
**COMMITTEE ON POST OFFICE
AND CIVIL SERVICE
U.S. HOUSE OF REPRESENTATIVES**

**Appendices to the
Study of Total Compensation
in the
Federal, State and Private Sectors**

December 4, 1984

**Prepared by
Hay/Huggins Company
and
Hay Management Consultants**

Atlanta • Boston • Charlotte • Chicago • Cincinnati • Dallas • Houston • Kansas City •
Los Angeles • Minneapolis • New York • Philadelphia • Phoenix • Pittsburgh • St. Louis •
San Francisco • San Jose • Seattle • Stamford • Walnut Creek • Washington, D.C.

HAY

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HAY

TABLE OF APPENDICES

- APPENDIX A: Hay Cash Compensation Comparison Participant List
- APPENDIX B: Hay/Huggins Benefits Comparison Participant List
- APPENDIX C: Detailed Description of Hay Job Evaluation Methodology
- APPENDIX D: List of 392 GS and Equivalent Positions Selected by Grade and Series, Including Population
- APPENDIX E: List of 38 SES Jobs Evaluated
- APPENDIX F: List of 24 Bureau of Labor Statistics Positions Included
- APPENDIX G: Matrix of Jobs Matched by State
- APPENDIX H: Prevalence of Benefit Practices
- APPENDIX I: Characteristics of Participating Firms
- APPENDIX J: Regression Statistics for Federal Cash Compensation Practice
- APPENDIX K: Base Salary Comparisons

A

APPENDIX A

Hay Cash Compensation Comparison

Participant List

INDUSTRIAL - 1983

HAY COMPENSATION COMPARISON

1983 HCC INDUSTRIAL

MANUFACTURING

AEL Industries	BATUS	Cooper Industries
AMAX	Brown & Williamson Tobacco	Apex Machine & Tool
AMAX Base Metals R & D	Bell Helicopter Textron	Cooper Air Compressors
AMAX Chemicals	Berol	Cooper Air Tools
AMAX Coal	Berol USA	Cooper Electronics
AMAX Copper	Fairlawn	Cooper Energy Services
AMAX Environmental Services	Hudson Lumber	Cooper Hand Tools
AMAX Exploration	Binney & Smith	Cooper Petroleum Equipment
AMAX Extractive R & D	Boehringer Ingelheim Ltd. U.S.A.	Crouse-Hinds
AMAX Lead & Zinc	Borg-Warner	Belden Electrical Wire Products
AMAX Molybdenum	Air Conditioning Group	Demco
AMAX Nickel	Chemicals and Plastics Group	Distribution Equipment
AMAX Petroleum	Energy Equipment Group	Funk Manufacturing
AMAX Phosphate	Transportation Equipment Group	Kirsh
AMAX Special Metals	Braden Steel	Martin-Decker
AMF	Bridgestone Tire	Portable Rig
Abitibi Price	Brown & Sharpe Manufacturing	Copeland
Air Products and Chemicals	Bucyrus-Erie	Copperweld
Chemical Group	Construction Machinery	Copperweld Bimetallics Group
Industrial Gases Group	Mining Machinery	Copperweld Energy Group
Process Systems Group	Western Gear	Copperweld Robotics
Alcan Aluminum	Burmah Castrol	Cooperweld Steel
ALCOA	Burry-Lu	Copperweld Tubing Group
Alexander & Baldwin	CFS Continental	Information Systems
Allen-Bradley	CWC Castings	Core Laboratories
Allergan Pharmaceuticals	California & Hawaiian Sugar	Coulter Electronics
Allis-Chalmers	Camcar	Curtin-Matheson Scientific
AMCA International	Cameron Iron Works	Crane
Cherry-Burrell	Canteen	Crane U.S.A.
Consumer Products	Cargill	Current
Varco-Pruden	Carrier	Cutter Laboratories
Amerada Hess	Case (J.I.)	Cyclops
American Crystal Sugar	Castle (A.M.)	Dairy Equipment
American Hospital Supply	Caterpillar	Dallas Morning News
American Maize Products - Corn Process. Division	Ceco	Dan River
Anaconda Ericsson	Celanese	Danis Industries
Communications Division	Virginia Chemicals	Waste Services
Anamax Mining	Central Soya	Deluxe Check Printers
Anchor Hocking	Chef Francisco	Dennison Manufacturing
Andersons, The	Chemplex	Dennison National
Anderson-Clayton	Chesebrough-Pond's	Dentsply International
Igloo	Bass (G.H.)	Dexter
Arcata Graphics	Health-Tex	C.H. Dexter
Arcata Graphics Buffalo	Prince Manufacturing	Gibco
Baird Ward	Chipman-Union	Howe & Bainbridge
Fairfield Graphics	Chloride	Hysol
Halliday Lithograph	Ciba-Geigy	Midland
Kingsport Press	Agricultural	Mogul
San Jose Graphics	Airwick Industries	Diamond Shamrock
Armco	Dyestuffs and Chemicals	Chemical
National Supply	Ilford	Coal
Armstrong World Industries	Pharmaceuticals	Exploration & Production
ASEA	Plastics and Additives	Refining & Marketing
Ashland Oil	Clark Equipment	Dick (A.B.)
Ashland Chemical	Cleopak	Dietrich Industries
Ashland Coal	Clow	Diversey Wyandotte
Ashland Exploration	Coca-Cola Bottling Co. United	Dixie Yarns
Ashland Petroleum	Codex	Donnelley (R.R.)
Atlantic Steel	Collins & Aikman	Dow Chemical
Atlas Minerals	Columbia Nitrogen	Dow Corning
BW Steel	Commercial Shearing	Duriron
Calumet Steel	Computervision	E.I. DuPont de Nemours
Franklin Steel	ConAgra	Conoco
Badische	Banquet Foods	Coal & Minerals
Barber-Greene	Consolidated Metco	Concarb
Barden	Consolidated Packaging	Petroleum Operations
Barry Wright	Contraves Goertz	E-Z-Em
	Cooling Lindsay RIS	

1983 HCC INDUSTRIAL (Continued)

MANUFACTURING

Eaton	Hercules	La Maur
Industrial Products Group	Amchem	Lamb-Weston
Transportation Products Group	Hercules	Leggett & Platt
Economics Laboratory	High Industries	LEGO Systems
Energy Reserves	Hilti	Levi-Strauss
Engelhard Industries Division	Hill Steel Industries Products	Childrenswear
Ensign-Bickford Industries	Honeywell	Menswear
Essex Chemical	Building Services	Womenswear
Euclid	Information Systems	Leybold Heraeus Vacuum Products
Everest & Jennings	MicroSwitch	Libbey-Owens-Ford
Exxon Company U.S.A.	Process Control	Lithium Corporation
FMC-Ordnance Div.	Residential	Lord
Ferrero U.S.A.	Hormel (Geo. A.)	Louisiana Land & Exploration
Firestone Tire & Rubber	Houghton Mifflin	Lufkin Industries
Flinchbaugh Products	Howmet	M & M Mars
Florida Steel	Huber (J.M.)	MCC Powers
Foote Mineral	Huffy	MPB
Franklin Mint	Bike Assembly	Mack Printing
Freeport McMoRan	Frabill Bicycle	Mack Trucks
Freightliner	Ohio Bicycle	Macmillan
French (R.T.)	Oklahoma Bicycle	Magnetic Controls
Grocery	Hunt Manufacturing	MAPCO
Potato	Hunt-Wesson Foods	Mary Kay Cosmetics
Fruit Growers Express	Hydriil	Mathews International
G.A. Technologies	Hygeia Coca-Cola Bottling	Maytag
GATX-Fuller	Hyster	McGraw-Edison
General American Transportation	IC Industries	Bussmann
Tank Erection/Pollock	Abex	Campbell Chain
GCO Minerals	Midas International	Clarke
General Electric	Pepsi-Cola General Bottlers	Lighting Products
General Foods	Pet	Masonite
General Mills	Pet Dairy	Onan
General Shale Products	ICI Americas/U.S.A.	Power Systems
General Signal	Illinois Tool Works	Service
DeZurik	Industrial Paper Distributors	Wagner
General Railway	Ingersoll-Rand	Worthington Group
Leeds and Northrup	Inmont	McGraw-Hill
Getty Oil	Intecom	McQuay
Gifford Hill	Intercraft Industries	Berlin Foundry
Gilbarco	International Harvester	Energy Systems & Service
Global Marine	Agricultural Equipment Group	HVAC
Glynwed	Truck Group	OEM
Goldkist	International Multifoods	Perflex
Goodrich (B.F.)	International Packings	Specialty Products
Goodyear Tire & Rubber	International Paper	Mead
Great Northern Nekoosa	InterRoyal	Media General
Great Northern Paper	Itek	Merck
Great Southern Paper	Applied Technology	Microdot Fastening Systems
Nekoosa Papers	Graphic Systems and Communication Industries	Miles Laboratories
Griffin Pipe Products	Optical Systems	Mine Safety
Gulf Oil	Johnson (S.C.) & Son	Minneapolis Electric Steel Castings
Harshaw Chemical	Johnson Matthey	MITRE
Hallmark Cards	Joy Manufacturing	Modine
Hamilton Glass Products	Kal Kan	Morgan Corporation
Hammermill Paper	Kellogg	Morrison
Beckett Paper	Kendall	Murphy Oil
Northern Operations	Kennametal	NCR
Hanes	Kent-Moore	Nalco Chemical
Healthdyne	Kerr-McGee	Nashua
Air Shields	Chemical	National Gypsum
Bio Systems	Forest Products	American Olean Tile
Pilling Co.	Mining	Binswanger Glass
Product Service	Petroleum	Cement
Heinz (H.J.)	Keyes Fibre	Gold Bond Building Products
Heinz U.S.A.	Kimberly-Clark	National Sea Products
Hubinger	La Barge	National Valve and Manufacturing
Ore-Ida Foods	Electronics Division	
	Tubular Division	

INDUSTRIAL - 1983

HAY COMPENSATION COMPARISON

1983 HCC INDUSTRIAL (Continued)

MANUFACTURING

Natomas	Pittsburgh Corning	Standard Oil (Ohio)
Natomas Coal	Pittsburgh - Des Moines Steel	Chemicals & Industrial Products
Natomas North American	Plexco	Kennecott
Natomas Petroleum International	Polk (R.L.)	Oil
Thermal Power	Price Brothers	Old Ben Coal
Newport News Shipbuilding	Puritan-Bennett	Petroleum
Newsweek	Quaker Oats	Standard Register
Nipponenso of Los Angeles	Racal-Milgo	Steiger Tractor
Nissan Motor Manufacturing U.S.A.	Racine Steel Castings	Stepan Chemical
Noranda Aluminum	Railcar	Suburban Propane Gas -
Norgren (C.A.)	Real Estate Data	Plateau
North American Philips	Recognition Equipment	SPG Energy Exploration
Philips Medical Systems	Reichhold Chemicals	Sun Company
North Star Steel	Rexnord	Superior Electric
Northrop - Defense Systems Division	Reynolds (R.J.) Industries	Susquehanna
Northrop - Electronics Division	Aminoil	R & G Sloane Manufacturing
Northwest Energy	Archer	Rockwool Industries
Northwest Marine Iron Works	Del Monte	Syntax
Norton	Tobacco	Syntax Dental Products
Nortronics	Reynolds Metals	Syntax Ophthalmics
O'Sullivan Industries	Robbins & Myers	Syva
Occidental Chemical	Comfort Conditioning	TRW Mission
Agricultural Products Group	Electric Motor	Technicon Instruments
Feed	Fluids Handling	Tenneco Oil - Processing and Marketing
Fertilizer	Materials Handling	Tetley
Energy-for-Waste	Robins (A.H.)	Texas Instruments
Industrial Chemicals Group	Rockwell International	Texas Gulf
International Group - Headquarters Division	Rogers	Thermo-Electron
Plastic & Chemical Specialties Group	Interconnection Products Group	Timken
Durez	Rolls Royce	Tonka
Plastic	Royster	Triad Chemical
Occidental Oil Shale	Rust-Oleum	UARCO
Okidata	SCM	Union Carbide
Olin	Allied Paper	Union Pacific
Brass	Paper Converting	Champlin Petroleum
Chemicals	Pulp & Paper	Rocky Mountain Energy
Consumer Products	Chemicals	Upland Industries
Ecusta	Organic Chemicals	Union Special
Winchester	Pigments, Metals & Equipment	Union Tank Car
Otis Elevator, NAO	Consumer Products	UNIROYAL
Otis Engineering	Durkee Famous Foods	U.S. Gypsum
Owens-Corning Fiberglas	Proctor-Silex	U.S. Steel
Owens-Illinois	Smith-Corona	U.S. Tobacco
PPG Industries	Durkee Foods	Upjohn
Chemicals	Glidden Coatings and Resins	Asgrow Seed
Coatings and Resins	Kleinschmidt	Chemical
Fiberglas	SPS Technologies	Pharmaceutical
Glass	Sandia National Laboratories	Vallen
Pako	Sandvik	Valmont Industries
PALCO Industries	Scott Paper	Varo
Paper Converting	Sentry Enterprise Group	Electron Devices
Peabody Coal	Reed Industries	Integrated Systems
Pendleton Woolen Mills	SNE Corporation	Power Systems
Penn Dairies	Sherex Chemical	Semi Conductor
Pennfield	Siemens	Walbro
Pennwalt	Signode	Wallace Silversmiths
Pepsico	Sii McEvoy	Waterbury Farrel
Frito-Lay	Soltex Polymer	Western Electric
Pepsi-Cola U.S.A.	Salsbury Laboratories	Western Publishing
Pepsi-Cola Bottling Group	Sonat Exploration	Westinghouse Electric
Wilson Sporting Goods	Sonat Offshore Drilling	White Castle System
Perkin-Elmer	Sonoco Products	Williams Companies
Philip Morris International	Sony Magnetic Products	Agrico Chemical
Philip Morris U.S.A.	Speed Queen	Edgcomb Metals
Pillsbury	Sperry	Williams Exploration
Pitney Bowes	Sperry and Hutchinson	Williams National Gas
Dictaphone	Staley (A.E.) Manufacturing	Williams Pipe Line
Monarch Marking	Standard Oil (Indiana)	Wrigley (Wm.) Jr.
Pitney Bowes Business Systems		Wyman Gordon
Wheeler Group		Xerox
		Zenith

HAY COMPENSATION COMPARISON

INDUSTRIAL - 1983

1983 HCC INDUSTRIAL

NON-MANUFACTURING

Abitibi Price Sales	Consolidated Freightways	Mutual Broadcasting
Alitalia North America	CF Air Freight	National Broadcasting
American Broadcasting	CF Data Service	National CSS
Leisure	Consolidated Freightways of Delaware	Norfolk Southern
Publishing	Consolidated Rail	North American Car
Radio	Continental Holding	North American Van Lines
Television	Cox Cable Communications	North Carolina Assoc. of Electric Cooperatives
Video	Cox Data Services	Norwest Financial Information Services Group
American Chemical Society	Distek	Pancho's Mexican Buffet
Chemical Abstracts Service	Dravo	Pittsburgh & Lake Erie Railroad
American Gas Association	DynaCor	Pizza Hut
American Society of Mechanical Engineers	EG & G Idaho	Princeton University Plasma Physics Laboratory
American Telephone & Telegraph	Factory Mutual Engineering and Research	Puerto Rico Marine Management
American Bell	Federal Express	Red Owl Stores
Bell Telephone Laboratories	Flagship Computer Services	Snyder Drug Stores
Bell Telephone Co. of Pennsylvania	Fleming	Reynolds & Reynolds
Chesapeake and Potomac Telephone Cos.	Flickinger (S.M.)	Reynolds Electrical & Engineering
Cincinnati Bell	Florist Transworld Delivery	Ryder System
Illinois Bell Telephone	Floral Network	Santa Fe Railway
Indiana Bell Telephone	Flying Tigers	Sea Land
Long Lines	Fox & Jacobs	Sears, Roebuck
Michigan Bell Telephone	GATX	Society of Automotive Engineers
New England Telephone	GARD	Soo Line Railroad
New Jersey Bell Telephone	GATX Leasing	Southeastern Railroad Associated Bureau
New York Telephone	GATX Terminals	Southern Pacific Railroad
Ohio Bell Telephone	American Steamship	Suburban Propane Gas
Pacific Northwest Bell Telephone	GTE	Eastern Division
Pacific Telephone & Telegraph	Genstar	Vangas
South Central Bell Telephone	Flintkote	Subaru of America
Southern Bell Telephone & Telegraph	Land and Housing	SuperValu
Southern New England Telephone	Godfather's Pizza	County Seat Stores
Southwestern Bell Telephone	Grand Trunk Western Railroad	Risk Planners
Wisconsin Telephone	Graver Water/Unitech	Supermarkets General
American Trucking Association	Graybar Electric	Syscon
Amtrak	Hannaford Brothers	Terminal Freight Handling
Ashland Services	Hartmarx	Texas American Services
Atlantic Aviation	Howe-Baker Engineering	Trailer Train
Bariven	Illinois Central Gulf Railroad	Trans Union Credit Information
Bessemer & Lake Erie Railroad	Illinois Consolidated Telephone	Union Pacific Railroad
Best Western International	Institute of Elect. & Electr. Engineers	United Telecommunications
Blount	Kepner-Tregoe	North Supply
Bramco	Kroger	United Telephone System
Burlington Northern Railroad	Lavino Shipping	Carolina Group
Burns International Security Service	Lee Way Motor Freight	Eastern Group
Butt (H.E.) Grocery	Long Island Railroad	Florida Group
CCH Computax	Major League Baseball	Midwest Group
CSX	Matson Navigation	Northwest Group
Carson Pirie Scott	Mayflower	Southeast Group
Department Stores	McKee (Robert E.)	Texas Group
Wholesale Floor Covering	Mercedes-Benz of North America	United Telephone of Indiana
Central Telephone of Illinois	MetPath	United Telephone of Ohio
Charles Levy Circulating	Metro North Commuter Railroad	Utelcom
Chicago, Milwaukee, St. Paul & Pacific Railroad	Metropolitan Transit Authority	University Computing
Chicago & Northwestern Transportation	Midcoast Aviation Services	Viacom International
C L Systems	Mill Power Supply	WSM
Cominco American	Minolta	Williams Realty
Communications Satellite	Missouri Pacific Railroad	Yellow Freight System
	Missouri Valley Machinery	Zale Corporation

1983 HCC INDUSTRIAL

UTILITIES

Arizona Public Service	Nevada Power
Basin Electric Power Cooperative	Northern States Power
Boston Gas	Ohio Edison
Brooklyn Union Gas	Pennsylvania Power
Carolina Power & Light	Omaha Public Power District
Citizens Gas & Coke	Pennsylvania Power & Light
Colonial Gas Energy System	Philadelphia Gas Works
Columbia Gas System	Piedmont Natural Gas
Dayton Power & Light	Plains Electric Generation & Transmission Cooperative
Detroit Edison	Portland General Electric
Duke Power	Power Authority of the State of New York
East Ohio Gas	Providence Gas
Florida Power	Santee Cooper
General Public Utilities	Sierra Pacific Power
Gulf States Utilities	Sonat
Hackensack Water	Southern Natural Gas
InterNorth	Southwest Gas
Kansas City Power & Light	Texas Gas Transmission
Louisville Water	Texas Utilities Services
Massachusetts Municipal Wholesale Electric	Valero Energy
Memphis Light, Gas and Water	Saber Energy
Metropolitan Sewer District	Washington Public Power Supply
Missouri Public Service	Wisconsin Gas
Nebraska Public Power District	

Please Note: *All organizations listed have submitted data to this survey. However, data from some participants may not be available for use in some types of standard and special analyses at some times. When major re-evaluation and recorelation processes take place, data may be withdrawn from the active file until those processes are complete. In other cases, due to the nature of a survey request and our knowledge of the required participants' data, we may restrict availability in order to preserve confidentiality.*

