

ALASKA LEGISLATURE SPECIAL COMMITTEE/SUBJECT FILES 8672

2420 SCOMM 101 • LONG RANGE FINANCIAL PLANNING • COMMISSION, 1995 7/4

CASE VII.**PAGE 2.
REIMPOSE INCOME TAX**NO PUBLIC SPENDING

*****CASE VII.
REIMPOSE INCOME TAX**NO PUBLIC SPENDING

87:3-4

DIRECT EFFECT

	ALASKA INCOME (MILL \$)			DISPOSABLE INCOME (MILL \$)			DISCRETIONARY SPENDING (MILL \$)			EMPLOYMENT (ANNUAL AVERAGE)		
	PRIVATE	PUBLIC	TOTAL	PRIVATE	PUBLIC	TOTAL	PRIVATE	PUBLIC	TOTAL	PRIV	PUBLIC	TOTAL
Private Sector	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	0	0	0
Public Sector	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	0	0	0
Total	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	0	0	0

INDIRECT EFFECT

Private Sector	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	0	0	0
----------------	-------	-------	-------	-------	-------	-------	-------	-------	-------	---	---	---

TOTAL EFFECT

Private Sector	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	0	0	0
Public Sector	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	0	0	0
Total	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	0	0	0

88:1-2

DIRECT EFFECT

Private Sector	(\$76.4)	\$0.0	(\$76.4)	(\$61.1)	\$0.0	(\$61.1)	(\$48.9)	\$0.0	(\$48.9)	0	0	0
Public Sector	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	0	0	0
Total	(\$76.4)	\$0.0	(\$76.4)	(\$61.1)	\$0.0	(\$61.1)	(\$48.9)	\$0.0	(\$48.9)	0	0	0

INDIRECT EFFECT

Private Sector	(\$21.6)	\$0.0	(\$21.6)	(\$18.3)	\$0.0	(\$18.3)	(\$14.7)	\$0.0	(\$14.7)	-1786	0	-1786
----------------	----------	-------	----------	----------	-------	----------	----------	-------	----------	-------	---	-------

TOTAL EFFECT

Private Sector	(\$97.9)	\$0.0	(\$97.9)	(\$79.4)	\$0.0	(\$79.4)	(\$63.5)	\$0.0	(\$63.5)	-1786	0	-1786
Public Sector	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	0	0	0
Total	(\$97.9)	\$0.0	(\$97.9)	(\$79.4)	\$0.0	(\$79.4)	(\$63.5)	\$0.0	(\$63.5)	-1786	0	-1786

88:3-4

DIRECT EFFECT

Private Sector	(\$117.8)	\$0.0	(\$117.8)	(\$94.2)	\$0.0	(\$94.2)	(\$75.4)	\$0.0	(\$75.4)	0	0	0
Public Sector	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	0	0	0
Total	(\$117.8)	\$0.0	(\$117.8)	(\$94.2)	\$0.0	(\$94.2)	(\$75.4)	\$0.0	(\$75.4)	0	0	0

INDIRECT EFFECT

Private Sector	(\$33.2)	\$0.0	(\$33.2)	(\$28.3)	\$0.0	(\$28.3)	(\$22.6)	\$0.0	(\$22.6)	-2754	0	-2754
----------------	----------	-------	----------	----------	-------	----------	----------	-------	----------	-------	---	-------

TOTAL EFFECT

Private Sector	(\$151.0)	\$0.0	(\$151.0)	(\$122.5)	\$0.0	(\$122.5)	(\$98.0)	\$0.0	(\$98.0)	-2754	0	-2754
Public Sector	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	0	0	0
Total	(\$151.0)	\$0.0	(\$151.0)	(\$122.5)	\$0.0	(\$122.5)	(\$98.0)	\$0.0	(\$98.0)	-2754	0	-2754

CASE VII.PAGE 6.
 REIMPOSE INCOME TAX**NO PUBLIC SPENDING

=====

SENSITIVITY ANALYSIS

=====

DISPOSABLE PERSONAL INCOME

EMPLOYMENT

		% FEDERAL OFFSET (C37)					
		+J12	5%	10%	15%	20%	25%
%	5%		(\$548)	(\$519)	(\$490)	(\$461)	(\$433)
	10%		(\$519)	(\$492)	(\$464)	(\$437)	(\$410)
	15%		(\$490)	(\$464)	(\$439)	(\$413)	(\$387)
	20%		(\$461)	(\$437)	(\$413)	(\$389)	(\$364)
TAX EXPORTING (C38)							

		% FEDERAL OFFSET					
		+P12	5%	10%	15%	20%	25%
%	5%		-2464	-2334	-2204	-2075	-1945
	10%		-2334	-2211	-2088	-1966	-1843
	15%		-2204	-2088	-1972	-1856	-1740
	20%		-2075	-1966	-1856	-1747	-1638

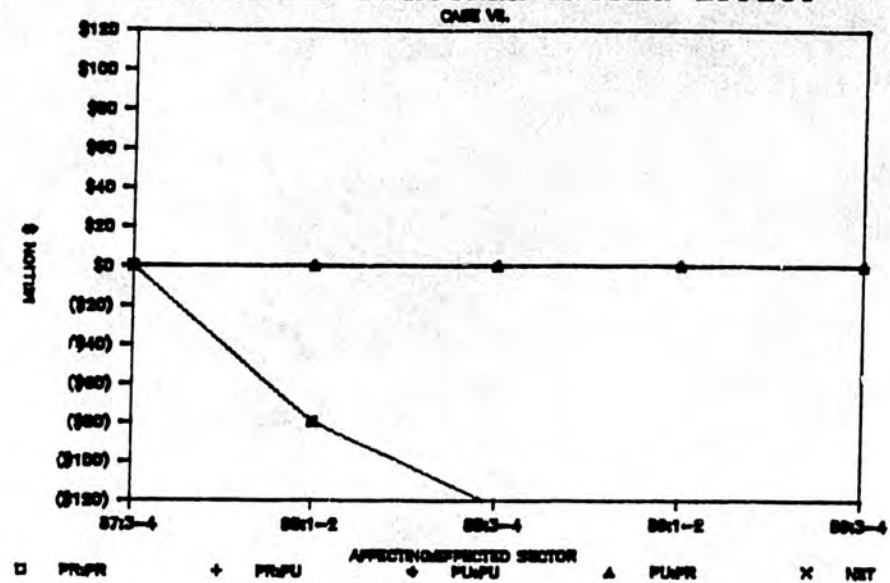
		PUBLIC MULTIPLIER (C50)					
		+J12	1.1	1.15	1.2	1.25	1.3
PRIVATE MULTIPLIER (C39)	1.1		(\$378)	(\$378)	(\$378)	(\$378)	(\$378)
	1.15		(\$395)	(\$395)	(\$395)	(\$395)	(\$395)
	1.2		(\$412)	(\$412)	(\$412)	(\$412)	(\$412)
	1.25		(\$430)	(\$430)	(\$430)	(\$430)	(\$430)
	1.3		(\$447)	(\$447)	(\$447)	(\$447)	(\$447)

		PUBLIC MULTIPLIER (C50)					
		+P12	1.1	1.15	1.2	1.25	1.3
	1.1		-670	-670	-670	-670	-670
	1.15		-1005	-1005	-1005	-1005	-1005
	1.2		-1340	-1340	-1340	-1340	-1340
	1.25		-1674	-1674	-1674	-1674	-1674
	1.3		-2009	-2009	-2009	-2009	-2009

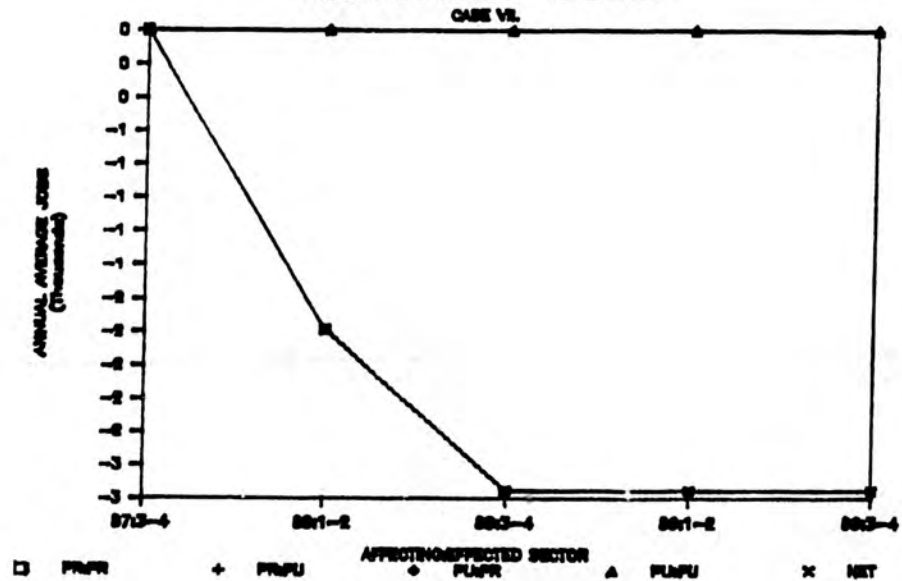
		PRIVATE MULTIPLIER (C39)					
		+J12	1.1	1.2	1.3	1.4	1.5
PUBLIC DPI CREATE (M51)	0		(\$378)	(\$412)	(\$447)	(\$481)	(\$516)
	0.1		(\$378)	(\$412)	(\$447)	(\$481)	(\$516)
	0.2		(\$378)	(\$412)	(\$447)	(\$481)	(\$516)
	0.3		(\$378)	(\$412)	(\$447)	(\$481)	(\$516)
	0.4		(\$378)	(\$412)	(\$447)	(\$481)	(\$516)
	0.5		(\$378)	(\$412)	(\$447)	(\$481)	(\$516)
	0.6		(\$378)	(\$412)	(\$447)	(\$481)	(\$516)
	0.7		(\$378)	(\$412)	(\$447)	(\$481)	(\$516)
	0.8		(\$378)	(\$412)	(\$447)	(\$481)	(\$516)
	0.9		(\$378)	(\$412)	(\$447)	(\$481)	(\$516)
	1		(\$378)	(\$412)	(\$447)	(\$481)	(\$516)

		PRIVATE MULTIPLIER (C39)					
		+P12	1.	1.2	1.3	1.4	1.5
	0		-670	-1340	-2009	-2679	-3349
	0.1		-670	-1340	-2009	-2679	-3349
	0.2		-670	-1340	-2009	-2679	-3349
	0.3		-670	-1340	-2009	-2679	-3349
	0.4		-670	-1340	-2009	-2679	-3349
	0.5		-670	-1340	-2009	-2679	-3349
	0.6		-670	-1340	-2009	-2679	-3349
	0.7		-670	-1340	-2009	-2679	-3349
	0.8		-670	-1340	-2009	-2679	-3349
	0.9		-670	-1340	-2009	-2679	-3349
	1		-670	-1340	-2009	-2679	-3349

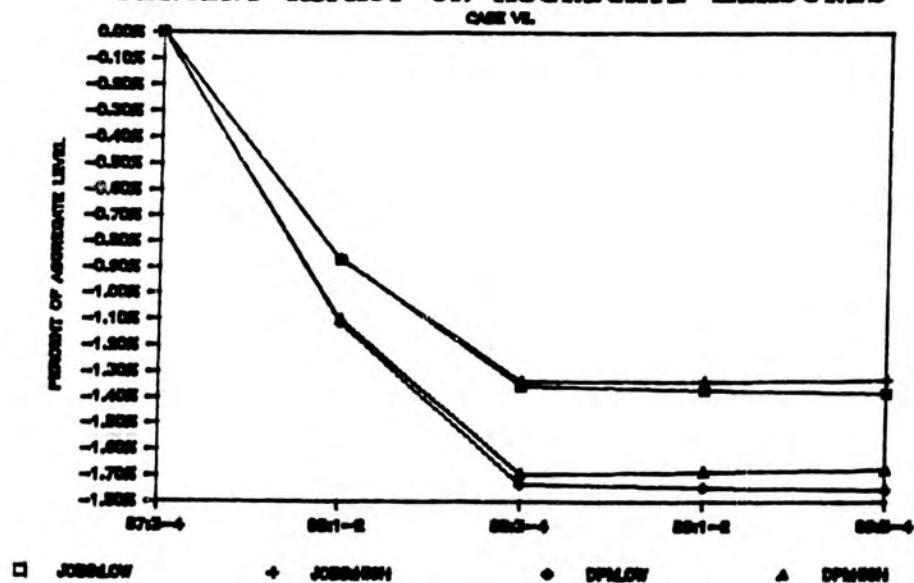
DISPOSABLE PERSONAL INCOME EFFECT



EMPLOYMENT EFFECT



PERCENT IMPACT ON AGGREGATE MEASURES



****CASE II. *****PAGE 1.

REDUCE PF DIVIDEND--MAXIMIZE PUBLIC JOB RETENTION

*****CASE II.

REDUCE PF DIVIDEND--MAXIMIZE PUBLIC JOB RETENTION

READ IMPACT SOURCE ACROSS AND LOCATION DOWN*****		ALASKA INCOME (MILL \$)			DISPOSABLE INCOME (MILL \$)			DISCRETIONARY SPENDING (MILL \$)			EMPLOYMENT (ANNUAL AVERAGE)			
		PRIVATE	PUBLIC	TOTAL	PRIVATE	PUBLIC	TOTAL	PRIVATE	PUBLIC	TOTAL	PRIV	PUBLIC	TOTAL	
****SUMMARY*****														
PRIVATE SECTOR		(\$626.0)	\$124.9	(\$501.1)	(\$536.8)	\$106.2	(\$430.6)	(\$469.2)	\$85.0	(\$384.2)	-2712	2069	-642	
PUBLIC SECTOR		\$0.0	\$467.0	\$467.0	\$0.0	\$325.4	\$325.4	\$0.0	\$260.3	\$260.3	0	4939	4939	
TOTAL		(\$626.0)	\$591.9	(\$34.1)	(\$536.8)	\$431.6	(\$105.2)	(\$469.2)	\$345.3	(\$123.9)	-2712	7009	4297	
TOTAL		87:3-4	(\$73.7)	\$35.5	(\$38.2)	(\$63.2)	\$25.9	(\$37.3)	(\$55.3)	\$20.7	(\$34.6)	-1597	2101	504
EFFECT		88:1-2	(\$37.5)	\$69.7	\$32.2	(\$32.2)	\$50.8	\$18.6	(\$28.1)	\$40.7	\$12.5	-813	4127	3314
		88:3-4	(\$229.2)	\$162.2	(\$67.0)	(\$196.5)	\$118.3	(\$78.3)	(\$171.8)	\$94.6	(\$77.2)	-4965	9605	4640
		89:1-2	(\$113.9)	\$162.2	\$48.3	(\$97.7)	\$118.3	\$20.6	(\$85.4)	\$94.6	\$9.2	-2468	9605	7137
		89:3-4	(\$171.6)	\$162.2	(\$9.3)	(\$147.1)	\$118.3	(\$28.8)	(\$128.6)	\$94.6	(\$34.0)	-3716	9605	5889
PRIVATE		87:3-4	(\$73.7)	\$7.5	(\$66.2)	(\$63.2)	\$6.4	(\$56.8)	(\$55.3)	\$5.1	(\$50.2)	-1597	620	-976
SECTOR		88:1-2	(\$37.5)	\$14.7	(\$22.8)	(\$32.2)	\$12.5	(\$19.7)	(\$28.1)	\$10.0	(\$18.1)	-813	1219	406
IMPACT		88:3-4	(\$229.2)	\$34.2	(\$195.0)	(\$196.5)	\$29.1	(\$167.4)	(\$171.8)	\$23.3	(\$148.5)	-4965	2836	-2129
		89:1-2	(\$113.9)	\$34.2	(\$79.7)	(\$97.7)	\$29.1	(\$68.6)	(\$85.4)	\$23.3	(\$62.1)	-2468	2836	368
		89:3-4	(\$171.6)	\$34.2	(\$137.3)	(\$147.1)	\$29.1	(\$118.0)	(\$128.6)	\$23.3	(\$105.3)	-3716	2836	-880
PUBLIC		87:3-4	\$0.0	\$28.0	\$28.0	\$0.0	\$19.5	\$19.5	\$0.0	\$15.6	\$15.6	0	1481	1481
SECTOR		88:1-2	\$0.0	\$55.0	\$55.0	\$0.0	\$38.3	\$38.3	\$0.0	\$30.7	\$30.7	0	2909	2909
IMPACT		88:3-4	\$0.0	\$128.0	\$128.0	\$0.0	\$89.2	\$89.2	\$0.0	\$71.3	\$71.3	0	6769	6769
		89:1-2	\$0.0	\$128.0	\$128.0	\$0.0	\$89.2	\$89.2	\$0.0	\$71.3	\$71.3	0	6769	6769
		89:3-4	\$0.0	\$128.0	\$128.0	\$0.0	\$89.2	\$89.2	\$0.0	\$71.3	\$71.3	0	6769	6769

****ASSUMPTIONS*****DANGER!!!!!!*****

A.PRIVATE EFFECTS*****

C. DIRECT INCOME CHANGES*****

			PRIVATE	PUBLIC
*	0.14 OFFSET1	FEDERAL OFFSET: MARGINAL FEDERAL TAX RATE ON ALASKA INCOME		
*	0.01 LEAK1	TAX EXPORTING: PORTION OF INCOME TAX PAID BY NON-RESIDENTS		
*	1.35 MULT1	ECONOMIC MULTIPLIER ON RESIDENT DISPOSABLE PERSONAL INCOME	87:3-4	55 28
	0.85 DPIRATE	RATIO OF DPI/PI FOR SUPPORT SECTOR INCOME	88:1-2	28 55
	0.021 WAGESUP1	AVERAGE SUPPORT SECTOR WAGE (MILLION \$)	88:3-4	171 128
	0.15 COMP2	SUPPORT SECTOR BENEFITS AS % OF WAGE	89:1-2	85 128
	0.9 MPC1	MARGINAL PROPENSITY TO CONSUME OF TAXPAYER OR PF DIV RECIPIENT	89:3-4	128 128
	0.8 MPC3	MARGINAL PROPENSITY TO CONSUME OF SUPPORT SECTOR EMPLOYEE		
		TOTAL	467	467

B.PUBLIC EFFECTS*****

*	0.15 OFFSET2	FEDERAL OFFSET: AVERAGE FEDERAL TAX RATE FOR STATE EMPLOYEE	1 POR1	PORTION OF \$
*	1.3 MULT2	ECONOMIC MULTIPLIER ON STATE EMPLOYEE DISPOSABLE PERSONAL INCOME		SPENT ON
	0.031 WAGEGOV1	AVERAGE STATE/LOCAL WAGE (MILLION \$)		PUBLIC JOBS
	0.22 COMP1	STATE GOVERNMENT BENEFITS AS % OF WAGE	0.25 DPI1	PORTION OF
	0.8 MPC2	MARGINAL PROPENSITY TO CONSUME OF GOVT EMPLOYEE		NON-JOB
	0.4 BEN1	LOCALLY SPENT PORTION OF PUBLIC EMPLOYEE BENEFITS		EXPENDITURES

****CASE II. *****PAGE 2.
REDUCE PF DIVIDEND--MAXIMIZE PUBLIC JOB RETENTION

*****CASE II.
REDUCE PF DIVIDEND--MAXIMIZE PUBLIC JOB RETENTION

			ALASKA INCOME (MILL \$)			DISPOSABLE INCOME (MILL \$)			DISCRETIONARY SPENDING (MILL \$)			EMPLOYMENT (ANNUAL AVERAGE)		
			PRIVATE	PUBLIC	TOTAL	PRIVATE	PUBLIC	TOTAL	PRIVATE	PUBLIC	TOTAL	PRIV	PUBLIC	TOTAL
87:3-4														
DIRECT EFFECT														
Private Sector			(\$54.5)	\$0.0	(\$54.5)	(\$46.8)	\$0.0	(\$46.8)	(\$42.1)	\$0.0	(\$42.1)	0	0	0
Public Sector			\$0.0	\$28.0	\$28.0	\$0.0	\$19.5	\$19.5	\$0.0	\$15.6	\$15.6	0	1481	1481
Total			(\$54.5)	\$28.0	(\$26.5)	(\$46.8)	\$19.5	(\$27.3)	(\$42.1)	\$15.6	(\$26.5)	0	1481	1481
INDIRECT EFFECT														
Private Sector			(\$19.3)	\$7.5	(\$11.8)	(\$16.4)	\$6.4	(\$10.0)	(\$13.1)	\$5.1	(\$8.0)	-1597	620	-976
TOTAL EFFECT														
Private Sector			(\$73.7)	\$7.5	(\$66.2)	(\$63.2)	\$6.4	(\$56.8)	(\$55.3)	\$5.1	(\$50.2)	-1597	620	-976
Public Sector			\$0.0	\$28.0	\$28.0	\$0.0	\$19.5	\$19.5	\$0.0	\$15.6	\$15.6	0	1481	1481
Total			(\$73.7)	\$35.5	(\$38.2)	(\$63.2)	\$25.9	(\$37.3)	(\$55.3)	\$20.7	(\$34.6)	-1597	2101	504
88:1-2														
DIRECT EFFECT														
Private Sector			(\$27.7)	\$0.0	(\$27.7)	(\$23.8)	\$0.0	(\$23.8)	(\$21.5)	\$0.0	(\$21.5)	0	0	0
Public Sector			\$0.0	\$55.0	\$55.0	\$0.0	\$38.3	\$38.3	\$0.0	\$30.7	\$30.7	0	2909	2909
Total			(\$27.7)	\$55.0	\$27.3	(\$23.8)	\$38.3	\$14.5	(\$21.5)	\$30.7	\$9.2	0	2909	2909
INDIRECT EFFECT														
Private Sector			(\$9.8)	\$14.7	\$4.9	(\$8.3)	\$12.5	\$4.2	(\$6.7)	\$10.0	\$3.3	-813	1219	406
TOTAL EFFECT														
Private Sector			(\$37.5)	\$14.7	(\$22.8)	(\$32.2)	\$12.5	(\$19.7)	(\$28.1)	\$10.0	(\$18.1)	-813	1219	406
Public Sector			\$0.0	\$55.0	\$55.0	\$0.0	\$38.3	\$38.3	\$0.0	\$30.7	\$30.7	0	2909	2909
Total			(\$37.5)	\$69.7	\$32.2	(\$32.2)	\$50.8	\$18.6	(\$28.1)	\$40.7	\$12.5	-813	4127	3314
88:3-4														
DIRECT EFFECT														
Private Sector			(\$16.3)	\$0.0	(\$16.3)	(\$145.6)	\$0.0	(\$145.6)	(\$131.0)	\$0.0	(\$131.0)	0	0	0
Public Sector			\$0.0	\$128.0	\$128.0	\$0.0	\$89.2	\$89.2	\$0.0	\$71.3	\$71.3	0	6769	6769
Total			(\$16.3)	\$128.0	(\$41.3)	(\$145.6)	\$89.2	(\$56.4)	(\$131.0)	\$71.3	(\$59.7)	0	6769	6769
INDIRECT EFFECT														
Private Sector			(\$59.9)	\$34.2	(\$25.7)	(\$51.0)	\$29.1	(\$21.8)	(\$40.8)	\$23.3	(\$17.5)	-4965	2836	-2129
TOTAL EFFECT														
Private Sector			(\$229.2)	\$34.2	(\$195.0)	(\$196.5)	\$29.1	(\$167.4)	(\$171.8)	\$23.3	(\$148.5)	-4965	2836	-2129
Public Sector			\$0.0	\$128.0	\$128.0	\$0.0	\$89.2	\$89.2	\$0.0	\$71.3	\$71.3	0	6769	6769
Total			(\$229.2)	\$162.2	(\$67.0)	(\$196.5)	\$118.3	(\$78.3)	(\$171.8)	\$94.6	(\$77.2)	-4965	9605	4640

