Encouraging Productivity Improvement in the Caribbean

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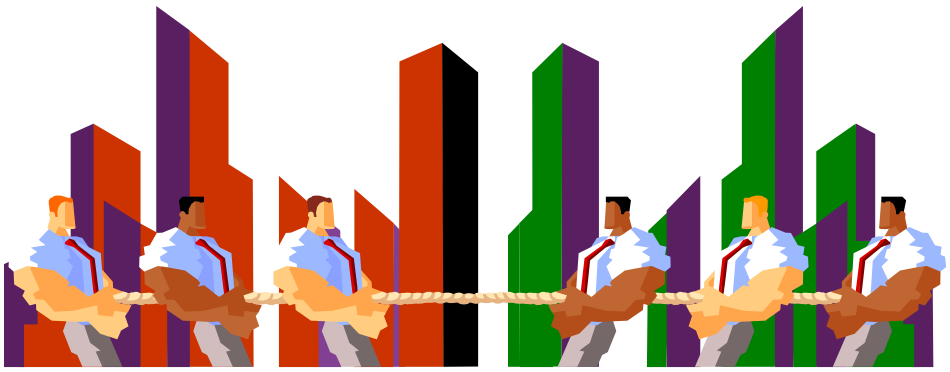
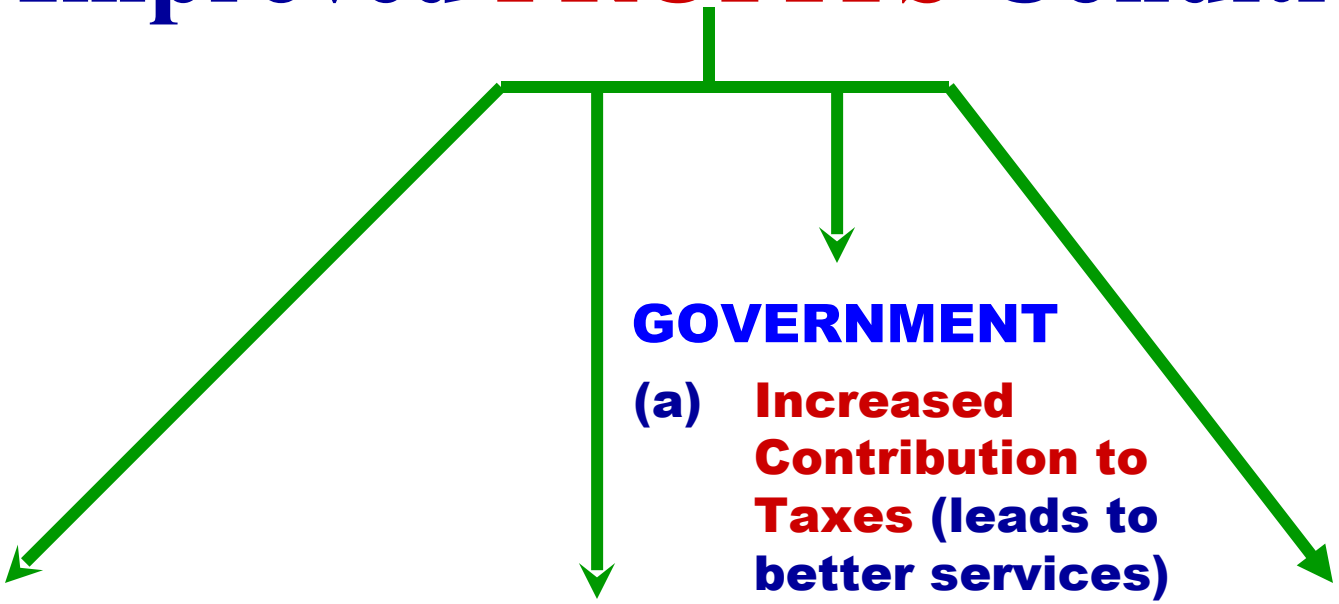
- The Importance of Productivity Growth
- Measuring Productivity in the Public Sector
- Some Constraints on Productivity Improvement
- Alternative Productivity Improvement Schemes

