

0-7 / Specific Federal
Work Force
Date

ces and Employment

—ADJUSTED GROSS INCOME, BY SOURCE OF TAXABLE RETURNS: 1985

Income was greater than net income. See headnote, table 488.

10,000 to 19,999	\$20,000 to \$29,999	\$30,000 to \$39,999	\$40,000 to \$49,999	\$50,000 to \$99,999	\$100,000 and over
24,458	16,210	11,544	6,678	6,876	1,200
360.9	399.9	399.8	269.9	440.0	256.1
292.3	349.5	359.6	267.1	366.4	136.1
81.0	87.4	89.9	90.0	83.3	53.4
32.7	25.0	20.6	16.4	32.4	26.1
5.5	4.7	4.8	3.6	11.5	20.5
9.7	11.0	9.5	8.7	22.7	14.0
23.8	18.2	13.7	9.2	14.4	3.5
1.7	2.5	3.1	3.1	11.5	41.8
-4.4	-1.7	-2.3	-1.8	-3.2	2.4
-4.4	-9.3	-9.2	-9.4	-15.7	10.7
24.1	15.9	11.4	6.6	6.8	1.2
15.6	17.3	17.3	12.9	19.1	11.1
15.2	18.1	18.7	13.9	19.0	7.1
18.0	13.7	11.3	9.0	17.8	14.3
10.1	8.5	8.8	6.6	20.9	37.3
12.3	14.0	12.0	11.1	28.8	17.7
25.1	19.1	14.5	9.7	15.1	3.7
2.5	3.5	4.5	4.4	16.4	50.9

income. Taxable portion. Includes net sales of statutory adjustments of \$95.1 billion in 1985. Income Tax Returns, 1985.

INCOME, AND TAXES, 1970 TO 1985, AND BY STATE

ADJUSTED GROSS INCOME (AGI) 1	INCOME TAX	
	Total 3 (mil. dol.)	Per capita 2 (dol.)
284	6,656	10,701
2,071	52,205	11,884
324	7,678	12,324
2,502	59,423	10,421
664	13,111	6,769
2,632	52,274	8,348
1,312	25,492	7,644
2,467	53,219	8,907
5,113	110,593	9,732
1,366	26,245	7,038
1,916	37,621	7,892
1,502	29,793	7,408
912	15,706	6,008
869	15,672	6,641
1,651	33,776	7,529
1,270	26,730	8,085
6,674	152,849	9,326
336	5,699	6,908
368	6,778	6,751
207	4,451	8,727
1,430	32,669	10,102
592	11,286	7,778
1,346	29,175	9,137
595	12,528	7,616
447	9,921	10,588
1,905	42,365	9,611
1,126	22,582	8,407
11,691	285,100	10,816
239	6,709	12,852
471	9,966	9,482
501	5,593	(NA)

as of July 1. Includes additional tax for tax prefer with addresses outside the United States. ng 1987.

Civilian Employment and Payroll—Accessions and Separations

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0-7
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NO. 494. FEDERAL CIVILIAN EMPLOYMENT AND ANNUAL PAYROLL, BY BRANCH: 1970 TO 1986

Annual employment: For fiscal year ending in year shown; see text, section 9. Includes employees in U.S. territories and foreign countries. Data represent employees in active-duty status, including intermittent employees. Annual employment figures are averages of monthly figures. Excludes Central Intelligence Agency, National Security Agency, and as of November 1984, the Defense Intelligence Agency. See also Historical Statistics, Colonial Times to 1970, series Y 308-317.

YEAR	EMPLOYMENT						PAYROLL				
	Total 1 (1,000)	Percent of U.S. employed 2	Executive		Legis-lative (1,000)	Judicial (1,000)	Total 1 (mil. dol.)	Executive		Legis-lative (mil. dol.)	Judicial (mil. dol.)
			Total 1 (1,000)	Defense (1,000)				Total 1 (mil. dol.)	Defense (mil. dol.)		
1970	2,928	3.7	2,891	1,195	30	7	28,562	28,117	11,352	353	92
1975	2,882	3.4	2,834	1,036	37	10	40,699	39,944	14,356	589	166
1978	2,875	3.0	2,822	987	40	13	49,921	48,899	16,995	771	251
1979	2,897	2.9	2,844	970	40	13	53,590	52,513	18,065	817	260
1980	2,987	3.0	2,933	972	40	14	58,012	56,841	19,234	883	288
1981	2,910	2.9	2,855	986	40	15	63,782	62,510	21,227	922	360
1982	2,871	2.9	2,816	1,019	39	16	65,503	64,125	22,226	980	398
1983	2,878	2.9	2,823	1,033	39	16	69,878	68,420	23,406	1,013	445
1984	2,935	2.8	2,879	1,052	40	17	74,537	73,005	25,253	1,081	451
1985	3,001	2.8	2,944	1,080	39	18	80,445	78,840	28,219	1,097	509
1986	3,047	2.8	2,990	1,088	38	19	82,554	80,896	29,224	1,114	545

1 Includes Postal Service Christmas help. 2 Civilian only. See table 607. 3 Includes 33,000 temporary census workers. 4 Includes 4,975 temporary census workers. Source: U.S. Office of Personnel Management, Monthly Release of Federal Civilian Workforce Statistics; and unpublished data.

NO. 495. FEDERAL CIVILIAN EMPLOYMENT—SUMMARY: 1970 TO 1986

[In thousands. As of Dec. 31. Excludes U.S. Territories and foreign countries, Central Intelligence Agency, National Security Agency, and the Defense Intelligence Agency. Partially estimated.]

CHARACTERISTIC OF EMPLOYMENT	UNITED STATES								WASHINGTON, DC 1				
	1970	1975	1980	1982	1983	1984	1985	1986	1970	1980	1984	1985	1986
Paid employment	2,645	2,741	2,772	2,733	2,754	2,824	2,902	2,895	316	366	352	353	344
Male.....	1,931	1,896	1,790	1,776	1,680	1,694	1,769	1,765	180	202	190	181	186
Female.....	714	845	982	957	1,074	1,130	1,133	1,130	136	164	162	162	158
Full-time.....	2,516	2,496	2,504	2,482	2,497	2,537	2,589	2,575	308	342	333	335	327
Other.....	129	245	268	251	257	287	313	320	8	24	19	18	17
Competitive service 2.....	2,393	1,714	1,692	1,676	1,685	1,698	1,710	1,678	262	258	246	246	239
Temporary 3.....	112	60	70	67	70	68	82	72	11	11	10	11	9
Excepted and Senior Executive Services (SES) 2 4.....	252	1,027	1,080	1,057	1,069	1,126	1,191	1,217	54	107	106	108	105
Permanent.....	164	863	917	914	926	968	1,015	1,035	38	70	72	73	73
Other.....	88	164	163	143	143	158	176	182	16	37	34	35	32
White-collar 5.....	2,113	2,255	2,314	2,289	2,319	2,393	2,289	2,284	278	334	325	321	313
Blue-collar 5.....	532	486	458	444	435	431	612	611	38	32	27	32	31

1 Through June 30, 1983, represents SMSA; thereafter, MSA. 2 In 1971, under Postal Reorganization Act of 1970, U.S. Postal Service employees were changed from competitive service to excepted service. 3 Includes "indefinite." 4 Excepted from competitive requirements of Civil Service Act. Prior to 1980 SES was not included in total. 5 Through 1982, based on full-time employment; beginning 1983, based on total workforce.

Source: U.S. Office of Personnel Management, Monthly Release of Federal Civilian Workforce Statistics; and unpublished data.

NO. 496. ACCESSIONS TO AND SEPARATIONS FROM PAID CIVILIAN EMPLOYMENT IN THE FEDERAL GOVERNMENT: 1970 TO 1987

[In thousands, except rate. For fiscal year ending in year shown; see text, section 9. Includes accessions and separations of part-time and intermittent employees.]

ITEM	UNITED STATES						WASHINGTON, DC 1					
	1970	1975	1980	1984	1985	1986	1987, Oct.-Feb.	1980	1984	1985	1986	1987, Oct.-Feb.
Accessions, total	727.0	564.2	995.2	574.0	692.1	598.7	250.1	94.1	63.6	62.4	57.5	22.0
Monthly rate 2.....	2.2	1.7	2.9	1.7	2.0	1.7	1.8	2.3	1.6	1.6	1.4	1.4
Separations, total	796.7	588.9	1,004.0	521.8	585.6	557.5	217.4	89.2	58.8	57.8	58.7	19.7
Monthly rate 2.....	2.4	1.8	3.0	1.6	1.7	1.6	1.5	2.2	1.5	1.5	1.4	1.2
Quit 3.....	334.4	212.9	227.7	195.8	238.6	208.7	71.2	32.9	24.6	25.2	26.2	79.7

1 See footnote 1, table 495. 2 Per 100 employees. 3 Represents voluntary resignations by employees or separations by agency if employee declines new assignment, abandons position, joins military, or fails to return from military furlough.

Source: U.S. Office of Personnel Management, Monthly Release of Federal Civilian Workforce Statistics.

Stat Abstract of US, 1988 ed

Federal Government Finances and Employment



No. 497. PAID CIVILIAN EMPLOYMENT IN THE FEDERAL GOVERNMENT 1960 TO 1986, AND BY STATE, 1986

[As of December 31. Excludes members and employees of Congress, Central Intelligence Agency, temporary Christmas help of the U.S. Postal Service, and National Security Agency]

YEAR, DIVISION, AND STATE	Total (1,000)	Per-cent de-fense	Rate per 10,000 popula-tion ¹	DIVISION AND STATE	Total (1,000)	Per-cent de-fense	Rate per 10,000 popula-tion ¹
1960.....	2,213	42.1	123.4	South Atlantic—Con.			
1970.....	2,665	37.8	131.1	District of Columbia.....	206	8.3	3,230
1980.....	2,659	32.2	117.4	Virginia.....	156	67.9	289.8
1982.....	2,734	34.3	117.8	West Virginia.....	15	13.3	76.2
1984.....	2,771	34.3	117.2	North Carolina.....	45	35.6	71.1
1986, total ²	2,862	33.8	118.7	South Carolina.....	32	62.5	84.2
New England.....	121	28.1	95.0	Georgia.....	86	46.5	140.9
Maine.....	17	58.8	144.9	Florida.....	101	31.7	114.4
New Hampshire.....	7	28.6	68.2	East South Central.....	174	33.9	86.1
Vermont.....	5	20.0	82.4	Kentucky.....	33	42.4	88.1
Massachusetts.....	59	20.3	101.2	Tennessee.....	58	12.1	120.8
Rhode Island.....	10	40.0	102.6	Alabama.....	59	45.8	143.8
Connecticut.....	23	21.7	72.1	Mississippi.....	24	45.8	91.4
Middle Atlantic.....	361	28.0	96.8	West South Central.....	272	27.3	90.1
New York.....	156	12.8	87.8	Arkansas.....	19	26.3	80.1
New Jersey.....	74	36.5	97.1	Louisiana.....	33	27.3	73.3
Pennsylvania.....	131	41.2	110.2	Oklahoma.....	48	54.2	143.7
East North Central.....	319	27.3	76.4	Texas.....	172	37.8	103.7
Ohio.....	90	37.8	83.7	Mountain.....	187	32.6	103.7
Indiana.....	41	36.6	74.5	Montana.....	11	9.1	134.2
Illinois.....	104	21.2	90.0	Idaho.....	10	10.0	98.2
Michigan.....	57	22.8	62.3	Wyoming.....	6	16.7	118.2
Wisconsin.....	27	11.1	56.4	Colorado.....	52	28.6	156.2
West North Central.....	172	22.7	97.9	New Mexico.....	26	38.5	175.8
Minnesota.....	31	9.7	73.6	Arizona.....	36	30.6	108.5
Iowa.....	18	5.6	63.1	Utah.....	10	55.6	216.2
Missouri.....	67	31.3	132.3	Nevada.....	10	20.0	103.8
North Dakota.....	8	25.0	117.8	Pacific.....	445	48.1	124.5
South Dakota.....	9	11.1	127.1	Washington.....	63	46.0	141.2
Nebraska.....	15	26.7	93.9	Oregon.....	27	11.1	100.1
Kansas.....	24	29.2	87.6	California.....	314	42.7	116.4
South Atlantic.....	775	35.7	189.4	Alaska.....	14	35.7	282.2
Delaware.....	5	40.0	79.0	Hawaii.....	27	77.8	254.2
Maryland.....	129	32.6	289.0				

¹ For 1960-1980, based on April 1 population; other years based on July 1 resident population. ² Preliminary. Includes employees not specified by State.

Source: U.S. Office of Personnel Management, *Biennial Report of Employment by Geographic Area*.

No. 498. PAID FULL-TIME CIVILIAN EMPLOYMENT IN THE FEDERAL GOVERNMENT, ALL AREAS: 1975 TO 1986

[As of March 31. Excludes employees of Congress and Federal courts, maritime seamen of Dept. of Commerce, and small number for whom rates were not reported. See text, section 10 for explanation of general schedule and wage system. See also *Historical Statistics, Colonial Times to 1970*, series Y 318-331]

COMPENSATION AUTHORITY	EMPLOYEES (1,000)						AVERAGE PAY (dol.)					
	1975	1980	1983	1984	1985	1986	1975	1980	1983	1984	1985	1986
Total.....	2,575	2,507	2,499	2,520	2,590	2,616	13,529	17,758	24,074	25,211	26,139	26,369
General schedule.....	1,349	1,402	1,393	1,407	1,450	1,462	14,483	17,299	24,178	25,282	26,186	26,274
Wage system.....	528	456	430	420	418	409	11,197	17,644	21,500	22,393	23,288	23,837
Postal pay system ¹	559	536	547	561	586	606	13,242	20,076	24,612	25,504	26,559	26,744
Other.....	139	113	129	132	136	139	13,951	20,344	31,544	33,453	34,413	34,814

¹ Source: U.S. Postal Service, *National Payroll Hours*, 1986.
Source: Except as noted, U.S. Office of Personnel Management, *Pay Structure of the Federal Civil Service*, annual.

No. 499. FEDERAL GENERAL SCHEDULE EMPLOYEE PAY INCREASES: 1965 TO 1987

[Percent change from prior year shown, except 1965, change from 1964. Represents legislated pay increases. For some years data based on range; for details see source]

EFFECTIVE DATE	Average increase	EFFECTIVE DATE	Average increase	EFFECTIVE DATE	Average increase
Oct. 1, 1965.....	3.6	Oct. 1, 1972.....	5.1	Oct. 1, 1980.....	9.1
July 1, 1966.....	2.9	Oct. 1, 1973.....	5.1	Oct. 1, 1981.....	4.8
Oct. 1, 1967.....	4.5	Oct. 1, 1974.....	4.8	Oct. 1, 1982.....	4.0
July 1, 1968.....	4.9	Oct. 1, 1975.....	5.5	Jan. 1, 1984.....	4.0
July 1, 1969.....	9.1	Oct. 1, 1976.....	5.2	Jan. 1, 1985.....	3.5
Dec. 27, 1969.....	6.0	Oct. 1, 1977.....	5.2	Jan. 1, 1986.....	-
Jan. 1, 1971.....	6.0	Oct. 1, 1978.....	5.5	Jan. 1, 1987.....	3.0
Jan. 1, 1972.....	5.5	Oct. 1, 1979.....	7.0		

- Represents zero.
Source: U.S. Office of Personnel Management, *Pay Structure of the Federal Civil Service*, annual.

nces and Employment

FEDERAL GOVERNMENT 1960 TO 1986, AND BY 1986

Central Intelligence Agency, temporary Christmas help of the National Security Agency)

DIVISION AND STATE	Total (1,000)	Per cent defense	Rate per 10,000 population
South Atlantic—Con.			
District of Columbia	206	8.3	3,290
Virginia	156	67.9	209.8
West Virginia	15	13.3	78.2
North Carolina	45	35.6	71.1
South Carolina	32	62.5	94.4
Georgia	86	46.5	140.9
Florida	101	31.7	86.1
East South Central			
Kentucky	174	33.9	184.4
Tennessee	33	42.4	86.1
Alabama	58	12.1	120.2
Mississippi	59	45.8	145.2
West South Central			
Arkansas	24	45.8	81.4
Missouri	272	38.6	101.3
Louisiana	19	26.3	80.1
Oklahoma	33	27.3	73.3
Texas	48	54.2	145.2
Mountain			
Montana	172	37.9	100.7
Wyoming	187	32.6	143.6
Idaho	11	9.1	134.2
Nebraska	10	10.0	99.2
North Dakota	6	16.7	118.3
South Dakota	52	28.8	159.7
New Mexico	26	38.5	175.2
Arizona	36	30.6	106.2
California	36	55.6	218.2
Nevada	10	20.0	102.8
Alaska	445	43.1	124.5
Hawaii	63	46.0	141.2
Washington	27	11.1	100.1
Oregon	314	42.7	116.4
Alaska	14	35.7	262.2
Hawaii	27	77.8	254.2

July 1 resident population. * Preliminary. Includes employment by Geographic Area.

THE FEDERAL GOVERNMENT, ALL AREAS: 1986

maritime seamen of Dept. of Commerce, and small number of national of general schedule and wage system. See also

AVERAGE PAY (dol.)						
1986	1975	1980	1983	1984	1985	1986
16,616	13,529	17,758	24,074	25,211	26,139	26,369
4,462	14,483	17,299	24,178	25,282	26,186	26,274
409	11,197	17,644	21,500	22,393	23,288	23,837
606	13,242	20,076	24,612	25,504	26,559	26,744
139	13,951	20,344	31,544	33,453	34,413	34,814

Pay Structure of the Federal Civil Service, annual

PERCENT PAY INCREASES: 1965 TO 1987

4. Represents legislated pay increases. For some years (see source)

Average increase	EFFECTIVE DATE	Average increase
5.1	Oct. 1, 1980	9.1
4.8	Oct. 1, 1981	4.8
5.5	Oct. 1, 1982	4.0
5.0	Jan. 1, 1984	3.5
5.2	Jan. 1, 1985	7.0
7.0	Jan. 1, 1986	5.5
5.5	Jan. 1, 1987	7.0

Federal Civil Service, annual.

Federal Civilian Employment

NO. 500. WHITE-COLLAR CIVILIAN EMPLOYMENT IN THE FEDERAL GOVERNMENT, BY SEX AND GRADE: 1970 TO 1985

[Represents full-time white-collar employment. As of Oct. 31]

GRADE 1	TOTAL (1,000)					PERCENT FEMALE				
	1970	1980	1981	1983 2	1985 2	1970	1980	1981	1983 2	1985 2
Total employment	1,885	2,006	2,025	2,039	2,156	33.1	38.6	45.6	46.2	47.4
General Schedule and equivalent pay system	1,259	1,473	1,481	1,484	1,561	40.3	45.1	45.9	46.5	47.7
Grades 1-6 (\$9,339-\$20,855)	521	561	563	541	563	72.2	74.1	74.1	74.6	74.5
Grades 7-10 (\$17,824-\$31,211)	302	357	359	360	377	33.4	46.3	47.6	48.8	50.3
Grades 11-12 (\$26,381-\$41,105)	264	335	343	362	388	9.5	19.3	20.8	24.2	27.5
Grades 13-15 (\$37,599-\$67,940)	164	217	215	220	231	3.0	8.2	9.2	10.3	12.1
Grades 16-18 (\$61,296-\$84,157) 4	8	3	1	1	1	1.4	4.4	6.4	5.8	6.1
Postal pay system 5	521	504	512	516	553	(NA)	26.8	28.3	30.4	33.2
Other pay system	105	29	32	39	42	45.7	35.5	33.3	36.1	37.0

NA Not available. 1 Pay ranges shown for General Schedule grades are as of January 1, 1985. 2 Data for 1982 and 1984 not collected. 3 Excludes U.S. Postal Service, and other systems not shown separately. 4 Beginning 1980, change in number reflects shift of senior level employees to Senior Executive Service. 5 Source: U.S. Postal Service, National Payroll Hours, 1986.

Source: Except as noted, U.S. Office of Personnel Management, Occupations of Federal White-Collar and Blue-Collar Workers, biennial, and The Pay Structure of the Federal Civil Service, annual.

NO. 501. PAID CIVILIAN EMPLOYMENT IN THE FEDERAL GOVERNMENT, BY AGENCY: 1970 TO 1986

[As of end of fiscal year; see text, section 9. See headnote, table 494. Includes U.S. outlying areas and foreign countries. See also Historical Statistics, Colonial Times to 1970, series Y 308-317]

AGENCY	1970	1975	1980	1982	1983	1984	1985	1986
All agencies	2,921,909	2,896,944	2,875,866	2,824,768	2,876,263	2,934,255	3,020,531	3,022,189
Legislative branch	30,715	38,531	39,710	38,791	39,143	38,832	38,764	36,490
Judicial branch	6,887	10,399	15,178	15,992	16,626	17,247	18,225	18,966
Executive branch 2	2,884,307	2,848,014	2,820,978	2,770,285	2,820,494	2,878,176	2,963,542	2,966,773
Executive Office of the President	4,742	1,918	1,886	1,596	1,621	1,595	1,526	1,492
Executive departments	1,812,572	1,736,872	1,716,970	1,691,337	1,739,153	1,753,336	1,789,270	1,761,644
Agriculture	116,012	120,999	129,139	121,175	123,987	118,809	117,750	113,147
Commerce	57,674	36,228	48,563	34,451	35,576	35,271	35,150	34,397
Census Bureau	(NA)	(NA)	19,925	7,898	8,461	8,270	8,633	8,539
Defense	1,193,784	1,041,829	960,116	989,633	1,026,461	1,043,784	1,084,549	1,067,974
Education 4	(X)	(X)	7,364	5,692	5,268	5,343	4,889	4,554
Energy 5	(X)	(X)	21,557	17,945	17,229	16,976	16,749	16,657
Health and Human Services 6	108,044	147,125	155,662	147,791	147,162	144,240	140,151	133,842
Social Security Administration	(NA)	(NA)	84,272	74,903	86,052	84,932	82,967	77,823
Housing and Urban Development 7	15,190	17,161	16,964	14,279	12,996	12,393	12,289	11,843
Interior	73,361	80,198	77,357	78,869	79,582	78,661	77,485	73,980
Justice	39,257	51,541	56,327	57,094	58,869	61,398	64,433	65,529
Labor	10,991	14,834	23,400	19,248	19,083	18,320	18,260	17,487
State	39,753	30,376	23,497	24,120	23,961	24,706	25,254	25,325
Transportation	65,985	75,035	72,361	62,392	62,959	62,781	62,227	61,281
Treasury	92,521	121,546	124,663	118,648	126,020	130,654	130,084	135,628
Internal Revenue Service	(NA)	(NA)	85,981	83,835	89,657	94,642	94,998	100,480
Independent agencies: 7								
Environmental Protection Agency	(X)	10,772	14,715	12,273	11,931	13,048	13,788	14,021
National Aeronautics and Space Administration	32,548	26,447	23,714	22,563	22,784	22,085	22,562	22,244
Office of Personnel Management 8	5,508	8,157	8,280	6,563	6,369	6,553	6,353	5,929
Railroad Retirement Board	1,734	1,961	1,795	1,558	1,565	1,578	1,681	1,601
Small Business Administration	4,269	4,796	5,804	4,975	5,100	5,093	4,960	4,906
Tennessee Valley Authority	22,244	28,423	51,714	39,900	37,181	33,589	32,035	30,564
Veterans Administration	168,719	213,143	228,285	235,982	238,739	239,923	247,156	240,423

NA Not available. X Not applicable. 1 Excludes agencies not shown separately. 2 Includes other agencies not shown separately. 3 Includes 24,278 enumerators in 1970 census, and 4,975 enumerators in the 1980 census. 4 Dept. of Education established Sept. 1979; formerly included with Health and Human Services. 5 Dept. of Energy established Oct. 1, 1977. 6 Includes Housing and Home Finance Agency. 7 See table 502 for a more complete list of independent agencies. 8 Formerly Civil Service Commission.

