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## The Measurment and Reporting of Human Resources - Its Feasability and Utility

Wesley J. Simonson

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THE MEASUREMENT AND REPORTING OF HUMAN  
RESOURCES - ITS FEASIBILITY AND UTILITY

by

Wesley J. Simonson

Master of Science

University of North Dakota 1976



An Independent Study  
Submitted to the Faculty  
of the  
University of North Dakota  
in partial fulfillment of the requirements  
for the degree of  
Master of Science

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Grand Forks, North Dakota

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## INTRODUCTION

Financial accounting is dynamic. Its generally accepted accounting principles are the result of an evolutionary process that can be expected to continue. Accounting is not an art which is an end in itself, rather it is an activity with a purpose. It is an information system whose principles change in response to changes in economic and social conditions, to new knowledge, and to demands of users for more serviceable financial information. Human Resource Accounting (H.R.A.) is a part of this evolutionary process. It is a response to a need for information in an area previously considered to be outside the realm of accounting. It is an effort to quantify a resource considered qualitative. First the author will examine the force behind H.R.A. which has led accountants to question the adequacy of the traditional accounting model which ignores the human resource. The benefits of an increased awareness of the human resource through H.R.A. will be presented in the utility of human resource information. Because H.R.A. is in the developmental stage there is no one model which has been accepted as an authoritative means to value the resource. H.R.A. measurement will consider several proposals and question their theoretical basis. The process of change is an evolutionary one, it therefore moves slowly. Each step must be critically reviewed. The section Feasibility of Human Resource

Accounting will serve this purpose as well as provide a summary of the concept.

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## CHAPTER I

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At the outset of "Human Resource Measurement - A Challenge for Accountants," H. Lee Brunnet, Eric G. Flaaholtz, and William C. Pyte pose the basic questions which are the impetus behind the drive to develop and implement a model to quantify human resources. They state:

A favorite cliché for the president's letter in a corporate annual report is, "Our employees are our most valuable asset." Turning from the president's letter and looking to the remainder of the report, one might ask, "Where is this human asset on these statements which serve as reports on the firm's resources and earnings?" What is the value of this "most important" or "most valuable" asset? Is it increasing, decreasing, or remaining unchanged? What return, if any, is the firm earning on its human assets? Is the firm allocating its human assets in the most profitable way? No answers can be found.

The second chapter of the Accounting Principles Board's Statement # 4 expresses these concepts as to the essence of accounting. "Accounting is a service activity. Its function is to provide quantitative information, primarily financial in nature, about economic entities that is intended to be useful in making economic decisions."<sup>2</sup>

The American Accounting Association Committee on Human Resource Accounting comments:

The development of H.R.A. is part of the overall movement which questions the ability of accounting reports prepared under the traditional model to meet the needs of the user

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groups . . . The practice of assigning a zero value to an asset was the subject of criticism in A Statement of Basic Accounting Theory . . . One of the specific recommendations contained in the statement was that costs should be capitalized when they were incurred in order to yield future benefits and when such benefits can be measured.<sup>3</sup>

In reviewing the literature pertaining to the H.R.A., one cannot escape the conclusion that the current accounting model does not disclose the impact of human resources on the firm's probable success or failure. When a business activity fails, the responsibility is ultimately placed on management's failure to effectively analyze its market position, to objectively establish goals, or to recognize, effectively develop, and utilize its productive resources. It would seem a measurement of management's ability would be extremely valuable to a prospective investor. Human resources are not limited to management, they encompass the entire spectrum of the firm's employees as well as its prospective customers. As the H.R.A. concept is explored, the relationship between employee value and organizational success will surely be recognized and the relevance of H.R.A. data will be established.

Current generally accepted accounting principles expense all human expenditures in the current period, thus conventional accounting has not yet formally selected human resources as an element to be measured and given monetary recognition on the statement of financial position. The value of H.R.A. is validated, will not investors also be able to utilize this same information which has so much potential relevance for managers? Why is it beneficial to revise asset on one hand and the matching concept on the other. Information presented because of user variance?

S. S. Liao states his objection to the asset classification of human resources:

Resources, however, differ somewhat from assets. Economists tend to equate resources with factors of production, which may be either capitalized or expensed. Assets, on the other hand, are related to a specific firm and because they exclude certain factors of production, are consequently narrower in scope. In addition, both the proprietary and the entity concepts of accounting insist that a firm have specific rights to future benefits of things (or people) before they can be claimed as assets. Put differently, assets must be capable of being exchanged.<sup>4</sup>

The matching concept seeks to identify the cost expended to produce revenue with the revenue produced in the current period. H.R.A. advocates contend the future benefit potential of funds expended to secure human resources qualifies them for asset presentation.

In an attempt to move beyond this theoretical argument, T. W. McRae stresses the utility of the information:

Justifying the deferral of the cost of developing human resources under generally accepted accounting principles is not necessary, however, to justify that practice for management planning and control. For that purpose, demonstrating the usefulness of the information is all that is necessary.<sup>5</sup>

An extension of this logic in the light of the Accounting Principles Board's definition of accounting should lead accountants to a recognition of human resources as assets, within generally accepted accounting principles, for both external and internal reporting. Once the informational value of H.R.A. is validated, will not investors also be able to utilize this same information which has so much potential relevance for managers? Why is it beneficial to revise information presented because of user variance?

The American Accounting Association Committee cites the purpose of H.R.A.:

. . . to improve the quality of financial decisions both internally and externally . . . The development of an H.R.A. system should provide the data necessary to convert the "qualitative" decision making inherent in the management of human resources into a somewhat more quantitative framework.<sup>6</sup>

It is the degree to which a H.R.A. system accomplishes this purpose that is the basis on which users and accountants should evaluate the H.R.A. system. A system which does not provide usable and accurate information is of no value.

Human resource accounting has sparked the attention and imagination of members of the business world as well as that of the behavioral scientists, the sociologists, and the psychologist. It attempts to quantify and report an element, long recognized as one of the three traditional economic resources. The expansion of traditional resources to include entrepreneurship and technology further strengthen<sup>s</sup> the human element as the leader in resources, for entrepreneurship and technology surely fit in the human category. The contention that the productive capacity or future benefit potential of human resources cannot be reported in quantified accounting data because human resources are not owned and do not have exchange value simply does not wash. Although slavery is not allowed under the constitution, it is preposterous to contend that an organization's entire labor force, its management personnel, or its technologists are entirely mobile. In many industries the alternatives to staying with

the organization are so undesirable that the worker literally cannot move. The paradox is, however, that the more competitive the industry and the more vital a key person is, the more his value increases, and the more his value increases the more his mobility increases. The point here is that although a person's mobility may necessitate applying a probability of staying factor to his value, it should not prevent our reporting this value.

A more fatal blow to H.R.A. is struck from within the accounting profession by Arthur L. Thomas and others who contend that the entire accounting system presently employed is based on allocations that are so arbitrary and far removed from reality which render the system entirely useless, and to saddle the system with still another system of arbitrary allocations would be counter-productive.<sup>7</sup> If H.R.A. is to be usable, a system of measurement must be developed which is free from arbitrary allocation and is capable of reporting the utility and value of the human resource.

## CHAPTER I - FOOTNOTES

<sup>1</sup>R. Lee Brummet, Eric G. Flamholtz, and William C. Pyle, "Human Resource Measurement - A Challenge for Accountants," Accounting Review XLIII (April 1968):217.

<sup>2</sup>Accounting Principles Board. Statement No. 4 - Basic Concepts and Accounting Principles (October 1970) par. 9.

<sup>3</sup>"AAA Report of the Committee on Human Resource Accounting," The Accounting Review, supp to XLVIII (1973):171.

<sup>4</sup>S. S. Liao, "Human Assets, Human Resources, and Managerial Decision," Management Accounting LVI (November 1974): 20.

<sup>5</sup>T. W. McRae, "Human Resource Accounting as a Management Tool," Journal of Accountancy CXXXVIII (August 1974):35.

<sup>6</sup>"AAA Report," p. 169.

<sup>7</sup>Arthur L. Thomas, The Allocation Problem: Part II, (Sarasota, Florida:American Accounting Association, 1974) pp. 154-5.

human resources has stated:

Accounting procedures at present ignore a substantial portion of the income producing assets of firms. All levels of management are handicapped by the inadequate and at times inaccurate information now available. The wrong decisions are made on such questions as: What system of management is most productive and hence should be used by the firm? What strategies of cost control yield the lowest cost? What system of managerial compensation yields motivation and behavior most nearly in the best interest of the entire organization?

