

Appendix 1B

Estimates in Rodney Hall's 1998 book *Abolish the States!*

The following is a slightly updated version of Appendix 1 (Drummond 1998) as it appears on pages 97 to 109 of *Abolish the States!* (Hall 1998). Graphs 1 and 2 referred to below appear on pages 111 and 112 of *Abolish the States!* but are omitted here.

An estimation of the savings achievable through the abolition of the States and Territories, and the establishment of a two-tier system of government, consisting of 30 regional governments.

The roles of governments are basically to (1) **provide** and **produce** goods and services (through allocative, distributive, stabilising and subsidising measures) and (2) **regulate** (by establishing and enforcing laws, regulations and standards). Among Australia's three-tiers of government, duplication and overlap in these roles occurs to an enormously expensive extent, and such duplication costs can be broken into the following *five* components:

- horizontal duplication costs among State and Territory governments (the total of which shall be referred to here as C_{HS});
- horizontal duplication costs among Local governments (C_{HL});
- vertical duplication costs between Commonwealth and State/Territory governments (C_{VS});
- vertical duplication costs between Commonwealth and Local governments (C_{VL}); and
- vertical duplication costs between State/Territory and Local governments (C_{VSL}).

(Note that in relation to the above duplication costs, the ACT is an exception in that it is already only subject to two tiers of government)

In contrast, the proposed two-tier system of government would only incur the following two components of duplicated costs:

- horizontal duplication costs among Regional governments (C_{HR}); and
- vertical duplication costs between Commonwealth and Regional governments (C_{VR}).

So the total duplication cost savings ($S_{3 \rightarrow 2}$) achievable through a move to a two-tier system of government would be given by the formula

$$S_{3 \rightarrow 2} = (C_{HS} + C_{HL} + C_{VS} + C_{VL} + C_{VSL}) - (C_{HR} + C_{VR}) \quad \dots [1]$$

An estimation of the costs of State/Territory type governments, and hence part of the C_{HS} component, shall now be detailed by of illustration.

For present purposes it is appropriate to apply an accounting model in which the expenditure of State/Territory type governments is given by the expression:

$$E_S = FC_S + VC_S \times p_S \quad \dots [2]$$

where E_S is the expenditure (in terms of government outlays) of a State/Territory government;

FC_S is the 'fixed' cost, or 'overhead' cost, incurred by State/Territory governments;

VC_S is the 'variable' (or marginal, or 'per unit' - in this case 'per capita') cost incurred by State/Territory governments;

and p_S is the population of the State/Territory

This model assumes two basic components of government expenditure:

- (1) a 'fixed' cost component (FC_S) of expenditure which is incurred irrespective of the size of the governed population. So the 'fixed' costs incurred by the Tasmanian government will be the same as for New South Wales and the other States and Territories. The salaries of the State Premiers and Territory Chief Ministers would obviously fall directly within this component, as would most 'head office' costs.

AND

- (2) a 'variable' cost component ($VC_S \times p_S$), which accrues in proportion to the size of the governed population. These 'variable' costs include components such as the costs of running schools themselves (as distinct from 'fixed' head office' costs), and V_S (a per capita measure) is again assumed to be the same for each State and Territory.

Furthermore, expression [2] is equivalent to the following equation of a straight line as taught in high school:

$$y = mx + b = b + mx \quad \dots [3]$$

where E_S in [2] is a variable quantity like the y in [3];

p_S in [2] is a variable quantity like the x in [3];

FC_S in [2], like b in [3], provides the vertical axis intercept (or 'y-intercept') of the graphical representation of [2];

and VC_S in [2], like m in [3], provides the gradient of the graphical representation of [2].

So the task of finding best estimates of the quantities FC_S and VC_S is essentially that of determining the **line of best fit** of a graphical representation of expression [2]. The sought after 'line of best fit', and hence the values of FC_S and VC_S , are estimated here through the application of least-square linear regression techniques to government outlay and population data for the various States and Territories as obtained from the Australian Bureau of Statistics Government Financial Estimates publication (Catalogue Number 5501.0). Data from the financial years 1990/91 through to 1994/95, CPI adjusted as appropriate, have been used in order to provide greater confidence in the estimates derived. All money values stated here are per annum values expressed in June 1994 dollar terms.

Graphs 1 and 2 following show the plotted data points, the lines of best fit, and the gradients and vertical-axis-intercepts which provide estimates for FC_S and VC_S . These results and other relevant measures are summarised as follows:

Table 1

Data set used	best estimate of FC _S (\$ million)	95% confidence range of FC _S (\$ million)	best estimate of VC _S (\$ per person)	correlation coefficient
States and Territories	547	186 to 978	4120	0.9961
States only	633	252 to 1400	4100	0.9946

The high correlation coefficients achieved here confirm the validity of the model described by expression [2].

Now ideally, taxpayers would be burdened not with eight lots of fixed costs associated with the eight State and Territory governments, but just one lot of such costs, so the outlay component of the horizontal duplication costs of the State and Territory governments is approximately \$3.8 billion (this being 7 x \$547 million) in total. So our best estimate of the outlay component of C_{HS} is:

$$C_{HS(\text{outlays})} = \$3.8 \text{ billion} \quad \dots [4]$$

Data on individual local government outlays is not as readily available as that for States and Territories, however we can still derive an estimate of the outlays component of the savings figure S_{3->2}, as follows:

Estimating the costs of a two-tier system based on insights from the ACT!