Source: U.S. Office of Personnel Management, Monthly Release of Federal Civilian Work Force Statistics

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NO. 502. PAID CIVILIAN EMPLOYMENT IN THE FEDERAL GOVERNMENT, BY AGENCY, ALL AREAS, SUMMARY: 1980 AND 1986

[As of Sept. 30. See headnote, table 498. Includes U.S. outlying areas and foreign countries. See also *Historical Statistics, Colonial Times to 1970*, series Y 308-317]

AGENCY	1980	1986	AGENCY	1980	1986
All agencies	2,875,866	3,022,189	Independent agencies	1,101,089	1,203,897
Percent Dept. of Defense.....	33.4	35.3	ACTION ¹	1,837	1,837
Percent Postal Service.....	23.0	26.2	Board of Governors, Federal Reserve System.....	1,498	1,527
Legislative branch	39,710	36,490	Environmental Protection Agency.....	14,715	14,715
Congress.....	19,096	18,368	Equal Employment Opportunity Commission.....	3,515	3,027
United States Senate.....	7,195	6,953	Farm Credit Administration.....	271	271
U.S. House of Representatives.....	11,901	11,403	Federal Deposit Insurance Comm.....	2,244	1,824
Architect of the Capitol.....	2,168	2,065	Federal Emergency Mgmt. Agency.....	3,427	6,729
General Accounting Office.....	5,488	5,162	Federal Home Loan Bank Board.....	1,470	2,527
Government Printing Office.....	6,767	5,264	Federal Trade Commission.....	1,846	811
Library of Congress.....	5,527	4,809	Federal Services Administration.....	37,654	1,073
All other.....	664	822	International Trade Commission.....	424	23,011
Judicial branch	15,178	18,966	Interstate Commerce Commission.....	1,998	492
United States Courts.....	14,847	18,639	Ment System Protection Board.....	435	741
Supreme Court.....	331	327	National Aeronautics and Space Administration.....	23,714	22,244
Executive branch ³	2,820,978	2,966,773	Nat'l Archives and Records Administration ⁴	(x)	3,164
Executive Office of the President	1,886	1,492	National Credit Union Administration.....	726	611
White House Office.....	406	358	National Labor Relations Board.....	2,936	2,321
Office of Management and Budget.....	616	535	National Science Foundation.....	1,394	1,161
Council of Economic Advisers.....	35	32	Nuclear Regulatory Commission.....	3,283	3,527
Council on Environmental Quality.....	49	9	Office of Personnel Management.....	8,280	5,924
National Security Council.....	69	65	Panama Canal Commission.....	8,700	8,351
All other.....	711	493	Peace Corps ⁵	(x)	1,022
Executive departments	1,716,970	1,761,644	Pension Benefit Guaranty Corp.....	463	482
Agriculture.....	129,139	113,147	Railroad Retirement Board.....	1,795	1,621
Commerce.....	48,563	34,397	Securities and Exchange Comm.....	2,056	1,924
Census.....	19,925	8,539	Selective Service System.....	97	298
Defense.....	960,116	1,067,974	Small Business Administration.....	5,804	4,901
Education.....	7,364	4,554	Smithsonian Institution.....	4,403	4,791
Energy.....	21,557	16,657	Soldiers' and Airmen's Home.....	994	1,056
Health and Human Services.....	155,662	133,842	Tennessee Valley Authority.....	51,714	30,564
Housing and Urban Development ⁶	16,964	11,843	U.S. Information Agency.....	8,138	9,078
Interior.....	77,357	73,980	U.S. International Development Cooperation Agency.....	6,152	4,791
Justice.....	56,327	65,529	U.S. Postal Service.....	660,014	790,961
Labor.....	23,400	17,487	Veterans Administration.....	228,285	240,423
State.....	23,497	25,325	All other.....	7,287	5,101
Transportation.....	72,361	61,281			
Treasury.....	124,663	135,628			

¹ Excludes agencies not shown separately. ² Includes Commission on Security and Cooperation in Europe, not shown separately. ³ Includes agencies not shown separately. ⁴ Includes Housing and Home Finance Agency. ⁵ Peace Corps was part of ACTION in 1980; Peace Corps re-established Dec. 29, 1981. ⁶ Agency became independent from General Services Administration in 1985.

Source: U.S. Office of Personnel Management, *Monthly Release of Federal Civilian Workforce Statistics*.

NO. 503. FEDERAL GOVERNMENT EMPLOYMENT, BY RACE AND HISPANIC ORIGIN, AND BY PAY SYSTEM: 1982 AND 1985

[As of Sept. 30. Covers total employment for only Executive Branch agencies participating in OPM's central personnel data file. Excludes foreign nationals abroad and U.S. Postal Service]

PAY SYSTEM	1982					1985, est.				
	Total employees (1,000)	Minority groups				Total employees (1,000)	Minority groups			
		Total ¹ (1,000)	Per cent of total	Black, non-Hispanic (1,000)	Hispanic (1,000)		Total ¹ (1,000)	Per cent of total	Black, non-Hispanic (1,000)	Hispanic (1,000)
All pay systems, total ²	2,008.6	484.0	24.1	311.1	90.0	2,087.7	534.5	25.6	338.4	102.4
General schedule and equivalent ³	1,508.3	336.2	22.3	222.0	59.0	1,578.7	382.1	24.2	248.7	69.2
GS 1-4 (\$9,339-\$16,723).....	303.6	101.9	33.6	71.0	16.1	299.3	111.5	37.3	78.4	18.0
GS 5-8 (\$14,390-\$25,662).....	464.9	126.5	27.2	90.2	20.2	486.6	142.3	29.2	98.9	23.9
GS 9-12 (\$21,804-\$41,105).....	530.0	87.6	16.5	50.1	18.7	572.7	104.9	18.3	59.3	22.7
GS 13-15 (\$37,599-\$67,940).....	209.8	20.1	9.6	10.7	4.0	220.0	23.3	10.6	12.1	4.6
Executive, total.....	7.8	6	7.2	3	1	7.7	5	6.5	3	1
Wage systems.....	414.0	134.6	32.5	83.5	28.0	422.6	139.5	33.0	84.5	30.2
Other pay systems ⁴	69.3	10.1	14.6	3.7	2.3	75.3	11.2	14.9	4.1	2.7

¹ Includes American Indians, Alaska natives, Asians, and Pacific Islanders, not shown separately. ² Due to the inclusion of unspecified employee records, the pay systems listed do not add to the total. ³ Pay rates as of January 1985 for general schedule. Each grade (except Executive) includes several salary steps. Range is from lowest to highest step of grades shown. ⁴ Includes white-collar employment in other than General Schedule and Equivalent or Executive pay plans.

Source: U.S. Office of Personnel Management, *1982 Affirmative Employment Statistics*; biennial, and unpublished data

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United States
Office of
Personnel
Management

CIVIL SERVICE 2000

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June 1988

Prepared for the
U.S. Office of Personnel Management
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PREFACE

I am submitting the following report to the Congress in response to a requirement in the report accompanying our 1988 Appropriations Act that we report "on the long term work force needs of the Federal Government."

We were pleased to receive this charge from the Congress because we clearly face major changes both in the nature of our work and in the people available to do it. It is important to understand these changes if we are to prepare our personnel policies and systems to help managers meet the challenge they pose.

The current public focus on these issues was in significant part created by the Department of Labor's **Work Force 2000** report, which outlines the demographic changes in the work force and the changes in the skills that employers will need over the next 12 years. The report was prepared by the Hudson Institute, and we, too, turned to them for a close, independent look at what these national trends might portend specifically for the Federal Government as an employer, and to give us their recommendations as how we might approach the future.

It is my intention and hope that Hudson's report on **Civil Service 2000** will serve to focus public debate on the very serious challenges we face in the civil service and that it will anchor this debate in observed and demonstrated phenomena. This is not to say that readers will not take exception to Hudson's observations and recommendations. I myself will argue with a few of them.

I hope the potential for taking exception to the report means that we can in fact begin a very serious and informed discussion about one of democracy's most critical institutions, the career civil service.

I urge your attention to this report on the Federal workforce in the year 2000; indeed, I urge your attention to the nature and health of the civil service, for without a strong and well qualified civil service we endanger the democracy which it serves.

Constance Horner
Director, U.S. Office of
Personnel Management

June 1988

CHAPTER ONE FEDERAL RESPONSIBILITIES

Over the past twenty-five years the Federal government has undergone tumultuous change. From the period of domestic activism that characterized the "Great Society" years, through the Viet Nam buildup, to the domestic retrenchment of the 1980s, the Federal establishment has ridden a roller-coaster of changing mandates, shifting roles, reorganizations, and budgetary ups and downs.

Despite these changing tides of responsibility and support, total Federal employment has remained remarkably stable. After drifting up slowly during the 1960s, the size of the Federal workforce has not changed significantly over the last two decades. Excluding the Postal Service,* Federal employment edged down from 2.24 million in 1967 to 2.18 million by 1977. Since then, approximately 100,000 new slots have been added to the Federal workforce. Because Federal spending has risen in real terms (measured in constant 1987 dollars) over the last two decades from \$570 billion to just over \$1 trillion, Federal spending per employee (which might be considered analogous to gross sales per worker in the private sector) climbed from \$254,000 per worker to \$438,000. Much of the apparent gain in productivity was the result of the buildup of Federally funded service delivery mechanisms at the state and local level. During the last two decades, state and local government payrolls have climbed from 8 to 14 million.

This record of stability disguises some significant shifts in the agencies, regions, occupations, and skill requirements of Federal workers. Between 1977 and 1987, for example, two agencies (Treasury and Justice) added more than 15 percent to their workforces, while eight agencies lost at least 11 percent of their staff. Over a longer period the changes have been even greater. Health and Human Services (HHS), for example, grew from 87,000 employees in 1965 to 167,000 in 1979, before shrinking to 127,000 in 1987** (see Table 1-1). The Defense Department went through several peaks and valleys during the period, climbing as high as 1.3 million civilians near the height of the Viet Nam war, then falling to .96 million in 1979 before peaking again at 1.09 million in 1986 during the Reagan defense buildup. The Department of State and the General Services Administration lost almost half of their headcounts in two decades, while Justice doubled in size, the Treasury Department grew by two-thirds, and the Veterans Administration expanded by 46 percent. The most spectacular record of growth was the Federal Deposit Insurance Corporation,

*Unless otherwise noted, all data in this chapter exclude Postal Service workers.

**Current Education Department employees are included in 1987 totals to make the comparison valid with earlier years, when all health, education and welfare functions were located at Health, Education, and Welfare (HEW).

which was five times bigger in 1987 than it was in 1967. By contrast, the Selective Service System, which employed more than 9,000 workers in 1973 when the draft ended, lost 97 percent of its employees in the ensuing decade. And despite the conventional wisdom about the indestructibility of Federal bureaucracies, many substantial Federal agencies disappeared entirely, including the Civil Aeronautics Board, the regional commissions, and the Canal Zone government.

For Federal managers and workers, these fluctuations in agency headcounts are more than interesting historical footnotes. The task of managing a workforce changes substantially depending on whether an organization's personnel and responsibilities are expanding or shrinking. For many agencies, the urgency and excitement of starting new programs was quickly succeeded by the difficult mandate to cut back or close down operations. Workforces that grew younger as new hires were added aged quickly through attrition and layoffs at other periods. And across the government, the tasks of managers in different agencies were often mirror images of each other, as one administration boosted domestic spending and cut back defense, while the next did the opposite.

How are Federal missions and personnel counts likely to change over the next 12 years? While predicting the outcomes of elections and the priorities of new administrations is impossible, some likely trends can be identified:

- First, the total number of Federal employees is unlikely to grow significantly. While an upsurge in government activism or a new military buildup cannot be ruled out during the 1990s, budgetary realities preclude any major new spending programs in the near term. In any case, the pattern of the last 20 years of rising budgets coupled with stable headcounts is likely to be sustained even if the role of the Federal government begins to grow. No President wants to preside over a significant increase in the number of "bureaucrats." The projections in this report assume that the total number of Federal employees in 2000 will be only slightly higher than it is today.
- Second, the impacts of new initiatives, either in defense or domestic areas, are not likely to change most of the basic directions of Federal hiring. Whether the new hires come in the Defense Department, HHS, or the Veterans Administration, they are likely to require higher levels of skill, and include fewer clerical workers, and greater numbers of professionals. In particular, the steady growth of legal, financial, contracting, and procurement specialties has continued through both Republican and Democratic administrations, and seems likely to continue over the next twelve years regardless of election outcomes.
- Third, the prospects for growth in some agencies are clearly much better than in others. The aging of the population of military veterans seems likely to lead to growth in the health care responsibili-

Table 1-1

**Agency Employment Levels Have Fluctuated Over
 the Past 20 Years
 (Totals in Thousands)**

Agency	1967		1977		1987	
	Number	Share	Number	Share	Number	Share
All Agencies*	2241.8	100.00%	2183.4	100.00%	2290.4	100.00%
Legislative branch	27.7	1.24%	39.4	1.81%	37.9	1.66%
Judicial branch	6.4	0.28%	12.6	0.58%	20.2	0.88%
Executive branch	2207.7	98.48%	2131.3	97.62%	2232.2	97.46%
EOP	4.8	0.21%	1.8	0.08%	1.6	0.07%
Executive Departments	1860.6	83.00%	1702.7	77.98%	1803.6	78.75%
Agriculture	116.3	5.19%	127.5	5.84%	117.0	5.11%
Commerce	37.3	1.66%	37.8	1.73%	34.8	1.52%
Defense	1274.0	56.83%	981.7	44.96%	1090.0	47.59%
Education					4.7	0.21
Energy					16.7	0.73%
HHS	106.6	4.75%	155.9	7.14%	127.0	5.55%
HUD	14.8	0.66%	17.8	0.81%	13.0	0.57%
Interior	72.2	3.22%	83.4	3.82%	74.4	3.25%
Justice	34.2	1.53%	53.1	2.43%	70.7	3.09%
Labor	10.1	0.45%	16.8	0.77%	18.0	0.78%
State	47.7	2.13%	30.0	1.37%	25.5	1.11%
Transportation	57.5	2.56%	75.2	3.44%	62.5	2.73%
Treasury	89.9	4.01%	123.6	5.66%	149.2	6.51%
Independent Agencies*	342.3	15.27%	426.9	19.55%	427.0	18.64%
EPA			11.3	0.52%	15.2	0.66%
NASA	34.5	1.54%	24.4	1.12%	23.0	1.00%
OPM	5.4	0.24%	8.4	0.39%	6.1	0.27%
GSA	39.2	1.75%	36.6	1.68%	21.9	0.96%
FDIC	1.8	0.08%	3.5	0.16%	9.2	0.40%
TVA	19.5	0.87%	37.7	1.72%	32.7	1.43%
VA	170.7	7.62%	223.4	10.23%	250.0	10.92%
All Other	71.1	3.17%	81.4	3.73%	69.0	3.01%

*Excludes Postal Service

Source: Office of Personnel Management, **Employment and Trends, September 1987, Monthly Report of Federal Civilian Employment, September 1977, Monthly Report of Federal Civilian Employment, September 1967.**

ties and staff requirements of the Veterans Administration. The growth of society's financial complexity and litigiousness suggests that the Justice and Treasury Departments will continue to add people. On the other hand, the shrinking importance of farming in the nation's economy, and the prospect that farm subsidy programs will be trimmed, suggests that the Department of Agriculture may shrink over the next decade.

- Finally, unless relations with the Soviet Union deteriorate, employment in the Defense Department seems likely to decline somewhat, at least through the early 1990s. Constrained budgets, emphasis on arms reduction, and possible reductions in U.S. bases and American military burdens overseas are likely to be on the agenda of every incoming administration for the next few years. In this environment, the number of civilian defense employees could fall below one million. Such a reduction in defense employment could shift the geography of Federal employment. For example, Federal employment in some states, such as Hawaii, Virginia, and South Carolina, is heavily weighted (more than two-thirds) toward defense. In Minnesota, Iowa, Montana, and the District of Columbia, less than 10 percent of all Federal employment is defense related. Thus, shifts of employment from defense to non-defense agencies could have major impacts in some states.

THE GEOGRAPHY OF FEDERAL EMPLOYMENT

The diversity in the situations of various growing and shrinking agencies carries over into their geographic circumstances. A growing share of Federal employment is concentrated in the South Atlantic region that contains the Washington, D.C. area; this region is home to almost a third of all Federal employees, compared to its 17 percent share of total employment. By contrast, the Northeast, North Central and Midatlantic regions are underrepresented on Federal civilian payrolls, and their shares of non-postal Federal employment are falling (see Table 1-2).

In particular, the Washington, D.C. metropolitan area continues to be home to a growing share of Federal workers, despite the efforts of several administrations to decentralize power and move employment to other regions. Between 1967 and 1987, for example, the share of Federal employment represented by the Washington, D.C. Standard Metropolitan Statistical Area grew from 13.1 to 14.4 percent (see Table 1-3). Because these totals exclude the large and probably growing numbers of workers at the Central Intelligence Agency, the Defense Intelligence Agency, and the National Security Agency (who mostly work in the Washington area), they may understate the share of the Federal workforce represented by metropolitan Washington.

Table 1-2

**Federal Employment Has Been Shifting To
 the South Atlantic Region
 (Employment Totals In Thousands)**

Region*	1966		1986		Share of Total U.S Employment, 1986
	Number	Share	Number	Share	
Total**	1930	100%	2024	100%	100%
Northeast	74.3	3.8%	68.3	3.4%	5.3%
Midatlantic	228.9	11.9%	204.0	10.1%	15.5%
East North Central	187.2	9.7%	183.9	9.1%	17.3%
West North Central	97.4	5.0%	110.8	5.5%	7.3%
South Atlantic	562.3	29.1%	647.7	32.0%	17.0%
East South Central	122.0	6.3%	139.1	6.9%	6.3%
West South Central	189.1	9.8%	197.8	9.8%	11.1%
Mountain	138.2	7.2%	147.8	7.3%	5.4%
Pacific	330.8	17.1%	324.6	16.0%	14.8%

*U.S. Bureau of the Census regional definitions.

**Total civilian employment, excluding the Postal Service, DIA, CIA, NSA

Source: Derived from Office of Personnel Management, **Federal Civilian Employment
 By Geographic Area**, December 1966 and December 1986.

Table 1-3

**A Growing Share of Federal Employees
 Work in the Washington Metropolitan Area
 (Employment in millions)**

	1967	1977	1987
Total Employment*	2.24	2.18	2.29
DC MSA Employment*	.294	.334	.330
DC Share	13.1%	15.2%	14.4%

*Excludes the Postal Service, the Central Intelligence Agency, the Defense Intelligence Agency, and the National Security Agency.

Source: Office of Personnel Management, **Employment and Trends as of September, 1987; Monthly Report of Federal Civilian Employment**, September 1977 and September, 1967.

The geographic distribution of Federal employment has important implications for the challenge of hiring and keeping a high quality Federal workforce. At the end of 1986, for example, national unemployment stood at 7 percent. But this average included both New Hampshire, where the rate was 2.8 percent, and Louisiana, where it stood at 13.1 percent. From city to city, the variations were even greater, with striking differences not only in unemployment rates but in the numbers of young people entering labor markets, the ethnic composition of the workforce, and the educational preparation of new workers. Similarly, wage rates and living costs are dramatically different in different regions and cities across the country. In 1986, the median price of a home in Pittsburgh and Indianapolis was \$82,000, compared to more than twice that amount in San Francisco and Honolulu.

Agencies whose operations are concentrated in high-cost areas with highly competitive labor markets face much greater difficulties than those elsewhere. The task of a personnel manager in the IRS, seeking to hire hundreds of skilled agents in New York City or Boston, is categorically different from that of a manager of the Soil and Conservation Service in Montana, where government jobs may be the most attractive employment for hundreds of miles. Just as there is not really a unitary Federal workforce, but rather a collection of Federal agencies, there is not really a national labor market, but a collection of local ones. The uniformity of Federal pay scales and classification systems will be increasingly confounded by this diversity of the nation's labor markets.

FEDERAL OCCUPATIONS

Federal jobs are much more likely to be white-collar and professional positions than jobs in the economy as a whole. At the national level, some 25 percent of all workers hold professional, technical, and management related jobs. Among Federal workers, the share is nearly twice as great, at about 48 percent. Blue-collar jobs are correspondingly a much smaller share of the Federal workforce, making up 19 percent of Federal workers compared to 28 percent of all workers. And marketing and sales jobs, of course, are almost entirely missing from the Federal job mix, making up a minuscule one half of one percent of all such jobs, compared to their more than 10 percent share of the national workforce (see Table 1-4).

Many federal workers classified as "management related" by the U.S. Bureau of Labor Statistics do not directly supervise other workers but provide staff and support services such as program analysis, procurement assistance, or personnel management functions. When federal workers are classed into supervisory and non-supervisory roles, the ratio of supervisors and managers to others is about one

in seven, a proportion that has remained stable over the last decade.

The trend toward white-collar Federal jobs has been underway for many years, and promises to continue throughout the century. Between 1976 and 1986, professional, administrative, and technical jobs all gained shares of the Federal workforce, rising collectively from 52 to 59 percent. Meanwhile, clerical jobs dropped from 22 to 19 percent, while blue-collar slots declined from 24 to 19 percent.

Table 1-4

The Federal Government Employs More Professionals and Management Related Workers

	SHARE OF TOTAL U.S. EMPLOYMENT	SHARE OF FEDERAL EMPLOYMENT	
	1984	1986	2000
Management Related Occupations	10.4%	14.1%	15.2%
Engineers, Architects, & Surveyors	1.4%	5.2%	6.0%
Natural & Computer Scientists	0.6%	5.2%	5.4%
Social Scientists	0.2%	0.8%	0.8%
Social, Recreational & Religious Workers	0.7%	0.4%	0.4%
Lawyers & Judges	0.4%	0.9%	1.0%
Teachers, Librarians, & Counselors	4.2%	1.1%	1.1%
Health Treatment Occupations	2.4%	4.1%	4.2%
Writers, Artists & Entertainers	1.0%	0.7%	0.7%
Technicians	3.0%	8.9%	10.0%
Other Professionals & Paraprofessionals	0.8%	6.9%	7.0%
Marketing and Sales Occupations	10.1%	0.5%	0.5%
Administrative Support Occupations	17.6%	25.1%	21.4%
Service Occupations	15.3%	6.2%	6.3%
Agriculture, Forestry & Fishing	4.3%	1.1%	1.1%
Blue-collar Worker Supervisors	1.4%	1.9%	2.0%
Construction Trades	3.0%	2.2%	2.3%
Extractive & Related Workers	0.2%	0.0%	0.0%
Mechanics, Installers & Repairers	4.1%	6.2%	6.6%
Precision Production Occupations	2.7%	2.0%	2.0%
Machine Setters, Operators & Tenders	5.3%	0.8%	0.8%
Working Occupations & Assemblers	2.5%	0.7%	0.7%
Plant & System Occupations	0.3%	0.4%	0.5%
Material Moving & Vehicle Operators	4.4%	1.6%	1.6%
Helpers & Laborers	4.0%	3.1%	2.9%
TOTAL	100.0%	100.0%	100.0%

Source: U.S. Bureau of Labor Statistics, **Current Population Report, March 1985**;
Projections by Employment and Occupation, 1986-2000, unpublished data.

Over the period from 1986 to 2000, projections by the U.S. Department of Labor suggest that Federal employment will continue to rise in the professional and technical categories while shrinking in the clerical fields. The relatively high proportion of clerical workers in the Federal sector and the impact of automation in such formerly labor-intensive fields as data processing make this trend likely to continue. For example, the Internal Revenue Service is moving steadily toward electronic income tax filing, and the Social Security Administration is converting to electronic payroll data filing and benefits payment.

Among professionals, the fastest-growing fields are engineers, who are expected to grow by 17 percent, lawyers, by 15 percent, and management related workers, by 10 percent.

Because many Federal jobs do not have exact analogues in private industry, the Federal government uses a set of occupational categories to describe its workforce that are different from those used by the Census Bureau and the Bureau of Labor Statistics to describe the economy as a whole. When historic and projected occupational patterns are analyzed according to these Federal categories, a similar pattern of change is evident. Overall, professional, administrative, technical, and other white-collar jobs will be increasing between 1985 and 2000, while clerical and blue-collar jobs will be declining. In the white-collar category, 17 out of 22 occupational groups will be adding workers, while among blue-collar jobs, 16 out of 23 will be losing jobs. Overall, there will be 157,000 new jobs in the white-collar group, while blue-collar jobs will shrink by 107,000. Some of the largest and fastest-growing Federal occupations include medical personnel (+ 50,000), legal (+ 27,000), business and industry (including contracting, procurement, property management, and IRS agents) (+ 23,000), social scientists (+ 19,000), and investigators (+ 14,000). The biggest losers include general services and support (- 13,000), mobile equipment operators (- 10,000), industrial equipment operators (- 10,000), and woodworkers (- 7000) (see Table 1-5).

These Federal occupational trends suggest that the greatest problems of displacement faced by Federal employees will occur among blue-collar and clerical workers. In blue-collar fields, the relatively small numbers of employees compared to national employment totals, and the fact that many of the jobs are not actually being eliminated but are simply being shifted to private employers, argues that the displacement problems will not be severe, except in isolated circumstances.

For some employees, the cutbacks could present greater problems, for example, among data processing employees in large agencies undergoing rapid automation, such as the Social Security Administration or the Veterans Administration. Some of these (mostly female) workers do not have skills that are highly transferable to expanding occupational fields in or out of the government. As a result,

Table 1-5

**Federal White Collar Employment Will Grow During
 the 1990s
 (Totals in Thousands)**

Occupational Group*	1970	1985	2000	Increase 1985-2000
Miscellaneous Occupations	40.3	54.6	68.1	24.8%
Social Science	34.1	57.0	75.7	32.8%
Personnel Management	37.0	50.4	60.2	19.4%
Administrative and Clerical	438.9	450.3	416.3	- 7.5%
Biological Sciences	41.5	54.8	73.0	33.2%
Accounting and Budget	107.7	132.7	142.2	7.1%
Medical and other Health	93.3	141.7	191.0	34.8%
Veterinary Medical Science	2.3	2.7	3.5	29.6%
Engineering & Architecture	147.9	167.0	186.6	11.8%
Legal and Kindred	47.7	74.7	102.1	36.8%
Information and Arts	19.4	21.7	22.5	3.8%
Business and Industry	64.0	95.3	118.3	24.2%
Copyright, Patent, Trademark	1.8	2.0	2.3	14.7%
Physical Sciences	42.9	44.4	45.1	1.6%
Library and Archives	8.5	10.1	11.7	16.3%
Mathematics & Statistics	13.9	15.4	15.1	- 1.5%
Equipment, Facilities, Services	17.4	17.7	16.6	- 6.2%
Education	28.7	30.3	30.5	0.6%
Investigation	38.9	56.4	70.2	24.4%
Quality Assurance and Inspection	21.4	19.5	16.4	- 15.8%
Supply	71.6	60.5	48.0	- 20.7
Transportation	41.6	41.3	41.4	0.1%
All White Collar	1,360.9	1,600.6	1,757.2	9.8%
All Blue Collar	538.5	423.1	316.2	- 25.3%
Total	1,899.4	2,023.7	2,083.4	3.0%

*Excludes the Postal Service

Source: Office of Personnel Management, **Occupations of Federal White Collar and Blue Collar Workers, October 31, 1985**; Hudson Institute projections.

large-scale layoffs could work hardship on individuals in these positions.