****CASE II. *****PAGE 6.

REDUCE PF DIVIDEND--MAXIMIZE PUBLIC JOB RETENTION

=====

SENSITIVITY ANALYSIS

=====

DISPOSABLE PERSONAL INCOME

EMPLOYMENT

	+J12	% FEDERAL OFFSET (C37)				
		5%	10%	15%	20%	25%
%	5%	(\$137)	(\$107)	(\$78)	(\$48)	(\$18)
TAX	10%	(\$107)	(\$79)	(\$51)	(\$22)	\$6
EXPORTING	15%	(\$78)	(\$51)	(\$24)	\$3	\$30
(C38)	20%	(\$48)	(\$22)	\$3	\$28	\$53

	+P12	% FEDERAL OFFSET				
		5%	10%	15%	20%	25%
	5%	4134	4285	4437	4588	4739
	10%	4285	4429	4572	4715	4859
	15%	4437	4572	4707	4843	4978
	20%	4588	4715	4843	4970	5098

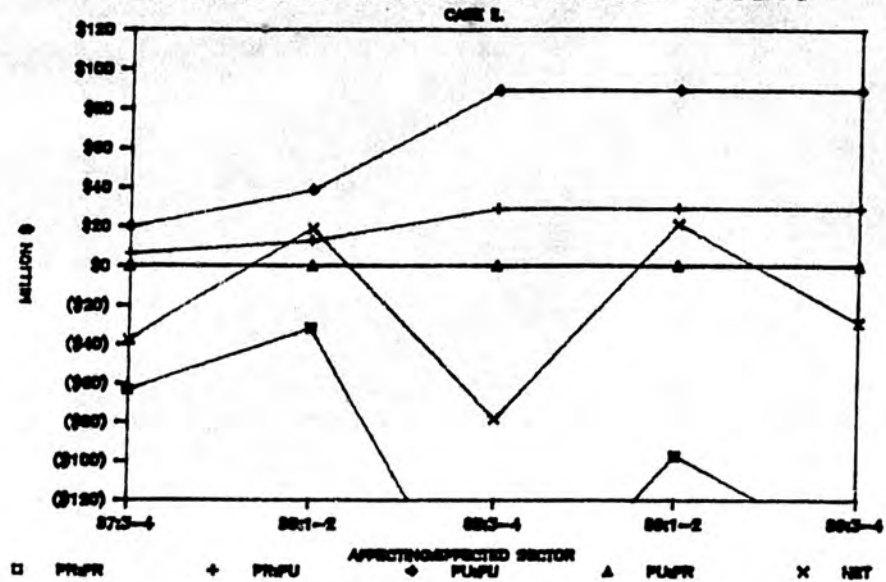
	+J12	PUBLIC MULTIPLIER (C50)				
		1.1	1.15	1.2	1.25	1.3
PRIVATE	1.1	(\$6)	(\$6)	(\$6)	(\$6)	(\$6)
MULTI-	1.15	(\$26)	(\$26)	(\$26)	(\$26)	(\$26)
PLIER	1.2	(\$46)	(\$46)	(\$46)	(\$46)	(\$46)
(C39)	1.25	(\$65)	(\$65)	(\$65)	(\$65)	(\$65)
	1.3	(\$85)	(\$85)	(\$85)	(\$85)	(\$85)

	+P12	PUBLIC MULTIPLIER (C50)				
		1.1	1.15	1.2	1.25	1.3
	1.1	1434	1428	1422	1417	1412
	1.15	1046	1040	1035	1030	1025
	1.2	659	653	647	642	638
	1.25	272	266	260	255	250
	1.3	-116	-122	-127	-132	-137

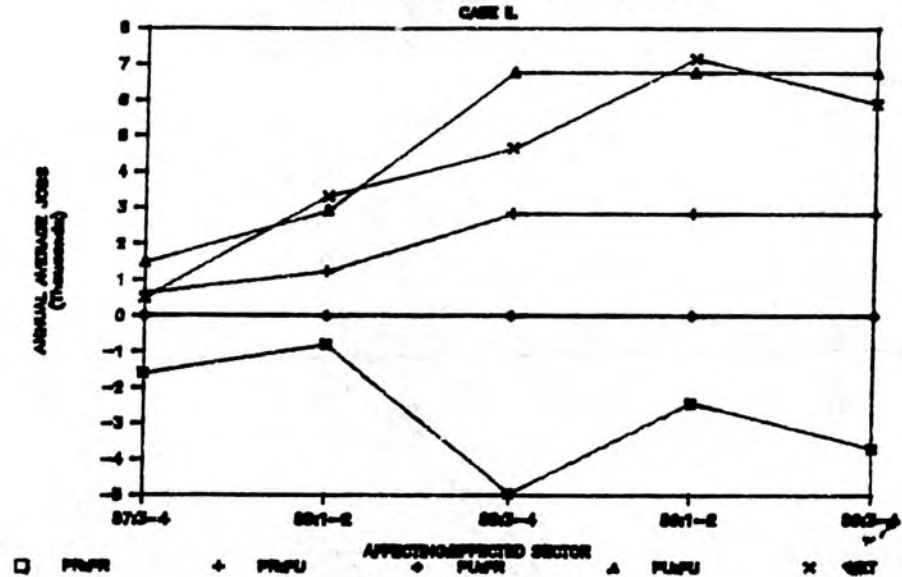
	+J12	PRIVATE MULTIPLIER (C39)				
		1.1	1.2	1.3	1.4	1.5
PUBLIC	0	(\$6)	(\$46)	(\$85)	(\$125)	(\$165)
DPI	0.1	(\$6)	(\$46)	(\$85)	(\$125)	(\$165)
CREATE	0.2	(\$6)	(\$46)	(\$85)	(\$125)	(\$165)
(M51)	0.3	(\$6)	(\$46)	(\$85)	(\$125)	(\$165)
	0.4	(\$6)	(\$46)	(\$85)	(\$125)	(\$165)
	0.5	(\$6)	(\$46)	(\$85)	(\$125)	(\$165)
	0.6	(\$6)	(\$46)	(\$85)	(\$125)	(\$165)
	0.7	(\$6)	(\$46)	(\$85)	(\$125)	(\$165)
	0.8	(\$6)	(\$46)	(\$85)	(\$125)	(\$165)
	0.9	(\$6)	(\$46)	(\$85)	(\$125)	(\$165)
	1	(\$6)	(\$46)	(\$85)	(\$125)	(\$165)

	+P12	PRIVATE MULTIPLIER (C39)				
		1.1	1.2	1.3	1.4	1.5
	0	6234	5459	4684	3910	3135
	0.1	6234	5459	4684	3910	3135
	0.2	6234	5459	4684	3910	3135
	0.3	6234	5459	4684	3910	3135
	0.4	6234	5459	4684	3910	3135
	0.5	6234	5459	4684	3910	3135
	0.6	6234	5459	4684	3910	3135
	0.7	6234	5459	4684	3910	3135
	0.8	6234	5459	4684	3910	3135
	0.9	6234	5459	4684	3910	3135
	1	6234	5459	4684	3910	3135

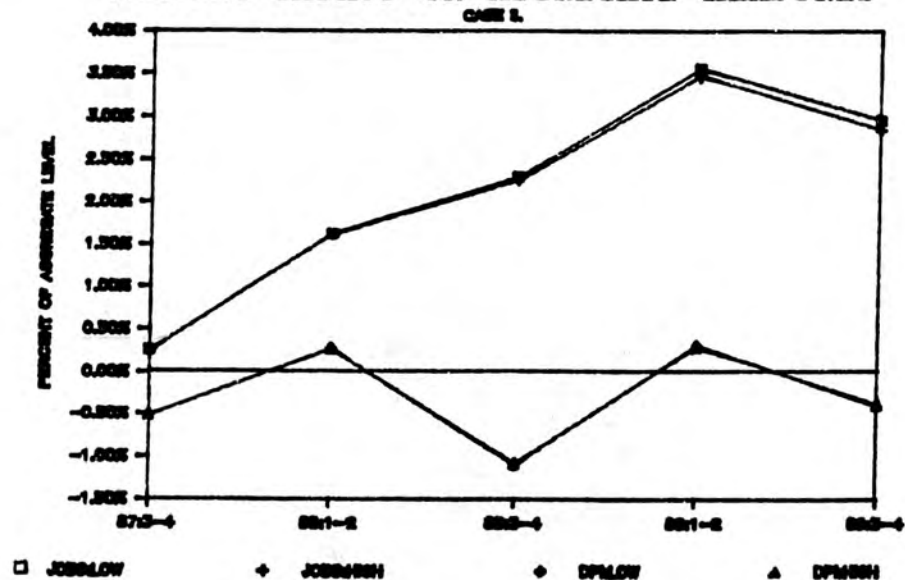
DISPOSABLE PERSONAL INCOME EFFECT



EMPLOYMENT EFFECT



PERCENT IMPACT ON AGGREGATE MEASURES



****CASE IV. *****PAGE 1.

REDUCE PF DIVIDEND--MINIMIZE PUBLIC JOB RETENTION

*****CASE IV.

REDUCE PF DIVIDEND--MINIMIZE PUBLIC JOB RETENTION

READ IMPACT SOURCE ACROSS AND LOCATION DOWN*****		ALASKA INCOME (MILL \$)			DISPOSABLE INCOME (MILL \$)			DISCRETIONARY SPENDING (MILL \$)			EMPLOYMENT (ANNUAL AVERAGE)		
		PRIVATE	PUBLIC	TOTAL	PRIVATE	PUBLIC	TOTAL	PRIVATE	PUBLIC	TOTAL	PRIV	PUBLIC	TOTAL
****SUMMARY*****													
PRIVATE SECTOR		(\$578.0)	\$0.0	(\$578.0)	(\$495.9)	\$0.0	(\$495.9)	(\$436.5)	\$0.0	(\$436.5)	-1915	0	-1915
PUBLIC SECTOR		\$0.0	\$467.0	\$467.0	\$116.8	\$0.0	\$116.8	\$105.1	\$0.0	\$105.1	0	0	0
TOTAL		(\$578.0)	\$467.0	(\$111.0)	(\$379.2)	\$0.0	(\$379.2)	(\$331.4)	\$0.0	(\$331.4)	-1915	0	-1915
TOTAL 87:3-4		(\$70.8)	\$28.0	(\$42.8)	(\$53.8)	\$0.0	(\$53.8)	(\$47.0)	\$0.0	(\$47.0)	-1358	0	-1358
EFFECT 88:1-2		(\$31.9)	\$55.0	\$23.1	(\$13.6)	\$0.0	(\$13.6)	(\$11.9)	\$0.0	(\$11.9)	-344	0	-344
88:3-4		(\$216.1)	\$128.0	(\$88.1)	(\$153.3)	\$0.0	(\$153.3)	(\$134.0)	\$0.0	(\$134.0)	-3873	0	-3873
89:1-2		(\$100.8)	\$128.0	\$27.2	(\$54.5)	\$0.0	(\$54.5)	(\$47.6)	\$0.0	(\$47.6)	-1377	0	-1377
89:3-4		(\$158.4)	\$128.0	(\$30.4)	(\$103.9)	\$0.0	(\$103.9)	(\$90.8)	\$0.0	(\$90.8)	-2625	0	-2625
PRIVATE 87:3-4		(\$70.8)	\$0.0	(\$70.8)	(\$60.8)	\$0.0	(\$60.8)	(\$53.3)	\$0.0	(\$53.3)	-1358	0	-1358
SECTOR 88:1-2		(\$31.9)	\$0.0	(\$31.9)	(\$27.4)	\$0.0	(\$27.4)	(\$24.3)	\$0.0	(\$24.3)	-344	0	-344
IMPACT 88:3-4		(\$216.1)	\$0.0	(\$216.1)	(\$185.3)	\$0.0	(\$185.3)	(\$162.8)	\$0.0	(\$162.8)	-3873	0	-3873
89:1-2		(\$100.8)	\$0.0	(\$100.8)	(\$86.5)	\$0.0	(\$86.5)	(\$76.4)	\$0.0	(\$76.4)	-1377	0	-1377
89:3-4		(\$158.4)	\$0.0	(\$158.4)	(\$135.9)	\$0.0	(\$135.9)	(\$119.6)	\$0.0	(\$119.6)	-2625	0	-2625
PUBLIC 87:3-4		\$0.0	\$28.0	\$28.0	\$7.0	\$0.0	\$7.0	\$6.3	\$0.0	\$6.3	0	0	0
SECTOR 88:1-2		\$0.0	\$55.0	\$55.0	\$13.8	\$0.0	\$13.8	\$12.4	\$0.0	\$12.4	0	0	0
IMPACT 88:3-4		\$0.0	\$128.0	\$128.0	\$32.0	\$0.0	\$32.0	\$28.8	\$0.0	\$28.8	0	0	0
89:1-2		\$0.0	\$128.0	\$128.0	\$32.0	\$0.0	\$32.0	\$28.8	\$0.0	\$28.8	0	0	0
89:3-4		\$0.0	\$128.0	\$128.0	\$32.0	\$0.0	\$32.0	\$28.8	\$0.0	\$28.8	0	0	0

****ASSUMPTIONS*****DANGER!!!!!!!!*****

A. PRIVATE EFFECTS*****

C. DIRECT INCOME CHANGES*****

			PRIVATE	PUBLIC
*	0.14 OFFSET1	FEDERAL OFFSET: MARGINAL FEDERAL TAX RATE ON ALASKA INCOME		
*	0.01 LEAK1	TAX EXPORTING: PORTION OF INCOME TAX PAID BY NON-RESIDENTS		
*	1.35 MULT1	ECONOMIC MULTIPLIER ON RESIDENT DISPOSABLE PERSONAL INCOME	87:3-4	55 28
	0.85 DPIRATE	RATIO OF DPI/PI FOR SUPPORT SECTOR INCOME	88:1-2	28 55
	0.021 WAGESUP1	AVERAGE SUPPORT SECTOR WAGE (MILLION \$)	88:3-4	171 128
	0.15 COMP2	SUPPORT SECTOR BENEFITS AS % OF WAGE	89:1-2	85 128
	0.9 MPC1	MARGINAL PROPENSITY TO CONSUME OF TAXPAYER OR PF DIV RECIPIENT	89:3-4	128 128
	0.8 MPC3	MARGINAL PROPENSITY TO CONSUME OF SUPPORT SECTOR EMPLOYEE		
		TOTAL	467	467

B. PUBLIC EFFECTS*****

*	0.15 OFFSET2	FEDERAL OFFSET: AVERAGE FEDERAL TAX RATE FOR STATE EMPLOYEE	0 POR1	PORTION OF \$
*	1.3 MULT2	ECONOMIC MULTIPLIER ON STATE EMPLOYEE DISPOSABLE PERSONAL INCOME		SPENT ON
	0.031 WAGEGOV1	AVERAGE STATE/LOCAL WAGE (MILLION \$)		PUBLIC JOBS
	0.22 COMP1	STATE GOVERNMENT BENEFITS AS % OF WAGE	0.25 DPI1	PORTION OF
	0.8 MPC2	MARGINAL PROPENSITY TO CONSUME OF GOVT EMPLOYEE		NON-JOB
	0.4 BEN1	LOCALLY SPENT PORTION OF PUBLIC EMPLOYEE BENEFITS		EXPENDITURES

****CASE IV. *****PAGE 2.
REDUCE PF DIVIDEND--MINIMIZE PUBLIC JOB RETENTION

*****CASE IV.
REDUCE PF DIVIDEND--MINIMIZE PUBLIC JOB RETENTION

		ALASKA INCOME (MILL \$)			DISPOSABLE INCOME (MILL \$)			DISCRETIONARY SPENDING (MILL \$)			EMPLOYMENT (ANNUAL AVERAGE)		
		PRIVATE	PUBLIC	TOTAL	PRIVATE	PUBLIC	TOTAL	PRIVATE	PUBLIC	TOTAL	PRIV	PUBLIC	TOTAL
87:3-4													
DIRECT EFFECT													
Private Sector		(\$54.5)	\$0.0	(\$54.5)	(\$46.8)	\$0.0	(\$46.8)	(\$42.1)	\$0.0	(\$42.1)	0	0	0
Public Sector		\$0.0	\$28.0	\$28.0	\$7.0	\$0.0	\$7.0	\$6.3	\$0.0	\$6.3	0	0	0
Total		(\$54.5)	\$28.0	(\$26.5)	(\$39.8)	\$0.0	(\$39.8)	(\$35.8)	\$0.0	(\$35.8)	0	0	0
INDIRECT EFFECT													
Private Sector		(\$16.4)	\$0.0	(\$16.4)	(\$13.9)	\$0.0	(\$13.9)	(\$11.2)	\$0.0	(\$11.2)	-1358	0	-1358
TOTAL EFFECT													
Private Sector		(\$70.8)	\$0.0	(\$70.8)	(\$60.8)	\$0.0	(\$60.8)	(\$53.3)	\$0.0	(\$53.3)	-1358	0	-1358
Public Sector		\$0.0	\$28.0	\$28.0	\$7.0	\$0.0	\$7.0	\$6.3	\$0.0	\$6.3	0	0	0
Total		(\$70.8)	\$28.0	(\$42.8)	(\$53.8)	\$0.0	(\$53.8)	(\$47.0)	\$0.0	(\$47.0)	-1358	0	-1358
88:1-2													
DIRECT EFFECT													
Private Sector		(\$27.7)	\$0.0	(\$27.7)	(\$23.8)	\$0.0	(\$23.8)	(\$21.5)	\$0.0	(\$21.5)	0	0	0
Public Sector		\$0.0	\$55.0	\$55.0	\$13.8	\$0.0	\$13.8	\$12.4	\$0.0	\$12.4	0	0	0
Total		(\$27.7)	\$55.0	\$27.3	(\$10.1)	\$0.0	(\$10.1)	(\$9.1)	\$0.0	(\$9.1)	0	0	0
INDIRECT EFFECT													
Private Sector		(\$4.2)	\$0.0	(\$4.2)	(\$3.5)	\$0.0	(\$3.5)	(\$2.8)	\$0.0	(\$2.8)	-344	0	-344
TOTAL EFFECT													
Private Sector		(\$31.9)	\$0.0	(\$31.9)	(\$27.4)	\$0.0	(\$27.4)	(\$24.3)	\$0.0	(\$24.3)	-344	0	-344
Public Sector		\$0.0	\$55.0	\$55.0	\$13.8	\$0.0	\$13.8	\$12.4	\$0.0	\$12.4	0	0	0
Total		(\$31.9)	\$55.0	\$23.1	(\$13.6)	\$0.0	(\$13.6)	(\$11.9)	\$0.0	(\$11.9)	-344	0	-344
88:3-4													
DIRECT EFFECT													
Private Sector		(\$169.3)	\$0.0	(\$169.3)	(\$145.6)	\$0.0	(\$145.6)	(\$131.0)	\$0.0	(\$131.0)	0	0	0
Public Sector		\$0.0	\$128.0	\$128.0	\$32.0	\$0.0	\$32.0	\$28.8	\$0.0	\$28.8	0	0	0
Total		(\$169.3)	\$128.0	(\$41.3)	(\$113.6)	\$0.0	(\$113.6)	(\$102.2)	\$0.0	(\$102.2)	0	0	0
INDIRECT EFFECT													
Private Sector		(\$46.8)	\$0.0	(\$46.8)	(\$39.8)	\$0.0	(\$39.8)	(\$31.8)	\$0.0	(\$31.8)	-3873	0	-3873
TOTAL EFFECT													
Private Sector		(\$216.1)	\$0.0	(\$216.1)	(\$185.3)	\$0.0	(\$185.3)	(\$162.8)	\$0.0	(\$162.8)	-3873	0	-3873
Public Sector		\$0.0	\$128.0	\$128.0	\$32.0	\$0.0	\$32.0	\$28.8	\$0.0	\$28.8	0	0	0
Total		(\$216.1)	\$128.0	(\$88.1)	(\$153.3)	\$0.0	(\$153.3)	(\$134.0)	\$0.0	(\$134.0)	-3873	0	-3873

CASE IV. **PAGE 6.

