2 models

In each case, the mobility of people will “discipline” the local governments.
But in the first case, the discipline benefits all voter–movers. In the second case, it actually harms them.

assumption : **all** mobile residents are identical

Disciplining Corruption

assumption : each jurisdiction is run by a corrupt administrator, whose goal is to steal as much as possible

assumption : no retrospective voting here to curtail the power of the administrator. (So if there were no mobility, or if there were only one jurisdiction, then the administrator would be able to steal all the income of residents.)

taxes and revenue

the total tax revenue collected in jurisdiction J is $t^J N^J$, where N^J is the population of the jurisdiction.
θ unit cost, per person, of public output. (So the total cost of the local public sector in jurisdiction J will be $\theta g N^J$.)

r^J : amount of money stolen by the administrator

$$r^J = (t^J - \theta g) N^J \tag{1}$$

movers

$$c^J = y - t^J$$

$$W^J = u(c^J, g^J)$$

movers know (t^J, g^J) for each jurisdiction J, (and therefore they can figure out W^J for each jurisdiction)

assumption : costless mobility

so no–one will choose to live in jurisdiction K, if there is some other jurisdiction J such that
$W^J = u(y - t^J, g^J > u(y - t^K, g^K) = W^K$.

ties : if (e.g.) 4 jurisdictions are tied for best (highest W^J), each of the 4 jurisdictions attracts 1/4 of the movers

administrators

if there are N mobile residents in total, the administrator of jurisdiction J knows that

$N^J = N$ if $W^J > W^K$ for every other jurisdiction K ; $N^J = \frac{N}{M+1}$ if W^J is tied for best with exactly M other jurisdictions ; $N^J = 0$ if $W^K > W^J$ for some other jurisdiction K.

each administrator wants to maximize the amount she steals, r^J, which (from equation (1)) equals $(t^J - \theta g)N^J$.

DEFINITION : An equilibrium set of policies, $\{(g^J, t^J)\}$ is a set of policies such that (g^J, y^J) maximizes r^J, given the policies $\{(g^K, t^K)\}$ in each other jurisdiction.

properties of equilibrium

RESULT 1 : If $r^J > 0$ in equilibrium for each jurisdiction J, then all the jurisdictions will be tied for best, and all will offer the same level of well–being W^K to movers.

RESULT 2 : If $r^J > 0$ in equilibrium for each jurisdiction, then every jurisdiction provides an efficient level of public output.

efficient level : $MRS \equiv \frac{u_g}{u_c} = \theta$

RESULT 3 : In any equilibrium, $r^J = 0$ for at least 2 jurisdictions J.

The Race to the Bottom

in this model...

Taxation is **not** used to provide benefits to the mobile movers. (Taxation is also not used to enable theft by administrators.)

Taxation is used to finance some public project in a jurisdiction. The people who benefit from the project are **not** the mobile taxpayers. They are some other group, who (for simplicity of exposition) are immobile, and who do not pay taxes.

local government budget

t^J : taxes per mobile resident
N^J : number of mobile residents in jurisdiction J
G^J : total size of the project (in jurisdiction J)

$$G^J = t^J N^J \tag{2}$$

administrator's preferences :

$$W^J = N^J(y - t^J) + H(G) \tag{3}$$

(with $H'(G) > 0$, $H''(G) < 0$)

Immobile Taxpayers

If N^J were fixed, then the administrator would pick (t^J, G^J) to maximize her welfare measure (3), subject to the budget constraint (2)

optimal policy :

$$H'(G) = 1 \tag{4}$$

call this policy G^*

mobile taxpayers

mobile residents locate where taxes are lowest

(As in the previous section, if $M + 1$ jurisdictions are tied for the lowest tax rate, then the N mobile residents will be split evenly among those lowest–tax jurisdictions, $\frac{N}{M+1}$ in each.)

As before, an **equilibrium** is a set of policies $\{(G^J, t^J)\}$ for each jurisdiction, which satisfy the budget constraint (2), such that no administrator can do better by changing her policy, taking into account the mobility of the residents.

efficient equilibrium?

Could we have an equilibrium in which each administrator chose a public expenditure level of G^*?

With identical policies in each jurisdiction, we'd have $N^J = \frac{N}{Z}$ in each jurisdiction, and t^J chosen to satisfy $t^J \frac{N}{Z} = G^*$.

but some administrator will realize that if she cuts her tax rate by a very small amount (call it δ) then she will have a lower tax rate than any other jurisdiction. That means that **all** the mobile residents will move to her jurisdiction, greatly expanding her tax base. Her tax revenues will go from

$$t^J \frac{N}{Z}$$

to

$$(t^J - \delta)N$$

which will be a big increase if δ is fairly small.

it gets worse

The incentive to cut taxes to attract taxpayers — or to prevent them from leaving — will hold no matter what the tax rates are.

RESULT *I* : The only equilibrium in this model is for the lowest tax rate to be driven down to 0, so that all taxpayers live in tax havens in which $t^J = 0$, and no jurisdiction spends anything on the public project.