Defining Competitiveness

$$C = \frac{\text{PRODUCTIVITY}}{\text{UNIT COST}}$$



Improved PROFITS Conditions



GOVERNMENT

(a) Increased Contribution to Taxes (leads to better services)

EMPLOYEE

(a) Employment Security
(b) Performance-related Pay
(c) Better Quality of Work Life

COMPANY

(a) Business Expansion
(b) Product Diversification

CONSUMER

(a) Improved Customer Service
(b) Improved Quality of Life
(c) Low Product and Service Prices and Better Quality Goods

Defining Productivity

Public Sector Productivity can be defined as:

- The extent to which the output of goods and services of specific quality is produced by various public sector agencies (Departments, Ministries, Statutory Bodies) using a set of inputs (human resources, machinery and equipment, etc.)

Defining Productivity

- Productivity involves the specification of a production function or relationship linking the output produced (passports processed, mail delivered, students graduating, clients served) to a set of inputs utilised.
- It is usually stated in the form of a ratio of output to a measure of one or more inputs.

Defining Productivity

- Productivity = $\frac{\text{Goods/Services Produced of a given quality}}{\text{Resources/Inputs used}}$

- Productivity growth is therefore concerned with reaching the highest level of performance with the lowest possible expenditure of resources.

- The output of the agency can reflect some strategic objectives established by the agency, while the resources used can represent the 'best' arrangement for producing the output.

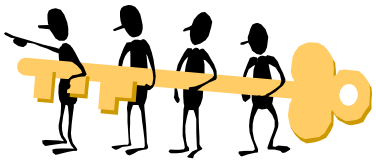
Defining Productivity

- Productivity can therefore be defined as the ratio of effectiveness to efficiency, where effectiveness focuses on the ‘output or accomplishment aspect of the agency and efficiency relates to the degree of economy in the use of resources to achieve a given objective.

Defining Productivity

- Productivity = $\frac{\text{Effectiveness}}{\text{Efficiency}}$

- Public Sector Productivity can therefore be defined as the efficiency with which resources are used in the effective delivery of high quality public services.



Defining Productivity

- Productivity is one of a set of measures of an agency's performance. Performance is a multivariate concept incorporating:
  - Productivity (as defined above)
  - Economy (the purchase and provision of services at the lowest possible cost consistent with a specified quality and quantity)
  - Efficiency (the rate at which inputs are converted into outputs)

Defining Productivity

- Effectiveness (the extent to which a goal is met, that is, ratio of realised to expected/planned output)
- Quality of work life
- Customer satisfaction
- Profitability (where goods/services are sold in the market)

The above represents a conceptual definition of productivity which must be operationalised in practice by choosing appropriate output and input measures for the agency.

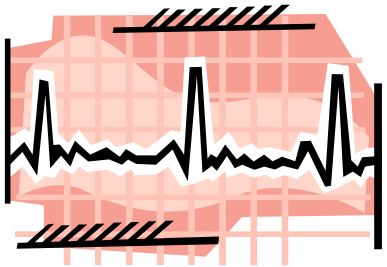
The Importance of Productivity Growth in the Public Sector

Recent concern with productivity improvement in the public sector is due to:

- Important role of government in the mobilisation and use of national resources
  - Government employees account for 21% of real output (2009)

The Importance of Productivity Growth in the Public Sector

- Government services account for 13% of real output (2009)
- Current Government expenditure accounts for over 24% of GDP at factor cost (1999)
- Current revenue accounts for 35% of GDP at factor cost (2009)

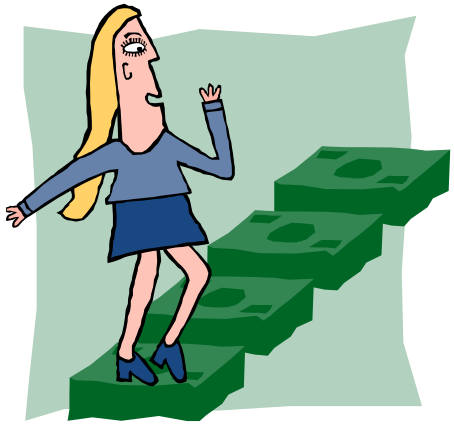


The Importance of Productivity Growth in the Public Sector

- The need for better regulated social and economic development (social welfare costs of government regulation)
- The rising cost of providing public services (transfers to Boards)
- The need to reduce wastage in the public sector

