The impacts of external funding for district governments on tax collection and public goods provision in Ghana

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Research Questions

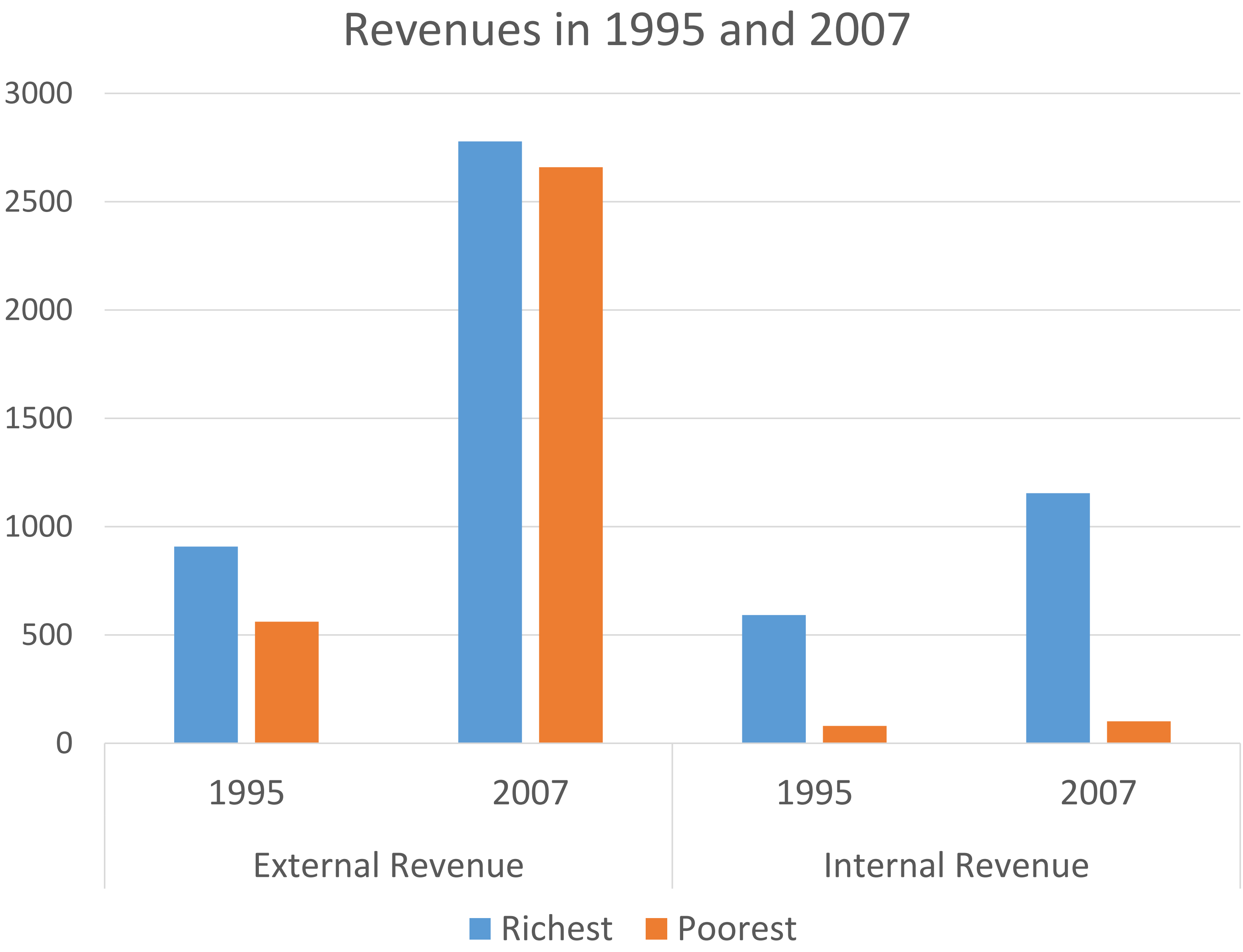
1) Do external revenues crowd in or crowd out internal revenues? Do the effects depend on poverty rates of districts?

2) When revenues rise, which category of expenditures do district governments increase?

3) Does an growth in revenues/expenditures lead to increased provisions of public goods?

Summary Statistics - Revenues

- Poor districts: smaller revenues.
- Gap between poor & rich districts:
  - Narrowed for External revenue.
  - Widened for Internal revenue.
- Rich districts increased internal revenue and became less dependent on external revenue compared with poor districts.



