Financial Proposals and Presentations:
The Why and How

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Credit: 5 PDH

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Table of Contents

COURSE OVERVIEW

This course provides the "big picture" to anyone with the responsibility of developing and presenting an internal financial proposal and/or presentation for new equipment, staffing, reorganization, or additional resources.

First, we introduce the essential elements that are critical to a successful proposal. Without all of these, you are just wasting time and risk damaging your credibility.

Next is the selection of the type of proposal you want to make and making sure you include all of the relevant factors.

Then we must have a clear picture of where we are now so we can persuade the eventual proposal audience that we must move to somewhere else.   We present this clear picture using statistics drawn from historical data to describe trends and make realistic forecasts of the future requirements.

Finally, preparation of the proposal means careful selection of words to use and a carefully crafted strategy of presenting them in the best sequence for maximum effectiveness **because we only have one chance to make a good 'first impression.'**

LEARNING OBJECTIVES

You will increase your value to your employer if you understand and can apply the concepts that you will learn in this course. Specifically, you will learn to:

1. Identify the five critical factors to understand before considering your proposal

2. Identify the three essentials of a successful financial proposal

3. Identify the two major categories of financial proposals and when to use them

4. Use historical data to determine where they are now

5. Identify trends for forecasting production (*production* can be <u>making things</u> such as consumer products or design drawings or <u>providing services</u> such as surveying or responding to RFPs.)

6. Calculate break-even points for determining equipment and staffing needs

7. Analyze workflows for improvement in efficiency, effectiveness, or productivity.

8. Determining optimum staffing levels

9. Use various data forecasting methods and know when to use them

10. Explain and apply the concepts of "capacity" and "forecasting"

11. Identify factors that affect current productivity.

12. Analyze existing workflows

13. Explain the various methods o presenting historical data and select the most appropriate one for the proposal

14. Select words and phrases carefully to enhance the impact of the proposal

15. Apply a proposal presentation structure model for the maximum chance of success

UNDERSTAND THIS FIRST
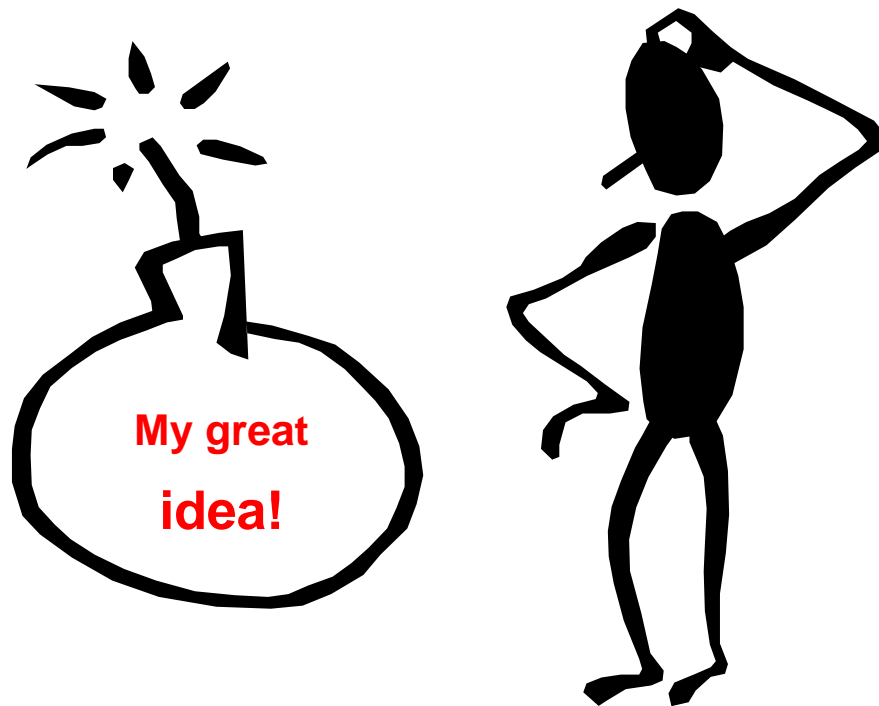
Some good ways to make sure your proposal (and credibility) ***BOMBS*** is to:

1.) Assume the obligation for a "yes" is on the approver and not you!

It is up to you to convince them: not up to them to believe you.

2.) Think that if you get a "NO", you no longer own the problem that prompted your proposal.

The problem that led to your proposal for a change IS STILL THERE: you still have to deal with it. Do not assume that their 'No" means, 'Well, I tried so now I'm out of it."

3.) Just drop it off on your boss' desk assuming he or she will figure out what you want and instantly act on it.

4.) Come up with a great idea, tell your boss about it (but never document it as a proposal), expect him/her to make it happen, and then complain about lack of management support when nothing happens.

5.) Fail to show some "passion" about NEEDING (not "wanting") it.

If it does not excite you, the 'parent' of this idea, why should it excite anyone else?

THE THREE ESSENTIALS OF A SUCCESSFUL FINANCIAL PROPOSAL

A successful financial proposal must contain at least three essential elements:

1. You must identify benefits as seen through the eyes of the audience. Ask yourself, "What's in it for them to approve this?"

2. You must have accurate and comprehensive numbers including trends and realistic projections

3. You must demonstrate passion for the business needs that is contagious with the audience of approvers.

Identifying benefits as <u>seen through the eyes of the audience</u>

Accurate and comprehensive numbers

Strong passion by the presenter, which demonstrates <u>a BUSINESS NEED</u> for the change

The **RED AREA** has the greatest probability for success.
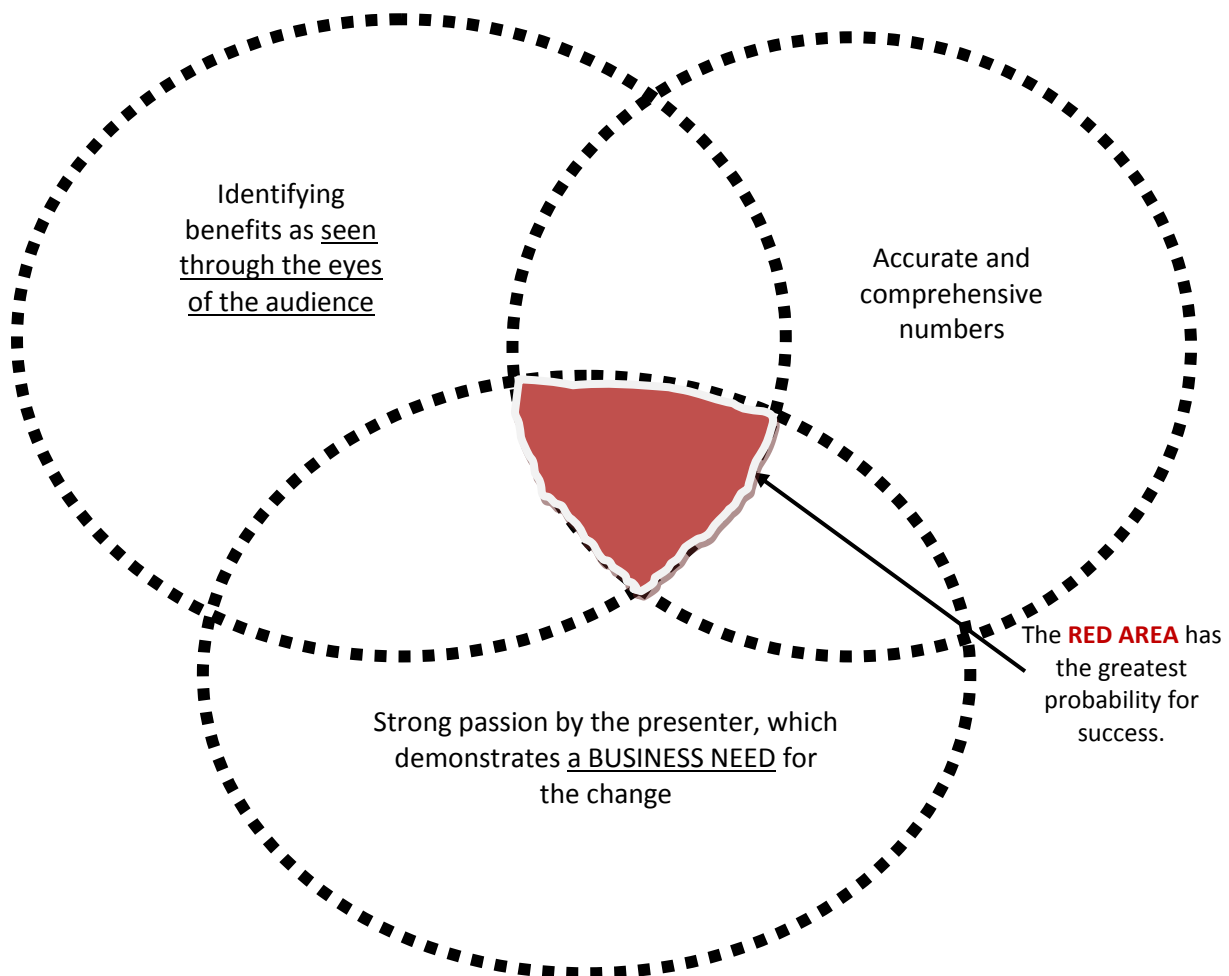
TYPES OF PROPOSALS AND PRESENTATIONS

In this course, we cover two broad categories of financial proposals: those dealing with regulatory issues and those driven by business decisions.