The Importance of Productivity Growth in the Public Sector

- The call for re-inventing or redesigning government (new processes, less bureaucracy, public sector reform, etc.)
- The need to link pay to performance
- The change from public administration to public management



Period 2009

Government Employees account for 20.9% (Approx. 21.0%) of Total Employment

Government Employees	23,000
Total Employment	115,000

Period 2009

Government Services account for 8.3% of GDP at constant Factor Cost

Current Expenditure accounts for 23.97% (Approx. 24%) of GDP at Current Factor Cost

Current Expenditure	$ 8,727.6m
GDP @ Current Factor Cost	$36,399.4m

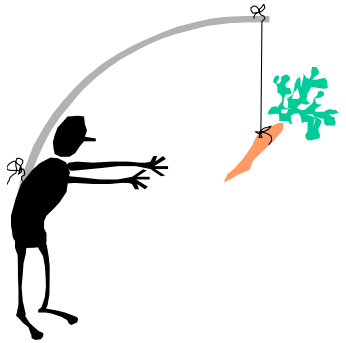
Current Revenue accounts for 25.41% (Approx. 25%) of GDP at Current Factor Cost

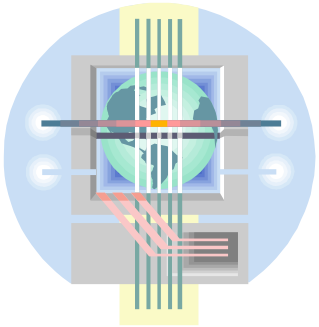
Current Revenue	$ 9,251.3m
GDP @ Current Factor Cost	$36,399.4m

New Public Management System

This involves:

- Productivity/Performance Measurement and Auditing
- Joint Labour-Management Cooperation
- Incentives tied to Performance
- Training for Productivity
- Greater use of Information Technology
- More flexible processes
- New means of financing productivity investments





Reasons for Measuring Productivity

- STRATEGIC

  Used to compare the global performance of one agency relative to another producing similar output (e.g. different polyclinics)

- TACTICAL

  Used for managerial control of sub-units within an agency (e.g. different units in the hospital); cost-effective use of resources in different sub-units

Reasons for Measuring Productivity

- PLANNING

  Used to determine the relative contribution of different resources (e.g. MTW uses administrative, technical, clerical and production staff), staff planning and training; greater budget control.

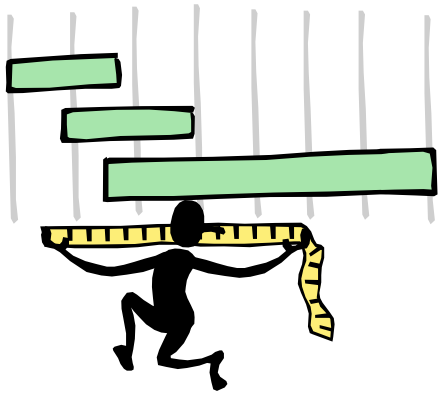
- MANAGERIAL

  Used in the negotiation process, linking pay to peformance (e.g. gainsharing scheme in government).

Strategic Productivity Management

This involves:

- A Productivity Audit
- A Productivity Measurement System
- A Productivity Improvement and Gainsharing Scheme



Measuring Productivity in the Public Sector

Governments produce various ‘outputs’ such as:

- Public service (health, transport, education, etc)
- Rules and regulations
- Vote-producing activities
- Political visibility
- Commercial goods and services

Measuring Productivity in the Public Sector

- Statutory bodies/corporations can be classified into:
  - Commercial and financially self-sufficient agencies (ICB, NPC, CBC)
  - Quasi-commercial agencies (NCF, NCC, NHC, BTA, SSA)
  - Social/regulatory (PUB, BNSI, Child Care, NAB, Sports Council)

Since Productivity is the Relationship between Outputs and Inputs, Productivity Measures Includes:

1. Partial or single factor measures
2. Total of multi-factor measures
3. A family of operational measures

There are Three (3) Basic Types of Measures for Public Agencies

A. Efficiency-Type Measures

These compare the resources a public agency uses with the final goods/services it produces.