REDUCE PF DIVIDEND--MINIMIZE PUBLIC JOB RETENTION

=====

SENSITIVITY ANALYSIS

=====

DISPOSABLE PERSONAL INCOME

EMPLOYMENT

	+J12	% FEDERAL OFFSET (C37)				
		5%	10%	15%	20%	25%
%	5%	(\$411)	(\$381)	(\$351)	(\$322)	(\$292)
TAX	10%	(\$381)	(\$353)	(\$325)	(\$296)	(\$268)
EXPORTING	15%	(\$351)	(\$325)	(\$298)	(\$271)	(\$244)
(C38)	20%	(\$322)	(\$296)	(\$271)	(\$246)	(\$221)

	+P12	% FEDERAL OFFSET				
		5%	10%	15%	20%	25%
	5%	-2078	-1927	-1776	-1624	-1473
	10%	-1927	-1784	-1640	-1497	-1354
	15%	-1776	-1640	-1505	-1370	-1234
	20%	-1624	-1497	-1370	-1242	-1115

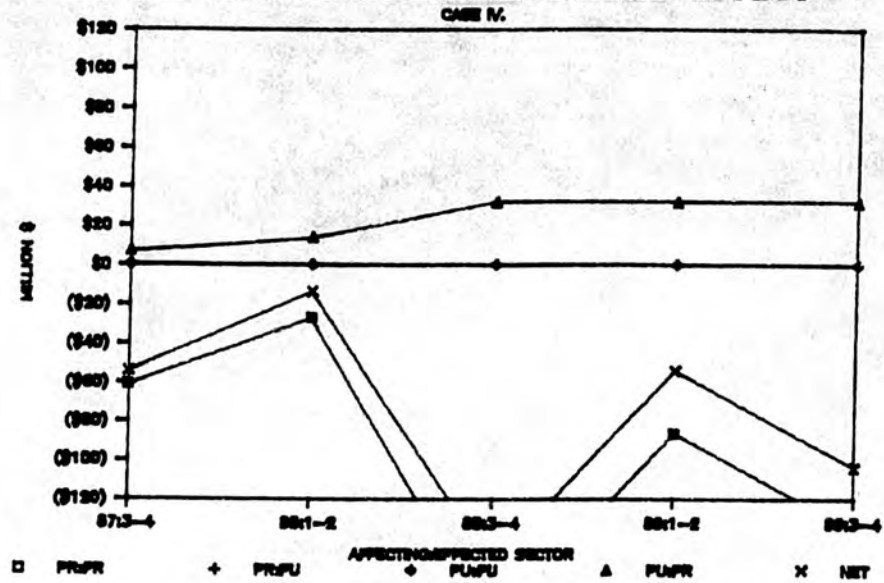
	+J12	PUBLIC MULTIPLIER (C50)				
		1.1	1.15	1.2	1.25	1.3
PRIVATE	1.1	(\$309)	(\$309)	(\$309)	(\$309)	(\$309)
MULTI-	1.15	(\$323)	(\$323)	(\$323)	(\$323)	(\$323)
PLIER	1.2	(\$337)	(\$337)	(\$337)	(\$337)	(\$337)
(C39)	1.25	(\$351)	(\$351)	(\$351)	(\$351)	(\$351)
	1.3	(\$365)	(\$365)	(\$365)	(\$365)	(\$365)

	+P12	PUBLIC MULTIPLIER (C50)				
		1.1	1.15	1.2	1.25	1.3
	1.1	-547	-547	-547	-547	-547
	1.15	-821	-821	-821	-821	-821
	1.2	-1095	-1095	-1095	-1095	-1095
	1.25	-1368	-1368	-1368	-1368	-1368
	1.3	-1642	-1642	-1642	-1642	-1642

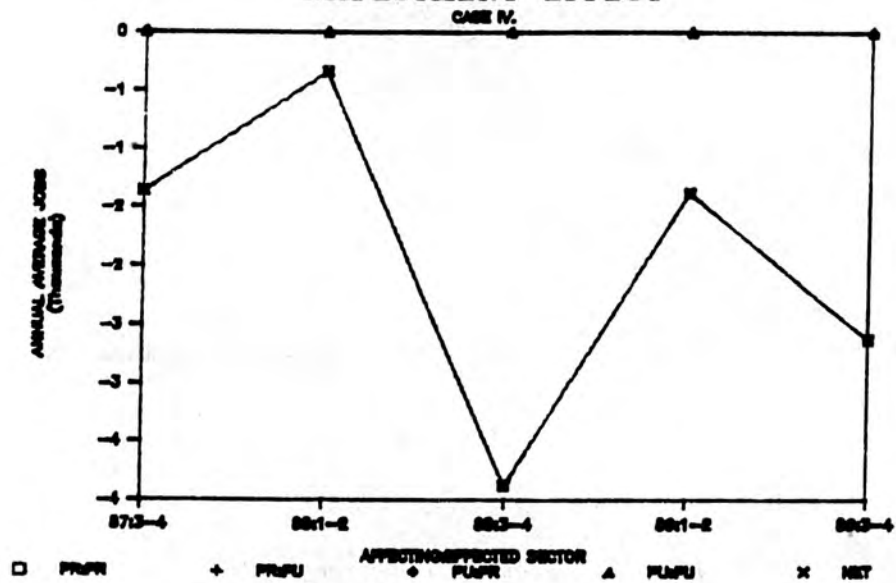
	+J12	PRIVATE MULTIPLIER (C39)				
		1.1	1.2	1.3	1.4	1.5
PUBLIC	0	(\$437)	(\$477)	(\$517)	(\$557)	(\$596)
DPI	0.1	(\$386)	(\$421)	(\$456)	(\$491)	(\$526)
CREATE	0.2	(\$335)	(\$365)	(\$395)	(\$426)	(\$456)
(M51)	0.3	(\$283)	(\$309)	(\$335)	(\$361)	(\$386)
	0.4	(\$232)	(\$253)	(\$274)	(\$295)	(\$316)
	0.5	(\$181)	(\$197)	(\$213)	(\$230)	(\$246)
	0.6	(\$129)	(\$141)	(\$153)	(\$164)	(\$176)
	0.7	(\$78)	(\$85)	(\$92)	(\$99)	(\$106)
	0.8	(\$26)	(\$29)	(\$31)	(\$34)	(\$36)
	0.9	\$25	\$27	\$30	\$32	\$34
	1	\$76	\$83	\$90	\$97	\$104

	+P12	PRIVATE MULTIPLIER (C39)				
		1.1	1.2	1.3	1.4	1.5
	0	-775	-1550	-2324	-3099	-3874
	0.1	-684	-1368	-2051	-2735	-3419
	0.2	-593	-1186	-1778	-2371	-2964
	0.3	-502	-1004	-1505	-2007	-2509
	0.4	-411	-822	-1232	-1643	-2054
	0.5	-320	-640	-959	-1279	-1599
	0.6	-229	-458	-686	-915	-1144
	0.7	-138	-276	-413	-551	-689
	0.8	-47	-94	-140	-187	-234
	0.9	44	88	133	177	221
	1	135	270	406	541	676

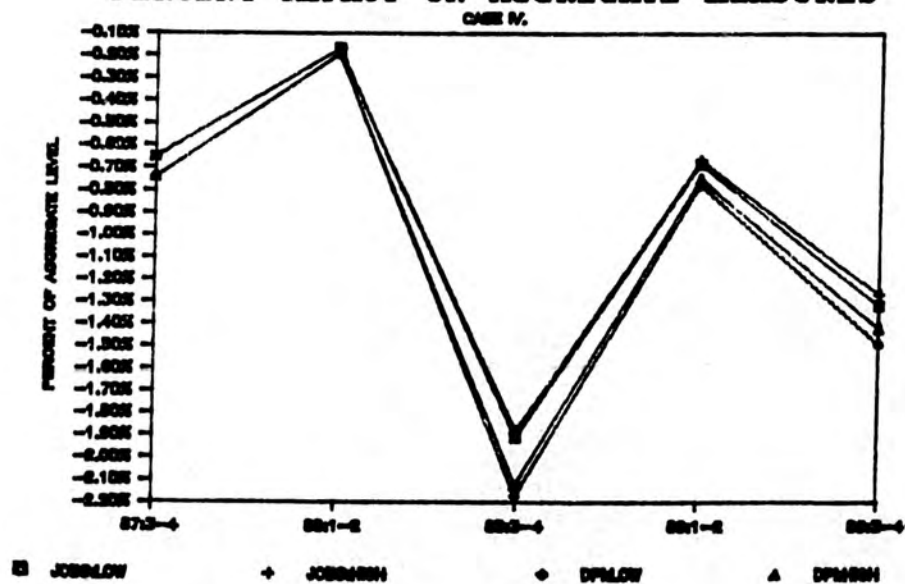
DISPOSABLE PERSONAL INCOME EFFECT



EMPLOYMENT EFFECT



PERCENT IMPACT ON AGGREGATE MEASURES



****CASE VI. *****PAGE 1.
REDUCE PF DIVIDEND--ACROSS THE BOARD RETENTION

*****CASE VI.
REDUCE PF DIVIDEND--ACROSS THE BOARD RETENTION

READ IMPACT SOURCE ACROSS AND LOCATION DOWN*****		ALASKA INCOME (MILL \$)			DISPOSABLE INCOME (MILL \$)			DISCRETIONARY SPENDING (MILL \$)			EMPLOYMENT (ANNUAL AVERAGE)			
		PRIVATE	PUBLIC	TOTAL	PRIVATE	PUBLIC	TOTAL	PRIVATE	PUBLIC	TOTAL	PRIV	PUBLIC	TOTAL	
SUMMARY**														
PRIVATE SECTOR		(\$606.8)	\$75.0	(\$531.9)	(\$520.4)	\$63.7	(\$456.7)	(\$456.1)	\$51.0	(\$405.1)	-2393	1242	-1152	
PUBLIC SECTOR		\$0.0	\$467.0	\$467.0	\$46.7	\$195.2	\$241.9	\$42.0	\$156.2	\$198.2	0	2964	2964	
TOTAL		(\$606.8)	\$542.0	(\$64.9)	(\$473.7)	\$258.9	(\$214.8)	(\$414.1)	\$207.2	(\$206.9)	-2393	4205	1812	
TOTAL		87:3-4	(\$72.6)	\$32.5	(\$40.1)	(\$59.4)	\$15.5	(\$43.9)	(\$52.0)	\$12.4	(\$39.5)	-1501	1261	-241
EFFECT		88:1-2	(\$35.3)	\$63.8	\$28.6	(\$24.8)	\$30.5	\$5.7	(\$21.6)	\$24.4	\$2.8	-625	2476	1851
		88:3-4	(\$224.0)	\$148.5	(\$75.4)	(\$179.3)	\$71.0	(\$108.3)	(\$156.7)	\$56.8	(\$99.9)	-4528	5763	1235
		89:1-2	(\$108.7)	\$148.5	\$39.9	(\$80.4)	\$71.0	(\$9.4)	(\$70.3)	\$56.8	(\$13.5)	-2031	5763	3732
		89:3-4	(\$166.3)	\$148.5	(\$17.8)	(\$129.8)	\$71.0	(\$58.9)	(\$113.5)	\$56.8	(\$56.7)	-3280	5763	2483
PRIVATE		87:3-4	(\$72.6)	\$4.5	(\$68.1)	(\$62.2)	\$3.8	(\$58.4)	(\$54.5)	\$3.1	(\$51.4)	-1501	372	-1129
SECTOR		88:1-2	(\$35.3)	\$8.8	(\$26.4)	(\$30.3)	\$7.5	(\$22.8)	(\$26.6)	\$6.0	(\$20.6)	-625	731	106
IMPACT		88:3-4	(\$224.0)	\$20.5	(\$203.4)	(\$192.1)	\$17.5	(\$174.6)	(\$168.2)	\$14.0	(\$154.2)	-4528	1702	-2627
		89:1-2	(\$108.7)	\$20.5	(\$88.1)	(\$93.2)	\$17.5	(\$75.8)	(\$81.8)	\$14.0	(\$67.8)	-2031	1702	-330
		89:3-4	(\$166.3)	\$20.5	(\$145.8)	(\$142.6)	\$17.5	(\$125.2)	(\$125.0)	\$14.0	(\$111.0)	-3280	1702	-1578
PUBLIC		87:3-4	\$0.0	\$28.0	\$28.0	\$2.8	\$11.7	\$14.5	\$2.5	\$9.4	\$11.9	0	888	888
SECTOR		88:1-2	\$0.0	\$55.0	\$55.0	\$5.5	\$23.0	\$28.5	\$5.0	\$18.4	\$23.3	0	1745	1745
IMPACT		88:3-4	\$0.0	\$128.0	\$128.0	\$12.8	\$53.5	\$66.3	\$11.5	\$42.8	\$54.3	0	4061	4061
		89:1-2	\$0.0	\$128.0	\$128.0	\$12.8	\$53.5	\$66.3	\$11.5	\$42.8	\$54.3	0	4061	4061
		89:3-4	\$0.0	\$128.0	\$128.0	\$12.8	\$53.5	\$66.3	\$11.5	\$42.8	\$54.3	0	4061	4061

****ASSUMPTIONS*****DANGER!!!!!!*****

A.PRIVATE EFFECTS*****

C. DIRECT INCOME CHANGES*****

			PRIVATE	PUBLIC
*	0.14 OFFSET1	FEDERAL OFFSET: MARGINAL FEDERAL TAX RATE ON ALASKA INCOME		
*	0.01 LEAK1	TAX EXPORTING: PORTION OF INCOME TAX PAID BY NON-RESIDENTS		
*	1.35 MULT1	ECONOMIC MULTIPLIER ON RESIDENT DISPOSABLE PERSONAL INCOME	87:3-4	55 28
	0.85 DPIRATE	RATIO OF DPI/PI FOR SUPPORT SECTOR INCOME	88:1-2	28 55
	0.021 WAGESUP1	AVERAGE SUPPORT SECTOR WAGE (MILLION \$)	88:3-4	171 128
	0.15 COMP2	SUPPORT SECTOR BENEFITS AS % OF WAGE	89:1-2	85 128
	0.9 MPC1	MARGINAL PROPENSITY TO CONSUME OF TAXPAYER OR PF DIV RECIPIENT	89:3-4	128 128
	0.8 MPC3	MARGINAL PROPENSITY TO CONSUME OF SUPPORT SECTOR EMPLOYEE		
		TOTAL	467	467

B.PUBLIC EFFECTS*****

*	0.15 OFFSET2	FEDERAL OFFSET: AVERAGE FEDERAL TAX RATE FOR STATE EMPLOYEE	0.6 POR1	PORTION OF \$
*	1.3 MULT2	ECONOMIC MULTIPLIER ON STATE EMPLOYEE DISPOSABLE PERSONAL INCOME		SPENT ON
	0.031 WAGEGOV1	AVERAGE STATE/LOCAL WAGE (MILLION \$)		PUBLIC JOBS
	0.22 COMP1	STATE GOVERNMENT BENEFITS AS % OF WAGE	0.25 DPI1	PORTION OF
	0.8 MPC2	MARGINAL PROPENSITY TO CONSUME OF GOVT EMPLOYEE		NON-JOB
	0.4 BEN1	LOCALLY SPENT PORTION OF PUBLIC EMPLOYEE BENEFITS		EXPENDITURES

****CASE VI. *****PAGE 2.
REDUCE PF DIVIDEND--ACROSS THE BOARD RETENTION

*****CASE VI.
REDUCE PF DIVIDEND--ACROSS THE BOARD RETENTION

		ALASKA INCOME (MILL \$)			DISPOSABLE INCOME (MILL \$)			DISCRETIONARY SPENDING (MILL \$)			EMPLOYMENT (ANNUAL AVERAGE)		
		PRIVATE	PUBLIC	TOTAL	PRIVATE	PUBLIC	TOTAL	PRIVATE	PUBLIC	TOTAL	PRIV	PUBLIC	TOTAL
87:3-4													
DIRECT EFFECT													
Private Sector		(\$54.5)	\$0.0	(\$54.5)	(\$46.8)	\$0.0	(\$46.8)	(\$42.1)	\$0.0	(\$42.1)	0	0	0
Public Sector		\$0.0	\$28.0	\$28.0	\$2.8	\$11.7	\$14.5	\$2.5	\$9.4	\$11.9	0	888	888
Total		(\$54.5)	\$28.0	(\$26.5)	(\$44.0)	\$11.7	(\$32.3)	(\$39.6)	\$9.4	(\$30.3)	0	888	888
INDIRECT EFFECT													
Private Sector		(\$18.1)	\$4.5	(\$13.6)	(\$15.4)	\$3.8	(\$11.6)	(\$12.3)	\$3.1	(\$9.3)	-1501	372	-1129
TOTAL EFFECT													
Private Sector		(\$72.6)	\$4.5	(\$68.1)	(\$62.2)	\$3.8	(\$58.4)	(\$54.5)	\$3.1	(\$51.4)	-1501	372	-1129
Public Sector		\$0.0	\$28.0	\$28.0	\$2.8	\$11.7	\$14.5	\$2.5	\$9.4	\$11.9	0	888	888
Total		(\$72.6)	\$32.5	(\$40.1)	(\$59.4)	\$15.5	(\$43.9)	(\$52.0)	\$12.4	(\$39.5)	-1501	1261	-241
88:1-2													
DIRECT EFFECT													
Private Sector		(\$27.7)	\$0.0	(\$27.7)	(\$23.8)	\$0.0	(\$23.8)	(\$21.5)	\$0.0	(\$21.5)	0	0	0
Public Sector		\$0.0	\$55.0	\$55.0	\$5.5	\$23.0	\$28.5	\$5.0	\$18.4	\$23.3	0	1745	1745
Total		(\$27.7)	\$55.0	\$27.3	(\$18.3)	\$23.0	\$4.7	(\$16.5)	\$18.4	\$1.9	0	1745	1745
INDIRECT EFFECT													
Private Sector		(\$7.6)	\$8.8	\$1.3	(\$6.4)	\$7.5	\$1.1	(\$5.1)	\$6.0	\$0.9	-625	731	106
TOTAL EFFECT													
Private Sector		(\$35.3)	\$8.8	(\$26.4)	(\$30.3)	\$7.5	(\$22.8)	(\$26.6)	\$6.0	(\$20.6)	-625	731	106
Public Sector		\$0.0	\$55.0	\$55.0	\$5.5	\$23.0	\$28.5	\$5.0	\$18.4	\$23.3	0	1745	1745
Total		(\$35.3)	\$63.8	\$28.6	(\$24.8)	\$30.5	\$5.7	(\$21.6)	\$24.4	\$2.8	-625	2476	1851
88:3-4													
DIRECT EFFECT													
Private Sector		(\$169.3)	\$0.0	(\$169.3)	(\$145.6)	\$0.0	(\$145.6)	(\$131.0)	\$0.0	(\$131.0)	0	0	0
Public Sector		\$0.0	\$128.0	\$128.0	\$12.8	\$53.5	\$66.3	\$11.5	\$42.8	\$54.3	0	4061	4061
Total		(\$169.3)	\$128.0	(\$41.3)	(\$132.8)	\$53.5	(\$79.3)	(\$119.5)	\$42.8	(\$76.7)	0	4061	4061
INDIRECT EFFECT													
Private Sector		(\$54.7)	\$20.5	(\$34.1)	(\$46.5)	\$17.5	(\$29.0)	(\$37.2)	\$14.0	(\$23.2)	-4528	1702	-2827
TOTAL EFFECT													
Private Sector		(\$224.0)	\$20.5	(\$203.4)	(\$192.1)	\$17.5	(\$174.6)	(\$168.2)	\$14.0	(\$154.2)	-4528	1702	-2827
Public Sector		\$0.0	\$128.0	\$128.0	\$12.8	\$53.5	\$66.3	\$11.5	\$42.8	\$54.3	0	4061	4061
Total		(\$224.0)	\$148.5	(\$75.4)	(\$179.3)	\$71.0	(\$108.3)	(\$156.7)	\$56.8	(\$99.9)	-4528	5763	1235

****CASE VI. *****PAGE 6.
REDUCE PF DIVIDEND--ACROSS THE BOARD RETENTION

=====

SENSITIVITY ANALYSIS

=====

DISPOSABLE PERSONAL INCOME

	+J12	% FEDERAL OFFSET (C37)				
		5%	10%	15%	20%	25%
Y	5%	(\$247)	(\$217)	(\$187)	(\$157)	(\$127)
TAX	10%	(\$217)	(\$189)	(\$160)	(\$132)	(\$104)
EXPORTING	15%	(\$187)	(\$160)	(\$134)	(\$107)	(\$80)
(C38)	20%	(\$157)	(\$132)	(\$107)	(\$82)	(\$56)

EMPLOYMENT

	+P12	% FEDERAL OFFSET				
		5%	10%	15%	20%	25%
	5%	1649	1800	1952	2103	2254
	10%	1800	1944	2087	2230	2374
	15%	1952	2087	2223	2358	2493
	20%	2103	2230	2358	2485	2613

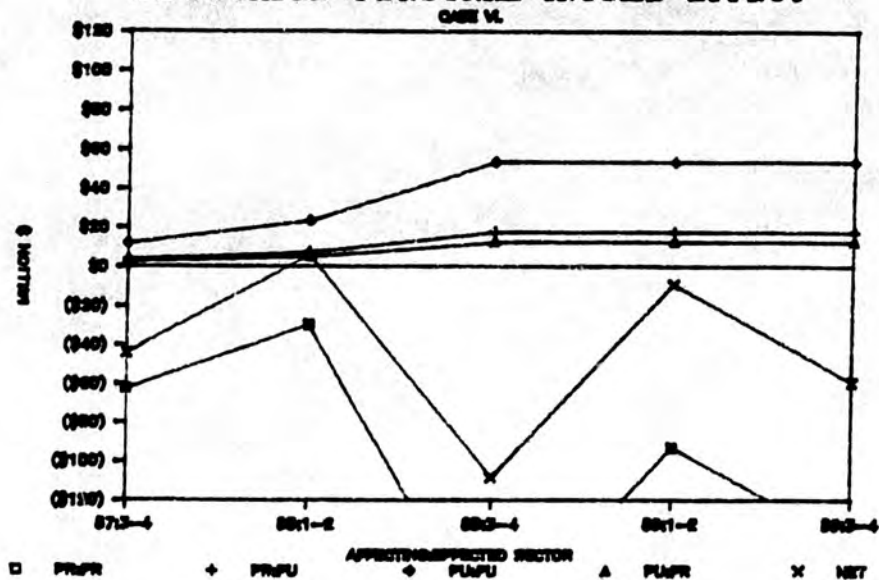
	+J12	PUBLIC MULTIPLIER (C50)				
		1.1	1.15	1.2	1.25	1.3
PRIVATE	1.1	(\$127)	(\$127)	(\$127)	(\$127)	(\$127)
MULTI-	1.15	(\$145)	(\$145)	(\$145)	(\$145)	(\$145)
PLIER	1.2	(\$162)	(\$162)	(\$162)	(\$162)	(\$162)
(C39)	1.25	(\$180)	(\$180)	(\$180)	(\$180)	(\$180)
	1.3	(\$197)	(\$197)	(\$197)	(\$197)	(\$197)

	+P12	PUBLIC MULTIPLIER (C50)				
		1.1	1.15	1.2	1.25	1.3
	1.1	641	638	634	631	629
	1.15	300	296	293	289	287
	1.2	-42	-46	-49	-52	-55
	1.25	-364	-386	-391	-394	-397
	1.3	-726	-730	-733	-736	-739

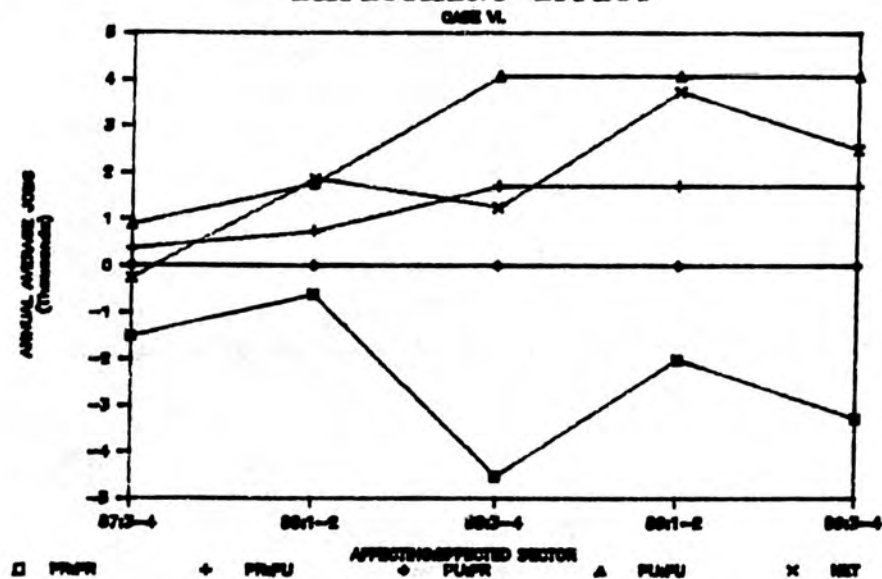
	+J12	PRIVATE MULTIPLIER (C39)				
		1.1	1.2	1.3	1.4	1.5
PUBLIC	0	(\$178)	(\$218)	(\$258)	(\$298)	(\$337)
DPI	0.1	(\$158)	(\$196)	(\$234)	(\$272)	(\$309)
CREATE	0.2	(\$137)	(\$173)	(\$209)	(\$245)	(\$281)
(M51)	0.3	(\$117)	(\$151)	(\$185)	(\$219)	(\$253)
	0.4	(\$96)	(\$129)	(\$161)	(\$193)	(\$225)
	0.5	(\$76)	(\$106)	(\$137)	(\$167)	(\$197)
	0.6	(\$55)	(\$84)	(\$112)	(\$141)	(\$169)
	0.7	(\$35)	(\$61)	(\$88)	(\$115)	(\$141)
	0.8	(\$14)	(\$39)	(\$64)	(\$88)	(\$113)
	0.9	\$7	(\$16)	(\$39)	(\$62)	(\$85)
	1	\$27	\$6	(\$15)	(\$36)	(\$57)