HAY COMPENSATION COMPARISON

FINANCIAL - 1983

1983 LIST OF PARTICIPANTS

Acacia Mutual Life Insurance (Washington, DC)
 Aid Association for Lutherans (Appleton, WI)
 Alabama Farm Bureau Mutual Casualty Insurance (Montgomery)
 Allendale Mutual Insurance (Johnston, RI)
 American Express (NYC)
 Fireman's Fund Insurance (San Francisco)
 American Family Insurance Group (Madison, WI)
 American Mutual Insurance Companies (Wakefield, MA)
 American Mutual Life Insurance (Des Moines)
 American National Insurance (Galveston, TX)
 American Security Insurance Group (Atlanta)
 Arizona Bank, The (Phoenix)
 Armco Financial Services Group (Middletown, OH)
 Armco Financial Corporation (Middletown, OH)
 Armco Insurance Group (Milwaukee)
 Bellefonte Reinsurance (Cincinnati)
 Columbia National Life Insurance (Columbus, OH)
 Continental Western Life Insurance (Wilwaukee)
 North Pacific Insurance (Portland, OR)
 Northwestern National Insurance (Milwaukee)
 Pacific National Insurance (Los Angeles)
 Special Risks (Dallas)
 Talbot, Bird (NYC)
 Universal Reinsurance (Milwaukee)
 Association Life Insurance (Milwaukee)
 BMA (Kansas City, MO)
 Bank of New England (Boston)
 Bank of the Commonwealth (Detroit)
 Bank One of Northeastern Ohio (Painesville, OH)
 BankEast Corporation (Manchester, NH)
 Bankers Life (Des Moines)
 Bankers Life Nebraska (Lincoln)
 Bankers Life and Casualty (Chicago)
 Banking Center, The (Waterbury, CT)
 Banner Life Insurance (Rockville, MD)
 Barclays American Business Credit (East Hartford, CT)
 Barnett Banks of Florida (Jacksonville)
 Berkshire Life Insurance (Pittsfield, MA)
 Borg Warner Acceptance (Chicago)
 Capital Holding (Louisville)
 Capital Enterprise Insurance Group (Louisville)
 Commonwealth Life (Louisville)
 Georgia International Life (Atlanta)
 Home Security Life (Durham, NC)
 National Standard Life (Orlando)
 Peoples Life (Washington, DC)
 Carteret Savings and Loan (Morristown, NJ)
 Central Fidelity Bank (Richmond, VA)
 Central Life Assurance (Des Moines)
 Central Trust Bank (Jefferson City, MO)
 Chase Federal Savings & Loan (Miami)
 Chase Manhattan Bank (NYC)
 Citicorp (NYC)
 Clark Equipment Credit (Buchanan, MI)
 Columbus Mutual Life Insurance (Ohio)
 Commercial Security Bank (Salt Lake City)
 Commercial Union Insurance (Boston)
 Community Savings Bank (Rochester, NY)
 Connecticut Bank & Trust (Hartford)
 Connecticut Savings Bank (New Haven)
 Continental Corporation (NYC)
 Cotton States Insurance (Atlanta)
 Dallas Federal Savings & Loan (Texas)
 Dominion Bankshares (Roanoke, VA)
 East New York Savings Bank, The (NYC)
 Empire Mutual Insurance (NYC)
 Equitable Life Insurance of Iowa (Des Moines)
 Essex Bank (Peabody, MA)
 Farm Credit Banks of Springfield (Massachusetts)
 Farm Family Life Insurance (Albany, NY)
 First Bank System (Minneapolis)
 First National Bank of Minneapolis (Minnesota)
 First Columbia Financial Corporation (Denver)
 Columbia Savings & Loan (Denver)
 First Federal Savings & Loan of Lake Worth (Florida)
 First National Bank of Clayton (Missouri)
 First National Bank of Dubuque (Iowa)
 First National Bank of Maryland (Baltimore)
 First National Bank of Pennsylvania (Erie)
 First Pennsylvania Bank (Philadelphia)
 First Security Corporation (Salt Lake City)
 First Texas Savings (Dallas)
 Flagship Banks (Miami)
 Flagship National Bank of Miami (Florida)
 General American Life Insurance (St. Louis)
 General Electric Credit (Stamford, CT)
 Goldome (Buffalo, NY)
 Great Southern Life Insurance (Houston)
 Great Western Bank (Phoenix)
 Great West Casualty (South Sioux City, NE)
 Home Federal Savings and Loan (Tuscon)
 IBM Endicott/Owego Employees Federal Credit Union (Endicott, NY)
 IBM Mid America Employees Federal Credit Union (Rochester, MN)
 Independent Life Insurance (Jacksonville)
 InterFirst (Dallas)
 InterFirst Bank Austin (Texas)
 InterFirst Bank Dallas (Texas)
 InterFirst Investment Management (Dallas)
 Integon (Winston-Salem, NC)
 Investors Diversified Services (Minneapolis)
 Kanawha Valley Bank (Charleston, WV)
 Kansas City Life Insurance (Kansas City, MO)
 National Reserve (Topeka, KS)
 Sunset Life (Olympia, WA)
 Lake Shore National Bank (Chicago)
 Liberty National Life Insurance (Birmingham, AL)
 Lincoln National Bank (Ft. Wayne, IN)
 Lincoln National Corporation (Ft. Wayne, IN)
 American States Insurance (Indianapolis)
 Chicago Title & Trust (Illinois)
 Lincoln National Life Insurance (Fort Wayne, IN)
 Lutheran Brotherhood (Minneapolis)
 Lutheran Mutual Life Insurance (Waverly, IA)
 M & I Marshall & Ilsley Bank (Milwaukee)
 M & T Bank (Buffalo)
 Maine Savings Bank (Portland)
 Manhattan Life Insurance (NYC)
 Manufacturers Hanover Trust (NYC)
 Marine Corporation (Milwaukee)
 Massachusetts Property Insurance Underwriters
 Association and Rhode Island Joint Reinsurance
 Association (Boston, MA)

1983 LIST OF PARTICIPANTS (Continued)

Mechanics Savings Bank (Hartford)
 Mellon Bank (Pittsburgh)
 Merrill Lynch (NYC)
 Midland Mutual Insurance (Columbus, OH)
 Ministers Life Insurance (Minneapolis)
 Minnesota Federal Savings & Loan (St. Paul)
 Minnesota Mutual Life Insurance (St. Paul)
 Monumental Life Insurance (Baltimore)
 Morgan Guaranty Trust (NYC)
 Mutual Benefit Life Insurance (Newark)
 Mutual Federal Savings & Loan (Norfolk, VA)
 Mutual Life Insurance of New York (NYC)
 Mutual of Omaha Insurance (Nebraska)
 Mutual Trust Life Insurance (Chicago)
 National Bank of Detroit (Michigan)
 National Life Insurance (Montpelier, VT)
 National Rural Utilities Cooperative Finance (Washington, DC)
 New England Mutual Life Insurance (Boston)
 North American Life & Casualty (Minneapolis)
 Northwest Bancorporation (Minneapolis)
 Banco Financial (Minneapolis)
 Banco Incorporated (Minneapolis)
 Banco Properties (Minneapolis)
 First American National Bank (Duluth, MN)
 First National Bank of Aberdeen (South Dakota)
 First National Bank of the Black Hills (Rapid City, SD)
 Iowa-Des Moines National Bank (Iowa)
 Midland National Bank (Minneapolis)
 Northwest National Bank Southwest (Bloomington, MN)
 Northwestern National Bank (Minneapolis)
 Northwestern National Bank (Sioux Falls)
 Northwestern National Bank (St. Paul)
 Southside Insurance (Minneapolis)
 Unites States National Bank (Omaha)
 Composite of 77 Banks
 Composite of 4 Trust Companies
 Northwestern Mutual Life Insurance (Milwaukee)
 Northwestern National Life Insurance (Minneapolis)
 North Atlantic Life Insurance (Jericho, NY)
 Northern Life Insurance (Seattle)
 Norwest Financial (Des Moines)
 Ohio Citizens Trust (Toledo)
 Ohio National Life Insurance (Cincinnati)
 Old National Bank (Evansville, IN)
 Old National Bank (Spokane, WA)
 Old Stone Bank (Providence, RI)
 Omaha National Bank (Nebraska)
 Onondaga Savings Bank (Syracuse, NY)
 PMI Mortgage Insurance (San Francisco)
 Patrons Mutual Insurance (Olathe, KS)
 Pennsylvania National Mutual Casualty Insurance (Harrisburg)
 People's Savings Bank (Bridgeport, CT)
 Pioneer Savings & Loan (Racine, WI)
 Pitney Bowes Credit (Darlen, CT)
 Pittsburgh National Bank (Pennsylvania)
 Pontiac State Bank (Michigan)
 Protective Life Insurance (Birmingham, AL)
 Provident Life and Accident Insurance (Chattanooga, TN)
 Provident Life Insurance (Bismarck, ND)
 Provident Mutual Life Insurance (Philadelphia)
 Puget Sound National Bank (Tacoma, WA)
 Ranger Insurance (Houston)
 American Founders Life Insurance (Austin, TX)
 Royal Bank of Canada (NYC)
 San Diego Trust & Savings Bank (California)
 Security Benefit Life Insurance (Topeka, KS)
 Security Mutual Life of New York (Binghamton)
 Security Pacific Finance (San Diego)
 Security Savings Bank (Marshalltown, IA)
 Sentry Insurance (Stevens Point, WI)
 Society for Savings (Hartford, CT)
 St. Paul Companies (Minnesota)
 Western Life Insurance (St. Paul)
 State Automobile Mutual Insurance (Columbus, OH)
 State Street Bank & Trust (Boston)
 Statesman Group (Des Moines)
 Student Loan Marketing Association (Washington, DC)
 Sun Life of Canada (Wellesley Hills, MA)
 Texas American Bancshares (Fort Worth)
 American Ag Credit (Aurora, CO)
 Texas American Bank - Amarillo (Texas)
 Texas American Bank - Austin (Texas)
 Texas American Bank - Dallas (Texas)
 Texas American Bank - Denison (Texas)
 Texas American Bank - Fort Worth (Texas)
 Texas American Bank - Galleria (Houston)
 Texas American Bank - Houston (Texas)
 Texas American Bank - LBJ (Dallas)
 Texas American Bank - McKinney (Texas)
 Texas American Bank - Midland (Texas)
 Texas American Bank - Prestonwood (Dallas)
 Texas American Bank - Riverside (Fort Worth)
 Texas American Bank - Westside (Fort Worth)
 Texas American Investment Management (Fort Worth)
 Texas Commerce Bank - Austin (Texas)
 Texas Federal Savings & Loan (Dallas)
 Third National Bank and Trust (Dayton, OH)
 Time Insurance (Milwaukee)
 Title Insurance & Trust (Los Angeles)
 Tower Federal Credit Union (Annapolis Junction, MD)
 Travelers, The (Hartford, CT)
 Union Mutual Life Insurance (Portland, ME)
 United Central Bank (Des Moines)
 United Insurance Co. of America (Chicago)
 United Virginia Bank (Richmond)
 Valley National Bank (Phoenix)
 Virginia National Bank (Norfolk)
 Washington National Corporation (Evanston, IL)
 Anchor National Life Insurance (Phoenix)
 Washington National Insurance (Evanston, IL)
 Western States Life Insurance (Fargo, ND)
 Zurich Insurance (Schaumburg, IL)

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NONPROFIT - 1982

HAY COMPENSATION COMPARISON

1982 SERVICE PARTICIPANTS

BLUE CROSS/BLUE SHIELD

P1

Alabama BC/BS (Birmingham)
 California, BC of Southern (Los Angeles)
 Connecticut BC/BS (North Haven)
 Florida BC/BS (Jacksonville)
 Iowa BC/BS (Des Moines)
 Kentucky BC/BS (Louisville)
 Maryland BC/BS (Baltimore)
 Massachusetts BC/BS (Boston)
 Michigan BC/BS (Detroit)
 Missouri BC/BS (St. Louis)
 New Jersey BC/BS (Newark)
 New York, BC/BS of Greater (NYC)
 North Carolina BC/BS (Durham)
 Ohio, BC of Northeast (Cleveland)
 Ohio, BC of Southwest (Hospital Care Corporation) (Cincinnati)
 Ohio BS (Worthington)
 Pennsylvania, BC of Greater Philadelphia
 Pennsylvania, BC of Western (Pittsburgh)
 Pennsylvania BS (Camp Hill)
 Texas BC/BS (Dallas)
 Virginia BC/BS (Richmond)
 Wisconsin, United BC/BS (Milwaukee)

P2

Arkansas BC/BS (Little Rock)
 Colorado BC/BS (Denver)
 Delaware BC/BS (Wilmington)
 Georgia BC/BS (Atlanta)
 Georgia BC/BS (Columbus)
 Idaho BC (Boise)
 Kansas BC/BS (Topeka)
 Maine BC/BS (Portland)
 Mississippi BC/BS (Jackson)
 Missouri BC/BS (Kansas City)
 Montana BC (Great Falls)
 New York, BC of Northeastern (Albany)
 New York, BC of Western (Buffalo)
 Ohio, BC of Central (Columbus)
 Ohio, BC of Northwest (Toledo)
 Pennsylvania, Capital BC (Harrisburg)
 Pennsylvania, Lehigh Valley BC (Allentown)
 Rhode Island BC/BS (Providence)
 Utah BC/BS (Salt Lake City)
 West Virginia BC/BS (Charleston)

HOSPITALS

Allegheny General Hospital (Pittsburgh)
 Alta Bates Corporation (Berkeley, CA)
 Appalachian Regional (10 Hospitals) (Lexington, KY)
 Archbishop Bergan Mercy Hospital (Omaha)
 Baptist Hospitals and Health Systems (Phoenix)
 Baystate Medical Center (Springfield, MA)
 Bethesda Hospital & Deaconess Association (Cincinnati)
 Bishop Clarkson Memorial Hospital (Omaha)
 Boswell Memorial Hospital (Sun City, AZ)
 Children's Hospital of San Francisco (California)
 Choate/Symmes Health Services (Woburn, MA)
 Citizens General Hospital (New Kensington, PA)
 Evangelical Hospital Association (Oak Lawn, IL)
 Fresno Community Hospital and Medical Center (Fresno, CA)
 Hahnemann Medical College and Hospital (Philadelphia)
 Hartford Hospital (Connecticut)
 Hillcrest Medical Center (Tulsa, OK)
 IHC Hospital Corporation (25 Hospitals) (Salt Lake City)
 Madison General Hospital (Madison, WI)
 Maine Medical Center (Portland)
 Manchester Memorial Hospital (Connecticut)
 Memorial Hospital Medical Center (Long Beach, CA)
 Memorial Hospital System (Houston)
 Mercy Hospital (Miami, FL)

Mercy Medical Center (Coon Rapids, MN)
 Michael Reese Hospital and Medical Center (Chicago)
 Montefiore Hospital and Medical Center (NYC)
 NKC (Louisville, KY)
 Oil City Hospital (Oil City, PA)
 Overlook Hospital (Summit, NJ)
 St. John Hospital (Detroit, MI)
 St. Joseph's Hospital (Tucson, AZ)
 St. Joseph's Hospital and Medical Center (Patterson, NJ)
 St. Luke's Hospital (Milwaukee)
 St. Luke's Hospitals (Fargo, ND)
 St. Luke's Medical Center (Phoenix)
 St. Mary-Corwin Hospital (Pueblo, CO)
 St. Mary's Hospital & Health Center (Tucson, AZ)
 St. Mary's Medical Center (Knoxville, TN)
 St. Mary's Medical Center (Racine, WI)
 Samaritan Health Service (5 Hospitals) (Phoenix)
 Shadyside Hospital (Pittsburgh)
 Sutter Community Hospital (2 Hospitals) (Sacramento, CA)
 Trumbull Memorial Hospital (Warren, OH)
 United Presbyterian Residence (Long Island, NY)
 University Hospital of Cleveland (Ohio)
 Warren General Hospital (Warren, PA)
 Wesley Medical Center (Wichita, KS)

NONPROFIT ORGANIZATIONS

A.A. World Services (New York, NY)
 American Bankers Association (Washington, D.C.)
 American Heart Association (Dallas)
 American Hospital Association (Chicago)
 American Institute of CPA's (New York, NY)
 American Society of Chartered Life Underwriters (Bryn Mawr, PA)
 Appalachia Educational Laboratory (Charleston, WV)
 Bank Marketing Association (Chicago)
 Blue Cross and Blue Shield Associations (Chicago)
 Carnegie Institute and Library (Pittsburgh)
 CEMREL (St. Louis)
 Far West Laboratory (San Francisco)
 Financial Accountants Standards Board (Stamford, CT)
 Financial Executives Institute (NYC)
 Gateway School District (Pittsburgh, PA)
 Girl Scouts of the USA (NYC)

International Reading Association (Newark, DE)
 Life Insurance Marketing and Research Association (Hartford, CT)
 Life Office Management Association (Atlanta)
 Lucas County Children Services Board (Maumee, OH)
 Lutheran Social Services (Dayton, OH)
 Midwest Research Institution (Kansas City, MO)
 National Association for Retarded Citizens (Arlington, TX)
 National Association of Mutual Savings Banks (NYC)
 National Board of Medical Examiners (Philadelphia)
 Pennsylvania Medical Society (Lemoyne, PA)
 San Diego Zoological Society (San Diego, CA)
 United Methodist Publishing House (Nashville, TN)
 University of Texas Health Science Service (Houston, TX)
 Wilder (Amherst H.) Foundation (St. Paul)
 YMCA of Metropolitan Chicago (Illinois)
 YMCA of the United States (Chicago)

B

APPENDIX B

Hay/Huggins Benefits Comparison

Participant List

HAY-HUGGINS BENEFITS CONSULTING SERVICES

Hay-Huggins, a member of the Hay Group, is a unique affiliation of two professional consulting organizations: Hay Associates with its extensive capabilities in human resources consulting and Huggins and Company with its actuarial consulting expertise. This combination produces a "total remuneration" approach to employee benefits. The Hay-Huggins approach takes into account the full picture of cash compensation, incentives, and noncash compensation including employee benefits, perquisites and related personnel policies.

As a member of The Hay Group, the largest human resources consulting firm in the world with 73 offices in 23 countries, Hay-Huggins serves over 1,000 organizations worldwide: industrial and financial companies of all size, including many Fortune 500 companies, government and research organizations and not-for-profit institutions.

All client assignments are approached from a viewpoint that is practical, innovative and flexible enough to meet each client's unique objectives. To ensure total objectivity, Hay-Huggins does not accept commissions.

Hay-Huggins pioneered the development of employee benefits measurement and comparison systems; in addition, Hay-Huggins maintains the most detailed data base of employee benefits and personnel policies in the United States.

Hay-Huggins actuaries and consultants also help establish an important bridge between the two organizational functions most concerned with employee benefits: Personnel and Finance. This valuable orientation permits our professional staff to help both personnel and financial executives meet their objectives of providing employees with the best benefit coverages possible at the most reasonable cost to the organization.

Among specific services available to employers are:

- Establishing Employee Benefits Objectives
- Total Compensation Planning and Budgeting
- Assessing the Adequacy of Benefits
- Objective Analysis of Benefit Program Competitiveness
- Actuarial Analysis Services
- Group Insurance Financial Audits
- Studies of Employee Perceptions of Benefits
- Benefits Communications

HAY - HUGGINS 1983

NONCASH COMPENSATION COMPARISON

LIST OF PARTICIPANTS

Abbott Laboratories
 Abbott Northwestern Hospital
 Acacia Mutual Life Insurance Company
 Action Industries, Inc.
 Advanced Technologies
 AEL, Inc.
 Aerospace Corporation
 AGA Gas, Inc.
 Aid Association for Lutherans
 Air Products and Chemicals
 Alabama Power Company
 ALCOA
 Alexander & Alexander
 Alexander & Baldwin, Inc.
 Alfa Romeo, Inc.
 Allegheny Intermediate Unit
 Allen Bradley Company
 Allendale Mutual Insurance
 Allergan Pharmaceuticals
 Allied Bank International
 Allied Corporation
 Allis Chalmers Company
 AMAX, Inc.
 Amerada Hess Corporation
 American Association
 for the Advancement of Science
 American Bank and Trust of Pennsylvania
 American Bankers Association
 American Broadcasting Company, Inc.
 American Chemical Society
 American College, The
 American Council of Life Insurance
 American Crystal Sugar
 American Express Company
 American Family Insurance Group
 American Gas Association
 American Heart Association, Inc.
 American Hoechst
 American Hospital Association
 American Hospital Supply Corporation
 American Institute for Research
 American Institute of CPA's
 American Iron and Steel Institute
 American Public Transit Association
 American Reinsurance Company
 American Security and Trust Company
 American Shipbuilding
 American Society of Civil Engineers
 American Society of Refrigerator
 & Air Conditioner Engineers
 American Standard, Inc.
 American States Insurance Companies
 American Sterilizer Company
 American Systems Corporation
 American Telephone & Telegraph Company
 Amerifirst Federal Savings & Loan
 Ameritrust
 Amersham
 Amfac Hotels
 Amtrak
 Anaconda Minerals Company
 Anchor/Darling Industries
 Anchor Hocking Corporation
 Anchorage School District
 Andersons, The
 Annuity Board of Southern Baptists
 Arc America
 Arcata Corporation
 Archbishop Bergan Mercy Hospital
 Archer-Daniels Midland
 ARINC Research Corporation
 Arizona Bank
 Arkansas Best Corporation
 Armco, Inc.
 Armco Insurance Group
 Armstrong World Industries, Inc.
 Arvida Corporation
 Asarco, Inc.
 ASEA
 Ashland Oil, Inc.
 ASHRTAC Engineering
 Atlantic Aviation Corporation
 Atlantic Mutual Insurance Company
 Automobile Club of Michigan
 Avery Products Corporation
 BABB, Inc.
 Badische Corporation
 Baker Industries
 Baltimore Aircoil
 Bank Fund Staff Federal Credit Union
 Bank Marketing Association
 Bank of the Commonwealth
 Bank of New England, N.A.
 BankEast Corporation
 Bankers Life and Casualty Company
 Bankers Life Company, The
 Bankers Life of Nebraska
 Baptist Hospital & Health Systems
 Barber-Greene Company
 Barclays Bank of California
 Barclays Bank of New York
 Barden Corporation
 Bariven Corporation
 Barnett Banks of Florida
 Basin Electric Power Cooperative
 BATUS, Inc.
 BDM Corporation, The
 Bean Company, L. L.
 Beaven Companies
 Bechtel Corporation
 Beechum, Inc.
 Bell Helicopter Textron
 Bell Telephone of Pennsylvania
 Bendix Corporation—
 Aerospace and Electronics Group
 Berkshire Life Insurance Company
 Berol Corporation
 Bessemer & Lake Erie Railroad
 Best Products Company, Inc.
 Bethesda Hospital
 Betz Laboratories
 Beverage Management, Inc.
 Bishop Clarkson Memorial Hospital
 Black & Decker Manufacturing Company
 Blessings Corporation
 Dick Blick Company
 Blue Cross Hospital Service Inc.—
 St. Louis, Missouri
 Blue Cross of Greater Philadelphia
 Blue Cross of Northeast Ohio
 Blue Cross of Northeastern New York
 Blue Cross of Northwest Ohio
 Blue Cross of Southern California
 Blue Cross/Blue Shield Associations, Inc.
 Blue Cross/Blue Shield of Alabama
 Blue Cross/Blue Shield of Colorado
 Blue Cross/Blue Shield of Connecticut, Inc.
 Blue Cross/Blue Shield of Delaware, Inc.
 Blue Cross/Blue Shield of Florida
 Blue Cross/Blue Shield of Iowa
 Blue Cross/Blue Shield of Kansas
 Blue Cross/Blue Shield of Maine
 Blue Cross/Blue Shield of Maryland
 Blue Cross/Blue Shield of Massachusetts
 Blue Cross/Blue Shield of Michigan
 Blue Cross/Blue Shield of Nebraska
 Blue Cross/Blue Shield of North Carolina
 Blue Cross/Blue Shield of Southern West Virginia
 Blue Cross/Blue Shield of Texas
 Blue Cross/Blue Shield of Virginia
 Bolt, Beranck and Newman, Inc.
 Boone County National Bank
 Borg Warner Acceptance Corporation
 Boston Edison Company
 BP Alaska Exploration
 BP North America
 Braden Steel Corporation
 Bristol-Meyers Company
 Brooklyn Union Gas
 Brooks and Perkins, Inc.
 Brown University
 Brown & Williamson Tobacco
 Brunswick Corporation
 Buckeye Gas Products
 Bucyrus Erie Company
 Buffalo Savings Bank
 Burger King Corporation
 Burlington Northern, Inc.
 Burnett Company, Leo
 Business Men's Assurance Company of America
 Butler Manufacturing Company
 Butt Grocery Company, H.E.
 Buttes Gas & Oil Company
 C.A.C.I., Inc.
 California & Hawaiian Sugar Company
 California Credit Union League
 Cameron Iron Works
 Campbell Soup Company
 Capital Holding Corporation
 Cargill, Inc.
 Carle Foundation
 Carrier Corporation
 Carson, Pirie Scott Company
 Carteret Savings & Loan
 Castle & Company, A.M.
 Castle & Cooke, Inc.
 Caterpillar Tractor Company
 Catholic Health Associations
 Ceco Corporation
 Center for Naval Analysis
 Central Bancshares of the South
 Central Life Assurance
 Central Soya Company, Inc.
 Central Telephone and Utilities Corporation
 Central Trust Bank
 Centronics
 CertainTeed Corporation
 CFS Continental
 Chamber of Commerce of the United States
 Chase Federal Savings and Loan
 Chase Manhattan Bank
 Chemical Bank
 Chemlawn Corporation
 Chesebrough-Pond's, Inc.
 Chicago Board of Trade
 Chicago Bridge & Iron Industries, Inc.
 Chicago & Northwestern Transportation Company
 Chicago Title and Trust