1.) Regulatory – required changes by government

Not looking for benefits

a) Still must identify most cost-effective way to implement (Remember that even if there are penalties for not doing it, you are still accountable and will have to spend some money.)

b) May have time sensitive issues involved

c) How are other organizations like us dealing with this?

d) Are there any penalties for not doing it?

2.) Non-Regulatory (Business Decision) – changes not required but desired for business benefits.

a) **Is looking for benefits**

   i) Quantifiable

   (1) "Hard"

   (a) Specific dollars listed

   (b) Saying "Will result in this…"

   (2) "Soft"

   (a) Estimated dollars

   (b) Saying "Should result in this…"

   ii) Expressed as savings or efficiencies in;

   (1) Time

   (2) Production time required to achieve desired result

   (3) Wage time (salaries or hourly + 28% benefits)

   (4) Postage

   (5) Consumables (paper, pens, pencils, preprinted   forms, etc.)

   (6) Travel

   (7) Legal

   (8) Training

   (a) Cost of instructor (fees + expenses)

    (b) Cost of materials

    (c) Cost of lost production while trainees are in class

   (9) Not easily quantifiable but important

    (a) Prestige

    (b) Good will

    (c) Morale

 b) Types of Business Decisions

  i) Issues to consider

   (1) Equipment related

    (a) Old vs. Proposed New

    (b) Operating savings (Spend less money while obtaining current production results)

    (c) Efficiency (More production while spending current amount of money)

    (d) Save money AND get higher production

    (e) Reconfiguration issues commonly overlooked

    (f) "Footprint" of new bigger than of old

   (2) Rearrange other equipment to accommodate the new

   (3) Reconfigure wiring (data & power) to support new

   (4) Reconfigure the work area to accommodate the new

   (5) Change existing workflow to accommodate new

 c) Hardware issues commonly overlooked

  i) Purchase

   (1) Discounts for volume

   (2) Discounts for timing (end of year, etc.)

   (3) Maintenance agreements

   (4) Multiple sites discount

   (5) 24/7 vs. on call differential

  ii) Training of operators

   (1) Cost of instructor (fees + expenses)

   (2) Cost of materials

   (3) Cost of lost production while employees in training

  iii) Installation

   (1) Time required

   (2) Other machines shut down with production lost
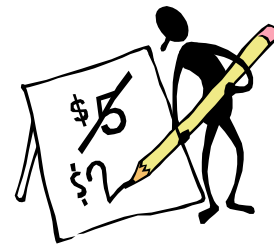
                (3) Affect on existing workflow during installation, testing, and training

  d) Process Related

          (1) Old vs. Proposed New

          (2) Operating savings (Spend less money while obtaining current production results)

          (3) Efficiency (More production while spending the current amount of money)

          (4) Save money AND get higher production.

          (5) Reconfiguration workflow issues

          (6) Rearrange other processes to accommodate the new

          (7) Retraining requirements

          (8) New support costs anywhere along the flow.

          (9) Affect on existing workflow during installation, testing, and training

  e) Details frequently overlooked

      i)   Salary (exempt) vs. hourly reduction

      ii)   Does salary (exempt) actually "go away" or is it just transferred to another cost center? (Note: Hourly actually goes away.)

      iii) Don't overlook incentive or overtime costs that may go away

      iv) The cost of benefits is 28-35% added to the cost of wages.

3.) Defining the SCOPE of the finished product

  a) Focus on 90 days after completion of the project to account for:

      i)   Training issues

      ii)   Reconfiguring work space, work flow, or wiring

A Clear Understanding of Where We Are Now

Before you start on a path to a new future, take a moment to think about Alice in Wonderland.

> *One day Alice came to a fork in the road and saw a Cheshire cat in a tree. "Which road do I take?" she asked.*
>
> *"Where do you want to go?" was his response.*
>
> *"I don't know", Alice answered.*
>
> *"Then", said the cat, "it doesn't matter. ==When you don't know where you are going, any road will take you there."== (Lewis Carroll, Through the Looking Glass or the Adventures of Alice in Wonderland)*

Start planning your proposal with 90 days after the desired outcome (you will learn later why) and then work sequentially backwards to where you are now. It is very easy to inspect the physical plant (the buildings) and equipment to determine their amount and condition.

However, it is more difficult to analyze *trends* that will help leaders get a better understanding of their department's current capacity so they can do intelligent *forecasting* for the next budgetary needs.

We will learn how to analyze existing data to:

- ▶ Identify trends for forecasting production (*production* can be making things such as consumer products or design drawings or providing services such as surveying or responding to RFPs.)

- ▶ Calculating break-even points for expenses

- ▶ Analyze workflows for improvement in efficiency, effectiveness, or productivity.

- ▶ Determining optimum staffing levels

DETERMINING CURRENT PRODUCTION CAPACITY

Our ability to define current production capacity of goods or services results from a combination of several factors including (at least):

► The quality of our new hire training programs that get new hires <u>minimally</u> productive in the <u>least amount of time</u>.

Why do we say *minimally*? Should we not want them to become as productive as possible before we put them on the production floor?

New employees in training are not as productive as they will be after they have "learned the ropes" of what your organization expects from them, what they can expect from it, the way you do things, the "network" of who to ask for help, and where to find everything needed.

Typically, this training also requires someone to conduct it. If the "trainer" is helping the new person get oriented to the organization, the trainer's normal – PRODUCTIVE - job is not getting done.

Therefore, the best approach is a specific training plan that focuses on the *least they need to know to become minimally productive as quickly as* possible. The least-they-need-to-know approach must include safety, equipment operation, and documentation (if any) issues before they are turned loose to be productive.

We do not want to take such a short cut in training that they could hurt themselves or others because we did not give them time to comprehend something. The best way to make sure they understand is to require them to demonstrate the understanding through performance or explanation.

This gets the trainer back to work quickly and the trainee gets to demonstrate what they can do as quickly as possible. Remember, they are on the payroll to be PRODUCTIVE, not to be trained.

Does your organization have an effective new-hire training program that gets new hires as productive as quickly as possible?)

If not, it is worth considering because it is difficult to terminate the employment of a savvy employee if they fail to perform some activity that you cannot prove you taught them to do.

Our company, Outsource Training.biz can help you develop one.

► The efficiency of our workflows

Are we sure, we are getting the most out of our current production method before we think about asking for money to get new equipment or facilities?

► The leadership skills of those responsible for the production

The best equipment available will not be fully effective if poor leadership skills have demoralized the workforce. We cover this potential in another of our courses. Please check our catalog for the title.

► Our interpretation of historical production data that helps us understand how we got to today's capacity and what we will need for the future

What degree of confidence do we have in our historical data? Were we measuring the same items in the same ways then as we are now? If not, we risk comparing "apples and oranges" resulting in unreliable data.

► The amount and condition of our production equipment

► The space available and condition of our physical plant (the buildings)

There are many ways to determine current production capacity from creating a major project for extensive, in-depth analysis (called *Industrial Engineering*) to practical, common-sense methods of asking, "Is there a way we can be more efficient with this without it becoming a big project?"

