This article is referenced from "Why it is Important that Software Projects Fail", Berglas 2008 Following Parkinson, it demonstrates that no amount of software automation will reduce the size of a bureaucracy. http://www.berglas.org/Articles/ImportantThatSoftwareFails/ImportantThatSoftwareFails.html

Parkinson's Law

C. Northcote Parkinson C. Northcote Parkinson is Raffles Professor of History at the University of Singapore. This article first appeared in *The Economist* in November 1955.

It is a commonplace observation that work expands so as to fill the time available for its completion. Thus, an elderly lady of leisure can spend an entire day in writing and dispatching a postcard to her niece at Bognor Regis. An hour will be spent in finding the postcard, another in hunting for spectacles, half-an-hour in a search for the address, an hour and a quarter in composition, and twenty minutes in deciding whether or not to take an umbrella when going to the pillar-box in the next street. The total effort which would occupy a busy man for three minutes all told may in this fashion leave another person prostrate after a day of doubt, anxiety and toil.

Granted that work (and especially paper work) is thus elastic in its demands on time, it is manifest that there need be little or no relationship between the work to be done and the size of the staff to which it may be assigned. Before the discovery of a new scientific law-herewith presented to the public for the first time, and to be called Parkinson's Law1 - there has, however, been insufficient recognition of the implication of this fact in the field of public administration. Politicians and taxpayers have assumed (with occasional phases of doubt) that a rising total in the number of civil servants must reflect a growing volume of work to be done. Cynics, in questioning this belief, have imagined that the multiplication of officials must have left some of them idle or all of them able to work for shorter hours. But this is a matter in which faith and doubt seem equally misplaced. The fact is that the number of the officials and the quantity of the work to be done are not related to each other at all. The rise in the total of those employed is governed by Parkinson's Law, and would be much the same whether the volume of the work were to increase, diminish or even disappear. The importance of Parkinson's Law lies in the fact that it is a law of growth based upon an analysis of the factors by which the growth is controlled.

The validity of this recently discovered law must rely mainly on statistical proofs, which will follow. Of more interest to the general reader is the explanation of the factors that underlie the general tendency to which this law gives definition. Omitting technicalities (which are numerous) we may distinguish, at the outset, two motive forces. They can be represented for the present purpose by two almost axiomatic statements, thus:

- Factor I. An official wants to multiply subordinates, not rivals and
- Factor II. Officials make work for each other. We must now examine these motive forces in turn.

THE LAW OF MULTIPLICATION OF SUBORDINATES

To comprehend Factor I, we must picture a civil servant called A who finds himself overworked. Whether this overwork is real or imaginary is immaterial; but we should observe, in passing, that A's sensation (or illusion) might easily result from his own decreasing energy-a normal symptom of middle age. For this real or imagined overwork there are, broadly speaking, three possible remedies:

(1) He may resign.

- (2) He may ask to halve the work with a colleague called B.
- (3) He may demand the assistance of two subordinates to be called C and D.

There is probably no instance in civil service history of A choosing any but the third alternative. By resignation he would lose his pension rights. By having B appointed, on his own level in the hierarchy, he would merely bring in a rival for promotion to W's vacancy when W (at long last) retires. So A would rather have C and D, junior men, below him. They will add to his consequence; and, by dividing the work into two categories, as between C and D, he will have the merit of being the only man who comprehends them both.

It is essential to realize, at this point, that C and D are, as it were, inseparable. To appoint C alone would have been impossible. Why? Because C, if by himself, would divide the work with A and so assume almost the equal status which has been refused in the first instance to B; a status the more emphasized if C is A's only possible successor. Subordinates must thus number two or more, each being kept in order by fear of the other's promotion. When C complains in turn of being overworked (as he certainly will) A will, with the concurrence of C, advise the appointment only by advising the appointment of two more assistants to help D, whose position is much the same. With this recruitment of E, F, G and H, the promotion of A is now practically certain.