NONCASH COMPENSATION COMPARISON

HAY - HUGGINS 1983

LIST OF PARTICIPANTS (Continued)

Chicago Tribune
 Chipman-Union, Inc.
 Chrysler Corporation
 Ciba-Geigy Corporation
 CIGNA
 Cincinnati Association for the Blind
 Citibank, N.A.
 Citizen's Bank & Trust, MD
 Citizen's Bank
 City Bank & Trust
 City of Colorado Springs
 City of Hampton
 City of Los Angeles
 City of Los Angeles (Fire & Police)
 City of Los Angeles (General)
 City of Los Angeles (Water & Power)
 City of Newport News
 City of Norfolk
 City of Portsmouth
 City of Richmond
 City of Suffolk
 Cleveland Electric Illuminating
 CMS Companies
 CNA Insurance
 Coastal Corporation, The
 Coca-Cola Company, Inc.
 Cole National Corporation
 Colonial Bank
 Colonial Life and Accident
 Columbia Gas System Service Corporation
 Columbia Hospital
 Columbia Nitrogen Corporation
 Commercial Security Bank
 Commercial Shearing, Inc.
 Commercial Union Insurance Companies
 Commonwealth National Bank
 Commonwealth of Pennsylvania
 Community Federal Savings and Loan
 Computer Sciences Corporation
 Computer Sciences Corporation—
 Systems Divisions
 COMSAT
 Congressional Budget Office
 Connecticut Mutual Life Insurance
 Consolidated Rail Corporation
 Continental Bank
 Continental Corporation
 Continental-Emsco Company
 Continental Illinois Corporation
 Continental Materials Corporation
 Contraves Goerz Corporation
 Conwed Corporation
 Thomas Cooke, Inc.
 Cooper Industries
 Copperweid Corporation
 Corroon and Black of Tennessee, Inc.
 Cotton States Insurance
 Country Pride Foods, Ltd.
 County of Lake
 Courier Corporation
 Cox Cable Communications, Inc.
 Crane & Company
 Crocker National Bank
 Crompton & Knowles Corporation
 Crowley Maritime Corporation
 CRST, Inc.
 CSX Corporation
 Cyclops Corporation
 Danly Machine Corporation
 Dayton Power and Light Company
 Dayton-Hudson Corporation
 Dead River Company
 Decision Data Computer Corporation
 Deluxe Check Printers, Inc.
 Dennison Manufacturing Company
 Deposit Guaranty National Bank
 Detroit Edison Company
 Dexter Corporation
 Dial Financial Corporation
 Diamond Shamrock
 Dick Company, A. B.
 DiGiorgio Corporation
 Disston
 Distek, Inc.
 Dixie Yarns, Inc.
 Donaldson Company
 Dow Chemical, U.S.A.
 Dow Corning Corporation
 Draper Laboratory, Inc., Charles Stark
 Dravo Corporation
 Duke Power Company
 Duriron Company, Inc.
 Durr Fillauer Medical, Inc.
 Dynallectron Corporation
 East New York Savings Bank
 Eastern Stainless Steel
 Economics Laboratory, Inc.
 E. F. Hutton Credit Union
 EG & G Idaho
 EG & G, Inc.
 EMC Technologies, Inc.
 Energy Reserves Group
 Ensign-Bickford Industries, Inc.
 Equibank, N.A.
 Equitable Trust
 Erie Insurance Group
 Euclid, Inc.
 Excelsior Truck Leasing Company, Inc.
 Factory Mutual Engineering Corporation
 Farm Bureau Family Insurance
 Farm Credit Banks of Springfield, MA
 Farm Credit Banks of St. Paul
 Farm Family Life/Mutual Insurance Companies
 Federal Express Corporation
 Federal Home Loan Mortgage Corporation
 Federal National Mortgage Association
 Federal Reserve Bank of San Francisco
 Fidelity Bank
 Fidelity Mutual Life Insurance
 Fidelity Union Life Insurance Company
 First American Bank & Trust, MD
 First American Bank, N.A.
 First Amtenn Corporation
 First Bank System, Inc.
 First Mississippi Corporation
 First National Bank of Maryland
 First National Bank of Mexico, MO
 First National Bank of Minneapolis
 First Oklahoma Bancorporation
 First Pennsylvania Bank
 First Security Corporation
 Fisher-Price Toys
 Flickinger Corporation
 Flo-Valve Company
 Florida Power Corporation
 Florida Steel Corporation
 FMC Corporation
 Foremost-McKesson
 Foster Company, L. B.
 Four Cities United Way
 Fox & Jacobs, Inc.
 Fox-Stanley Photo Products, Inc.
 Foxboro Company
 Frantz Manufacturing Company
 Freeport-McMoRan, Inc.
 French Company, R.T.
 Friendly Ice Cream Corporation
 Frito-Lay, Inc.
 Frito-Lay (Puerto Rico)
 Fruit Growers Express
 Fusion Systems Corporation
 Gallaudet College
 GEICO
 General American Insurance Company
 General Electric Company
 General Electric Company—
 Space Systems Division
 General Foods Corporation
 General Mills
 General Shale Products Corporation
 General Signal Corporation
 Genstar, Ltd.
 Georgetown Texas Steel
 Georgia Power Company
 Germantown Savings Bank
 Gibraltar Savings
 Gifford-Hill & Company, Inc.
 Girard Bank
 Girl Scouts of the U.S.A.
 Godfather's Pizza
 Gould SEL, Inc.
 Government Employee's Life Insurance
 GPU Service Corporation
 Grand Trunk Western Railroad Company
 Graybar Electric Company
 Great Southern Life Insurance Company
 Greatwest Casualty Corporation
 Greyhound
 GRI Corporation
 GTE Automatic Electric, Inc.
 GTE Laboratories
 Hahnemann Medical College & Hospital
 Hallmark Cards, Inc.
 Hall's Motor Transit
 Hamady Brothers Foods, Inc.
 Hanes Corporation
 John Hancock Mutual Life Insurance Company
 Hannaford Brothers
 Hartmarx
 Hartford Hospital
 Healthdyne
 Heinz Company, H.J.
 Hewlett-Packard Company
 Highlands Energy Corporation
 Hillcrest Medical Center
 Hilti Industries, Inc.
 Hiram Walker
 Holmes & Narver, Inc.
 Home Federal Savings and Loan
 Home Petroleum
 Honeywell Federal Systems Division
 Honeywell, Inc.—PMSD
 Hospital Data Center of Virginia
 Hospital Service Plan of New Jersey

HAY - HUGGINS 1983

NONCASH COMPENSATION COMPARISON

LIST OF PARTICIPANTS (Continued)

Howard Johnson Company	Thomas J. Lipton Inc.	Murphy Oil Corporation
Howard University	LITHCO	Mutual Benefit Life Insurance
Howe-Baker, Inc.	Long Island Railroad Company	Mutual Broadcasting System
Hubbard Milling	Lucas CAV Industries, Inc.	Mutual Federal Savings and Loan Association
Huber Corporation, J.M.	Lucas Industries, Inc.	Mutual Life Insurance Company of New York
Huffy Corporation	Lutheran Brotherhood	Mutual of Omaha
Hughes Aircraft Corporation	Lutheran Mutual Life Insurance Company	
Human Resources Research Organization		
Hunt Chemical Corporation, Phillip A.	Mack Printing Company	NACUBO
Hunt Manufacturing Company	Mack Trucks, Inc.	National Bank of Detroit
Husky Oil	Madison General Hospital	National Can Corporation
Hyatt Clark	Magnetic Controls Company	National Gypsum Corporation
Hygia Coca-Cola Bottling Company	Mallinckrodt	National Railroad Labor Conference
	Manchester Memorial Hospital	National Rural Utilities Cooperative
ICI Americas, Inc.	Manufacturers and Traders Trust	Finance Corporation
Illinois Bell Telephone	MAPCO, Inc.	National Supply
Illinois Central Gulf Railroad	Mark Twain Bancshares, Inc.	Nationwide Insurance
Illinois Power Company	Mary Kay Cosmetics	Natomas
Illinois Tool Works, Inc.	Massachusetts Mutual Life Insurance Company	Navy Federal Credit Union
Independent Life Insurance	Mathus Company, The	NCNB Corporation
Indianapolis Life Insurance	Matsushita, Inc.	NCR Corporation
Indianapolis Power & Light	Mattel, Inc.	Nebraska Public Power District
Ingersoll-Rand Company	May Department Stores Company	NEC Information System
Integon Corporation	Mayflower Corporation	NERCO
Interfirst Corporation	McGraw-Edison Company	New England Mutual Life Insurance Company
Intermedics, Inc.	McGraw-Hill, Inc.	Newport News Shipbuilding & Drydock
Intermountain Health Care	McKee, Inc., Robert E.	Newport Steel Corporation
International Packings Corporation	McQuay-Perfex, Inc.	Nippondenso of Los Angeles
International Playtex, Inc.	MCI Telecommunications	NKC, Inc.
Investors Diversified Services	Mead Corporation	Norfolk Southern Corporation
Itek Graphic Systems & Communications	Medical Mutual of Cleveland	North American Life & Casualty Company
Industries	Memorial Hospital Medical Center of	North American Philips Corporation
IU International Corporation	Long Beach	North American Van Lines
	Memorial Hospital System of Houston	North Broward Hospital District
Jefferson Bank of Miami	Memphis Light, Gas, & Water Division	North Mississippi Medical Center
Johnson, E.F.	Merchants Insurance Group	Northern Indiana Public Service Company
Johnson & Son, S.C.	Merck & Company, Inc.	(NIPSCO)
Jonathon Corporation	Metpath, Inc.	Northern Life Insurance
Jones & Laughlin Steel Corporation	MetroNorth Corporation	Northern Trust Company
Joy Manufacturing Company	Metropolitan Life Insurance Company	Northrup Corporation—
	MIB, Inc.	Aircraft Division
Kaiser Foundation Health Plan	Michigan Wisconsin Pipe Line Company	Northwest Bancorporation
Kaiser Steel	Mid-Atlantic Toyota Distributors, Inc.	Northwest Industries, Inc.
Kal Kan	Midcon Corporation	Northwest Pipeline Corporation
Kansas City Life Insurance	Midland Mutual Life Insurance Company	Northwestern Bell Telephone Company
Kansas City Power & Light	Midwest Research Institute	Northwestern Mutual Life Insurance Company
Kawasaki Motors Corporation, USA	Midwest Stock Exchange, Inc.	Northwestern National Life Insurance Company
Kellogg Company	Milchem, Inc.	Norton Company
Kendall Company	Miles Laboratories	
Kennametal, Inc.	Milwaukee Sanitation Department	Occidental Petroleum
Kent-Moore Corporation	Minnesota Fabrics, Inc.	Ohio Edison Company
Kepner-Tregoe, Inc.	Minnesota Mining & Manufacturing Company	Ohio Medical Indemnity Mutual Corporation
Kerr-McGee Corporation	Minnesota Mutual Life Insurance Company	Ohio Valley Medical Center, Inc.
Kimberly-Clark Corporation	Minolta Corporation	OKIDATA Corporation
Knapp-King-Size Corporation	Missouri Pacific Railroad Company	Old Kent Bank and Trust
Kroger Company	Mitre Corporation	Old Stone Bank
	Mitsubishi International	Omaha Airport Authority
Lamb-Weston, Inc.	Modern Drop Forge	Omaha Public Power District
Lavino Shipping Company	Modern Merchandising, Inc.	ORI, Inc.
Lawrence Livermore Laboratory	Modine Manufacturing Company	Overlook Hospital
Lever Brothers Company	Monarch Capital Corporation	Overseas Development Council
Levi Strauss & Company	Montefiore Hospital and Medical Center	Owens-Corning Fiberglas Corporation
Charles Levy Circulating Company	Montgomery Ward and Company	Owens-Illinois, Inc.
Leybold Hereaus Vacuum	Moog, Inc.	
Libbey-Owens-Ford Company	Moore Business Forms, Inc.	Paccar, Inc.
Liberty National Bank & Trust Company	Morgan Guarantee Trust Company of	Pacific Mutual Life Insurance
Liberty National Life Insurance Company	New York	Pacific Resources, Inc.
Life Insurance Marketing and Research (LIMRA)	Morrison, Inc.	Pako Corporation
Lincoln National Corporation	Motorola, Inc.	Palco, Inc.
Lipe-Rollway Corporation	MSI Insurance Company	Paper Converting Machine Company

NONCASH COMPENSATION COMPARISON

HAY - HUGGINS 1983

LIST OF PARTICIPANTS (Continued)

Pendleton Woolen Mills
 Penn Virginia Corporation
 Pennfield Corporation
 Pennsylvania Blue Shield
 Pennsylvania Medical Society
 Pennsylvania National Insurance
 Pennsylvania Power & Light Company
 Pennwalt Corporation
 Pentagon Federal Credit Union
 Peoples Gas Light & Coke Company
 Peoples Natural Gas Company, Inc.
 Peoples Savings Bank
 Peoples Security, Maryland
 Pepsi-Cola
 Perkin-Elmer Company
 Perpetual American Federal Savings & Loan
 Pfizer, Inc.
 Philips Coal Company
 Piedmont Natural Gas
 Pillsbury Company
 PIMA County Governmental Center
 Pioneer Savings and Loan
 Pittsburgh & Lake Erie Railroad Company
 Pittsburgh National Bank
 Pizza Hut, Inc.
 Plains Electric Generation &
 Transmission Cooperative
 Planning Research Corporation
 Planters Bank & Trust Company
 Pontiac State Bank
 Poole Equipment Company, Gregory
 Portland General Electric
 Power Authority of State of New York
 PPG Industries
 PQ Corporation
 Preferred Risk Mutual Insurance Company
 Presbyterian Hospital of New York City
 Price Associates, Inc., T. Rowe
 Price Brothers Company
 Protective Life Insurance Company
 Provident Life & Accident Insurance Company
 Provident National Bank
 Public Broadcasting Service
 Public Service Company of New Mexico
 Puget Sound National Bank
 Puritan-Bennett Corporation

 Racal-Milgo, Inc.
 Rainier National Bank
 Rapistan, Inc.
 Raymond Corporation
 Raymond International
 Raytheon Company
 Reading & Bates Corporation
 Recognition Equipment
 Michael Reese Hospital
 Regional Transportation Authority
 Research Triangle Institute
 Research-Cottrell, Inc.
 Rexham
 Rexnord, Inc.
 Reynolds Metals
 Richardson-Vicks, Inc.
 Riggs National Bank
 Riss International
 Roadway Express, Inc.
 Rockefeller Brothers Fund
 Rogers Corporation
 Rouse Company
 Royal Bank of Canada

 Royal Insurance Company
 Royster Company
 Ryan Homes, Inc.
 Ryder System, Inc.

 Safeguard Industries, Inc.
 Saga Corporation
 Sanders Associates, Inc.
 Sandia Corporation
 Sandvik, Inc.
 Santa Fe Railroad
 Santee Cooper/S. Carolina
 Public Service Authority
 Schenkers International
 Schering-Plough Corporation
 Schreiber Foods, Inc.
 Schroders, Inc.
 Schumaker & Company, F.
 Scott Paper Company
 Sears, Roebuck and Company
 Security Benefits Group
 Sentry Insurance Company
 Shaklee Corporation
 Shawmut Bank of Boston, N.A.
 Sherex Chemical Corporation
 Siemens Corporation
 Sierra Pacific Power Company
 SIFCO Industries, Inc.
 Signode Corporation
 Sioux Valley Hospital Association
 Sloane Manufacturing, R & G
 Society For Savings
 Society of Manufacturing Engineers
 Sola Optical U.S.A., Inc.
 Solar Energy Research Institute
 Soltex-Polymer Corporation
 Sonoco Products Company
 Soo Line Railroad Company
 South Jersey Industries, Inc.
 South Suburban Hospital
 Southeast Bank, N.A.
 Southern Company Services
 Southern Pacific Transportation Company
 Southwest Research Institute
 Southwestern Public Service Company
 Sperry Systems Management
 SPS Technologies
 St. Luke's Episcopal & Texas Children's Hospital
 St. Luke's Hospitals (Fargo)
 St. Mary's Medical and Health Center
 St. Paul Companies, Inc.
 St. Paul Fire and Marine
 St. Vincent's Hospital and Medical Center
 St. Vincent's Hospital (San Francisco)
 Staley Manufacturing Company, A.E.
 Stanadyne, Inc.
 Standard Oil of California
 Standard Oil of Ohio
 Stanhome, Inc.
 State Department Federal Credit Union
 State Farm Insurance Companies
 State Merit System (Georgia)
 State of Wisconsin
 Statesman Group, The
 Stauffer Chemical Company
 Steelcase, Inc.
 Steiger-Tractor, Inc.
 Storer Broadcasting Company
 Strategic Planning Association
 Student Loan Marketing Association

 Suburban Bancorporation
 Suburban Propane Gas
 Sun Chemical Company
 Sun Company, Inc.
 Sunday School Board of Southern Baptists
 Sunpapers, The
 Supermarket General Corporation
 Susquehanna Corporation
 Sverdrup/Aro Technology, Inc.
 Syntex
 Syscon Corporation
 Systems Research Laboratories

 Talon
 Tektronix
 Tenneco Oil Company—
 Processing and Marketing
 Tennessee Valley Authority
 Terra Chemicals International, Inc.
 Tesoro Petroleum Corporation
 Tetley, Inc.
 Texas Federal Saving and Loan
 Texas Instruments
 Texas Oil & Gas Corporation
 Texas Utilities Services, Inc.
 Textron Inc.
 Thermo Electron
 Third National Bank and Trust of Dayton
 TIAA-CREF
 Time Life Books
 Timex Corporation
 Timken Company, The
 Tonka Corporation
 Topps Chewing Gum, Inc.
 Toronto Dominion Bancharces
 Touche, Ross & Company
 Tower Federal Credit Union
 Townsend-Textron Cherry Fasteners
 Trailer Train Company
 Transamerica Corporation
 Travelers Insurance Company, The
 Travenol Laboratories
 Triangle Corporation
 Triangle Publications, Inc.
 TRW

 Uarco, Inc.
 UGI Corporation
 Unigard Mutual Insurance Company
 Union Carbide Corporation
 Union Mutual Life Insurance Company
 Union Pacific Railroad Company
 Union Special Corporation
 Union Tank Car Corporation
 Unit Rig & Equipment Company
 United Nuclear Corporation
 United Services Life Insurance Company
 United Technologies
 United Telecommunications
 United Virginia Bank
 United Way of Southeast Pennsylvania
 Universal Oil Products
 University Computing Company
 University Hospitals of Cleveland
 University of Alaska
 University of California
 University of Utah Research Institute
 Upjohn Company
 Upstate Milk Cooperative
 U.S. Bancorp

HAY - HUGGINS 1983

NONCASH COMPENSATION COMPARISON

LIST OF PARTICIPANTS (Continued)

U.S. Brewers Association, Inc.
U.S. Gypsum Company
U.S. Leasing International, Inc.
U.S. Life Corporation
U.S. Synthetic Fuels
Utah International, Inc.
Utah Power and Light Company
Utelcom, Inc.