E.g Tons of solid wasted collected per employee hour; revenue gallons of water sold per employee hour; letters delivered relative to the costs of delivery; ratio of trained unemployed workers to number of staff hours or labour costs required.

B. Effectiveness-Type Measures

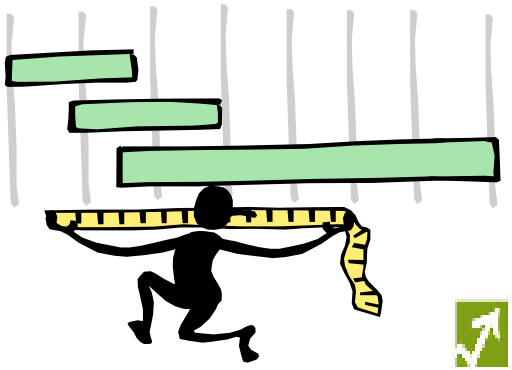
These show how well a public agency is meeting certain prescribed goals. These measures may include **equity** or **distributional** concerns. These are also called **outcome, impact** and **economic efficiency measures.**

E.g Jobs created per employee hour; the number of error-free tax returns completed; the number of project reports completed per employee hour

C. Effectiveness-Type Measures

These are concerned with the internal workings or efficiency of the agency, that is, with the work activity itself, rather than its results.

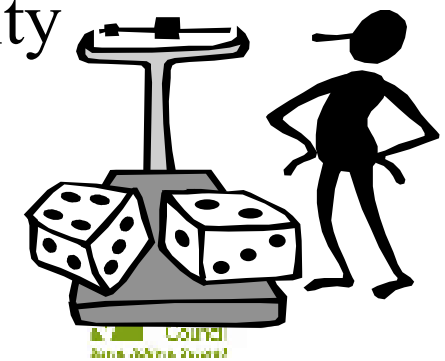
E.g Number of passports received per day; number of audits completed; number of samples tested; the extent of equipment down-time.



Effectiveness measures focus on the **consumers** of the agencies' output, while **efficiency** and **operational** measures are concerned with **production** relationships.

The complexity of productivity measurement in the service-oriented public sector reflects several **account ability** requirements – efficiency, effectiveness, quality and equity.

These different demands give rise to a **Family-of-Measures (FOM) Approach** to productivity measurement in the public sector



A Multi-Criteria FOM Approach to Productivity/Performance Measurement Involves the Following Steps:

Step 1: Identify an appropriate set of performance measures for the agency or department (4-6 measures) using the nominal group technique

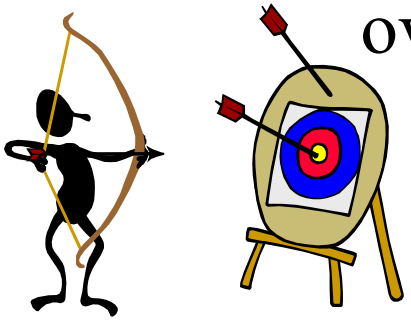
Step 2: Develop a weighting scheme for these measures (reflecting these relative importance to the agency or department)

Step 3: Specify a base value for each member and a scoring system (linearly or non-linearly)

Step 4: Develop targets/goals for some future time period (after consultation/nominal group technique)

Step 5: Calculate the value of the performance measure at the end of the period and locate the appropriate index or score

Step 6: Multiply the weight for each measure by the realised score/index and sum to obtain an overall value