This course will look at a few useful and easy methods of analyzing the current situation and reviewing available data before we make our budgetary recommendations for next year. Remember, if you ask your leader for a new addition to your work flow that would increase productivity (equipment, floor space, a new hire), there is a good chance he or she may ask you, *"Before we get the new ___, how do you know you are getting the most out of the existing situation now?"*

This course will give you a few tips on effective ways to do your homework well enough beforehand to support your recommendations.

EFFICIENCY OF OUR WORKFLOWS: CONDUCTING AN ANALYSIS

A simple workflow analysis can be conducted using the example here. It is really nothing more than watching, listing, timing, and documenting the components of a workflow. The more times you observe and document the components in the process will give you a credible average that will strengthen your case.

Try to observe without being too obvious, though. People will sometimes work artificially harder if they think someone is watching them or giving them special attention.

HAWTHORNE EFFECT

This is a term referring to the tendency of some people to work harder and perform better when they are participants in an experiment. Individuals may change their behavior due to the attention they are receiving from researchers rather than because of any manipulation of independent variables.

This effect was first discovered and named by researchers at Harvard University who were studying the relationship between productivity and work environment. Researchers conducted these experiments at the Hawthorne Works plant of Western Electric.

The study was originally commissioned to determine if increasing or decreasing the amount of light workers received increased or decreased worker productivity. The researchers found that productivity increased due to attention from the research team and not because of changes to the experimental variable.

Department: __Accounts Payable___ Date Observed: __June 23-24_____

Job Observed: ___Reimbursing expense reports_____ Observer: _____Logan Grant_____

OBSERVATION CODES

W = Working (doing what they are paid to do)   M = Moving from work station
I = Idle (any time waiting or not working)   F = Filing (Or storing something)

What comments can be made about improving the workflow based on this example?

Step #	Describe the Step	Code	Distance in feet	Time in min sec	Comments
1.	Goes to incoming mail area to get expense reports and returns to work station (desk)	M	70' r/t	0:45	
2.	Opens envelope, organizes receipts.	W	-	1:15	
3.	Notices some expense code fields are empty, looks up proper codes.	W	-	2:10	
4.	Completes authorization to reimburse form on PC. Sends to shared printer.	W	-	0:15	
5.	Goes to shared printer to get form.	W	25	0:10	
6.	Waits while admin assistant finishes printing new parking policy. (Admin assistance goes to get more paper.)	I	- 60' r/t for admin	2:15	
7.	Takes printed form to boss for review and approval.	M	45'	0:20	
8.	Boss on the phone – clerk waits.	I	-	3:15	
9.	Goes to copier to make 2 copies of approved form.	W	35'	0:25	
10.	Copier toner low. Must find new cartridge and refill.	W/I	-	3:50	
11.	Makes copies and back to desk.	W	35'	0:20	
12.	Cuts reimbursement check and places it into I/O envelope.	W	-	2:00	
13.	Starts at step 1 again.				

Summary: Time for 1 complete work cycle: = **17:00**

COMMENTS ABOUT THE WORKFLOW

Step #	Describe the Step	Code	Distance in feet	Time in min sec	Comments
1.	Goes to incoming mail area to get expense reports and returns to work station (desk)	M	70' r/t	0:45	Bring mail to them?
2.	Opens envelope, organizes receipts.	W	-	1:15	
3.	Notices some expense code fields are empty, looks up proper codes.	W	-	2:10	Print most common codes on the form? On-line reference?
4.	Completes authorization to reimburse form on PC. Sends to the shared printer.	W	-	0:15	
5.	Goes to the shared printer to get form.	W	25	0:10	
6.	Waits while admin assistant finishes printing new parking policy. (Admin assistance goes to get more paper.)	I	- 60' r/t for admin	2:15	Store paper at printer? Dedicated printer for accounts payable?
7.	Takes printed form to boss for review and approval.	M	45'	0:20	Authorize clerks to OK up to a threshold?
8.	Boss on the phone – clerk waits.	I	-	3:15	
9.	Goes to copier to make 2 copies of approved form.	W	35'	0:25	
10.	Copier toner low. Must find new cartridge and refill.	W/I	-	3:50	Check all copiers at end of day for toner and paper to be ready for next day?
11.	Makes copies and back to desk.	W	35'	0:20	
12.	Cuts reimbursement check and places it into I/O envelope.	W	-	2:00	
13.	Starts at step 1 again.				

If step #6 causes too much waiting time, your budget request for next year may include a request for a new printer. (You must be able to show that the cost of the time saved in wages and materials, if any, would be more than the cost of the new printer.)

What suggestions do you have for improvement of the workflow?

Why would we include a workflow analysis in a course about understanding budgeting?

We must be sure we are getting the most out of existing conditions before we make a budget request for more. Our credibility is at stake and, once damaged, it is very difficult to regain.

If you implemented these changes to the workflow and the cycle time was now 14 minutes, how much time have you saved?   (3 minutes)

What % of time savings is this? _____% (It was 17 minutes, is now 14 minutes. It is 3/17 less or 17.6% more efficient.)

If your organization predicted a 3% increase in wages expense next year, what could this percentage of timesavings mean in relation to that expected wage increase?

THE BREAK EVEN ANALYSIS

A "break even" analysis is probably nothing new to you.

If you ever got tired of getting your car taken to a shop and decided to buy a new one, you made a "break even" analysis although it may not have been totally based on economics. (You may have included a non-financially based "aggravation factor" or "lust" factor for a particular new car and were just looking for any reason to justify it.)
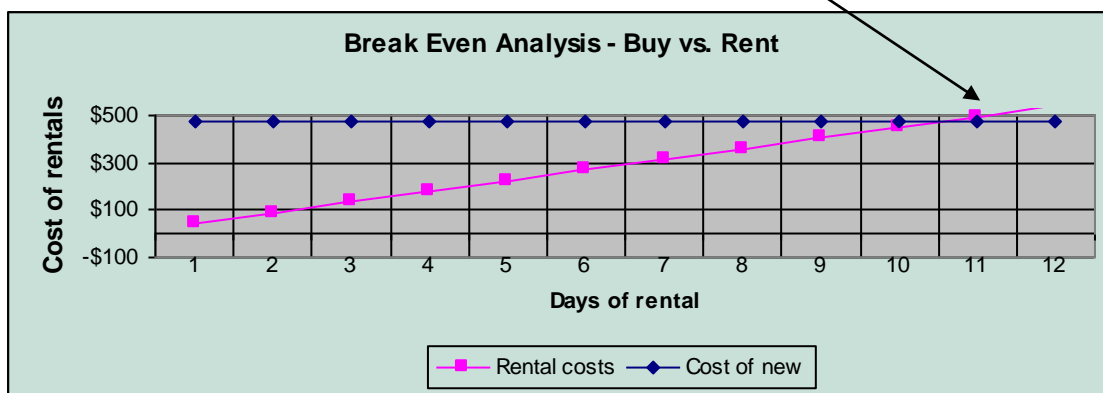
Or you may have thought, "instead of renting this _____ (insert anything "rentable" here), I'll probably save money if I just buy one!" There is a mathematical way to determine when it is smarter to pick one alternative over another. That is what we will learn next.

Your department is going to start making a product that requires monthly steam cleaning of the production floor. You can either rent a steam cleaner for $45/day or buy a new one for $475. You estimate you will not need it more than a day at a time when you rent it. However, you realize at some point it will be smarter to buy the machine than keep renting it.

QUESTION: When does it become smarter to buy instead of rent?

Break Even Analysis - Buy vs. Rent

Cost of rentals vs. Days of rental

Legend: Rental costs (pink squares), Cost of new (blue diamonds)

BREAK EVEN EXERCISE

Let's assume that you are the manager of the production department and have been given the required production schedule below.

Fundamental information that you know is:

- You have permanent employees who can produce 150 items per hour.

- Part-time employees are also available but they typically produce 70% of what you can get from the permanents.

- Permanents cost $165 day and you must pay them for full-day periods only.

- Part-timers cost $16 per hour. They must work in whole-hour increments.

Fill in the rest of the data table

Required Production Units	FT hourly production = 150 units		PT production @ 70% = 105 units		
	FT/Hrs Needed	Cost to produce this amount	70% PT/Hrs	PT Full Hours	Cost to produce this amount
400					
600					
800					
1000					
1200					
1400					
1600					
1800					
2000					
2200					
2400					

Why would it be useful to do a staffing break-even analysis as you prepare your budget requests for next year?