	+P12	PRIVATE MULTIPLIER (C39)				
		1.1	1.2	1.3	1.4	1.5
	0	3430	2656	1881	1106	331
	0.1	3467	2728	1990	1252	513
	0.2	3503	2801	2099	1397	695
	0.3	3540	2874	2208	1543	877
	0.4	3576	2947	2318	1688	1059
	0.5	3612	3020	2427	1834	1241
	0.6	3649	3092	2536	1980	1423
	0.7	3685	3165	2645	2125	1605
	0.8	3722	3238	2754	2271	1787
	0.9	3758	3311	2864	2416	1969
	1	3794	3384	2973	2562	2151

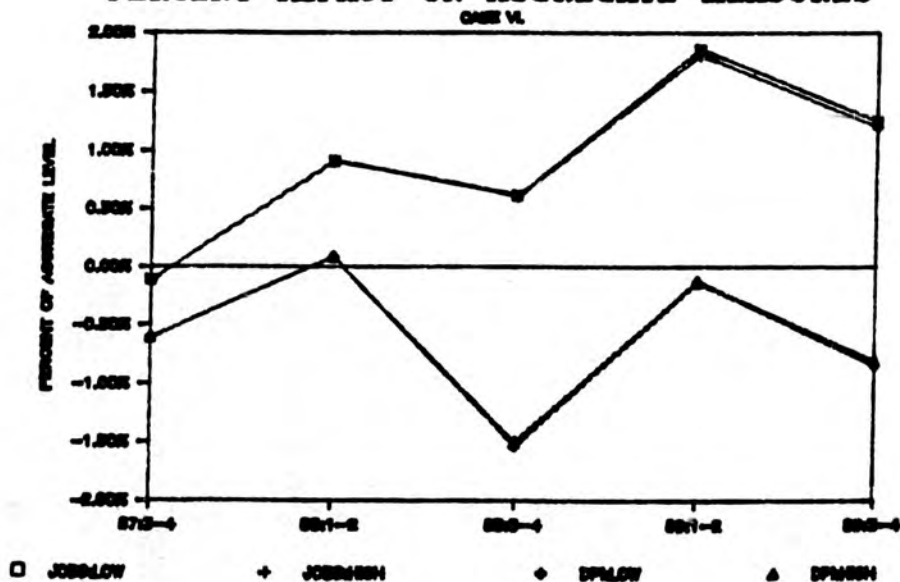
DISPOSABLE PERSONAL INCOME EFFECT



EMPLOYMENT EFFECT



PERCENT IMPACT ON AGGREGATE MEASURES



****CASE VIII*****PAGE 1.

REDUCE PERMANENT FUND DIVIDEND**NO PUBLIC SPENDING

*****CASE VIII.

REDUCE PERMANENT FUND DIVIDEND**NO PUBLIC SPENDING

READ IMPACT SOURCE ACROSS AND LOCATION DOWN*****		ALASKA INCOME (MILL \$)			DISPOSABLE INCOME (MILL \$)			DISCRETIONARY SPENDING (MILL \$)			EMPLOYMENT (ANNUAL AVERAGE)		
		PRIVATE	PUBLIC	TOTAL	PRIVATE	PUBLIC	TOTAL	PRIVATE	PUBLIC	TOTAL	PRIV	PUBLIC	TOTAL
****SUMMARY*****													
PRIVATE SECTOR		(\$626.0)	\$0.0	(\$626.0)	(\$536.8)	\$0.0	(\$536.8)	(\$429.4)	\$0.0	(\$429.4)	-2712	0	-2712
PUBLIC SECTOR		\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	0	0	0
TOTAL		(\$626.0)	\$0.0	(\$626.0)	(\$536.8)	\$0.0	(\$536.8)	(\$429.4)	\$0.0	(\$429.4)	-2712	0	-2712
TOTAL 87:3-4		(\$73.7)	\$0.0	(\$73.7)	(\$63.2)	\$0.0	(\$63.2)	(\$50.6)	\$0.0	(\$50.6)	-1597	0	-1597
EFFECT 88:1-2		(\$37.5)	\$0.0	(\$37.5)	(\$32.2)	\$0.0	(\$32.2)	(\$25.7)	\$0.0	(\$25.7)	-813	0	-813
88:3-4		(\$229.2)	\$0.0	(\$229.2)	(\$196.5)	\$0.0	(\$196.5)	(\$157.2)	\$0.0	(\$157.2)	-4965	0	-4965
89:1-2		(\$113.9)	\$0.0	(\$113.9)	(\$97.7)	\$0.0	(\$97.7)	(\$78.2)	\$0.0	(\$78.2)	-2468	0	-2468
89:3-4		(\$171.6)	\$0.0	(\$171.6)	(\$147.1)	\$0.0	(\$147.1)	(\$117.7)	\$0.0	(\$117.7)	-3716	0	-3716
PRIVATE 87:3-4		(\$73.7)	\$0.0	(\$73.7)	(\$63.2)	\$0.0	(\$63.2)	(\$50.6)	\$0.0	(\$50.6)	-1597	0	-1597
SECTOR 88:1-2		(\$37.5)	\$0.0	(\$37.5)	(\$32.2)	\$0.0	(\$32.2)	(\$25.7)	\$0.0	(\$25.7)	-813	0	-813
IMPACT 88:3-4		(\$229.2)	\$0.0	(\$229.2)	(\$196.5)	\$0.0	(\$196.5)	(\$157.2)	\$0.0	(\$157.2)	-4965	0	-4965
89:1-2		(\$113.9)	\$0.0	(\$113.9)	(\$97.7)	\$0.0	(\$97.7)	(\$78.2)	\$0.0	(\$78.2)	-2468	0	-2468
89:3-4		(\$171.6)	\$0.0	(\$171.6)	(\$147.1)	\$0.0	(\$147.1)	(\$117.7)	\$0.0	(\$117.7)	-3716	0	-3716
PUBLIC 87:3-4		\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	0	0	0
SECTOR 88:1-2		\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	0	0	0
IMPACT 88:3-4		\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	0	0	0
89:1-2		\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	0	0	0
89:3-4		\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	0	0	0

****ASSUMPTIONS*****DANGER!!!!!!!!*****

A.PRIVATE EFFECTS*****

C. DIRECT INCOME CHANGES*****

			PRIVATE	PUBLIC
*	0.14 OFFSET1	FEDERAL OFFSET: MARGINAL FEDERAL TAX RATE ON ALASKA INCOME		
*	0.01 LEAK1	TAX EXPORTING: PORTION OF INCOME TAX PAID BY NON-RESIDENTS		
*	1.35 MULT1	ECONOMIC MULTIPLIER ON RESIDENT DISPOSABLE PERSONAL INCOME	87:3-4	55 0
	0.85 DPIRATE	RATIO OF DPI/PI FOR SUPPORT SECTOR INCOME	88:1-2	28 0
	0.021 WAGESUP1	AVERAGE SUPPORT SECTOR WAGE (MILLION \$)	88:3-4	171 0
	0.15 COMP2	SUPPORT SECTOR BENEFITS AS % OF WAGE	89:1-2	85 0
	0.8 MPC1	MARGINAL PROPENSITY TO CONSUME OF TAXPAYER OR PF DIV RECIPIENT	89:3-4	128 0
	0.8 MPC3	MARGINAL PROPENSITY TO CONSUME OF SUPPORT SECTOR EMPLOYEE		
			TOTAL	467 0

B.PUBLIC EFFECTS*****

*	1 OFFSET2	FEDERAL OFFSET: AVERAGE FEDERAL TAX RATE FOR STATE EMPLOYEE	1 POR1	PORTION OF \$
*	1.3 MULT2	ECONOMIC MULTIPLIER ON STATE EMPLOYEE DISPOSABLE PERSONAL INCOME		SPENT ON
	0.031 WAGEGOV1	AVERAGE STATE/LOCAL WAGE (MILLION \$)		PUBLIC JOBS
	0.22 COMP1	STATE GOVERNMENT BENEFITS AS % OF WAGE	0.25 DPI1	PORTION OF
	0.8 MPC2	MARGINAL PROPENSITY TO CONSUME OF GOVT EMPLOYEE		NON-JOB
	0.4 BEN1	LOCALLY SPENT PORTION OF PUBLIC EMPLOYEE BENEFITS		EXPENDITURES

****CASE VIII*****PAGE 2.
REDUCE PERMANENT FUND DIVIDEND**NO PUBLIC SPENDING

*****CASE VIII.
REDUCE PERMANENT FUND DIVIDEND**NO PUBLIC SPENDING

		ALASKA INCOME (MILL \$)			DISPOSABLE INCOME (MILL \$)			DISCRETIONARY SPENDING (MILL \$)			EMPLOYMENT (ANNUAL AVERAGE)		
		PRIVATE	PUBLIC	TOTAL	PRIVATE	PUBLIC	TOTAL	PRIVATE	PUBLIC	TOTAL	PRIV	PUBLIC	TOTAL
87:3-4													
DIRECT EFFECT													
Private Sector		(\$54.5)	\$0.0	(\$54.5)	(\$46.8)	\$0.0	(\$46.8)	(\$37.5)	\$0.0	(\$37.5)	0	0	0
Public Sector		\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	0	0	0
Total		(\$54.5)	\$0.0	(\$54.5)	(\$46.8)	\$0.0	(\$46.8)	(\$37.5)	\$0.0	(\$37.5)	0	0	0
INDIRECT EFFECT													
Private Sector		(\$19.3)	\$0.0	(\$19.3)	(\$16.4)	\$0.0	(\$16.4)	(\$13.1)	\$0.0	(\$13.1)	-1597	0	-1597
TOTAL EFFECT													
Private Sector		(\$73.7)	\$0.0	(\$73.7)	(\$63.2)	\$0.0	(\$63.2)	(\$50.6)	\$0.0	(\$50.6)	-1597	0	-1597
Public Sector		\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	0	0	0
Total		(\$73.7)	\$0.0	(\$73.7)	(\$63.2)	\$0.0	(\$63.2)	(\$50.6)	\$0.0	(\$50.6)	-1597	0	-1597
88:1-2													
DIRECT EFFECT													
Private Sector		(\$27.7)	\$0.0	(\$27.7)	(\$23.8)	\$0.0	(\$23.8)	(\$19.1)	\$0.0	(\$19.1)	0	0	0
Public Sector		\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	0	0	0
Total		(\$27.7)	\$0.0	(\$27.7)	(\$23.8)	\$0.0	(\$23.8)	(\$19.1)	\$0.0	(\$19.1)	0	0	0
INDIRECT EFFECT													
Private Sector		(\$9.8)	\$0.0	(\$9.8)	(\$8.3)	\$0.0	(\$8.3)	(\$6.7)	\$0.0	(\$6.7)	-813	0	-813
TOTAL EFFECT													
Private Sector		(\$37.5)	\$0.0	(\$37.5)	(\$32.2)	\$0.0	(\$32.2)	(\$25.7)	\$0.0	(\$25.7)	-813	0	-813
Public Sector		\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	0	0	0
Total		(\$37.5)	\$0.0	(\$37.5)	(\$32.2)	\$0.0	(\$32.2)	(\$25.7)	\$0.0	(\$25.7)	-813	0	-813
88:3-4													
DIRECT EFFECT													
Private Sector		(\$169.3)	\$0.0	(\$169.3)	(\$145.6)	\$0.0	(\$145.6)	(\$116.5)	\$0.0	(\$116.5)	0	0	0
Public Sector		\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	0	0	0
Total		(\$169.3)	\$0.0	(\$169.3)	(\$145.6)	\$0.0	(\$145.6)	(\$116.5)	\$0.0	(\$116.5)	0	0	0
INDIRECT EFFECT													
Private Sector		(\$59.9)	\$0.0	(\$59.9)	(\$51.0)	\$0.0	(\$51.0)	(\$40.8)	\$0.0	(\$40.8)	-4965	0	-4965
TOTAL EFFECT													
Private Sector		(\$229.2)	\$0.0	(\$229.2)	(\$196.5)	\$0.0	(\$196.5)	(\$157.2)	\$0.0	(\$157.2)	-4965	0	-4965
Public Sector		\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	0	0	0
Total		(\$229.2)	\$0.0	(\$229.2)	(\$196.5)	\$0.0	(\$196.5)	(\$157.2)	\$0.0	(\$157.2)	-4965	0	-4965

****CASE VIII*****PAGE 6.

REDUCE PERMANENT FUND DIVIDEND**NO PUBLIC SPENDING

=====

SENSITIVITY ANALYSIS

=====

DISPOSABLE PERSONAL INCOME

		% FEDERAL OFFSET (C37)					
		+J12	5%	10%	15%	20%	25%
%	5%		(\$569)	(\$539)	(\$509)	(\$479)	(\$449)
	10%		(\$539)	(\$511)	(\$482)	(\$454)	(\$426)
	15%		(\$509)	(\$482)	(\$456)	(\$429)	(\$402)
	20%		(\$479)	(\$454)	(\$429)	(\$403)	(\$378)
	25%						
TAX							
EXPORTING							
(C38)							

EMPLOYMENT

		% FEDERAL OFFSET					
		+P12	5%	10%	15%	20%	25%
	5%		-2874	-2723	-2572	-2421	-2269
	10%		-2723	-2580	-2437	-2293	-2150
	15%		-2572	-2437	-2301	-2166	-2030
	20%		-2421	-2293	-2166	-2038	-1911
	25%						

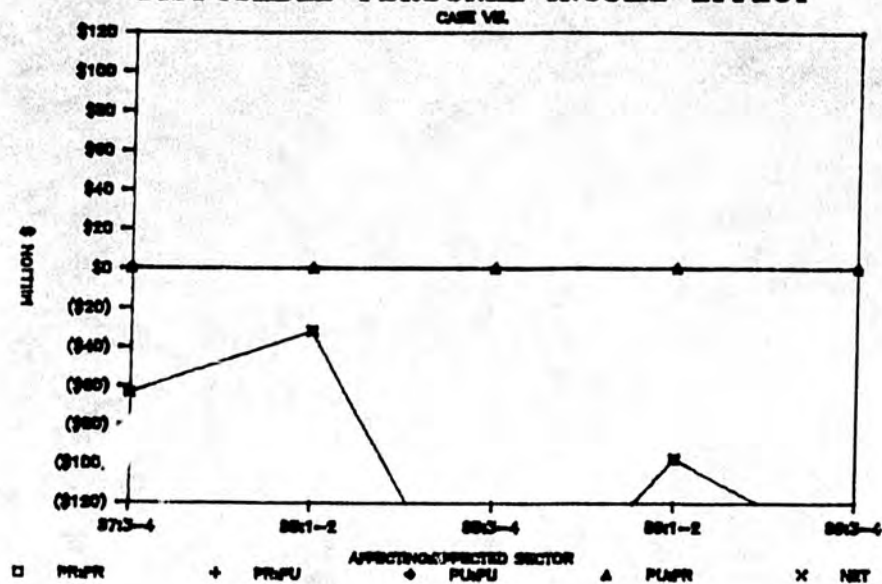
		PUBLIC MULTIPLIER (C50)					
		+J12	1.1	1.15	1.2	1.25	1.3
	1.1		(\$437)	(\$437)	(\$437)	(\$437)	(\$437)
	1.15		(\$457)	(\$457)	(\$457)	(\$457)	(\$457)
	1.2		(\$477)	(\$477)	(\$477)	(\$477)	(\$477)
	1.25		(\$497)	(\$497)	(\$497)	(\$497)	(\$497)
	1.3		(\$517)	(\$517)	(\$517)	(\$517)	(\$517)
PRIVATE							
MULTI-							
PLIER							
(C39)							

		PUBLIC MULTIPLIER (C50)					
		+P12	1.1	1.15	1.2	1.25	1.3
	1.1		-775	-775	-775	-775	-775
	1.15		-1162	-1162	-1162	-1162	-1162
	1.2		-1550	-1550	-1550	-1550	-1550
	1.25		-1937	-1937	-1937	-1937	-1937
	1.3		-2324	-2324	-2324	-2324	-2324

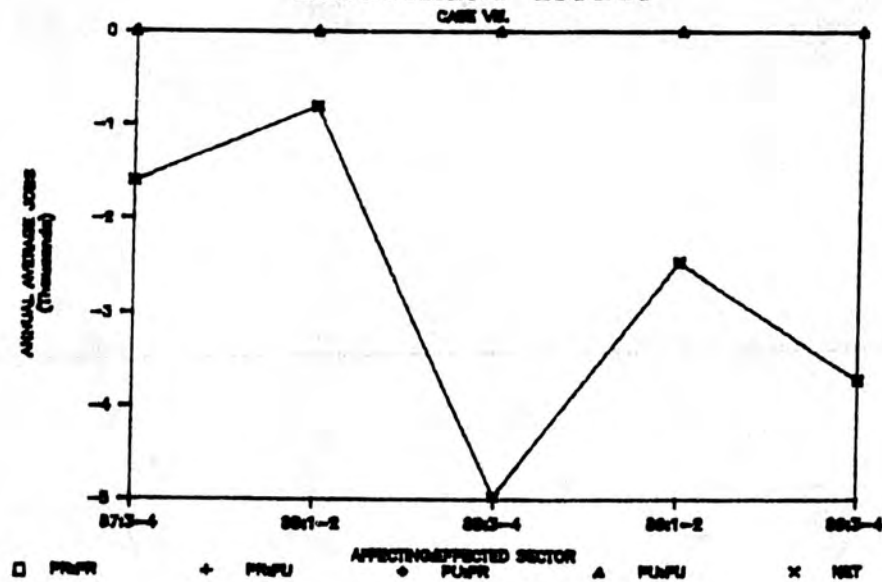
		PRIVATE MULTIPLIER (C39)					
		+J12	1.1	1.2	1.3	1.4	1.5
PUBLIC DPI CREATE (M51)	0		(\$437)	(\$477)	(\$517)	(\$557)	(\$596)
	0.1		(\$437)	(\$477)	(\$517)	(\$557)	(\$596)
	0.2		(\$437)	(\$477)	(\$517)	(\$557)	(\$596)
	0.3		(\$437)	(\$477)	(\$517)	(\$557)	(\$596)
	0.4		(\$437)	(\$477)	(\$517)	(\$557)	(\$596)
	0.5		(\$437)	(\$477)	(\$517)	(\$557)	(\$596)
	0.6		(\$437)	(\$477)	(\$517)	(\$557)	(\$596)
	0.7		(\$437)	(\$477)	(\$517)	(\$557)	(\$596)
	0.8		(\$437)	(\$477)	(\$517)	(\$557)	(\$596)
	0.9		(\$437)	(\$477)	(\$517)	(\$557)	(\$596)
	1		(\$437)	(\$477)	(\$517)	(\$557)	(\$596)

		PRIVATE MULTIPLIER (C39)					
		+P12	1.1	1.2	1.3	1.4	1.5
	0		-775	-1550	-2324	-3099	-3874
	0.1		-775	-1550	-2324	-3099	-3874
	0.2		-775	-1550	-2324	-3099	-3874
	0.3		-775	-1550	-2324	-3099	-3874
	0.4		-775	-1550	-2324	-3099	-3874
	0.5		-775	-1550	-2324	-3099	-3874
	0.6		-775	-1550	-2324	-3099	-3874
	0.7		-775	-1550	-2324	-3099	-3874
	0.8		-775	-1550	-2324	-3099	-3874
	0.9		-775	-1550	-2324	-3099	-3874
	1		-775	-1550	-2324	-3099	-3874

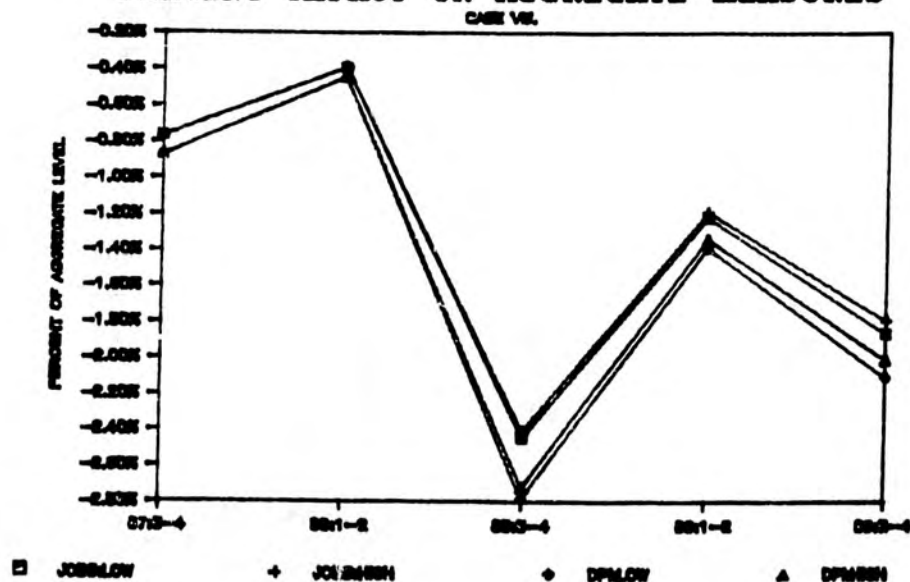
DISPOSABLE PERSONAL INCOME EFFECT



EMPLOYMENT EFFECT



PERCENT IMPACT ON AGGREGATE MEASURES



II.b. The Reduction of Private-Sector Purchasing Power from A Tax

The percentage of a dollar of tax proceeds which represents a reduction of resident private-sector purchasing power depends upon the following three factors:

- the federal tax "offset"
- "tax exporting"
- the marginal propensity to consume of the resident tax-paying population

The higher the federal "offset" and "tax exporting," the smaller the percentage reduction in the disposable personal income of Alaskans. The lower the marginal propensity to consume of the resident taxpaying population, the smaller the percentage reduction in purchasing power associated with a given reduction in disposable income.

The federal "offset" arises because taxpayers who itemize on their federal return may claim state income tax payments as a deduction against their federal adjusted gross income. Consequently, the additional liability they incur from the imposition of a state income tax is their state tax payment minus the reduction in their federal liability. The "offset" is calculated as their marginal federal tax rate multiplied by their state tax payment.

For those taxpayers who currently itemize on their federal return in the absence of the state income tax, the "offset" is complete. For those taxpayers who would only itemize on their federal return because the state income tax deduction brings their itemized deduction total over the standard deduction, the benefit is limited to their marginal tax rate times the amount of the excess deduction. The excess deduction is that portion of itemized deductions above the standard deduction.