Performance Measures

MEASURES	MEASURE 1	MEASURE 2	MEASURE 3	MEASURE 4	MEASURE 5	MEASURE 6	MEASURE 7	PERFORMANCE SCORE/INDEX	LINE
Range of Values for Performance Measures	10%	100%	90%	6.0	19	100%	15.0%	5	1
	11%	101%	89%	8.0	20	95% - 99%	14.25%	4	2
	12%	102%	88%	8.5	21	90% - 94%	14.0%	3	3
	13%	103%	87%	9.0	22	88% - 89%	13.5%	2	4
	14%	104%	86%	9.5	23	86% - 87%	13.25%	1	5
	15%	105%	85%	10	24	85%	13%	0	6
Weights	25	25	15	15	10	10	25		7
Maximum Score	125	125	75	75	50	50	125		8
Actual Group Performance	11%	100%	89%	8.5	20	97%	14.0%		9
Group Performance Score	4	5	4	3	4	4	3	-	10

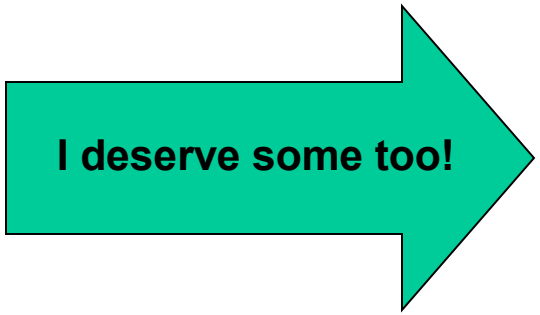
The Productivity Council

Some Constraints on Productivity Improvement

Factors which can inhibit productivity improvement in the public sector include:

1. An unsatisfactory compensation package compared with that of others in the same profession and with the same level of responsibility in the private sector

2. A biased promotion and salary incremental



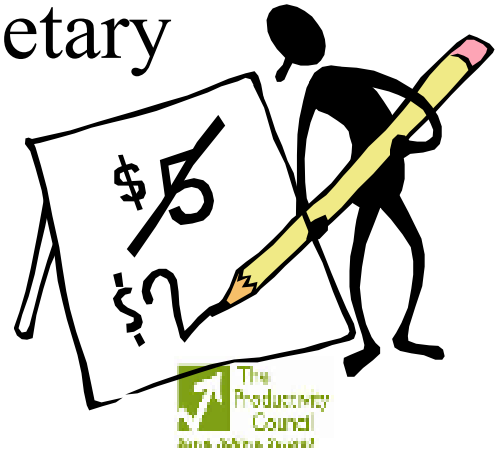
3. Lack of recognition, where employees do not have the opportunity to participate

4. Ineffective human resource development programmes

5. Unsuitable workplaces (physical environment and layout)

6. Rigid and inflexible procedure-oriented processes

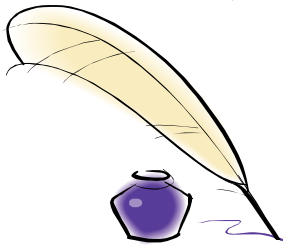
7. Little freedom to be innovative, little control of resources by agency managers (too centralised system)
8. High level of bureaucracy with too many rules and regulations, lack of delegation
9. Arbitrary personnel ceilings making it difficult to meet of maintain adequate service standards (due to budgetary constraints)

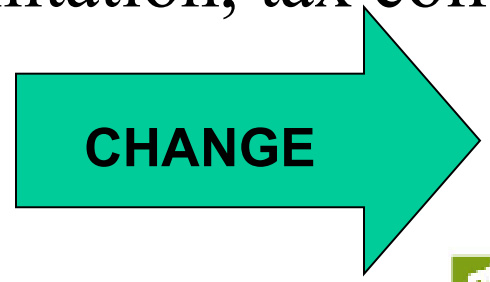


10. Lack of automation or use of modern information technology

11. Political environment – change in government can bring changes in personnel, polices and programmes; issues of job security and transfers; perceived power or minister, etc.

12. No penalty for failing to exploit new opportunities (due to monopoly position in some areas (fire department, sanitation, tax collection, etc.)