In the above quotes, Flamholtz and Likert contend the information which will be provided by a H.R.A. system is essential to managerial decision-making. This can be logically demonstrated by a review of situations in which the need for H.R.A. is apparent. In order to make sound judgments and monitor effectiveness in managing people, managers need the information

provided by H.R.A. to evaluate the impact of decisions on human resources. Brummet, Flamholtz, and Fyfe state,

"Although it is generally recognized that turnover is

## CHAPTER II

costly to the firm, managers do not have adequate measurements

of the THE UTILITY OF HUMAN RESOURCE INFORMATION

in the insurance industry which experiences a 10% turnover

of agents in about five years, the cost of which is unknown. As an advocate of H.R.A., Eric Flamholtz in assessing the present realm in which decision are made states:

At present, the management of human resources is less effective than it might be because it lacks a unifying framework to guide it. Managers have neither a valid criterion to guide decisions affecting people nor a methodology for assessing the anticipated or actual consequences of such decisions . . . The notion of "human resource value" seems to provide one possible solution to these problems.<sup>1</sup>

Rensis Likert, in support of the capital nature of human resources has stated:

Accounting procedures at present ignore a substantial portion of the income producing assets of firms. All levels of management are handicapped by the inadequate and at times inaccurate information now available. The wrong decisions are made on such questions as:

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provided by H.R.A. to evaluate the impact of decisions on human resources. Brummet, Flamholtz, and Pyle state, "Although it is generally recognized that turnover is costly to the firm, managers do not have adequate measurements of the magnitude of such losses."<sup>3</sup> They cite the case true in the insurance industry which experiences a "100% turnover of agents in about five years . . . the cost of which is unknown."<sup>4</sup> It would seem the potential impact on the turnover rate should be a prime consideration when setting policies affecting employees, just as it is appropriate to consider rate of return on capital when choosing among investment alternatives.

The human resource laboratory of AT&T is conducting a project, "Force Cost Loss Analysis," designed to measure the cost of employing and developing toll and directory assistance operators. Cost data is collected and capitalized. It is then amortized, in proportion to the operator's efficiency, over the periods benefited. This enables AT&T to compute the recovery or loss on the hiring investment if the employee leaves prematurely. The project director contends the amount of recovery or loss is an indication by which the payoff of personnel programs, in operation or being proposed, can be determined. The laboratory determined costs of employee turnover places new meaning on turnover statistics, which can be used when evaluating the performance of local offices.<sup>5</sup>

Lay-Off Period	Expected % of Employees	Start-up & Training Cost	Total Expected Costs
2 weeks	20	14,000	28,500
4 weeks	20	14,000	35,500
6 weeks	20	14,000	59,000
8 weeks	20	14,000	85,500
10 weeks	20	14,000	111,000

If H.R.A. does nothing else it has provided a new emphasis on the cost of people and an awareness that decisions which affect people are not free transactions which have little effect on net income. Many companies approach cost reduction by laying off personnel not required in the short term. The H.R.A. system forces management to focus not only on the short run salary savings but also on the startup costs for those laid off employees who return and the replacement costs for those positions now vacant because old employees have found other jobs. Alexander presents the following (Exhibit I) as an illustration of cost information which could be provided by the H.R.A. system. The illustration shows that as the length of the lay-off increases fewer employees will return thus causing the start up costs relating to returning employees to decrease but causing the start up and replacement costs for new employees to increase. In all cases, of this example, the expected costs of the lay-off exceeded the savings.

## Exhibit I

Expected Human Resource Costs  
Related to Alternative Lay-Off Periods 7

Lay-Off Period	Related Salary and Payroll Savings	Expected % of employees that will return		Start-up Costs	Expected % of Employees to be hired		Estimated Start-up & replacement cost	Total Expected Costs
2 weeks	\$20,000	95%		\$19,000	5%	\$ 7,500	\$ 26,500	
4 weeks	\$37,000	85		17,000	15	22,500	39,500	
6 weeks	\$55,000	70		14,000	30	45,000	59,000	
8 weeks	\$75,000	50		10,000	50	75,000	85,000	
10 weeks	\$95,000	30		6,000	70	105,000	111,000	

people leave an organization human resources are depleted. Since turnover rate is readily apparent, a relatively low rate may give management a spurious sense of security.



The R. G. Barry experiment also provided a new emphasis to the cost of the human asset. They discovered it takes about \$3000 to acquire a first line supervisor and an investment of about \$30,000 to recruit, train, and develop a top level manager. The H.R.A. information proved useful, when in 1970 it was necessary to reduce a number of management functions. R. G. Barry's vice president for human resources states, "In arriving at the decision to curtail some of these functions we were able to do so with an improved awareness of the loss to the company and the ultimate impact on profits."<sup>8</sup>

Most decisions impact in some way on human resources. Brummet, Flamholtz, and Pyle illustrate a situation where a failure to consider the probable turnover would be disastrous:

In a choice of alternative locations for a new plant, where present employees will be requested to relocate, the firm may survey its employees to determine their attitude toward the alternative locations being considered, and attempt to determine the expected turnover associated with each location.<sup>9</sup>

The impact of the cost of turnover cannot be considered qualitative and ignored in that it potentially could offset any benefit which may have been derived from the relocation.

The effect of turnover can readily be determined in a H.R.A. cost model but the impact of decisions and policies on human resources are not limited to factors readily determinable in H.R.A. cost models. Flamholtz illustrates:

Even more serious is the possibility that many companies today are depleting some of their most valuable asset - people - without recognizing it. Obviously, when valuable people leave an organization human assets have been depleted. Since turnover rate is readily apparent, a relatively low rate may give management a spurious sense of security.

He further illustrates this point through an example in which he cites the inverse relationship between satisfaction and the probability of turnover. By applying an increasing probability to the cost of turnover, he demonstrates the increase in expected cost of turnover. He then concludes:

Just as it is difficult to determine if and by how much human assets are being depleted, it is just as difficult to measure appreciation in human assets . . . Managers need information which will permit them to assess if and to what extent they are appreciating, conserving, or depleting their human asset; for such information provides feedback on the desirability of organizational policies and strategies in terms of their impact upon the effectiveness of human resource utilization.<sup>10</sup>

The H.R.A. cost model is not adequate to provide this information, since such factors as satisfaction are not measured. The measurement of the impact on organizational policies and strategies require an assessment of the change in human resource value.

Those who would dispute the need for human resource valuation would hold the true measure of managerial effectiveness is the net income, already given on the income statement.

This is countered by organizational psychologists' belief that certain managerial leadership styles which may bring short term profits, result in a long run depletion of human capital. This unmeasured deterioration of employee attitudes, motivation, and other psychological variables, and its effect on future earnings, should cause current

The lack of promotion would soon lead to a decline in the worth or potential value of the individual which would soon be indicated in a human value model.

Wright supports the belief in H.R.A. as a means to more effectively utilize human resources. He states, "Data would alert management to situations in which value and investment are not proportionate to job requirements."<sup>13</sup>

The H.R.A. model which measures human resource value would provide information which would be valuable in the formation of a human resource capital budget. Brummet, Flamholtz, and Pyle provide their assessment of the situation as, "Firms invest in training programs without evaluating the expected payoff . . . Training and development expenditures are treated as a luxury that can be afforded only when profits are high."<sup>14</sup>

Wright states the hazards of not being able to evaluate the payoff. "The denial of human investment opportunities is commonly missed, not because they do not represent potentially high yields, but rather because management is uninformed of the potential payoffs."<sup>15</sup>

Decisions of what to expend in human development requires information with respect to expected value. Evaluations of management's effectiveness involves analysis of change in value of the resource. The H.R.A. valuation model is the only one which can provide this information.

Hekimian and Jones illustrate a situation in which, at first, it seems project A is most desirable, but when the

effect of human resources is considered, project B becomes more desirable.

The president of a small electronics company has to decide which of two new project proposals to accept. In the case of proposal A . . . An investment of \$1,000,000 in equipment and the transfer of ten engineers to the project is required. The vice-president projects a \$300,000 annual return for the next seven years. In proposal B, one engineer would be assigned to the construction and operation of a new testing facility. The company again would make a \$1,000,000 investment and expect a \$200,000 annual return for the next seven years.<sup>16</sup>

Human resources have traditionally been considered as a qualitative element and therefore not included in return on investment. The practice of expensing all human costs has fostered this idea, thus the impact of human capital is largely ignored. The inclusion of the human capital in the return on investment calculation has led to a belief that the ratio of investment in human assets to other assets can be a useful predictor of future profit.<sup>17</sup>

This concept seems to be a recognition of Likert's view "that any expenditure or management practice aimed at changing the human organization obviously modifies the behavior of the human element and thereby modifies its future service potential."<sup>18</sup>

Because the H.R.A. model has not been in use very long, the extent to which decision-makers will utilize the model has not positively been determined. Wright cites what he sees as the implications:

It seems reasonable and consistent that management will reconceive man as the only vital aspect of business and as such will restore individualistic treatment for each employee leading to heightened congruency and improved

17  
relationships among human beings.<sup>19</sup>

It seems obvious that H.R.A. will be useful in decision-making. The information required for decisions which affect the measurement of human capital is not being provided by the conventional accounting model and may not totally be provided by an H.R.A. model based on cost. To develop a H.R.A. model which may adequately provide this information one must consider going beyond the capitalization of a stream of cash flows and entering the realm of valuation theory and that of non-monetary measurement.

<sup>1</sup> C. W. McRae, "Human Resource Accounting as a Management Tool," Journal of Accountancy, August 1974, p. 35.

<sup>2</sup> Michael O. Alexander, "Investment in People," Canadian Chartered Accountant, July 1971, pp. 42-3.

<sup>3</sup> Ibid., p. 43.

<sup>4</sup> Robert Woodruff, Jr., "Human Resource Accounting," Canadian Chartered Accountant, July 1971, p. 158.

<sup>5</sup> Brummet, Flamholtz, and Pyle, p. 220.