But though there are likely to be many thousands fewer keypunch clerks and data entry workers in the Federal workforce in the year 2000, it should be remembered that the voluntary quit rate among these workers is very high. For example, among GS-3s (a typical rating for data entry workers), the annual quit rate is about 16 percent, suggesting that the entire 12-year projected decline in the clerical workforce could be accommodated with a hiring freeze lasting less than a year, rather than with layoffs.

The disparity between agencies that may be laying off clerical workers and those that are seeking to hire professional and technical employees highlights again the diversity of the Federal workforce and the complexity of managing it. Different agencies may be dealing with completely opposite challenges over the next decade. The Veterans Administration, seeking to hire medical personnel, or the Justice Department, seeking to retain lawyers, may require much greater flexibility to offer attractive pay, benefits, and working conditions. At the Social Security Administration, the task may be to retrain clerical staff for other jobs or advanced technologies. The Internal Revenue Service will likely face both kinds of issues: hiring many talented new workers in tight labor markets and retraining much of its workforce to use rapidly changing information technology. Government-wide solutions to these challenges are unlikely to be as effective as steps tailored to the differing situations of the various agencies.

THE SKILLS AND TRAINING FEDERAL EMPLOYEES NEED

Because the Federal government employs relatively more managers, professionals, and technicians than other U.S. employers, the skills required of Federal workers are greater, on average, than those of employees in the nation as a whole. For example, jobs that require language competencies rated at 5.0 or higher on the U.S. Department of Labor's scale of skill requirements comprise just under 5 percent of all U.S. employment.* Among Federal workers, such high skills are required by some 16 percent of all jobs, more than three times the national rate. At the bottom of the language requirement scale, jobs rated below 2.0** in language requirements make up almost

*Jobs rated 5.0 or higher require employees to read literature, scientific or technical journals, financial reports, or legal documents. They must also be able to write journals, speeches, manuals, critiques, or other advanced materials, and be able to speak or debate publicly.

**Jobs rated at the 1.0 level require employees to be able handle tasks such as filling out requisitions or work orders, tending food counters, or delivering messages. They require the ability to follow oral instructions, or to read simple messages.

12 percent of the national job base, but such low-skilled jobs are only 4.6 percent of Federal totals (see Table 1-6).

Moreover, Federal jobs are shifting toward higher skills at a rapid rate. Between 1986 and 2000, while overall employment totals will remain nearly unchanged, some 95,000 new jobs will be added in the categories requiring language skills above 3.1, while some 47,000 are eliminated in the categories below that level. The greatest contributor to these trends will be the reduction in the number of clerical workers, although employment will also be declining in the low-skilled "helpers and laborers" category. The reduction in laborers' jobs in the Federal government is both a reflection of the national trend away from such work and the result of greater contracting out of many blue collar Federal jobs. The small net decline in laborers and their relatively large annual quit rates suggest that there will be no significant displacement problem for these workers.

When math skills are analyzed, a similar picture emerges. Overall some 64,000 new jobs will be added in occupations requiring math at the level of 4 or higher, while 47,000 will be lost in the categories below level 3* (see Table 1-7). Again, the most important parts of the skill picture are the loss of relatively low-skilled clerical and laborer jobs and the creation of many professional and technical slots. Two of the fastest growing federal job categories are scientists and engineers, jobs that require math skills above the level rated 5 by the U.S. Department of Labor.

Clearly, while the hiring, firing, and retention needs of various Federal agencies will differ, the overriding requirement for the Federal government over the next 12 years will be to add more highly skilled workers. Despite the generally slow growth of Federal employment, Federal employers, like those in the private economy, will be hungry for talent during the 1990s.

Many of these higher-level skills will need to be developed by individual agencies rather than hired from outside the government. In some areas such as Federal contracting and procurement, Federal laws and procedures are so specialized that the government is almost the only training ground for new workers. For others, such as medical and engineering specialties, Federal pay and benefits are not competitive beyond the entry level. In general, the Federal government does very little hiring at salaries above \$40,000. In 1987, for example, the Federal government hired only 3,000 full time workers from outside the government at the rank of GS 13 or above (starting salary \$39,501). This was less than 1.4 percent of the GS 13-18 workforce. In contrast, new hires were equal to 29 percent of total employment

*A job with a math skill rating above level 4 would require the use of algebra, statistics or trigonometry. At the other end of the scale, a job rated at level 1 would require only the ability to add or subtract two-digit numbers.

Table 1-6

**The Language Skills Required For Federal Jobs
 Will Rise By the Year 2000**

	MEAN LANGUAGE SKILL RATING	EMPLOYED 1986	NEW JOBS 1986-2000	RATE OF GROWTH
Lawyers & Judges Natural & Computer Scientists	5.8	18,602	2,872	15.44%
Social Scientists	5.6	109,440	6,920	6.32
Health Treatment Occupations	5.1	17,022	521	3.06
	5.1	86,187	4,746	5.51
Subtotal: GED 5.1 - 6.0		231,251	15,059	6.51%
Engineers, Architects, & Surveyors	5.0	110,253	19,489	17.68%
Social, Recreational & Religious Workers	4.8	7,910	448	5.66
Teachers, Librarians, & Counselors	4.5	23,063	71	0.31
Management Related Occupations	4.4	298,139	29,491	9.89
Writers & Artists, Entertainers	4.1	14,547	991	6.81
Subtotal: GED 4.1 - 5.0		453,912	50,490	11.12%
Other Professionals & Paraprofessionals	4.0	143,884	7,580	5.27%
Technicians	4.0	187,412	17,608	9.40
Marketing and Sales Occupations	3.6	10,960	624	5.69
Blue-collar Worker Supervisors	3.1	39,762	3,380	8.50
Subtotal GED 3.1 - 4.0		382,018	29,192	7.64%
Administrative Support Occupations	2.9	530,032	(68,200)	-12.87%
Construction Trades Plant and System Occupations	2.9	45,889	2,552	5.56
	2.7	9,224	405	4.39
Service Occupations	2.6	131,057	5,649	4.31
Mechanics, Installers, & Repairers	2.6	130,743	11,851	9.06
Precision Production Occupations	2.3	43,012	178	0.41
Agriculture, Forestry & Fishing	2.2	22,249	1,418	6.37

Table 1-6 (Continued)

**The Language Skills Required For Federal Jobs
 Will Rise By the Year 2000**

	MEAN LANGUAGE SKILL RATING	EMPLOYED 1986	NEW JOBS 1986-2000	RATE OF GROWTH
Subtotal GED 2.1 - 3.0		912,206	(46,147)	- 5.06%
Material Moving & Vehicle Operators	2.0	33,558	109	0.32%
Extractive & Related Workers	1.7	669	38	5.68
Machine Setters, Operators & Tenders	1.6	16,671	376	2.26
Hand Working Occupations & Assemblers	1.5	14,471	1,034	7.15
Helpers & Laborers	1.2	64,838	(2,750)	- 4.24
Subtotal: GED 1.0 - 2.0		130,207	(1,193)	- 0.92%
Total		2,109,594	47,401	2.25%

*Average General Educational Development (GED) Score.
 Source: U.S. Bureau of Labor Statistics; Hudson Institute.

in the GS 1-4 levels (top starting salary \$13,513) and 10 percent of the employment totals of GS 5-8 (top starting salary \$20,739).

These hiring patterns suggest that Federal training needs will be concentrated in two areas: 1) among new workers in the lowest level jobs, where turnover is high; and 2) among the highest-skilled professionals with transferable skills, alternative job opportunities and rapidly evolving fields. The first category is dominated by clerical workers. In these low-paying positions, maintaining sufficient levels of productivity is likely to require remedial education in some cases, as well as basic skills development.

The second group includes engineers, accountants, program and budget analysts, lawyers, physical scientists, and computer specialists. Since few of these workers will be hired from outside the government at much above entry level, it will be necessary for the government to invest heavily in the continuing development of the skills of those whom it retains. If agencies are to maintain an up-to-date skill base comparable with private industry (and this skill base will be essential to deal adequately with contractors), they will be forced to reinvest continuously in their senior-level technical workforces.

Table 1-7

**The Math Skills Required For Federal Workers
 Will Rise By the Year 2000**

	MEAN MATH SKILL RATING	EMPLOYED 1986	NEW JOBS 1986-2000	RATE OF GROWTH
Natural & Computer Scientists	5.7	109,440	6,920	6.32%
Engineers, Architects, & Surveyors	5.1	110,253	19,489	17.68
Subtotal: GED 5.1 - 6.0		219,693	26,409	12.02%
Social Scientists	4.5	17,022	521	3.06%
Health Treatment Occupations	4.4	86,187	4,746	5.51
Management Related Occupations	4.2	298,139	29,491	9.89
Lawyers & Judges	4.1	18,602	2,872	15.44
Subtotal: GED 4.1 - 5.0		419,950	37,630	8.96%
Technicians	3.9	187,412	7,580	4.04%
Teachers, Librarians, & Counselors	3.3	23,063	71	0.31
Marketing and Sales Occupations	3.3	10,960	624	5.69
Social, Recreational & Religious Workers	3.2	7,910	448	5.66
Other Professionals & Paraprofessionals	3.2	143,884	7,580	5.27
Blue-collar Worker Supervisors	3.0	39,762	3,380	8.50
Subtotal GED 3.1 - 4.0		369,463	19,683	5.33%
Construction Trades	2.8	45,889	2,552	5.56%
Writers & Artists, Entertainers	2.7	14,547	991	6.81
Administrative Support Occupations	2.7	530,032	(68,200)	- 12.87
Plant and System Occupations	2.7	9,224	405	4.39
Mechanics, Installers, & Repairers	2.5	130,743	11,851	9.06
Service Occupations	2.2	131,057	5,649	4.31
Precision Production Occupations	2.2	43,012	178	0.41

Table 1-7 (Continued)

**The Math Skills Required For Federal Workers
 Will Rise By the Year 2000**

	MEAN MATH SKILL RATING	EMPLOYED 1986	NEW JOBS 1986-2000	RATE OF GROWTH
Subtotal GED 2.1 - 3.0		904,504	(46,844)	- 5.18%
Agriculture, Forestry & Fishing	1.9	22,249	1,418	6.37%
Extractive & Related Workers	1.9	669	38	5.68
Material Moving & Vehicle Operators	1.8	33,558	109	0.32
Machine Setters, Operators & Tenders	1.5	16,671	376	2.26
Hand Working Occupations & Assemblers	1.4	14,471	1,034	7.15
Helpers & Laborers	1.1	64,838	(2,750)	-4.24
Subtotal: GED 1.0 - 2.0		152,456	225	0.15%

*Average General Educational Development (GED) Score.
 Source: U.S. Bureau of Labor Statistics; Hudson Institute.

CHAPTER TWO THE FEDERAL WORKFORCE

Who will be working for the Federal government as it enters the coming century?* What will these workers expect or demand? How should personnel managers plan for any expected changes?

A clear picture of the next generation of Federal workers can be developed by looking at historical and current data and by projecting these patterns into the future. Barring exceptional and unforeseen changes in the makeup of the Federal workforce, such as those that occurred during the Second World War, many current trends are likely to continue. Other shifts can be predicted based on broad patterns visible in the national demographic and economic picture. With more than 2 million non-postal employees, the Federal government is by far the largest single employer in the nation, and its workforce will certainly reflect the demographic changes underway in the entire labor force. Moreover, most of the workers who will staff the Federal government in the year 2000 are already working for it today. Unless the average tenure of Federal workers drops sharply from its current 13.5 years, more than half of the year 2000 Federal employees are already on the payroll.

THE CHANGING NATIONAL WORKFORCE

The pool of workers from whom new Federal employees will be drawn will change significantly over the next 12 years. The most important shifts include:

- **The national workforce will grow more slowly than it has in recent years, and the numbers of young workers will decline.** The labor force, which exploded by 2.9 percent per year in the 1970s, will be expanding by only 1 percent annually in the 1990s. The number of young workers aged 16 to 24 will drop by almost 2 million, or 8 percent. These slow growth rates will tend to reduce the rate of economic growth, and may also tighten labor markets and force employers to use more capital-intensive production systems. As a very large employer, particularly of entry-level workers, the Federal government may face a particularly difficult time in hiring able and motivated workers in this environment. The extent of this difficulty will vary considerably across the country, depending on the types of Federal hiring and conditions in local labor markets. In some areas, the number of new and young people entering the workforce will be going up, while in others

*Unless otherwise noted, all statistics cited in this chapter refer to the Federal civilian workforce, exclusive of the Postal Service. Most data refer to full-time, permanent employees.

the decline will be severe. California and Florida will have two-thirds more high school graduates in the year 2000 than they did in 1986, while Pennsylvania and Illinois will see graduates drop by as much as 16 percent. Federal agencies that seek to hire entry-level workers in shrinking labor markets may face the greatest difficulties, particularly where high local wages make Federal salaries unattractive. If rigid national policies prevent Federal employers from responding to these local conditions as flexibly as competing private employers, government agencies can expect to hire lower quality workers or even to have some open slots remain vacant.

- **The average age of the workforce will rise.** As the baby boom ages and the "baby bust" enters the workforce, the median age of the workforce will climb from 36 today to 39 by the year 2000. This aging will have both positive and negative impacts. On the one hand, the older workforce will be more experienced, stable, and reliable. The reverse side of this stability will be a lower level of adaptability. Older workers, for example, are less likely to move, to change occupations, or to undertake retraining than younger ones. Private organizations dominated by older workers have sometimes become noncompetitive and unresponsive to change. The Federal workforce, which is already older than the rest of the labor force, is likely to age further by the year 2000. For the agencies particularly affected by this process (for example, those whose workforces are shrinking during the 1990s), the challenge to maintain fresh and adaptive attitudes and programs may be particularly great.
- **More women will enter the workforce.** Almost two-thirds of the new entrants into the workforce between now and the year 2000 will be women, and 61 percent of all women of working age are expected to have jobs by the year 2000. Women will still be concentrated in jobs that pay less than men's jobs, but they will be rapidly entering many higher-paying professional and technical fields. In response to the continued feminization of work, the convenience industries will boom, with "instant" products and "delivered-to-the-door" service becoming common throughout the economy. Demands for day care and for more time off from work for pregnancy and child-rearing will certainly increase, as will interest in part-time, flexible, and stay-at-home jobs. As the nation's largest employer of women, subject to tight oversight from Congress, it is likely that the Federal government will continue to be seen as a model for innovative policies addressing the needs of women workers.
- **Minorities will be a larger share of new entrants into the labor force:** Blacks will make up 17 percent of the growth of the labor force between now and the year 2000, compared to their current 11 percent share of all workers. Hispanics will comprise an even

greater fraction of the growth, with some 6 million new Hispanic workers added to the workforce, 29 percent of the total increase. Although a larger share of a slowly growing workforce might be expected to improve opportunities for these populations, this outcome is far from certain. Not only are many blacks and Hispanics unprepared educationally for the higher skilled jobs being created, they are concentrated in declining central cities and slow-growing occupations that will limit their new employment opportunities. Although the Federal government has traditionally been a large employer of blacks, the increasing skill requirements of Federal jobs could cap the growth of black Federal employment unless black educational preparation, including rates of college graduation, rises.

- **Immigrants will represent the largest share of the increase in the population and the workforce since the first World War:** Even with the new immigration law, approximately 600,000 legal and illegal immigrants are projected to enter the United States annually throughout the balance of the century. Two-thirds or more of immigrants of working age are likely to join the labor force. In the South and West where these workers are concentrated, they are likely to reshape local economies dramatically, promoting faster economic growth and labor surpluses. Because Federal law and executive order sharply restricts the hiring of such workers until they become U.S. citizens, Federal employers in labor markets dominated by immigrants may find that they are in fierce competition for the native workers, unless these laws and orders are changed.

In combination, these demographic changes mean that the new workers entering the workforce between now and the year 2000 will be much different from those who people it today. Non-whites, women, and immigrants will make up more than five-sixths of the net additions to the workforce between 1985 and 2000, though they make up only about half of it today. The increase in the share of minorities in the new workforce will have particularly important implications, because these workers often have lower levels of language competence, poorer educational preparation, and other labor market problems. Employers of all types, including the Federal government, will be increasingly required to provide training, tutoring, or other remedial education in the workplace to enable this segment of the workforce to reach optimum productivity.

It should be reemphasized that the demographic picture of the nation as a whole disguises substantial regional variation. For example, although the shrinking numbers of young workers promises to tighten labor markets nationally, this phenomenon will be most pronounced in the Midwest, where outmigration of young people over many years has reduced the pool of children coming up through the schools. Similarly, the concentration of minorities and immigrants will be uneven

across the country, with southwestern labor markets dominated by Hispanics and northern urban labor entrants more predominantly black. For Federal managers, these differences in local labor markets may prove far more important than the national picture.

THE FUTURE FEDERAL WORKFORCE

The most important facts and trends concerning the future Federal workforce can be summarized succinctly:

- Federal government workers are, on average, older than most American job holders. While the average age of Federal workers has declined slightly in recent years, it is likely to rise over the next decade.
- Federal workers are better educated than others in the workforce, and the trend toward higher educational attainment is likely to continue, reflecting the rising skill requirements of Federal jobs.
- Blacks are a much higher proportion of Federal workers than they are of the workforce as a whole. Hispanics and women, on the other hand, are somewhat underrepresented. Minority and female representation among Federal workers is likely to rise further over the next decade, as it will for the entire workforce.

FEDERAL EMPLOYEES ARE OLDER THAN MOST WORKERS

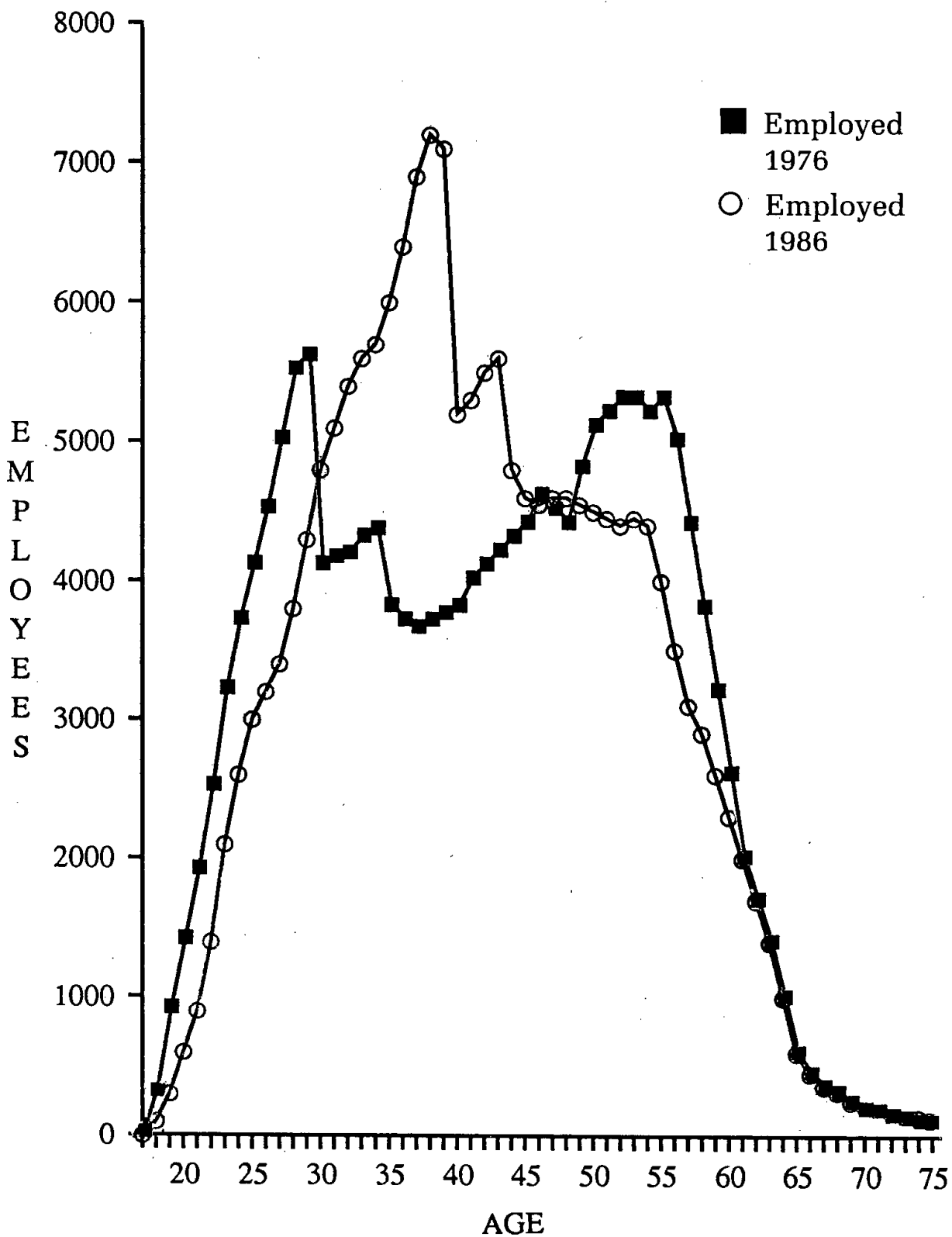
The Federal workforce is considerably older, on average, than typical employees elsewhere in the economy. In 1987, for example, the median age of Federal workers was 41, compared to only 36 years for workers elsewhere in the economy. The average age of the Federal workforce has declined over the last decade, paralleling the dropping age of the national workforce.

Over the next 12 years, however, if Federal employment levels remain relatively stable, the average age of the Federal workforce will rise. In part this is a reflection of the aging of the workforce generally, as fewer young people enter the workforce and the baby boom goes through middle age.

The Federal workforce as a whole may be especially affected by this "aging of the baby boom" phenomenon because it has a particularly noticeable "bulge" of middle-aged workers. Currently, the largest age groups of Federal workers are between the ages of 36 and 40 (see Chart 2-1). Very few of these workers are likely to leave the government before they reach age 55, when many will become eligible for pensions under the Civil Service Retirement System. As a result, the Federal workforce is likely to age during the 1990s before a retirement explosion begins in 2002.

In 1987, for example, less than 5 percent of all workers between the ages of 41 and 50 left the government, and their numbers were almost completely offset by new hires in this age group. (By contrast, some 13 percent of workers between the ages of 55 and 60 left the

Chart 2-1
The Average Age of the Federal Workforce
Will Rise During the 1990s



government in 1987). If this 1987 pattern continues into the 1990s, the extraordinary number of "early baby boomers" who currently work for the Federal government will still be there in the year 2000.

The general Federal pattern of aging will be highly uneven across agencies. Because a steady flow of young newly hired workers provides the demographic balance for the natural aging of existing workers, organizations that go for long periods with relatively little hiring (especially those that shrink by laying off the least senior workers) tend to become populated primarily with older workers. Expanding firms are naturally much younger. The contrast between, for example, the rail industry, in which the average age of the workforce is near 50, and the computer industry, with an average near 30, illustrates the process.

The boom-and-bust employment cycles that some Federal agencies have been through over the past twenty years suggests that some agencies are likely to experience severe graying during the 1990s. In particular, agencies whose employment totals have been shrinking in recent years (e.g., Agriculture, HHS, and TVA) may experience higher median ages during the 1990s.

To the extent that older workers are harder to retrain and less likely to adapt easily to new organizational requirements, the aging of some parts of the Federal workforce will make it more difficult for Federal employers respond to new challenges. Older workers are less likely to learn new jobs than younger ones. For example, workers aged 45-54 change occupations less than half as often as those aged 25-34. Older workers are also less likely to move than younger ones. Less than 10 percent of workers aged 45-64 moved outside their home county during the late 1970s, compared to three times that proportion for those aged 25-34. This geographic immobility of older workers could create problems for some Federal agencies. Many Federal personnel officers believe that federal managers should have recent field experience in the regions before they assume top policy jobs in Washington. If, as the Federal workforce ages, fewer workers are willing to move to take assignments in the regions, the risk of poorly informed "inside the beltway" judgments may rise. In addition, the greater numbers of middle-aged, middle ranking officials will reduce opportunities for advancement for young managers in some agencies, and may make it difficult to retain talented or upwardly mobile younger workers.

