The Revenue Maximizing Bureaucrat
(the Niskanen Model)

Example One: Management reproductive training (Liberia, MRT, Morocco)
Example Two: Document retrieval system design and implementation Plan (Rabat)

Question: What is it that bureaucrats maximize?

Bureaucrats seek power – Businessmen seek profits

A bureaucrat is not rewarded for cutting costs or saving money

A bureaucrat is not punished for overspending

Bureaucrats are spending other peoples' money

Power: power is a function of force, and of uncertainty.

Political power implies conflicting goals, when one can get ones goals achieved over somebody else's goals.

Consider the case of the agenda setter:

He decides the order votes will be taken in

He knows what goals he wants

He knows what everybody else wants as well

But nobody knows what his goals are, exactly

And nobody else knows the sequence of votes.

Procedural power – the power of government, depends very much on ignorance

Example: Why Arab Armies lose Wars….

How can a dictator keep power – he can't shoot everybody, but he doesn't have to

Because nobody can be sure if they will be shot

Another tragedy of the commons problem

In a perfect bureaucracy, with all rules spelled out, there would be no power

I might be in charge,

but I am still bound by the same rules, I have no discretion

And without discretion, where is my power

In this model, nobody ever makes a decision,

Everything has already been decided

Example: Mechanics in a French Factory

Niskanen/Baumol

B= Budget of a Bureaucracy
B(Q) = The bureaucracies' budget is a function of the quantity (Q) of services it provides

Assume $dB/dQ > 0$, and $d^2B/dQ^2 < 0$ (standard diminishing returns)

The bureaucracy also has a cost function $C = C(Q)$, where
$dC/dQ > 0$, and $d^2C/dQ^2 > 0$ (increasing costs, same as a competitive firm)

Only the Bureaucracy (or a subset of it) knows the cost functions. Those monitoring the bureaucracy (either politicians or the public) can see total benefits (Q), but only get to see the bureaus budget, not the full cost schedule. In other words, I know if TB = TC, but not if MB = MC

So the constraint faced by the bureaucracy is different than for a private firm. The bureaucracy has to propose a budget where total cost is less than total benefit – i.e. it has to cover the cost of production. He does not need to worry if MB = MC

What do bureaucrats want?

- Salary
- Perquisites of office
- Public reputation
- Power
- Patronage
- Output of the bureaus
- Ease of making changes
- Ease of managing the bureau

All but the last two are positively correlated with the size of the bureaucracy

So what is the objective function a bureaucracy optimizes?

$O_B = B(Q) + \lambda(B(Q) - C(Q))$

$dO/dB = dB/dQ + \lambda dB/dQ - \lambda dC/dQ = 0$
or
$dB/dQ + \lambda dC/dQ = \lambda dB/dQ$
or
$(1+\lambda)dB/dQ = \lambda dB/dQ$
or

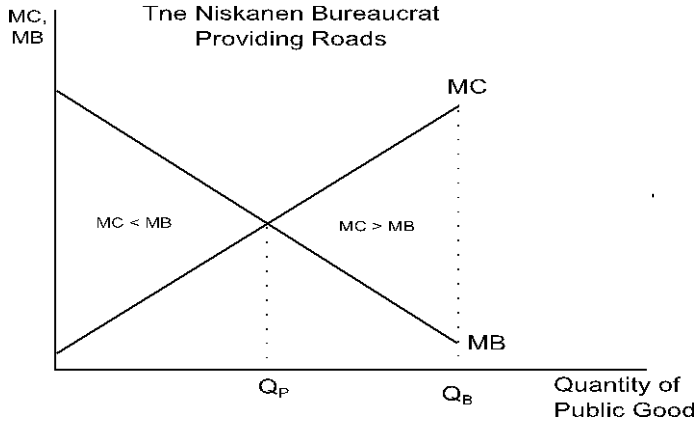
$dB/dQ = (\lambda/(1+\lambda))(dC/dB)$

In the above λ is positive, and it represents the marginal utility to the bureaucracy of expanding the budget. Note that this is different than what the funder wants: he wants

$dB/dQ = dC/dB$; i.e. they want marginal benefit to equal marginal cost (this is not derived from the above)….