Valero Energy Corporation
Vallen Corporation
Valley National Bank
Versa Technologies
Virginia Chemical Corporation
Virginia National Bank
Volunteer Electric Cooperative

Wagner Electric Company
Sam P. Wallace Company

Ward Foods
Warner & Swasey Company
Washington National Corporation
Washington Post, The
Washington Public Power Supply System
Wausau Homes, Inc.
Wesley Medical Center
West Penn Motor Club
Western Forge Corporation
Western Life Insurance
Western Publishing
Western Union International
Western Union Telegraph
Westin Hotels
Wickland Oil Company
Amherst H. Wilder Foundation
John Wiley & Sons, Inc.
Williams Brothers Engineering
Williams Companies

Williams International
Wisconsin Physician Service
Wisconsin Public Service Corporation
Wool Bureau, Inc.
Woolworth Company, F.W.
Barry Wright Corporation
Wrigley Jr. Company, Wm.
Wyman-Gordon Company
YMCA of the United States

Zale Corporation
Zayre Corporation
Zenith Radio Corporation
Zurich Insurance Company

C

APPENDIX C

**Detailed Description of Hay
Job Evaluation Methodology**

The Hay Guide Chart-Profile Method of Job Evaluation

1982

Alvin O. Bellak, Ph.D.
GENERAL PARTNER

THE HAY GROUP

HAY

HAY

The Hay Guide Chart-Profile Method of Job Evaluation

Alvin O. Bellak, Ph.D.

The Guide Chart-Profile Method of Job Evaluation was conceived by the Hay Group in the early 1950's. Its roots are in factor comparison methods in which Edward N. Hay was a pioneer. In its evolved form, it has become the most widely used single process for the evaluation of management, professional and technical jobs in existence. It is used by more than 4,000 profit and nonprofit organizations in some thirty countries.

The Hay organization was founded in 1943. While job evaluation processes of various kinds had existed for many years prior to that date, they were applied for the most part to factory and clerical positions. "Edward N. Hay and Associates," the founding organization, thought it not only had a better "mouse trap", its own factor comparison method, but that the method could be applied effectively to exempt as well as non-exempt jobs. This was quite audacious at a time when few managers thought their jobs could be described in written form, let alone evaluated.

The Guide Charts were created in 1951 in a client situation. The consultants had led a corporate committee in its application of the Hay Factor Comparison Method. A review board was pleased with the results but mystified as to the reasons which equated jobs in different functions to each other. As one member put it, "Tell me again on what precise premises this sales job was equated to that manufacturing job." It became apparent that to repeat endlessly an explanation of factor comparison processes would be hopeless. What was needed was a record for present and future use which would show exactly the descriptive considerations and their quantitative measures which entered into each evaluation. This forced a search for the basic reasons, arranged in some kind of rational order, on a scale. Thus, the Guide Charts came into being. It is important to note that the creation came through an inductive process in a real situation. It required a deep understanding of jobs and organizations as well as scaling techniques.

The creators of the Guide Chart-Profile Method made four critically important observations:

1. While there were many factors one could consider (indeed, some methods had dozens), the most significant could be grouped as representing the knowledge required to do a job, the kind of thinking needed to solve the problems commonly faced, and the responsibilities assigned.

2. Jobs could be ranked not only in the order of importance within the structure of an organization, but the distances between the ranks could be determined.
3. The factors appeared in certain kinds of patterns that seemed to be inherent to certain kinds of jobs.
4. The focus of the process of job evaluation must be on the nature and requirements of the job itself, not on the skills or background or characteristics or pay of the job holder.

The Guide Chart-Profile Method

What evolved was a three-factor codification with a total of eight elements (see Exhibit 1):

KNOW-HOW

The sum total of every kind of capability or skill, however acquired, needed for acceptable job performance. Its three dimensions are requirements for:

- Practical procedures, specialized techniques and knowledge within occupational fields, commercial functions, and professional or scientific disciplines.
- Integrating and harmonizing simultaneous achievement of diversified functions within managerial situations occurring in operating, technical, support or administrative fields. This involves, in some combination, skills in planning, organizing, executing, controlling and evaluating and may be exercised consultatively (about management) as well as executively.
- Active, practicing person-to-person skills in work with other people.

PROBLEM SOLVING

The original, self-starting use of KNOW-HOW required by the job to identify, define, and resolve problems. "You think with what you know." This is true of even the most creative work. The raw material of any thinking is knowledge of facts, principles, and means. For that reason, PROBLEM SOLVING is treated as a percentage of KNOW-HOW.

PROBLEM SOLVING has two dimensions:

- The environment in which thinking takes place.
- The challenge presented by the thinking to be done.

ACCOUNTABILITY

The answerability for action and for the consequences thereof. It is the measured effect of the job on end

"Prepared for Handbook of Wage and Salary Administration," Second Edition, being published by McGraw-Hill. All rights reserved.

Exhibit I

ILLUSTRATIVE
GUIDE HAY CHART
KNOW-HOW

		••• BREADTH OF MANAGEMENT KNOW-HOW																											
		I. NONE OR MINIMAL Performance or supervision of an activity (or activities) highly specific as to objective and content, with appropriate awareness of related activities.			II. RELATED Operational or conceptual integration or coordination of activities which are relatively homogeneous in nature and objective.			III. DIVERSE Operational or conceptual integration or coordination of activities which are diverse in nature and objectives, in an important management area.																					
		1	2	3	1	2	3	1	2	3																			
SPECIALIZED TECHNIQUES	PRACTICAL PROCEDURES	••• Human Relations Skills →																											
		A. BASIC Basic work routines plus work indoctrination.	50	57	66	66	76	87	87	100	115	57	66	76	76	87	100	100	115	132	66	76	87	87	100	115	115	132	152
		B. ELEMENTARY VOCATIONAL Familiarization in uninvolved, standardized work routines and/or use of simple equipment and machines.	66	76	87	87	100	115	115	132	152	76	87	100	100	115	132	132	152	175	87	100	115	115	132	152	152	175	200
		C. VOCATIONAL Procedural or systematic proficiency, which may involve a facility in the use of specialized equipment.	87	100	115	115	132	152	152	175	200	100	115	132	132	152	175	175	200	230	115	132	152	152	175	200	200	230	264
		D. ADVANCED VOCATIONAL Some specialized (generally nontechnical) skill(s), however acquired, giving additional breadth or depth to a generally single functional element.	115	132	152	152	175	200	200	230	264	132	152	175	175	200	230	230	264	304	152	175	200	200	230	264	264	304	350
		E. BASIC TECHNICAL - SPECIALIZED Sufficiency in a technique which requires a grasp either of involved practices and precedents; or of scientific theory and principles; or both.	152	175	200	200	230	264	264	304	350	175	200	230	230	264	304	304	350	400	200	230	264	264	304	350	350	400	460
		F. SEASONED TECHNICAL - SPECIALIZED Proficiency, gained through wide exposure or experiences in a specialized or technical field, in a technique which combines a broad grasp either of involved practices and precedents or of scientific theory and principles; or both.	200	230	264	264	304	350	350	400	460	230	264	304	304	350	400	400	460	528	264	304	350	350	400	460	460	528	608
G. TECHNICAL - SPECIALIZED MASTERY Determinative mastery of techniques, practices and theories gained through wide seasoning and/or special development.	264	304	350	350	400	460	460	528	608	304	350	400	400	460	528	528	608	700	350	400	460	460	528	608	608	700			

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ILLUSTRATIVE
GUIDE HAY CHART
PROBLEM-SOLVING

		••• THINKING CHALLENGE			
		1. REPETITIVE Identical situations requiring solution by simple choice of learned things.	2. PATTERNED Similar situations requiring solution by discriminating choice of learned things.	3. INTERPOLATIVE Differing situations requiring search for solutions within area of learned things.	4. ADAPTIVE Variable situations requiring analytical, tentative, evaluative and/or constructive thinking.
THINKING ENVIRONMENT	Thinking guided or circumscribed by:				
	A. STRICT ROUTINE Simple rules and detailed instructions.	10%	14%	19%	25%
	B. ROUTINE Established routines and standing instructions.	12%	16%	22%	29%
	C. SEMI-ROUTINE Somewhat diversified procedures and precedents.	14%	19%	25%	33%
	D. STANDARDIZED Substantially diversified procedures and specialized standards.	16%	22%	29%	38%
	E. CLEARLY DEFINED Clearly defined policies and principles.	19%	25%	33%	43%
	F. BROADLY DEFINED Broad policies and specific objectives.	22%	29%	38%	50%
	G. GENERALLY DEFINED General policies and ultimate goals.	25%	33%	43%	57%
H. ABSTRACTLY DEFINED	29%	38%	50%	66%	

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•• IMPACT OF JOB ON END RESULTS

ILLUSTRATIVE



ACCOUNTABILITY

INDIRECT { REMOTE: Informational, recording, or incidental services for use by others in relation to some important end result.
 CONTRIBUTORY: Interpretive, advisory, or facilitating services for use by others in taking action.
 SHARED: Participating with others (except own subordinates and superiors), within or outside the organizational unit, in taking action.

DIRECT { PRIMARY: Controlling impact on end results, where shared accountability of others is subordinate.

AMI for use with 1982 dollars is 2.60.

••• MAGNITUDE

AMI EQUIVALENT

•• IMPACT

		(1) VERY SMALL OR INDETERMINATE Under \$100M				(2) SMALL \$100M - \$1MM				(3) MEDIUM \$1MM - \$10MM				R
		R	C	S	P	R	C	S	P	R	C	S	P	
JOB GRADES	A. PRESCRIBED These jobs are subject to: Direct and detailed instructions Close supervision	10	14	19	25	14	19	25	33	19	25	33	43	25
		12	16	22	29	16	22	29	38	22	29	38	50	29
		14	19	25	33	19	25	33	43	25	33	43	57	33
	B. CONTROLLED These jobs are subject to: Instructions and established work routines Close supervision	16	22	29	38	22	29	38	50	29	38	50	66	38
		19	25	33	43	25	33	43	57	33	43	57	76	43
		22	29	38	50	29	38	50	66	38	50	66	87	50
	C. STANDARDIZED These jobs are subject, wholly or in part, to: Standardized practices and procedures General work instructions Supervision of progress and results	25	33	43	57	33	43	57	76	43	57	76	100	57
		29	38	50	66	38	50	66	87	50	66	87	115	66
		33	43	57	76	43	57	76	100	57	76	100	132	76
	D. GENERALLY REGULATED These jobs are subject, wholly or in part, to: Practices and procedures covered by precedents or well-defined policy Supervisory review	38	50	66	87	50	66	87	115	66	87	115	152	87
		43	57	76	100	57	76	100	132	76	100	132	175	100
		50	66	87	115	66	87	115	152	87	115	152	200	115
	E. DIRECTED These jobs, by their nature or size, are subject to: Broad practice and procedures covered by functional precedents and policies Achievement of a circumscribed operational activity Managerial direction	57	76	100	132	76	100	132	175	100	132	175	230	132
		66	87	115	152	87	115	152	200	115	152	200	264	152
		76	100	132	175	100	132	175	230	132	175	230	304	175
F. ORIENTED DIRECTION These jobs, by their nature or size, are broadly subject to: Functional policies and goals General managerial direction	87	115	152	200	115	152	200	264	152	200	264	350	200	
	100	132	175	230	132	175	230	304	175	230	304	400	230	
	115	152	200	264	152	200	264	350	200	264	350	460	264	
G. BROAD GUIDANCE These jobs are inherently subject only to broad policy and general management guidance.	132	175	230	304	175	230	304	400	230	304	400	528	304	
	152	200	264	350	200	264	350	460	264	350	460	608	350	
	175	230	304	400	230	304	400	528	304	400	528	700	400	
H. STRATEGIC GUIDANCE These jobs, by reason of their size, independent complexity and high degree of effect on Company results, are subject only to: -ance from top-most management.	200	264	350	460	264	350	460	608	350	460	608	800	460	
	230	304	400	528	304	400	528	700	400	528	700	920	528	
	264	350	460	608	350	460	608	800	460	608	800	1056	608	
		304	400	528	700	920	1216	1600	2080	2768	3600	4704	6080	7840

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results of the organization. It has three dimensions in the following order of importance:

- FREEDOM TO ACT — the extent of personal, procedural, or systematic guidance or control of actions in relation to the primary emphasis of the job.
- JOB IMPACT ON END RESULTS — the extent to which the job can directly affect actions necessary to produce results within its primary emphasis.
- MAGNITUDE — the portion of the total organization encompassed by the primary emphasis of the job. This is usually, but not necessarily, reflected by the annual revenue or expense dollars associated with the area in which the job has its primary emphasis.

A fourth factor, **WORKING CONDITIONS**, is used, as appropriate, for those jobs where hazards, an unpleasant environment, and/or particular physical demands are significant elements.

It is to be noted that the Equal Pay Act of 1963 reference to job-to-job comparisons based upon "skill, effort, and responsibility" relates remarkably to the 1951 Hay Guide Chart factors. Both, of course, were derived from the same large body of knowledge as to what is common and measurable in job content.

Within the definitional structure, each Guide Chart has semantic scales which reflect degrees of presence of each element. Each scale, except for **PROBLEM SOLVING**, is expandable to reflect the size and complexity of the organization to which it is applied. The language of the scales, carefully evolved over many years and applied to literally many hundreds of thousands of jobs of every kind, has

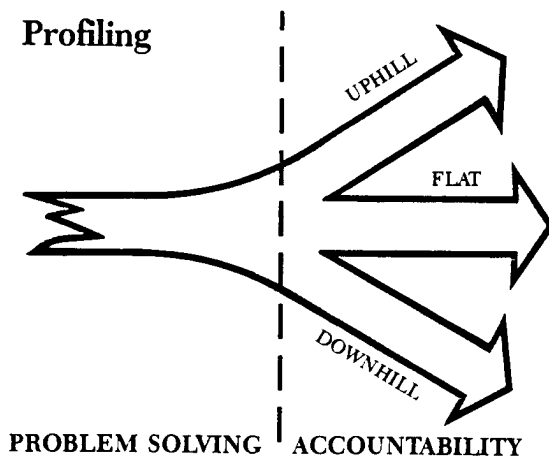
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remained fairly constant in recent years but is modified, as appropriate, to reflect the unique nature, character, and structure of any given organization.

For each factor, the judgment of value is reflected in a single number. At a later point, the size of the number is significant but, for the moment, it is the **sequence** of the numbers which is important. The numbers (except for the very lowest ones) increase at a rounded 15% rate. This conforms to a general principle of psychometric scaling derived from Weber's Law*: "In comparing objects, we perceive not the absolute difference between them, but the ratio of this difference to the magnitude of the two objects compared." Further, for each type of perceived physical difference, the extent of difference required in order to be noticeable tends to be a specific constant percentage. The concept of "just noticeable difference" was adopted for the Guide Chart scales and set at 15%. Specifically, it was found that a job evaluation committee, when comparing two similar jobs on any single factor, had to perceive at least a 15% difference in order to come to a group agreement that Job A was larger than Job B.

Again, for the moment, the **relationship** between the numbering scales on the three charts is more significant than the absolute numbers themselves. Before there were Guide Charts, it was observed that jobs had characteristic shapes. Furthermore, these shapes were, in fact, known to managers and could be verbalized easily by them if they had a useful language for expression. Grouping job content elements under the rubrics of KNOW-HOW, PROBLEM SOLVING and ACCOUNTABILITY gave them this language. Job shapes were characterized as:

- "Up-hill", where ACCOUNTABILITY exceeds PROBLEM SOLVING
- "Flat", where these factors are exactly equal
- "Down-hill", where ACCOUNTABILITY is less than PROBLEM SOLVING



*See H.E. Garrett, "Great Experiments in Psychology," Century Co., N.Y., 1930, pp 268-274, and Edward N. Hay, "Characteristics of Factor Comparison Job Evaluation," "Personnel," 1946, pp 370-375.

While all jobs, by definition, must have some of each factor, however much or little, relative amounts of each can be vastly different. Therefore, one of the three shapes not only had to appear but also had to have a believable reality of its own.

Thus, an up-hill job was one where results to be achieved were a **relatively** more important feature than intensive thinking, i.e., a "do" job. A down-hill job was one where heightened use of knowledge through thinking was featured more than answerability for consequent results, i.e., a "think" job. A flat job was one with both "thinking" and "doing" in balance.

For example, in the context of a total business organization, a sales or direct production position would be a typical up-hill, "do" job where the emphasis is clearly and strongly upon performance against very specific, often quite measurable targets or budgets. A chemist doing basic research or a market analyst studying the eating habits of teenagers would be a typical downhill, or "think" job, where the emphasis is more on collecting and analyzing information than taking or authorizing action based on the results. A personnel or accounting manager would be typical flat jobs characterized both by the requirement to develop information for use by others (recommend a new pension plan or a means of handling foreign currency transactions) and to answer for results (the accuracy of the payroll or the timely production of books of account).

The concept of typical job shape is the "Profile" in "Guide Chart-Profile Method" and controls the relative calibration of the three Guide Charts. That is, the numbering patterns on the Guide Charts are set such that proper use produces points for the factors which, when arrayed for a given job, produce credible profiles.

It is very important to note that the Guide Chart-Profile Method gives an evaluation committee, or review board, quite uniquely, **two** means to assess the accuracy of its evaluation for any given job. First, it can look at the points determined for a given job, relative to similar jobs and to jobs that are clearly larger or smaller. Second, by relying on its understanding of job shapes, it can assess the job's array on the three factors and make an independent judgment as to the probable validity of the evaluation. Relative point value and profile both must make sense for an evaluation to be accepted.

The final early observation that led to the creation of the Guide Chart-Profile Method was that jobs were to be measured **independently** of the job holders. This was not only correct but prescient, as it turns out. There was never, ever, any consideration of the talent, education, etc. of the job holder let alone the job holder's sex, age, ethnic origin, physical condition or any other now-banned personal attribute. The further stricture, also present from the beginning, was that the pay of the job holder or the market for such positions were both irrelevant to job evaluation. Judgments were to be made only for the purpose of rank-ordering jobs and delineating the distances between ranks, i.e., to establish the relative importance of positions, top to bottom, within an organization structure.

Over the years since 1951, the fundamental principles of the Guide Chart-Profile Method have remained intact although there have been many refinements in language and application. Investigation of compensable job content elements continues and there are refinements still to come. For example, is "concentration" a discrete, measurable, element? Is working with many others in a vast, windowless office an environmental unpleasantness comparable to the noxious quality of some factory environments? Should managers, as well as blue collar workers, get WORKING CONDITIONS points for spending time in dangerous, underground coal mines? Or for frequent travel?

If one reflects on the material presented thus far, specifically, (a) Guide Chart "sizing" (adjusting the length of the scales to each particular organization), (b) modifying the scale language to reflect the character and structure of the organization, (c) absorbing new information on job content-related requirements, then it becomes very clear that the Guide Chart-Profile Method is a **process**, not a fixed instrument like a physical measuring device. Further, it is a **relative** measurement process, not an **absolute** one.

The theses of the Guide Chart-Profile Method thus become:

1. Every job that exists in an organizational context requires some amount of KNOW-HOW, PROBLEM SOLVING and ACCOUNTABILITY.
2. Semantic scales reflecting degrees of these factors can be developed and applied, with consistency and with collective agreement, by any group of knowledgeable organization members after a modest amount of training.
3. The Guide Chart-Profile Method will produce a relative rank order, and a measure of the distances between ranks, for all jobs that the organization will accept as reflective of its own perception of their relative importance.
4. The measurement principles are timeless and will hold until there is a fundamental change in the nature of jobs and in the inter-relationship of jobs that make up organization structures.
5. As a process guided and controlled by principles rather than by immutable rules and scales the Guide Chart-Profile Method is adaptable to the unique character of diverse jobs and organizations in changing environments.

Were these theses not correct, the Guide Chart-Profile Method would not be in the situation of increasing usage in a very changing world after more than thirty years. A very substantial number of organizations have relied on the process in excess of ten years and ranging up to over twenty-five years. They have applied the methodology through many reorganizations and to totally new product and service divisions during long periods of enormous growth and in an environment of great social change and legal challenge to the previously established order. While

the Guide Chart-Profile Method was developed for business, industrial and financial organizations, the theses have proven to hold for nearly any organization. Among the long-term users are nonprofit trade, professional, charitable and cultural organizations, federal government departments, states, local municipalities, schools and universities, and hospitals within the United States and abroad. While the application is most common for exempt positions, there is widespread usage for nonexempt clerical/office positions and growing usage for blue collar positions.

Installation of the Guide Chart-Profile Method

The objective is to place all the jobs in an organization in a sequence which represents the order and extent of their difficulty and importance within the organization.

A typical installation of the Guide Chart-Profile Method would proceed as follows:

1. After study of the organization, a set of Guide Charts is selected, sized, and appropriate language changes made as the initial step.
2. A benchmark sample of positions is selected to cover all organization levels, functions, and units where jobs are to be evaluated.
3. Position descriptions are prepared and accepted for evaluation when approved by the job holder and one higher level of authority.
4. A job evaluation committee is selected to evaluate the benchmark sample. The usual criteria for committee selection are that its members should: (a) be from diverse line and staff organizations, (b) be of roughly equivalent level within the organization, (c) hold positions somewhat higher than these to be evaluated (i.e., high enough up to have perspective but not so high as to be out of touch), and (d) be sufficiently familiar with the total organization to understand not only its purposes and structure but also its values. A member of the personnel department participates either as a formal committee-person or ex officio. Where significant numbers of job holders are among the "protected classes,"* it is especially desirable to have a member(s) from such classes on the committee.

While in-house compensation experts would be the most technically proficient group to use for installing a job evaluation program, it has proven to be more beneficial to use a group of non-experts for the benchmark effort. Since the benchmark committee is building the foundation and framework for all subsequent evaluations, it is important that it be built to reflect the values of the total organization. This

*The term "protected classes," as used by the EEOC, refers to various groups, such as females, blacks, Hispanics and the physically handicapped.

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can be done best by the people who work in, and know, the departments and divisions and who will have to live with the results. A committee selected from the finance, engineering and manufacturing departments (among others) having to agree, for example, on the relative internal value of a financial analyst, a project engineer, and a production supervisor is of incalculable importance in achieving credibility for the job evaluation program.