<sup>6</sup> Eric Flamholtz, "Should Your Organization Attempt to Value Its Human Resources?" California Management Review XLV no. 2 (Winter 1971):42.

<sup>7</sup> Brummet, Flamholtz, and Pyle, p. 219.

<sup>8</sup> R. Wright, "Managing Man as a Capital Asset," Personnel Journal XLIX no. 4 (April 1970):294.

<sup>9</sup> Ibid.

<sup>10</sup> Brummet, Flamholtz, and Pyle, p. 220.

<sup>11</sup> Wright, p. 292.

<sup>12</sup> James S. Hekimian and Curtis H. Jones, "Put People on your Balance Sheet," Harvard Business Review XLV (January-February 1967): p. 105.

<sup>13</sup> Brummet, Flamholtz, and Pyle, p. 218-220.

## CHAPTER II - FOOTNOTES

<sup>1</sup>"AAA Report of the Committee of Human Resource Accounting," The Accounting Review, supp to XLVIII (1973), p. 179, "Citing" Eric Flamholtz, "Model for Human Resource Valuation," The Accounting Review, April 1971, p. 267.

<sup>2</sup>R. Likert, The Human Organization, Its Management and Value, (New York:McGraw Hill, 1967), p. 115.

<sup>3</sup>R. Lee Brummet, Eric G. Flamholtz, and William C. Pyle, "Human Resource Measurement - A Challenge for Accountants," Accounting Review, April 1968, p. 218.

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<sup>17</sup>Brummet, Flamholtz, and Pyle, p. 218-220.

<sup>18</sup>G. K. Caddy, "A Human Value Model," Management Accounting LVI (April 1975) p. 27 "Citing" Likert, The Human Organization, Its Management and Value (1967).

<sup>19</sup>Wright, p. 294.

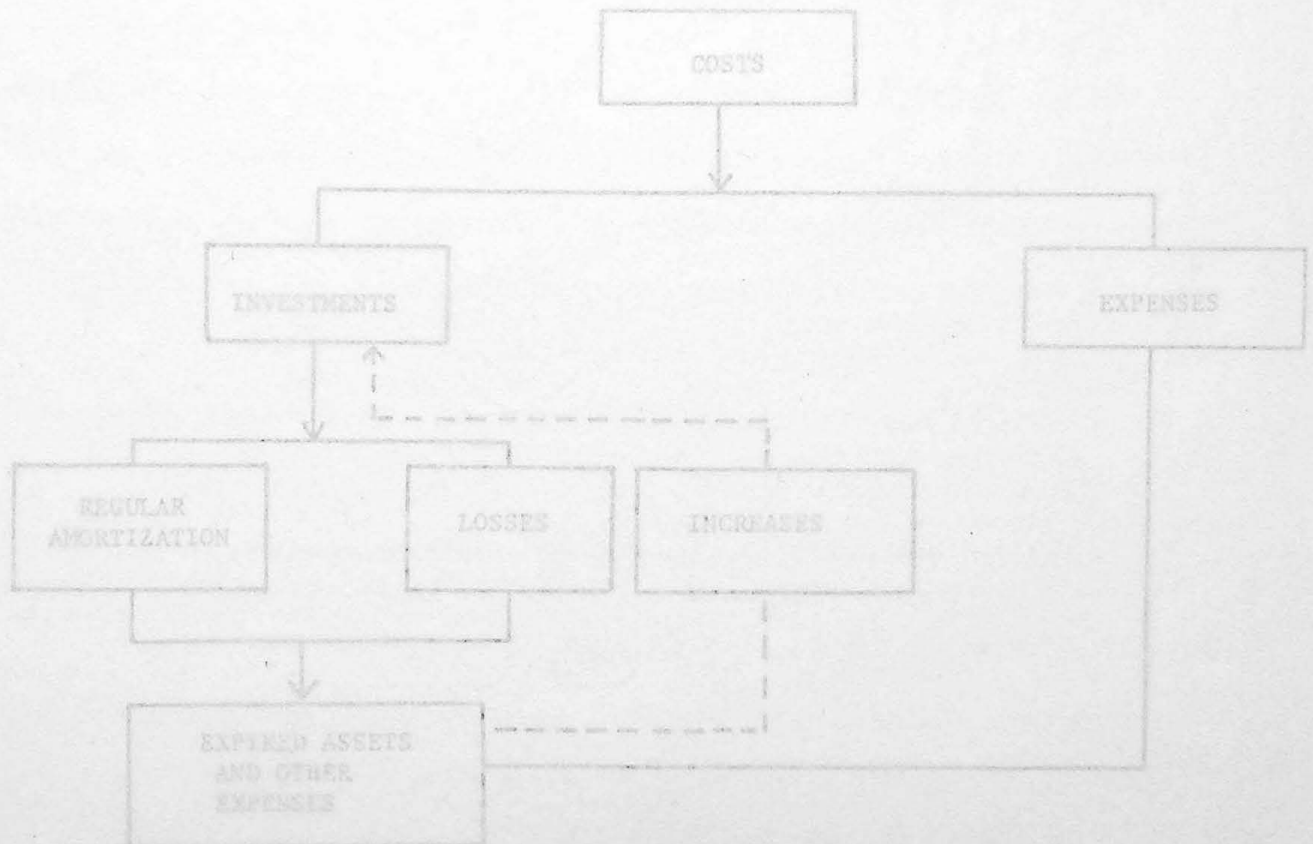
CHAPTER III

H.R.A. MEASUREMENT

Cost Methods

The historical or acquisition cost approach is most familiar to accountants. It involves the accumulation and capitalization of a stream of cash outlay to acquire and develop human resources, and an allocation to benefited periods. This provides a basis for analysis of the human resource investment in terms of return on investment.<sup>1</sup>

Exhibit II Cost Model for Human Resource Accounting<sup>2</sup>



The basic human resource cost model (illustrated in Exhibit II) used to recognize and report human resources as assets is quite like any other model used to report long term assets.