FEDERAL WORKERS ARE BETTER EDUCATED THAN OTHER U.S. WORKERS

Among all U.S. workers, some 23 percent have four years of college or more. For Federal workers, the percentage is 31 percent, up from about 25 percent in 1976. The large and growing number of college graduates is primarily a reflection of the increasing concentration of professional and administrative workers on the Federal pay-

roll. For example, between 1976 and 1986, the Federal professional and administrative workforce grew by 144,000; college graduates in these two job categories grew by 128,000 (see Table 2-1). At the same time, the numbers of technical and clerical workers (among whom only 9 percent are college graduates) shrank by 48,000. In other words, almost all of the increase in the college-educated share of the Federal workforce came from the shifting mix of jobs required by Federal employers.

Table 2-1
More Federal Jobs Are Filled By College Graduates
(Numbers in Thousands)*

	1976			1986		
	Total	College Grads	Percent	Total	College Grads	Percent
Professional/Admin	611	349	57%	755	477	63%
Technical/Clerical	704	44	6%	656	58	9%

*Includes only full-time, permanent employees in GS and equivalent payplans.

Source: Office of Personnel Management, unpublished data from the Central Personnel Data File.

This pattern is likely to continue into the future. Between 1986 and 2000, more than 90,000 new Federal jobs are likely to be added in the highest skill categories (occupations requiring GED language skills rated above 4.0), while jobs rated 2.9 or below drop by 43,000. These high-skill jobs are likely to be held primarily by college graduates, while the job slots for non-graduates decline. Even without continuing increases in the college graduate percentage of each job category, the Federal workforce of the year 2000 is certain to be much better educated than it is today.

MINORITIES ARE A LARGE SHARE OF THE FEDERAL WORKFORCE

In 1987, blacks made up 16.8 percent of the Federal workforce, far above their 11 percent share of the national workforce. Hispanics, by contrast, were 6.6 percent of the nation's employees, but only 5.1 percent of Federal workers. The shares of both groups have been rising steadily over the last decade, and promise to increase further in the years ahead. In the five years between 1981 and 1986, for example, the black share of the Federal workforce jumped by one percent and the Hispanic share by nearly as much. Of the total Federal labor force growth of about 51,000, blacks and Hispanics accounted for almost three-fifths (see Table 2-2).

Table 2-2
More Blacks and Hispanics Are Working
For the Federal Government
(Numbers in Thousands)*

Grade Level	1982			1986		
	Total Employees	Black Share	Hispanic Share	Total Employees	Black Share	Hispanic Share
GSE 1-4	304	23.4%	5.3%	283	26.8%	6.3%
GSE 5-8	465	19.4	4.1	491	20.9	5.1
GSE 9-12	530	9.5	3.5	590	10.6	4.1
GSE 13-15	208	5.1	1.9	229	5.5	2.2
Wage Grade	414	20.2	6.8	409	19.8	7.2
Other ¹	86	6.5	3.4	82	6.4	3.8
Total	2009	15.5%	4.5%	2084	16.3%	5.0%

¹includes executives, other white-collar, and unspecified pay plan/grade.

*All data are for full-time, permanent employees.

Source: Office of Personnel Management, unpublished data from the Central Personnel Data File.

Both minority groups are still highly concentrated in the lowest paying and least skilled jobs. Blacks are four to five times as likely to staff the lowest ranking white and blue collar jobs as they are to fill high level slots above GS 13. Still, progress is occurring across the board, with the greatest gains coming in the middle ranks of GS 9 to 12, where blacks are now represented in equal proportions compared to their numbers in the workforce. As these workers achieve more seniority, it can be expected that both black and Hispanic workers will increase their representation in the higher ranks of the government.

Since blacks will be some 17 percent of the net new entrants into the workforce (compared to their 17 percent share of the current Federal workforce), while Hispanics will be nearly 29 percent (compared to their current 5 percent share), it is likely that the greatest increase in minority representation in the Federal workforce over the coming decade will be among Hispanics. This should occur despite the considerable numbers of Hispanic workers who will not be eligible for Federal employment because they are not yet U.S. citizens. In the Southwest, where Hispanic immigrants comprise a large portion of new entrants into the labor market, Federal employers may see the composition of their staffs shifting quite rapidly to include more Hispanics.

The one factor that could constrain the growth of Hispanic and black workers in the Federal government may be the rising education and skill requirements of Federal jobs. Although blacks within the Federal government are better educated than other black workers within

the economy, they have fewer years of schooling than white federal workers. Over the period between 1986 and 2000, Federal jobs will require skill upgrading even greater than that of the rest of the economy. If blacks and Hispanics are to continue to increase their shares of Federal employment, continuous progress must be made in raising the educational achievement of minority students. Since such a large fraction of future Federal jobs will require college degrees, it may be particularly important to reverse the recent decline in black and Hispanic college enrollment and completion.

WOMEN'S SHARE OF THE FEDERAL WORKFORCE IS GROWING RAPIDLY

Women make up about 40 percent of the Federal workforce, a percentage that is slightly below their share of all U.S. employees. Over the past 10 years, women have been hired by the Federal government at a very rapid rate, closing the gap between female employment in and out of the government. A decade ago, women's share of the Federal workforce was 6.2 percentage points below their national share, but today the gap has shrunk to only 4.6 percent (see Table 2-3).

Table 2-3
Women Are Increasingly Employed
By the Federal Government
(Numbers in Thousands)

	1976		1986		2000	
	Women	Women's	Women	Women's	Women	Women's
	Share	Share	Share	Share	Share	Share
Total Workforce	35,701	40.1%	48,661	44.4%	65,639	47.3
Federal Workforce	599	33.9	717	39.8	915	44.7

Sources: U.S. Bureau of Labor Statistics and Office of Personnel Management; Hudson Institute.

The growing numbers of Federal women are also moving into much higher rated, higher paying jobs. Of the 118,000 increase in women working for the Federal government between 1976 and 1986, the number holding GS 9 and higher jobs rose most rapidly, both in absolute and percentage terms. Three times as many women held GS 13 to 15 jobs in 1986 as in 1976, while women in the GS 9 to 12 ranks doubled in that period. By contrast the number of women in the GS 1 to 4 jobs fell by 63,000 (see Table 2-4).

The continuing pay gap between men and women reflects a number of factors, including the younger age of women on the Federal payroll, their lower levels of schooling, the advantage offered to men who are

veterans, and the relatively small number of men who apply for low-level clerical jobs. Because women are rapidly entering many of the professional and senior administrative jobs, it seems virtually certain that their relative pay status vis-a-vis men will improve over the next 12 years. For example, women are 27 percent of government professionals and 35 percent of administrators, compared to 19 percent of both categories a decade ago. In some fields the gains are spectacular: women are now almost a third of all government accountants, and a quarter of all IRS agents. Only a decade ago, their percentage shares of these occupations were measured in single digits. In a few categories, such as program and budget analysts and contracting and personnel management specialists, women hold half or more of the jobs, compared to a third or less a decade ago. The increasing presence of women in professional, technical, and managerial schools, and their increasing seniority within the Federal bureaucracy, imply that the pay and rank gaps currently present within the Federal government will decline markedly over the next 12 years.

Since women will be as much as two-thirds of the new entrants into the national labor force over the next 12 years, there is little doubt that their numbers and influence will grow enormously by the year 2000. If current trends in national and Federal labor force participation continue, nearly 200,000 more women will enter Federal employment by the beginning of the next century, when they will make up 44 percent of the Federal workforce.

Table 2-4
Women are Rising in Government
(Numbers in Thousands)*

	1976		1986	
	Women	Women's Share	Women	Women's Share
GSE 1-4	209	78.0%	159	77.5%
GSE 5-8	255	60.0	310	68.6
GSE 9-12	95	20.2	190	33.5
GSE 13-15	10	5.2	28	12.4
WG	27	7.9	26	9.3
Other Wage	3	3.8	4	5.6

*All data refer to full-time, permanent employees.

Source: Office of Personnel Management, unpublished data from the Central Personnel Data File.

Because Federal women, like most women within society, will continue to have the lion's share of the household and family responsibilities in addition to their jobs, there is little doubt that such current issues as day care, benefit reforms, more flexible hours of work, leave

time, and other policies will continue to be a source of debate. As women rise within the Federal bureaucracy to policymaking positions they are likely, within the limits of the law, to reinterpret Federal policies regarding work and families and to promote more family-oriented policies. At the same time, the Federal government, as a large employer under control of a politically responsive Congress, will undoubtedly be asked to continue to develop model programs and policies to address these issues.

SUMMARY

The three most important demographic issues facing Federal managers over the next 12 years are:

First, the national decline in the numbers of new young workers and the slower growth of women entering the workforce promises to make hiring and retention much more competitive in the years ahead. Because these tight labor markets are likely to develop in different ways in different states and to shift quickly in response to economic and population changes, it is essential to decentralize responsibility and to provide more flexibility in hiring and personnel management than is characteristic of the current system. Federal employers in locally tight or expensive labor markets must be able to compete for workers on a par with private employers if they are to continue to fulfill their responsibilities.

Second, the Federal government will become, like the rest of society, increasingly an employer of women. While seniority and increasing education will substantially reduce concerns over equal pay by the year 2000, it will not alleviate pressures for benefits, leave time, day care, and other policy changes related to women's dual roles as breadwinners and family managers.

Third, the continued aging of the Federal workforce that will result as large numbers of baby boomers move toward retirement presents a major challenge to Federal managers seeking to respond to change. Toward the end of the century, the median age of Federal workers is likely to reach an all-time high. In light of the inherent difficulty of motivating workers in large public bureaucracies, it will be imperative that Federal managers focus great energy on training and inspiring their aging workforce.

CHAPTER THREE CIVIL SERVICE 2000: POLICIES FOR THE FUTURE

THE COMING CRISIS

The Federal government faces a slowly emerging crisis of competence. For years, many Federal agencies have been able to hire and retain highly-educated, highly-skilled workforces, even though their wages, incentives and working conditions have not been fully competitive with those offered by private employers. But as labor markets become tighter during the early 1990s, hiring qualified workers will become much more difficult. Unless steps are taken now to address the problem, the average qualifications and competence of many segments of the Federal workforce will deteriorate, perhaps so much as to impair the ability of some agencies to function.

Many factors have contributed to the current situation:

- **For many high-skills jobs in expensive regions, Federal compensation is increasingly non-competitive.** The most recent report of the President's Commission on Compensation of Career Federal Executives reported that the gap between top Federal general schedule salaries and comparable private salaries was 24 percent. In high-wage areas such as New York City, the Northeast, and the Pacific Coast, and in high-ranking jobs, the Federal wage disadvantage is even greater.
- **For many years, public esteem for civil servants has been declining and the prestige of government jobs has been falling.** Over the past two decades a succession of political candidates has campaigned against "waste in Washington." These candidates often equated the problems of government with the unresponsiveness or incompetence of civil servants. Gradually, this drumbeat of criticism has transformed traditional public skepticism about the government into a mood of outright disdain and hostility. As public esteem for Federal employment has eroded, fewer of the most talented individuals have entered government service. This has left the government to hire what some have suggested, only half jokingly, is the "best of the desperate."
- **Low pay and low prestige have been exacerbated by outdated management practices and needless aggravations.** The inherent frustrations and constraints of large bureaucracies have been compounded in the Federal government by limited advancement opportunities, needless aggravation, and, often, poor working conditions. Most Federal managers must hire and motivate a workforce in the face of a number of obstacles. Some of these problems are inevitable. For example, because the Federal government is run by Presidential appointees, there is a ceiling on the career advancement opportunities of most top civil servants. And

because many employees hold sensitive positions, they are subject to random drug testing, even though they are not suspected of drug use and may find the tests objectionable.

Other annoyances could be avoided, however. Many Federal offices are drab or even seedy. Federal telephones are monitored to check for personal calls. Periodically, thousands of non-essential Federal employees are sent home to await the resolution of another Congressional budget impasse. In addition, Federal workers often see that unproductive employees are retained, while those making extra efforts are not always rewarded. Regardless of the attitudes they bring with them to government, many Federal workers soon come to believe that energy, initiative and risk-taking are less valued behaviors than "going by the book" and staying out of trouble.

There are a growing number of indicators that these problems have already begun to affect the Federal government's ability to recruit and retain the best. For example, limited (and perhaps not fully comparable) data on test scores suggest that the average for new hires on recent tests stands in the mid-80s, compared to averages in the mid-90s for candidates who took the PACE exam during the 1970s. The number of graduates of schools of public administration entering Federal service has dropped by 25 percent since 1979. The IRS now hires accountants from the 54th percentile of the national CPA examination, compared to candidates from the 86th percentile hired by the Big Eight firms. At some VA hospitals, intensive care beds are unavailable because of a national shortage of nurses. In a 1987 survey of Federal executives, 54 percent of those asked said that they would not encourage young people to consider a career in Federal service.

There are at least three major reasons why the current problem with recruitment and retention of top-quality Federal employees will grow more severe during the 1990s:

- **First, the competition for well-qualified workers will become more intense during the 1990s.** Not only will the rate of growth of the labor force be slowing and the numbers of young people entering the workforce declining, but substantial numbers of those entering the workforce will have lower levels of competence in language, math, and other basic skills. Private employers will undoubtedly respond to this changing labor market with higher entry-level wages, more recruitment and training of non-traditional workers, more flexible benefit packages, and other adjustments. Unless Federal agencies are able to respond in similar ways, some of them will be unable to compete successfully with the private sector, and may find it much harder to recruit and keep good employees.
- **Second, a growing share of Federal jobs will fall into the highest skill, most competitive categories.** The Federal government is already an extensive employer of professional, technical, and other

highly skilled workers. The trend toward contracting out of blue-collar jobs and the shift of service delivery mechanisms to state and local governments will increasingly shift the mix of Federal jobs to higher skill levels. Research, program management, procurement, monitoring, and auditing responsibilities are growing, while direct delivery of services is shrinking. As a result, the need for more well-qualified Federal workers will rise throughout the 1990s. The Federal government will not have the option of hiring foreigners, moving jobs overseas, or "dumbing down" the jobs with computers. It will have to hire more qualified people.

- **Finally, the new, portable Federal Employees Retirement System (FERS) will substantially reduce the "golden handcuffs" that now tie senior employees to the Federal government.** The traditional Civil Service Retirement System (CSRS), with its non-portable benefits that are tied to age and length of service, strongly discourages employees with long service records from leaving the government. Less than 3 percent of those with more than 10 years of service leave the government voluntarily each year. Currently about two-thirds of Federal employees are covered by the CSRS system. As these workers retire, their replacements will be covered under the highly portable FERS and Social Security systems. As a result, Federal employees are likely to be much more willing to leave the government in response to better opportunities elsewhere or dissatisfaction with their situations. If Federal pay, benefits and working conditions are perceived to be inferior to those available from private employers, Federal employers may be faced with higher levels of turnover at senior levels, and the challenge of recruiting and keeping senior professional and technical people will grow.

POLICIES FOR THE 1990s

Traditionally, Federal service has offered a number of benefits that have made up for its drawbacks. If the pay was limited and the bureaucracy oppressive, the government at least provided more job security, better and earlier retirement, the chance to affect major national policies, and the personal satisfaction of helping to accomplish important national goals. Now many of those rewards are either diminished or eliminated, at a time when fewer new workers are entering the workplace, and fewer of these new entrants seem inclined toward careers in the Federal government. To cope with this changing demographic and employment environment, the Federal government needs to develop better strategies for attracting, hiring, training, motivating, and keeping talented people. Four steps will be most important:

- **Decentralize authority and responsibility for operations and hiring.** In terms of mission, organization, and skills, there is no such thing as "the Federal government." There is only an aggregation

of different agencies, each of which has different goals, different structures, and different employee needs. If these highly diverse organizations are to accomplish their objectives during the labor-short 1990s, individual Federal agencies must be given far more flexibility and freedom in personnel matters. Standardized recruitment, testing, competition, classification, and pay should give way to decentralized personnel management, giving agency managers full responsibility not only for their missions, but for the human resources they need to accomplish them.

- **Continue emphasis on the hiring, training, and promotion of women and minorities.** The Federal government was a serious and successful equal opportunity employer many years before such policies were widely accepted in private industry. All employers in the 1990s will be hiring from a pool of workers dominated by women and minorities. If it remains an exemplary employer of these groups, the Federal government can expect to attract and keep more than its "fair share" of the best qualified members of this changing workforce.
- **Substantially increase internal and external education of Federal workers.** Federal agencies can either "buy" or "make" the skills they need. In other words, they can recruit and hire highly skilled, qualified workers from the national labor market, or they can invest in their current workers and teach them what they need to know. Since many Federal employers will continue to face difficulties in competing for the best-qualified workers, Federal agencies should systematically invest more in their existing workforces. This will not only make the Federal government a more attractive place to work, it will be a cost-effective way to build Federal skills.
- **Upgrade Federal pay and make benefit packages more flexible. In return, demand performance.** In the end, decentralization, recruitment of minorities and women, and training will not matter much unless the Federal government can offer salaries that are comparable with those offered by other employers. Only a few Federal jobs can expect to continue to draw large numbers of eager applicants because of their intrinsic interest or prestige. Some, but not all, Federal jobs should be much more highly paid than they are today. Some, but not all, workers will respond to innovative benefits such as day care, additional leave, flexible worktimes, or other options. Just as Federal pay and benefits should be set according to private sector standards, so Federal workers should also be held to private sector standards of performance. A small but important part of the task of building a quality workforce is the flexibility to set high standards, and to fire those who do not measure up.

Managing Around The System

Federal Personnel Managers Speak

“We wait for the economy to go sour to do any hiring. During good times we can’t get people to accept our offers. But when unemployment is high we can get some of the people we want to sign on. If we can keep them for a couple of years, then we have a shot at keeping them long term.”

— Manager of a military research laboratory

“We’ve had the most success placing ads in the technical journals. We pay for the ads out of our own pockets and then find ways to get reimbursed. Once we find the people we want, we can usually arrange to get them through the OPM process.”

— Manager of technical personnel at EPA

“We get the people we need, but it can be very expensive. Right now, even with special pay exemptions we can’t hire respiratory therapists, so we are paying a personnel agency \$4,000 per week to supply us with one therapist.”

— A doctor at a VA hospital

Implementing these strategies will be politically difficult, and the transition will be time-consuming and possibly expensive. But the alternative—watching the quality of the Federal workforce decline until some agencies become too weak to function properly—is even more threatening.

Why are these steps needed now, and how could they be implemented?

DECENTRALIZATION

The central personnel function that characterizes the current Civil Service was developed primarily to ensure that the Federal workforce was hired on the basis of merit and that all Federal employees were treated fairly. It succeeded brilliantly in its original intent—to eliminate nepotism and to establish a cadre of highly professional staff to serve the public.

The rules and procedures that characterize this system were elaborated over several generations during which supplies of prospective workers were adequate, and concerns of equity and individual employee rights dominated the nation's civil service agenda. Now those conditions are changing. The public has become more concerned with the efficiency and quality of the public services it demands, while the numbers of new qualified workers are shrinking. Already, for some jobs in some cities, there is a gap between the competence the public demands and the quality of the employees the Federal government can hire. As tighter labor markets ripple from one agency to another, and from one region of the country to another during the 1990s, the situation will grow more tenuous.

In responding to these new conditions, a universal or shotgun approach to reform is likely to be both expensive and inefficient. Not all Federal agencies need to pay more, or train more or provide better benefits. Instead of a massive and contentious reform of the civil service system, perhaps the time has come to rethink basic questions: How much centralization of personnel management is really needed? Why not give agencies full responsibility for their internal personnel policies and pay structures, subject only to budget and performance standards? Why not let OPM become a monitor of compliance, a disseminator of information, and a record keeper, rather than the gatekeeper of Federal employment?

Ideas such as these have been suggested many times before. The National Academy for Public Administration, for example, has argued persuasively for such steps for a number of years. As the inefficiencies of centralized personnel management have been pointed out by various observers over the years, an increasing degree of authority and autonomy has been granted to many Federal agencies. Currently, for example, some 40 percent of full-time Federal employees are exempt from the competitive civil service. Many large Federal or quasi-Federal organizations have their own personnel systems, includ-

ing the Postal Service, the FBI, the CIA, the State Department, the National Security Agency, and others. In recent years, the Office of Personnel Management has used its administrative authority to delegate significant personnel management freedoms to agencies that have requested it. Many agencies have been granted special flexibility in hiring, pay scales, and job assignments, either on an occupation-by-occupation basis or on a facility-wide experimental basis, such as at the Navy's China Lake project.

The demographic environment of the 1990s suggests that these experiments should be expanded, and that bolder movement toward decentralized personnel management, such as is occurring in large private organizations, is needed at the Federal level. The swiftness with which labor markets are changing in some regions and occupations suggests that a top-down, command and control system of personnel management will be increasingly unable to cope with the rapid changes ahead. The slow process of rules and exceptions is likely to lag further and further behind the shortages and crises of the next decade. This may be particularly true in the areas of greatest importance and dynamism—where federal responsibilities are being suddenly expanded, as in AIDS research, or where industrial labor markets are changing rapidly, as in engineering for advanced weapons systems.

CONTRACTING OUT

There are many ways in which such changes could be implemented. At one extreme, decentralization could mean further privatization or contracting out of Federal activities. Private companies that provide specified services can be held accountable for the quality of their products or services, and may be left free to manage and pay their workforces as they see fit, within the limits of Federal laws mandating equal opportunity, and fair pay and working conditions.

Although more can be accomplished in this area, not all or even a majority of Federal responsibilities can be taken over by private entrepreneurs. Private companies cannot regulate business, contract for weapons systems, or authorize grants to state and local governments. Moreover, even when Federal services are contracted out, there is a residual requirement for top-quality Federal managers to oversee the contracting process. These managers must be at least as knowledgeable and capable as the contractors they monitor, if they are to ensure that the contractors perform their assignments satisfactorily and cost-effectively. At present, however, many Federal contract management jobs are typically low-level, low-paying slots with little prestige or chance for advancement. Many of the most capable Federal professionals consider the task of contract management to be a step down in their professional careers. Unless ways are found to attract and reward top quality Federal contract managers, the road

toward contracting out Federal services is likely to be strewn with embarrassing frauds and expensive failures.

DELEGATED AUTHORITY

While most government services cannot be shifted to private contractors, many of the benefits of private management could be achieved simply by decentralizing authority within the current system.

Under such an arrangement, the top managers of each Federal agency might receive complete authority for recruitment, hiring, firing, training, classification, pay, and benefits. They would be free to differentiate their agencies' personnel practices from others in any way necessary to obtain the people they need to perform their missions. Already, of course, some of this flexibility has already been provided by the Office of Personnel Management to some agencies, and many of them have begun to employ new approaches.

Some specific actions and strategies that individual agencies and personnel managers are undertaking, or might employ in the future could include:

- Advertise to build public awareness of their agency's mission and the opportunities specific to that agency. One example is the successful Army advertising campaign, which has aided in recruiting volunteers and in changing the public perception of entry-level Army jobs. Such public affairs strategies could boost the attractiveness of individual agencies to prospective employees.
- Use employment recruiters, or "headhunters," to find the people they need. The FDA has recently been given such authority to fill certain vital skill needs.
- Change classifications and pay scales to whatever levels are necessary to make them competitive with other employers. This would create pay differentials between installations in different parts of the country, but would ensure continued attraction of high-quality applicants in the highest-cost cities, such as New York.
- Use recruitment and information vehicles more consistent with those customary in the private sector. This includes posting vacancies in classified advertisements, as well as requiring cover letters, resumes, and related documents from applicants instead of the cumbersome, time-consuming, and often-irrelevant Standard Form 171.
- Shorten the time between application and hiring. In spite of recent improvements, the time between posting a vacancy and hiring a new employee is often far longer than necessary. This gap can discourage qualified applicants, who may find other employment before a Federal job offer can be tendered.

In return for this flexibility and autonomy, agencies would be held accountable for:

- overall personnel budgets,

- personnel ceilings, and
- fulfilling the letter and spirit of equal employment opportunity and merit hiring.

The Office of Personnel Management would monitor compliance with these standards and keep statistical track of agency performance and government-wide trends. The Office might also offer agency personnel managers information, recruitment assistance, systems management (e.g., for retirement programs), management consulting, and management training, at the request of agency managers. Essentially, the Federal government would begin to operate much as large private corporations do: with most authority delegated to the operating agencies, while a small central staff provides leadership, information, and assistance.

The benefits of decentralization would be:

- Recruitment and hiring would be simpler, faster and cheaper;
- Responsibility for personnel problems would be easy to identify and assign;
- Agencies in different different parts of the country or with special skill needs could respond quickly to these differences in labor markets; and
- Agencies could better insulate themselves against the general decline in public esteem for government service by establishing their separate identities. Rather than being government bureaucrats, Federal employees would see themselves even more than they do today as employees of the Park Service, the FDA or the Foreign Service. Agencies with poor or indistinct public images could address the problem directly. Similarly, distinct systems of training, motivation, and management could foster separate cultures within the government, creating a healthy diversity and higher morale in well-run agencies.

The risks of such a system include:

- Multiple personnel staffs, systems, and duplicative recruitment efforts could create inefficiencies;
- Some agencies might not live up to the letter and spirit of equal employment opportunity, merit pay and promotion, and fair treatment of all employees.

These risks, and the obvious political complexity of such sweeping changes argue that a radical realignment of personnel responsibilities could not be undertaken without careful preparation and considerable caution. Even if there were consensus in Congress and the agencies on the need for such changes, the complex legal and organizational web of Federal personnel policy could not be unraveled without years of legislative and administrative transition.