THE LAW OF MULTIPLICATION OF WORK

Seven officials are now doing what one did before. This is where Factor II comes into operation. For these seven make so much work for each other that all are fully occupied and A is working harder than ever. An incoming document may well come before each of them in turn. Official E decides that it falls within the province of F, who places a draft reply before C, who amends it drastically before consulting D, who asks G to deal with it. But G goes on leave at this point, handing the file over to H, who drafts a minute, which is signed by D and returned to C, who revises his draft accordingly and lays the new version before A.

What does A do? He would have every excuse for signing the thing unread, for he has many other matters on his mind. Knowing now that he is to succeed W next year, he has to decide whether C or D should succeed to his own office. He had to agree to G going on leave, although not yet strictly entitled to it. He is worried whether H should not have gone instead, for reasons of health. He has looked pale recently - partly but not solely because of his domestic troubles. Then there is the business of F's special increment of salary for the period of the conference, and E's application for transfer to the Ministry of Pensions. A has heard that D is in love with a married typist and that G and F are no longer on speaking terms-no one seems to know why. So A might be tempted to sign C's draft and have done with it.

But A is a conscientious man. Beset as he is with problems created by his colleagues for themselves and for him-created by the mere fact of these officials' existence-he is not the man to shirk his duty. He reads through the draft with care, deletes the fussy paragraphs added by C and H and restores the thing back to the form preferred in the first instance by the able (if quarrelsome) F. He corrects the English-none of these young men can write grammatically-and finally produces the same reply he would have written if officials C to H had never been born. Far more people have taken far longer to produce the same result. No one has been idle. All have done their best. And it is late in the evening before A finally quits his office and begins the return journey to Ealing. The last of the office lights are being turned off in the gathering dusk, which marks the end of another day's administrative toil. Among the last to leave, A reflects, with bowed shoulders and a wry smile that late hours, like gray hairs, are among the penalties of success.

THE SCIENTIFIC PROOFS

From this description of the factors at work the student of political science will recognize that administrators are more or less bound to multiply. Nothing has yet been said, however, about the period of time likely to elapse between the date of A's appointment and the date from which we can calculate the pensionable service of H. Vast masses of statistical evidence have been collected and it is from a study of this data that Parkinson's Law has been deduced. Space will not allow of detailed analysis, but research began in the British Navy Estimates. These were chosen because the Admiralty's responsibilities are more easily measurable than those of (say) the Board of Trade.

The accompanying table is derived from Admiralty statistics for 1914 and 1928. The criticism voiced at the time centered on the comparison between the sharp fall in numbers of those available for fighting and the sharp rise in those available only for administration, the creation, it was said, of "a magnificent Navy on land." But that comparison is not to the present purpose. What we have to note is that the 2,000 Admiralty officials of 1914 had become the 3,569 of 1928; and that this growth was unrelated to any possible increase in their work. The Navy during that period had diminished, in point of fact, by a third in men and two-thirds in ships. Nor, from 1922 onwards, was its strength even expected to increase, for its total of ships (unlike its total of officials) was limited by the Washington Naval Agreement of that year. Yet in these circumstances we had a 78.45 percent increase in Admiralty officials over a period of fourteen years; an average increase of 5.6 percent a year on the earlier total. In fact, as we shall see, the rate of increase was not as regular as that. All we have to consider, at this stage, is the percentage rise over a given period.