CHAPTER III

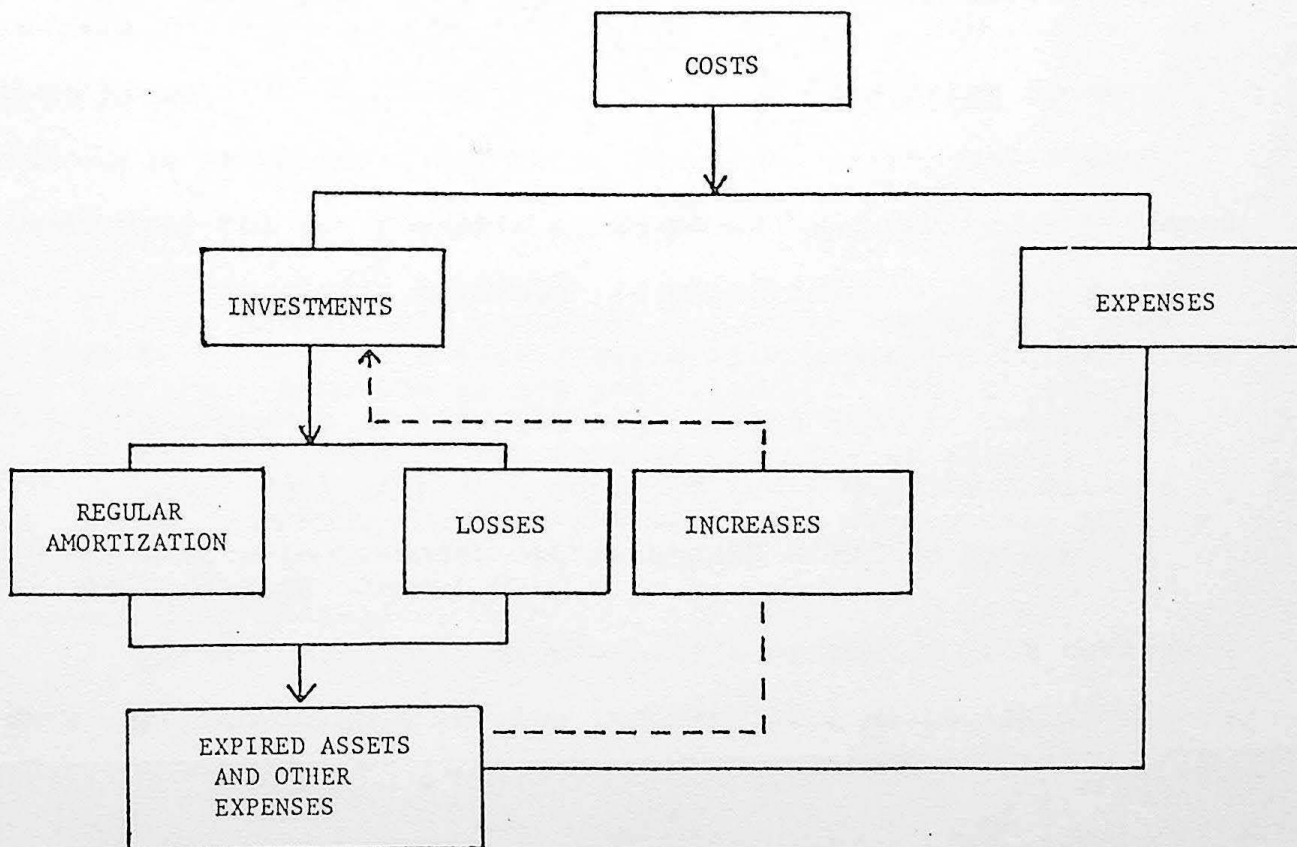
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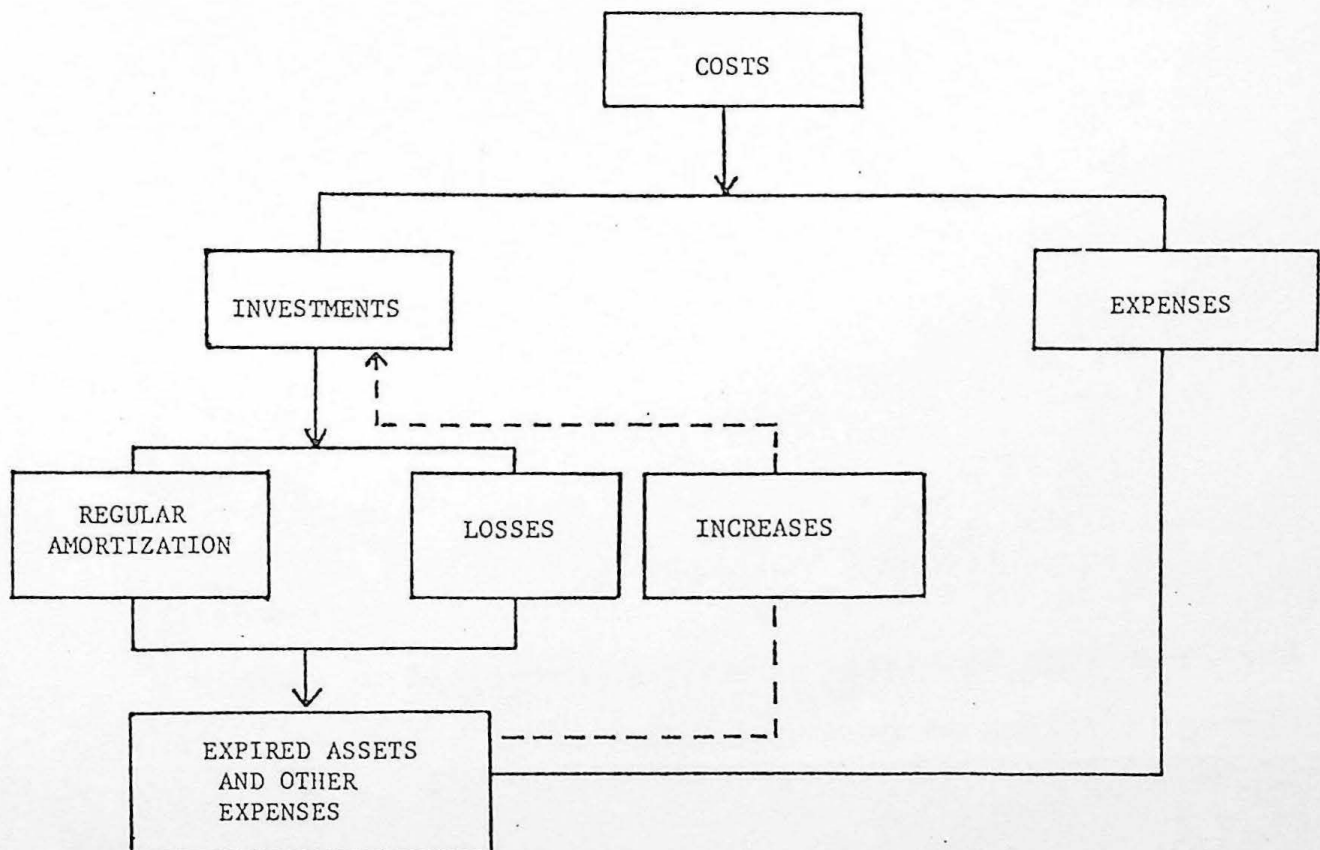
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Exhibit II Cost Model for Human Resource Accounting<sup>2</sup>



The basic human resource cost model (illustrated in Exhibit II) used to recognize and report human resources as assets is quite like any other model used to report long term assets. Once the human resource is recognized as an asset it follows that some expenditures for this resource are made to obtain immediate benefits (expenses) and others are made with the expectation of receiving a return over a period in excess of the current accounting period. This type of expenditure is capitalizaed as an investment.

Once incurred these assets can be amortized over their expected useful lives. If they are liquidated prematurely losses are reported. In view of the fact that the expected remaining service life of employees may lengthen as well as shorten, however, conventional amortization procedures have been modified to allow book values to move up or down to reflect underlying changes in the value of human resources. For example, an employee may be more valuable after he has completed one year on the job because his expected remaining tenure is much greater than when he was first hired. In such a case, the investment in the employee would be recapitalizaed at a higher book value and amortized over a longer period.

Pyle cites William A. Paton's book Asset Accounting to reinforce his recapitalization viewpoint. Paton has argued that where the service life of an asset has been underestimated,

. . . The proper treatment is a restoration of the portion of cost prematurely absorbed . . . Some accountants seem to be reluctant to make a correction under these conditions but their attitude is not justified . . . The object of accounting is to disclose significant data, including all costs, and wherever depreciable property is in use, economic power is being expended and a cost is therefore being incurred. Neither the existence of property nor its influence in business operations is affected by past depreciation accounting.<sup>3</sup>

Michael O. Alexander provides a system of cost developed data, applicable to a service industry such as public accounting

firms, which provides information useful in guiding management decisions relating to the utilization of the human resource. He recognizes that public accounting firms experience a high degree of turnover resulting from a number of factors and contends that such costs associated with this turnover are not revealed by the conventional accounting system. A service industry has a high percentage of its assets represented in non-recorded assets - people. Therefore the survival of such firms depend on its efforts to develop its human resources. An accounting system which is to aid in this process must provide information as to the effectiveness of hiring and training policies, the adequacy of the mix of professional skills, whether staff should be trained from within the firm or hired at the desired skill level from outside, etc.

Alexander's system for a public accounting firm first calculates the investment in each employee in terms of out of pocket cost (outlay) and opportunity cost (billings foregone) - these were used for calculating employee profit contributions and turnover costs - then investments in employees were related to resulting benefits. Costs were developed from time records currently being filled out by each employee. This time and cost data, with the planned amounts were then incorporated into a series of human resource accounting reports showing planned and actual investments in employees presented as follows;

The Cost of Time Analysis Report illustrated in Exhibit III, is prepared from the employee time cards and indicates the value of actual and planned hours as well as resulting variances. Variances from plan recognize two basic causes. The main variance reflects a greater or lesser number of people on staff than planned, while the hour variance indicates the differences between the time spent on client work, recruiting and acquisition, courses and seminars, staff counselling, etc.,

and focused on the need for good planning by managers for the development of the firm's total professional capability. Performance against the plan developed is continually assessed; each member of the professional staff receives his own monthly, and year-to-date report showing his planned and actual hours. Reports are also prepared for different staff and service groups.

Exhibit IV illustrates in summary form the human resource investment made during a particular period, in terms of both opportunity and outlay costs on a plan and actual basis. The reports of this type are useful for determining the magnitude of investments made in various groups of professional staff during the period. The outlay costs are accumulated from the firm's accounting system, while the opportunity costs are provided by the Cost of Time Analysis Report.

## Exhibit III

COST OF TIME ANALYSIS REPORT <sup>4</sup>  
FOR THE YEAR ENDED DEC. 31, 1970

TOTAL OFFICE

	Plan	Man. Var.	Hour Var.	Actual
Chargeable	\$738,952	\$(7,230)	\$(24,724)	\$706,998
Investment				
Recruiting	11,500	622	868	12,990
Orientation	11,000	69	1,931	13,000
Counselling and Dev.	10,000	579	1,421	12,000
Formal Training				
Courses	35,000	100	7,000	42,100
Research	15,500	42	(284)	15,258
Total	83,000	1,412	10,936	95,348
Maintenance				
Practice Develop	8,694	(124)	(5,850)	2,720
Prof. Affairs and PR	3,064	19	6,825	9,908
Administration	36,864	237	(310)	36,791
Holidays and Vac.	102,000	(742)	(25,892)	75,366
Sickness and Per.	28,932	(68)	8,877	37,741
Total	179,554	(678)	(16,350)	162,526
Total	\$1,001,506	\$(6,496)	\$(30,138)	\$964,872

## Exhibit IV

HUMAN RESOURCE INVESTMENTS <sup>5</sup>  
FOR THE YEAR ENDING DEC. 31, 1970

	PLAN			ACTUAL		
	Outlay	Opport	Total	Outlay	Opport	Total
Recruiting	\$ 500	\$11,500	\$12,000	\$1,420	\$12,990	\$ 14,410
Orientation	2,500	11,000	13,500	2,200	13,000	15,200
Counselling and Development	1,600	10,000	11,600	400	12,000	12,400
Formal Training						
Courses	5,000	35,000	40,000	3,500	42,100	45,600
Research	1,400	15,500	16,900	1,200	15,258	16,458
Total	\$11,000	\$83,000	\$94,000	\$8,720	\$95,348	\$104,068

The Statement of Human Resource Flows is shown in Exhibit V. This report shows in dollars and in people the human resource investment at the beginning of the period, and indicates how this investment was augmented or depleted throughout the year. The additions or reductions in investments during the year, resulting from expenditures on human resources, transfers in, transfers out, departures and amortization, are considered in arriving at the closing balance of human resource investment at the end of the

period. The purpose of this report is to emphasize the importance of human resource development, and it allows managers to assess their performance in this context. The amount shown as amortization reflects that part of human resource investment which expired during the period.