It would help you know when to bring in temps, plan for overtime, or hire full-time employees.

**This is what our table looks like with data included.**

Required Production Units	FT hourly production = 150 units		PT production @ 70% = 105 units		
	FT/Hrs Needed	Cost to produce this amount	70% PT/Hrs	PT Full Hours	Cost to produce this amount
					$16.00
400	2.7	$165	3.8	4	$64.00
600	4.0	$165	5.7	6	$96.00
800	5.3	$165	7.6	8	$128.00
1000	6.7	$165	9.5	10	$160.00
1200	8.0	$165	11.4	12	$192.00
1400	9.3	$330	13.3	14	$224.00
1600	10.7	$330	15.2	16	$256.00
1800	12.0	$330	17.1	18	$288.00
2000	13.3	$330	19.0	19	$304.00
2200	14.7	$330	21.0	21	$336.00
2400	16.0	$330	22.9	23	$368.00

This table to the right summarizes the full-time and part-time analysis. The graph below comes from this table.

You can see that part-time is less expensive up to production level #4. ($165 vs. $160) Then PT is more expensive until production level 6.

It remains less expensive until production level 10 ($330 vs. $336)

Production	Level	FT	PT
Levels	Number	Wages	Wages
400	1	$165	$64.00
600	2	$165	$96.00
800	3	$165	$128.00
1000	4	$165	$160.00
1200	5	$165	$192.00
1400	6	$330	$224.00
1600	7	$330	$256.00
1800	8	$330	$288.00
2000	9	$330	$304.00
2200	10	$330	$336.00
2400	11	$330	$368.00
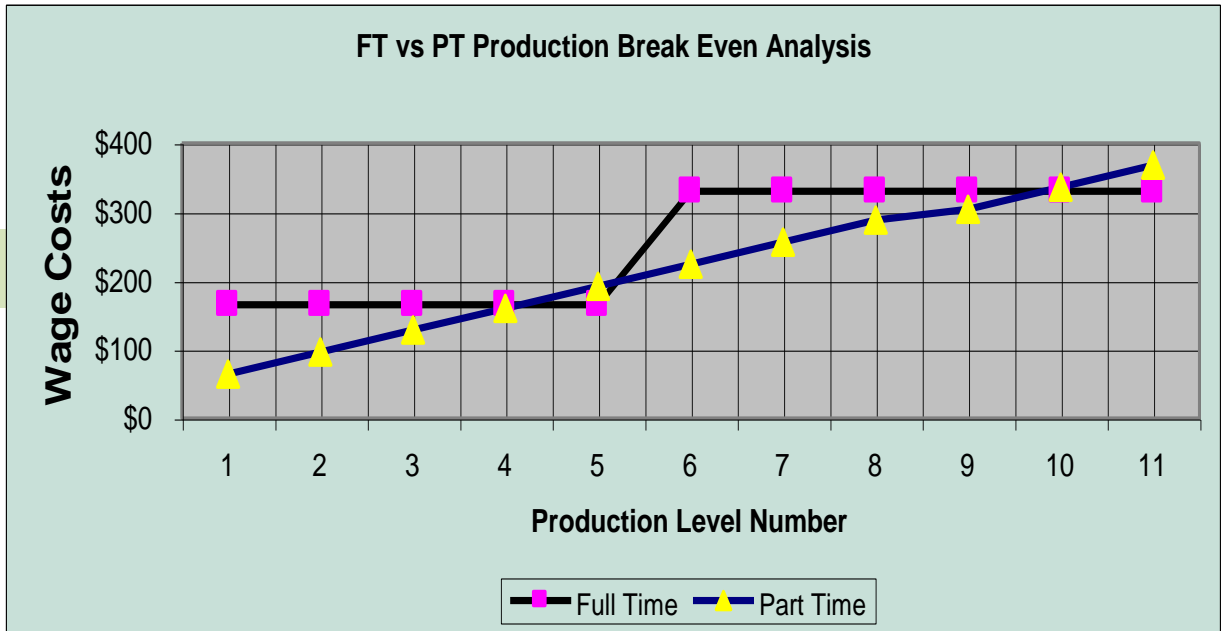
MEASURABLE FORECASTING METHODS
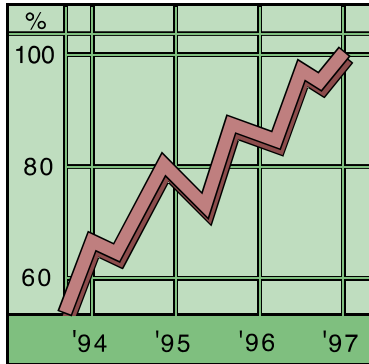
We will look at some simple but powerful methods of making future estimates based on past data analysis: we call this *data forecasting.*

Effective measurable forecasts are based on the wise selection of the best methods of analyzing past data while non-measurable predictions are usually "best guess" thoughts based on experience and educated opinion.

We will look at four prediction methods and you will quickly understand when to use each.

1. The Simple Average

2. The Simple Moving Average

3. The Weighted Moving Average

4. The Change Measurement Average

SIMPLE AVERAGE ("SA")

This is what we used in grade school to determine how we performed over the past grading period. Although the report card was in our future, it only told us about our past.

For example, if we received these scores on our weekly tests, 72, 84, 85, 88, 91, and 94 over the past six weeks, we would add them up (514), divide by 6 (the number of scores), and expect an average grade of 86 (85.66) on our report card.

Look at our scores. Do you see a trend over the past six weeks? What is it?

Grades over 6 weeks - simple average
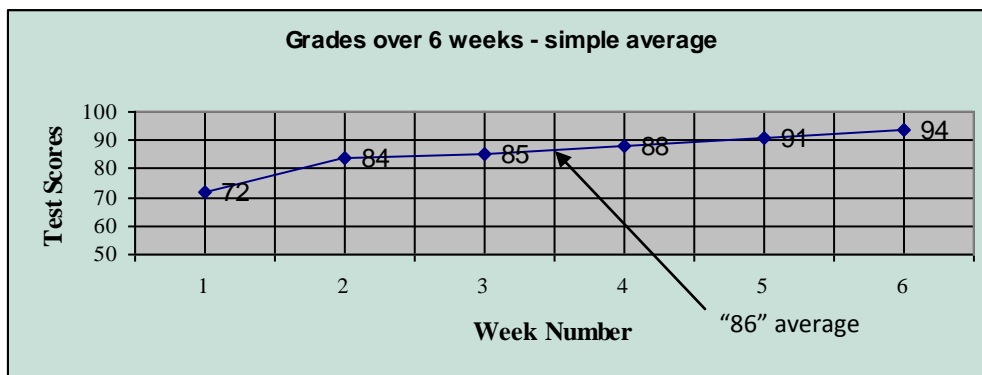
"86" average

Look at the trend you see emerging from the past 6 weeks.

Let us assume this trend continues into the 7th week. What score do you expect to see on the seventh weekly test? How does it compare to the simple average?   Do you think the simple average will be a good predictor of what to expect next week? Why?

Predicting the 7th weekly grade
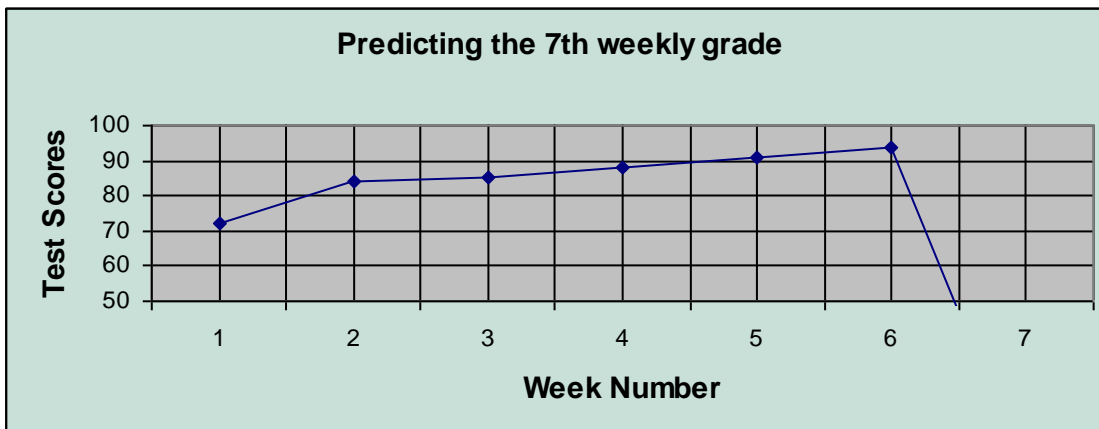
SIMPLE MOVING AVERAGE ("SMA")

Each week that goes by means that our test scores have gotten better.