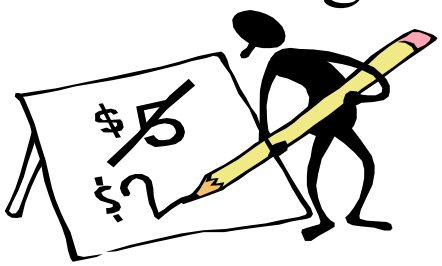


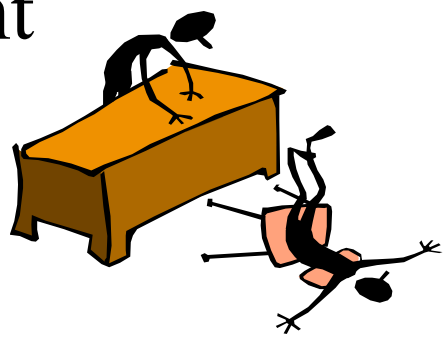


13. Attitude that productivity in the public service cannot be measured, hence improvement scheme cannot be monitored

14. Selection of inappropriate managers and directors. Lack of managerial incentives

15. Little strategic planning by boards and management





Alternative Productivity Improvement Schemes

There are several ways in which productivity can be improved in the public sector

1. Elimination of ineffective laws, regulations and standards (re-engineering or re-inventing government processes)

2. More precise identification of needs and users and better design of services to meet these needs

3. Improved organisation, scheduling and assignment of staff

4. Greater employee involvement in decision-making and job enrichment and feedback, participative management

5. Greater use of modern information technology (computers, fax machines, etc)

6. Emphasis on human resources development-staff training, merit-based promotion, re-design of jobs and work organisation, pay-for-performance schemes, etc

7. Use of performance and programme budgeting schemes

8. Better use of modern management techniques – operations research, system analysis, total quality management

9. Greater decentralisation of decision-making, greater supervisory management skills development

10. Better purchasing, contracting and inventory control methods, better maintenance programmes

11. Continuous improvement of ‘business’ processes, focus on the customer, maintaining a high quality service

Outputs of a Manufacturing Concern Producing a Range of Garments

Productivity Measurement

OUTPUTS	PRICE PER UNIT $a	2000 Projected Outputs (or work counts) b	2000 Expected Productivity Value a x b	2000 Actual Outputs (or work counts) c	2000 Achieved Productivity Value a x c
T-Shirts	3.20	2,000	6,400	5,000	16,000
Long Pants	2.10	1,500	3,150	2,000	4,200
Short Pants	2.00	3,000	6,000	2,000	4,000
Dress Shirts	5.00	4,000	20,000	5,000	25,000
Panties	1.00	6,000	6,000	5,000	5,000
Cumulative Productivity Value	-	-	41,550		54,200
Inputs (value)			2,000		2,300
Productivity Ratio			20.77		23.56

Outputs for the Barbados Fire Service

	Outputs/Key Performance Indicators	ASTs (man hours) a	2000 Projected Outputs (for work counts) b	2000 Expected Productivity Value a x b	2000 Actual Outputs (or work counts) c	2000 Achieved Productivity Value a x c
5	Hydrant inspections completed	8	10	80	20	160
6	Stations manned: (a) Probyn Street	4,000				
	(b) Airport	800		6,600		6,600
	(c) St James	400				
	(d) Worthing	800				
	(e) Four Roads	600				
	Cumulative Productivity Value			7,150		7 288
	Total Hours Worked			7,000		7 000

Money is not all : See Below

AD:

Men wanted for Hazardous Journey

Low wages; Bitter cold; Long hours of

Complete darkness; safe return doubtful.

By R Shakleton

"Recognition and Success will be honoured."

THE NEXT MORNING 5000 PERSONS TURNED UP IN RESPONSE TO THE AD.

The Power of Performance Management

- What gets measured gets done
- If you don't measure results, you can't tell Success from Failure
- If you can's see Success, you can't reward it
- If you can't reward Success, you're probably rewarding Failure
- If you can't see Success, you can't learn from it
- If you can't recognise failure, you can't correct it
- If you can demonstrate results, you can win Public Support