Amortization for any investment category is based on the lesser of the individual's expected life with the firm, or the useful life of the investment. For example, when an individual has a four-year expected life - that is determined on the basis of employee turnover experience - an investment in a training course which only stands to benefit this individual for two years, will be amortized over the two-year period instead of the individual's expected life of four years.

Human resource amortization is based on the same principles as those used to systematically record the expiration or depreciation of a firm's other assets. Amortization, however, is not crucial information for the management decision-making process that human resource accounting is designed to facilitate. A more important question is the cost of turnover replacement.

### Exhibit V

#### STATEMENT OF HUMAN RESOURCE FLOWS<sup>6</sup> FOR THE YEAR ENDED DEC. 31, 1970

	MANPOWER		INVESTMENTS	
	Plan	Actual	Plan	Actual
Opening Balance	29	29	\$112,532	\$112,532
<i>Add:</i>				
Transfers in (Other Offices)	4	3	13,000	10,321
Investments:				
Recruiting	10	10	12,000	14,410
Investments in existing personnel during period			82,000	89,658
Total	14	13	\$107,000	\$114,389
<i>Less:</i>				
Transfers out (other Offices)	6	5	30,000	26,449
Departures	9	8	34,000	33,498
Amortization			32,000	36,381
Total	15	13	\$ 96,000	\$ 96,328
Closing Balance	28	29	\$123,532	\$130,594

most principles of H.R.A. are valuable in providing critical information to such a firm, however advocates of H.R.A. would contend that this type of information is just as important to

The Contribution Report which is illustrated in Exhibit VI, provides a measure of profitability in terms of financial profits before overheads. The profit contributions of various service centers of the firm are measured and compared to plan.

## Exhibit VI

CONTRIBUTION REPORT  
FOR THE YEAR ENDING DEC. 31, 1970

Total Office

	Plan	Man Var.	Hr. Var.	Actual
Chargeable Hours X Standard Billing Rates	\$738,743	\$(6,537)	\$(25,220)	\$706,986
Less:				
Salaries and Fringe Benefits	240,000	(13,107)		253,107
Amortization of Human Resource Investment	32,000	(4,381)		36,381
Departures	34,000	502		33,498
Standard Operating Contribution before Overhead	\$432,743	\$(23,523)	\$(25,220)	\$384,000

The foregoing reports are directed at the normal operations of human resource management. Other reports and analyses are prepared as required to assist managers in planning and assessing manpower needs, directing training efforts and allocating staff. These reports, together, are designed to provide information that will improve a manager's ability to make decisions in such areas as employee turnover, optimum staff mix and hiring policies.

Human resource accounting information has provided the firm with a number of facts which have led to some reassessment of its traditional approach to staff mix and resource allocation. First, the new information indicated that the profit contributions per man for various levels of experience were somewhat different from what the firm had implicitly assumed. Second, the knowledge of employee replacement costs and measures of economic value are influencing the decisions that the firm must make in directing its training and development programs and determining the required investment in this effort. The firm is now in a better position to determine the optimal staff mix for various service areas and levels of staff experience.

A service industry's nature dictates that people are the most important profit producing resource. It follows that the principles of H.R.A. are valuable in providing critical information to such a firm, however advocates of H.R.A. would contend that this type of information is just as important to

industrial firms. The information reported by R. G. Barry Corporation illustrates what can be done in H.R.A. within the historical cost concept.

R. G. Barry's objective was to develop a usable system which would give a better information on the condition of the human resources which they could integrate into their conventional accounting system. They originally included, in January of 1968, ninety-five managers and established seven functional capital accounts for each manager. Robert L. Woodruff, vice-president for human resources at R. G. Barry defines the functional account as follows:

Recruiting outlay costs - costs associated with locating and selecting new (management) personnel. This category includes search fees, advertising, interviewer or interviewee travel expenses, allocations of personnel, and acquiring department time for internal screening, interviewing, testing, and evaluation expenses. Outlay cost for unsuccessful candidates are allocated to the cost of obtaining the candidate hired.

Acquisition costs - cost incurred in bringing a new man "on board". This category includes placement fees, moving costs, physical examination, allocation of personnel, and acquiring department time in placing a man on the payroll and situating him with the necessary equipment to perform his job.

Formal training and familiarization costs - costs normally incurred immediately after hire or possible transfer from one location to another. These refer to formal orientation programs, vestibule training, etc.

Informal training costs - costs associated with the process of teaching a new person to adapt his existing skills to the specific job requirements of his new job. The costs related to this process are normally salary allocations only and vary with each position depending upon the level of the job in the organization, number of subordinates, interaction patterns outside the department, etc.

Familiarization costs - costs associated with the very complex process of integrating a new manager into the

organization to the point where he can be a fully effective member. Such costs include learning the company's philosophy, history, policies, precedents, understanding of the people with whom the new position-holder will regularly interact. These costs, which can be sizable, depending upon the level and scope of the position, include salary allocations.

Investment building experience costs - costs associated with investments in on-the-job training which occur after the initial familiarization period and which are expected to have value to the company beyond the current accounting period. Investment building experience is the development of a capability which would not reasonably be expected as a normal part of the person's job.

Development costs - costs associated with investments in increasing a manager's capabilities in areas beyond the specific technical skills required by the position. In this category are management seminars, university programs or courses, etc. Costs are collected by means of a "Training and Development Requisition", and are modified by the participant's evaluation of the pertinency of the study.

Using these accounts, costs relating to the acquisition and maintenance of human resources are accumulated and capitalized. The balances are then amortized over the period benefited, either based on an individual employee's working life or if an initial training program is only expected to be of benefit for two years, the cost is amortized over the shorter period.

R. G. Barry's 1969 Annual Report contained a pro-forma balance sheet and income statement which presents human resources as assets and shows the resulting adjustment to income for the change in the human investment. (See Exhibit VII - following page.) The balance sheet shows a net investment in human resources of \$986,094. This includes an estimated investment, less amortization for past services to January 1, 1968. A timing difference is recognized as deferred income



taxes payable and retained earnings has been adjusted to give retroactive effect to the recognition of the human asset. The income statement indicates a net increase in the human resource investment resulting in an upward adjustment in income before taxes of \$173,569. After taxes this adjustment becomes \$86,584. Presumably if the "Total Concept" statement were adopted as the basic financial statement there would be no direct adjustment to income, but rather the differences would be reflected in reduced salaries and general and administrative expenses as these items would be capitalized as they were considered to be benefiting future periods.<sup>11</sup>

Exhibit VII  
"THE TOTAL CONCEPT"<sup>10</sup>

R. G. Barry Corporation and Subsidiaries  
Pro-Forma  
(Financial and Human Resource Accounting)

Balance Sheet

Assets	1969	1969
	Financial and Human Resource	Financial Only
Total Current Assets.....	\$10,003,628	\$10,003,628
Net Property, Plant and Equipment	1,770,717	1,770,717
Excess of Purchase Price of Subsidiaries over Net Assets Acquired.....	1,188,704	1,188,704
Net Investments in Human Resources.....	986,094	—
Other Assets.....	106,783	106,783
	<u>\$14,055,926</u>	<u>\$13,069,832</u>

Liabilities and Stockholders' Equity

Total Current Liabilities.....	\$ 5,715,708	\$ 5,715,708
Long Term Debt, Excluding Current Installments.....	1,935,500	1,935,500
Deferred Compensation.....	62,380	62,380
Deferred Federal Income Taxes as a Result of Appropriation for Human Resources.....	493,047	—
Stockholders' Equity:		
Capital Stock.....	879,116	879,116
Additional Capital in Excess of Par Value.....	1,736,253	1,736,253
Retained Earnings:		
Financial.....	2,740,875	2,740,875
Appropriation for Human Resources.....	493,047	—
Total Stockholders' Equity.....	<u>5,849,291</u>	<u>5,356,244</u>
	<u>\$14,055,926</u>	<u>\$13,069,832</u>

Statement of Income

	1969	1969
	Financial and Human Resource	Financial Only
Net sales.....	\$25,310,588	\$25,310,588
Cost of sales.....	16,275,876	16,275,876
Gross profit.....	9,034,712	9,034,712
Selling, general and adminis- trative expenses.....	6,737,313	6,737,313
Operating income.....	2,297,399	2,297,399
Other deductions, net.....	953,177	953,177
Income before Federal income taxes.....	1,344,222	1,344,222
Human Resource expenses applicable to future periods...	173,569	—
Adjusted income before Federal income taxes.....	1,517,791	1,344,222
Federal income taxes.....	730,785	644,000
Net income.....	<u>\$ 787,006</u>	<u>\$ 700,222</u>

Replacement cost is an estimate of the recruiting and training cost to replace an employee from outside the organization. In the case of a chief executive who knows all the "ins and outs," these costs may be considerable. The replacement cost carries the investment approach a step beyond historical cost in that it updates costs to a current figure that is adjusted for inflationary trends and hence provides up to date cost estimates for replacing turnover or planning expansion.