5. The benchmark evaluation committee is led by a Hay consultant who acts as a combination teacher and coach. Initially, the consultant teaches the methodology in a learn-by-doing framework, then fades back as coach as the committee develops proficiency.
6. The committee evaluates each job for which it accepts the job description as a fair and clear statement that it finds believable. (Descriptions not meeting these criteria are sent back to the preparer for improvement.)
7. The instructions to the committee are clear and specific: (a) They must make judgments within the context of the total organization, not their own unit. (b) If they accept the description, they must evaluate it as it stands without regard to any knowledge they may have of the current job holder's ability, performance, potential or pay, or the market value of such a position. (c) They must achieve a common understanding and application of the semantic scales within the principles of the Guide Chart-Profile Method. (As the committee proceeds and gains competence, aspects of the preliminary Guide Charts that are problematic are resolved.) (d) No job in the benchmark sample is finally evaluated until they are all finally evaluated, i.e., any evaluation can be changed as the committee proceeds in its learning and becomes a coherent team. (e) The committee has completed its work when all agree that the total list of evaluations makes sense even though each member may have some reservations about an evaluation here and there.
8. In most cases, there is a review process of some kind either done by a formal review board at a higher level of authority or through one-on-one reviews with department and division heads. New information on job content, challenges, etc., are processed by the committee to its own and the reviewer's satisfaction, thus completing the benchmark project.
9. All other positions are then evaluated. Depending on the size, complexity and culture of the organization, there are a number of ways this can be done, among which are (a) the original benchmark evaluation committee can do it all, (b) multiple committees can be appointed, with their output reconciled by the benchmark committee cum control committee, (c) several single job evaluation experts (or very small teams) can be appointed to do the evaluations in batches subject to department/division head review followed by committee reconciliation. Any

means which sustains the credibility of the evaluation process within the organization's culture is acceptable.

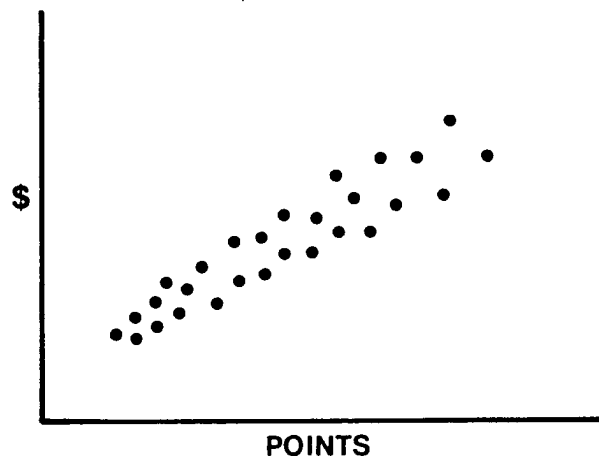
Use of Evaluations in Compensation Analysis

Given the final, agreed evaluations, their most common application is to serve as a basis for studies of salary practices (other uses will be mentioned later).

Internal Analysis

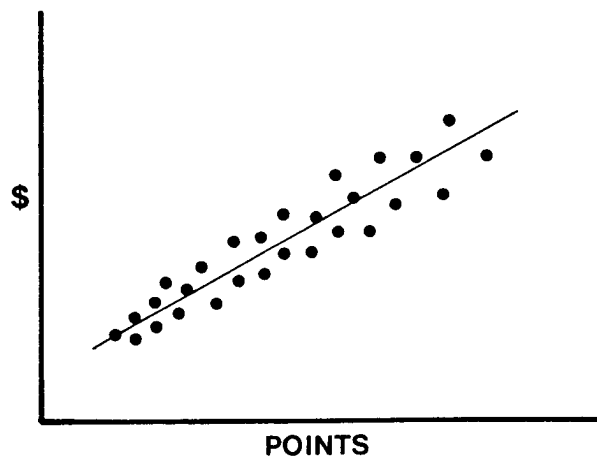
If we plot the pay for each job holder against the sum of KNOW-HOW, PROBLEM SOLVING and ACCOUNTABILITY points for his/her job, it will result in a scattergram, as in Exhibit 2, i.e., each dot represents one person's job points and pay. This can be done in consecutive scattergrams for actual current salary, salary midpoint assigned to the job held by the incumbent, and actual total cash compensation (i.e., salary plus cash bonus or incentive). For this explanation, we will use actual current salary only.

Exhibit 2 — Scattergram



Through the scattergram we then draw a line of central tendency*, which becomes the "salary practice line", as in Exhibit 3. To the extent that the population is fairly ho-

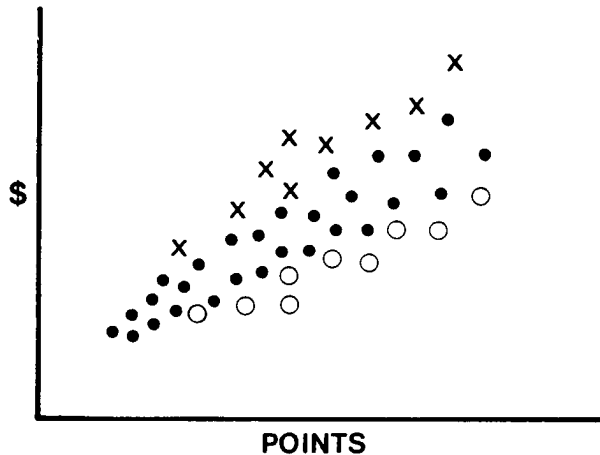
Exhibit 3 — Line of Central Tendency



mogeneous, the dispersion on the scattergram will be moderate and a single straight line will be a satisfactory representation of the median relationship between job size (expressed in points) and pay for the population as a whole.

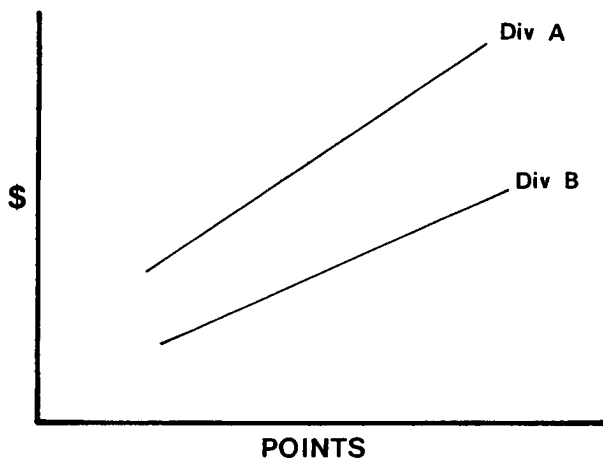
To the extent that the dispersion is great, a scattergram as in Exhibit 4 will result. While one can nonetheless develop a line of central tendency, the existence of excessive dispersion suggests that the population is heterogeneous and further analysis is pursued.

Exhibit 4 — Excessive Dispersion



By successive hypotheses, one searches out the reason for this dispersion. If we proceed to code the plottings, say, "x" for jobs in high-tech Division A and "o" for jobs in dull old commodity product Division B, things become clear: Hidden within the whole, there are multiple pay structures as would be summarized in Exhibit 5. That is, if we plotted separate scattergrams for Division A and Division

Exhibit 5 — Multiple Pay Structures



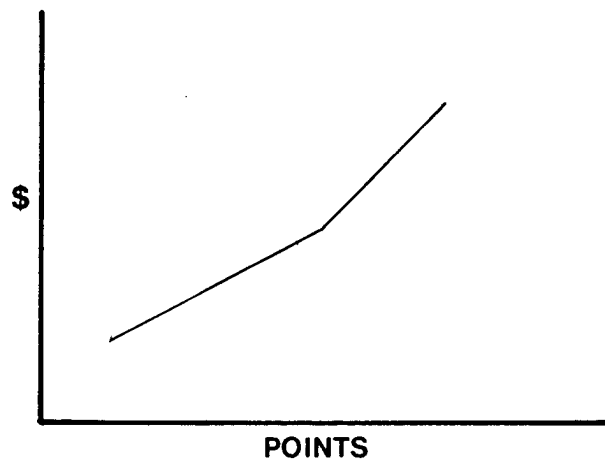
B, we would find that they have different salary practice lines. In other words, the salaries paid in Division A are greater than in Division B for jobs with the same points. Is this differential deliberate? Is it the result of generosity, or lack thereof, on the part of the division heads? Is it the result of inadequately managed or unmanageable salary systems?

If the plottings were by sex and Division, the "x's" would still be jobs in Division A but the "o's" could turn out to be not Division B but women throughout the whole organization. Since the job evaluations were made without regard to pay, sex, division, or anything other than job content, the dependent variable is pay. Higher dollars for the "x's" might be deliberate and appropriate for Division A, but what is the explanation for the "o's"? Depending on the facts, they might indicate an unacceptable, and perhaps illegal, practice.

The essence of this type of analytic exercise is to demonstrate that there is a means of searching out pay patterns that are not otherwise observable. Given an understanding of what might be buried in the data mass, management can be thoughtful in its understanding of what exists and in the development of the pay strategy it wants to follow. While it isn't likely to choose pay discrimination against women, there might well be good reason for having, or not having, multiple pay lines for various divisions.

Exhibit 6 illustrates lines of central tendency with a "dog leg" up, i.e., the higher level jobs have a higher dollar rate of increment per point. This is a different kind of heterogeneity that might reflect different pay practices for the nonexempt vs. the exempt populations or it could be the entire exempt population but with a higher pay structure for the executive group.

Exhibit 6 — Dog Leg Up



**One, or more, straight lines, drawn by sight or calculated by the least squares method, is appropriate and has proven practical and meaningful, since both axes are geometric scales. It has already been mentioned that the points on the Guide Charts increase on a compounded 15% incremental scale. Salary is also best thought of as a percentage incremental scale since one awards, for example, an 8% raise which amounts to, say, \$2,400, rather than vice versa.*

Exhibit 7 — Dog Leg Down

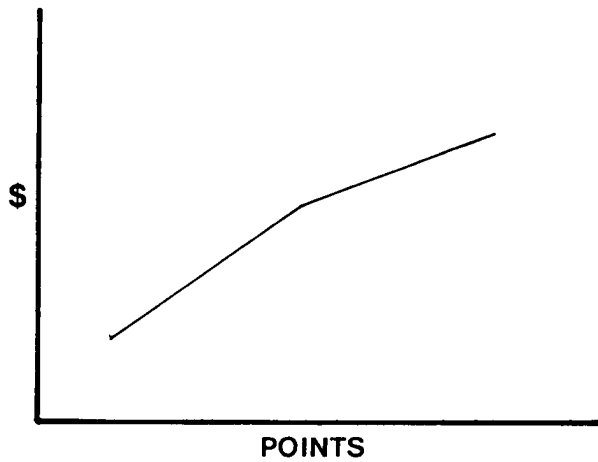
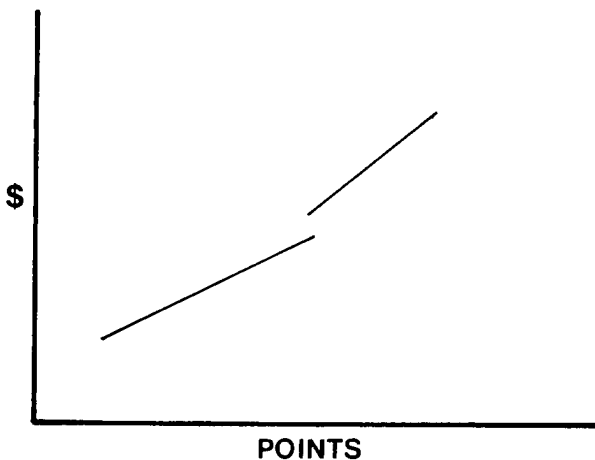


Exhibit 7 illustrates a "dog leg" down, i.e., the jobs with higher points having a lower rate of increment per point. The juncture of the two salary practice lines could be the job level where a management incentive plan kicks in. If this hypothesis is correct, then Exhibit 8 might be what would result if we plotted total cash compensation. The lower level group gets salary only, i.e., salary equals total cash. The addition of incentive awards to the top management group causes both a discontinuity and a higher practice line for management.

Exhibit 8 — Discontinuity



Proper application of the Guide Chart-Profile Method provides a unique tool for analyzing the degree of internal consistency in the existing pay program and the validity and appropriateness of disparate pay practices. While it might seem at first glance that perfect internal consistency is the goal of equitable salary administration, one should keep in mind Ralph Waldo Emerson's admonishment, "Foolish consistency is the hobgoblin of small minds". Internal equity, or simple fairness, requires that pay and internal job value be consistent only for homogeneous populations however desirable it might be for all jobs, functions and divisions in all locations. Simple logic dic-

tates that, for example, the same clerical job, with the same points, will most probably be paid on a different dollar scale at different geographic locations in view of the sometimes extreme cost-of-living differences we have in the U.S. The existence of an incentive plan for only the management group will break the continuity of what might have otherwise been a perfectly consistent salary program for the total exempt population. Disparate markets periodically appear for individual jobs, whole functions, and whole lines of business. These realities must be recognized and dealt with when they appear.

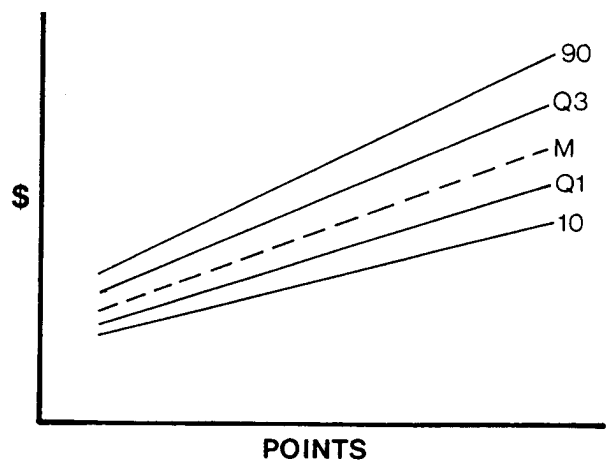
The thesis, then, for the development of an effective and controllable pay structure is that one must always know the difference between internal job value and external markets for people. As in any complex phenomenon, whether a pay structure or a chemical compound, one must be able to identify the components in order to understand and manage the whole with intelligence. Given a firm baseline, i.e., carefully assigned points reflecting internal job value, the organization can knowledgeably and with strategic intent create pay structures which are rational, competitive, controllable, cost-effective, and motivational.

External Comparison

To compare one's pay line(s) with those of external organizations, job evaluation points must first be converted to a standard scale. The conversion process, conducted very carefully by highly specialized consultants, is straight forward and serves its purpose so long as the organization has not violated the basic evaluation principles and has been consistent in its application of the methodology to all units and functions.

Given a standard scale, compensation lines are directly comparable from one organization to another. Hay facilitates this process by publishing annually the actual salary, midpoint salary, and total cash compensation lines of subscribers to the Hay Compensation Comparison (coded and arrayed in a manner that protects the confidentiality of each subscriber).

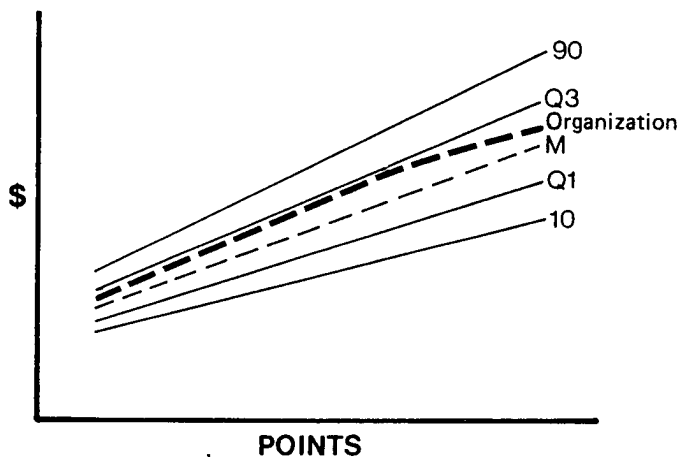
Exhibit 9 — Comparator Distribution



Thus, in the same way that an organization can compare pay practices among segments **within** its structure, it can compare with segments or totalities of **outside** organizations.

To compare its salary practice lines with those of others which use the Guide Chart-Profile Method, the organization would look to an array as in Exhibit 9. This exhibit shows the distribution of salary practice lines for the comparator organizations in percentiles. "M" is the median, or 50th percentile. The 10th and 90th percentiles are shown as are the third and first quartile lines (i.e., the 75th and 25th percentiles). An organization need only superimpose its own line on the distribution to determine, at a glance, its current position in the market, as in Exhibit 10.

Exhibit 10 — Market Position



As the number of users of the Guide Chart-Profile Method has grown, so has the market data base, that is, the point-to-dollar practice lines that can be arrayed. They now exist for thousands of organizations and can be broken out by industry, line of business, function, location and individual positions. They exist in some thirty countries for nationals in local currencies.

After making as many external comparisons as are useful, e.g., for salary practice, for total cash compensation practice, for segments, for functions, and so forth, the organization can position itself strategically in the market(s) for people. The selected position, represented by a line(s) drawn onto the comparison charts, is then, by simple calculation, turned into a set of midpoints and merit ranges. Thus, (a) **internal equity** is achieved (the salary midpoints will relate exactly to job evaluation points), as is (b) **external competitiveness** (the organization will have positioned itself, i.e., priced its pay structure, in its best judgment, against the appropriate market or markets.)

The Bottom Line: Employee Motivation

One of the "in" concepts in contemporary management thinking is "system", as in "information system" or "compensation system". Simplified, it means the assemblage of parts into an integrated, comprehensive whole to support

a larger purpose. In this sense, a compensation system requires the parts dwelled upon in this chapter, namely, a process for establishing internal job value and internal pay equity, and a means to access and appraise the marketplace for people. However, to become a complete system, there are more parts to be assembled. For example, there must be administrative procedures, a performance appraisal and merit award plan, a communications plan, the development and integration of benefits and extra pay elements (e.g., incentives), and so forth. All must thoughtfully be put together and managed to support the organization's human resources strategy which in turn supports the achievement of the organization's ultimate goals.

However, while assembling the compensation system to support the grand design, one must be sure not to overlook the less grandiose sounding, and very basic purpose, viz, employee motivation. Without it, the great goals will not be achieved.

Employee motivation is a very specific result to be sought from the compensation system. It is a truism that people work best when they know what is expected of them. After all, a job can be thought of as the interaction between the employer's expectations and the employee's intentions and actions. A well written job description defines the context in which the job exists and spells out its accountabilities, i.e., the end results to be achieved. Job evaluation identifies and defines its place in the spectrum. The competitive midpoint salary assigned, the merit range and additional incentives to reward individual achievement, link the critical three "P's" in a compensation system: "position, performance, and pay".

Other Applications of the Guide Chart-Profile Method

EEO compliance has become important in the United States and similar requirements exist in a number of other countries. The Guide Chart-Profile Method, properly used, provides several specific tools to aid in achieving compliance with such laws and their objectives. Its major uses can be summarized in three major areas:

- **Progress Monitoring.** Job measurement enables an employer to identify the high-content, high-value jobs within the work force into which protected classes must be moved if meaningful progress toward compliance is to be made. With a demonstrable and reliable job measurement system, periodic monitoring of the relative and absolute progress of persons in terms of the value of jobs they hold (as distinguished from the number of jobs they hold) becomes possible.
- **Job Requirement Validation.** With Guide Chart methodology, an employer is able to define job requirements and accurately measure and compare job content and pay differences to prevent discrimination. Such validation efforts by employers are specifically required by some compliance agency regulations. The reason is to ensure that

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job requirements are not inflated with the consequence that protected classes are excluded or otherwise adversely affected.

- **Discrimination Defense.** In addition to its importance in employer compliance efforts, a rational, systematic, and professionally maintained job measurement program can provide a defense against charges of discrimination. The books can be opened, the methodology explained, and the defense mounted.

Hay methodology has been successfully used in court proceedings, administrative hearings, and labor arbitration cases to determine the extent of internal equity of compensation. In addition, the Guide Charts have been used as a basis for determining minimum qualification requirements in recruitment and selection where corrective actions are required.

Organization analysis and planning is the discipline of defining an organization's jobs and the job clusters into sections, departments, and divisions and detailing how these are related to each other. The thoroughness and objectivity of the Hay job evaluation process brings out the nature and extent of those relationships and helps to reveal such things as work duplication, overlapping of authority, and accountability vacuums. As part of assessing future strategic options, job measurement can be used to identify and make explicit the changes in organization structure which would be required.

Human resource appraisal, planning, and development can be supported by assessing current and future requirements of jobs and existing and potential capabilities of people within the same measurement framework. This is possible because jobs can only exist in human terms. Differences between current capabilities and current job requirements identify immediate needs for specific training, career development and recruiting. Differences between future job requirements and potential capabilities of current people facilitates human resource planning vis-a-vis long-term strategic organization plans, goals, and structures.

Conclusion

The Guide Chart-Profile Method has been tested and proved by continuing and expanding application. Organizations of all kinds in all major economies, and their employees, have found that it provides an accurate and clear reflection of the relative requirements that they see in jobs, because:

1. It is based on concrete, practical concepts and principles that are easy to define and use.
2. It narrows matters of opinion to a minimum and brings sharp judgments to bear from more than one independent angle. It does not rely on single judgments, no matter how good they might be.
3. By providing a framework within which measurement decisions must be made, it does away with endless committee discussions, which frequently

stall on the most basic issues.

4. It forces disciplined and orderly thinking about job content, quickly highlighting vague, poorly conceived or designed jobs.
5. It provides a clear, understandable basis for inter-relating requirements of all kinds of jobs at all levels — top executives, middle managers, hourly workers, clerical workers, scientists, technical personnel, sales personnel, and professional people such as industrial physicians and lawyers. It considers the core content that is common to all jobs and can easily be adapted to reflect special determinants that affect some jobs in some organizations.

