

Population and the Fiscal Outcomes of Subnational Jurisdictions

by *Russell S. Sobel*

The largest Canadian provinces and US states are roughly 80 times bigger than their least populous counterparts. Using almost three decades of data, this study examines the data from these subnational governments to see whether these differences in population are related to the fiscal outcomes like the size of government, government debt and annual surpluses and deficits, reliance on consumption rather than income taxes, and the progressivity of personal income-tax system.

Size may have a complex relationship with fiscal outcomes and we begin by examining the literature discussing how the size of a government's jurisdiction may affect aspects related to fiscal performance, particularly those that could affect taxes or spending (including regulatory spending). The effects of size may filter through either purely as a result of "public finance" (efficiency) reasons, or through the effects of size on "public choice" factors such as democratic outcomes and representation. Another factor that may affect the results of the empirical analysis is the presence of institutional requirements for a balanced budget in these subnational governments. While the Canadian provinces do not have any such restrictions, 49 of the 50 US states are generally considered to have some form of rule or constraint.

There does seem to be a nonlinear U-shaped relationship between the population size of states and provinces and the size of government as a share of the economy. While government size initially falls with population, beyond some point, it begins to rise again. This point is estimated

to be approximately 9.6 million population for Canadian provinces, and 21 million population for US states. Thus, large subnational jurisdictions such as Ontario and California are beyond the size that minimizes government spending as a share of the economy. This relationship holds for both expenditure and revenue and including and excluding local government expenditures.

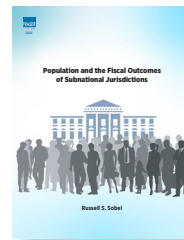
There is no consistent relationship between the size of states and provinces and their reliance on debt, or their annual budget imbalances (surpluses and deficits) over the full sample. The US states do have significantly less debt, and run smaller deficits, than the Canadian provinces as should be expected considering the balanced budget constraints most US states face. The largest Canadian provinces, however, have slightly higher average surplus levels in the more recent years.

Perhaps the most interesting finding is that larger states and provinces tend to rely relatively less heavily on consumption taxes and more heavily on income taxes, when

compared to smaller states and provinces. For each additional one million population, reliance upon consumption taxes falls by about 2 to 3 percentage points relative to reliance on personal income taxes, with the effect being larger when data for local governments is included. Canadian provinces do appear to rely relatively less heavily on consumption taxes (and relatively more heavily on income taxes) than the US states, especially once local data is included.

There is no strong relationship between the progressivity of personal income tax and size of population in the full sample, although the largest Canadian provinces seem to have slightly higher average levels of personal income tax progressivity compared with smaller Canadian provinces

in more recent data. The average personal income tax progressivity in the largest US states is roughly similar to the largest Canadian provinces. Smaller and middle-sized US states, however, appear to have more progressive personal income taxes than smaller and middle-sized Canadian provinces.



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The size of state and provincial governments is affected by population size