The Alaska Department of Revenue recently estimated that the federal "offset" for three hypothetical state tax schedules would vary between 20 percent and 23 percent, partially dependent upon the size of the tax base--aggregate income.⁴ This large "offset" results from the combination of high nominal income levels in the state combined with the progressivity of the federal tax. This makes the tax saving from itemizing deductions more attractive to a typical Alaskan than a typical resident of lower-cost states. Thus, in 1979, for example, about 64 percent of adjusted gross income in Alaska was reported on itemized returns, compared to 54 percent for

⁴Vincent Wright et al., Revenue Alternatives: Individual Income Tax, Alaska Department of Revenue, December 1986.

the nation as a whole.⁵ The higher "offset" may be viewed as partial compensation for the fact that Alaskan federal tax liability is a larger percentage of income than the national average due to the fact that the federal rates are applied progressively to nominal rather than real income levels.

An estimate of a 20 percent federal tax "offset" is reasonable in this analysis because of the proportionality of the proposed state tax, which would distribute the burden over all income groups rather than concentrating it at the upper end of the income distribution. As a result, a somewhat higher proportion than under former tax schedules would fall into categories where most returns are not itemized and would thus not benefit from the "offset." The "offset" is a weighted average of the federal tax rates, which in 1988 will be 0 percent, 15 percent, and 28 percent for the vast majority of taxpayers. The breakpoint between the lower and higher rates occurs in the range of \$45 thousand adjusted gross income (AGI). This is also about the level which divides Alaska adjusted gross income, with about half reported on returns with AGI above \$50 thousand and half on returns reporting AGI below that level.⁶

"Tax exporting" is the payment of the Alaska personal income tax by nonresidents who work but do not live in the state. The percentage of such payments depends upon the importance of wages in the tax base of the state, the percentage of wages earned by nonresidents, and the tax rate applicable to nonresident earnings. In these respects, Alaska ranks high as a state with a large potential for "tax exporting." Not only is the personal income tax base in Alaska heavily weighted toward wages and salaries relative to other types of income such as interest, dividend, rents, and retirement benefits but also the nonresident component of wages paid in Alaska is the highest of any state. Other types of tax exporting occur due to nonresident ownership of other factors of production, but labor is the most important and the only one considered here.

Information is available on "tax exporting" from three sources: the federal government personal income statistics for Alaska, the Alaska Department of Revenue analyses of income tax returns from past years, and the Alaska Department of Labor analyses of wage payments by residency by industry for 1984 and 1985. These sources suggest that nonresident wages paid have varied from about 5 percent to 30 percent of total wages dependent upon the size of the economy, the stage of the business cycle, and the definition of a nonresident. Nonresident wage payments are concentrated in certain industries, primarily construction, manufacturing, and petroleum, so the

⁵Individual Income Tax Returns, 1979, Statistics of Income, U.S. Department of Treasury, Internal Revenue Service.

⁶Alaska Department of Revenue, Federal Income Taxpayer Profile: 1978, 1981, 1982, March 1985.

proportion of nonresident payments fluctuates with the importance of those sectors in the economy. As the support and government sectors of the economy have grown, the nonresident component of wages has trended downward. On the other hand, during periods of economic boom, when typically the construction industry is at a cyclical peak, the proportion of nonresident wages has increased and remained high after the peak has passed. This pattern is observable in the data shown in Table 1.

Information from Alaska tax returns in prior years is more accurate but less timely because state tax payments ended in the late 1970s. It suggests a pattern similar to that in the resident adjustment data, although it includes part-year residents as well as nonresidents.

The Department of Labor information also includes part-year residents. Part-year residents are those individuals who moved either into or out of the state during the year. In a stable economy some turnover of the labor force would naturally occur through migration, thus accounting for a part-year resident population even if the economy is not growing. In Alaska there have been few periods of stable economic activity, but Census and other information suggests that the turnover of the population is relatively high even when the net change in employment is low. This is particularly true in certain occupations such as the military. The Alaska income of part-year residents should be considered resident income, because the individual is a resident while the Alaska income is being earned.

The economy is expected to contract this year and next and then resume growth at a slower rate than in the past. This suggests that the trend toward a lower nonresident portion of wages will continue as those industries with high resident components grow relative to the total. During the contractionary phase of the business cycle, the nonresident portion will also contract as the construction industry gets smaller.

We estimate the nonresident portion of wages to be 8 percent for the purpose of this analysis. This does not include part-year residents who we count as Alaskan residents. This is a conservative (low) estimate which takes account of the fact that an income tax which included withholding would draw purchasing power from the Alaska economy from nonresident workers as well as residents. This is because nonresident workers spend some of their income in the Alaska economy during the time they are in the state working. A tax on their income would reduce their in-state purchases. In addition, an income tax would reduce the incentive for nonresidents to work in Alaska. We also assume that the average tax rate applicable to nonresident income will be the same as that for residents.

TABLE 1. NONRESIDENT WAGES IN ALASKA
(million \$)

Year	Income	Wages	Residence Adjustment	Residence Adjustment as Percent of Income	Residence Adjustment as Percent of Wages	Percent of State Income Tax Paid by Nonresidents	Percent of Wages Paid to Nonresidents
1969	1330.8	1127.2	-68.7	5.2	6.1		
1970	1517.5	1266.6	-73.1	4.8	5.8		
1971	1670.7	1381.6	-71.4	4.3	5.2		
1972	1831.6	1507.8	-70.2	3.8	4.7		
1973	2160.1	1663.1	-80.6	3.7	4.8		
1974	2631.9	2226.1	-226.8	8.6	10.2		
1975	3754.6	3562.1	-644.5	17.2	18.1		
1976	4520.5	4403.4	-932.4	20.6	21.2	31	
1977	4674.4	3940.4	-484.4	10.4	12.3	18	
1978	4804.8	3731.4	-315.5	6.6	8.5	12	
1979	5017.4	3874.5	-288.9	5.8	7.5	11	
1980	5585.9	4387.9	-327.3	5.9	7.5		
1981	6421.4	5242.0	-427.0	6.6	8.1		
1982	7701.7	6078.6	-538.8	7.0	8.9		
1983	8690.2	6667.2	-583.7	6.7	8.8		
1984	9079.7	6991.8	-564.3	6.2	8.1		13
1985	9476.3	7129.4	-561.3	5.9	7.9		12

SOURCES: Income, Wages, and Residence Adjustment from U.S. Bureau of Economic Analysis. Personal Income by Major Source and Earnings by Industry. Microfiche dated August 1986.

Alaska Department of Revenue, telephone conversation, 5/11/87, based on zipcode of filer.

Alaska Department of Labor, Non-Residents Working in Alaska in 1985, January 1987.

The reduction in aggregate demand from the tax depends upon how much consumer spending is reduced by a reduction of disposable personal income--a relationship economists call the "marginal propensity to consume." At issue are two factors: the proportion of marginal income that goes into saving and is, therefore, not spent, and the proportion of income that is spent on goods and services provided outside the Alaska economy. Both of these factors represent "leaks" out of the spending stream and reduce the impact from a change in disposable personal income. These factors in turn depend upon the structure of the economy and the income of the consumer.

Of the purchases of goods and services that a consumer makes, the local component will largely depend on what locally available choices are. Generally the smaller the market size the larger the proportion of goods and services purchased outside the market either through the direct importation of goods and services or by going outside the region for purchasing goods and services. This is partially determined by access to large markets due to income and proximity.

The marginal propensity to consume declines as consumer income increases. This means that at higher incomes, consumers will purchase more goods and services but that a disproportionate share of additions to income will be saved. Consequently, a reduction in the disposable personal income of a high-income individual will cause spending to decline by a smaller amount than if the reduction were from a low-income individual. Current savings would be reduced more by cutting the income of a high-income person than of a low-income person. This relationship is seen by referring to Table 2, which shows the relationship between income and consumer spending in 1981 for the U.S. population divided into five income categories. Spending as a percentage of income falls as income rises. At the lower end of the scale, spending considerably exceeds current income. Consumers in this low-income category are drawing down accumulated assets to maintain spending at a level in excess of current income. Consumers in the highest income category are accumulating assets through current saving.

The usual explanation of this behavior is the "life-cycle hypothesis" of consumption. The idea is that the consumption level of an individual is based upon his expected lifetime income rather than current income. Thus, the young and old will consume in excess of current income, which is low relative to lifetime earnings; and middle-aged consumers, who have income high in relation to lifetime earnings, will save.

Because the income tax is somewhat biased toward reduction of the income of higher-income individuals, one would expect the lost consumption from the tax to be somewhat less than the average for the population. Beyond this general statement, it is impossible to be specific quantitatively because a detailed analysis of Alaska consumer expenditure behavior has never been done.

TABLE 2. CONSUMER EXPENDITURE PATTERNS

	Income Range					Average of All Households
	Lowest 20% of Households	20-40	40-60	60-80	Highest 20% of Households	
Income	\$3,473	\$9,791	\$16,809	\$25,128	\$44,616	\$19,989
Taxes	125	590	1,668	3,356	6,768	2,505
Disposable Income	3,248	9,201	15,141	21,772	37,848	17,484
Expenditures	7,852	11,570	15,736	20,714	30,563	17,301
Average Propensity to Consume [Expenditures/ Disposable Income]	2.4	1.26	1.04	.95	.81	.99

SOURCE: U.S. Department of Labor, BLS Consumer Expenditure Survey: Interview Survey, 1980-81, Bulletin 2225, April 1985, Table 1.

The consumption lost because of the tax also depends upon the particular types of purchases made by those whose income is reduced. The issue here is whether consumers in different income groups allocate different proportions of their spending to local compared to nonlocal expenditures. There are two factors which are important in this determination--location of direct purchases and the input composition of local direct purchases.

A consumer can purchase goods and services within the community or from outside either through direct importing or through trips outside the community. Specific information about out-of-region purchases by income are not available from the recent consumer expenditure survey. It is logical that out-of-region trips would be a function of income, however, since tourism is clearly an income-related phenomenon.

Different consumption patterns may also imply different levels of locally purchased inputs even if the purchases are physically made within the region. The local economic impact of \$20 spent on a

haircut will be greater than that of \$20 spent on the purchase of a book, even though both are purchased locally. The haircut is a service with a high local value-added, or income producing, component with little of the purchase price used to pay for inputs purchased from outside the community. The book purchase is low in local value-added (unless the book was written and produced in the community) because the manufacture of the book took place outside of the region.

We are aware of no systematic analysis of the local component of purchases by consumers in different income categories. On the one hand, as income rises the opportunity cost of doing certain tasks like cleaning, accounting, etc. rises, and it becomes more likely that a person with a high income will purchase those types of services rather than provide them himself. On the other hand, as income rises the demand for goods and services which are not available within the local market would increase.

In the absence of actual data on this topic, it is not possible to generalize, so we assume that the local input component of local purchases is not functionally related to income. Because of the absence of specific data on marginal propensities to consume locally by income class, we assume no distinction between marginally taxed income and general income.

II.c. The Reduction in Purchasing Power from Permanent Fund Dividend Reduction

The reduction in consumption caused by a reduction or elimination of the Permanent Fund dividend can be analyzed in the same way as that of reimposing the income tax: first, by how much is Alaska personal income reduced and, second, by how much is Alaska spending out of that income reduced.

Dividend payments go only to residents, but a small portion, which we estimate at 1 percent, goes to "functional nonresidents" who are away at school or who leave the state after receipt of the dividend. The reduction in Federal income tax payments with a reduction of the dividend amount is the marginal federal tax rate multiplied by the dividend reduction. This federal tax leakage was estimated for 1982 by the Alaska Department of Revenue to be 20.2 percent, but because the estimate is based upon the federal income tax before the Tax Reform Act of 1986, it is no longer valid.⁴

⁴"1982 Federal Tax Leakage Associated with the Permanent Fund Dividend Program," Alaska Department of Revenue, July 1983.

The federal tax leakage associated with the dividend must be smaller than the federal "offset" of the income tax for three reasons. First, the dividend is received by some individuals who have no taxable income and thus have a marginal tax rate which is zero. Second, the distribution of the dividend is proportional over the entire population whereas the distribution of taxable income is not. Because the new federal tax code has two tax rates, a larger percentage of taxable income will be taxed at the higher rate than the percentage of dividend income which will be taxed at the higher rate. Third, for most children receiving dividends, the first \$500 will be nontaxable because they have no other unearned income.

We calculate the federal tax leakage associated with a reduction of the Permanent Fund dividend of the magnitude considered in this analysis to be 14 percent. This estimate is based on the following reasoning. We assume 29 percent of the dividends are paid to children, the percentage in 1982.⁸ We assume the marginal tax rate on that income to be 5 percent because, although the lower federal tax bracket in 1988 will be 15 percent, the standard deduction on unearned income of \$500 for children will shield most of this income from taxation. Of the 71 percent of dividends paid to adults, we assume two-thirds go to individuals who face the lower federal tax rate at the margin--15 percent--while one-third pay the higher tax rate--28 percent--at the margin. The higher marginal rate begins to become effective more frequently above a level of \$40 thousand adjusted gross income. About two-thirds of tax returns from Alaska will be below and one-third above this level. Different assumptions will give slightly different results, but the percentage will necessarily be below the federal tax "offset" for the three reasons given above.

The reduction in consumption associated with a dividend reduction is affected by the fact that the reduction occurs proportionally across the population. It falls more heavily on lower-income individuals than the income tax, and consequently the marginal propensity to consume out of dividend income will be higher than out of income lost to the income tax. With these factors in mind, we assume an economic multiplier of 1.35 for dividend income, compared to 1.3 for other income.⁹

⁸Ibid.

⁹This assumption was tested using sensitivity analyses to determine the magnitude of multiplier associated with the dividend which would yield a drop in disposable personal income (dpi) of the same amount as an income tax with a multiplier of 1.3. The result was 1.12. This means that if the "leaks" associated with the alternatives have been measured accurately, then the Dividend impact on dpi would be less than that of the tax only if the multiplier associated with the dividend was less than half that associated with the tax (1.12 vs. 1.3).

This assumption could be modified by two factors. First, part of the dividend is paid to children. Their consumption habits are not well-documented, although in many instances, particularly for younger children, the parents determine the disposition of the dividend. Allocation to savings out of this income would likely be related not to the income of the children, but rather to that of their parents. Second, to the extent that the dividend is perceived to be a one-time windfall rather than a permanent change in annual income, the portion of the dividend saved, or invested in a durable good, would be higher. This reasoning could be applied to the original distribution of \$1,000 but is less convincing for the subsequent distributions, except to the extent people anticipate that the dividend will be terminated in the near future.

Finally, the impact depends upon the marginal propensity of that income to be spent locally and the local component of the goods and services actually purchased in the region. As mentioned above, there is no convincing evidence that the marginal propensity to consume locally significantly declines at higher income levels.

II.d. The Increase In Purchasing Power Associated With Government Spending

Government spending puts money into the economy just as private spending does and differs from it only in the composition of purchases made and jobs created. Thus, the state might cause a reduction in expenditures on eating in restaurants by imposing an income tax and use the proceeds to purchase automobiles for the state troopers. In this example, demand is transferred from restaurants to automobiles by the fiscal actions of state government. Obviously, what government spends money on determines the size of its impact on the regional economy.

The state government spends a large part of its budget on personnel costs--wages and benefits of employees. In addition, large parts of the budget are transfer payments to local government and nonprofit organizations which spend most of their budgets on personnel costs. Thus, a large part of government purchasing power is personnel cost.

State government need pay no taxes to the federal government nor spend out of the state, so a dollar of appropriations for personnel expenditures can nearly all become income to Alaskans. For the purposes of this study, we assume wages remain constant, so personnel expenditure cuts occur through "across the board" layoffs.¹⁰ On average, about 78 percent of a personnel expenditure becomes personal income of Alaskans while the remaining 22 percent is

¹⁰A companion ISER study to this one is investigating the differential economic effects of wage reduction compared to layoffs.

allocated to benefits, of which retirement and medical insurance are the most important. A portion of benefits payments creates an economic impact because it represents the current purchase of goods and services within the region. Purchases for medical or dental services funded by insurance is the most obvious example. The administration of retirement and life insurance programs is another. The effect of retirement contributions on current spending is small, but this does represent a potential increase in local purchasing power in the future. The timing and location of the spending is impossible to estimate and so we ignore it. We estimate about 40 percent of benefits is spent locally when allocated.

The nonresident portion of wages and salaries paid in government is very small based upon the Department of Labor studies, and we choose to ignore it. The federal tax leak is substantial. It is a function of the average tax rate of the state employees.

Since the federal tax schedule is progressive and involves both exemptions and deductions which shield some income from taxation, the average tax rate for an individual will always be below the marginal tax rate. One of effects of the Tax Reform Act of 1986 has been to reduce the progressivity of the tax system, and as a consequence, the marginal and average tax rates are much closer to one another than previously. Still, it appears that the average tax rate will be less than half the marginal rate for broad categories of taxpayers--based on the pro forma analysis in Part IV of this report. For example, a family of four living in their own home and filing a joint return would pay an average rate less than half the marginal rate up to about \$60 thousand of adjusted gross income.

The average tax rate for government employees will be above the average tax rate for the community as a whole to the extent that the average wage in state government is above that of the total economy, to the extent government workers are in two-wage-earner families in excess of the community average, and to the extent that government workers have significant nonwage income. The average tax rate will be less to the extent that state employees are homeowners in excess of the community average for comparable income levels.

Some information is available on the household income characteristics of government employees from the U.S. Census. We present it in Table 3 as a source which shows the household income characteristics of full-time state employees. Based upon the table and the pro forma tax analysis of Part IV, we estimate an average federal tax rate for government employees of 15 percent.

The consumption of government employees depends upon what they do with their disposable personal income. Here we are concerned with the average propensity to consume because the analysis considers layoffs, the location of consumption, and the locally produced portion of items purchased locally. As Table 2 suggests, the average propensity to consume is larger than the marginal propensity

TABLE 3. SAMPLE OF ALASKA HOUSEHOLDS WITH STATE WORKERS

Family Households With at Least 1 State Worker

Income (thousands of 1987\$)	More than 1 Full-Time Employed						Nonfamily Households With at Least 1 State Worker	
	1 Employed, 1 State Worker		2 or More State Workers					
	No. of Families	Average Wage (1987\$)	No. of Families	Average Wage (1987\$)	No. of Families	Average Wage (1987\$)		No. of Households
0 to 10	5	9,017	0	0	0	0	18	6,242
10 to 20	17	15,200	9	11,354	1	8,258	29	14,129
20 to 30	36	19,667	6	12,732	2	12,383	49	25,713
30 to 40	29	27,522	20	21,098	4	17,106	29	34,380
40 to 50	48	36,483	21	21,812	5	20,762	21	41,195
50 to 60	40	44,549	36	29,126	4	25,973	15	54,761
60 to 70	21	43,112	29	28,157	12	32,471	5	53,795
70 to 80	19	49,833	33	39,671	8	33,093	2	67,200
80 to 90	7	63,044	17	47,285	12	41,471	0	0
90 to 100	2	65,198	14	39,236	5	33,983	0	0
100 and over	11	72,338	33	49,457	7	55,641	1	60,008
Number of State Workers	266	36,435	232	33,110	135	33,675	192	29,166

NOTE: Actual 1979 wage converted to 1987 using the Anchorage CPI.

SOURCE: 1980 U.S. Census for Alaska, Public Use Sample

to consume. Since government employee income is above the average, however, their average propensity to consume is below that of the population in general. We assume equality between the average propensity to consume of state workers and the marginal propensity to consume out of taxable income.

A final question is whether government employees have expenditure patterns significantly different from other consumers in similar income groups. There is no evidence that this is the case.¹¹

Government appropriations fund many different activities in addition to the hiring of employees. Each has a different impact on the economy in terms of disposable income created in the community as well as employment generated. Previous studies have discussed and calculated the impacts of different types of government expenditures.¹² Only some general comments are included here.

Transfers to local governments, transfers to nonprofit organizations which use most of their budgets for personnel expenditures, and the private contracting of service delivery have the same general types of impact as direct government hiring of people. A larger percentage of jobs created may be in the private sector, but the total amount will be about the same.

A common misconception exists that government capital expenditures generate larger amounts of economic activity than other types of spending. Using employment and income as indicators of activity, construction spending ranks well below personnel spending. The income which flows to residents from construction is a portion of the wages paid and portions of overhead and profits. Large portions of each dollar of construction money go directly outside the economy to pay for materials fabricated outside the state or to pay the salaries of nonresident workers. This money may appear as transactions of Alaska businesses, particularly through construction firms and wholesale firms, but it does not represent income of Alaskans which directly contributes to their well-being. After construction, these projects may stimulate additional income and employment in an economy, but whether that is, in fact, the case depends upon the characteristics of each individual project.

The purchase of goods by government produces Alaska income to the extent the purchases are made within the state and the value added associated with those in-state purchases is large. Income and

¹¹For a discussion of this point, see the companion ISER study referenced in footnote 10.

¹²Goldsmith, "How State Spending Reductions Affect Economic Activity," ISER Working Paper 86.2.

employment generation is primarily in the trade and transportation sectors since very few goods are manufactured in Alaska.

The repayment of debt does not impact personal income or employment even if the debt is held by Alaska residents. In the absence of Alaska state government debt, these individuals would be holding debt and receiving income from some other source.

The provision of income transfers, either directly or through loan subsidies, and of goods and services at below-market price is the other primary activity of state government in Alaska. The personal income per dollar of program cost which accrues to Alaska residents varies with each program. For example, a student loan which allows a student to travel outside the state to pursue his education can have an absolutely negative economic impact since it reduces the amount of income spent in Alaska. On the other hand, a student loan which provides extra income which is spent within the state has a positive economic impact on income. A transfer which allows an individual to remain in the state can have a very large economic impact if that individual has significant other income. This may be the case for some recipients of the longevity bonus program. Loan subsidies have two types of effect on the economy--one through a transfer of income to the subsidized loan recipient, and the other through the stimulation of new demand for the activity which is subsidized. The economic effects of these programs must also be analyzed individually.

For this analysis, we assume that on average Alaska disposable personal income of 25 cents is created for each dollar of government spending on nonpersonnel expenditures. Because of the wide range of impact among programs, this is a general estimate. Sensitivity analysis suggests that, although the size of the impact of these activities depends upon this assumption, the direction of change of disposable personal income and employment are not sensitive to this assumption.

II.e. Comparison of Income and Employment Effects of Alternatives

Reducing disposable personal incomes using a tax or by reducing the dividend does not directly eliminate private sector jobs. These policies eliminate private sector jobs when the reduction of purchasing power shrinks the support sector--trade and services. In contrast, government spending on personnel directly increases employment if the funds are used to hire employees--either government workers or private workers under contract. Private support jobs are created when these workers spend their income.

III. WHAT ARE THE "SUPPLY SIDE" CONSEQUENCES OF THE INCOME TAX

III.a. "Supply Side" Economics

In recent years, the idea of "supply side" economics has been central in discussions of tax policy, particularly at the federal level. It was a major rationale for the tax cuts during the first Reagan administration and was influential in the Tax Reform Act of 1986. The idea is that high tax rates on personal income are both a disincentive to work and also a disincentive to saving and investment. As a consequence, the economy is unable to utilize the full productive potential of its resources. The most ardent proponents of "supply side" economics argued that the general tax cut of 1982 would actually increase tax receipts because of the additional taxes which would be collected from the new jobs and investment created in the more favorable tax environment.