Instead of averaging the entire period to include the "ancient history" of six weeks ago, maybe we should consider the more recent scores because they seem to have more in common with where we are today instead of how we were six weeks ago.
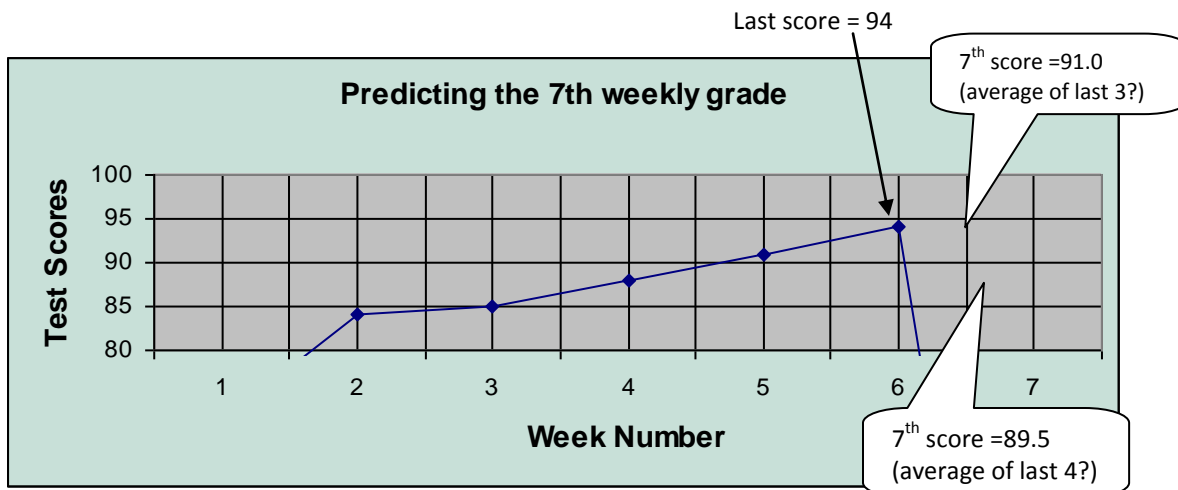
WEEKLY

TEST

If we just count the last 2 scores, we may not have enough for a fair sampling of test scores. Averaging three will be better. If we average the last four, are we going too far back? There is no way to be certain whether three or four are better. We will try them both.

Our last four scores from the most recent have been 94, 91, 88, and 85.

- The average of the last 3 is **91.0**.

- The average of the last 4 is **89.5**.

Since our last score was 94 and the trend shows that we are improving steadily, has the moving average score helped our prediction for next week's score? Why?

Last score = 94

7th score =91.0
(average of last 3?)

Predicting the 7th weekly grade

7th score =89.5
(average of last 4?)

WEIGHTED MOVING AVERAGE ("WMA")

We will leave the prediction about the 7th test grade alone for a few minutes and recall another aspect of grade school, the dreaded "SEMESTER PROJECT".

The teacher would always say something like, *"The semester project is very important and your score on will be weighted 4 times as much (or some amount that she decided) in relation to your test grades".*

This means that if you received a 93 on the semester project, she would count it as four 93's when she figured your semester grade.

Suppose your test grades were the six we used back on the "simple average" topic on page 23 and we had an average of 86. Now she adds 93, 93, 93, and 93 to that *(the actual score of 93 you received repeated four times to give it a weight of 4 times)* which brings your semester score total to 886. (72, 84, 85, 88, 91 and 94+93+93+93+93 = 886)

Now when you divide the semester total score of 886 by 10 scores (the six test scores plus the project score repeated four times), your semester average will be **88.6**.

Compare this to your semester average of six tests alone that was **85.6**

You can see how the WEIGHTED score pulled the average higher from 85.6 to 88.6

We will use this same "weighted" concept that pulled our semester average higher in predicting what our next test score will be.

Soon, we will apply this same model to collecting data for budget preparation.

Predicting the 7th weekly grade
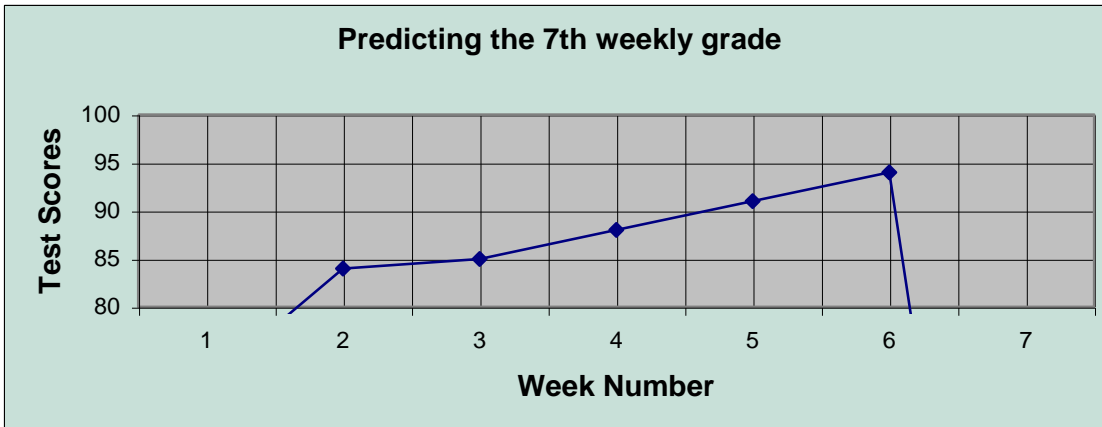
We see that our weekly test scores have been improving steadily. So, if we want to add a weighted number into our calculation for the future, we would be smart to use the latest number ("94"). We can add it into our calculation as many times as we want. <mark>There is no "best number" of times you should add a number for proper weighting.</mark>

Look at this model to see what we mean.

This is how the prediction for the next test score changed as we added different weights of 94's to the calculation.

The shaded scores are the first six tests.

Average	EXTRA 94's	1	2	3	4	5	6	7	8	9	10	11	12
85.67	0	72	84	85	88	91	94						
93.55	104	72	84	85	88	91	94	94	94	94	94	94	94
92.33	24	72	84	85	88	91	94	94	94	94	94	94	94
89.83	6	72	84	85	88	91	94	94	94	94	94	94	94

You can see that the more times we include another "94" to add weight to the calculation, the average increases slightly. <mark>You will have to decide through experience how many times you want to add a "weight" to your calculations.</mark>

Our weighted prediction for our next test score ranges from 85.67 – 93.55.

CHANGE MEASUREMENT AVERAGE (CMA)
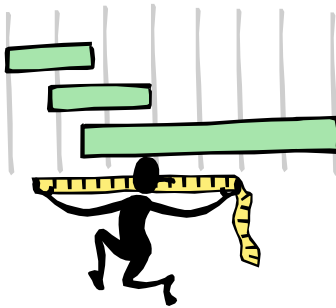
Another method we can consider for use in predicting what our next grade will be is *Change Measurement Average.*

This is used if we are confident that a trend that we have seen in the recent past will continue into the next month.

Let's look back at our grades to see how this works.

Test #	1	2	3	4	5	6
Score	72	84	85	88	91	94
Change from prior		12	1	3	3	3
Average change =	**4.4**					

We added the 5 change amounts and found their average to be 4.4.

We had 6 test scores but only divided by 5. Why?

(We divided by 5 because there were 5 changes between the 6 scores.)

If our grades have changed *an average of 4.4 points better* on each test, **we can add that average change to our last test score** and predict the next test score. We add 4.4 to the last score of 94 and get a prediction of 98.4. (We round that down to 98.)

Take a few minutes to consider the value of each forecasting method in your daily work. Consider when it is best used and when it is not useful.