If λ is positive, it implies that the bureaucrat will supply the service where
$dB/dQ < dC/dQ$

Graphical Exposition:

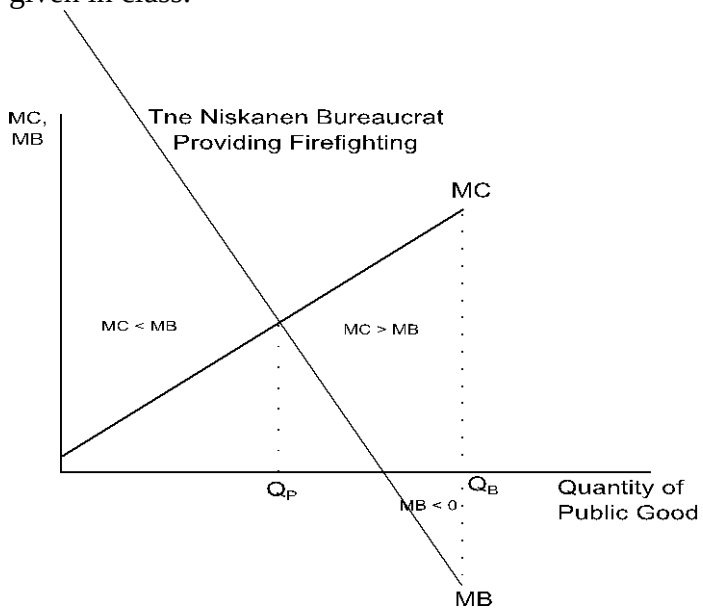


Note that MB = MC at quantity Q_P. This would be the publicly optimal amount of the supplied good. It would provide consumer surplus equal to the Triangle where MB > MC. However, the bureaucracy supplies the good where total Cost equals Total Benefit; Q_B. At Q_B, the triangle where MB < MC is equal to the other triangle, so TC is equal to TB.

(Note: discussion and examples here….)

Can MB be Negative?
How elastic is Demand (marginal benefits), and how much do we value a minimal amount of the good?

In the below, there is actually a portion of production where the MB of more good is negative, i.e. the public (median voter) would prefer to NOT have the good. Often times, bureaucracies bundle unpopular (to the public, not the bureaucrat) items with popular ones, to make sure they are purchased. Consider the firefighter/diversity trainer example given in class.

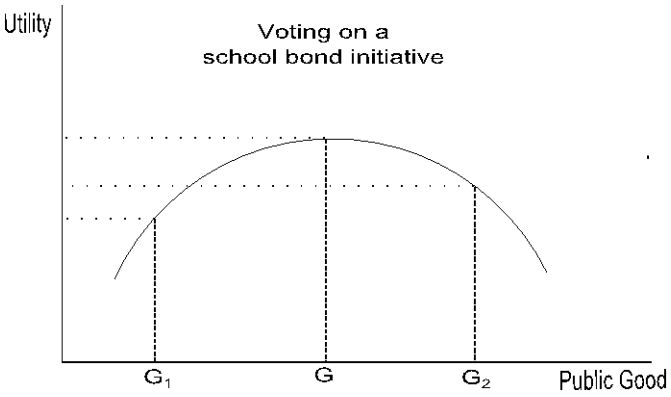


An alternate model: the median voter…

Example: School Funding….

Most schools in the U.S. are funded locally, for many towns it (and police and roads) are the major functions of govt. Often, when schools need (want?) large budget increases, they either need to be, or politicians want them to be, subject to direct elections; voting on a school bond. In those cases, the towns voters will vote on the school's budget.

What does the median voter want?



Note that the median voter, presented with either funding schools at the current level G_1, or at the new level, G_2, will voter for G_2. However, he would prefer G, but the schools do not propose that. They have power as agenda setters to propose either G_1 (the status quo, i.e. no change) or G_2.

Empirics:
Oregon school systems use this process; each year they can spend a maximum set by law, but can exceed this if a referendum passes. When proposed, the referendum almost always exceed the initial budget by a large amount. When it could not pass, either no referendum was held, or it did not pass – schools always spent 99+% of the money they were allocated.

Do Governments provide services at a higher cost than private firms?