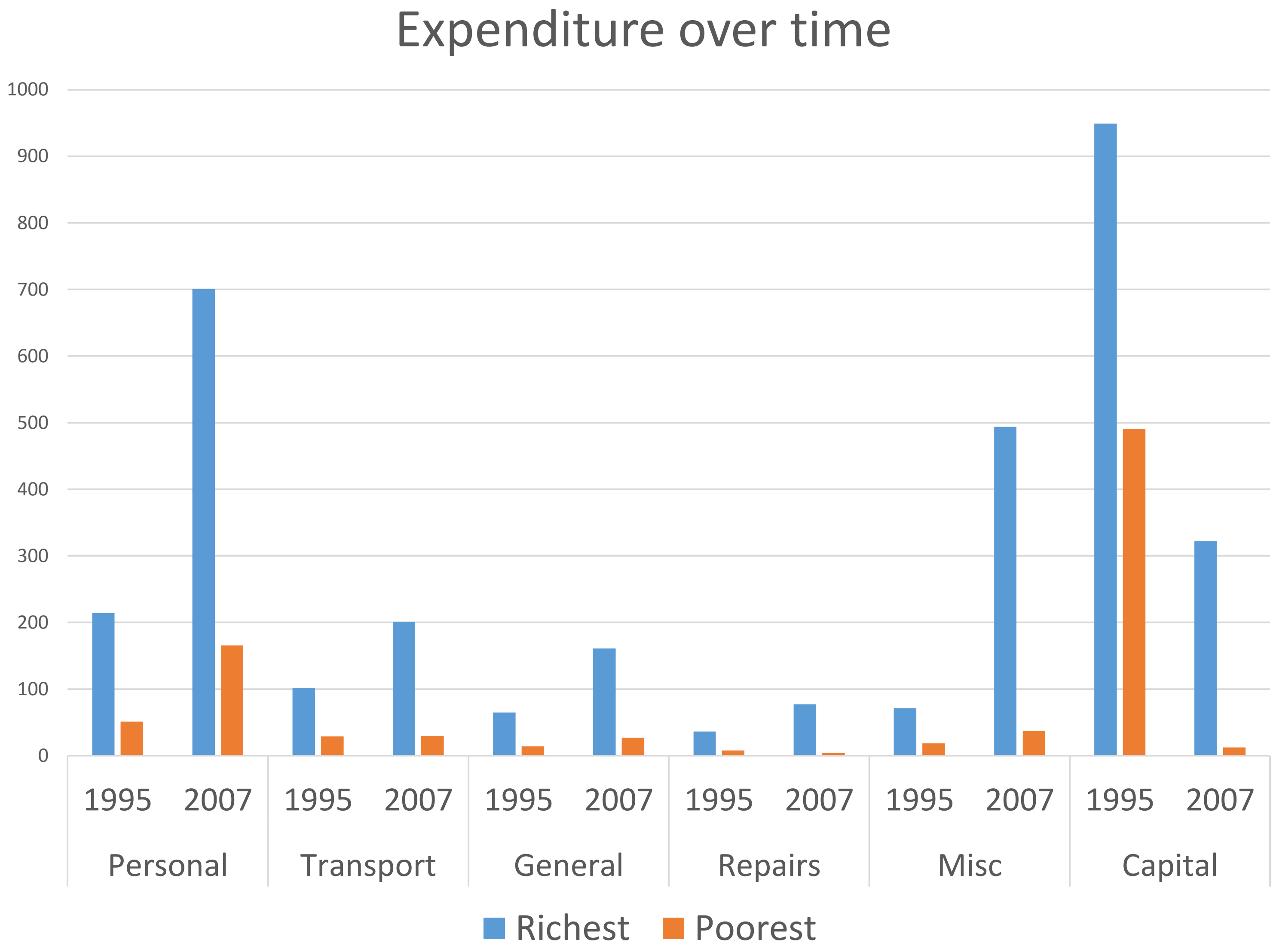
Summary Statistics - Expenditure

- Poor districts: smaller expenditure.

- William (2016): 29% of capital expenditure is wasted; many district projects are never completed.

→ Capital expenditure declined, esp in poor districts.

- Personal expenditure increased, esp in poor districts. Could be due to ghost workers in the public sector.



