Budget spilovers and fiscal policy interdependence

1.introduction

- another important determinant of the state and local gov:
  the expenditures of neighbouring gov
- jurisdiction spending levels also affect each other
- "neighbour" refers more to economically and demographically similar states.

> layout:
> 2.simple model
> 3.empirical specifiction.+ a little econometrical problems
> 4.annual observations
> 5.results
> Conclusion:a state's level of per capita expenditure is positively and significantly affected by the expenditure of its neighbours;
> The failure to include neighbours' expenditures in the equation leads to substantially different estimated effects of other important explanatory valuables such as federal grants and age stucture of the population.

2.theoretical considerations

$$V^i = V^i[Y^i - T^i, G^i; \Psi^i]$$

Y^i:per capita in state i
T^i:tax burden of each consumer
G^i:the level of piblic services provided
Ψ^i:vector of exogenous condition that affect the utilities of residents.

$$T^i \geq G^i$$

Example of spiltover:
one state's expenditures on roads may provide benefits to the residents of neighboring states.
care about poverty levels in other states,derive utility from other states' welfare expenditure.

3.empirical implementation

- **3.1 Econnometric model**
  E_{it}:state i's per capita expenditures in year t

characteristics X_{it}

the expenditures of its neighbors: E_{jt}

model:

$$E_{it} = X_{it}\beta + \phi E_{jt} + u_{it}$$

β, ϕ are parameters, u_{it} is a random error

$$E_{it} = X_{it}\beta + \phi E_{jt} + u_{it} + f_t + h_t$$

f_t, h_t:individual and year effects.

- *3.1.1 multiple neighbors*

  impact of state j on state i's spending depend on complementarity;

  depend on extent similar population.

  weight importance:

$$\sum_{j=1}^{n} \omega_{ij} E_{jt}$$

in matrix form:

$$E_t = \phi W E_t + X_t\beta + u_t$$

E_t :in year t,48 states' expenditures

X_t :48Xk year and state effects

W :48X48 weighting matrix

- *3.1.2 correlated random shocks*

  apprantly exist correlation.

$$u_t = \rho W u_t + \epsilon_t$$

ϵ:an idiosyncratic error,uncorrelated

- *3.1.3 simulataneous estimation*

- **3.2 specify the weight matrix**

$$W = \alpha W^{income} + (1 - \alpha)W^{Geography}$$

4.Data

5.Results

- **5.2 categories of spending**

  seperate for four different types of expenditures.

  health and human service
  administration
  highways
  education

6.Summary

states gov are likely to be influenced by actions of neighboring states

neighbour 1\$⇑ → our state 0.7\$⇑

factor of similarity:

% of black

....

≈ country→country