ADMIRALTY STATISTICS

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			i elcentage
	1914	1928	increase or decrease
Capital ships in commission	62	20	-67.74
Officers and men in Royal Navy	146,000	100,000	-31.50
Dockyard workers	57,000	62,439	+9.54
Dockyard officials and clerks	3,249	4,558	+40.28
Admiralty officials	2,000	3,569	+78.45

Can this rise in the total number of civil servants be accounted for except on the assumption that such a total must always rise by a law governing its growth? It might be urged, at this point, that the period under discussion was one of rapid development in naval technique. The use of the flying machine was no longer confined to the eccentric. Submarines were tolerated if not approved. Engineer officers were beginning to be regarded as almost human. In so revolutionary an age we might expect the storekeepers would have more elaborate inventories to compile. We might not wonder to see more draughtsmen on the payroll, more designers, more technicians and scientists. But these, the dockvard officials, increased only by 40 percent in number, while the men of Whitehall increased by nearly 80 percent. For every new foreman or electrical engineer at Portsmouth there had to be two or more clerks at Charing Cross. From this we might be tempted to conclude, provisionally, that the rate of increase in administrative staff is likely to be double that of the technical staff at a time when the actually useful strength (in this case, of seamen) is being reduced by 31.5 percent. It has been proved, however, statistically, that this last percentage is irrelevant. The Officials would have multiplied at the same rate had there been no actual seamen at all.

It would be interesting to follow the further progress by which the 8,118 Admiralty staff of 1935 came to number 33,788 by 1954. But the staff of the Colonial Office affords a better field of study during a period of Imperial decline. The relevant statistics are set down below. Before showing what the rate of increase is, we must observe that the extent of this department's responsibilities was far from constant during these twenty years. The colonial territories were not much altered in area or population between1935 and 1939. They were considerably diminished by 1943, certain areas being in enemy hands. They were increased again in 1947, but have since then shrunk steadily from year to year as successive colonies achieve self-government.

COLONIAL OFFICE OFFICIALS					
1935	1939	1943	1947	1954	
372	450	817	1,139	1,661	

It would be rational, prior to the discovery of Parkinson's Law, to suppose that these changes in the scope of Empire would be reflected in the size of its central administration. But a glance at the figures shows that the staff totals represent automatic stages in an inevitable increase. And this increase, while related to that observed in other departments, has nothing to do with the size - or even the existence - of the Empire. What are the percentages of increase? We must ignore, for this purpose, the rapid increase in staff, which accompanied the diminution of responsibility during World War II. We should note rather the peacetime rates of increase over 5.24 percent between 1935 and 1939, and 6.55 percent between 1947 and 1954. This gives an average increase of 5.89 percent each year, a percentage markedly similar to that already found in the Admiralty staff increase between 1914 and 1928.

Further and detailed statistical analysis of departmental staffs would be inappropriate in such an article as this. It is hoped, however, to reach a tentative conclusion regarding the time likely to elapse between a given official's first appointment and the later appointment of his two or more assistants. Dealing with the problem of pure staff accumulation, all the researches so far completed point to an average increase of about 5 4' percent per year. This fact established, it now becomes possible to state Parkinson's Law in mathematical form, thus:

In any public administrative department not actually at war a staff increase may be expected to follow this formula:

$$x = \frac{2k^m + p}{n}$$

where k is the number of staff seeking promotion through the appointment of subordinates; p represents the difference between the ages of appointment and retirement; m is the number of man hours devoted to answering minutes within the department; and n is the number of effective units being administered. Then x will be the number of new staff required each year.

Mathematicians will, of course, realize that to find the percentage increase they must multiply x by 100 and divide by the total of the previous year, thus:

$$\frac{100(2k^m+p)}{yn}\%$$

where y represents the total original staff. And this figure will invariably prove to be between 5.17 percent and 6.56 percent, irrespective of any variation in the amount of work (if any) to be done.

The discovery of this formula and of the general principles upon which it is based has, of course, no emotive value. No attempt has been made to inquire whether departments ought to grow in size. Those who hold that this growth is essential to gain full employment are fully entitled to their opinion. Those who doubt the stability of an economy based upon reading each other's minutes are equally entitled to theirs. Parkinson's Law is a purely scientific discovery, inapplicable except in theory to the politics of the day. It is not the business of the botanist to eradicate the weeds. Enough for him if he can tell us just how fast they grow.