party. The purpose of gerrymandering is to elect larger numbers of candidates of the governing party, even though the combined number of votes of the opposite party is greater.

The undesirable effects of gerrymandering are:

1.   the districts may vary in size so that the votes of voters in some parts of the state may elect members of congress who represent fewer voters than voter in other parts of the State violating the proposition that each person's vote should have no more influence that the vote of any other person.

2.   some congressional districts are very irregular in shape (some almost ridiculously so). The purpose of course is to combine large numbers of unwanted voters in one voting district.

Solution: Take the power of apportioning congressional districts away from politicians. They have, for several hundred years, shown that they consistently place the interests of their party above the interests of ensuring democracy.

The best solution, made possible by census data, is to establish a computer program that will automatically establish congressional districts that are nearly equivalent in voting population, and as compact as possible in geographical boundaries. The only deviations allowed might be to allow minor deviations from population size and geographic compactness in order to encompass local political districts (say counties) if needed for voting efficiency.

Advantages: Obviously this would ensure that each person's vote is equal to any other persons.   In addition, by creating more compact congressional districts, this should reduce the costs of elections borne by candidates and local government, and enable candidates to spend more time meeting with voters.