Identification Strategy for Impacts of external revenue change on internal revenue collection

- Specification (Mogues and Benin, 2012; growth model)

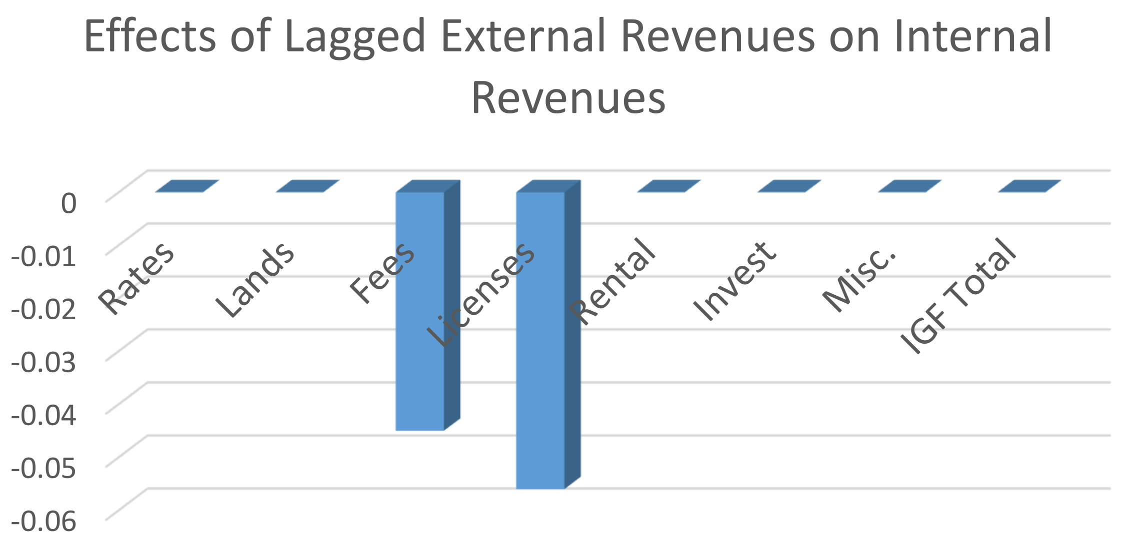
$$\Delta[ln(IGF_{it})] = \ln(EXT_{it-1})\delta + \ln(EXP_{it-1})\gamma + \Delta ln(IGF_{it-1})\phi + R_i\lambda + D_t\tau + \alpha + \eta_i + \varepsilon_{it}$$

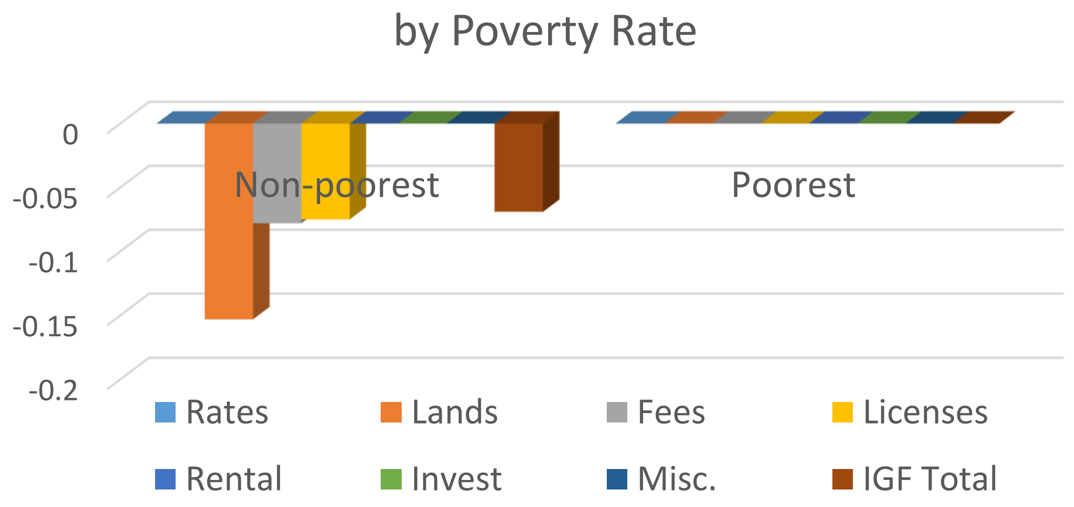
- $\Delta[ln(IGF_{it})]$: change in the log of internal revenue (IGF) from the time *t-1* to the time *t*
- EXT_{it-1} : lagged external revenues for district *i*
- EXP_{it-1} : vector of lagged expenditures at time *t-1*
- D_t : time effects
- $\eta_i + \varepsilon_{it}$: error terms

Impacts of external revenue change on internal revenue collection

- The increased external revenue leads to reduced internal revenue from market fees (from market traders) & business licenses: crowding-out

- In the poorest districts: collection of internal revenue does not respond to the increase in external revenue