The human resource is a highly volatile resource. Its efficiency and effectiveness are subject to large fluctuations. A system which is to monitor this resource must provide more than cost estimates. Possession of human resources in itself has no utility. The utility of the human resource is its productivity, therefore the monitoring system must provide an estimate of human value.

#### Valuing the Human Resource

Need for a surrogate. The difficulties involved in applying economic valuation in a real organization suggest the need for a surrogate measure of an individual's value. "If it were possible to apply the economic valuation model such a surrogate value measure would not be necessary."<sup>12</sup>

The interest in a surrogate measure exists only in so far as it would reflect a principle measure. The surrogate is needed because an ultimate measure of some phenomenon - in this case human value - is not available.

Traditionally accounting has employed cost as a measure to avoid the difficulties involved in economic valuation. W. A. Paton implicitly suggests that accountants recognize that cost is merely a surrogate for value. "Cost is not of basic importance because it represents an amount paid; it is important as a measure of the value of what is acquired."<sup>13</sup> The primary limitation to selecting cost as a surrogate is that the cost incurred to acquire a resource may bear no significant relation to its value today.<sup>14</sup>

R. J. Chambers suggests that current cost is the market's estimate of economic value: "The price currently ruling for producer goods is the market assessment of the present value of expected income flows from their use at the present level of prices for all potential users of such goods." He argued that barring imperfections in the market, current cost and value will be equal.<sup>15</sup>

The economic value of an individual to a firm is commonly defined as the present value of the expected future contributions of the individual, discounted by the firm's cost of capital.

The discounted future salaries method records both an asset and a liability in the amount of the present value of expected future salaries as the resource cost. This is the cost to retain the employee's services.<sup>16</sup>

In an attempt to develop an accounting surrogate, Sadan and Auerbach equate the economic value of an individual's contribution to the total cost associated with an individual over his service life discounted by the cost of capital.<sup>17</sup>

The use of a surrogate measure is inherently dangerous in that the substitute itself may not be measurable or that the assumption of equality between the surrogate and the actual phenomenon may not be valid. This can be illustrated by the telling of a story (which through time and common usage has lost its authorship.)

It is concerned with the procedure used to weigh hogs in (the location varies with whomever the teller is intending to slur.) It seems that this group will construct a balance scale with a plank and some type of fulcrum. They will then tie the hog to one end and find a stone which will balance the hog on the other end. Once the "balance" has been achieved they will step back and guess the weight of the stone.

Behavioral Measures. The traditional cost model seeks to measure future value by accumulating past expired costs. In H.R.A. as in other areas of accounting there is a questioning of the adequacy of this cost model. This questioning results in a turning from cost and an embracing of valuation methods based on behavioral measures.

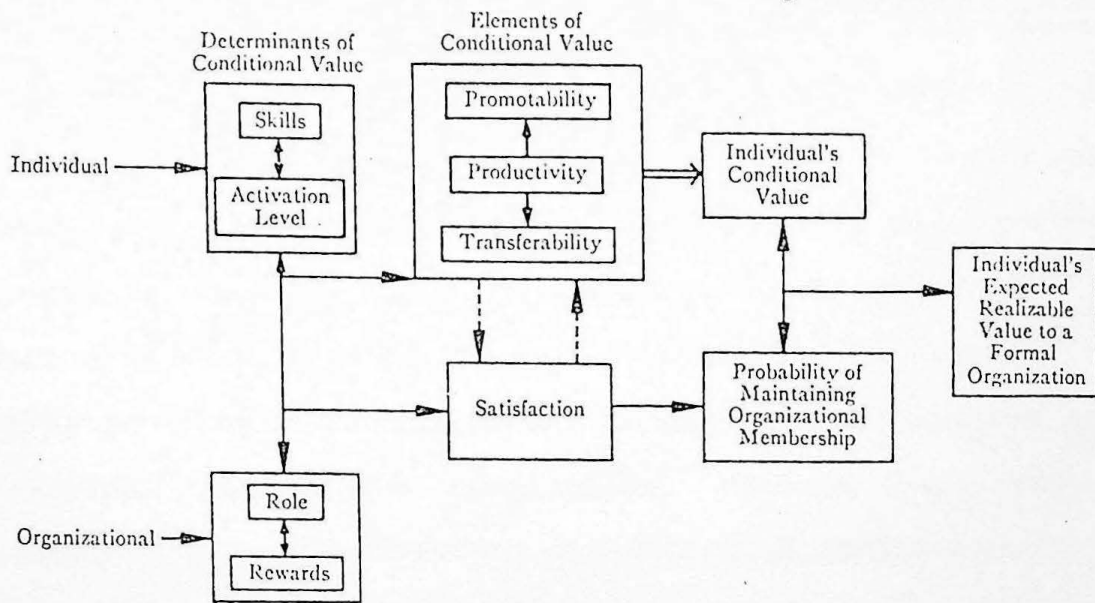
Behavioral measurement is based on the premise that behavioral variables such as motivation, group cohesion, and morale determine the productive capacity of human resources and consequently their value to the firm. This premise leads to several suggestions for using behavioral variables in human resource accounting. First, behavioral measures can be used to determine whether or not expenditures related to the development and maintenance of human resources should be expensed or capitalized. If capitalized, behavioral measures can be used to determine the amortization rate of human resource investments. Second, behavioral variables can be used to predict changes in productivity and forecast future earnings. The predicted earnings can then be discounted to determine the present value of the firm and its human resources. If meaningful financial measures cannot be derived from the behavioral measures, however, then the behavioral determinants can only be used as nonmonetary indicators of human resource value.<sup>18</sup>

In a 1972 article in the Accounting Review, Eric Flamholtz presents the following model to value human resources in formal organizations. He quotes Irvin Fisher's observation in The Nature of Capital and Income:

... No one will dispute that the buyer of an article of capital will value it for its expected services to him, and that "at the margin" of his purchases, the price he will pay is the equivalent to him of these expected services, or, in other words, "is their present worth," their "discounted value," or "capitalized value."<sup>19</sup>

Flamholtz presents his model:

Exhibit VIII-Model of the Determinants of an Individual's Value to a Formal Organization<sup>20</sup>



Legend: *Symbol* *Meaning*  
 —▶ Hypothesized determinant  
 ◀—▶ Hypothesized interaction  
 ==▶ A subset  
 - - -▶ Possible determinant

The end result is composed of two interacting variables: 1.) his conditional value - the present worth of his future services, and 2.) the probability the organization will receive these potential services. The conditional value is composed of

productivity, promotability, and transferability. Productivity or performance refers to the set of services the individual renders in his present position. Transferability is the set of services that could be expected if the individual is moved to another position at the same level. Promotability then refers to services expected at a higher organizational level. These elements of conditional value are the results of determinants referred to as skills or level of training and the employees "activation level" or motivation. Flamholtz refers to Lawler and Vroom in presenting a hypothesis that "an individual's skills and activation level interact to determine the person's potential for rendering services to an organization."

The individual determinants of conditional value also interact with organizational determinants - role and rewards. An individual's organizational role affects the person's opportunity to render his personal services. The absence of a match in an individual's skills and his role lessens his conditional value to the organization. Rewards also affect conditional value by affecting the degree of activation. A subscription to the theory that a reward does not motivate but is only a hygiene factor whose absence reduces motivation has no effect on this relationship.

As earlier stated the end result value is affected by an interaction of conditional value and the probability of maintaining membership. Research on causes of turnover has suggested an inverse relationship between turnover and satisfaction. The model depicts satisfaction as a result of an

interaction of individual and organizational determinants of conditional value and the elements of conditional value.<sup>21</sup>

It seems a logical conclusion from Mr. Flamholtz's model that a reasonable measurement of an individual's value can be obtained from a measurement of the four determinants of conditional value.