The Guide Chart-Profile Method is far more useful than *ad hoc* formulations which fit only singular work contexts and then only for limited periods of time. It is also far more useful than the "policy capturing" job structures which are developed to mirror or model market practices. Guide Chart measurements are independent of the market and encourage rational determination of the basis for the pricing of job content rather than automatic reactions to the forces that drove pay in the past. The Guide Chart-Profile Method works because it is a dynamic process that people apply and adapt in ways that meet needs and solve problems in the situations that they face. □

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D

APPENDIX D

List of 392 GS and Equivalent Positions
Selected by Grade and Series, Including Population

GS-15 & Equivalent

<u>Series</u>	<u>Title</u>	<u>Population</u>
110	Economist	727
301	Misc. Adm. & Programs	2632
345	Program Analysis	959
510	Accounting	749
602	Medical Officer	5635
680	Dental Officer	576
801	General Engineering	1950
817	Civil Engineering	503
855	Electronic Engineering	914
861	Aerospace Engineering	670
905	General Attorney	3103
1102	Contract & Procurement	411
1301	General Physical Science	917
1310	Physics	459
1320	Chemistry	406
1515	Operations Research	375
201	Personnel Management	456
334	Computer Specialist	454
341	Administrative Officer	381
840	Nuclear Engineering	414

GS-14 & Equivalent

<u>Series</u>	<u>Title</u>	<u>Population</u>
110	Economist	986
201	Personnel Management	992
301	Misc. Admin. & Programs	3143
334	Computer Specialist	1984
343	Management Analysis	781
345	Program Analysis	1808
510	Accounting	1783
602	Medical Officer	1368
801	General Engineering	3388
810	Civil Engineering	1323
830	Mechanical Engineering	718
855	Electronic Engineering	2597
861	Aerospace Engineering	1596
905	General Attorney	3607
1102	Contract & Procurement	1126
1301	General Physical Science	914
1310	Physics	818
1320	Chemistry	825
560	Budget Analysis	607
1515	Operations Research	677
105	Social Insurance Administrator	552
512	Internal Revenue Agent	529
1224	Patent Examining	493
1825	Aviation Safety Officer	593

GS-13 & Equivalent

<u>Series</u>	<u>Title</u>	<u>Population</u>
105	Social Insurance Administrator	1119
110	Economist	1038
160	Civil Rights Analysis	1092
180	Psychology	1503
201	Personnel Management	1870
301	Misc. Admin. & Programs	4689
334	Computer Specialist	5623
341	Administrative Officer	628
343	Management Analysis	1709
345	Program Analysis	3099
346	Logistics Management	882
401	General Biological Science	686
460	Forestry	747
510	Accounting	3838
512	Internal Revenue Agent	3940
560	Budget Analysis	1213
602	Medical Officer	773
801	General Engineering	5251
810	Civil Engineering	3377
830	Mechanical Engineering	1998
850	Electrical Engineering	867
855	Electronics Engineering	5634
856	Electronics Technician	1093
861	Aerospace Engineering	2830
905	General Attorney	3605
1102	Contract & Procurement	2572
1165	Loan Specialist	755
1301	General Physical Science	895
1310	Physics	1324
1320	Chemistry	1580
1515	Operations Research	993

GS-13 & Equivalent (continued)

<u>Series</u>	<u>Title</u>	<u>Population</u>
1520	Mathematics	933
1825	Aviation Safety Officer	948
2003	Supply Program Management	744
2181	Aircraft Operation	1006

GS-12 & Equivalent

<u>Series</u>	<u>Title</u>	<u>Population</u>
18	Safety Management	890
105	Social Insurance Administrator	2442
110	Economist	1091
160	Civil Rights Analysis	1647
180	Psychology	761
185	Social Work	656
201	Personnel Management	2044
212	Personnel Staffing	1117
221	Position Classification	860
235	Employee Development	703
249	Wage & Hour Compliance	603
301	Misc. Admin. & Programs	6485
334	Computer Specialist	10244
341	Administrative Officer	1270
343	Management Analysis	2999
345	Program Analysis	3467
346	Logistics Management	1749
393	Communications Specialist	612
401	General Biological Science	990
460	Forestry	1394
501	General Acctg. Clerical/Admin.	715
510	Accounting	6571
512	Internal Revenue Agent	3233
560	Budget Analysis	1942
570	Financial Inst. Examining	845
610	Nurse	1450
701	Veterinary Medical Science	1171
801	General Engineering	3961
802	Engineering Technician	2342
808	Architecture	607
810	Civil Engineering	5243

GS-12 & Equivalent (continued)

<u>Series</u>	<u>Title</u>	<u>Population</u>
819	Environmental Engineering	709
830	Mechanical Engineering	3828
850	Electrical Engineering	1740
855	Electronics Engineering	7090
856	Electronics Technician	6556
861	Aerospace Engineering	1654
896	Industrial Engineering	940
905	General Attorney	2754
993	Social Insurance Claims Examining	761
996	Veterinary Insurance Claims Examining	805
1102	Contract & Procurement	5215
1150	Industrial Specialist	739
1152	Production Control	676
1165	Loan Specialist	1560
1169	Internal Revenue Officer	1723
1170	Realty	685
1301	General Physical Science	700
1310	Physics	1115
1320	Chemistry	1842
1340	Meteorology	633
1370	Cartography	934
1410	Librarian	790
1515	Operations Research	796
1520	Mathematics	1224
1670	Equipment Specialist	1980
1702	Education & Drug Technician	1142
1712	Training Instruction	685
1810	General Investigating	639
1822	Mine Safety & Health	938
1910	Quality Assurance	1777
2003	Supply Program Management	1740
2010	Inventory Management	1006
2181	Aircraft Operation	1043

GS-11 & Equivalent

<u>Series</u>	<u>Title</u>	<u>Population</u>
18	Safety Management	936
105	Social Insurance Administrator	3027
110	Economist	788
160	Civil Rights Analysis	1339
185	Social Work	2551
201	Personnel Management	1698
212	Personnel Staffing	1365
221	Position Classification	862
301	Misc. Admin. & Programs	5371
334	Computer Specialist	6265
341	Administrative Officer	1703
343	Management Analysis	3088
345	Program Analysis	2059
346	Logistics Management	909
401	General Biological Science	1018
457	Soil Conversation	2117
460	Forestry	2095
470	Soil Science	836
475	Agricultural Management	1695
510	Accounting	4478
512	Internal Revenue Agent	3544
560	Budget Analysis	2181
610	Nurse	7428
660	Pharmacist	1861
801	General Engineering	1116
802	Engineering Technician	6173
810	Civil Engineering	3701
830	Mechanical Engineering	2023
850	Electrical Engineering	1072
855	Electronics Engineering	1830
856	Electronics Technician	7180

GS-11 & Equivalent (continued)

<u>Series</u>	<u>Title</u>	<u>Population</u>
905	General Attorney	1068
993	Social Insurance Claims Examining	1751
1102	Contract & Procurement	4606
1150	Industrial Specialist	985
1152	Production Control	888
1165	Loan Specialist	795
1169	Internal Revenue Officer	2006
1170	Realty	1037
1320	Chemistry	1631
1370	Cartography	1834
1410	Librarian	1080
1670	Equipment Specialist	3228
1710	Education & Vocational Training	1492
1712	Training Instruction	1470
1810	General Investigating	947
1910	Quality Assurance	4376
2001	General Supply	851
2003	Supply Program Management	1523
2010	Inventory Management	2322

GS-9 & Equivalent

<u>Series</u>	<u>Title</u>	<u>Population</u>
23	Outdoor Recreation Planning	858
201	Personnel Management	970
301	Misc. Admin. & Programs	5154
318	Secretary	1779
332	Computer Operator	1752
334	Computer Specialist	3028
341	Administrative Officer	1984
343	Management Analysis	1773
345	Program Analysis	1370
404	Biological Technician	810
457	Soil Conversation	1148
460	Forestry	1400
462	Forestry Technician	1328
501	General Acctg. Clerk./Admin.	1283
510	Accounting	2146
512	Internal Revenue Agent	1385
526	Tax Technician	3315
560	Budget Analysis	1987
610	Nurse	21595
644	Medical Technologist	1364
802	Engineering Technician	5741
809	Construction Control	1313
810	Civil Engineering	1151
856	Electronics Technician	3057
895	Industrial Engineering Technician	970
962	Contract Representative	1215
993	Social Insurance Claims Examiner	1611
996	Veterans Claims Examining	1008
1102	Contract & Procurement	4026
1152	Production Control	2172

GS-9 & Equivalent (continued)

<u>Series</u>	<u>Title</u>	<u>Population</u>
1165	Loan Specialist	889
1169	Internal Revenue Officer	853
1670	Equipment Specialist	2620
1710	Education & Vocational Training	2601
1712	Training Instruction	2481
1863	Food Inspection	2636
1910	Quality Assurance	4948
1980	Agricultural Commodity Grading	1673
2001	General Supply	1601
2003	Supply Program Management	833
2010	Inventory Management	3059
2050	Supply Cataloging	814

GS-7 & Equivalent

<u>Series</u>	<u>Title</u>	<u>Population</u>
105	Social Insurance Administrator	1126
203	Personnel Clerical & Assistant	2122
204	Military Personnel Clerk. & Tech.	1362
301	Misc. Admin. & Programs	6482
303	Misc. Admin. Clerk & Assistant	7125
318	Secretary	9886
332	Computer Operator	2315
334	Computer Specialist	1822
335	Computer Clerk & Asst.	1152
341	Administrative Officer	1070
344	Management Clerical & Asst.	2200
404	Biological Technician	1326
462	Forestry Technician	2032
501	General Acctg. Clerk./Admin.	1798
510	Accounting	1215
512	Internal Revenue Agent	927
525	Accounting Technician	3502
560	Budget Analysis	1085
592	Tax Accounting	3391
644	Medical Technologist	2523
645	Medical Technician	838
802	Engineering Technician	3337
809	Construction Control	1091
962	Contract Representative	4684
993	Social Insurance Claims Examiner	988
1102	Contract & Procurement	2011
1105	Purchasing	946
1152	Production Control	1379
1712	Training Instruction	1017
1863	Food Inspection	3256

GS-7 & Equivalent (continued)

<u>Series</u>	<u>Title</u>	<u>Population</u>
2001	General Supply	1244
2005	Supply Clerical & Technician	3451
2010	Inventory Management	1358
2102	Transportation Clerk & Asst.	992
526	Tax Technician	751
649	Medical Machine Technician	735
699	Health Aid & Technician	797
856	Electronics Technician	699
986	Legal Clerk & Technician	797
1060	Photography	726
1311	Physical Science Technician	719
1411	Library Technican	754
1910	Quality Assurance	727

GS-6 & Equivalent

<u>Series</u>	<u>Title</u>	<u>Population</u>
203	Personnel Clerical & Assistant	2124
204	Military Personnel Clerk. & Tech.	1315
301	Misc. Admin. & Programs	4217
303	Misc. Admin. Clerk & Assistant	6562
305	Mail & File	1023
318	Secretary	20172
332	Computer Operator	1504
335	Computer Clerk & Asst.	1086
344	Management Clerical & Asst.	1302
458	Soil Conservation Technician	1080
462	Forestry Technician	1132
501	General Acctg. Clerk./Admin.	1620
525	Accounting Technician	5219
540	Voucher Examining	900
544	Payroll	827
592	Tax Accounting	3915
621	Nursing Assistant	2774
647	Diagnostic Radiology Technician	1190
649	Medical Machine Technician	1283
699	Health Aid & Technician	802
802	Engineering Technician	819
962	Contract Representative	1460
986	Legal Clerk & Technician	1325
1105	Purchasing	1280
1106	Procurement Clerk & Assistant	825
2005	Supply Clerical & Technician	4237

GS-5 & Equivalent

<u>Series</u>	<u>Title</u>	<u>Population</u>
26	Park Technician	904
203	Personnel Clerical & Assistant	4234
204	Military Personnel Clerk. & Tech.	2502
301	Misc. Admin. & Programs	7539
303	Misc. Admin. Clerk & Assistant	12909
305	Mail & File	3038
312	Clerk Steno & Reporter	2591
318	Secretary	33897
322	Clerk Typist	2906
332	Computer Operator	1619
334	Computer Specialist	997
335	Computer Clerk & Asst.	1950
344	Management Clerical & Asst.	1566
404	Biological Technician	1306
462	Forestry Technician	3638
501	General Acctg. Clerk./Admin.	2813
525	Accounting Technician	6388
540	Voucher Examining	2326
544	Payroll	2294
545	Military Pay	1486
592	Tax Accounting	3704
621	Nursing Assistant	15680
661	Pharmacy Technician	1000
675	Medical Record Technician	1010
699	Health Aide & Technician	961
802	Engineering Technician	2499
962	Contract Representative	1241
986	Legal Clerk & Technician	1758
993	Social Insurance Claims Examiner	1103
998	Claims Clerical	2616
1087	Editorial Assistance	915

GS-5 & Equivalent (continued)

<u>Series</u>	<u>Title</u>	<u>Population</u>
1102	Contract & Procurement	1129
1105	Purchasing	1946
1106	Procurement Clerk & Assistant	3048
2005	Supply Clerical & Technician	10567
2134	Shipment Clerical	1145

GS-4 & Equivalent

<u>Series</u>	<u>Title</u>	<u>Population</u>
26	Park Technician	895
203	Personnel Clerical & Assistant	605
204	Military Personnel Clerk. & Tech.	3114
301	Misc. Admin. & Programs	4447
303	Misc. Admin. Clerk & Assistant	11697
305	Mail & File	8288
312	Clerk Steno & Reporter	7100
318	Secretary	14594
322	Clerk Typist	24637
332	Computer Operator	679
335	Computer Clerk Assistant	1700
350	Equipment Operator	1140
356	Data Transcriber	4976
382	Telephone Operating	1747
462	Forestry Technician	3625
501	General Acctg. Clerk./Admin.	1311
525	Accounting Technician	2845
530	Cash Processing	890
540	Voucher Examining	1279
544	Payroll	781
545	Military Pay	1046
592	Tax Accounting	1905
621	Nursing Assistant	13511
622	Medical Supply Aide/Technician	821
679	Medical Clerk	5956
681	Dental Assistant	1619
802	Engineering Technician	1785
998	Claims Clerical	5624
1106	Procurement Clerk & Assistant	3004
1411	Library Technician	640
1702	Education & Training Technician	2136
2005	Supply Clerical & Technician	8694
2134	Shipment Clerical	1037

GS-3 & Equivalent

<u>Series</u>	<u>Title</u>	<u>Population</u>
203	Personnel Clerical & Assistant	605
204	Military Personnel Clerk. & Tech.	779
301	Misc. Admin. & Programs	1809
303	Misc. Admin. Clerk & Assistant	8653
305	Mail & File	1072
312	Clerk Steno & Reporter	944
318	Secretary	28746
332	Computer Operator	679
350	Equipment Operator	1023
356	Data Transcriber	5100
382	Telephone Operating	1845
462	Forestry Technician	2505
621	Nursing Assistant	2741
679	Medical Clerk	1828
802	Engineering Technician	729
998	Claims Clerical	858
1106	Procurement Clerk & Assistant	869
2005	Supply Clerical & Technician	3248
2091	Sales Store Clerk	1386

E

APPENDIX E

Lists of 38 SES Jobs Evaluated

SES Position Listing

The eleven participating agencies and the 38 SES positions included in the sample are listed below.

DEFENSE LOGISTICS AGENCY

Comptroller, DLA

Executive Director, Contract Management

Deputy Executive Director, Supply Operations

DEPARTMENT OF THE AIR FORCE

Principal Deputy Assistant Secretary
(Research, Development and Logistics)

Assistant Secretary (Financial Management)

Principal Deputy Assistant Secretary
(Manpower, Reserve Affairs and Installations)

Deputy Comptroller

DEPARTMENT OF THE ARMY

Administrative Assistant to the Secretary

Auditor General

Deputy Under Secretary (Operations Research)

Deputy Comptroller

DEPARTMENT OF COMMERCE

Director, Minority Business Development Agency

Deputy Under Secretary for International Trade

Assistant Administrator for Fisheries

DEPARTMENT OF HEALTH & HUMAN SERVICES

Chief of Staff

Administrator, Health Care Financing Administration

Assistant Secretary for Management and Budget

SES Position Listing (Cont'd)

DEPARTMENT OF THE INTERIOR

Associate Director, U.S. Geological Survey

Director, Minerals Management Service

Deputy Assistant Secretary

DEPARTMENT OF JUSTICE

Deputy Solicitor General & Counselor to the Solicitor General

Director, Office of Public Affairs

Director, U.S. Marshalls Service

Deputy Commissioner

DEPARTMENT OF THE NAVY

Deputy under Secretary (Financial Management) and Comptroller

Principal Deputy Assistant Secretary
(Shipbuilding and Logistics)

Principal Deputy Assistant Secretary
(Research, Engineering, and Systems)

Deputy Chief of Naval Material

DEPARTMENT OF TRANSPORTATION

Deputy Administrator

Assistant Secretary for Administration

DEPARTMENT OF THE TREASURY

Fiscal Assistant Secretary

Deputy Commissioner

Commissioner of Customs

Director, U.S. Secret Service

SES Position Listing (Cont'd)

VETERANS ADMINISTRATION

Chief Benefits Director

Director, National Cemetery System

Associate Deputy Administrator
(Information Resources Management)

Associate Deputy Administrator (Logistics)

APPENDIX F

List of 24 Bureau of Labor
Statistics Positions Included

BLS Position Titles

Accounting Clerk II
Accounting Clerk III
Accounting Clerk IV
Secretary II
Secretary III
Secretary IV
Secretary V
Computer Operator I
Computer Operator II
Computer Operator III
File Clerk I
File Clerk II
File Clerk III
Typist I
Typist II
Stenographer I
Stenographer II
Order Clerk
Payroll Clerk
Key Entry Operator I
Key Entry Operator II
Switchboard Operator
Switchboard Operator/Receptionist
Messenger

G

APPENDIX G

Matrix of Jobs Matched by State

Distribution of Position Matches by State

Position Title	STATE CODE													TOTAL	% Match Rate
	01	02	03	04	05	06	07	08	09	10	11	12	13		
ACCOUNTING/BUDGETING															
1-Manager, General Accounting	X		X	X	X	X	X	X	X	X	X	X	X	12	92.3
2-Budget Analyst V	X	X	X	X	X	X	X	X	X	X	X	X		12	92.3
3-Accountant IV	X	X	X	X		X	X	X	X	X	X	X	X	12	92.3
4-Budget Analyst III	X	X	X	X		X	X	X	X	X	X	X	X	12	92.3
5-Supervisor, General Accounting	X	X	X		X	X	X	X	X	X	X	X	X	12	92.3
6-Senior Accountant	X	X	X	X	X	X	X	X	X	X	X	X	X	13	100.0
7-Budget Analyst II	X	X	X	X		X	X	X	X	X	X	X	X	12	92.3
8-Accountant I	X	X	X	X	X	X	X	X	X	X	X	X	X	13	100.0
AUDITING															
9-Revenue Audit Manager	X	X	X		X	X	X		X	X	X	X	X	11	84.6
10-Field Auditor V	X	X	X	X	X	X	X	X	X	X		X	X	12	92.3
11-Revenue Audit Supervisor	X	X	X	X	X	X	X	X	X	X	X	X	X	13	100.0
12-Field Auditor III	X	X	X	X	X	X	X	X	X	X	X	X	X	13	100.0
13-Field Auditor I	X	X	X	X	X	X	X	X	X	X	X	X	X	13	100.0
CLERICAL															
14-Secretary AA	X	X	X	X	X	X	X	X		X	X	X	X	12	92.3
15-Secretary A	X	X	X	X	X	X	X	X	X	X	X	X	X	13	100.0
16-Accounting Clerk A	X		X	X	X	X	X	X	X		X	X	X	11	84.6
17-Secretary B	X	X	X	X	X	X	X	X	X	X	X	X	X	13	100.0
18-General Clerk A	X			X	X	X	X	X	X	X	X	X	X	11	84.6
19-Accounting Clerk B	X	X	X	X		X	X	X	X		X	X	X	11	84.6

Distribution of Position Matches by State

Position Title	STATE CODE													TOTAL	% Match Rate
	01	02	03	04	05	06	07	08	09	10	11	12	13		
20-Payroll Clerk		X	X	X		X	X	X	X		X	X	X	10	76.9
21-Word Processing Operator A	X		X	X	X	X	X	X	X		X	X	X	11	84.6
22-General Clerk B	X			X	X	X	X	X	X	X	X	X	X	11	84.6
23-Telephone Operator A	X	X	X	X	X		X	X	X	X	X	X	X	12	92.3
24-Secretary D	X	X	X	X	X	X	X	X	X	X	X	X	X	13	100.0
25-Typist Clerk A	X		X	X	X	X	X	X	X	X	X	X	X	12	92.3
26-General Clerk C	X		X	X	X	X	X	X	X	X	X	X		11	84.6
27-Typist Clerk B	X	X	X	X	X	X	X	X	X	X	X	X	X	13	100.0
28-Mailroom Clerk	X	X	X	X	X	X	X	X	X		X	X	X	12	92.3
29-File Clerk C	X	X	X	X	X	X	X	X	X	X	X	X		12	92.3
DATA PROCESSING															
30-EDP Director	X	X				X	X	X	X	X	X	X	X	10	76.9
31-Director, Systems and Programming	X	X		X		X	X		X	X	X	X	X	10	76.9
32-Director, Data Center Operations	X	X		X	X	X	X		X	X	X	X	X	11	84.6
33-Manager, Systems and Programming	X	X		X	X	X	X		X	X	X	X	X	11	84.6
34-Data Base Manager	X	X		X		X	X			X	X		X	8	61.5
35-Project Leader	X	X		X		X	X	X	X	X	X	X	X	11	84.6
36-Computer Operations Manager	X	X		X	X	X	X	X	X	X	X	X	X	12	92.3
37-Senior Systems Programmer	X	X	X	X	X	X	X	X	X	X	X	X	X	13	100.0
38-Senior Programmer Analyst	X		X	X	X	X	X	X	X		X	X	X	11	84.6
39-Systems Analyst	X	X		X	X	X	X	X	X	X	X	X	X	12	92.3
40-Shift Supervisor	X	X	X	X		X	X	X	X	X	X	X	X	12	92.3