There is little evidence that the dramatic changes promised by the "supply siders" as a result of the the 1982 tax cut have occurred. The personal savings rate is at an all-time low. Private investment more often takes the form of buying existing competitors than investing in new productive capacity. The federal budget deficit is now larger than at any time in history. The huge federal deficit is in direct competition for investable funds with private industry. Only employment has shown robust growth, but this is primarily because the economy has been recovering from the 1982 recession since the tax cut, and employment always grows during an expansion.¹³

The poor results for the economy of the "supply side" federal personal income tax cut suggest that the issues of supply side economics are not as simple as some of its proponents argue. On the other hand, it is necessary to keep in mind that Alaska is a small open economy within a federal system. Thus, interregional shifting could occur in response to tax changes at the state level which would not be a consideration in calculating supply effects at the federal level.

III. b. General Disincentive Effects of Taxes

When a tax is imposed on a commodity, the nominal incidence of the tax is said to fall on those individuals who buy that commodity. These individuals will naturally seek to avoid the tax by changing their behavior. They will try in this way to shift the burden of the tax to someone else who ultimately pays the tax and is said to bear

¹³Uwe Reinhardt, "Enjoy the Party--for Tomorrow Somebody Will Have to Pay," Princeton Alumni Weekly 87, February 25, 1987.

the real incidence of the tax. The shifting of the burden can be forward or backward.

For example, consider a firm faced with an excise tax on one of its inputs. The firm would try to pass this cost of doing business on to someone else. If the firm raised its prices to cover the cost of the tax and its volume of sales was not affected, then the firm would have successfully shifted the payment of the tax forward to consumers. If the firm reduced the wages of its employees by the cost of the tax and there was no change in the quality of work, then the firm would have successfully shifted the cost of the tax backward. On the other hand, if the cost could neither be passed on to consumers or back onto other inputs, then the firm would have to bear the cost in the form of reduced profits to the owners or shareholders.

In general, the real incidence of a tax will not correspond to its nominal incidence but will be shared as a result of partial forward and backward shifting. Thus, the firm may raise its price a little, reduce wage levels a little, and take a little less of a profit; and in this way, the actual payment of the tax will fall on all three groups in proportion to their sensitivity to price changes. For example, if a firm would lose all its customers if it raised its price, then it would not be able to shift any of the burden of the tax forward.

When taxpayers change their behavior in order to minimize the taxes they pay, a dead weight loss which economists call an excess burden is created. This is basically a measure of the loss in value to society over and above the actual amount of the tax paid. The extra loss arises because prices in the economy no longer reflect true costs. If the firm can totally pass the cost of its tax on to consumers in the form of a higher price for its product, some consumers will pay the tax, but others will shift to other products which they would not prefer if prices reflected the real cost of production.

For example, if a tax were placed on one brand of beer, raising its price from \$1 to \$2 a can (the tax is shifted forward to consumers), those who continue to consume the \$2 beer will bear the real incidence of the tax. There will be some people who preferred the beer at \$1 and would, in fact, be willing to pay \$1.50 for a can but at the higher price shift to an untaxed brand costing \$1. The \$.50 premium over the pretax price they would be willing to pay for the taxed brand of beer is the loss to society over and above the taxes actually paid.

A tax is neutral if it has no distorting effects caused by shifting for the purpose of avoidance. Since in practice there are no such taxes, the question of distortion is one of degree, and in choosing a tax, its distortions must be considered along with its other features, such as equity.

The notions of incidence and excess burden, in general, are greatly complicated by the fact that these calculations are always a "compared to what" analysis. That is, the shifting and excess burden depend upon the existing taxes, government expenditures, and whether the economy is at full employment when the new tax is put in place.

Analysis of the potential distortions or shifting of the personal income tax are further complicated by the fact that income is not a commodity such as we have been using in our example. The tax potentially distorts the allocation of time between work and leisure for individuals and the allocation of spending between savings (investment) and consumption. In addition, a regional distortion might be introduced into an economy from the introduction of taxes at a regional level. Resources might be allocated away from a region with higher taxes toward a region with lower taxes.

III.c. Labor Supply Effects

The nominal incidence of an income tax is primarily on wage and salary income which, in Alaska, is about 88 percent of adjusted gross income¹⁴. Three types of distortion can result from attempts by labor to shift the incidence of the tax--change in the amount of labor supplied by residents to the Alaska market, a shift of labor out of the Alaska market, and an increase in the price of labor to Alaska businesses. Of these possible distortions, the change in the amount of labor supplied by Alaska residents is potentially the most significant.

A reduction in the wage rate caused by an increase in the personal income tax will affect the behavior of workers in two opposite directions. First, the monetary return from working falls so that the "cost" associated with not working, or leisure, goes down. The effect of this is unequivocally to reduce the supply of labor. Second the income of the worker falls and, with it, his ability to consume all types of goods--including the good called leisure. As a consequence, his consumption of all goods including leisure will fall, and if leisure consumption falls, the amount of time spent working will rise. Thus, on net the change in the amount of labor supplied to the market when a tax is imposed on labor will depend on which of these two effects predominates.¹⁵

An example will clarify this. Consider a laborer who receives a raise. He now has both a higher income and a higher hourly wage rate than before. He must decide whether to work more or fewer hours than he did at the lower wage and income. His choice will

¹⁴Alaska Department of Revenue, Federal Income Taxpayer Profile: 1978, 1981, 1982, March 1985.

¹⁵Economists call these the substitution and income effects.

depend upon how he values leisure time relative to other goods. If he values leisure very highly, then he may choose to use some of his additional income to purchase more leisure time, and consequently he will work fewer hours. On the other hand, he may choose to take advantage of the higher hourly wage to work more hours than before. Total hours worked--the supply of labor--could decrease or increase. The answer depends upon the preference of the individual worker.

For a cut in the wage rate, the same reasoning would apply in the opposite direction. An employee might work fewer hours because of the lower hourly wage, or he might work more hours in order to recoup lost income. Again, the answer depends upon individual preference.

Economists who have studied labor market responses to changes in tax rates and other sources of income have not reached a general consensus as to the sensitivity of labor supply to taxes, but some general agreement has arisen out of the studies on a number of issues which make it possible to approximate the magnitude of effect of the state tax on the supply of labor by residents.¹⁶ These analyses have all been based upon the federal tax schedule, which has much higher average and marginal rates than the state tax, and consequently any effect observed from the federal tax would be proportionately less important for a proportionately smaller state tax.

First, there is agreement that, to the extent there is shifting, it is in the direction of a reduction in labor supply. Workers do not shift the burden of the tax forward onto business. There does not seem to be any evidence, for example, that wage rates fell when the state income tax was eliminated in the late 1970s.

Second, there is general agreement that the distortion varies by the component of the labor force. In particular, young people and married women who are employed part time as the second wage earner in a family are more sensitive to the rate at which income is taxed than are full-time employed married men who are the primary wage earner in the family.

¹⁶The range of disagreement about the direction and magnitude of distortion is relatively small, however, in comparison to the property tax and the corporate income tax, about which the opinion ranges from a complete forward shifting to a complete backward shifting. The issues surrounding this analysis are quite complex and involve such basic questions as what the labor supply is and how the social security tax is viewed by workers. For example, a lower wage might result in people working less hours in a year but postponing their retirement, or it might result in less investment in education to increase skills. If the social security tax is viewed as forced savings, then it will not be viewed as a tax by the individual and will not distort his behavior.

Third, there is general agreement that the distortion is a function of the marginal rather than the average tax rate. This potentially impacts very high- and very low-income wage earners. For high wage earners the marginal tax rate is very high compared to the average rate. A person in those circumstances is more likely to decrease his work effort if additional (marginal) income is taxed at a very high rate. For low-income individuals, various government transfer payments such as social security, unemployment insurance, and Medicare provide a safety net which is gradually removed when they begin to have income from employment. Because these programs reduce the income differential between working and not working at low levels of income, they in effect impose a high marginal tax rate on wage income. For example, if a person has a choice between collecting unemployment insurance at \$100 per week or working for a wage of \$200 per week, the marginal return from working even in the absence of a tax would only be 50 cents out of each \$1 because 50 cents would substitute for the unemployment insurance benefit.

Disagreement among economists arises as to the magnitude of the distortion. Initial studies found that there was no shifting of the tax due to a significant reduction in work effort. More recently, however, studies have found that the supply of labor is reduced because of the personal income tax. The results arise partly because of the increasing importance of part-time employment and partly because of increases in marginal tax rates and government transfers at lower income levels. In addition, more recent studies employ more sophisticated statistical analyses.

The study which reports the largest effect concluded that the combination of the federal and state income taxes and the payroll tax based on information in 1975 resulted in a reduction of labor supplied by 8 percent. An important additional finding of the study was that this was largely the result of the progressivity of the tax rates rather than the taxes themselves. Consequently, a proportional tax schedule was estimated to reduce the distortion in labor supply to 1 percent.¹⁷

¹⁷This result followed from the fact that the substitution and income effects were both found to be significant but largely offsetting under the existing tax rate schedule. A more proportional tax schedule would reduce the importance of the substitution effect relative to the income effect. In other words, if the tax were proportional, people would respond by increasing their work effort to regain lost income just about as much as they would reduce their work effort because of its lower return. (Jerry Hausman, "Labor Supply," in Henry J. Aaron and Joseph A. Pechman, ed., How Taxes Affect Economic Behavior, Washington, D.C.: The Brookings Institution, 1981.

If we were to estimate the maximum size of a potential labor supply distortion for an Alaska income tax on the basis of this study, we would need to recognize first that the federal income tax rate schedule has both declined and become less progressive since 1975. Second, the Alaska tax rate is a small increment to the federal tax. If the distortion of the new federal tax is as high as 4 percent, that of the Alaska tax would still be less than 1 percent, because the Alaska average and marginal tax rate is about one-sixth of the federal rate.

III.d. Savings-Investment Effects

The second potential distortion of the income tax involves a misallocation between saving (investment) and consumption. If there is a tax on income from saving, then there will be a disincentive to save because the return after taxes will be below the nominal return. Consequently, there will be more current consumption, the rate of accumulation of capital will be reduced, and economic growth will be reduced. However, like a tax on income from wages, there is a second effect which works in the opposite direction. This effect arises because investment undertaken for the purpose of saving is for future consumption. When the rate of return on personal savings falls because of a tax on earnings, the future income of the investor falls relative to current income. In response, a person may well decide to save more in the current period in order to spread his consumption more evenly between the present and the future.

For example, a young and old person might have opposite reactions to an increase in the rate of interest on savings. The young person might choose to defer current consumption by increasing his savings because, by doing so, his lifetime income could be greatly enhanced. For a person nearing retirement age, an increase in the rate of interest on savings might result in a reduction in savings and a corresponding increase in the rate of consumption. Such a decision might be based on a preference for enjoying a portion of his increased income in the present period.

Economists have investigated the relationship between the rate of interest and the rate of savings for a long time, and the general consensus is that the amount of total savings out of current income is not very sensitive to variations in the rate of interest. There are a number of possible explanations for this insensitivity, and clearly people with high incomes save more than people with low incomes, but for the economy in total, personal savings is not very sensitive to the interest rate. Thus, there is likely to be little distortion of the savings-consumption choice from a state income tax.

Even if a distortion could be identified, the economic effect is ambiguous. Alaskans can do two different things with that portion of their income which is not spent on consumption goods. They can

save it in the form of a financial asset like a savings account or a mutual fund, or they can invest it in a business venture. If they buy a financial asset, the effect on the Alaska economy will be small because the financial market is a national market. The purchase may occur through the services of a local broker, but the net savings will enter a national market and may be used for investment anywhere in the United States or anywhere in the world. On the other hand, if the investment is in an Alaskan business, there will be an impact via the multiplier on income and employment in the region. It is not obvious, however, whether the local economic impact from the investment expenditure is of a greater or lesser magnitude than an equivalent amount spent on consumption. It would be the case if the investment were a stimulus to further growth of the economy. Thus, even if a tax were to result in a reduction in the level of savings or investment and an increase in consumption, the economic effect could be positive on the economy in terms of employment and income.

The reduction in investment in the Alaska business sector from a personal income tax would be a function of the types of businesses in the community and, in particular, in their ability to shift any reduction in return on investment either forward to their customers in the form of higher prices or backward onto their factors of production. In general, businesses with a locational advantage will be able to shift the burden most successfully. For example, a barbershop would likely be able to raise its price for a haircut to offset the decline in the return on its investment. In contrast, a coal mine producing for export would not be able to pass on higher costs because of the competition it faced from other producers outside the region.

In Alaska, the vast majority of businesses are not in direct competition with firms outside the region through exports. Furthermore, a significant portion of the earnings of the firms involved in basic industries either are corporations or are not Alaska owned. Neither would be liable for the personal income tax.

III.e. Regional Distortion Effects

A final potential distortion arises because the income tax affects earnings within a limited region. People may try to avoid the tax by moving out of the region to a location with lower tax rates or may shift investments out of the region to avoid the tax.

The decision to move or relocate investments is based on the difference in expected income minus the costs of moving. Expected labor income will be determined by the average tax rate. For incomes below \$100 thousand, the average rate for a family would not exceed 3 percent and for a single person would not exceed

4 percent.¹⁸ This is in contrast to the federal average rate which rises to 20 percent for a family and 27 percent for an individual. Thus, the state tax rate is about 15 percent of the federal rate, a relatively small increment to tax liability.

Even so, there are individuals who, in the absence of the tax, are just indifferent to continuing to live in Alaska and moving to some other location. The addition of an income tax would reduce their income to the point where a move would be preferable. Based upon past experience with wage differentials between Alaska and the rest of the nation, this would not be a significant effect. For example, during the current business cycle in Alaska, the per capita income gap between Alaska and the rest of the nation has widened considerably due to a number of factors including the payment of the Permanent Fund dividend, the elimination of the personal income tax, and the increase in average wage rates. Table 4 shows the difference in the after-tax per capita income figures for Alaska and the United States. The real per capita income figures are also presented, correcting for the higher cost of living in Alaska. If the Alaska personal income level were in equilibrium with the rest of the nation, the real per capita income levels would be about the same. In fact, there is a significant real positive differential for Alaska, indicating that people have not moved into the state in sufficient numbers to eliminate the differential by bidding down wages and increasing the unemployment rate. The apparent insensitivity of population movements to this differential suggests there would be little response to the small changes which a state income tax would produce.

Finally, there would be no impact on Alaska investment from the tax. Alaska residents would be liable for the tax no matter where their investment income was earned. Nonresidents investing in the state would incur no liability.

III.f. Distortions Caused by the Dividend

The dividend is a pure income transfer and, as such, reduces the supply of labor and increases consumption. The size of the labor supply reduction effect is related to income and would be most important in low-income groups who are not labor supply constrained. Thus, children and residents of rural areas with few employment opportunities would not be affected. The dividend is a stimulus to in-migration just as the tax is a stimulus to out-migration and, as such, would increase the supply of labor. Thus, on net the supply of labor effect would be quite small.

¹⁸See the next section.

TABLE 4. PER CAPITA DISPOSABLE PERSONAL INCOME
ALASKA AND UNITED STATES

(dollars)

	Alaska	United States	Ratios		Alaska Cost of Living Adjustment
			Real Alaska	Nominal	
1969	\$3,767	\$3,234	.85	1.16	1.37
1970	4,251	3,484	.91	1.22	1.34
1971	4,526	3,731	.91	1.21	1.33
1972	4,727	3,988	.90	1.19	1.32
1973	5,568	4,465	.97	1.25	1.29
1974	6,369	4,841	1.02	1.32	1.29
1975	8,404	5,279	1.18	1.59	1.35
1976	9,546	5,736	1.21	1.66	1.37
1977	9,784	6,254	1.14	1.56	1.37
1978	10,079	6,960	1.06	1.45	1.37
1979	10,250	7,671	.99	1.34	1.35
1980	11,539	8,415	1.05	1.37	1.30
1981	12,569	9,232	1.07	1.36	1.27
1982	14,366	9,710	1.17	1.48	1.26
1983	15,067	10,345	1.19	1.46	1.23
1984	15,320	11,259	1.10	1.36	1.24
1985	15,419	11,834	1.06	1.30	1.23

SOURCES: DPI: Bureau of Economic Analysis. Table SA51. Disposable Personal Income for States and Regions. Microfiche, dated August 1986. Figures reflect results of 1985 revision of national estimates.

Cost of Living Adjustment: ISER database.

IV. HOW WOULD AN INCOME TAX AFFECT THE DISTRIBUTION OF INCOME

The proposed state income tax has only two rates--3 percent and 5.6 percent--and applies to a very broad definition of income. A standard deduction reduces taxable income, but in general there are no deductions from income before the tax is calculated. The effect is to make the tax very broad based and mildly progressive. This means that little income avoids the tax and that the proportion of income paid as tax increases with income.

The progressivity of the tax is less than might be expected because of the federal "offset" which increases in value and as a percentage of income as income increases. Thus, a family with two children with a gross income of \$100 thousand would likely pay less than 3 percent of their income in state taxes in spite of the broad base of the tax and the marginal rate of 5.6 percent on taxable income in excess of \$30 thousand.

In calculating the progressivity of the tax and its effect on the distribution of income, it is necessary to have an appropriate definition of income. Unfortunately, we are unable to develop a picture of the effect of the tax on the distribution of true income because we only have information on the distribution of adjusted gross income (AGI) but not on total personal income. The difference is quite large and is an indication that a large portion of personal income, even by the broad definition of taxable income adopted for the proposed income tax, misses a large portion of income. For example, in 1983 AGI reported to the IRS was only 69 percent as large as personal income earned in that year.¹⁹ The difference represents not only income that does not fall within the IRS definition of AGI, such as certain types of transfer payments, but also the income of people not required to file a return and tax evasion. It is not obvious what the distribution of income not included in AGI is, and so it is not possible to adjust the AGI figures for consistency with personal income by income level.

Potential tax liability has been calculated for several typical types of households--a family with two children, a family with no children, a single individual, and a child. The incidence of the tax as income increases is slightly different for each type of household. In addition, the relative value of the Permanent Fund dividend compared to the liability of the state personal income tax has been calculated based upon a dividend of \$700. The dividend plus the tax is preferable to the case of no dividend and no tax for lower-income households while the opposite is preferred by higher-income households. Here there is no attempt to make the comparison

¹⁹Thae Park, "Relationship Between Personal Income and Adjusted Gross Income: Revised Estimates, 1947-83," Survey of Current Business 66, May 1986.

revenue "neutral," which would be the case if the revenue generated by the income tax just equaled the revenue distributed as dividends. In fact, a dividend of \$700 distributed to 500 thousand Alaskans would require about \$350 million, compared to the \$268 million estimated to be collected by the state income tax.

For a four-person family living in their own home, the tax liability goes from \$0 for an income of \$10 thousand to \$256 at \$20 thousand, \$576 at \$30 thousand, \$762 at \$40 thousand, and \$1,020 at \$50 thousand. (See accompanying figures and tables.) The federal "offset" becomes effective in the \$30 thousand range and reduces the progressivity of the tax as income increases from that level. At \$50 thousand of household income, the household is only paying about 2 percent of income as taxes after the "offset" is calculated, and this rises to less than 3 percent at \$100 thousand of family income. As a proportion of combined federal and state income tax, the state tax falls slightly from about one-sixth to one-seventh of the total burden. The value of the Permanent Fund dividend falls as income rises because of the progressivity of the federal tax. For households with income over \$50 thousand, the after-tax value of two \$700 dividends is only \$930. Since at about that level of income the state tax liability is about \$900 to \$1,000, households at that income level would be indifferent to the loss of the dividend and the reimposition of the income tax except for the fact that their children also receive the dividend and, although children's dividends are now partially taxable under the new federal tax law, there is still a net gain for the family.

For the children, if the dividend is their only source of non-earned income, a federal liability of \$30 would be incurred, so the family would still be \$1,340 better off by continuation of the dividend plus the income tax rather than eliminating the dividend and not imposing the tax. If the dividend of the children were taxable at the state level at the same rates as other income, the net gain would be reduced by about \$100. The income level at which the option of no dividend and no taxes were preferred for this type of family would be at about \$80 thousand of income. Above this level, the tax liability clearly exceeds the value of the dividends.

For a family without children, the pattern is similar, except that such a family would not benefit from exemptions for children and would not include children's dividends in their calculation of benefit. Consequently, their federal "offset" has slightly less value and they prefer the no tax/no dividend option at lower income levels than families with children.

Persons filing single returns generally have a higher liability at each income level, but they generally have lower incomes than family households. At an income level of \$10 thousand, the state tax is \$224. The liability rises to \$544 at \$20 thousand, \$864 at \$30 thousand, \$1,359 at \$40 thousand, and \$1,929 at \$50 thousand.

Unless the individual has substantial federal deductions, the value of the federal "offset" is negligible until about \$60 thousand of income. After that level, the tax is essentially proportional at about 4 percent of income. The value of the dividend falls rapidly as income increases for single individuals. At between \$20 and \$25 thousand, the individual would pay more in tax than he would receive back as a dividend.

In general, the incidence of the tax appears to fall more heavily on single individuals than on families even though most single returns report substantially lower income than joint returns. For example, at \$10 thousand a single return has a liability of \$224, which is 2.24 percent. A family of four filing a joint return does not pay at that rate until income reaches \$55 thousand. The federal tax schedule has the same bias although it is not as pronounced as the proposed state schedule.