The first steps in such a lengthy process might include:

- Extensive additional experiments with delegated personnel authority could be undertaken, along the lines that have recently been laid out by the Office of Personnel Management. Various

degrees of pay and performance flexibility could be explored in different operating environments. These experiments, which could take place in a number of highly diverse agencies should be thoroughly evaluated and analyzed so that the process of change could be monitored and corrected as needed.

- All Federal agencies could be asked to undertake systematic efforts to plan for the transition to full personnel control. Not every agency is willing, much less ready to undertake full personnel responsibilities.
- Congress and the public should be engaged in a debate over the future of the Civil Service system. Major changes will not be enacted until they are fully debated and their soundness agreed on.
- Experimentation could also be undertaken in the area of labor-management relations. Arguably, the transition to a more decentralized personnel management system modeled along private sector lines should lead to labor relations that are governed by laws and practices more akin to those in the private sector. Importantly, this should not mean simply some adaptation of the most confrontational system of negotiations over pay, benefits, grievance procedures and working conditions. Rather, experiments with new union and management roles in the federal sector might seek out the best experience with cooperative union-management relationships from across the nation, and attempt to adapt them to the federal environment.

The course toward decentralized federal personnel management will undoubtedly be indirect and halting. But without a clear commitment to move in this direction, inertia will prevail until the missions of some Federal agencies are compromised by their inability to hire and keep the people they need to function in the tight labor markets of the 1990s.

EMPHASIZE EMPLOYMENT OF WOMEN AND MINORITIES

The Federal government has been a leader in recruiting, managing and promoting women and minorities. While during the 1990s many private companies will be struggling to adjust to a labor market dominated by these groups, the Federal government has, in a sense, already reached the future. Both in numbers and policies, the Federal government is on the leading edge of the changing workforce.

For example, between 1976 and 1986 the number of women working for the Federal government grew by 20 percent, while the number of men dropped by 6 percent. Women's share of GS 13-15 jobs more than doubled, from 5 percent to 12 percent of the total. Among Federal employees under age 35, during that decade the female share tripled, to 27 percent.

These gains were the result of a conscious, sustained, principled effort to make the Federal government an attractive place for women

to work. In particular, Federal emphasis on part-time employment opportunities, flexible work schedules, extensive leave, and upward mobility for clerical and technical employees contributed significantly to women's progress and equal opportunity.

Similarly, the Federal government is a highly successful employer of minorities. Blacks make up 16 percent of Federal workers, excluding the postal service. This is more than 50 percent higher than their level in the national workforce. Moreover, their share of government jobs has been rising steadily. Between 1981 and 1986, the number of blacks above the rank of GS 9 rose by 28 percent, from 57,000 to 73,000. This was the result of geography and demographic circumstances (e.g., the concentration of Federal employment in areas where more blacks live) as well as of policies that actively sought to employ, train, and promote minorities.

This history may be an advantage to Federal agencies that seek to hire new workers in the labor-short 1990s. As an employer with a demonstrated record of unbiased hiring and upward mobility, and with a set of programs designed to enhance the quality of worklife for women and minorities, the Federal government may be perceived as a particularly attractive employer by these groups. Thus, the best qualified women and minorities may be predisposed to accept Federal job offers. Because the Federal government has a greater proportion of women and minorities in top jobs, new recruits are likely to see Federal employers in a more favorable light compared to private companies where advancement opportunities have been more limited.

In order to capitalize on this strength, Federal agencies should seek to maintain their leadership as exemplary employers of women and minorities. One important area of innovation, the experiments with flexible work schedules and extended leave policies, should continue to be pursued aggressively. Few employers have been able to satisfy the desires of two-earner families for more time away from work to care for children and aging family members. Organizations that are able to offer more flexible work schedules, while still cost-effectively accomplishing their missions, are more likely to have their pick of the available candidates for hard-to-fill jobs.

A second important strategy concerns child care benefits. While a minority of Federal employers will want to provide on-site care facilities, every agency should be seeking to find cost-effective ways to assist parents in providing high-quality child care. The Federal government should not allow itself to lag behind other employers in the development of programs to address this issue if it wishes to hire and keep large numbers of mothers (and fathers) during the 1990s.

It is recognized that children can be significantly helped or hurt by the quality of care they receive before they enter school. This recognition is rapidly being translated both into political pressure for government action and employer initiatives to provide for employees' needs. In seeking to establish a competitive advantage vis-a-vis other

employers, Federal agencies are likely to find child care to be a high leverage addition to their benefit offerings. Assistance may be as simple and cheap as referral services, or as expensive as care vouchers or in-building services. By the late 1990s, child care will have become a standard and widely expected employee benefit. If the Federal government can lead rather than follow this trend, (within the context of budgetary realities and fairness to all employees), its ability to recruit talented parents will certainly be enhanced. (Appendix A discusses this issue more fully.)

Finally, the federal government should consider revising its approach to the hiring of foreign nationals. Just as products, services, and financial capital move ever-more-easily across international boundaries, so also do people. Many of the fastest growing, most profitable companies in America are responding to changes in U.S. and world labor markets by hiring more non-U.S. nationals, not only for low level service jobs but also for technical and professional positions. While the use of such foreign nationals presents many complex educational, cultural and social issues, and is often politically divisive, some greater measure of flexibility in the use of such workers by the Federal government seems justified. In particular, in the health professions and engineering fields, the available workforce is sometimes dominated by non-citizens. In undertaking greater hiring of such workers, complete decentralization of authority is probably not desirable; rather a more cautious approach seems warranted, providing greater flexibility within the constraints of equity for U.S. nationals, national security concerns and other factors.

EDUCATE FOR THE FUTURE

After graduation from high school or college, most workers (and their employers) assume that there will be little need for further formal education. Historically, this belief has proven to be accurate for Federal as well as private sector employees. Relatively few workers return to school to learn new disciplines; and when faced with a need for new skills, employers have generally hired new workers just out of school or workers from other firms, rather than retraining their existing staff to fill the new vacancies. For example, when the EPA was established in the early 1970s, most of its employees were hired from outside the Federal government.

This historic pattern is likely to be unworkable for many Federal agencies by the year 2000. The disparity between the salaries, perquisites, and advancement opportunities available to workers in Federal service and those in the private sector is likely to make it increasingly difficult for Federal agencies to hire talented employees with advanced educations, particularly in such high-growth fields as medicine, engineering, and computer science. If the combination of low prestige and unequal pay that has been true in recent years persists, many other types of skilled workers may be in short supply on Fed-

eral rosters. The replacement of the immobilizing CSRS system with the portable FERS retirement program may increase the need to recruit many highly skilled workers.

The obvious solution to these emerging difficulties in hiring the most educated workers is to educate and train those who are already at work in Federal agencies. Where skills are now or prospectively will be in short supply, agencies should be given the broad latitude to invest in new schooling for current employees. Tuition assistance, educational sabbaticals, and even multi-year advanced training programs should be the norm in agencies that face skill shortages. To prevent abuses, most programs should require some cost sharing, and should require participant's commitment to continued Federal employment.

Skill upgrading programs should be concentrated in the fields and agencies where they are most needed and where they will provide the most cost-effective leverage in recruitment and retention. Medical specialties of all kinds, including nursing, electrical and other engineering specialties, accounting and legal fields all may be areas in which new educational opportunities may be effective tools. In some cases, these programs could be part of systematic efforts to provide career advancement for young workers: orderlies who become nurses, and nurses who become doctors. In others, they may simply provide basic skill training to workers who might not ordinarily be employable by Federal agencies: for example, school dropouts who might perform acceptably as clerical workers if given training in language and office skills. Again, agencies themselves should be the decision makers concerning what types of training or education should be made available, what employment commitments will be demanded in return and how costs should be shared between the government and the individual. While standards of cost-effectiveness should certainly be set, the benefits of Federal education programs should be evaluated in the broadest terms. Not only are direct impacts on hiring, recruitment and retention important, but the less measurable effects of education programs on job performance and agency morale should receive consideration.

RAISE FEDERAL SALARIES, MAKE BENEFITS MORE FLEXIBLE AND DEMAND ACCOUNTABILITY

Federal pay, benefits, and accountability are among the oldest and most contentious issues in the management of the Federal workforce. Innumerable commissions have produced reports on pay and benefit comparability, the need for stronger individual incentives, and the need to eliminate the worst rigidities in Federal personnel procedures. But the long history of these debates, and the apparent intractability of many of the issues does not detract from their central importance for the Federal government during the 1990s. The decentralization

of authority for pay levels and job classifications could help to relieve the worst problems with non-competitive Federal salaries in middle- and lower-level positions. But delegation of authority for pay levels is likely to be one of the last steps in the process of decentralization, if it is ever undertaken. And even complete deregulation of salary-setting authority would not fully address the problem of pay compression and inadequate salaries at the top levels of government.

Increasingly in private industry, employers have found that to respond to competitive conditions they must be prepared to ignore the traditional, orderly rules of executive compensation. In Silicon Valley the pay of talented young engineers often bears no relationship to their age, experience, or rank, but only to their knowledge, value to the company, and attractiveness to the competition. On Wall Street, top commercial banks have found that to hire and keep investment bankers they must drop traditional rules that limited salaries to the levels of the CEO.

Though there is probably no need for the Federal government to compete with the salaries of investment bankers, there must be much greater flexibility to pay top Federal managers salaries that approach those available in the private sector. The President's Commission on Compensation of Career Federal Executives reported that the gap between top SES executives and their private sector counterparts has reached 65 percent. Unless the lid on Federal pay is lifted, the best in government will leave after they reach the salary ceiling. This problem will grow much worse in the 1990s as the CSRS system phases out.

The rigid structure of Federal benefits is equally as important as the salary ceiling. Although Federal workers enjoy generous amounts of leave, subsidized health care coverage, and excellent retirement programs, the value of these benefits varies depending on the circumstances of individuals within the workforce. Some health care benefit plans are wasteful or duplicative for employees in households that are already covered. Some retirement or life insurance benefits are of little immediate interest to young workers. And some benefits, such as day care, are unavailable despite the desirability of services to single parents and employees in two-career households. As the Federal workforce grows more diverse, so do its employee benefit needs, and Federal policy should reflect that diversity.

Over the last five years, the most innovative and responsive private sector employers have begun moving toward so called "cafeteria" benefit plans that enable workers to trade off certain of their benefits for others. Relatively modest innovations might involve simply exchanging unused health care benefits for retirement contributions or cash payments. More complicated schemes might allow free exchange of all types of leave, retirement, health, day care, and other benefits, or even allow them to be cashed out, depending on the employees' preferences. Most plans are subject to some sort of dollar

cap that values each benefit and limits the total available to each individual.

The complex, highly standardized Federal benefit system was written into law during an era when the workforce was composed predominantly of men with non-working wives. Despite the growing diversity of the Federal workforce, most workers still receive the same "family style" menu that was appropriate in previous decades.

Within the last few years the Federal government has begun to move away from defined benefits toward more flexible plans. For example, the new FERS retirement system offers much greater individual flexibility in personal retirement planning for Federal employees. Other efforts in this direction are under consideration.

As the Federal workforce grows increasingly diverse in the 1990s, it will become essential to shift the structure of Federal benefit programs even more toward a cafeteria approach. Not only will such a system help to attract the widest range of workers by offering them benefits that they can tailor to their own needs, it will help to limit Federal costs. As workers can demand a wider range of benefits such as leave time, flexible hours, parental leave, child care, elder care, nursing home insurance, and other programs, a cafeteria system with its spending limits will enforce a self-regulated discipline on new demands. Rather than wait for these systems to be widely adopted and extended by private industry, the Federal government should take the lead in experimenting with such flexible benefit programs as yet another way to attract and retain employees.

In both political and managerial terms, the quid pro quo for better pay and benefits is accountability. Unless federal employees can be held to high, measurable standards of performance, and terminated for failure to meet those standards, neither the Congress nor the public will accept a richer pay and benefit structure for Federal workers. The protections built into the Federal civil service system that protect workers against unjust transfer, demotion, or firing have become legendary in their complexity and length. Federal personnel managers are unanimous in their agreement that the system **does** allow disciplinary actions to be taken, but that the procedures are so cumbersome and time consuming that for all but the most egregiously poor performers, a full-time Federal job is close to a tenured position. As part of efforts to reform federal pay and benefits, the system for enforcing accountability should be restructured as well, in particular to telescope the process into a more manageable time frame.

ESTABLISHING A DIRECTION

Many other policy initiatives could be implemented besides the key areas already discussed. For example, the quality of the Federal work environment is often not competitive with private industry. Compared to plush carpets and modern amenities common in industry, government offices appear drab, crowded, and uninspiring. Employees could

be given more choice in selection of equipment and office furnishings. Emphasis could be placed more on productivity rather than scheduling. Restrictions could be altered in favor of policies that reward compliance rather than punish nonconformity. The possibilities for revised policies are as varied as the managers that could implement them.

But whatever specific policies are adopted, they must be guided by two simple concepts:

First, Federal service must be competitive with employment in the private sector. This means it must be able to attract, hire, and retain employees that are not only adequate for their jobs, but who excel in them.

Second, Federal service must continue to set an example of probity, responsibility, and equality of opportunity in its personnel practices. Its current record of unbiased advancement for all qualified employees must be upheld.

In establishing competitive employment opportunities, there is no single solution or strategy. Some agencies may find that their missions are so exciting, or their work environments so attractive that they need not offer fully competitive salaries. Others may be able to tap non-traditional sources of employees to fill their needs. Still others may need to offer a combination of pay, benefits, and working conditions that rival or exceed those of the best employers in America.

In the 1990s, the effort to attract a share of the most talented Americans to Federal service will grow more challenging. Without reforms, some agencies may find that the quality of the services they can deliver will slowly erode, undermining public faith and support. For others, business as usual carries a genuine risk of failure to fulfill the basic public responsibilities they are charged with. For the Federal government collectively, the time to address these issues is now, before a slow decline or crisis has irrevocably damaged the reputation for competence, honesty and fairness that the Federal civil service still enjoys.

APPENDIX A

FEDERAL ASSISTANCE FOR CHILD CARE

INTRODUCTION

Over the past three decades a revolution has taken place in the employment patterns of American women with children. In 1960, only 19 percent of married women with children under the age of 6 worked outside the home. Today, that figure is 57 percent, and by the year 2000 it is expected to top 60 percent. In recent years, this pattern has extended rapidly to include the mothers of babies. In 1975, only a third of mothers with children under age one worked. Today, 53 percent do. By the time children enter elementary school two thirds of all mothers are working. Of women who work, 53 percent have children under the age of 18.

FEDERAL SUPPORT FOR CHILD CARE

The federal government has felt the impacts of these changes, both as an employer and as financial supporter of child care programs. Federal child care spending began in 1943, when funding was provided as a wartime emergency measure to help mothers pressed into work in wartime industries. During World War II, government funds helped establish nearly 4,000 day care centers. After the war, these centers closed when women returned—temporarily—to their homes.

Currently the Federal government contributes some \$6.9 billion to child care assistance programs, primarily through tax credits to working parents and the Head Start program.

The Federal government also has a major involvement with day care in its role as a large employer. According to the General Services Administration, there are between 200,000 and 300,000 parents with children under age five in the Federal workforce. The General Accounting Office has estimated that these Federal employees have approximately 700,000 pre-school children. If the ratio of older children to preschoolers is the same among federal workers as it is in the general population, this means that there are more than 1.7 million children of federal workers under the age of 18.

Compared to private industry, the Federal government is a leader in providing child care benefits to its employees. According to a 1987 BLS survey, 13 percent of large (> 250 employees) government offices, including Federal, state, and local governments, actually sponsor child care centers for workers' children. Only 3 percent of large private companies do so. Governments were also much more likely to offer referral services and information about child care availability; only the largest private companies matched the government in providing this benefit.

Many Federal agencies pursue policies that help the parents of these children indirectly. For example, liberal use of annual leave for family

matters allows employees to stay home with sick children or take time off for other reasons. Flextime allows many parents to arrange their work schedules to agree with those of their child care providers, or for parents themselves to share this responsibility.

Another approach adopted by some Federal agencies involves establishing a referral service that helps employees find child care that meets their specifications. The Social Security Administration has established a nationwide (800) number that provides child care referrals and counseling. The agency has found that 90 percent of employees who use this service are satisfied with it, and notes that the number of calls is increasing.

In some agencies support for child care goes further, including direct child care assistance in various forms. These include a number of child care centers in Federal buildings. Many of these centers have long waiting lists, suggesting that substantial numbers of employees at these sites are eager to participate in on-site child care programs. (One news story even reported that parents sometimes enroll their children in such centers before they are born.) The General Services Administration actively supports agencies wishing to establish on-site child care facilities with the program "GSA-Your Partner In Child Care" through the Office of Child Care and Development Programs. Under a law similar to the Federal Credit Union Act, the GSA may allot space in government buildings to child care centers without charging for rent or services. The program helps Federal agencies to design, establish, and start up such centers. In addition to providing space, the GSA will also help to determine how large a center is required and will provide advice, technical assistance, resource materials, and consultation. The center, usually run by a non-profit group organized specifically for the purpose, repays the GSA for non-space costs in monthly increments. Startup costs for a typical 50-child center require between \$150,000 and \$200,000. Tuition costs were estimated by the GAO at between \$4,000 and \$6,000 per child. (It should be noted that these centers are typically more expensive because they are developmental facilities providing top quality pre-school education by licensed practitioners.)

Many agencies have accepted GSA assistance and established day care facilities on-site. The National Institutes of Health (NIH) has three centers, two in Bethesda and one in Research Triangle Park, North Carolina. According to NIH officials, parents are enthusiastic about these services, believing that their children get superior care and that it is easier to juggle work responsibilities and the numerous small emergencies that accompany parenthood with an on-site program.

FEDERAL CHILD CARE NEEDS NOW AND IN THE YEAR 2000

The Federal government is highly diverse from agency to agency, and the needs of each agency for child care are increasingly divergent.

Agencies such as the SSA, which has a relatively older workforce and many clerical employees may have quite different populations and child care requirements compared to those of the IRS or the Veteran's Administration, where high turnover of younger employees and anticipated increases in hiring may increase child care demands in coming years.

To the extent that broad generalizations about Federal child care needs can be made, two points stand out:

- A larger proportion of the Federal workforce will be women in the year 2000 than today. Many of those who will be hired will be in their childbearing years and employed in relatively low-wage jobs. In 1987, for example, two-thirds of all the full-time permanent hires made by the Federal government were under the age of 40 and under the rank of GS 8 (Annual starting salary: \$20,739).
- On the other hand, more than half of the existing Federal workforce is older than age 41, and the largest age cohorts of Federal workers are those born between 1947 and 1952. Many of these middle-aged workers will remain with the government until after the year 2000. As a result of this "graying," the child care needs of existing workers may already have peaked.

These generalizations mask great differences in the evolving situations of different agencies. Different demographic patterns, differences in local labor markets, and different missions affect each agency's child care needs and possibilities. A small sample of agencies in the Washington D.C. and Maryland areas illustrates some of these differences:

THE SOCIAL SECURITY ADMINISTRATION

The Social Security Administration in Woodlawn, Maryland is one example of a shrinking agency. While computerization has increased efficiency, it has decreased the number of employees needed to perform SSA tasks. Thus, primarily through attrition, the SSA staff is growing smaller and older. Although 65 percent of the workforce is female, most of these women are past their peak childbearing years. Only 8 percent of the population is under 30 years old. (Nationally two thirds of all children are born to women under age 30). By far the greatest cohort is between 30 and 44 years of age (58 percent of the workers); 30 percent are between 45 and 59 years old and 4 percent are over 60. These older employees will have a relatively low needs for child care, and these needs are likely to decrease for the balance of the century as the workforce shrinks further and the average age of SSA workers climbs to a projected 44 years.

The Social Security Administration provides a telephone referral service to assist its employees in finding responsible care for their children. According to the agency, this service has proved an effective way of matching employees with caregivers.

THE NATIONAL SECURITY AGENCY

Much different conditions prevail at the National Security Agency in Fort Meade, Maryland. There, in a workforce that is 37 percent female, the median age of the women is 27. Most of these women are college graduates in their peak childbearing years. In addition, the NSA staff includes a number of single parents, a significant proportion of whom are men. Since the retirement age at NSA is 55 and the attrition rate for other reasons is relatively high, the youthful nature of its workforce will likely persist. An additional special problem faced by the NSA is that it is a 24-hour facility. Shift workers there need not only child care but "night care," including weekends.

Although there is an active child care referral service, this alone does not meet the special needs of NSA employees. According to Agency personnel officials, there is a strong perceived need for on-site or nearby child care facilities. But since the agency does not use space administered by GSA, it is not eligible for GSA assistance, and has experienced difficulties in acquiring funding to establish a facility. Although there is a military child care center on the Fort Meade grounds, it does not have enough room to handle even a fraction of the estimated 2,500 NSA children who need child care.

While the trend of future NSA employment cannot be accurately estimated, it is likely that the large numbers of young, professional women at the Agency will rise, and that the numbers of children needing care will also increase. Thus, the child care needs of the staff at the NSA are currently a major concern, are not being fully met, and are likely to grow larger over the next decade.

THE NAVAL ACADEMY

The Naval Academy, in contrast to some other agencies, has an unusually broad mix of employees. The Academy's 1,990 civilians include a range of occupations from college professors to computer professionals to blue-collar maintenance workers. A recent child care needs assessment indentified 381 pre-school children and 370 school-aged children who needed child care; while there is an on-site care facility in the Naval Academy Primary School, this is accessible to civilians only on a space-available basis, and has room for only 3 or 4 of the Academy's civilian children. There is a strong perceived need for more on-site child care, which according to personnel officials would help to draw and keep employees at the facility.

Because its demographics closely resemble those of the United States workforce as a whole, child care needs at the Naval Academy will probably remain relatively constant through the year 2000, or decline slightly as the numbers of young women of childbearing age shrinks.

NATIONAL INSTITUTES OF HEALTH

The National Institutes of Health in Bethesda currently supports two child care centers. One has a capacity of 65 children and has a waiting list, while the other is currently full to its capacity of 33.

One of the NIH centers was developed in 1973 as the result of a grass-roots effort by NIH staff and parents as a non-profit program for NIH children. This is one of the longest continually-running on-site child care centers in the Federal government; it charges fees on a sliding scale and receives some outside funding from a private foundation. The other center opened in 1987, when NIH granted permission to Childkind Incorporated to use government property for a child care center. This facility is non-government, and is operated and controlled by a parent's cooperative. There is also an after-school program for school-age children near the NIH campus that is not directly affiliated with NIH. These children are bussed to the after-school center on the public school bus system.

NIH continues to hire many young workers, including numerous visiting scientists and non-tenured employees who place demands on the child care system. More than 58 percent of the NIH permanent employees are women.

Because NIH researchers are at the center of national efforts to conquer the AIDS virus, as well as presiding over growing efforts against other diseases, the numbers of NIH personnel are almost certain to increase substantially during the 1990s. Many of these new employees will be young professional women in their early childbearing years. As a result, it can be anticipated that child care needs at the Institutes will grow substantially during the 1990s. In light of the intense competition that NIH faces for talented research professionals, better child care facilities might be of significant assistance to Institute managers seeking to recruit and retain the best employees.

THE VETERANS ADMINISTRATION

As of the end of 1987, the Veterans Administration had 18 child care centers accommodating approximately 700 children, with 9 more in the process of opening. Only a few VA offices are covered under the GSA program. At the VA medical centers, congressional funding for child care was not unavailable, so facilities there have been started in response to grass-roots organizational efforts. There is evidence that providing child care helps the VA to retain health care professionals.

For the future, although only 26 percent of the total Veterans Administration staff is under 35, 65 percent of these younger employees are females in their peak childbearing years. This means that the VA's child care needs will remain large and possibly will increase. The new centers being organized now will be required to meet future needs. Provision of adequate child care will be particularly

important if this benefit is found to affect the job performance and longevity in service of qualified health care staff, particularly nurses.

FUTURE FEDERAL CHILD CARE POLICIES

How should federal child care policies evolve in the years ahead? Three questions will be most important:

- How much on-site care should the Federal government try to provide?

Clearly, it would be prohibitively expensive for the Federal government to provide on-site care for all children of Federal employees. At present there are 12 GSA centers, with space for fewer than 1,000 children. If a third of the estimated numbers of children of federal employees under age 5 (eg., approximately 230,000 children) were provided on-site care at an average cost of \$4,500 per child per year, the annual cost would exceed \$1 billion.

Moreover, if these costs are partly paid for with Federal funds rather than with parents' tuition, there are fundamental issues of fairness raised by such an expensive benefit. Obviously not all employees, or even all parents can, or want to, take advantage of on-site care. On-site child care is only of benefit to employees with children under five, who choose that particular option. Others, with children in school requiring after school supervision, or those needing other types of care would receive no benefit from expensive on-site facilities.

Still, on-site care seems to be enormously popular with Federal employees where it has been tried. Every worksite child care center discussed in this report is running at full capacity, some with lengthy waiting lists. The NIH pre-school development program, for example, accommodates only 65 children, with 30 more waiting to get in. Parents like having the centers near to their workplace, since it allows them to share time with their children on the way to work, and during lunch hours, and also allows them to be accessible in an emergency. It also allows parents to reassure themselves as to the quality and competence of the care being provided, and to monitor their children to a greater degree during the day. In some cases, Federal personnel managers report that the availability of on-site care is such an attractive benefit that it provides a strong disincentive to change jobs.