Distribution of Position Matches by State

Position Title	STATE CODE													TOTAL	% Match Rate
	01	02	03	04	05	06	07	08	09	10	11	12	13		
41-Associate Data Base Analyst	X		X	X		X	X			X	X		X	8	61.5
42-Senior Programmer	X	X		X	X	X	X	X	X	X	X	X	X	12	92.3
43-Supervisor, Data Entry	X	X		X	X	X	X	X	X	X	X	X	X	12	92.3
44-Programmer	X	X	X	X	X	X	X	X	X	X	X	X	X	13	100.0
45-Computer Operator A	X	X	X	X	X	X	X	X	X		X	X	X	12	92.3
46-Lead Data Control Clerk			X	X		X	X	X	X		X		X	8	61.5
47-Associate Programmer	X		X	X	X	X	X	X	X	X	X	X	X	12	92.3
48-Programmer Trainee	X	X	X	X	X	X	X	X		X	X	X	X	12	92.3
49-Computer Operator B	X	X	X	X	X	X	X	X	X	X	X	X	X	13	100.0
50-Data Control Clerk	X	X	X	X	X	X	X	X	X		X	X	X	12	92.3
51-Tape Librarian	X	X	X	X	X	X	X	X	X	X	X	X	X	13	100.0
52-Data Entry Operator B	X	X	X	X	X	X	X	X	X	X	X	X	X	13	100.0
EMPLOYMENT SERVICES															
53-Executive Director, Employment Security		X	X	X	X	X		X	X	X	X	X	X	11	84.6
54-Director, Bureau of Job Services	X	X	X	X	X			X	X	X	X		X	10	76.9
55-Employment Interviewer Supervisor	X	X	X	X		X	X	X	X	X	X	X	X	12	92.3
ENGINEERING															
56-Chief Engineer	X	X	X	X	X	X		X	X	X	X	X	X	12	92.3
57-Highway District Engineer	X	X	X	X	X	X	X	X	X	X	X	X	X	13	100.0
58-Civil Engineer IV	X	X	X	X		X	X	X	X	X	X	X	X	12	92.3
59-Civil Engineer II	X	X	X	X	X	X	X	X	X	X	X	X	X	13	100.0

Distribution of Position Matches by State

Position Title	STATE CODE													TOTAL	% Match Rate	
	01	02	03	04	05	06	07	08	09	10	11	12	13			
FORESTRY																
60-State Parks Director	X	X	X	X	X	X	X	X	X	X	X	X	X	X	13	100.0
61-Forester III	X	X	X	X	X	X	X			X	X	X	X	11	84.6	
62-Forester II	X	X	X	X	X	X	X			X	X	X	X	11	84.6	
63-Forest Ranger			X	X	X		X			X	X	X	X	8	61.5	
HIGHWAYS																
64-Superintendent, Shop & Equipment		X		X		X		X		X	X	X	X	8	61.5	
65-Highway Foreman	X	X	X	X	X	X	X		X	X	X	X	X	12	92.3	
HOSPITAL																
66-Hospital Administrator	X	X	X			X	X		X	X	X		X	9	69.2	
67-Director of Nursing/School of Nursing				X	X							X	X	4	30.8	
68-Rehabilitation Supervisor III	X	X	X	X		X	X	X		X	X	X		10	76.9	
69-Chief Pharmacist	X	X	X	X	X	X	X	X	X		X	X	X	12	92.3	
70-Rehabilitation Supervisor I	X	X	X	X	X	X	X	X		X	X	X	X	12	92.3	
71-Chief Physical Therapist	X	X	X	X		X	X	X		X	X	X	X	11	84.6	
72-Chief Occupational Therapist	X	X	X	X		X	X	X		X	X	X	X	11	84.6	
73-Head Nurse, Medical/Surgical	X	X	X	X	X	X	X	X	X	X	X	X	X	13	100.0	
74-Laundry Manager	X	X	X	X	X	X	X	X	X	X	X	X	X	13	100.0	
75-Occupational Therapist II	X	X	X	X	X	X	X	X	X	X	X	X	X	13	100.0	
76-Staff Nurse	X	X	X	X	X	X	X	X	X	X	X	X	X	13	100.0	
77-Rehabilitation Counselor I	X	X	X	X		X	X	X		X	X	X	X	11	84.6	
78-Practical Nurse	X	X	X	X	X	X	X	X	X	X	X	X	X	13	100.0	
79-X Ray Technologist	X	X	X	X		X	X	X	X	X	X	X	X	12	92.3	

Distribution of Position Matches by State

Position Title	STATE CODE													TOTAL	% Match Rate
	01	02	03	04	05	06	07	08	09	10	11	12	13		
HUMAN SERVICES															
80-Superintendent, Mental Hospital	X	X	X	X	X	X	X	X	X	X	X	X	X	13	100.0
81-Senior Social Work Supervisor	X	X		X	X	X	X	X	X	X	X	X	X	12	92.3
82-Social Worker	X	X	X	X	X	X	X	X	X	X	X	X	X	13	100.0
PERSONNEL															
83-Director, Office of Personnel Services	X	X	X	X	X	X	X	X	X	X	X	X	X	13	100.0
84-Personnel Analyst II	X	X	X	X	X	X	X	X	X	X	X	X		12	92.3
POLICE															
85-State Police Commissioner	X	X	X	X			X	X	X	X	X	X	X	11	84.6
86-State Police Major	X	X	X	X		X	X	X	X	X	X	X	X	12	92.3
87-State Police Lieutenant	X	X		X	X	X	X	X	X	X	X	X	X	12	92.3
88-State Police Sargent	X	X	X	X	X	X	X		X	X	X	X	X	12	92.3
89-State Police Trooper	X	X	X	X	X	X	X		X	X	X	X	X	12	92.3
PRISONS															
90-Superintendent, Correctional Institution			X	X	X	X	X		X	X	X	X	X	10	76.9
91-Prison Warden	X	X		X			X	X	X	X	X	X	X	10	76.9
92-Corrections Officer V	X			X	X	X	X	X	X	X	X	X	X	11	84.6
93-Corrections Officer IV	X	X	X	X	X	X	X	X	X	X	X	X	X	13	100.0
94-Corrections Officer III	X	X	X	X	X	X	X	X	X	X	X	X	X	13	100.0
95-Probation Officer I	X		X	X	X	X	X	X	X	X	X	X	X	12	92.3
96-Corrections Officer I	X	X	X	X	X	X	X	X	X	X	X	X	X	13	100.0

Distribution of Position Matches by State

Position Title	STATE CODE													TOTAL	% Match Rate	
	01	02	03	04	05	06	07	08	09	10	11	12	13			
PURCHASING																
97-Purchasing Director	X	X	X	X	X		X	X	X	X	X	X	X	12	92.3	
98-Purchasing Agent III	X		X	X	X	X	X	X	X	X	X	X	X	12	92.3	
99-Purchasing Agent II	X	X	X	X	X	X	X	X	X	X	X	X	X	13	100.0	
MISCELLANEOUS																
100-Secretary of Transportation	X	X	X	X	X	X	X	X	X	X	X	X	X	13	100.0	
101-Insurance Commissioner	X	X	X	X	X	X	X	X	X	X	X	X	X	13	100.0	
102-Tax Examiner III	X	X	X	X	X	X	X	X		X	X	X	X	12	92.3	
103-Biologist	X		X	X	X	X	X	X	X		X	X	X	11	84.6	
104-Senior Librarian	X	X	X	X	X	X	X	X	X	X	X	X	X	13	100.0	
TOTAL NUMBER	97	86	86	100	80	97	99	89	89	92	102	99	99	1215		
% Match Rate	93.3	82.7	82.7	96.2	76.9	93.3	95.2	85.6	85.6	88.5	98.1	95.2	95.2	89.9		

H

APPENDIX H

Prevalence of Benefit Practices

Prevalence of Benefit Practices

	<u>HHBC 1983 Database</u>	<u>State Employees</u>	<u>Federal Employees</u>
<u>DEATH BENEFITS</u>			
Basic Group Life	100% have plan	100% have plan	has plan
Supplemental Group Life	58% have plan	46% have plan	has plan
Basic Accidental Death	74% have plan	54% have plan	has plan
Supplemental Accidental Death	17% have plan	23% have plan	no plan
Voluntary Accidental Death	35% have plan	23% have plan	no plan
Dependent Group Life	36% have plan	31% have plan	has plan
Group Survivor Income	11% have plan	0% have plan	no plan
Business Travel Accident	72% have plan	8% have plan	no plan
Executive Group Life	20% have plan	23% have plan for management	no plan
<u>DISABILITY</u>			
Short Term Disability	100% have formal plan	100% have formal plan	has formal plan
Long Term Disability (Other than pension disability)	93% have plan	31% have plan	no plan
<u>HEALTH CARE BENEFITS - Service Benefit Plan (High Option Blue Cross/Blue Shield) used for Federal Employees</u>			
Hospital/Medical Plan	100% have plan	100% have formal plan	has plan
Retiree Coverage	70% cover both early and normal retirees	92% cover both early and normal retirees	covers all retirees
Dental Coverage	78% have plan	46% have plan	no plan
Prescription Drugs	89% cover as an eligible expense under major medical	62% cover as an eligible expense under major medical	covers as an eligible expense under major medical
Vision Care	17% have plan	0% have plan	no plan
<u>RETIREMENT BENEFITS</u>			
Pension Plan	91% have plan	100% have plan	has plan
401(k)	13% have plan	0% have plan	no plan
Thrift Plan/Matching Stock Purchase Plan	43% have plan	0% have plan	no plan
Profit Sharing/Stock Bonus	20% have plan	0% have plan	no plan
ESOP/PAYSOP	19% have ESOP or PAYSOP	0% have plan	no plan
Discount Stock Purchase Plan	7% have plan	0% have plan	no plan
Section 457 Plan	0% have plan	38% have plan	no plan

Prevalence of Benefit Practices

EXECUTIVE PERQUISITES	HHBC 1983 Database		State Employees	Federal Employees
Stock Option Plan	55%	provide	0%	do not provide
Stock Appreciation	29%	provide	0%	do not provide
Phantom Stock/Dividend Units	7%	provide	0%	do not provide
Executive Stock Bonus	6%	provide	0%	do not provide
Executive Stock Purchase	3%	provide	0%	do not provide
Performance Shares/Units	18%	provide	0%	do not provide
Front-end Bonuses	6%	provide	0%	do not provide
Supplemental Retirement	38%	provide	0%	do not provide
Executive Dining Room	18%	provide	0%	do not provide
Physical Exam (Non pre-employment)	72%	provide	15%	do not provide
Special Medical Reimbursement	16%	provide	0%	do not provide
Special Vacation Schedule	35%	provide	0%	do not provide
Split Dollar Insurance	8%	provide	0%	do not provide
Special Executive Group Life	20%	provide	23%	do not provide
Executive Severance Pay Practice	20%	provide	0%	do not provide
Waiver of Insurance Waiting Periods	15%	provide	0%	do not provide
Education Program	10%	provide	0%	do not provide
Pre-retirement Counseling	7%	provide	0%	do not provide
Deferred Compensation Plan	24%	provide	0%	do not provide
Company Cars or Car Allowance	69%	provide	0%	do not provide
Key Man Life Insurance	10%	provide	0%	do not provide
Excess Personal Liability Insurance	11%	provide	0%	do not provide
Apartments/Suites/Houses	9%	provide	0%	do not provide
Mortgages (other than transfer) and Loans	5%	provide	0%	do not provide
Personal Legal Services	5%	provide	0%	do not provide
Personal Financial Counseling	26%	provide	0%	do not provide
Tax Preparation Services	17%	provide	0%	do not provide
Employment Contracts	14%	provide	0%	do not provide
Special Parking	58%	provide	0%	do not provide
Country Club	44%	provide	0%	do not provide
Lunch Club	47%	provide	0%	do not provide
Athletic Club	16%	provide	0%	do not provide
Company Aircraft	26%	provide	0%	do not provide
Paid Spouse Travel Expenses	26%	provide	0%	do not provide
Sabbaticals with Pay	4%	provide	0%	do not provide
Directors and Officers Liability Insurance	51%	provide	0%	do not provide
Golden Parachutes	8%	provide	0%	do not provide

Percentages are based on the number of respondents to each perquisite practice (except Stock Plans where percentages are based on the number of stockholder companies).

Prevalence of Benefit Practices

<u>DEATH BENEFITS</u>	<u>HHBC 1983 Database</u>	<u>State Employees</u>	<u>Federal Employees</u>
<u>Basic Group Life Insurance</u>	100% have plan	100% have plan	has plan
<u>Eligibility</u>	50% have immediate eligibility 32% require a waiting period	55% require a waiting period 36% have immediate eligibility	has immediate eligibility
<u>Cost</u>	82% are employer paid	46% are employer paid 46% involves cost sharing	involves cost sharing
<u>Basis of Benefit</u>	82% are based on earnings multiple	69% are based on earnings multiple 31% are based on a flat amount	based on uniform earnings multiple
<u>Amount of Benefit (Plans based on Uniform Earnings Multiple)</u>	47% are 2 times pay 25% are 1 times pay 14% are 1.5 times pay	50% are 1 times pay 38% 1.25-2 times pay	provides coverage which varies by age; age 35 or under - 2 times basic amount age 35 to 45 - reduces 5% each year age 45 or older - 1 times basic amount
<u>Maximums</u>	66% have maximum flat dollar amount of coverage, of these, 38% are \$100,000-\$249,000 24% are \$250,000-\$399,999 16% are \$400,000-\$999,999 18% are < \$100,000	67% have no maximum 33% have maximum, of these, 100% have < \$50,000	has a maximum linked to the basic benefit
<u>Disability Benefit</u>	89% continue coverage in the event of disability	77% continue coverage in the event of disability	continues coverage in event of disability

Prevalence of Benefit Practices

<u>DEATH BENEFITS (Cont'd)</u>	<u>HHBC 1983 Database</u>	<u>State Employees</u>	<u>Federal Employees</u>
<u>Basic Group Life Insurance</u>			
Retirement Provisions	37% cancel coverage 31% make a one time reduction on normal retirement date 25% reduce at retirement and make further reduction(s) thereafter	54% cancel coverage 31% make a one time reduction on normal retirement date	makes a reduction on normal retirement date and further reduction(s) thereafter
Cost of Retiree Coverage	89% are employer paid	67% are employer paid 33% are employee paid	involves cost-sharing
<u>Supplemental Group Life</u>	58% have plan	46% have plan	has plan
Cost	74% are employer paid	67% are employee paid 17% involve cost sharing 17% are employer paid	employee paid
Basis of Benefit	85% are based on earnings multiple	67% are based on earnings multiple 33% are based on a flat amount	based on earnings multiple
Amount of Benefit	42% are 1 times pay 28% are 2 times pay	33% are 1 times pay 33% are 1.5 times pay 34% are 2 times pay	allows the employee to choose from 1 times pay to 5 times pay

Prevalence of Benefit PracticesHHBC 1983
DatabaseDEATH BENEFITS (Cont'd)Supplemental Group Life

Maximums

53% have a maximum flat dollar amount of coverage, of these,
 29% are \$100,000-\$199,999
 22% are > \$400,000
 21% are \$200,000-\$299,999

Disability Benefit

93% continue coverage in the event of disability

Retirement Provisions

75% cancel coverage

Basic Accidental Death

Cost

86% are employer paid

Basis of Benefit

78% are based on earnings multiple, of these,

Amount of Coverage

42% are 2 times pay
 26% are 1 times pay

Federal Employees

has a maximum of 5 times pay

continues coverage in event of disability

makes a reduction on normal retirement date and further reduction(s) thereafter

has plan

involves cost sharing

based on earnings multiple

provides coverage which varies by age

State Employees

67% have no maximum flat dollar amount of coverage

67% continue coverage in the event of disability

67% cancel coverage
 17% continue coverage in full

17% make a reduction on retirement date and further reduction(s) thereafter

54% have plan

43% are employer paid
 29% are employee paid
 29% involve cost sharing

86% are based on a flat amount, of these,

50% are \$4,000-\$5,000
 33% are \$10,000-\$15,000

Prevalence of Benefit Practices

<u>DEATH BENEFITS (Cont'd)</u>	<u>HHBC 1983 Database</u>	<u>State Employees</u>	<u>Employees</u>
<u>Basic Accidental Death</u>			
Maximums	77% have a maximum flat dollar amount of coverage, of these, 33% are \$50,000-\$100,000 27% are \$100,000-\$150,000 25% are \$200,000-\$250,000 13% are \$300,000-\$400,000	Not Applicable	has no maximum amount of coverage
<u>Supplemental Accidental Death</u>	17% have plan	23% have plan	no plan
<u>Voluntary Accidental Death</u>	35% have plan	23% have plan	no plan
Cost	97% are employee paid	100% are employee paid	
Basis of Benefit	86% are based on a flat amount 12% are based on earnings multiple	100% are based on a flat amount	
Amount of Benefit	90% are the employee's choice	100% are the employee's choice	
<u>Dependent Group Life</u>	36% have plan	31% have plan	has plan
Cost	69% are employee paid 22% are employer paid	100% are employee paid	employee paid
Maximum of Spouse	42% are \$1,000-\$3,000 27% are \$5,000	75% are \$2,000	\$5,000
Maximum of Children	39% are \$1,000 26% are \$2,000 8% are \$2,500	50% are \$2,000 25% are \$2,500 25% are \$1,000	\$2,500
<u>Group Survivor Income</u>	11% have plan	0% have plan	no plan

Prevalence of Benefit Practices

<p><u>HHBC 1983 Database</u></p> <p>72% have plan</p> <p>98% are employer paid</p> <p>55% are based on a flat amount</p> <p>38% are based on earnings multiple</p> <p>20% have plan</p>	<p><u>State Employees</u></p> <p>8% have plan</p> <p>23% have plan for management</p>	<p><u>Federal Employees</u></p> <p>no plan</p> <p>no plan</p>
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DEATH BENEFITS (Cont'd)

Business Travel Accident

Cost

Basis of Benefit

Executive Group Life

Prevalence of Benefit Practices

	<u>HHBC 1983 Database</u>	<u>State Employees</u>	<u>Federal Employees</u>
<u>Short Term Disability (Sick Leave)</u>	100% have formal plan	100% have formal plan	has formal plan
<u>Eligibility</u>	97% are salary continuance plans 54% have immediate eligibility 46% require a waiting period	100% have salary continuance plans 80% have immediate eligibility	has salary continuance plan has immediate eligibility
<u>Salary Continuance Plans</u>	48% have schedule that varies with service 28% are based on accumulation of days	100% are based on accumulation of days	based on accumulation of days
<u>Number of Days Accumulated</u>	45% credit 12-12.9 days 18% credit 10-10.9 days 8% credit 15-15.9 days	38% credit 12-12.9 days 31% credit 15-15.9 days 15% credit 13-13.9 days	credits 13 days
<u>Maximum Number of Days Accumulated</u>	30% have no maximum 23% have 60-99 days 16% have 121-180 days	85% have no maximum 15% have > 180 days	has no maximum

	Number of Weeks of Full Pay (Service Related Plans)			
	2 Yrs.	8 Yrs.	18 Yrs.	Max.
2 Wks.	13%	2%	1%	2%
4 Wks.	27%	4%	3%	2%
6-13 Wks.	34%	51%	19%	17%
13.1-17.9 Wks.	2%	12%	6%	2%
18.0-25.9 Wks.	2%	15%	24%	8%
26 Wks.	3%	12%	37%	55%

Prevalence of Benefit PracticesFederal
EmployeesHHBC 1983
DatabaseState EmployeesDISABILITY BENEFITS (Cont'd)
(Other than pension disability)Long Term Disability

no plan

93% have plan

31% have plan

Eligibility

55% require a waiting period
32% have immediate eligibility50% have immediate eligibility
25% require first of the month following employment
25% require a waiting period

Cost

63% are employer paid
21% involve cost sharing50% are employee paid
25% involve cost sharing
25% are employer paid

Exclusion Period

62% begin LTD benefits after 6 months of disability
15% begin LTD benefits after 3 months of disability75% begin LTD benefits after 3 months of disability
25% begin LTD benefits at the end of STD

Amount of Benefit

90% base benefit on a flat percentage of monthly earnings

100% base benefit on a flat percentage of monthly earnings

Plans Based on a Flat Percentage

60% pay 60% of monthly earnings
18% pay 50% of monthly earnings50% pay 60% of monthly earnings
25% pay 50% of monthly earnings
25% pay 66%-67% of monthly earnings

Maximum Benefit

79% have monthly maximums; of these,
25% are \$3,000
23% are \$2,000-\$2,999
20% are \$4,001-\$5,000
18% are \$3,001-\$4,000100% have monthly maximums, of these,
50% are \$3,000
25% are \$1,000
25% are \$1,500-\$1,999

Social Security Offset

51% offset primary social security
30% offset family social security50% offset family social security directly
25% offset primary social security directly
25% offset all social security when benefits from all sources exceed 70%