*****JOINT RETURN**HOMESOWNER**NO IRA**2 CHILDREN**PF DIV ON CHILDRENS' RETURN*****

*****TAXES PAID/INCOME*****												
INCOME	TAXES DUE		===STATE TAX===		*****STATE*****			MARGINAL TAX RATE	AFTER TAX			FEDERAL OFFSET PERCENT
	FEDERAL	TOTAL	TAXPAYER PAYS	STATE COLLECTS	BEFORE OFFSET	AFTER OFFSET	PLUS FEDERAL		FEDERAL AVERAGE RATE	PERMANENT FUND DIV VALUE	INCOME LOSS (DIV-TAX)	
0	0	0	0	0	ERR	ERR	ERR	0.00Z	ERR	\$1,400	\$1,400	ERR
\$2,500	\$0	\$0	\$0	\$0	0.00Z	0.00Z	0.00Z	0.00Z	0.00Z	\$1,400	\$1,400	ERR
\$5,000	\$0	\$0	\$0	\$0	0.00Z	0.00Z	0.00Z	0.00Z	0.00Z	\$1,400	\$1,400	ERR
\$7,500	\$0	\$0	\$0	\$0	0.00Z	0.00Z	0.00Z	0.00Z	0.00Z	\$1,400	\$1,400	ERR
\$10,000	\$0	\$0	\$0	\$0	0.00Z	0.00Z	0.00Z	0.00Z	0.00Z	\$1,400	\$1,400	ERR
\$12,500	\$105	\$121	\$16	\$16	0.13Z	0.13Z	0.97Z	18.20Z	0.84Z	\$1,145	\$1,129	0.00Z
\$15,000	\$480	\$576	\$96	\$96	0.64Z	0.64Z	3.84Z	18.20Z	3.20Z	\$1,145	\$1,049	0.00Z
\$17,500	\$855	\$1,031	\$176	\$176	1.01Z	1.01Z	5.89Z	18.20Z	4.89Z	\$1,145	\$969	0.00Z
\$20,000	\$1,230	\$1,486	\$256	\$256	1.28Z	1.28Z	7.43Z	18.20Z	6.15Z	\$1,145	\$889	0.00Z
\$22,500	\$1,605	\$1,941	\$336	\$336	1.49Z	1.49Z	8.63Z	18.20Z	7.13Z	\$1,145	\$809	0.00Z
\$25,000	\$1,980	\$2,396	\$416	\$416	1.66Z	1.66Z	9.58Z	18.20Z	7.92Z	\$1,145	\$729	0.00Z
\$27,500	\$2,355	\$2,851	\$496	\$496	1.80Z	1.80Z	10.37Z	18.20Z	8.56Z	\$1,145	\$649	0.00Z
\$30,000	\$2,730	\$3,306	\$576	\$576	1.92Z	1.92Z	11.02Z	18.20Z	9.10Z	\$1,145	\$569	0.00Z
\$32,500	\$2,858	\$3,415	\$558	\$656	2.02Z	1.72Z	10.51Z	18.20Z	8.79Z	\$1,145	\$588	15.00Z
\$35,000	\$3,195	\$3,821	\$626	\$736	2.10Z	1.79Z	10.92Z	18.20Z	9.13Z	\$1,145	\$520	15.00Z
\$37,500	\$3,533	\$4,226	\$694	\$816	2.18Z	1.85Z	11.27Z	18.20Z	9.42Z	\$1,145	\$452	15.00Z
\$40,000	\$3,870	\$4,632	\$762	\$896	2.24Z	1.90Z	11.58Z	18.20Z	9.68Z	\$1,145	\$384	15.00Z
\$42,500	\$4,208	\$5,048	\$840	\$989	2.33Z	1.98Z	11.88Z	20.60Z	9.90Z	\$1,112	\$271	15.00Z
\$45,000	\$4,545	\$5,506	\$961	\$1,131	2.51Z	2.14Z	12.24Z	20.60Z	10.10Z	\$1,112	\$150	15.00Z
\$47,500	\$5,214	\$6,131	\$917	\$1,274	2.68Z	1.93Z	12.91Z	33.60Z	10.98Z	\$930	\$13	28.00Z
\$50,000	\$5,844	\$6,864	\$1,020	\$1,416	2.83Z	2.04Z	13.73Z	33.60Z	11.69Z	\$930	(\$90)	28.00Z
\$52,500	\$6,474	\$7,596	\$1,122	\$1,559	2.97Z	2.14Z	14.47Z	33.60Z	12.33Z	\$930	(\$193)	28.00Z
\$55,000	\$7,104	\$8,329	\$1,225	\$1,701	3.09Z	2.23Z	15.14Z	33.60Z	12.92Z	\$930	(\$295)	28.00Z
\$57,500	\$7,734	\$9,061	\$1,327	\$1,844	3.21Z	2.31Z	15.76Z	33.60Z	13.45Z	\$930	(\$398)	28.00Z
\$60,000	\$8,364	\$9,794	\$1,430	\$1,986	3.31Z	2.38Z	16.32Z	33.60Z	13.94Z	\$930	(\$500)	28.00Z
\$62,500	\$8,994	\$10,527	\$1,533	\$2,129	3.41Z	2.45Z	16.84Z	33.60Z	14.39Z	\$930	(\$603)	28.00Z
\$65,000	\$9,624	\$11,259	\$1,635	\$2,271	3.49Z	2.52Z	17.32Z	33.60Z	14.81Z	\$930	(\$706)	28.00Z
\$67,500	\$10,254	\$11,992	\$1,738	\$2,414	3.58Z	2.57Z	17.77Z	33.60Z	15.19Z	\$930	(\$808)	28.00Z
\$70,000	\$10,884	\$12,724	\$1,840	\$2,556	3.65Z	2.63Z	18.18Z	33.60Z	15.55Z	\$930	(\$911)	28.00Z
\$72,500	\$11,514	\$13,457	\$1,943	\$2,699	3.72Z	2.68Z	18.56Z	33.60Z	15.88Z	\$930	(\$1,013)	28.00Z
\$75,000	\$12,144	\$14,190	\$2,046	\$2,841	3.79Z	2.73Z	18.92Z	33.60Z	16.19Z	\$930	(\$1,116)	28.00Z
\$77,500	\$12,774	\$14,922	\$2,148	\$2,984	3.85Z	2.77Z	19.25Z	33.60Z	16.48Z	\$930	(\$1,219)	28.00Z
\$80,000	\$13,404	\$15,655	\$2,251	\$3,126	3.91Z	2.81Z	19.57Z	33.60Z	16.76Z	\$930	(\$1,321)	28.00Z
\$82,500	\$14,034	\$16,387	\$2,353	\$3,269	3.96Z	2.85Z	19.86Z	33.60Z	17.01Z	\$930	(\$1,424)	28.00Z
\$85,000	\$14,664	\$17,120	\$2,456	\$3,411	4.01Z	2.89Z	20.14Z	33.60Z	17.25Z	\$930	(\$1,526)	28.00Z
\$87,500	\$15,294	\$17,853	\$2,559	\$3,554	4.06Z	2.92Z	20.40Z	33.60Z	17.48Z	\$930	(\$1,629)	28.00Z
\$90,000	\$15,924	\$18,585	\$2,661	\$3,696	4.11Z	2.96Z	20.65Z	33.60Z	17.69Z	\$930	(\$1,732)	28.00Z
\$92,500	\$16,554	\$19,318	\$2,764	\$3,839	4.15Z	2.99Z	20.88Z	33.60Z	17.90Z	\$930	(\$1,834)	28.00Z
\$95,000	\$17,184	\$20,050	\$2,866	\$3,981	4.19Z	3.02Z	21.11Z	33.60Z	18.09Z	\$930	(\$1,937)	28.00Z
\$97,500	\$18,042	\$20,804	\$2,763	\$4,124	4.23Z	2.83Z	21.34Z	38.60Z	18.50Z	\$860	(\$1,903)	33.00Z
\$100,000	\$18,784	\$21,642	\$2,858	\$4,266	4.27Z	2.86Z	21.64Z	38.60Z	18.78Z	\$860	(\$1,999)	33.00Z

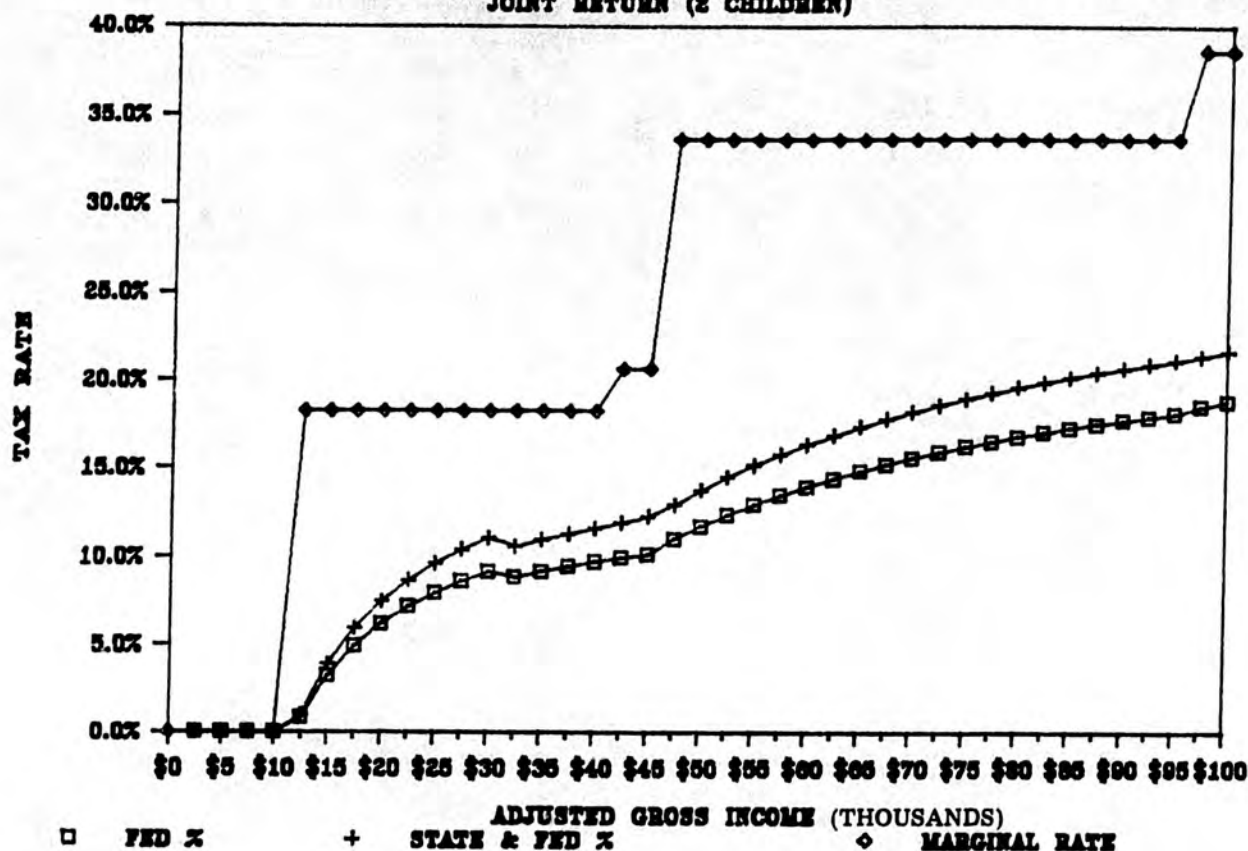
NOTE: THE INCOME LOSS MEASURE IN THE LAST COLUMN IS THE DIFFERENCE IN DISPOSABLE INCOME BETWEEN THE FOLLOWING:
1. IMPOSE INCOME TAX AND PAY DIVIDEND, AND 2. NEITHER IMPOSE TAX NOR PAY DIVIDEND.

PF DIVIDEND	\$700	LOW TAX RATE TO	FEDERAL \$30,000	STATE \$30,000
STANDARD DEDUCTION	\$3,800	HIGHEST RATE AFTER	\$73,000	
EXEMPTIONS	4	EXEMPTION	\$2,000	\$3,000

FEDERAL TAX REFORM ACT OF 1986, HB-154 AND SB-148

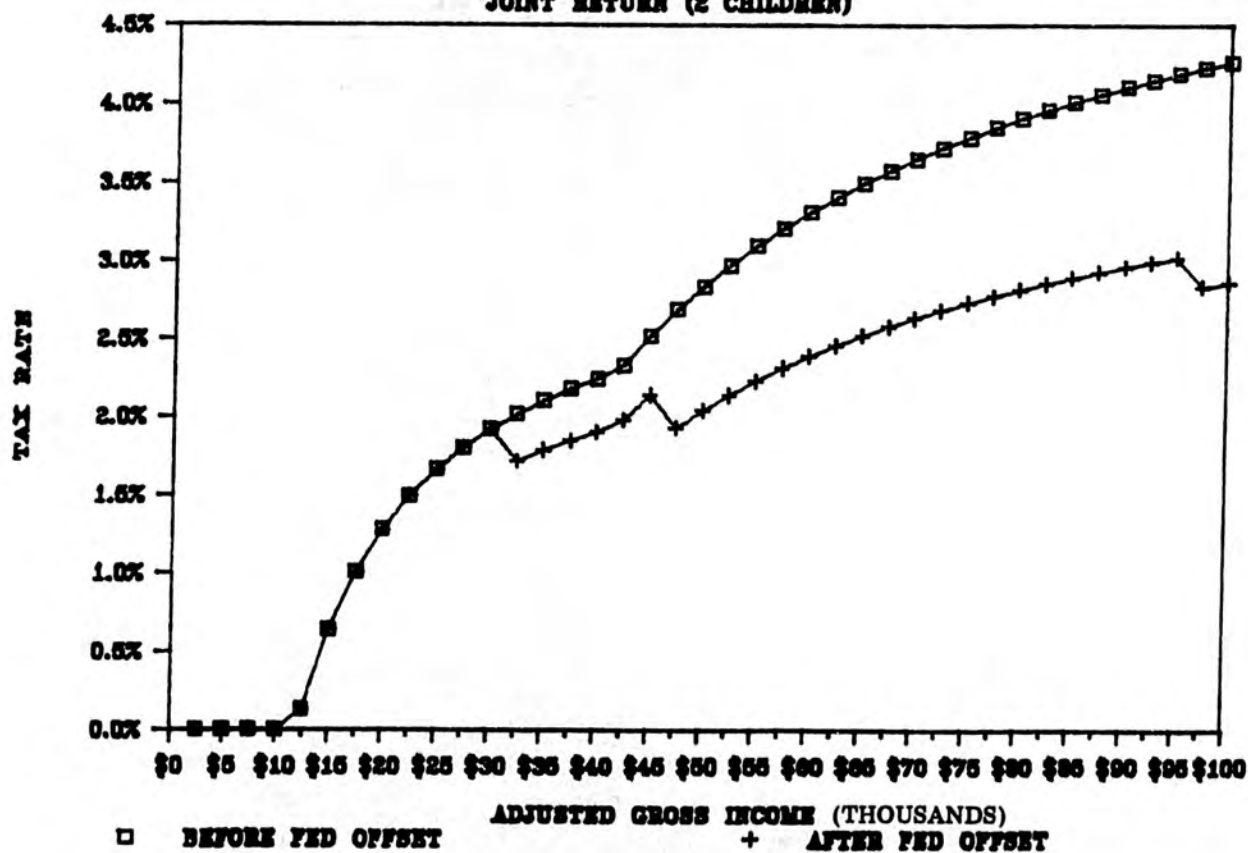
TOTAL TAXES AS PERCENTAGE OF INCOME

JOINT RETURN (2 CHILDREN)



STATE TAXES AS PERCENTAGE OF INCOME

JOINT RETURN (2 CHILDREN)



****CHILD'S SINGLE RETURN (UNEARNED INCOME LESS THAN \$1000)

UNEARNED INCOME	TAXES DUE		===STATE TAX===		*****TAXES PAID/INCOME*****			COMBINED MARGINAL TAX RATE	FEDERAL AVERAGE RATE	AFTER TAX		FEDERAL OFFSET PERCENT
	FEDERAL	TOTAL	TAXPAYER PAYS	STATE COLLECTS	BEFORE OFFSET	AFTER OFFSET	PLUS FEDERAL			FUND DIV VALUE	INCOME LOSS (DIV-TAX)	
0	0	0	0	0	ERR	ERR	ERR	0.00%	ERR	\$700	\$700	ERR
\$25	\$0	\$1	\$1	\$1	3.20%	3.20%	3.20%	3.20%	0.00%	\$678	\$677	0.00%
\$50	\$0	\$2	\$2	\$2	3.20%	3.20%	3.20%	3.20%	0.00%	\$678	\$676	0.00%
\$75	\$0	\$2	\$2	\$2	3.20%	3.20%	3.20%	3.20%	0.00%	\$678	\$675	0.00%
\$100	\$0	\$3	\$3	\$3	3.20%	3.20%	3.20%	3.20%	0.00%	\$678	\$674	0.00%
\$125	\$0	\$4	\$4	\$4	3.20%	3.20%	3.20%	3.20%	0.00%	\$678	\$674	0.00%
\$150	\$0	\$5	\$5	\$5	3.20%	3.20%	3.20%	3.20%	0.00%	\$678	\$673	0.00%
\$175	\$0	\$6	\$6	\$6	3.20%	3.20%	3.20%	3.20%	0.00%	\$678	\$672	0.00%
\$200	\$0	\$6	\$6	\$6	3.20%	3.20%	3.20%	3.20%	0.00%	\$678	\$671	0.00%
\$225	\$0	\$7	\$7	\$7	3.20%	3.20%	3.20%	3.20%	0.00%	\$678	\$670	0.00%
\$250	\$0	\$8	\$8	\$8	3.20%	3.20%	3.20%	3.20%	0.00%	\$678	\$670	0.00%
\$275	\$0	\$9	\$9	\$9	3.20%	3.20%	3.20%	3.20%	0.00%	\$678	\$669	0.00%
\$300	\$0	\$10	\$10	\$10	3.20%	3.20%	3.20%	3.20%	0.00%	\$678	\$668	0.00%
\$325	\$0	\$10	\$10	\$10	3.20%	3.20%	3.20%	3.20%	0.00%	\$678	\$667	0.00%
\$350	\$0	\$11	\$11	\$11	3.20%	3.20%	3.20%	3.20%	0.00%	\$678	\$666	0.00%
\$375	\$0	\$12	\$12	\$12	3.20%	3.20%	3.20%	3.20%	0.00%	\$678	\$666	0.00%
\$400	\$0	\$13	\$13	\$13	3.20%	3.20%	3.20%	3.20%	0.00%	\$678	\$665	0.00%
\$425	\$0	\$14	\$14	\$14	3.20%	3.20%	3.20%	3.20%	0.00%	\$678	\$664	0.00%
\$450	\$0	\$14	\$14	\$14	3.20%	3.20%	3.20%	3.20%	0.00%	\$678	\$663	0.00%
\$475	\$0	\$15	\$15	\$15	3.20%	3.20%	3.20%	3.20%	0.00%	\$678	\$662	0.00%
\$500	\$0	\$16	\$16	\$16	3.20%	3.20%	3.20%	3.20%	0.00%	\$678	\$662	0.00%
\$525	\$4	\$21	\$17	\$17	3.20%	3.20%	3.91%	18.20%	0.71%	\$573	\$556	0.00%
\$550	\$8	\$25	\$18	\$18	3.20%	3.20%	4.56%	18.20%	1.36%	\$573	\$555	0.00%
\$575	\$11	\$30	\$18	\$18	3.20%	3.20%	5.16%	18.20%	1.96%	\$573	\$554	0.00%
\$600	\$15	\$34	\$19	\$19	3.20%	3.20%	5.70%	18.20%	2.50%	\$573	\$553	0.00%
\$625	\$19	\$39	\$20	\$20	3.20%	3.20%	6.20%	18.20%	3.00%	\$573	\$553	0.00%
\$650	\$23	\$43	\$21	\$21	3.20%	3.20%	6.66%	18.20%	3.46%	\$573	\$552	0.00%
\$675	\$26	\$48	\$22	\$22	3.20%	3.20%	7.09%	18.20%	3.89%	\$573	\$551	0.00%
\$700	\$30	\$52	\$22	\$22	3.20%	3.20%	7.49%	18.20%	4.29%	\$573	\$550	0.00%
\$725	\$34	\$57	\$23	\$23	3.20%	3.20%	7.86%	18.20%	4.66%	\$573	\$549	0.00%
\$750	\$38	\$62	\$24	\$24	3.20%	3.20%	8.20%	18.20%	5.00%	\$573	\$549	0.00%
\$775	\$41	\$66	\$25	\$25	3.20%	3.20%	8.52%	18.20%	5.32%	\$573	\$548	0.00%
\$800	\$45	\$71	\$26	\$26	3.20%	3.20%	8.83%	18.20%	5.63%	\$573	\$547	0.00%
\$825	\$49	\$75	\$26	\$26	3.20%	3.20%	9.11%	18.20%	5.91%	\$573	\$546	0.00%
\$850	\$53	\$80	\$27	\$27	3.20%	3.20%	9.38%	18.20%	6.18%	\$573	\$545	0.00%
\$875	\$56	\$84	\$28	\$28	3.20%	3.20%	9.63%	18.20%	6.43%	\$573	\$545	0.00%
\$900	\$60	\$89	\$29	\$29	3.20%	3.20%	9.87%	18.20%	6.67%	\$573	\$544	0.00%
\$925	\$64	\$93	\$30	\$30	3.20%	3.20%	10.09%	18.20%	6.89%	\$573	\$543	0.00%
\$950	\$68	\$98	\$30	\$30	3.20%	3.20%	10.31%	18.20%	7.11%	\$573	\$542	0.00%
\$975	\$71	\$102	\$31	\$31	3.20%	3.20%	10.51%	18.20%	7.31%	\$573	\$541	0.00%
\$1,000	\$75	\$107	\$32	\$32	3.20%	3.20%	10.70%	18.20%	7.50%	\$573	\$541	0.00%

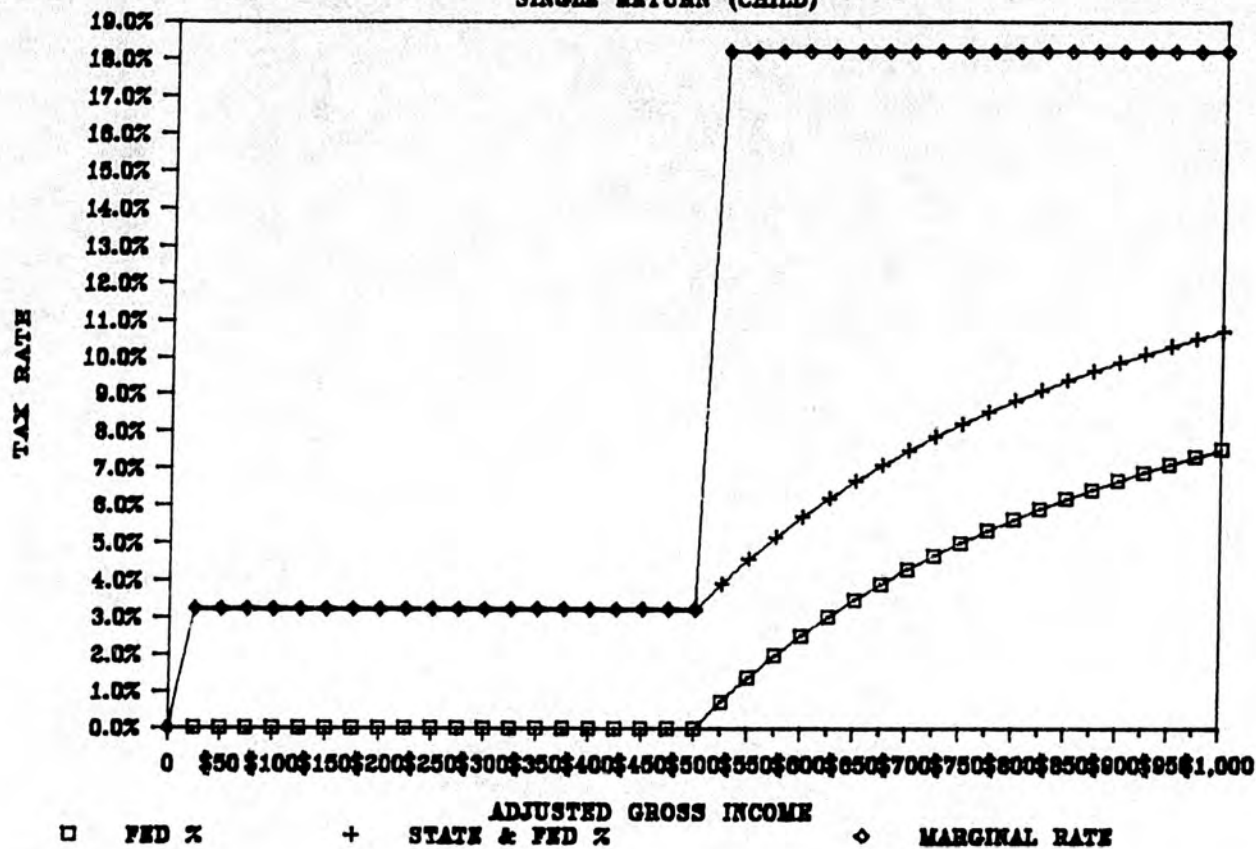
NOTE: THE INCOME LOSS MEASURE IN THE LAST COLUMN IS THE DIFFERENCE IN DISPOSABLE INCOME BETWEEN THE FOLLOWING:
1. IMPOSE INCOME TAX AND PAY DIVIDEND, AND 2. NEITHER IMPOSE TAX NOR PAY DIVIDEND.