Rensis Likert has directed his research into areas in which he attempts to define the management characteristics and determine which management characteristics produce high productivity. He defined the systems of management as explorative authoritative, benevolent authoritative, consultive, and participative group, and designated them respectively as system 1, 2, 3, 4. He then approached business executives and had them think first of their most productive department and rate various aspects or relationships existing in the department on a continuing scale relating to the four systems. The executives then thought of their least productive department of similar size and made a similar rating. The results indicated the higher producing departments were consistently rated more toward the system four end of the continuum.<sup>22</sup>

The American Accounting Association's Committee on Human Resource Accounting summarized Likert's behavioral science approach to human resource measurement as follows:

This model is composed of three classes of variables: "causal," "intervening," and "end-result." They are defined as follows:

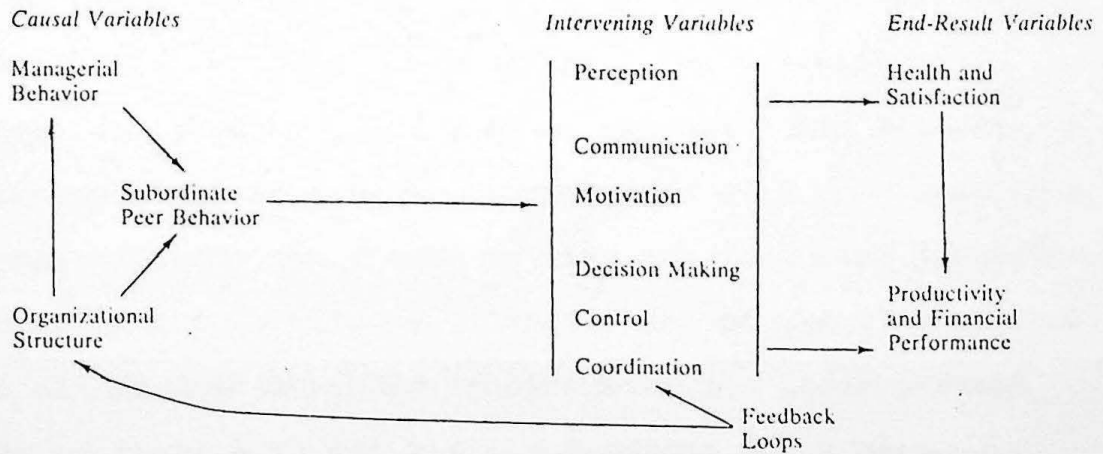
1. The causal variables are independent variables which can be directly or purposely altered or changed by the organization and its management and which, in turn, determine the course of developments within an organization.

2. The intervening variables reflect the internal state, health, and performance capabilities of the organization, e.g., the loyalties, attitudes, motivation, performance, goals, and perceptions of all members and their collective capacity for effective action, interaction, communications, and decision-making.

3. The end-result variables are the dependent variables which reflect the results achieved by that organization, such as its productivity, costs, scrap loss, growth, share of the market, and earnings.

According to Likert, the causal and intervening variables describe the internal state of the organization as a human system. Causal variables (which include organizational policies) are believed to affect "the quality and capabilities of the human organization." In this model, the "quality and capability" of the human organization are defined in terms of certain organizational processes such as decision-making, communication, and coordination. Other so-called intervening variables are motivation and perception. Thus the causal variables influence the intervening variables, which, in turn determine the organization's end results.<sup>23</sup>

Exhibit IX Model of Determinants of a Group's Value to an Organization<sup>24</sup>



Both the approaches suggested by Flamholtz and Likert recognize the human resource as a multidimensional asset whose value depends upon the interaction of multiple variables. The key presented by Myers and Flowers involves the measurement of these variables which they call dimensions of human assets



and expressing them in terms of dollars. They recognize that when an organization hires a person it is hiring a set of skills and if these skills are to be applied constructively they must be applied in conjunction with knowledge, health, availability and attitudes.

A flow-process leading to job performance is as follows: knowledge + skills + health → availability → attitudes → job performance. The individual's knowledge enables him to direct his skills and his health enables him to apply them. He must be available when needed, and he must have the desire to apply his talents and energy toward productive effort. The five dimensions are factorial rather than additive - if any one is lacking, the others are rendered correspondingly ineffective. Before deciding to improve one dimension, consideration must be given to the level of the others. For example, it may not be cost effective to improve the knowledge of an employee if his attitude is poor. The first priority might be to improve his attitude before undertaking knowledge improvement.<sup>25</sup>

An organization can qualitatively assess the worth of its human resource through a combination of evaluations and questionnaires. Through the compilation of a series of appraisals designed to judge whether employees met all the requirements of their jobs or requirements of a more desirable job an organization could come up with the following knowledge assessment of its work force. (Exhibit X) Of the 2760 persons who met all or most knowledge requirements for their present job, 45% of these also met the requirements for a more desirable job, 35% did not, and 20% could not be measured.<sup>26</sup>

Exhibit X Knowledge Assessment of a Work Force<sup>27</sup>

	Present Job		More Desirable Job						Total	
	n	%	3,4		1,2		0		n	%
			n	%	n	%	n	%		
3,4 Meet all or most knowledge requirements	2760	69	1240	45	960	35	560	20	2760	100
1,2 Meet minimal or no knowledge requirements	1040	26	200	19	120	12	720	69	1040	100
0 Knowledge levels not known.	200	5	--	--	--	--	200	100	200	100
Totals	4000	100	1440	36	1080	27	1480	37	4000	100

Myers and Flowers consider job attitudes as a symptom of the other dimensions of human assets as these are interpreted by a person's own value system. Therefore, a reliable and quantitative measure of attitudes is probably the best single measure of how well all dimensions are being utilized. Myers and Flowers employed an attitude survey form to evaluate the attitude level of an organization. Recognizing the variance of effect on attitudes depending on the position and tenure of a specific individual they developed a weighing system which took into account these two factors. For ease in interpreting and reporting results, the scoring weights for the attitude survey were adjusted so 1.00 became the dividing line between a negative and a positive attitude.<sup>28</sup>

On the assumption that salaries are money invested by the organization to purchase productive skills, the attitude score becomes a meaningful indicator of the extent to which applied skills represent an adequate return on this investment in salaries. Exhibit XI presents the details of a formula for converting attitude scores into financial returns on payroll investments expressed in terms of gain, break-even, or deficit.<sup>29</sup>

Individual	Annual Salary	Job Grade	Tenure	Attitude Weight	Attitude	Weighted
					Score	Attitude Score
1. John Doe	\$14,000	28	5	5	1.05	5.25
2. Mary Brown	7,000	57	11	5	1.12	5.60
3. Harry Smith	9,000	12	22	7	1.21	8.47
4. Bill Jones	6,500	72	3	3	1.26	3.78
5. Jim Johnson	<u>18,500</u>	30	4	<u>6</u>	1.15	<u>6.90</u>
	\$55,000			26		30.00

$$\text{Attitude Index} = \frac{(\text{weighted A-Score})}{(\text{Attitude Weight})} = \frac{30.00}{26} = \boxed{1.15}$$

$$\text{Dollarized Attitudes} = \text{Attitude Index} (\text{Annual Payroll}) = 1.15(55,000) = \$63,250$$

$$\text{Gain} = 63,250 - 55,000 = \$8,250 \quad \text{Gain Per Person} = \frac{8,250}{5} = \boxed{\$1,650}$$

However, It is not likely that this illustration of attitude measurement can actually lead to the recognition of an actual gain it only purports to show a condition in which a good attitude may yield a competitive advantage reflected in increased productivity or lower costs. The advantage may very well yield the gain.

Although the information presented in the knowledge assessment and the dollarized attitudes may well be important in a qualitative sense, it has not been demonstrated that this type of attitude measurement can be accurately translated into a meaningful dollar measurement. The most promising thought is that a measurement of the degree of congruency in the interaction of Flamholtz's determinants of conditional value or Likert's causal and intervening variables or Meyers and Flowers' dimensions of human assets can explain a firm's above average profit and thereby establish a value of the human resource. From then on monitoring the human variables will disclose changes which can be used to predict a change in profit. They may not even adequately reflect an individual's performance itself and

3. Performance Measures. There are a number of possible biases or errors which may Performance Measures. The use of behavioral measures is limited by an inability to demonstrate empirically a cause and effect relationship between factors such as job satisfaction and job performance. Thus as Liao states:

The measurement of behavioral variables as indicator of the value of its human resources is questionable. The end result is affected by too many factors other than behavioral and changes in productivity cannot be predicted without knowledge of a firm's present position on its productivity curve.<sup>31</sup>

However, if accountants only measure and report end result variables such as sales or profit they ignore the value of human resources. Liao suggests productivity measurement as a feasible and most desirable variable to use for measuring human resources. These measures are intended to measure the contribution an individual makes to the goals of an organization by rendering services in his present position. They would be reported in the form of volume of production, such as the number of units an individual produces or the number of words an individual types per minute.

Liao supports his choice of productivity measures as an indicator of human resources through his contention of a direct relationship or productivity measures with end result variables such as sales and profits.<sup>32</sup>

Flamholtz grants that productivity measures may be a possible surrogate because of their face validity but concludes they are probably not adequate because:

1. They do not adequately reflect all the major elements of an individual's value to an organization.
2. They may not even adequately reflect an individual's performance itself and
3. There are a number of possible biases or errors which may contaminate the process of assessing performance.

An individual's value to an organization is multidimensional. It is a composite of several factors including productivity, transferability, and promotability. Performance measures are uni-dimensional; they do not take such factors as promotability into account. For example, a performance measure may not reflect the value of an individual who possesses high promotion potential. Thus, performance measures may not adequately reflect all the relevant variables affecting an individual's value.

Another criticism of performance measures is that they frequently do not represent even performance itself

adequately because they do not reflect the full range of an organization's goals. They may not reflect an individual's contribution to important organizational goals, which for a variety of reasons, may not be included in the performance measure. For example, although the development of young, high-potential managers may be an important organizational goal, a manager's contribution to this goal may not be reflected in measures used to evaluate his performance. His performance may be assessed in terms of various indices such as production volume or the ratio of actual to standard costs, which do not reflect the development of subordinates.<sup>33</sup>

<sup>33</sup>Michael C. Alexander, "Investment in People," Canadian Chartered Accountant, July 1971, p. 41.

<sup>5</sup>Ibid., p. 41.