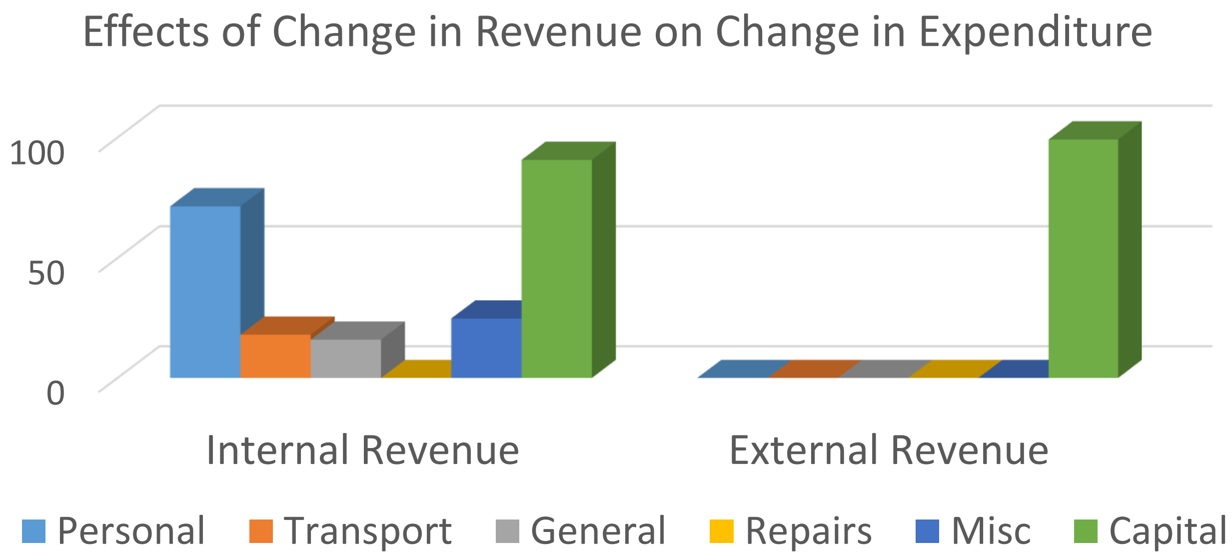


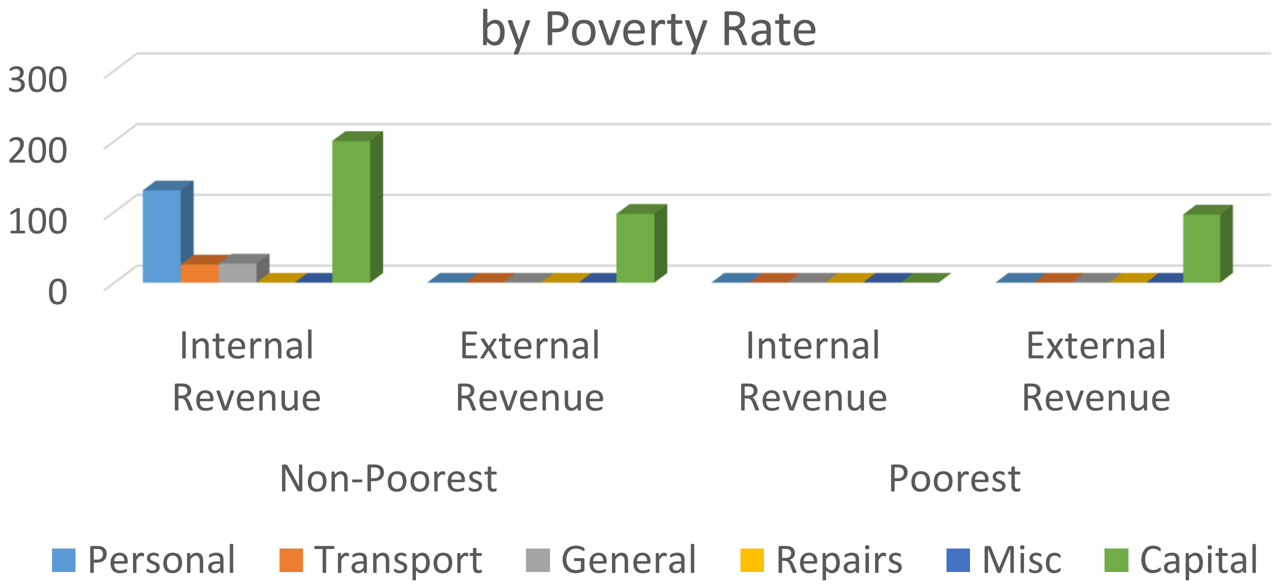


Impacts of revenue change on expenditures

Increased revenues raised expenditure in

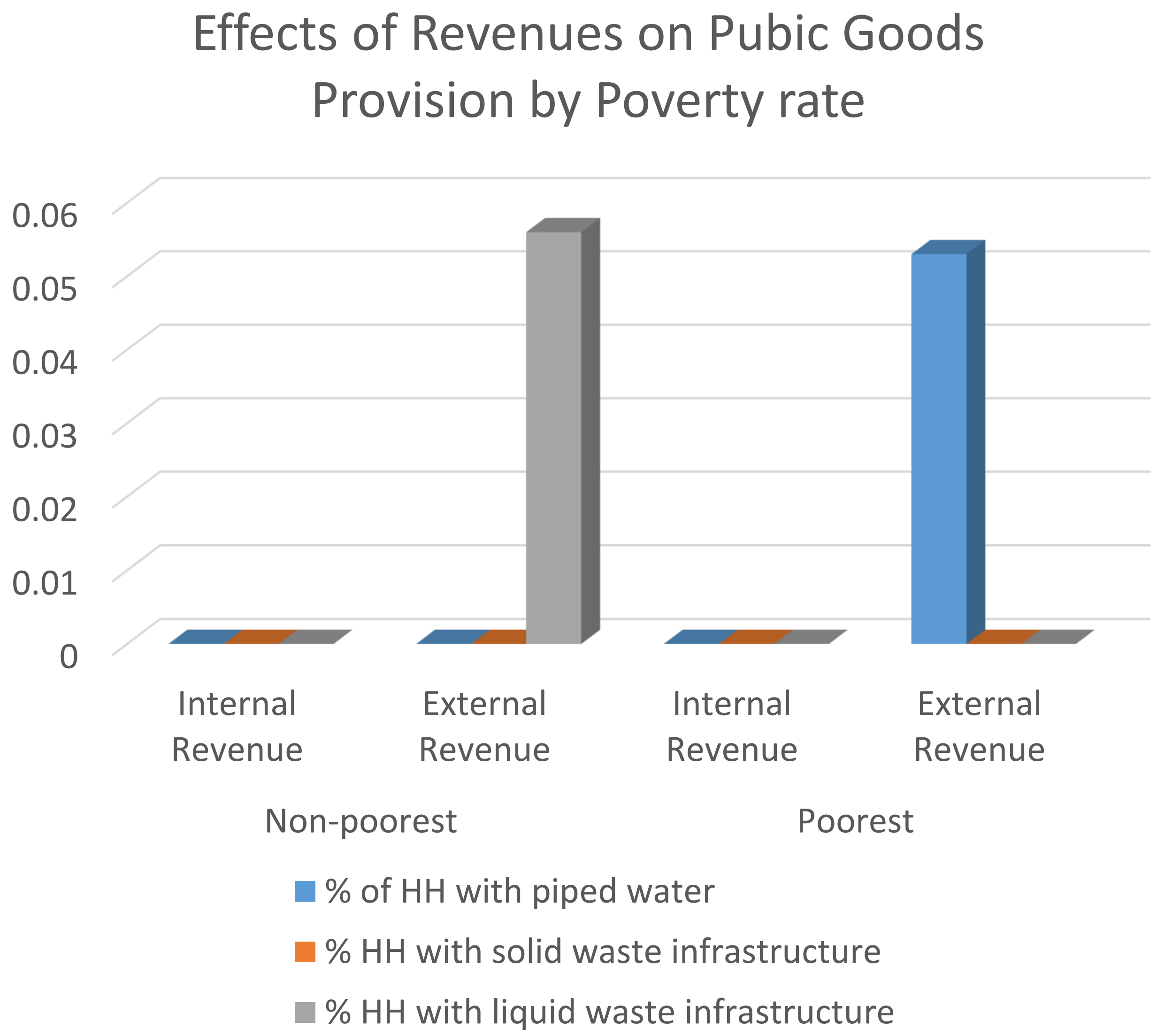
- capital expenditure (could be wasteful; William, 2016)
- Personnel expenditure (could be wasteful due to a large number of ghost workers in the public sector)





Impacts of revenue change on public goods provision

- No effect of expenditure on public goods provision (no difference by poverty rate) : could be due to inefficient allocation of resource.
- Increase in external revenues, but not internal revenues, increases some public goods provision.
    - Non-poor districts: liquid waste infrastructure
    - Poorest districts: piped water



Conclusion

- Large disparity between poor and rich districts in their ability to raise internal revenue.
  →Rich districts were able to develop tax bases in the private sector, while poor districts were not.

- External revenue crowds out internal revenue in general, but not among poor districts.
  →Policy implication: Allocating more external funding to poor districts could be more effective.

- External revenue is more effective in increasing public goods provision than internal revenue.