Forecasting Method	Useful for this in my world..	Not useful for this in my world..
Simple Average		
Simple Moving Average		
Weighted Moving Average		
Change Measurement Average		

This is a review of the forecasting methods. Plot the data on the graph.

Exercise A.

Directions: Follow the directions for creating the graph, computing the forecasts, and answering the questions for the situation below.

> The Accounts Payable Department has been processing payment accounts for 12 months. You are the manager and must do forecasting to help make decisions about staffing and equipment purchase for the next budget cycle.
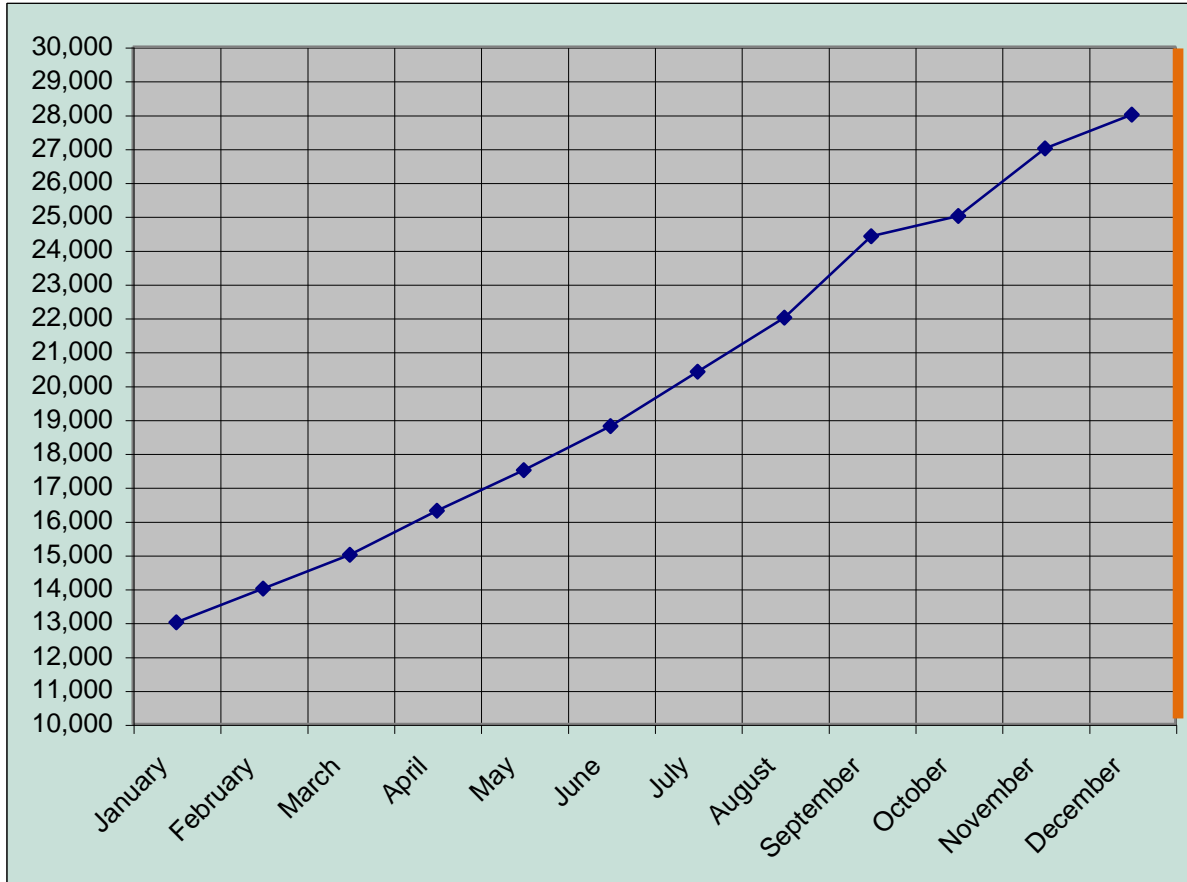
There is a grid on the next page. Use it for this exercise.

1   Enter the data from the table into the grid.

2   **Forecast the predicted volume for January of the New Year using:**

   a) **Simple Average** (SA) of the previous 12 months

   b) **Moving Average** (MA) (use the last three months)

   c) **Weighted Moving Average** (WMA) for the last three months (use 5x for the most recent month, 4 x for the next most recent and 2 x for the most distant of the last three months.)

   d) **Change Measurement Average** (CMA) using all 12 previous months

Accounts Processed Monthly	
January	13,000
February	14,000
March	15,000
April	16,300
May	17,500
June	18,800
July	20,400
August	22,000
September	24,400
October	25,000
November	27,000
December	28,000

Place your forecasts along the orange vertical line which represents January of the next year.

- Calculate and place your forecast based on the SIMPLE MOVING AVERAGE of the past twelve months

- Calculate and place your forecast based on the MOVING AVERAGE of the past three months

e) Calculate and place your forecast based on the WEIGHTED MOVING AVERAGE for the last three months (use 5x for the most recent month, 4 x for the next most recent and 2 x for the most distant of the last three months.)

f) Calculate and place your forecast based on the CHANGE MEASUREMENT AVERAGE using all twelve previous months

Put the A-D answers on the vertical line for January of the New Year.

Change Measure Average = average change of 1,364 + December amount of 28,000 = 29,364

Weighted Moving Average = 27,000

Moving Average = 26,667

Simple Average = 20,117
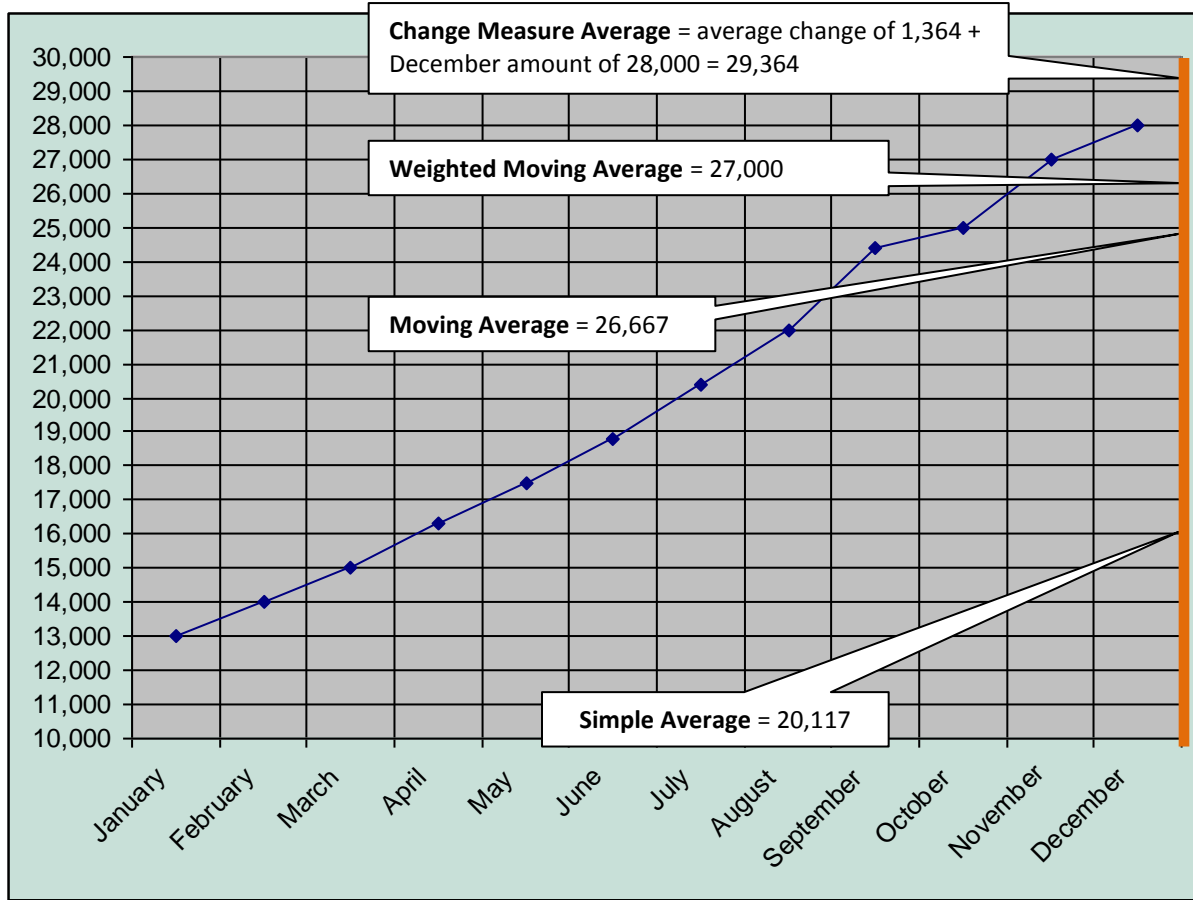
Look at the results plotted along the "January of New Year" vertical line. Do you see why the *"Change Measurement Average"* is the best predictor for January based on the steady growth we have seen during the past year?