One approach to this difficult issue is to continue to encourage the development of privately operated and funded child care centers, organized and supervised by parents and care providers: a grass-roots approach. Federal agencies already encourage grass-roots formation of child care centers; they should continue to encourage individual agencies to assess their child care needs, and provide assistance to child care groups at all Federal sites, not just those covered by the GSA.

Start-up costs for a child care center include not only providing space and equipment that meets legal safety standards, but also insurance, which can be prohibitively expensive. In addition,

programs that emphasize child development (which seem to be preferred at many Federal facilities) require the use of more highly trained, higher-paid staff, further increasing costs. Federal policies could address these cost problems by encouraging reasonably-priced insurance, and by providing structures so that centers could offer child care on a sliding scale (such as the policy pursued at one of the NIH centers). Some financial contribution toward establishing and maintaining centers would help to ensure that all Federal employees could afford to use them.

- What other child care assistance options might be offered?

There are, of course, many ways for Federal agencies to assist employees with their child care needs, without initiating an on-site center. Many agencies offer a child care clearinghouse, which offers parents information about local child care options. In some cases this is in addition to on-site care; in others it is the only assistance available to employees.

Several Federal agencies now provide referral services for employees, with listings of private child care centers and providers that are updated frequently. In addition, a referral service leaves the responsibility of locating suitable child care on the parents, who can call and visit all possible sources of care before choosing one. Consequently, employee enthusiasm for such referral services is high, and this option provides assistance to those employees who need it at a reasonable cost. Such referral services could also provide other information, such as senior care facilities, if employee interest warrants it.

After school programs may also be worth implementing in some cases. Older children are in school for most of the day, and then require supervision between the end of the school day and the time the parent gets home. For some two-career couples, flexible scheduling and part-time work allow one parent to take care of the before school care, while the other comes home early after school. But single parents still require some sort of after school assistance. One example of after-school care is provided by NIH; children are bussed by the school system to a private, independent after-school center near the NIH campus.

A system of vouchers would enable an employer to offer child care benefits without setting up an on-site center, and would distribute the benefit more equitably among employees with children of all ages. It would be relatively simple to implement, and inexpensive relative to the start-up costs for an on-site center. While such approaches may be justifiable in some cases, they would obviously be expensive, and would raise similar issues of equity as are present with on-site facilities, since not all Federal employees have children. Where such programs are considered, they should probably be undertaken in the context of the implementation of cafeteria benefit programs. Employees desiring expensive subsidies for child care would be asked to offset

these benefit costs with reductions in other federal benefits, for example, with reduced retirement contributions.

- What principles should guide Federal child care policy?

In light of the importance that many employees attach to child care benefits, and the evidence that child care can help some agencies to recruit and retain talented workers, what general guidelines should be established for Federal child care policies?

First, no single solution should be applied to all agencies.

Child care needs in the Federal workforce vary greatly from agency to agency and from site to site. Some sites have youthful workers with numerous small children; others are staffed by middle-aged workers concerned more over college tuition costs than child care costs. Thus, although some sites find a strong need for on-site care of employees' children, others will have little or no call for such care. Application of a blanket policy to all Federal sites is clearly inappropriate.

Providing an employee hotline to answer child care questions remains the fairest, most broadly applicable solution to Federal workers' child care problems. While grass-roots establishment of child care centers should be encouraged, the need for such centers varies too widely to warrant a Government-wide initiative to establish them.

Second, child care policies should not lose sight of equity considerations or budgetary realities.

The Federal government will continue to respond to the desires of its employees and their personnel managers for more assistance in finding and paying for high quality child care. But in undertaking new initiatives to support child care, it will be important not to overlook broad benefit policy considerations. Child care benefits are of no value to the majority of Federal employees. If some are to receive significant subsidies, while others do not, either parents with young children should be asked to trade-off other benefits (eg., under cafeteria plan ceilings) or there should be explicit recognition that the Federal government as an employer wishes to help parents of young children more than other employees.

Equally importantly, child care benefits are one form of compensation among others, and they should be held to the same standards of budgetary soundness as salaries, retirement benefits and health care subsidies. In some cases, child care may be a cost-effective way of recruiting, compensating and retaining good employees. In other circumstances, this benefit may be of little value in furthering agency personnel goals. Agencies themselves are likely to be the best judges of the value of child care assistance programs, taking into consideration their varying demographic, occupational and labor market circumstances.

Civil Service 2000 Press Conference

Date: September 27, 1988

Participants: Rob McCord, Exec Dir of Congr Clearinghouse of the Future; Constance Horner, Director, OPM; Congressmen Steny Hoyer, (D-MD) and Thomas J. Tauke (R-Iowa); Senator Barbara Mikulski (D-MD); and William Johnston, Hudson Inst.

Barbara Mikulski

Report gives an analysis and navigational chart for what federal workforce needs will be. Wasn't just what employees or Congress wanted, but is what an independent group thinks. She had them look at Naval Academy, NIH and in Maryland; thinks these represent range of federal civilian workforces. Focus on day care policy -- now ad hoc. GSA prime mover in this area.

Constance Horner

"We should all be concerned about the future because we have to spend the rest of our lives there." Charles Kettering

"Pursue those things in the present and leave the future to divine providence." Francis Bacon.

OPM doesn't want to leave to providence; wants to approach systematically. Must be changes in personnel policy -- general agreement on drift. Simplify, deregulate and decentralize. Federal government not a monolith.

Need to give agencies and managers authority to solve problems peculiar to them, their mission and their place. i.e. day care and night care. Don't want a legislative mandate with a single approach to dependent care. Need advice from a central point, perhaps resources and support.

One area where she differs from report, at least in emphasis. True that the federal workforce differs around the country, but all do one thing -- serve the public. Brings special character and responsibility. Different missions, but all one in carrying out the democratically expressed will of the American people. Operate differently, but unity of purpose and philosophy.

(During good-natured ribbing from Sen Mikulski, said she would have asked for study even if Congress hadn't put in the OPM appropriation.)

Steny Hoyer

Has some agreement with the report in many areas, doesn't think it goes as far as it should in other areas, but believes it's a useful, needed document. Referred to Paul Volcker and Natl Commission on the Public Service, and the article in today's Federal Page.

Tribute to Horner that she reduced the level of confrontation and increased the level of discussion on the substance of ways and means to improve the status of the federal workforce. Gives opportunity to discuss. (Devine was the best press agent Hoyer ever had.)

p. 29 of report. Crisis of competence. This is what the next president faces. Shrinking workforce, and federal government in a position to compete poorly in terms of pay and benefits become less attractive to the private sector.

As problems are more complex and U.S. problems become more interrelated with those of other countries, it's important to bring to Congress' and president's and public's attention. Report contradicts news reports that public workers are "on the dole." "Every person [political appointee] I've asked to compare private and public sector employees have said that the public sector workforce measures up -- they are talented and motivated."

Hudson says may be rapidly losing ground as the workforce ages, FERS gives workforce portability, and the federal government becomes less competitive vis a vis pay and benefits with the private sector.

Both candidates for president need to read this report. So that when one of them assumes head of federal government he doesn't do as the last two incumbents did and let the American public believe they didn't have competent, effective and valuable employees in the public service. Reagan's theme of bloated bureaucracy led him to propose that federal pay be reduced. This didn't happen, but he did succeed in a pay freeze for one. The private sector didn't have one, so that set pay even further behind. (Quoted report stats)

There's no free lunch. To avoid a crisis of competence the government must pay salaries commensurate with the talent it wants to hire. Also, do this in the context of federal workers being held to private sector performance standards. That's the thrust of the report.

Tom Tauke (R-Iowa, 2nd)

Government is a concerned partner with federal employees. Question no one is asking is how will OPM find the funds for the things cited in the report. This needs to be faced honestly.

People ask why he, as a member of Congress from a farm constituency, is concerned with the federal workforce. He only has 3,000 federal employees in his district. Because every day, his constituents depend on the performance of federal employees. The call the Agric Soil Conserv. Service with questions about corn blight (?) because of the drought. SCS people are working 16 and 17 hours a day some days to learn all their new responsibilities associated with the new drought legislation. They are dedicated in their jobs. But the federal government needs to rely on more than their dedication. The federal government needs to meet the challenge of this report. [Civil Service 2000]. This will lead to actions to continue/enhance the federal workforce as a vital, productive one.

Bill Johnston, Hudson Institute

Need to focus on the diversity of the workforce in terms of talents needed and location. Labor markets vary by geography. In some areas, the federal jobs are the jobs of choice. Not so in other areas, with more private sector competition.

[Gave a slide show highlighting key points of report. Not all referred to here.]

Five Demographics Reshaping the Federal Workforce

- Birth dearth
- Middle aging
- Feminization of work
- Shift to the south and west
- Changing complexion of new workers

Median age of federal workforce is roughly 42. Rest of the workforce is 35 or 36. The federal workforce will age more in the coming years. Used to be a modal distribution -- lots of new entrants and the post-WWII folks getting ready to retire. Now one group. Will stabilize and age. Younger workforce can be more willing to change.

The low self esteem of current workers and the fact that [bureaucrat bashing] has been intense and will thus keep talent away -- will not change overnight, despite best efforts of some now. Will require long-term efforts.

Other disincentives. "Needless aggravations" of management systems. The way people are managed is not up to some of the standards in the private sector -- no participatory management, lots of ways private sector treats their people well. In federal service, you have to wonder if your phone calls are monitored to see if you're using phones inappropriately. Insulting.

FERS -- those with the least reason to stay may be those you most want to keep. FERS will release golden handcuffs.

Messages: 1) Decentralize authority and responsibility for operations and hiring. If you have personnel policies that blanket all agencies, will miss some problems. Need more flexibility in an array of things. Why have a 171? No reason to have to force all job seekers into a regimented format with no relation to most jobs.

Easier to sell organizational concepts, such as the Park Service, State Department than general concept of "come be a federal civil servant." The agencies that are out there recruiting this way are the ones that are really selling themselves. For example, the Army says "be all that you can be" -- they have changed the perception young people have about the service in general and the Army specifically. Now chosen over Navy and Air Force. True, requires good advertising budget. Give the agencies the flexibility and the funds to sell themselves. Let them hire their own kinds of people.

2) Emphasize hiring and training and promotion possibilities for women and minorities. Federal government is well perceived among these groups. Private sector hasn't been (hasn't earned it) and will have to work harder to convince women and minorities to work for them. Federal government should capitalize on its reputation. Need to build on good reputation. Show people have opportunities. To keep the federal govt at the leading edge for these and all potential recruits, need to match the benefits offered with what the new workforce needs.

3) Federal govt must substantially increase internal and external training. Technology is changing. To retain the workforce is to offer to retrain it. Need to invest more in people -- new hires and on board. At the entry level, will hire more people with inadequate skills for low level jobs. Need to turn poor school performers into productive workers. Also, high skill folks (scientists, engineers, computer specialists) are those whose skills are most transferable to the private sector. Need to make talent from among current workforce because feds may not be as able to afford to buy it. Can't just contract it all out!! Plus, need to have federal staff who are at least as skilled as the contractors they monitor.

4) Need to upgrade federal pay and make benefits packages more flexible and at the same time demand performance. Private sector have gone to more cafeteria style benefits. True that existing legislation is makes it complicated for feds to move in this direction. Plus, some other moves have not been as successful as they would have liked (Fedl Health Benefits Prog). However, it is most cost effective to offer an array of benefits. Can't just add on more benefits, the same for everyone. With flexible benefits, can provide the things that are the most valuable to individual employees at a cost that is more affordable to the federal government.

Questions and Answers

AFGE rep: Unions consulted?

Johnston: No one outside federal circles consulted.

Judy Havener, Post: In advocating flexibility, does Johnston believe this can lead to things such as no pay caps?

Johnston: Not political. However, his choice would be to err on the side of as much flexibility as politically feasible. Can't see a reason for Washington to set pay rates. Let people doing the hiring on site set them -- they know what they need to pay to get good people. Point is a difference in assumption. Today, it's flexibility by exception. His point is flexibility should be the basic assumption.

Am Vets rep: Disable people are minorities, too. Role for them in federal hiring?

Johnston: Employers are hungry for talent, and a lot rests in disable people. Especially as it gets harder to hire in the federal government, people will look for new sources and will more likely better recognize the talents of people who are disable.

McCord: Where will the money come from to do all of this?

Johnston: Give people a mission and flexibility in how they manage their budgets and they can still manage to budgets. But it's flexibility in hiring that makes for efficiency. A proven array of benefits and managing to budget instead of ceiling can keep costs low while still providing better training, letting managers pay what they need to where they need it. Flexible systems permit trade-offs. That's the key.

Horner: Bingman bill important. Can do what they're talking about here in a way that provides better public services and is cost effective. Upgrade quality of federal staff (give more training) and then demand more of them. In summary, need the political nerve to do something about quality in tandem with decreasing overly constrained management practices.



FACTS & TRENDS

THE FUTURE OF THE FEDERAL WORKFORCE: CIVIL SERVICE 2000

This FACTS AND TRENDS brief summarizes forecasts and gives quantitative evidence of emerging trends as reported in CIVIL SERVICE 2000, a study sponsored by the Office of Personnel Management (OPM) and conducted by the Hudson Institute.

FORECASTS

The National workforce will grow more slowly than it has in recent years.

The National labor force will expand by only 1 percent annually during the 1990s down from the 2.9 percent annual growth rate of the 1970s. This forecast is predicated on an assumed 3 percent general GNP growth rate.

Federal white-collar employment will grow during the 1990s.

Nationally, 25 percent of all U.S. workers hold professional, technical, and management-related positions, while Federal workers in these categories represent a whopping 48 percent of the total workforce. Around 80 percent of all Federal civilian employees outside of the Postal Service now hold white-collar jobs.

In the white-collar areas, 17 out of 22 occupational groups will be adding workers, while the blue-collar arena is projected to lose 16 out of 23 jobs. By the year 2000, there will be 157,000 new jobs in the white-collar group, while blue-collar jobs will shrink by 107,000.

More women and minorities will enter the Federal workforce.

Non-whites, women, and immigrants will make up more than 80 percent of the net additions to the workforce between now and the year 2000.

About two thirds of new entrants are expected to be women. Currently women make up about 40 percent of all full-time Federal workers.

Between 1986 and the year 2000, 17 percent of the growth in the Federal sector will be made up of Blacks. Hispanics will compose 29 percent of the total worker increase.

The average age of the general U.S. workforce is expected to climb from 36 to 39 by the year 2000. The Federal workforce, which is already older than the rest of the labor force, is also likely to age further by the year 2000, and its median age will be higher than that of the workforce as a whole. A majority of the workers who will staff the Federal government in the year 2000 are already there.

The numbers of young workers will decline.

The number of workers aged 16-24 is projected to drop by almost 2 million or 8 percent.

Language and math skills required for Federal jobs will rise by the year 2000.

Overall, 64,000 new jobs will be added in occupations requiring high-level math (algebra, statistics, trigonometry) while 47,000 jobs requiring low-level math will disappear.

Among Federal workers, high level skills are required by some 16 percent of all jobs, more than three times the national rate. More Federal jobs are filled by college graduates than by non-college graduates.

Impacts

As the average age of Federal employees increases, some Federal agencies are likely to experience severe graying during the 1990s.

If current retirement patterns continue, the extraordinary number of early "baby boomers" who now work for the government will still be employed by the civil service in the year 2000. The Federal agencies are likely to experience severe graying during the 1990s, especially those agencies whose employment totals have been shrinking in recent years. (e.g. Agriculture, HHS, and TVA).

Federal occupational trends suggest that the greatest problems of displacement faced by Federal employees will occur among blue collar and clerical workers.

Blue collar jobs make up 19 percent of Federal workers, as compared to 28 percent for all U.S. workers

in blue collar jobs. And many of these jobs are not actually being eliminated but are simply being shifted to the private sector. This shift suggests that the displacement problems for blue collar workers will not be severe, except in isolated circumstances.

The increasing number of older workers in the Federal workforce is expected to create both problems and opportunities.

On the one hand, with the aging of the workforce, will come more experience, stability and reliability. On the other hand, older workers are viewed as possessing a lower level of adaptability, being unresponsive to change and less likely to be geographically mobile. A greater number of middle-aged, mid-rank officials could reduce opportunities for younger managers and make retention of talented, younger workers difficult.

Opportunities for minorities may prove limited or uneven.

The geographic concentration of minorities and immigrants will be uneven: labor markets in the Southwest will be dominated by Hispanics, and labor markets in the urban North will be dominated by Blacks. Although Hispanics and Blacks will make up a larger share of a slowly growing workforce, many are unprepared educationally for the civil service higher skilled jobs and are concentrated in declining inner cities and in slow-growing occupations.

The Civil Service's ability to attract highly-skilled workers will be challenged by more intense competition in the 1990s.

Since the "overriding requirement" for the Federal government over the next 12 years will be to add more highly skilled workers, it is anticipated that competition between public and private employers for skilled employees will increase. Many of the scarce skills will need to be developed through retraining of existing employees in individual agencies rather than brought from outside the government.

Congressional Clearinghouse on the Future
555 House Annex 2 Washington, DC 20515 (202) 226-3434

Washington Post JAN 24 1988 0-7
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Crisis of Competence' Forecast for Civil Service

By Judith Havemann
Washington Post Staff Writer

The federal government is losing its ability to employ employees qualified to perform increasingly complicated and technical work because of low pay, declining prestige and needless frustrations, the administration told Congress yesterday.

The federal government faces a slowly growing crisis of competence," according to an annual prognosis prepared for the Office of Personnel Management on the state of the civil service in the year 2000.

Government salaries lag 24 percent on average behind those in business, and in high-wage jobs and in high-ranking jobs, the gap is wider, according to the report, "Civil Service 2000,"

prepared by the Hudson Institute, a conservative think tank.

The public's esteem for the civil service has plummeted, the report said. The government has been left with "what some have suggested, only half jokingly, is the best of the desperate."

Outdated management practices and needless

Projections of federal work force changes. Page A17

aggravations compound the inherent frustrations and constraints of large bureaucracies, the report said. Federal offices are often seedy. Federal telephones are monitored for personal calls. Periodically, "nonessential" federal workers are sent home to await the resolution of a budget impasse and reopening of the government.

Blue-collar and low-skilled jobs in the federal government are disappearing while the need for highly skilled and technically trained workers is soaring.

"The competition for well-qualified workers will become more intense during the 1990s," the report said. This is because the labor force, which exploded by nearly 3 percent a year in the 1970s, will grow only one percent annually in the 1990s.

More of the new jobs will require high levels of education and skill at a time when these qualities will be more scarce. Nonwhites, women and immigrants will make up more than five-sixths of the additions to the work force between 1990 and 2000, according to the Hudson Institute.

See CIVIL SERVICE, A12, Col. 1

Hiring Woes Predicted for Civil Service

Civil Service, From A1

"We cannot meet the challenge of work force shortages with the over-centralized, overregulated, cumbersome, inflexible personnel procedures now in place," OPM Director Constance Hornor said at a news conference yesterday.

"There is no free lunch," said Rep. Steny Hoyer (D-Md.), "if we want to hold federal workers to the standards of the private-sector workforce. The American public, he said, needs to face the need to pay competitive salaries.

The report provides "an accurate picture of federal service," said Sen. Barbara A. Mikulski (D-Md.), whose request that OPM conduct the study was part of the omnibus spending bill for this fiscal year.

OPM commissioned the Hudson Institute, headed by former Reagan White House political director Mitchell E. Daniels, to look at the civil service at the century's turn. The report's principal author was William B. Johnston, who was associate director of the domestic policy staff in the Carter White House.

Hornor said the report should "stimulate the sort of thought and conversation we will need to build support for significant changes in our personnel policy," but she proposed no immediate initiatives.

The report paints a picture of a federal work force about the same size in the year 2000, but with significant shifts away from defense and toward domestic agencies. The Veterans Administration might grow because of the aging population of military veterans, and the Treasury and Justice Department payrolls will likely increase in line with the increasing financial complexity and litigiousness of American society.

Although federal figures show a slight decline in the share of federal workers assigned to Washington over the past decade, the Hudson Institute predicts a trend toward a greater concentration of federal workers here by 2000.

Johnston said that trend is clear now—but is masked by federal counts that exclude the Central Intelligence Agency and the National Security Agency, which are believed to have grown dramatically in recent years.

Nationally, only one-quarter of all jobs are professional, technical or managerial. In the federal government, however, the figure is twice as high and expected to grow. Johnston predicts a 17 percent increase in engineers, a 15 percent increase in lawyers and a 10 percent increase in management-related fed-

eral workers during the next 12 years.

The share of government jobs requiring advanced language skills—such as reading scientific journals, financial reports and legal briefs, and writing manuals and critiques—is three times that of the nation as a whole. About 64,000 federal jobs will be added by the beginning of the century that will require use of statistics, algebra and trigonometry.

The average age of the work force will rise, the "feminization of work" will continue, minorities will be a larger share of new entrants into the labor pool, and immigrants will represent the largest share of the increase in the population and the work force since World War I, according to the report.

Federal workers are five years older on the average than other workers, and this trend will intensify.

The institute called for a decentralization of responsibility for operations and hiring, continued emphasis on the hiring and training of women and minorities, an increase in "in-service" training, federal pay upgrades and flexible benefit packages.

"Set high standards," the report urged, "and fire those who do not measure up."

THE CHANGING FEDERAL WORK FORCE

PROJECTIONS FROM 'CIVIL SERVICE 2000'

**THERE ARE MORE PROFESSIONALS
AND MANAGEMENT-RELATED WORKERS . . .**

PERCENTAGE SHARE OF FEDERAL EMPLOYMENT

	1986	2000
Management-Related Occupations	14.1%	15.2%
Engineers, Architects, Surveyors	5.2	6.0
Natural and Computer Scientists	5.2	5.4
Social Scientists	0.8	0.8
Social, Recreational, Religious Workers	0.4	0.4
Lawyers and Judges	0.9	1.0
Teachers, Librarians, Counselors	1.1	1.1
Health Treatment Occupations	4.1	4.2
Writers, Artists, Entertainers	0.7	0.7
Technicians	8.9	10.0
Other Professionals and Paraprofessionals	6.9	7.0
Marketing and Sales Occupations	0.5	0.5
Administrative Support Occupations	25.1	21.4
Service Occupations	6.2	6.3
Agriculture, Forestry and Fishing	1.1	1.1
Blue-Collar Workers Supervisors	1.9	2.0
Construction Trades	2.2	2.3
Extractive and Related Workers	0.0	0.0
Mechanics, Installers and Repairers	6.2	6.6
Precision Production Occupations	2.0	2.0
Machine Setters, Operators and Tenders	0.8	0.8
Working Occupations and Assemblers	0.7	0.7
Plant and System Occupations	0.4	0.5
Material Moving and Vehicle Operators	1.6	1.6
Helpers and Laborers	3.1	2.9

. . . THERE ARE MORE WOMEN EMPLOYEES . . .

PERCENTAGE OF WOMEN IN FEDERAL WORK FORCE

1976	1986	2000
33.9%	39.8%	44.7%

**. . . AND WHITE COLLAR
EMPLOYMENT WILL KEEP GROWING**

NUMBERS IN THOUSANDS

	1985	2000	INCREASE
Miscellaneous Occupations	54.6	68.1	24.8%
Social Science	57.0	75.7	32.8
Personnel Management	50.4	60.2	19.4
Administrative and Clerical	450.3	416.3	-7.5
Biological Sciences	54.8	73.0	33.2
Accounting and Budget	132.7	142.2	7.1
Medical and Other Health	141.7	191.0	34.8
Veterinary Medical Science	2.7	3.5	29.6
Engineering and Architecture	167.0	186.6	11.8
Legal and Kindred	74.7	102.1	36.8
Information and Arts	21.7	22.5	3.8
Business and Industry	95.3	118.3	24.2
Copyright, Patent, Trademark	2.0	2.3	14.7
Physical Sciences	44.4	45.1	1.6
Library and Archives	10.1	11.7	16.3
Mathematics and Statistics	15.4	15.1	-1.5
Equipment, Facilities, Services	17.7	16.6	-6.2
Education	30.3	30.5	0.6
Investigation	56.4	70.2	24.4
Quality Assurance and Inspection	19.5	16.4	-15.8
Supply	60.5	48.0	-20.7
Transportation	41.3	41.4	0.1
All White-Collar	1,600.6	1,757.2	9.8%
All Blue-Collar	423.1	316.2	-25.3%
TOTAL	2,023.7	2,083.4	3.0%

SOURCE: "Civil Service 2000," The Hudson Institute

*Excludes Postal Service.

WEDNESDAY, SEPTEMBER 28, 1988 A17

Image will be same in 2000, study says

By Dan Vukelich
THE WASHINGTON TIMES

The federal work force 12 years from now will be older, have more women and minorities and suffer from the same miserable image it labors under now, according to a federal report released yesterday.

"Despite efforts to turn it around, despite the efforts of people to say it is an honorable profession, it is not going to be held in very high regard," said William B. Johnston, author of the report "Civil Service 2000," commissioned by the Office of Personnel Management.

"There will be no change in the short term," Mr. Johnston said.