Prevalence of Benefit Practices

<u>HEALTH CARE</u>	<u>HHBC 1983 Database</u>	<u>State Employees</u>	<u>Federal Employees Service Benefit Plan High Option</u>
<u>Hospitalization/Medical</u>	100% have plan	100% have plan	has plan
Eligibility	46% have immediate eligibility 31% require first of the month following employment	33% require first of the month following employment 22% have immediate eligibility	has immediate eligibility
Cost			
Employee Coverage	66% are employer paid 34% involve cost sharing	54% involve cost sharing 46% are employer paid	involves cost sharing
Dependent Coverage	57% involve cost sharing 39% are employer paid	77% involve cost sharing 23% are employer paid	involves cost sharing
Plan Design	62% have basic plan coverage with supplemental major medical 32% have comprehensive major medical	77% have basic plan coverage with supplemental major medical 23% have comprehensive major medical	has basic coverage with supplemental major medical
<u>Basic Plan Coverage</u>			
Hospitalization	94% pay 100% of reasonable and customary charges	90% pay 100% of reasonable and customary charges	pays 100% of reasonable and customary charges
Maximum	82% have a maximum based on the number of days of care, of these, 51% pay for 365 days of care 24% pay for 180 days of care	90% have a maximum based on the number of days of care, of these, 56% have a maximum of 365 days of care 22% have a maximum of 120 days of care	has no maximum
Surgical Coverage	65% have basic plan coverage, of these, 73% reimburse based on reasonable and customary charges, of these, 82% pay 100% of reasonable and customary charges	90% have basic plan coverage, of these, 89% reimburse based on 100% of reasonable and customary charges	has basic plan coverage reimburses based on 80% of reasonable and customary charges

<u>Prevalence of Benefit Practices</u>		<u>Federal Employees</u> Service Benefit Plan High Option
<u>HEALTH CARE (Cont'd)</u>	<u>HHBC 1983 Database</u>	<u>State Employees</u>
<u>Basic Plan Coverage</u>		
Outpatient X-Rays and Lab	84% have basic plan coverage	60% have basic plan coverage
Doctor's Visits in the Hospital	55% have basic plan coverage	90% have basic plan coverage
Doctor's Office Visits	84% cover under major medical only	50% have basic plan coverage 30% cover under major medical only
<u>Supplemental Major Medical</u>		
Deductible Amount	71% have a \$100 deductible	50% have a \$100 deductible 30% have a \$50 deductible
Family Deductible	78% have a maximum family deductible; of these, 37% are \$200 32% are \$300 22% are <\$200	80% have a maximum family deductible, of these, 38% are < \$200 25% are \$200 25% are > \$300
Coinsurance (cont'd on following page)	42% have coinsurance based on eligible charges; of these, 96% have initial coinsurance of 80% of the eligible charges 41% have breakpoint of \$2,000-\$2,999 34% have breakpoint of \$5,000-\$10,000 99% pay 91-100% of the remaining eligible charges	50% have coinsurance based on individual out-of-pocket expenses 60% have initial coinsurance of 80% of eligible charges 40% have initial coinsurance of > 90% 60% have breakpoint of \$500 20% have breakpoint of <\$500 20% have breakpoint of \$1,000 100% pay 99-100% of the remaining eligible charges
		has basic plan coverage
		has basic plan coverage
		covers under major medical only
		has a \$200 deductible
		has a maximum family deductible of \$400
		has coinsurance based on family out-of-pocket expenses only; has initial coinsurance of 80% of eligible charges up to \$1,500 and pays 100% of the remaining eligible charges

Prevalence of Benefit Practices

Federal Employees
Service Benefit Plan
High Option

HHBC 1983
Database

State Employees

HEALTH CARE (Cont'd)

Supplemental Major Medical

Coinsurance (Cont'd)

29% have uniform
coinsurance, of these,
93% are 80%

Major Medical Maximum

69% have lifetime
reinstatable
maximums; of these,
46% are \$250,000
25% have \$1,000,000

50% have lifetime re-
instatable maximums;
of these,
60% are \$1,000,000
20% are \$100,000
20% are \$250,000
30% have lifetime unre-
instatable maximums

has no maximum

Retiree Coverage

70% cover all retirees
20% do not cover
retirees

covers all retirees

Cost

Normal Retiree Coverage

73% are employer paid
19% involve cost sharing

42% are employer paid
42% involve cost sharing

involves cost
sharing

Dependent Coverage

63% are employer paid
22% involve cost sharing

50% involve cost sharing
25% are employer paid
25% are employee paid

involves cost
sharing

Prescription Drugs

93% cover as an eligible
expense under major
medical

62% cover as an eligible
expense under supplemental
major medical

covers as an
eligible expense
under major medical

Prevalence of Benefit Practices

Federal Employees
Service Benefit Plan
High Option

HHBC 1983 Database
State Employees
no plan

HEALTH CARE (Cont'd)

Dental Coverage

78% have dental plan; of these,
67% cover as a separate plan
11% cover under a liberalized major medical plan

46% have a separate plan

Eligibility

47% require a waiting period
37% have immediate eligibility

60% require first of the month following employment
40% require a waiting period

Cost

Employee Coverage

75% are employer paid

67% are employer paid
33% involve cost sharing

Dependent Coverage

48% are employer paid
47% involve cost sharing

50% are employer paid
50% involve cost sharing

Basis of Coverage

84% are based on reasonable and customary charges; of these,
81% have coinsurance which varies by type of covered expense

83% are based on reasonable and customary charges; of these,
60% have coinsurance varies by type of covered expense

Coinsurance

	Preven- tive	Basic	Reconstruc- tive	Restora- tive	Preven- tive	Basic	Reconstruc- tive	Restora- tive
50%-69%	2%	16%	41%	88%	0%	0%	0%	100%
70%-79%	2%	9%	8%	3%	0%	0%	0%	0%
80%	27%	59%	41%	5%	0%	0%	33%	0%
90-100%	66%	12%	6%	1%	100%	100%	67%	0%

Prevalence of Benefit Practices

Federal Employees
Service Benefit Plan
High Option

HHBC 1983
Database

HEALTH CARE (Cont'd)

State Employees

Dental Coverage

Deductible

42% have a deductible, which varies by expense area
28% have a deductible applicable to all expense areas

67% have no deductible

Maximums

94% have separate nonorthodontic maximum; of these,
59% have \$1,000 annual maximum
16% have annual maximum of \$701-\$800
8% have \$1,500 annual maximum

50% have a nonorthodontic annual maximum, of these, 100% have \$1,000 annual maximum

Orthodontia

70% cover orthodontia, of these,
44% limit coverage to children
88% base coverage on R&C; of these,
83% pay 50% of R&C

67% cover orthodontia, of these,
50% limit coverage to children
50% base coverage on R&C

Vision Care

17% have plan

23% have separate plan
8% cover as an eligible expense under major medical

no plan

Prevalence of Benefit PracticesHHBC 1983
DatabaseFederal
EmployeesState EmployeesRETIREMENT BENEFITSPension Plan

Cost	91% have plan	100% have plan	has plan
Vesting	16% require employee contribution	69% require employee contribution	requires employee contribution
Basis of Benefit	70% have full vesting after 10 years of service	62% have full vesting after 10 years of service 31% have full vesting after 5 years of service	has full vesting after 5 years of service
Basis of Final Average Pay	86% are final average pay plans	92% are final average pay plans 8% are money purchase plans	has final average pay plan
Formula (Final pay plans)	80% use final or highest 5 years' pay in calculating the pension benefit	75% use highest or final 3 years	uses final 3 years
	42% provide a uniform percentage of final average pay, of these, 28% are 1.51%-1.75% 24% are 1.5% 23% are 2%	58% provide a uniform percentage of final average pay, of these, 57% are 1.51%-1.67% 14% are 1.5% 14% are 2.0% 14% are 2.5%	provides 1.5% per year for the first 5 years, 1.75% for next 5 years and 2% for the remaining years
	18% provide step-rate, or excess percentages per years of service	25% provide step-rate plans which are based on compensation levels	
	15% provide step-rate plans which are based on compensation levels		

Prevalence of Benefit PracticesHHBC 1983
DatabaseRETIREMENT BENEFITS (Cont'd)Federal
EmployeesState EmployeesPension Plan

Social Security Offset (Final pay plans)	65% have a direct social security offset 25% use an indirect social security offset	67% have no Social Security offset 33% have an indirect offset	not applicable
Retirement Before Age 65 (Final pay plans)	48% permit reduced and unreduced early retirement pensions 48% permit reduced early retirement pension only	67% permit reduced and un- reduced early retirement pensions 25% permit reduced early retirement only	permits unreduced retirement pension
Disability Provisions	66% allow service credits to accrue while col- lecting LTD benefits 34% pay an immediate dis- ability pension	100% pay an immediate dis- ability pension	pays an immediate disability pension
Pre-Retirement Death Benefit			
Death in Active Service Before Eligibility for Early Retirement	37% provide a death benefit, of these, 74% provide an income to survivors 16% provide a lump sum 8% provide a combination 2% provide another form of benefit	85% provide a death benefit, of these, 73% provide an income to survivors 27% provide a lump sum	provides a death benefit which is an income to survivors

Prevalence of Benefit PracticesHHBC 1983
DatabaseFederal
Employees

State Employees

RETIREMENT BENEFITS (Cont'd)Pension PlanDeath in Active Service
After Eligibility for
Early Retirement70% automatically provide a death benefit paid for the plan, of these, 95% provide an income to survivors
3% provide a lump sum
1% provide a combination
1% provide either92% automatically provide a death benefit, of these, 75% provide an income to survivors
25% provide a lump sum

automatically provides a death benefit which is an income to survivors

Cost-of-Living Adjustments
(Final Pay Plans)41% gave no COLAs
25% gave ad hoc COLAs
23% gave COLAs by plan amendment

gave COLAs by plan provision

Total Increase for 1/1/75
Retiree as of 1/1/8323% gave 15.1-20%
19% gave 5.1-10%
16% gave >30%
15% gave 10.1-15%33% gave 20.1-25%
17% gave 15.1-20%
17% gave 60.1-70%
8% gave 5.1-10%
8% gave 35.1-40%
8% gave 50.1-55%

gave full COLA increase totalling 87%

Capital Accumulation401(k)

13% have plan, of these, 81% have matching employer contributions

0% have plan

no plan

Type of Plan

58% are features of a thrift plan
25% are salary reduction only

Minimum Deferral Amount

48% are 1%-1.99%
32% are 2%-2.99%

Maximum Deferral Amount

25% are 5%-6.99%
23% are 9%-10.99%
16% are 15%-16.99%
14% are 1%-4.99%

Prevalence of Benefit Practices

<u>RETIREMENT BENEFITS (Cont'd)</u>	<u>HHBC 1983 Database</u>	<u>State Employees</u>	<u>Federal Employees</u>
<u>Capital Accumulation</u>			
<u>Thrift Plan or Stock Purchase with Matching Contribution</u>	43% have plan	0% have plan	no plan
<u>Maximum Contribution Matched by Employer</u>	54% permit maximum contribution of 6% of pay 16% permit maximum contribution of 5% of pay 10% permit maximum contribution of 4% of pay		
<u>Employer Matching</u>	76% match by specified percent; of these, 53% match 50% of the employee's contribution 14% match 25-45% of the employee's contribution		
<u>Profit Sharing/Stock Bonus Plan</u>	20% have plan	0% have plan	no plan
<u>Stock Ownership Plans</u>	19% have plan; of these, 79% are PAYSOPs 21% are ESOPs	0% have plan	no plan
<u>Discount Stock Purchase Plan</u>	7% have plan	0% have plan	no plan
<u>Section 457 Plan</u>	0% have plan	38% have plan	no plan

Prevalence of Benefit Practices

HHBC 1983
Database

HOLIDAYS AND VACATIONS

Holidays

Total Number of
Holidays Provided

33% provide 10-10.5
holidays
20% provide 9-9.5
holidays
19% provide 11-11.5
holidays
11% provide 12-12.5
holidays

Federal
Employees

23% provide 11 holidays
23% provide 13 holidays
23% provide > 13 holidays
15% provide 12 holidays

provides 9 holidays

State Employees

Vacations

10-14 days
15-17 days
18-20 days
> 21 days

	<u>2 Yrs.</u>	<u>5 Yrs.</u>	<u>10 Yrs.</u>	<u>20 Yrs.</u>	<u>2 Yrs.</u>	<u>5 Yrs.</u>	<u>10 Yrs.</u>	<u>20 Yrs.</u>
	83%	31%	1%	0%	85%	15%	0%	0%
	10%	57%	65%	4%	15%	85%	46%	0%
	2%	6%	22%	68%	0%	0%	54%	38%
	0%	0%	1%	22%	0%	0%	0%	62%

2 years-13 days
5 years-20 days
10 years-20 days
20 years-26 days

APPENDIX I

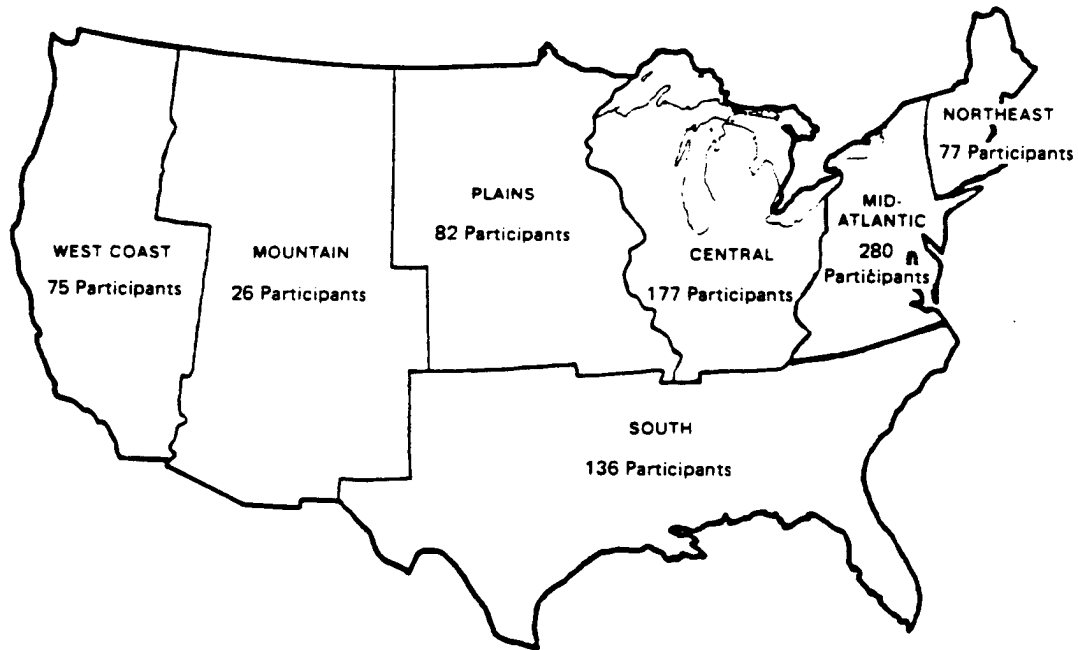
Characteristics of Participating Firms

GEOGRAPHICAL DISTRIBUTION OF PARTICIPANTS

Table A.12 Participants by Region

	Total	
	No.	%
Central	177	21
Mid-Atlantic	280	33
Northeast	77	9
Plains	82	9
Mountain	26	3
South	136	16
West Coast	75	9
<hr/>		
U. S. Participants	853	100
Canadian Participant	1	
<hr/>		
Total Participants	854	

The following map indicates the regions noted in Table A.12 above, and the number of participants in each.



EXTENT OF OPERATIONS OF PARTICIPATING ORGANIZATIONS

Table A.13 Extent of Operations in the United States

	Industrial		Fin./Svc.		Total	
	No.	%	No.	%	No.	%
Single Location	31	7	86	33	117	16
Regional—One State	34	7	78	30	112	15
Regional-Multi-State	109	23	38	15	147	20
National	301	63	58	22	359	49
Total	475	100	260	100	735	100
No Response	64		55		119	
Total Participants	539		315		854	

A majority (54%) of the Industrial organizations operate outside the United States or the United States and Canada as well, but only 12% of the responding Fin./Svc. group, as shown in Table A.14.

Table A.14 Areas of Operation

	Industrial		Fin./Svc.		Total	
	No.	%	No.	%	No.	%
U. S. Only	220	46	231	88	451	61
U. S. & Canada	32	7	9	3	41	5
Multinational	229	47	25	9	254	34
Total	481	100	265	100	746	100
No Response	58		50		108	
Total Participants	539		315		854	

VARIATIONS OF BASIC BENEFITS PROGRAM WITHIN ORGANIZATIONS

Table A.15 Variations of Basic Benefits Within Organizations

	Industrial		Fin./Svc.		Total	
	No.	%	No.	%	No.	%
Same Program Organization-Wide (With Minor Differences)	417	88	251	98	668	92
Industry-Oriented	21	4	—	—	21	3
Location Oriented	23	5	2	1	25	3
Job-Oriented	12	3	3	1	15	2
Total	473	100	256	100	729	100
No Response	66		59		125	
Total Participants	539		315		854	

NUMBER OF EMPLOYEES OF PARTICIPATING ORGANIZATIONS

Table A.16 Categories of Personnel Employed by Survey Participants

	Industrial		Fin./Svc.		Total	
	No.	%	No.	%	No.	%
Salaried Exempt	335	100	218	98	553	99
Salaried Nonexempt	265	82	184	85	449	83
Hourly Non-Bargaining	201	71	94	53	295	64
Hourly Bargaining	186	63	26	15	212	45

Table A.17 Number of Total Salaried Employees

	Industrial		Fin./Svc.		Total	
	No.	%	No.	%	No.	%
< 100	17	5	17	9	34	6
100-249	38	11	29	15	67	12
250-499	45	13	31	16	76	14
500-999	62	16	25	13	87	16
1000-1499	38	11	24	12	62	11
1500-1999	16	4	14	7	30	5
2000-2499	16	4	14	7	30	5
2500-2999	18	5	4	2	22	4
3000-3499	10	3	4	2	14	3
3500-3999	7	2	3	1	10	2
4000-4999	20	6	10	5	30	5
5000-5999	14	4	2	1	16	3
6000-7499	20	6	6	3	26	5
7500-9999	10	3	4	2	14	3
10,000-19,000	14	4	4	2	18	3
≥ 20,000	11	3	6	3	17	3
Total	356	100	197	100	553	100
No Response	183		118		301	
Total Participants	539		315		854	

HAY - HUGGINS 1983

NONCASH COMPENSATION COMPARISON

Table A.18 Number of Total U. S. Employees

	Industrial		Fin./Svc.		Total	
	No.	%	No.	%	No.	%
< 100	10	2	18	6	28	3
100-249	25	5	21	7	46	6
250-499	31	6	28	10	59	7
500-999	62	12	42	14	104	13
1000-1499	51	10	40	14	91	11
1500-1999	36	7	22	8	58	7
2000-2499	16	3	23	8	39	5
2500-2999	15	3	10	3	25	3
3000-3499	15	3	9	3	24	3
3500-3999	18	3	13	4	31	4
4000-4999	25	5	17	6	42	5
5000-5999	21	4	7	2	28	3
6000-7499	19	4	11	4	30	4
7500-9999	29	6	10	3	39	5
10,000-19,999	60	12	9	3	69	9
20,000-29,999	28	6	2	1	30	4
30,000-39,999	16	3	5	2	21	3
40,000-49,999	13	2	1	0	14	2
50,000-11,000,000	19	4	4	2	23	3
Total	509	100	292	100	801	100
No Response	30		23		53	
Total Participants	539		315		854	

J

APPENDIX J

Regression Statistics for Federal
Cash Compensation Practice

STAT BACKUP /LINEAR

DEP VARIABLE: COMPEN

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	1	84417303616	84417303616	47923.870	0.0001
ERROR	1125	1981673569	1761488		
C TOTAL	1126	86398977185			

ROOT MSE 1327.210 R-SQUARE 0.9771
 DEP MEAN 22609.822 ADJ R-SQ 0.9770
 C.V. 5.870062

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR H0:	PROB > T
INTERCEP	1	7094.978	81.312276	86.764	0.0001
POINTS	1	49.137580	0.227200	218.915	0.0001

COVARIANCE OF ESTIMATES

COVB	INTERCEP	POINTS
INTERCEP	6611.686	-16.1435
POINTS	-16.1435	0.05161993

STAT BACKUP / QUADRATIC /

DEP VARIABLE: COMPEN

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	2	85372343216	42686171608	46734.531	0.0001
RRJR	1124	1026633969	913375		
TOTAL	1126	86398977185			

ROOT MSE 955.707 R-SQUARE 0.9881
 DEP MEAN 22609.822 ADJ R-SQ 0.9881
 C.V. 4.226954

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR H0:	PROB > T
INTERCEP	1	4294.344	103.523	41.482	0.0001
POINTS	1	67.500943	0.573182	117.765	0.0001
POINTS2	1	-0.021819	0.0006747555	-32.336	0.0001

COVARIANCE OF ESTIMATES

	COVB	INTERCEP	POINTS	POINTS2
INTERCEP		10716.95	-55.2696	0.0576062
POINTS		-55.2696	0.3285378	-0.000370668
POINTS2		0.0576062	-0.000370668	4.55295E-07

K

APPENDIX K

Base Salary Comparisons

PRIVATE SECTOR

Base Salary Comparison Table

<u>Grade Level</u>	<u>Federal Compensation</u>	<u>Average All Private Compensation</u>	<u>Ratio (All Private to Federal)</u>
3	\$11,816	\$12,577	106.44%
4	13,752	15,309	111.32
5	15,684	17,207	109.71
6	17,807	19,497	109.49
7	19,408	21,685	111.73
9	23,527	26,131	111.07
11	28,653	29,758	103.86
12	34,816	34,276	98.45
13	38,507	42,107	109.35
14	44,188	49,371	111.73
15	51,067	58,589	114.73