<sup>6</sup>Ibid.

<sup>7</sup>Ibid., p. 42.

<sup>8</sup>Ibid., pp. 41-2.

<sup>9</sup>Robert Woodruff, Jr., "Human Resource Accounting," Canadian Chartered Accountant, September 1970, pp. 157-6.

<sup>10</sup>Ibid., p. 159.

<sup>11</sup>Ibid., pp. 159-160.

<sup>12</sup>Eric Flamholtz, "A Model for Human Resource Valuation: A Stochastic Process with Service Rewards," The Accounting Review, April 1971, p. 261.

<sup>13</sup>William A. Paton, "Cost and Value in Accounting," Journal of Accountancy, March 1946, p. 193.

<sup>14</sup>Flamholtz, p. 263.

<sup>15</sup>Ibid., p. 264, "Citing" R. J. Chambers, "Towards a General Theory of Accounting," The Australian Society of Accountants, (1963.)

<sup>16</sup>"AAA Report," p. 173.

<sup>17</sup>Simcha Saden and Len B. Auerbach, "A Stochastic Model for Human Resources Valuation," California Management Review, XVI no. 4 (Summer 1974): 25-6.

<sup>18</sup>S. S. Liao, "Human Assets, Human Resources, and Managerial Decision," Management Accounting, November 1974 p. 20.

## CHAPTER III - FOOTNOTES

<sup>1</sup>"AAA Report of the Committee on Human Resource Accounting," The Accounting Review, supp. to XLVIII (1973), pp. 171-3.

<sup>2</sup>William C. Pyle, "Human Resource Accounting," Financial Analyst Journal XXVI (September-October 1970):70.

<sup>3</sup>Ibid., p. 77."Citing,"W.A. Paton, Asset Accounting.

<sup>4</sup>Michael O. Alexander, "Investment in People," Canadian Chartered Accountant, July 1971, p. 41.

<sup>5</sup>Ibid., p. 41.

<sup>6</sup>Ibid.

<sup>7</sup>Ibid., p. 42.

<sup>8</sup>Ibid., pp. 41-2.

<sup>9</sup>Robert Woodruff, Jr., "Human Resource Accounting," Canadian Chartered Accountant, September 1970, pp. 157-8.

<sup>10</sup>Ibid., p. 159.

<sup>11</sup>Ibid., pp. 159-160.

<sup>12</sup>Eric Flamholtz, "A Model for Human Resource Valuation: A Stochastic Process with Service Rewards," The Accounting Review, April 1971, p. 261.

<sup>13</sup>William A. Paton, "Cost and Value in Accounting," Journal of Accountancy, March 1946, p. 193.

<sup>14</sup>Flamholtz, p. 263.

<sup>15</sup>Ibid., p. 264, "Citing" R. J. Chambers, "Towards a General Theory of Accounting," The Australian Society of Accountants, (1963.)

<sup>16</sup>"AAA Report," p. 173.

<sup>17</sup>Simcha Sadan and Len B. Auerbach, "A Stochastic Model for Human Resources Valuation," California Management Review, XVI no. 4 (Summer 1974): 25-6.

<sup>18</sup>S. S. Liao, "Human Assets, Human Resources, and Managerial Decision," Management Accounting, November 1974 p. 20.

<sup>19</sup>Eric Flamholtz, "Toward a Theory of Human Resource Value in Formal Organization," The Accounting Review, October 1972, pp. 666-678.

<sup>20</sup>Ibid., p. 668.

<sup>21</sup>Ibid.

<sup>22</sup>R. Likert, The Human Organization, Its Management and Value, (New York:McGraw Hill, 1967), p. 3.

<sup>23</sup>"AAA Report," p. 176.

<sup>24</sup>Ibid., Reprinted from Likert, Rensis and Bowers, David G. "Organizational Theory and Human Resource Accounting," American Psychological Association Address, August 30, 1968 p. 7.

<sup>25</sup>M. Scott Myers and Vincent S. Flowers, "A Framework for Measuring Human Asset," California Management Review XVI no. 4 (Summer 1974):7.

<sup>26</sup>Ibid.

<sup>27</sup>Ibid.

<sup>28</sup>Ibid., p. 12.

<sup>29</sup>Ibid. one word, "goodwill." We have then established

<sup>30</sup>Ibid., pp. 12-3.

<sup>31</sup>Liao, p. 22.

<sup>32</sup>Ibid.

<sup>33</sup>Flamholtz, "A Model for Human Resource Valuation," p. 265.

resource is measurable and that it must be selected as an item to be measured if it is going to be given the emphasis it deserves.

To examine the case for Human Resource Accounting we must re-examine some basic question. 1.) Should human resources be measured? 2.) What is the effect of measuring and reporting human resources? 3.) How are the resources to be measured?

The answer to the first question is wrapped up in one's

## CHAPTER IV

### THE FEASIBILITY OF HUMAN RESOURCE ACCOUNTING

The concept of reporting human resources in a qualified format is an idea which invariably touches the imagination of the reader. It is an area which has been ignored by both accountants and management. We have long been plagued by phenomena which no one has been able to explain - that is why can one company generate such vastly superior profits than another company of the same relative size within the same industry. To date, we have been satisfied to explain this situation in one word, "goodwill." We have then established rules by which goodwill is reported. Proponents of Human Resource Accounting boldly state that this ability to generate excess profits is largely due to the superiority of the one firm's human resources. They further contend that this resource is measurable and that it must be selected as an item to be measured if it is going to be given the emphasis it deserves.

To examine the case for Human Resource Accounting we must re-examine some basic question. 1.) Should human resources be measured? 2.) What is the effect of measuring and reporting human resources? 3.) How are the resources to be measured?

The answer to the first question is wrapped up in one's that it can not be owned, it is not subject to a transaction



perception of the nature of human resources. One reason the human resource has been neglected is that management has long perceived labor to be in the same category as air - infinitely available and of equal quality. (Recent events have cast some doubts on the correctness of either perception.) Management perceives labor skill and knowledge as a set of services which can be acquired solely by the payment of wages. This perception is accurate to a point, in that wages are a factor. It fails to recognize the action of other variables which affect both the availability and quality of human services. The H.R.A. concept says that management's total actions are among the determinants of both the availability and quality of human resources. These actions (payment of wages, insuring the worker's dignity, establishment of training programs, recruiting efforts, response to grievances, job enrichment, and a myriad of other efforts in which the organization meets the individual's needs) comprise the environment in which the human resource provides his services. The measure of this environment is then the measure of the human resource.

The question should we measure human resources becomes do we want to know the condition of the organization? If we do then we must measure the human resource.

Accountants get hung up on a theoretical point when deciding whether to measure human resources. The human resource does not meet the strict definition of an asset in that it can not be owned. It is not subject to a transaction

approach. Therefore it can not be measured. Accountants can get beyond this point if they define ownership as availability and a transaction as an event which leads to availability. Just as a purchase is an event which yields the availability of a machine, actions which comprise the organizational environment are events which yield the availability of the human resource. If the purchase price is the measure of the machine then the organizational environment is the measure of the human resource.

The effect of measuring and reporting the human resource is the same as the effect of measuring any other asset, that is to provide an awareness of the consequences of a decision and to provide information which forms a basis for action.

In assessing the state of human resource accounting, Geoffrey Baker indicates that advocates of H.R.A. have done a credible job in establishing the need for human resource data but he charges that an inadequate case has been made towards establishing a feasible means to meet the need and that no attempt has been put forth to measure the cost of the system in comparison to the expected benefits. He also questions whether the need to provide human resource information is being confused with the need to provide dollar labels which are not available and may not be necessary.<sup>1</sup>

The third question, how are the resources to be measured does not have a definite answer. Several approaches

have been suggested. The cost approach counts the dollars expended in recruiting and developing human resources and assigns these dollars to various periods. Its major benefit is a renewed awareness of the flow of dollars spent on human resources and especially the dollars lost through turnover. There are, however, serious allocation problems associated with this approach. It is nearly impossible to accurately determine which period a given personnel expenditure will benefit or even if the expenditure will be of any value. Cost is not an adequate measure for human resources, since the benefit received for a given dollar is not the same as that received for another. What is needed is a type of thermometer which will give current readings on the present condition of the human organization. Both the behavioral and performance measures offer promise to provide this type of gauge. Both are direct measures of the condition of the human resource. The behavioral approach is based on the premise that a happy work force is more efficient and therefore more valuable than an unhappy one. Once the contribution to output of each variable in the organizational environment is discovered and proven empirically, any change in an individual variable will enable management to revise its valuation of the human resource. Although this approach seems logical it has not been proven through empirical research. Before behavioral measurement can be adopted, research must demonstrate the link between the causal variables and the end result. Performance measures tell us not to worry about what

makes Johnny run, just measure how fast he runs. The advantage of this approach is that it offers a measurement nearer the end result and more readily translated into prediction of the value of the human research.

Human resource accounting is an attempt to measure something not measured before. As more research is conducted the area is revealing itself to be more complex than anticipated. It may prove too complex for measurement.

## CHAPTER IV - FOOTNOTE

<sup>1</sup>Geoffrey M. N. Baker, "The Feasibility and Utility of Human Resource Accounting," California Management Review XVI (Summer 1974):20-1.

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