As the growth in the overall labor market slows to a trickle, dropping from 3-percent annual growth in the 1960s and 1970s to a 1-percent growth rate by 2000, the federal government will be hard pressed to remain competitive in recruiting top prospects, particularly in technical fields.

Rep. Steny Hoyer, Maryland Democrat, called the looming problem "a crisis of competence," in which talented employees will flee the petty aggravations, low pay and poor benefits of the federal government.

Computer programmers, auditors and other professionals with portable skills will walk out the door unless government offers them post-hiring training and cuts down on "outdated management and needless aggravations," the report said.

Prepared by the Hudson Institute, it called for more flexibility for personnel officers across government, including decentralized pay and hir-

ing authority. The National Aeronautics and Space Administration should be able to lure engineers with the message of space, not "with the concept of 'become a federal civil servant,'" Mr. Johnston said.

"Why do we have a Form 171, when every employer in the country gets by with letters of recommendation and resumes?" he asked.

John N. Sturdivant, president of the American Federation of Government Employees, said a decentral-

"Why do we have a Form 171, when every employer in the country gets by with letters of recommendation and resumes?"

— William B. Johnston

ized pay system is workable, provided collective bargaining is used to prevent a "crazy quilt" of solutions to the Civil Service's pay problems.

Foremost of the concerns raised by the Hudson Institute report is a picture of an aging, mostly middle-aged work force whose members will be unwilling to change with the times.

In 1976, there were two large employee groups: 26-year-olds not long in government service and 55-year-olds waiting for retirement. By 1986, the 55-year-olds had retired, leaving

the single largest group in the 35 through 37 age range.

In 12 years, however, this group will be 47 through 49. At that age, they can be expected to be resistant to change, possess less flexibility and will be less likely to relocate or learn new skills, Mr. Johnston said.

OPM Director Constance Horner said the trend toward a more rigid, inflexible bureaucracy has already started. "The people who are interested in change are changing out of government," she said.

Agencies that can expect a distinctive "graying" of their work forces will be the Agriculture Department, Health and Human Services and the Tennessee Valley Authority and others which have shrunk in recent years.

Women, now underrepresented in Civil Service, will swell the ranks, and together with minorities, will constitute 80 percent of net additions. White males, now comprising 50 percent of new entries, will drop to only 15 percent of new hires in 2000, Mr. Johnston said.

Between now and 2000, 17 percent of the growth of the federal work force will be made up of blacks. Hispanics will compose 29 percent of the total work force.

Sen. Barbara Mikulski, Maryland Democrat, who had asked for such a study shortly after her election, said the study contains no real surprises, but confirms the direction the work force appears to be taking and provides planners with a solid data base.

She said she was disappointed in the report in that it didn't give "navigational direction" on how to address day care needs for female federal workers, for which there is no one-easy answer.

At the Social Security Administration's Baltimore headquarters, where 65 percent of the workers are older women, the problem becomes apparent. "Just because they stop having babies doesn't mean they stop rearing babies," she said.

Washington Times

SEPTEMBER 28, 1988 / PAGE B5

FEDERAL ROUNDUP

Hoyer misses bouts with former OPM chief

Rep. Steny Hoyer, Maryland Democrat, says that while he enjoys the less confrontational approach of Office of Personnel Management Director Constance Horner, he does occasionally miss his old nemesis, Don Devine.

"I enjoyed my confrontations with Mr. Devine; we became very good friends," Mr. Hoyer told a gathering at the Rayburn House Office Building yesterday.

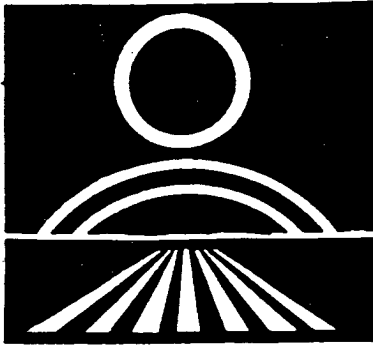
"He became one of the best press secretaries I could have had. Machiavelli would have said that if I didn't have a Don Devine I would have had to create a Don Devine."

Mr. Devine, Mrs. Horner's predecessor at OPM, is a fellow at the Heritage Foundation.

In discussing the future of the federal work force, Mr. Hoyer said he was distressed by a recent anecdote told by National Commission on Public Service Chairman, Paul Volcker.

Mr. Volcker said that a 34-year-old accountant in the private sector recently was hired on at more than

Mr. Volcker made as chairman of the Federal Reserve Board, Mr. Hoyer said.



FUTURE TRENDS

A Report From HRMS/RM Environmental Scanning

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(IRS)

Date: MAY 1988

Issue Number: OP #

Attached is a first product from HRMS/RM Environmental Scanning.

The importance of environmental scanning to our future mission was recognized when it was adopted as an HRMS/RM Tactical Objective (2.1.1), to which a Tactical Plan has since been addressed.

Environmental scanning surveys emerging trends and developments in the world outside the Service. It seeks to identify such trends in their earliest stages, to monitor their progress, to think through their implications for HRMS/RM programs in the future, and to assess their significance, impact, and probability. The main objective of environmental scanning is to support strategic planning by HRMS and RM executives by providing solid assumptions about the future world outside the Service. Additionally, it aims at fostering innovative thinking and planning at the working level of our National Office and Field organizations.

This first product is an "occasional paper," dealing with certain human resources trends -- specifically, labor market trends. There is no schedule nor fixed set of topics for producing papers like this; they will be produced when the opportunity and the accumulation of sufficient data permit. Generally, occasional papers will be distributed to all functions in the Service, since they will deal with long-range issues of common concern to all those who manage the Service's resources. This is in contrast with what we hope will be a monthly publication of brief, "bullet"-style reports and updates which will begin once our network of volunteers has been trained. This monthly summary will focus on trends of direct interest to those who manage HRMS/RM programs; it will be sent to all HRMS and RM executives, to RM Division Chiefs, and to HRMS managers. Finally, we intend to produce a comprehensive report once a year, in preparation for the annual strategic planning session of HRMS/RM executives.

Please share this and future reports from HRMS/RM Environmental Scanning with those in your organization who need to keep abreast of trends and developments in resources management.

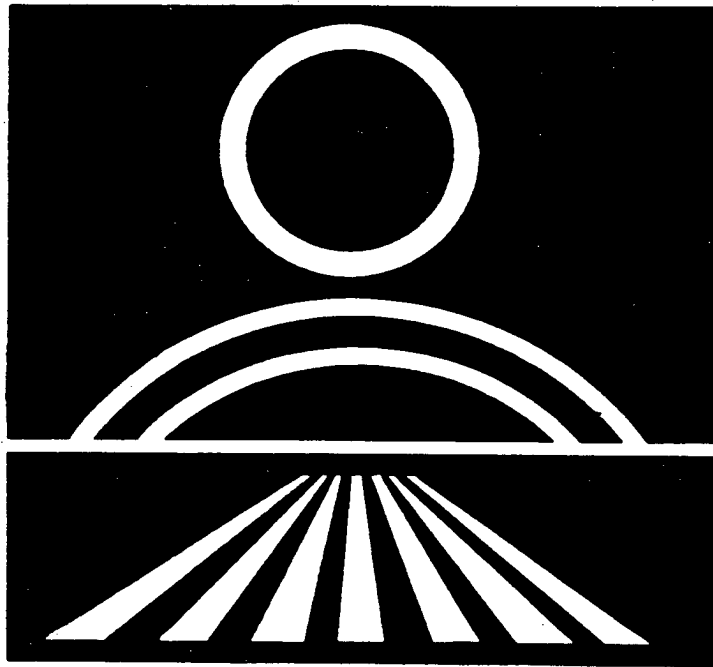
Your comments on the attached paper are most welcome. They may be addressed to Larz Pearson, Environmental Scanning Coordinator, National Office, HR:H:R:S, Room 145 JSB (FTS 376-0120).

To: Chief Counsel, Regional Commissioners, Assistants to the Commissioner, Assistant Commissioners, A/C (HRMS) Division Directors, Assistant Regional Commissioners (Resources Management), RM Division Chiefs, A/C (HRMS) Managers.

BP19-20

Bring in those not 'pre-qualified' and having fees supply education.

Human Resources Trends for the 90's: A Convergence of Challenges



Environmental Scanning Occasional Paper #1

Larz Pearson
National Office Human Resources Division
Office of Research, Planning, and Development
HR:H:R:S

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[All projections, statements, and recommendations contained herein are merely the author's own and do not represent Service policy nor that of the Assistant Commissioner (Human Resources Management and Support).]

INTRODUCTION

Through the end of the century, the Internal Revenue Service, in particular, and the Federal government as a whole will face a number of challenges in recruiting and retaining a quality workforce.

Many of these challenges have already been well rehearsed. Federal-sector compensation packages are inflexible and not fully competitive. Performance and real talent are not perceived as being rewarded either expeditiously or equitably. Beginning with civilian agencies in the early '80's and in DoD at the end of the decade, Federal workers' confidence in the security of their jobs has been eroded. Since George Wallace first introduced it in 1969, twenty years of anti-Washington, anti-bureaucrat rhetoric have taken their toll and compromised the attraction and prestige that once attached to public service. Work in the Federal sector -- whether at the managerial or professional level -- can seem the very antithesis of a social economy that extols entrepreneurial initiative, innovation, flexibility, abbreviated production cycles, and the value of being market-driven and customer-oriented. And looming over all the problems and darkening all potential solutions is the spectre of intractable Federal budget deficits -- which Federal workers believe will be balanced out of their hides.

This paper does not seek to argue that these have been mistakenly identified as the principal challenges to the IRS and the Federal government in seeking to remain a competitive employer through the end of the century. If compensation, performance, job security, public image, management, and Federal deficits do not exhaust the list of future challenges, they certainly are singularly salient examples of them. Rather, its aim is at once more modest and more ambitious.

In the first place, it tries to suggest that there are trends already underway -- some of them largely irreversible -- which will elevate these challenges to an out-and-out crisis.

Secondly, although there is still time to fashion an array of effective responses to the coming crisis, "business-as-usual" will not get us there in time. Having effective solutions in place will require a "crash effort" -- by the Service in consort with other Executive Branch agencies, by OMB and OPM, and by Congress, all collaborating in unwonted comity of purpose.

Thirdly, it seeks to illustrate the complexity of the emerging situation, the way in which challenges from different quarters

will "converge," and argues that only an approach that is comprehensive and systemic will meet it -- not, for example, an ever-enlarging patchwork of special salary rates from the fringes of one metropolitan area to the fringes of the next. Such solutions have the superficial allure of all quick fixes. Typically, however, they are responses only to the status quo -- and usually to yesterday's status quo. Are poor economies and higher unemployment in oil-producing areas today proof against tomorrow?

Finally, the paper tries to suggest that in each range of potential solutions there are genuine options for decision makers. And to each option there will be both advantages and disadvantages which must be weighed carefully.

[Unless otherwise noted, quantitative data are either derived from or based upon data and projections issued by the U.S. Department of Labor and especially, its Bureau of Labor Statistics.]

THE SUPPLY SIDE PICTURE

The "supply side picture" is merely another way of asking the question "Who will be the Federal or IRS employee of the future?" That question can itself be construed in two ways. In the first sense, it is a matter of simple numbers. It is a question of quantity, of how many potential employees there are likely to be. Secondly, it can also be understood as a question about quality -- about the kind of education, talents, and skills which we can expect from the people who are likely to walk through the doors of our employment offices.

I. The Question of Quantity

Answers to this question enjoy a high degree of probability because of the nature of the evidence which underlies them. The evidence here is demographic and reflects what has already occurred (viz., live births since 1970). While some vast natural catastrophe is always possible, these trends are unlikely to be reversed. Additionally, overall population projections through the end of the century are subject to economic assumptions; historically, fertility rates have been sensitive to economic conditions.

A. Slow Growth in the Overall U.S. Population

As an initial approach to answering the question of "Who will be our employee?", one needs to look at trends in the overall U.S. population, which underlie growth or decline in the labor force.

Estimates of the growth of the U.S. population as a whole from 1985 through 2000 range from 7% increase (or 256 million) to 18% (281 million), with 15% growth (or 275 million) representing the "moderate" growth scenario. Estimates of the average annual increase in U.S. population range from .07% to 1% -- the slowest rate of increase since the era of the Great Depression.

Live births will increase to approximately 4 million annually, which represents an increase in fertility compared to fertility rates prevailing in the prior fifteen years. However, this does not mean that people will be having more children, but only that there are more people to have children.

The years from 1945 through 1965 represented a period of unprecedented growth in both population and fertility. More people were having more children; these offspring are the "Baby Boom" generation.

However, after 1965, both the fertility rate and the number of children born began to decline dramatically -- the former by 50% and the latter by 25%. By 1977, the young adult portion of the overall population began to ebb. Measured against their 1980 share of the population, young adults (ages 20 to 29) will fall from 18% to 13% of overall population. This diminished generation has been called the "Baby Bust" generation and represents the slowest growth in population and fertility rates since the slough of the Great Depression.

Correspondingly, this decline in births will accelerate a "middle-aging" of America. By 2000, the median age of the general population will be 36 years -- six years older than at any time in U.S. history. If one breaks this increase in the "middle aged" down in terms of age groups, the projections are even more striking: the number of people aged 35 to 47 years will increase by 38% through 2000; those aged 48-53 will increase by 67%.

Only after 1980 do fertility rates begin modestly increasing (the "Baby Boom echo" as more of that generation began reaching the end of their most fertile years.)

Some Exceptions to This Trend

The figures cited are aggregate and average figures. Low fertility rates and slow growth in population do not affect all segments of the future U.S. population equally.

Immigrants. Immigrants, chiefly from Asia and Central and South America, are projected to contribute 33% of the increase in the U.S. population through 2000. At the very least, at a rate of 450,000 new immigrants yearly, they will add 9.5 million to the U.S. population and 4 million to the U.S. labor force by the year 2000. However, should illegal immigration continue at the rate prevailing at the beginning of the '80's or should immigration laws be relaxed (cf. story on pending legislation raising quotas to 570,000 in The Washington Post, 3/16/88, p. 3), as much as 16 million people may be added to the U.S. population and 8 million to the U.S. labor force by the year 2000. During this period, the number of Asian immigrants will surpass the number of new immigrants from Central and South America. The Asian immigrant population will tend to be younger than average for the U.S. population as a whole, but will also have a lower fertility rate than native white America.

Hispanic Americans. A second exception to the slow growth rate in the general population will occur among Hispanic Americans. This group grew at a rate five times that of the U.S. population as a whole from 1980 to 1985; currently, one in fourteen Americans is of Hispanic descent -- or 7.2% of the U.S. population. This is projected to grow to 8.9% by 2000. In some areas, growth in the Hispanic population will be more dramatic; for example, by 2000, Hispanics will top 50% of the population of Texas. By 2080, people of Hispanic origin will constitute 19.2% of the U.S. population, outstripping the black American proportion of the U.S. population (projected to be 17.9%) for the first time.

The Hispanic population continues to be younger than the general U.S. population and also to have a higher fertility rate.

Black Americans. To a lesser extent, the Black American population will also be an exception to the slow-growth scenario for the U.S. population as a whole. In the period from 1980 to 1985, Black population growth also exceeded overall population growth (8.2% vs. 6.3%). The proportion of total population represented by U.S. Blacks will rise from 12% in 1985 to slightly over 13% by 2000.

B. Mixed Growth Picture for U.S. Labor Force.

By 2000, the U.S. labor force is projected to increase to 141 million, a rise of 22% over 1985 (115 million). This represents a slightly faster growth rate than that for the U.S. population as a whole, but is still the lowest rate of increase in this segment since the 1930's.

However, by one estimate, fully 8 out of every 10 people who will be working in 1995 is already either working now or actively seeking work. It is with regard to the supply of entry-level workers that the "Baby Bust" effect will be most dramatically felt. This supply will decline by 25% from the number of 1985 entrants over the decade of the '90's; every year 2-3% fewer young people will be entering the work force than did the previous year.

The dramatic decline in the supply of young adult entrants in the labor force is also illustrated by the phenomenon of "middle-aging" in the workforce: the average age of the U.S. worker is projected to rise from 36 (1985) to 39 by the end of the century.

The effect of this shrinking supply of new, young workers will be most notably felt in percentage of new entrants to the U.S. labor force represented by native-born white males. This group, which formed 47% of the total labor force in 1985, is estimated to account for only 15% of the growth in the U.S. workforce through 2000.

If the higher fertility rates that began to be evidenced in the early '80's continue, some increase in new entrants into the labor force may begin to be registered by 1998.

Some Exceptions To This Trend

Many of the same exceptions to slow population growth are also exceptions to an overall sluggish growth in the U.S. workforce and, in particular, to new entrants into the labor pool.

Women in General. By 2000, 61% of women will have entered the workforce and will constitute 50% of the working population. More notably, women are projected to represent 2 out of every 3 new hires in the decade of the '90's.

Of growth in entrants into the U.S. workforce through the end of the century, native-born white females will account for 42%.

Minorities. Taken together, minorities will constitute approximately 29% of new hires and as much as 16% of the labor force by 2000.

Immigrants are projected to constitute 2/3 of those attaining working age through 2000 and to account for 22% of labor force growth.

Hispanic immigrants or people of Hispanic descent are projected to account for 22% of the growth in the workforce.

Projections for U.S. Black participation in the workforce by 2000 are mixed. Black males will account for 7-8% of this growth, while Black females are projected to account for a 12-13% share of this growth.

Two cautions about minority projections must be mentioned. Blacks and Hispanics are more likely to be living in poverty, to be overrepresented in occupations which are projected to lose employees, and to live in central cities beset by crime, poor educational systems, and at a distance from suburban/exurban areas where jobs are likely to grow.

II. The Question of Quality

As noted earlier, the other way to answer the "Who will be our future worker?" question is ask "What sort of person with what sort of educational attainments or skill levels can we expect to employ?"

A. Educational Levels

The recent past has exhibited a marked trend of an ever increasing supply of better educated workers. For example, in 1940, only 24% of American adults had a high school diploma; by 1981 this percentage had almost tripled. In 1970, 1 in 10 Americans had earned a college degree; by 1985, this had increased to 1 in 5.

However, in the decade of the '90's, these expectations will be challenged. For one thing, projections of what the pool of educated workers will be in this period are, to some extent, extrapolations from demographic data. The decline represented by the "Baby Bust" will register in high school and college enrollments and in numbers of bachelors degrees earned during the same period. However, changes in post-graduate and professional degrees may also be the result of additional factors such as de-

clining educational quality, cutbacks in educational assistance, and in economic and job market conditions. For example, it has been estimated that in 1962 a college graduate earned 65% more than a high school graduate on average; by 1982, this disparity had shrunk to 52% and can be seen as a limiting factor on or possible disincentive to pursuing higher educational opportunities.

[Educational projections are limited to covering the period through 1993 and are taken from Projections of Education Statistics to 1992-1993 (National Center for Education Statistics, U.S. Dept. of Education.)]

High School Graduates. From the 1981 school year through the 1991 school year, high school graduates are expected to decline from 3 million to 2.3 million (a decline of 20%) before beginning to rise again. To a lesser extent, there will also be a decline in those earning a GED certificate from 492,000 to 450,000 in 1991-1992 (an 8% decline.) The problem of high school drop-outs is likely to continue to be intractable (overall, 25% of entering high school freshmen will fail to graduate.) In one sense, to the extent that a "seller's" market comes into being for entry-level labor during the '90's, this unfortunate trend may be accelerated by the allure of high entry-level wages.

If one looks at groups whose growth in population and in labor force share is likely to outstrip the overall U.S. figures, it should be noted that Hispanics have the highest high school drop-out rate, while Blacks have the second highest rate. Additionally, according to Bureau of Labor Statistics estimates in 1983, if one looks at median years of schooling, Hispanics have 12.1 years and Blacks 12.5 years (vs. 12.8 years for whites.)

College & University Education. The traditional college age population (those 18 to 24 years old) will decline by 19% -- from an all-time high of 30.5 million in 1981 to roughly 25 million by 1992.

Undegraduate enrollment projections present a mixed picture. From 1982 through 1992, overall undergraduate enrollment will decline by 7%. This decline will be more severe among male enrollees (-8%) than among females (-6%).

A similar decline will be experienced at all levels of earned college and university degrees.

Through 1993, the number of bachelor's degrees awarded will

fall by 6%.

The number of master's degrees will fall more precipitously from a high of 317,000 in 1976-77 to 285,000 in 1993 -- a 10% decline.

Through 1993, the number of Ph.D's granted will rise slightly (+2.5%); however, this "optimistic" projection conceals an anomaly. From a high point of nearly 29,000 Ph.D. degrees earned by males in 1972-1973, the number of Ph.D's earned by this group will decline by 40% through 1993. By contrast, the number of Ph.D.'s granted to women candidates will rise by 53% from 1981-1982 through 1992-1993.

A similar phenomenon is projected to occur in the number of first professional degrees (e.g., law, medicine) granted. From a high of 72,000 such degrees awarded in 1981-1982, awards will fall by 6% -- to 67,800 by 1992. The decline among male candidates from a high point in 1980 will be 15%: from 53,000 to 45,000. By contrast, the number of females earning first professional degrees will increase by 16%: from slightly less than 20,000 in 1981-1982 to nearly 23,000 by 1992.

It should be noted that overall college and university enrollments among students older (+ 30 years) than the traditional age for matriculating at these institutions will increase; by 1993 they are projected to account for 30% of total enrollment in institutions of higher learning. To some extent, this projection may reflect an increasing trend toward education-for-career-change. It is also based upon the likelihood that as the numbers of their traditional enrollees decline, institutions of higher learning are likely to enter the corporate- and job-training market as either a substitute for an inhouse capital investment in training or as a supplement in internal training programs.

If one looks at groups whose growth in population and in labor force share is likely to outstrip the overall U.S. figures, it should be noted that recently the percentages of Hispanic and Black high school seniors who have entered college have declined: from 34.6% in 1976 to 29.2% in 1983.

B. Literacy as an Index of Skill Levels

The supply of job-related skills in the workforce of the next ten years is more difficult to project. Indeed, it would be necessary to distinguish between skills that are directly and immediately applicable to existing jobs and those which might be termed "pre-employment" skills, which are the foundation

for acquiring and applying job-related skills.

The question of acquired skills for functioning in the workplace of the future goes to the issue of the content of education -- particularly, at the secondary level. Other educational data (e.g., numbers of enrollees, median years of education) acquire true significance only in relation to the content of what is learned.

In general and among all groups, **SAT test scores, which are indices of verbal and mathematical skills, have begun rising.**

A counterindication, however, is the **persistence of illiteracy among the U.S. population.** In a 1982 sample by the Census Bureau, it was estimated that 13% of adult Americans -- 20 million adults -- are illiterate in English. Of this group, it been estimated that 8 million are white, 4 million are Black, and 7 million are of Hispanic or other immigrant origin. To get a true sense of the problem, these numbers must be compared with proportions of these groups in the U.S. population. While 4 out of every 100 white Americans may be classified as illiterate, roughly 13 out of every 100 Blacks and perhaps as many as 25 to 30 of every 100 Hispanics can be so classified. It has further been estimated that another 20 million American adults are only marginally literate -- i.e., reading below the eighth-grade level. The disproportionate extent to which illiteracy is represented among precisely those groups who will increase their share of entries in the job market in the next decade is sobering.

Movements for curriculum reform, stricter graduation requirements, and performance-based pay for teachers are likely to continue to gather momentum at both the State and Federal levels, although the outlook for major, public investment in education is less certain (particularly at the Federal level, because of budget deficits.)

III. Summing Up

Based simply on assumptions about growth and contraction in supply -- in particular, the supply of new entrants into the labor force, one can summarize briefly the supply side picture for the Internal Revenue Service and the Federal government as a whole and give a preliminary answer to the question "Who will there be to recruit in the '90's?"

The overall supply of new entrants into the U.S. labor force will decline in the decade of the '90's.

Growth in the supply of new entrants will occur among women, Blacks, Hispanics and other immigrants. By contrast, the supply of native white males will markedly decline.

Overall, the availability of laborforce entrants who are high school or college graduates will decline as will that of those holding post-graduate and first professional degrees. For post-secondary degrees, this decline will be more dramatic among male entrants into the labor force.

Women apart, members of groups in which the supply of new entrants will grow are, to varying degrees, likely to be more limited in educational attainment and certain "pre-employment" skills.

THE DEMAND SIDE PICTURE

The "demand side" picture is the other element in the equation of the future labor market. Drawing this picture involves projecting occupations which are likely to either grow or decline through the '90's and projecting educational and skill-level requirements during the same period. This can also be phrased as a question, "What and whom will employers be hiring (and competing for) in the next ten years?"