Which of these measurements would do the most for your credibility of you were submitting data for next year's budget based on last year's data?

> The "Change Measurement Average" because that is closest to a line extended along the past year data line into January of the New Year.

Exercise B.

Using the data table below, what would you forecast for **February of the next year** using:

- **Simple Average** = _____

- **Moving Average** (most recent 3 periods) = _____

- **Weighted Moving Average** (using 4x, 3x, and 2x for the most recent 3 periods) = _____

- **Change Measure Average** = _____

Before you start, what data will you examine?

Look at the data table first *vertically* within each of the four years. You see that every year starts low in January and grows steadily until a peak in December. Then it starts low again in January of the next year.

Next, look at the data *horizontally* for the same month across years. The data growth *across the table* for the same month of each new year grows slightly while the data vertically within a year grows rapidly.

What data will you select to predict the February amount: going across all four previous Februarys or the entire 48 months of the previous four years? **(The data that you select for use is as important as what you do with it!)**

The four Februarys across the table have more in common for predicting the fifth February in 2005 than by going through all 48 months.

	Year 4	Year 3	Year 2	Year 1
January	13,000	12,500	12,250	11,750
February	14,000	13,375	13,500	12,990
March	15,000	14,680	14,500	14,000
April	16,300	16,250	16,000	15,950
May	17,500	17,425	17,250	17,000
June	18,800	18,475	18,395	18,300
July	20,400	19.950	19,750	19,500
August	22,000	21,780	20.244	20,100
September	24,400	24,344	24,200	24,100
October	25,000	24,350	24,300	24,200
November	27,000	26,850	26,700	26,000
December	28,000	27,900	27,400	27,000

Note: Exercise A only used data within the year that increased every month. We did not have the benefit of the history shown in this table to see that it peaks in December and starts low again the following January.

If we had known this, our *Change Measurement Average* prediction strategy would have used the three previous Februarys, not the three previous months.

PREDICTING SEASONAL TRENDS

We look at predicting seasonal trends in a similar way that we look at predicting our next grade on a test. We will use the holiday shopping season as an example. Instead of looking at the previous months <u>of this year</u> to predict what kind of a holiday season we can expect, we will look at the *previous holiday seasons* <u>over the past few years</u> to make a prediction.

There are conditions outside of our control, of course, such as the economy in general, the weather, and possible shortages of a particular item that we must always consider in addition to the pure math data of past seasons.

The point we want to make here is that we compare <u>similar data</u> when making a prediction of a future measurable event. That is why we compare similar previous holiday seasons instead of previous months on this year's calendar.

MAKING PREDICTIONS WITH RANDOM DATA

Sometimes we may be asked to make a prediction when there is no discernable pattern to the past. What analysis measurement strategy of this past data would you use to make a prediction for the 13th month from this chart? <mark>None - the data are too random to make a credible prediction using <u>any</u> method.</mark>

Predictions From Random Data
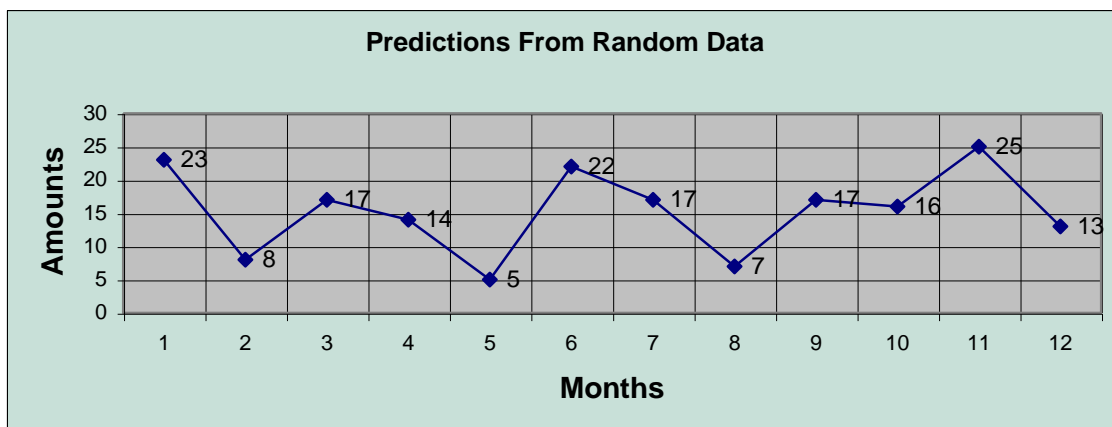
<mark>Do not let anyone put you in a position where they expect you to make a credible prediction from random data!</mark>

BUSINESS WRITING TIPS

TOO MANY WORDS

A common fault of many writers is their desire to become more convincing by using more words than necessary. A simple way to test your writing is to ask yourself, **"What would I say if I were just talking (assuming basic knowledge of sentence structure and grammar) to the person instead of writing this out?"**

Simplify these statements in the areas below each sentence.

TOO MANY WORDS

This note is to let you know we are sponsoring a company picnic next month at the county park down by the lake. If you need directions, please do not hesitate to contact us.

In the event of a hiring freeze, in the majority of instances, we will not be required to lay off any of our staff.

AVOID JARGON or "BUZZWORDS"

Assume your audience does not recall or know all of the jargon or buzzwords associated with your area.

Do not risk embarrassing readers of your proposal by making them ask, "What does that mean?"

REDUNDANT (and repeating) EXPRESSIONS

Another problem with many writers is using meaningless or redundant expressions. Just because we hear them in daily use does not mean they are appropriate.

At this point in time....

Draw a line through the redundant part of each expression or replace it with a more appropriate word.

(Do not look now but the answers are on the next page.)

Advance planning	For a period of ten days
Ask a question	Just exactly
As to whether	Irregardless
My personal opinion	As yet
At this point in time	Absolutely essential
At a later date	Refer back
At the present time	True facts
Basic fundamentals	Whether or not
Specific example	Written down
Answer back	But nevertheless
Brief moment	Close proximity
On a regular basis	Close scrutiny
Period of time	Combine together
Cut half in two	Recur again
Completely empty	Thorough investigation
Concise summary	Consensus of opinion
Sufficient enough	Continue on
Started off with	Exact opposites
Merged together	First of all
Repeat again	Your favorite?

~~Advance~~ planning	For ~~a period of~~ ten days
Ask ~~a question~~	~~Just~~ exactly
~~As to~~ whether	~~Ir~~regardless
My ~~personal~~ opinion	~~As~~ yet
~~At this point in time~~ "Now" or "Then"	~~Absolutely~~ essential
~~At a~~ later ~~date~~	Refer ~~back~~
~~At the present time~~ Just say "now"	~~True~~ facts
~~Basic~~ fundamentals	Whether ~~or not~~
~~Specific~~ example	Written ~~down~~
Answer ~~back~~	~~But~~ nevertheless
~~Brief~~ moment	~~Close~~ proximity
~~On~~ a regular basis	~~Close~~ scrutiny
~~Period of time~~ (time period)	Combine ~~together~~
~~Cut half in two~~ (or cut in half)	Recur ~~again~~
~~Completely~~ empty	~~Thorough~~ investigation
~~Concise~~ summary	Consensus ~~of opinion~~
Sufficient ~~enough~~	Continue ~~on~~
Started ~~off~~ with	~~Exact~~ opposites
Merged ~~together~~	First ~~of all~~
Repeat ~~again~~	**Your favorite?**

CLICHÉS (AND OTHER OVERUSED) EXPRESSIONS

Clichés add unnecessary words that reduce the effectiveness of our communication.

Rewrite these clichéd expressions into phrases with fewer words and more effectiveness.