Of all provincial governments in Australia, the ACT Assembly is that which might be expected to most closely reflect what a regional government might be like in a two-tier system. Regional governments would probably lie somewhere between the ACT Assembly and the Brisbane City Council in terms of their roles and responsibilities and the populations they would serve. But the ACT form of government is of interest particularly in terms of the quite substantial cost saving synergies it achieves through combining traditional State and local government functions.

Now Australia's population at June 1994 was some 59.3 times greater than that of the ACT, and using data from the years 1990/91 through to 1994/95 it is similarly found that if a system comprising around 60 ACT style governments were established

throughout Australia, cost savings of approximately \$6.8 billion per annum could be achieved. And if 30 regions, being on average roughly twice the ACT's population (hence around the 600,000 mark), were established, then such a 30 region system should be a further \$16.4 billion (= 30 x \$547 million, using the fixed cost figure in Table 1 above) less expensive again than a system of 60 regions. This suggests that some \$23.2 billion (= 6.8 + 16.4) could be saved by moving toward a system comprising 30 regional governments based upon an ACT government model.

Furthermore, when our statistical regression technique is applied to State and Territory outlay figures for *individual government purpose areas*, the following best estimates emerge:

Table 2

Government purpose area	best estimate of FC _S component (\$ million)	95% confidence range of FC _S component (\$ million)
Public Order and Safety	37	13 to 84
Education	88	30 to 154
Health	96	32 to 181
TOTAL of the above	221	75 to 419

The above results suggest that if public order and safety, health and education were transferred to the national government, a further \$6.6 billion (= 30 x \$221 million) could be saved, yielding a total saving of some \$30 billion (= \$23.2 billion + \$6.6 billion) could be achieved, where this \$30 billion figure has 95% confidence limits of approximately \$10 billion and \$62 billion.

The \$547 million figure used here for the ACT's fixed costs could, however, be viewed as unrealistically high. The figures in Table 1 suggest that the total fixed costs of all six States is 6 x \$633 million = \$3798 million, whereas that of the eight States and Territories is 8 x \$547 = \$4376. The \$578 million difference between these two figures should then equal the sum of the fixed costs of the ACT and the NT. So if the ACT and NT fixed costs were assumed equal, they would each be \$289 million (= 0.5 x \$578 million). Assuming this \$289 million figure, and assuming also that the \$221 million figure in Table 2 is reduced in the same proportion (from \$221 million to \$111 = (289 ÷ 547) x \$221 million), the \$30 billion best estimate savings figure comes down by \$11 billion (this being 30 x \$[547+221] - 30 x \$[289+111] million) to \$19 billion. Although

this \$19 billion figure is certainly a conservative estimate, and arguments can be raised in favour of much higher estimates. In particular, this \$19 billion figure still assumes that the new system would retain all the mediocrities of the present system. Professor Neville Norman of Melbourne University, in his 'Reforming Fiscal Reform', prepared for the Australian Business Council in 1995, states that potential cost savings of \$3 billion per annum could be achieved through an elevation to world best practice standards in government (with \$2.9 to \$3.4 billion 95% confidence intervals). Conservatively, we shall assume that at least \$2 billion per annum of such 'room for improvement' would 'survive' a move to a two-tier system, which, when added to the \$19 billion figure above, would yield a potential saving best estimate of \$21 billion, with 95% confidence intervals of approximately \$8 billion and \$45 billion. So we could safely claim that a best estimate of the outlays component of $S_{3 \rightarrow 2}$ should be *at least* the following:

$$S_{3 \rightarrow 2}(\text{outlays}) = \$21 \text{ billion} \quad \dots [5]$$

The outlays savings figures presented thus far relate mainly to the provision and production roles of government in Australia. However it is also clear that the regulatory roles incur massive costs. According to the *Review of Business Regulations Information Paper No. 2* (by the Business Regulation Review Unit, Commonwealth of Australia, May 1986, pages 3-5), the overall cost of business regulation comprises (1) the cost of employing regulators, (2) "paperburden costs", and (3) compliance costs - the latter being by far the most significant component. This report states (on page 5) that "[a]ggregating the three components brings the estimated overall cost of business regulation to ... 15-30% of Australia's \$250B gross domestic product".

Now Australia's GDP in 1994-95 was approximately \$450 billion, and 22.5% (the midpoint of the estimated 15-30% range) of this is just over \$100 billion. We shall therefore use \$100 billion as an estimate of the annual regulatory cost burden as at June 1994. Further, if such costs accrued in proportion to the outlays of the three levels of government (as would seem intuitively reasonable), then this \$100 billion could be approximately broken down as follows, based on 1994-5 figures from ABS Catalogue 5501.0:

Table 3

Level of Government	Total outlays (\$ billion)	% of total outlays	share of \$100 billion regulatory cost burden
Commonwealth	94.762	52.8	\$53 billion
State/Territory	77.932	43.4	\$43 billion
Local	6.932	3.9	\$4 billion
TOTAL	179.6	100	\$100 billion

It is intended that the regulatory overlap, duplication and lack of coordination that causes such pain in the present system would be reduced in the proposed two-tier system, to such an extent that virtually the full extent of the \$43 billion attributed to the State/Territory level above should be eliminated. These amounts, along with the \$7 billion per annum which the private sector presently contributes to State and Territory governments by way of payroll tax, clearly illustrate how Australia's three-tier system encourages its private sector to shed workers and hence compounds the unemployment problem.

Combining this \$43 billion figure with that of expression [5] above suggests that a total measure of $S_{3 \rightarrow 2}$ could be well over \$50 billion per annum. Certainly \$30 billion per annum would be a most conservative estimate of $S_{3 \rightarrow 2}$, however this figure is perhaps the most appropriate based on the analysis so far.