I. Occupation Projections

According to Bureau of Labor Statistics projections, the fifteen occupations which will add the most new jobs in absolute terms through the middle of the next decade are:

<u>Occupation</u>	<u>% Increase over 1984</u>
Computer Programmers	71.7%
Computer Systems Analysts	68.7%
Electric/Electronic Engineers	52.8%
Electric/Electronic Technicians	50.0%
Computer Operators	46.1%
Attorneys	35.5%
Accountants & auditors	34.8%
Mechanical engineers	34.0%
Registered Nurses	32.8%
Cashiers	29.8%
Restaurant cooks	29.7%
Wholesale trade salespersons	29.6%
Nurses aides/orderlies	28.9%
Cosmetologists/switchboard operators	@ 28.7%

The fifteen occupations which are projected to expand the fastest (relative to their 1984 numbers) during the same period are:

<u>Occupation</u>	<u>% Increase over 1984</u>
Paralegals	97.5%
Computer Programmers	71.7%
Computer Systems Analysts	68.7%
Medical Assistants	62.0%
DP Equipment Repair	56.2%
Electric/Electronic Engineers	52.8%
Electric/Electronic technicians	50.7%
Computer Operators	46.1%
EDP Peripherals Operators	45.0%
Travel Agents	43.9%
Physical Therapists	42.2%
Physicians assistants	40.3%
Securities/Financial Services Sales	39.1%
Mechanical Engineering Technicians	36.6%
Attorneys	35.5%

Several trends emerging from these projections should be noted.

First, the pre-eminence of the service sector of the economy as adding the most new jobs and growing the most rapidly through 1995. Within this sector, trade and medical services are notable areas of new job opportunity.

Secondly, the considerable growth represented by the "information" industry and its adjuncts: computer programmers; systems analysts; computer operators.

Thirdly, for the future of the IRS, 4 of the top 7 occupations which will add the greatest number of jobs and 5 of the 15 occupations which will add jobs at the fastest rate are occupations which are critical to accomplishing the Service's mission either currently (e.g., accountants/auditors, attorneys) or increasingly so in the future (e.g., "information jobs") will be precisely those occupations for which there is likely to be a booming demand.

A slightly different demand picture emerges from a recent Report from the Conference Board, a consortium of business executives, that uses different and broader categories:

<u>Category</u>	<u>% Growth 1986-2000</u>
Professionals	35.7%
Service Workers	34.7%
Skilled Workers	32.8%
Unskilled Laborers	27.7%
Semi-Skilled Workers	23.2%
Sales Workers	21.1%
Clericals	9.0%
Farmers	8.8%
Managers	6.1%

Of particular note is that the combination of enhanced management information infrastructures and pressures to improve white-collar productivity will so depress the creation of new management jobs that growth in this category is projected to average less than half of one percent (.5%) per annum.

II. Education & Skill Requirements Projections

Besides projecting growth in particular occupations or types of jobs, an account of the demand picture in the decade of the '90's must also try to project what employers will be looking for to fill those jobs, what the skill requirements will be for new jobs as those jobs either change or emerge.

In a study commissioned by the Department of the Labor (June 1987), the Hudson Institute developed two useful indices in this connection.

In the first, they compared the years of education required for various shares of current jobs with those likely to be required for new jobs in the coming decade:

<u>Education</u>	<u>% of Current Jobs Requiring</u>	<u>% of Future Jobs Requiring</u>
8 yrs. or less	6%	4%
1-3 yrs high school	12%	10%
4 yrs. high school	40%	35%
1-3 yrs. college	20%	22%
4 yrs of college or more	22%	30%

From these projections and from a projection that the median years of school required for future jobs (13.5 yrs. vs. 12.8 yrs for current), the trend toward job growth in precisely those industries, occupations, and fields requiring more education is apparent. The marked increase in jobs requiring a college or

post-graduate degree (8%) should be noted.

In the second set of projections, the focus was on the skill content of jobs. A skill-rating system, in which "6" represented a high degree of sophistication or proficiency, was applied across three broad skill areas (language, mathematical, and reading skills) to project the average skill requirements of jobs:

<u>Skill Area</u>	<u>Skill Level:</u> <u>Current Jobs</u>	<u>Skill Level:</u> <u>Fast Growth</u>	<u>Skill Level:</u> <u>Slow Growth</u>	<u>Skill Level:</u> <u>Declining Jobs</u>
Language	3.1	3.8	2.7	1.9
Mathematics	2.6	3.1	2.3	1.6
Reading	3.5	4.2	3.2	2.6

In a parallel with the upward trend in educational prerequisites of growing occupations, a similar trend is manifest with respect to basic skill requirements. During the coming decade, the new jobs which employers will be competing to fill will require much higher skill levels than the average of current jobs, on the one hand, and than jobs whose numbers will either grow more slowly or decline, on the other.

LABOR MARKET PICTURE

A market is an exchange of value for value. The basis of this exchange is not fixed, but fluctuates according to a changing ratio of a supply of a value to the demand for it.

What should be abundantly clear from the foregoing "supply side" and "demand side" pictures of the labor force in the coming decade is that, in many occupations critical to the success of the Service's work, the general (private- and public-sector) demand for well-qualified, well-educated new workers is likely to far outstrip the supply.

Scarce supply increases the value of whatever is in demand in the exchange. Besides competing for a diminished supply, the Service is likely to be competing with less value to offer in exchange -- with an inability to compete in the "price" arena, at least, in the traditional price arena (i.e., compensation.) This loss of competitiveness is already being felt in the need to have recourse to special salary rates for various occupations in several locales around the country.

What should be clear is that, far from being a temporary anomaly, these developments are tocsins of the coming onslaught. In 1987, the average U.S. wage reached \$9.00 an hour. The Federal minimum wage now equals 33.8% of the average manufacturing wage, 37.3% of the overall U.S. average wage, and only 39.6% of the average service-sector wage. Indeed, because of the dominance of the service-sector in the U.S. economy, the average service-sector is rapidly approaching the \$9 U.S. average of all hourly wage rates.)

The Department of Labor Survey of Professional, Administrative, Technical and Clerical Pay (March 1986) provides another way of registering the "supply crunch" with respect to certain occupations that are critical to the IRS (private-sector entry and "journey" levels and their Federal equivalents only are represented):

<u>Occupation/Level</u>	<u>Private Sector Avg. Salary</u>	<u>GS/GM Equivalent</u>	<u>GS/GM Average Salary (1/1/86)</u>	<u>GS/GM Step 1 (1/1/86)</u>
Attorney				
1	31,014	9	24,521	21,804
3	50,119	12	36,176	31,619
Accountant				
1	21,024	5	16,272	14,390
3	31,143	9	24,521	21,804
4	39,293	11	29,881	26,381
Public Accountant				
1	20,468	7	20,241	17,824
3	26,633	11	29,881	26,381
Computer Systems Analyst				
1	29,141	9	24,521	21,804
3	41,997	12	36,176	31,619
Computer Programmer				
1	20,832	5	16,272	14,390
3	29,324	9	24,521	21,804
Key Entry Operators	13,146	2	10,785	10,501

A more sobering view emerges from an attempt to project these disparities in certain critical occupations through 1995; in several instances, these are the same occupations in which increased demand through the middle of the 1990's has already

been remarked. By multiplying the average private-sector salary for various professional levels by an average of annual private-sector salary increases from 1981-1986 (which includes both high-inflation/high-increase and low-inflation/low-increase years) in selected critical occupations and then multiplying the equivalent average GS/GM salaries by an assumed 3% annual increase, a markedly unfavorable trend can be forecast for the ratio of Federal salaries to corresponding private-sector average salaries for the same occupations and levels:

<u>Occupation/Level</u>	<u>GS/GM Equivalent</u>	<u>1986 Ratio Federal/Private</u>	<u>Projected 1995 Ratio Federal/Private</u>
Attorney			
1	9	.79	.51
3	12	.72	.46
4	13	.68	.44
Accountant			
1	5	.77	.63
3	9	.79	.62
4	11	.76	.60
5	12	.76	.58
Auditor			
1	5	.76	.61
3	9	.76	.62
Public Accountant			
1	7	.99	.92
3	11	1.12	1.04
Computer Operator			
1	4	1.04	.83
3	6	.86	.67
4	7	.83	.71
Computer Programmer			
1	5	.78	.66
2	7	.82	.71
3	9	.84	.75
4	11	.86	.74

(Cont.) Occupation/Level	<u>GS/GM</u> <u>Equivalent</u>	<u>1986 Ratio</u> <u>Federal/Private</u>	<u>Projected 1995 Ratio</u> <u>Federal/Private</u>
Systems Analyst			
1	9	.84	.75
2	11	.86	.76
3	12	.86	.77
4	13	.88	.78
Key Entry Operator			
1	2	.82	.69
2	3	.72	.61

These projections suggest several remarks. First, in every occupation and at every professional level, the application of this formula results in future adverse impacts on the comparability of Federal-sector salaries. Across these eight critical occupations, the loss of comparability over the coming years ranges from 28% to 8%. Even occupations in which the Service currently enjoys a favorable ratio over comparable private-sector salaries will lose a measure of competitiveness.

Secondly, some occupations will be more notably affected than others -- for example, attorney, auditor, and accountant. In the past, the opportunity for marketable IRS experience perhaps balanced out the salary disparities. However, with the loss of much direct Federal funding of college students and the burden of educational loans, the hope that people who were willing to work for 68% of the private-sector salary will continue to be willing to work for 44% of what they could earn in the private sector seems overly optimistic.

Thirdly, certain occupations are more likely to lose comparability at senior levels (e.g., attorney, accountant, computer operator, key entry operator). Others are more likely to suffer a greater loss at the entry level (e.g., public accountant, computer programmer, systems analyst.)

Finally and perhaps most importantly, it should be noted that these projections do not take the shrinking supply of entry-level labor into account; they are predicated only on a steady supply.

In any market, a tight supply not only increases the price of acquiring new stock, but also tends to drive the value of existing stock upwards. For examples, a surge in the price of

gold affects not only the price of new jewelry that will be manufactured from it, but also that in-stock jewelry is automatically more valuable and more costly as well. Besides the most obvious impact of diminished supply on the "price" of new recruits, it will also increase the value of the current on-board employee inventory. Although Federal-sector attrition "costs" are largely unquantifiable at this stage of the art, it is safe to say that the coming labor market "crunch," by increasing the value of onboard personnel, will increase the direct and indirect costs of manager and employee attrition.

STRATEGIC OPTIONS

The overriding objective for the IRS and for the Federal sector as a whole for the next decade is survival of organizations sufficient to and fit for their fulfilling their missions. In large measure, the core of this objective is recruiting and retaining a sufficient number of employees who can perform the jobs that carry out the organizational mission.

Consensus about this objective is general and long-standing. Already, in certain agencies (DoD, FAA) plans have been prepared and are awaiting Congressional action which would have the net effect of removing their workforce from the Federal personnel system over which OPM presides. In both of the cases cited, recruitment and retention of a qualified workforce are the principal reasons adduced for these drastic measures.

Within the Service, there is general agreement that recruiting and retaining the quality and mix of employees we need even now is becoming more difficult by the year. However, this consensus has not yet been translated into in fully considered strategic actions which are high in priority (in terms of urgency and funding) and to which the Service is committed to "stay the course."

Adopting a strategic stance with respect to long-range issues and problems is not tantamount to a posture of leisure. While such an approach concedes that "Rome wasn't built in a day," it also sounds the factory-whistle summoning all able-bodied hands to start building. The virtues of a strategic approach toward the labor market challenge projected here are several.

First, because of the very nature of the challenge which the Service will face -- the complexity both of its causes and of its likely solutions and their sources, it is highly unlikely

that any effective "quick fixes" are realistic options.

Secondly, a strategic approach merely identifies a direction, a front, a "slice" of the horizon, within which solutions may lie. It does not short-circuit the passage from strategic issue to particular action plans. Rather, it is a mandate to explore, to hypothesize, to test, and to coordinate the short- and mid-term with long-range objectives and opportunities. And it is a mandate to do so urgently. For example, there is nothing inherently wrong with "stop-gap" measures as long as they are consistent with articulated ultimate goals.

Lastly, because such an approach is not geared to precipitous action, it allows for (and, indeed, should have as one of its ingredients) a critique of the assumptions of action. A key moment in strategy formulation is identifying realistic options; these are the direction or front along which courses of action will be devised and pursued. Too often, however, in the context of organizational life, options are too readily excluded, with or without full deliberation, as being "unthinkable" or "impossible." But a genuinely strategic approach has the advantage of admitting many options to be studied, considered, and even tentatively pursued -- not only those which are the most obvious or the most congruent with organizational tradition and past practice.

Developing options, pursuing them in an experimental way, and rigorously assessing them recognizes a fundamental reality for the Service: **that it is impossible to strategically improve every single element and factor of our systems for recruiting and retaining our workforce simultaneously and as equal priorities, if for no other reason than a realistic assessment of what such an "all-fronts" strategy would cost.**

In the case at hand, some of the fundamental options are:

- (1) Do we place the principal emphasis on recruitment or retention?
- (2) Do we attempt to compete in recruiting from the same populations as we have in the past or do we attempt to penetrate new recruitment pools?
- (3) Do we need to rethink the role of training? Is it only training for the immediate tasks comprised in a job that needs to be filled? Or is there something like "strategic training" -- training for any job, training for a career, training that establishes

a long-term mutual commitment between the Service and its recruits?

With some overlap, each option presents different paths to be explored and different priorities. It is clear that some courses of action will make sense as part of our human resources strategy no matter which of these fundamental options the Service decides to commit its efforts and resources to. Bringing salaries into a more competitive stance or introducing flexibility into a benefits package are likely to be effective actions for either recruiting or retaining or for either our current recruitment pool or some other, as-yet-untapped population.

Nevertheless, how they fit into the overall strategy -- their order of priority in the overall course of action -- will be determined by which of the options are selected. For example, if the options chosen are to go all out to remain competitive in the recruitment arena and to continue to target new young adult entrants into the job market, developing flexibility in the benefits package will probably be a higher priority action. It should be emphasized that to choose to pursue one option strategically is not to exclude others entirely. For example, to focus on retaining employees does not mean abandoning recruitment efforts. It merely recognizes the fact that the Service will not deliver quality responses in a timely manner over the entire gamut of potentially useful actions. It is a matter of priorities, then, of deciding on the basis of the information available which option deserves to be pursued more urgently and with a greater investment.

An example might help explain how an unconventional option could be pursued. Continuing to pursue a recruitment pool that already possesses basic, "pre-employment" knowledges and skills may be judged wholly or partially ineffective or not cost-effective. One option is to pursue a recruitment pool that is not "pre-qualified." At this point, training becomes an element of a larger strategy and is no longer focused on imparting knowledges and skills that are directly and immediately related to a particular, circumscribed job. In such a course of action, the Service itself or its vendors would become an educational institution -- offering remedial "three R's" instruction to a recruitment market in which competition is less intense. Or, in the case of certain critical, technical occupations, the Service might follow the example of the Armed Services or the Public Health Service and underwrite undergraduate or professional education in exchange for a commitment to work in that occupation for a defined period of time.

This option or actions like these may seem, at first blush, far-fetched. But the cost of remaining competitive in a "pre-qualified" labor market might equal or surpass the cost of pursuing it. Moreover, these courses of actions are exactly the ones our competition, corporate America, is pursuing -- to the tune of \$40 billion annually (the annual budget of the entire post-secondary educational system in the U.S. is \$60 billion.)

For example, a recent issue of The Wall Street Journal reported a major shift in corporate philanthropy -- away from arts and culture funding and even from post-secondary education toward improving local primary and secondary education. Although it would be easy to say that primary and secondary education are public concerns that should be publicly funded, this is one strategy our competition is already deploying to enlarge the pool of "pre-qualified" recruits.

Another strategy is the "corporate university" (cf. WSJ, 9/28/87, p. 35), whose size and outlays are beginning to close on those of the post-secondary education establishment. Motorola, Aetna, Bell South, Kodak, Westinghouse are among the major companies that have established in-house, degree-granting programs -- again to the same goal: to increase, from the inside, the pool of "pre-qualified" candidates for the jobs that need to be filled.

Ford Motor Company has established an inhouse education program to ensure that all its employees become fully literate. Prudential, Dow Chemical, and American Express have all established remedial training programs in basic, "pre-employment" skills (cf. WSJ, 9/28/87, pp. 1 & 27). In these cases, the motive is not philanthropic. These companies see this investment as dually strategic: it increases the number of those available to fill future jobs and it improves productivity.

Other private-sector firms see underwriting employee education as a key element of an overall quality improvement strategy (cf. WSJ, 10/26/87, p. 26).

Whether the Service selects this strategic option or others, perhaps equally "unthinkable," to meet its coming challenge in finding people to do its work effectively is less important than that all the options should be explored and studied and, above all, expressed in dollars-and-cents (at least to the extent that our current human resources information systems permit it). This may involve a "crash effort" in new and untried arenas, but such efforts may need to become part of the basic way in which we manage our human resources in the future.

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9

Leave-Transfer Extension Clears Congress

By Don Phillips
Washington Post Staff Writer

The House voted yesterday to extend for five years the leave-transfer program that allows federal workers to give annual leave to fellow workers with family or medical emergencies who have used up all their vacation time or sick leave.

A new experimental "leave bank" is also authorized by the bill, under which workers may contribute to a pool of leave time that could be used by fellow workers in emergencies.

The bill, passed earlier by the Senate, cleared the House by voice vote and went to the White House.

The leave-transfer program has been in effect for about a year, and technically expired at the end of September. Under the plan, a worker must certify that he or she has a family or medical emergency that requires time away from work, but has used all annual leave and sick time. The employing agency may require certification from doctors or other specialists.

Donating employees may not donate more than half their accumulated annual leave hours.

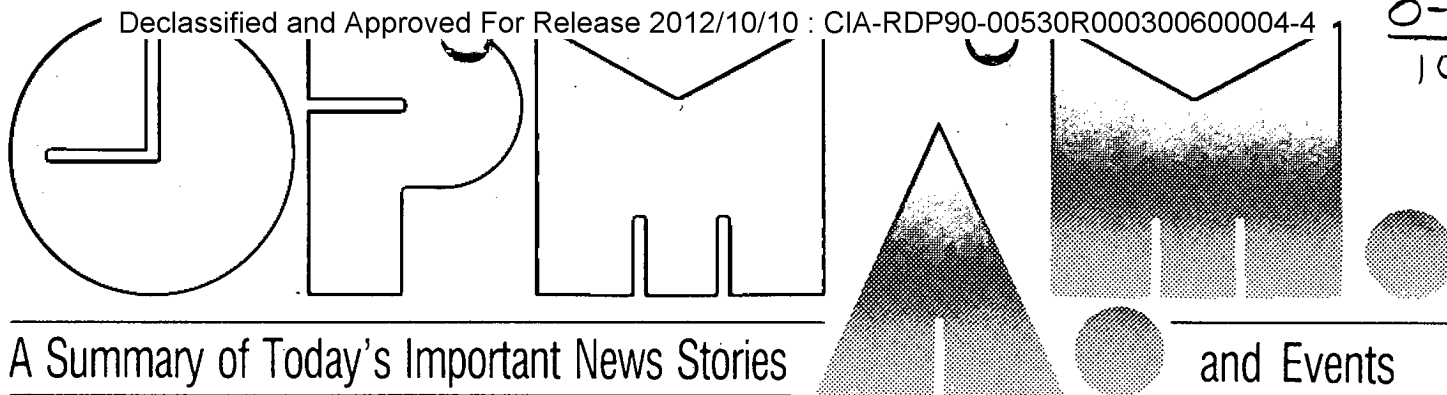
The legislation exempts the leave-transfer program from laws banning gifts to superiors, allowing

them to accept leave from employees they supervise.

The plan is government-wide, allowing workers in one agency to donate to workers in another. But the Central Intelligence Agency and other federal intelligence agencies would be exempted from the government-wide transfer program, although they would be required to establish their own leave-transfer programs.

Under the new experimental leave-bank program, the Office of Personnel Management must establish a program under which any worker could contribute leave into a central fund that would be available for other workers with emergencies.

WP 10/13/88



A Summary of Today's Important News Stories

and Events

MONDAY, OCTOBER 17, 1988

GOOD MORNING

IN THE NEWS...

AGENCIES TO HIRE TEMPORARIES---Director Horner announces plans for federal agencies to begin hiring temporary employees in government offices to help in emergencies, peak periods, or when the agency can't find a permanent employee for the position. Regulations published in today's Federal Register allow federal agencies to pay the going rate for temporary personnel. Temporaries may not displace permanent federal employees, nor, in general, hold the same job for more than a month and a half, according to the rules. Horner said temps would give short-handed federal agencies needed flexibility to serve the public and help their regular employees, but three major federal unions express "grave concern" or worse (The Washington Post, The Washington Times).

FEDERAL DIARY MISC.---It now appears that leave sharing will continue. The President is expected to sign a bill making permanent the program allowing federal workers to transfer unused annual leave to colleagues who need the extra paid time off for family or medical emergencies. Vice President Bush says if he is elected his administration will "explore carefully the idea of extending to children of federal employees the law allowing students who reach the age of 22 to continue their health insurance coverage under certain conditions." The Thrift Investment Plan's G-Fund has an 8.875 percent interest rate this month down from 9.25 percent last month. Employees under FERS can invest in the G-Fund or in stock and bond funds. Federal clerks defend their honor and work ethic against charges they are rude, inefficient clock watchers (The Washington Post).

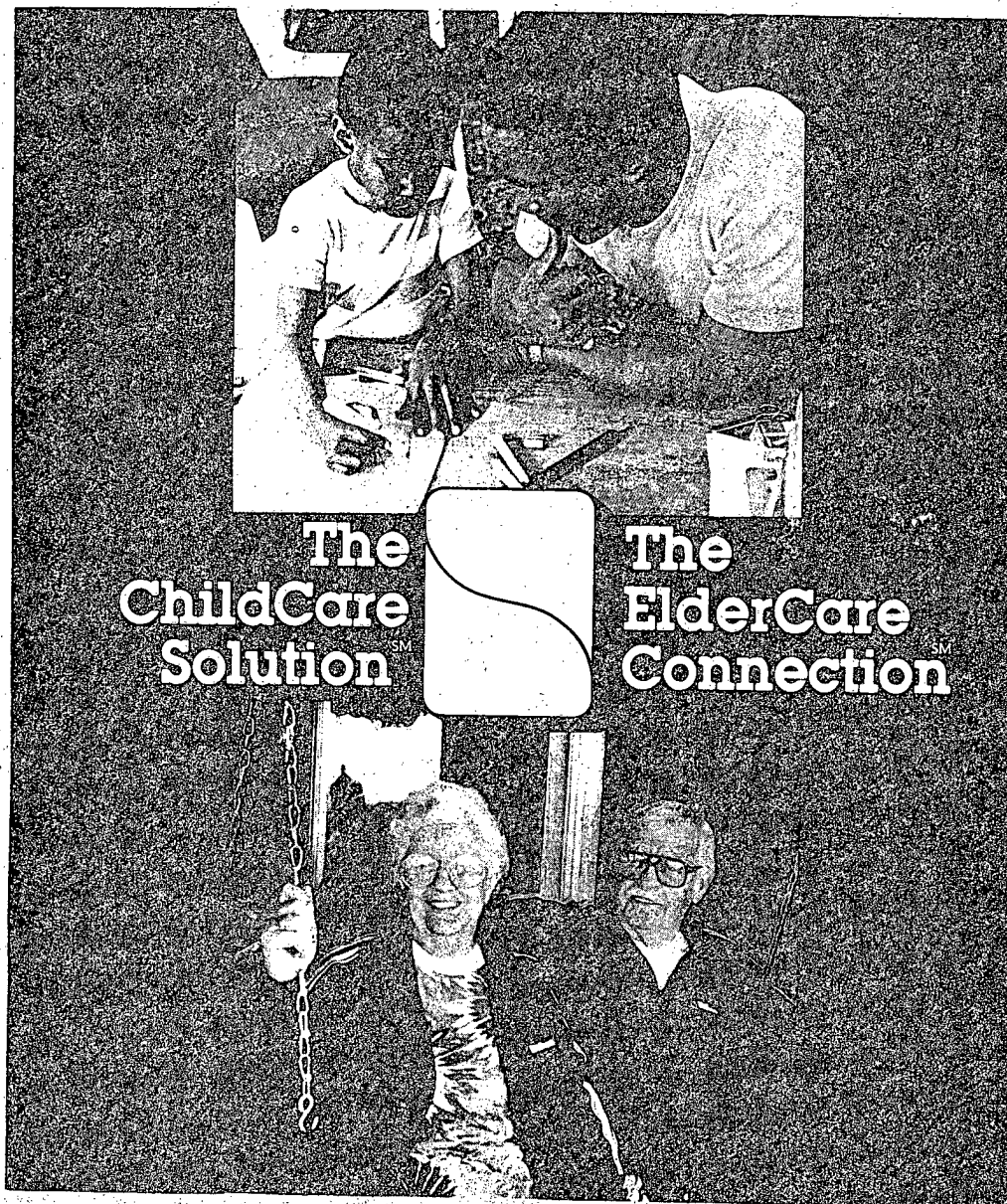
FAA ASKS FOR PAY RAISE FOR O'HARE CONTROLLERS---To make Chicago controller jobs more attractive, the FAA is discussing with OPM the possibility of offering substantially higher pay to controllers willing to transfer to Chicago's O'Hare International Airport. Transportation Secretary James Burnley said that such an incentive program, if approved, probably also would be used in other high-cost areas such as New York and Los Angeles (The Wall Street Journal).

OFF-KEY REFORM---Commenting on newly proposed "whistleblower protection" legislation, former OPM director Don Devine says "The bottom-line fact in government is that there are few incentives for a manager to make the tough decisions necessary to achieve mission at a reasonable cost. It is easier to let inefficiencies accumulate" (The Washington Times).

OF INTEREST---Busy as you are, consider the business of busyness (The Wall Street Journal)...



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