> Please be advised that at the present time we have no available job openings. Thank you for your consideration.

> As per our telephone conversation, enclosed please find two copies of our agreement. Please read this information at your earliest possible convenience – but not before our meeting on Tuesday. After you have an opportunity to review this agreement, please call me. Thank you for your consideration.

ESCHEW OBFUSCATION

(Avoid big, redundant, or meaningless words)

Many people use big words when they want to sound impressive or write clumsy sentences trying to sound "official". Unfortunately, it often has the opposite result on the reader. If you focus on the BEST word, NOT THE BIGGEST, your writing will flow more naturally and be easier to understand.

Rewrite these clumsy expressions into phrases with fewer words and more effectiveness.

> Further notification will follow this correspondence.

> Prior to your departure on a daily basis, please power down your PC, secure all sensitive documents within your work cubicle, secure your cubicle, and terminate illumination as you depart.

YOUR PRESENTATION STRATEGY

Burn this question into your "memory chip" for recall when you are trying to persuade someone to act: **WHAT IS IN IT FOR THEM?** (The acronym is "WIIFT")

You have a greater chance of success with your proposal if you focus on demonstrating how your ideas will help them:

1.) Save money

   a) By not spending new money (cost savings)

   b) By spending less money (cost reduction)

2.) Save time

   a) By reducing overtime (cost savings).

   b) By reducing the time it takes to complete a process (increased productivity).

   c) By reducing the number of people needed to accomplish something (cost savings).

   d) By reducing the time needed for rework or error correction (increased productivity).

Naturally, when you help them look good, your reputation improves, too!

Your proposal should use words or phrases to increase their confidence in what you are proposing. These words and phrases are known as "hard references" which carry greater weight in their mind than do "soft" ones. For example, saying, "It will cost exactly $43,123.87" carries greater weight than saying, "We estimate it should cost about $43,000."

We developed the following model for making financial presentations and proposals that resulted from many years of corporate experience.

A MODEL FOR YOUR PRESENTATION

This is a successful proposal from a bank's data processing manager as the old process of handing paper checks began to give way to the new technology of "image" processing that is common today. This request for new software was made in a PowerPoint presentation. Although the data contained is outdated, the strategy behind the persuasive construction of the presentation remains valid today.

> *(A personal note for the course author: In the culture of the bank from which this was taken, a proposal was never brought before executives without having supporting documentation available if it was asked for by an executive. Presenters knew it was unwise to waste the executives' time by presenting too much information if unrequested.*
>
> *Although it was a very painful experience learning how much to say and how much to have available if requested, it did speed the project approval process and teach our managers how to make effective and powerful presentations for any financial situation.)*

First we'll show you the text of the entire presentation and then we'll analyze each section.

EXECUTIVE SUMMARY

We can reduce our Items Processing headcount and meet Federal Reserve deadlines earlier with changes in sorter machine software. We can also achieve a check micro line read rate increase from 48% to 70+%.

The amount of checks we present nightly to the Federal Reserve from our three processing centers is determined by two primary factors:

- The amount we can clear, either mechanically via the sorters or manually by clerks keying data.

- The volume of work received.

Atlanta and Birmingham have old systems with outdated, non-Windows software while Florida is comparatively new complete with industry standard Windows NT software. This older equipment is at its maximum capacity and cannot expand while Florida still can.

Atlanta and Birmingham consistently have higher labor and maintenance costs per unit volume of work processed than does Orlando. Our labor and sorter maintenance costs will continue to increase with our work volume if we do not act soon to change the present conditions.

We recommend two major changes in our present situation.

- Upgrade the software in the Birmingham and Atlanta sorters to XXXX that we use in Orlando. It is a proven platform that will allow us to expand our capacities in Birmingham and Atlanta. This will also decrease our non-productive "downtime" as shown in attached comparisons between centers and give us a uniform platform across all three centers.

- Second, that we install "Speed-read" software in all three centers to increase our sorter "read rate" from an average 48% of checks to over 70%. This will have a dramatic decrease in the amount of manual labor required to process checks plus allow us to meet more Fed deadlines earlier.

We budgeted $900,000 this year for this project based on vendor estimates. Unanticipated installation wiring code changes in our city require an additional $85,000. This results in an impact of $85,000 more than we had budgeted.

We request approval to spend $900,000 that was budgeted and an additional $85,000 for the local building code for a total of $985,000.

We will recover this within 5 years from labor and maintenance savings.

Use this summary model to make sure you have addressed most of the issues that will probably come up when you present your proposal to an executive. Remember that there is no "cook book" that will guarantee success every time. This will help you cover the most likely issues.

THE "HOOK"

EXECUTIVE SUMMARY

We can reduce our Items Processing headcount and meet Federal Reserve deadlines earlier with changes in sorter machine software. We can also achieve a check micro line read rate increase from 48% to 70+%.

Your "headline phrase" should get the approver's attention and make him/her want to find out more about making this a reality. This can get the approver thinking toward "YES!" before you say the first word! *"We can reduce our Items Processing headcount and meet Fed deadlines earlier with changes in*

sorter software. We can achieve a CAR read rate increase from 48% to 70+%" will get executives focused on potential savings while you explain the costs associated with buying new technology to achieve those savings.

THE "TRANSITION"

The amount of checks we present nightly to the Federal Reserve from our three processing centers is determined by two primary factors:

- The amount we can clear, either mechanically via the sorters or manually by clerks keying data.

- The volume of work received.

The transition phrase gently leads the approver from the highly desirable situation you describe in the hook into the current situation that you want to change.

THE "EXISTING SITUATION"

Atlanta and Birmingham have old systems with outdated, non-Windows software while Florida is comparatively new complete with industry standard Windows NT software. This older equipment is at its maximum capacity and cannot expand while Florida still can.

Atlanta and Birmingham consistently have higher labor and maintenance costs per unit volume of work processed than does Orlando. Our labor and sorter maintenance costs will continue to increase with our work volume if we do not act soon to change the present conditions.

You should explain briefly and objectively why the current situation requires your proposed improvement. (Try to keep it under 100 words.)

YOUR RECOMMENDED SOLUTION

We recommend two major changes in our present situation.

- Upgrade the software in the Birmingham and Atlanta sorters to XXXX that we use in Orlando. It is a proven platform that will allow us to expand our capacities in Birmingham and Atlanta. This will also decrease our non-productive "downtime" as shown in attached comparisons between centers and give us a uniform platform across all three centers.

- Second, that we install "Speed-read" software in all three centers to increase our sorter "read rate" from an average 48% of checks to over 70%. This will have a dramatic decrease in the amount of manual labor required to process checks plus allow us to meet more Fed deadlines earlier.

Clearly, specify WHAT you want to do here. Explain the ***why, how, where, and when*** in your proposal.

Remember that this is just an <u>executive summary</u>.

 CAUTION #1:

Be sure you can you explain clearly, why this recommendation is the best choice in case the approver wants to know why you recommend this particular action and not something else.

CAUTION #2:

Also, make sure you have available a list of YOUR REFERENCES. Do not provide this unless asked (it may be distracting to your proposal). List the names, titles, and telephone numbers of people (employees or vendors) from whom you collected data or who can offer additional information if needed.

THE BUDGET IMPACT

We budgeted $900,000 this year for this project based on vendor estimates. Unanticipated installation wiring code changes in our city require an additional $85,000. This results in an impact of $85,000 more than we had budgeted.

How much above or below what we had budgeted for this? If we budgeted $50,000 last fall for this budget year and it only cost $45,000, the IMPACT is +$5,000 ($5,000 that we can free to spend elsewhere or save.). If it now costs $55,000, the impact is -$5,000 ($5,000 that we have to take from somewhere else or go over budget.)

WHAT ACTION DO YOU WANT FROM THE EXECUTIVES?

We request approval to spend $900,000 that was budgeted and an additional $85,000 for the local building code for a total of $985,000.

Do you clearly know what decision you want?

TELL THEM HOW IT WILL PAY FOR ITSELF

We will recover this within 5 years from labor and maintenance savings.

Make sure it is a one or two line summary. Leave the details in the financial section.

Take a prewritten approval form that the executive(s) can sign on the spot in case everyone says, "Yes!"

You must be ready to "strike while the iron is hot" and not waste the opportunity. You can use this signature to get things moving even if you must wait for a formal signature later.