PF DIVIDEND	\$700	LOW TAX RATE TO	FEDERAL	STATE
STANDARD DEDUCTION	\$2,600	HIGHEST RATE AFTER	\$17,900	\$30,000
EXEMPTIONS	0	EXEMPTION	\$2,000	\$3,000

FEDERAL TAX REFORM ACT OF 1986, HB-154 AND SB-148

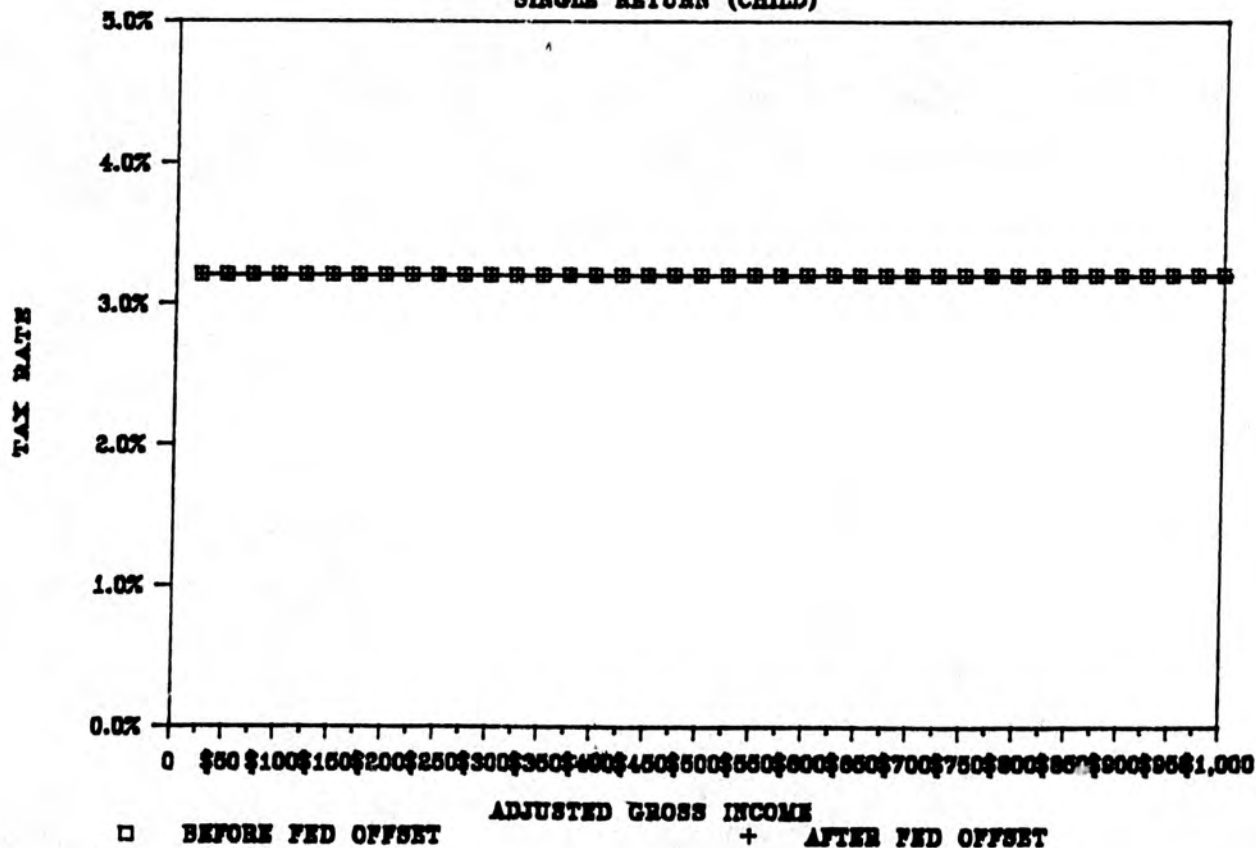
TOTAL TAXES AS PERCENTAGE OF INCOME

SINGLE RETURN (CHILD)



STATE TAXES AS PERCENTAGE OF INCOME

SINGLE RETURN (CHILD)



*****JOINT RETURN*****HOMESOWNER**NO IRA*****

TAXES DUE					TAXES PAID/INCOME			COMBINED	AFTER TAX		FEDERAL	
FEDERAL TOTAL		TAXPAYER PAYS		STATE COLLECTS	*****STATE*****		STATE PLUS FEDERAL	MARGINAL TAX RATE	FEDERAL AVERAGE RATE	PERMANENT FUND DIV VALUE	INCOME LOSS (DIV-TAX)	OFFSET PERCENT
					BEFORE OFFSET	AFTER OFFSET						
INCOME												
0	0	0	0	0	ERR	ERR	ERR	0.00Z	ERR	\$1,400	\$1,400	ERR
\$2,500	\$0	\$0	\$0	\$0	0.00Z	0.00Z	0.00Z	0.00Z	0.00Z	\$1,400	\$1,400	ERR
\$5,000	\$0	\$0	\$0	\$0	0.00Z	0.00Z	0.00Z	0.00Z	0.00Z	\$1,400	\$1,400	ERR
\$7,500	\$0	\$48	\$48	\$48	0.64Z	0.64Z	0.64Z	3.20Z	0.00Z	\$1,355	\$1,307	0.00Z
\$10,000	\$330	\$458	\$128	\$128	1.28Z	1.28Z	4.58Z	18.20Z	3.30Z	\$1,145	\$1,017	0.00Z
\$12,500	\$705	\$913	\$208	\$208	1.66Z	1.66Z	7.30Z	18.20Z	5.64Z	\$1,145	\$937	0.00Z
\$15,000	\$1,080	\$1,368	\$288	\$288	1.92Z	1.92Z	9.12Z	18.20Z	7.20Z	\$1,145	\$857	0.00Z
\$17,500	\$1,455	\$1,823	\$368	\$368	2.10Z	2.10Z	10.42Z	18.20Z	8.31Z	\$1,145	\$777	0.00Z
\$20,000	\$1,830	\$2,278	\$448	\$448	2.24Z	2.24Z	11.39Z	18.20Z	9.15Z	\$1,145	\$697	0.00Z
\$22,500	\$2,205	\$2,733	\$528	\$528	2.35Z	2.35Z	12.15Z	18.20Z	9.80Z	\$1,145	\$617	0.00Z
\$25,000	\$2,580	\$3,188	\$608	\$608	2.43Z	2.43Z	12.75Z	18.20Z	10.32Z	\$1,145	\$537	0.00Z
\$27,500	\$2,955	\$3,643	\$688	\$688	2.50Z	2.50Z	13.25Z	18.20Z	10.75Z	\$1,145	\$457	0.00Z
\$30,000	\$3,330	\$4,098	\$768	\$768	2.56Z	2.56Z	13.66Z	18.20Z	11.10Z	\$1,145	\$377	0.00Z
\$32,500	\$3,458	\$4,178	\$721	\$848	2.61Z	2.22Z	12.86Z	18.20Z	10.64Z	\$1,145	\$424	15.00Z
\$35,000	\$3,795	\$4,584	\$789	\$928	2.65Z	2.25Z	13.10Z	18.20Z	10.84Z	\$1,145	\$356	15.00Z
\$37,500	\$4,133	\$5,021	\$889	\$1,046	2.79Z	2.37Z	13.39Z	20.60Z	11.02Z	\$1,112	\$223	15.00Z
\$40,000	\$4,470	\$5,480	\$1,010	\$1,188	2.97Z	2.52Z	13.70Z	20.60Z	11.18Z	\$1,112	\$102	15.00Z
\$42,500	\$5,074	\$6,032	\$958	\$1,331	3.13Z	2.25Z	14.19Z	33.60Z	11.94Z	\$930	(\$28)	28.00Z
\$45,000	\$5,704	\$6,765	\$1,061	\$1,473	3.27Z	2.36Z	15.03Z	33.60Z	12.68Z	\$930	(\$131)	28.00Z
\$47,500	\$6,334	\$7,497	\$1,163	\$1,616	3.40Z	2.45Z	15.78Z	33.60Z	13.33Z	\$930	(\$234)	28.00Z
\$50,000	\$6,964	\$8,230	\$1,266	\$1,758	3.52Z	2.53Z	16.46Z	33.60Z	13.93Z	\$930	(\$336)	28.00Z
\$52,500	\$7,594	\$8,962	\$1,368	\$1,901	3.62Z	2.61Z	17.07Z	33.60Z	14.46Z	\$930	(\$439)	28.00Z
\$55,000	\$8,224	\$9,695	\$1,471	\$2,043	3.71Z	2.67Z	17.63Z	33.60Z	14.95Z	\$930	(\$541)	28.00Z
\$57,500	\$8,854	\$10,428	\$1,574	\$2,186	3.80Z	2.74Z	18.13Z	33.60Z	15.40Z	\$930	(\$644)	28.00Z
\$60,000	\$9,484	\$11,160	\$1,676	\$2,328	3.88Z	2.79Z	18.60Z	33.60Z	15.81Z	\$930	(\$747)	28.00Z
\$62,500	\$10,114	\$11,893	\$1,779	\$2,471	3.95Z	2.85Z	19.03Z	33.60Z	16.18Z	\$930	(\$849)	28.00Z
\$65,000	\$10,744	\$12,625	\$1,881	\$2,613	4.02Z	2.89Z	19.42Z	33.60Z	16.53Z	\$930	(\$952)	28.00Z
\$67,500	\$11,374	\$13,358	\$1,984	\$2,756	4.08Z	2.94Z	19.79Z	33.60Z	16.85Z	\$930	(\$1,054)	28.00Z
\$70,000	\$12,004	\$14,091	\$2,087	\$2,898	4.14Z	2.98Z	20.13Z	33.60Z	17.15Z	\$930	(\$1,157)	28.00Z
\$72,500	\$12,634	\$14,823	\$2,189	\$3,041	4.19Z	3.02Z	20.45Z	33.60Z	17.43Z	\$930	(\$1,260)	28.00Z
\$75,000	\$13,264	\$15,556	\$2,292	\$3,183	4.24Z	3.06Z	20.74Z	33.60Z	17.69Z	\$930	(\$1,362)	28.00Z
\$77,500	\$13,894	\$16,288	\$2,394	\$3,326	4.29Z	3.09Z	21.02Z	33.60Z	17.93Z	\$930	(\$1,465)	28.00Z
\$80,000	\$14,524	\$17,021	\$2,497	\$3,468	4.34Z	3.12Z	21.28Z	33.60Z	18.16Z	\$930	(\$1,567)	28.00Z
\$82,500	\$15,154	\$17,754	\$2,600	\$3,611	4.38Z	3.15Z	21.52Z	33.60Z	18.37Z	\$930	(\$1,670)	28.00Z
\$85,000	\$15,784	\$18,486	\$2,702	\$3,753	4.42Z	3.18Z	21.75Z	33.60Z	18.57Z	\$930	(\$1,773)	28.00Z
\$87,500	\$16,414	\$19,219	\$2,805	\$3,896	4.45Z	3.21Z	21.96Z	33.60Z	18.76Z	\$930	(\$1,875)	28.00Z
\$90,000	\$17,044	\$19,951	\$2,907	\$4,038	4.49Z	3.23Z	22.17Z	33.60Z	18.94Z	\$930	(\$1,978)	28.00Z
\$92,500	\$17,674	\$20,684	\$3,010	\$4,181	4.52Z	3.25Z	22.36Z	33.60Z	19.11Z	\$930	(\$2,080)	28.00Z
\$95,000	\$18,619	\$21,515	\$2,896	\$4,323	4.55Z	3.05Z	22.65Z	38.60Z	19.60Z	\$860	(\$2,037)	33.00Z
\$97,500	\$19,362	\$22,353	\$2,992	\$4,466	4.58Z	3.07Z	22.93Z	38.60Z	19.86Z	\$860	(\$2,132)	33.00Z
\$100,000	\$20,104	\$23,191	\$3,087	\$4,608	4.61Z	3.09Z	23.19Z	38.60Z	20.10Z	\$860	(\$2,228)	33.00Z

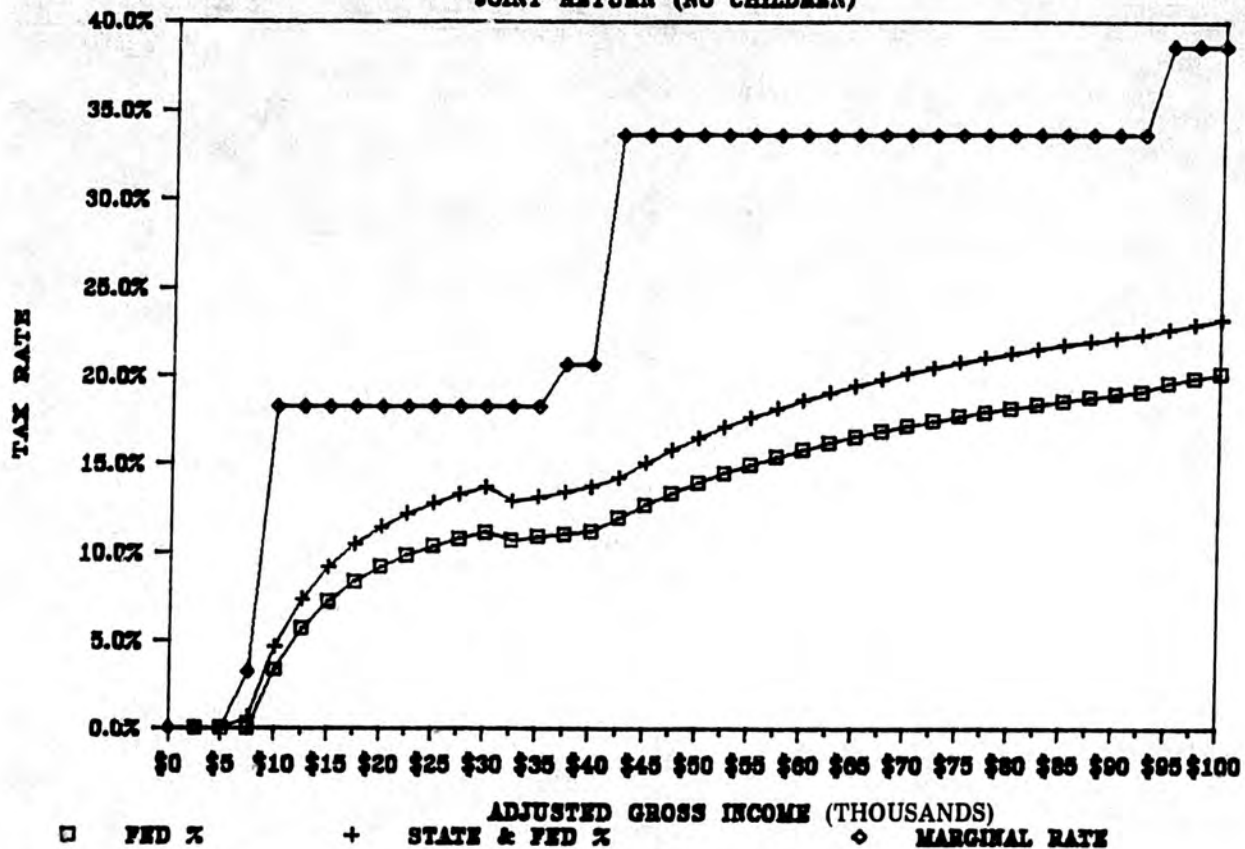
NOTE: THE INCOME LOSS MEASURE IN THE LAST COLUMN IS THE DIFFERENCE IN DISPOSABLE INCOME BETWEEN THE FOLLOWING:
1. IMPOSE INCOME TAX AND PAY DIVIDEND, AND 2. NEITHER IMPOSE TAX NOR PAY DIVIDEND.

PF DIVIDEND	\$700	LOW TAX RATE TO	FEDERAL \$30,000	STATE \$30,000
STANDARD DEDUCTION	\$3,800	HIGHEST RATE AFTER	FEDERAL \$73,000	
EXEMPTIONS	2	EXEMPTION	FEDERAL \$2,000	STATE \$3,000

FEDERAL TAX REFORM ACT OF 1986, HB-154 AND SB-148

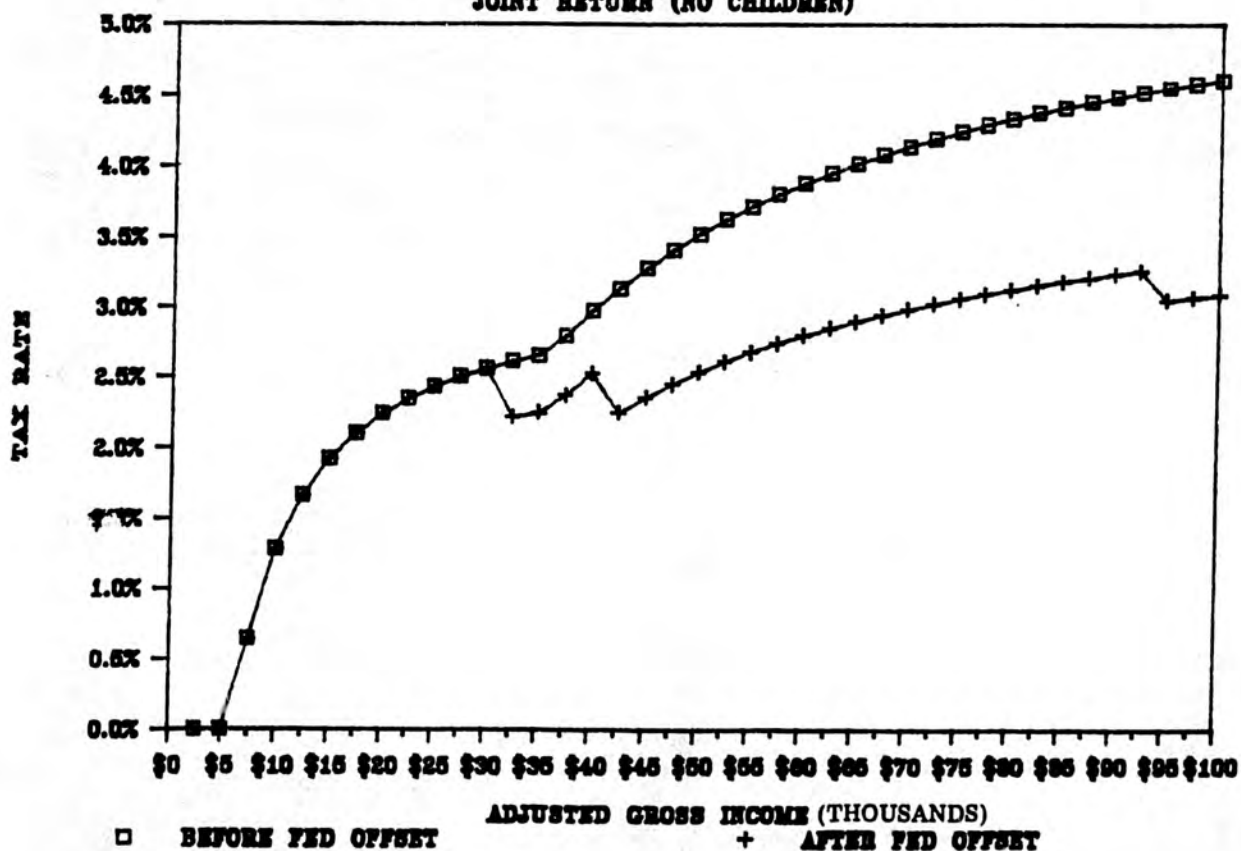
TOTAL TAXES AS PERCENTAGE OF INCOME

JOINT RETURN (NO CHILDREN)



STATE TAXES AS PERCENTAGE OF INCOME

JOINT RETURN (NO CHILDREN)



****SINGLE RETURN (NOT A CHILD CLAIMED ON RETURN OF PARENT)*RENTER*NO IRA***

INCOME	TAXES DUE		STATE TAX		TAXES PAID/INCOME			COMBINED	AFTER TAX		FEDERAL	
	FEDERAL TOTAL		TAXPAYER	STATE	BEFORE	AFTER	PLUS	MARGINAL	FEDERAL	PERMANENT	INCOME	OFFSET
			PAYS	COLLECTS	OFFSET	OFFSET	FEDERAL	TAX	AVERAGE	FUND DIV	LOSS	PERCENT
								RATE	RATE	VALUE	(DIV-TAX)	
\$0	\$0	\$0	\$0	\$0	ERR	ERR	ERR	0.00%	ERR	\$700	\$700	ERR
\$2,500	\$0	\$0	\$0	\$0	0.00%	0.00%	0.00%	0.00%	0.00%	\$700	\$700	ERR
\$5,000	\$60	\$124	\$64	\$64	1.28%	1.28%	2.48%	18.20%	1.20%	\$573	\$509	0.00%
\$7,500	\$435	\$579	\$144	\$144	1.92%	1.92%	7.72%	18.20%	5.80%	\$573	\$429	0.00%
\$10,000	\$810	\$1,034	\$224	\$224	2.24%	2.24%	10.34%	18.20%	8.10%	\$573	\$349	0.00%
\$12,500	\$1,185	\$1,489	\$304	\$304	2.43%	2.43%	11.91%	18.20%	9.48%	\$573	\$269	0.00%
\$15,000	\$1,560	\$1,944	\$384	\$384	2.56%	2.56%	12.96%	18.20%	10.40%	\$573	\$189	0.00%
\$17,500	\$1,935	\$2,399	\$464	\$464	2.65%	2.65%	13.71%	18.20%	11.06%	\$573	\$109	0.00%
\$20,000	\$2,310	\$2,854	\$544	\$544	2.72%	2.72%	14.27%	18.20%	11.55%	\$573	\$29	0.00%
\$22,500	\$2,685	\$3,309	\$624	\$624	2.77%	2.77%	14.71%	18.20%	11.93%	\$573	(\$51)	0.00%
\$25,000	\$3,385	\$4,089	\$704	\$704	2.82%	2.82%	16.36%	31.20%	13.54%	\$482	(\$222)	0.00%
\$27,500	\$4,085	\$4,869	\$784	\$784	2.85%	2.85%	17.71%	31.20%	14.85%	\$482	(\$302)	0.00%
\$30,000	\$4,785	\$5,649	\$864	\$864	2.88%	2.88%	18.83%	31.20%	15.95%	\$482	(\$382)	0.00%
\$32,500	\$5,485	\$6,429	\$944	\$944	2.90%	2.90%	19.78%	31.20%	16.88%	\$482	(\$462)	0.00%
\$35,000	\$6,185	\$7,259	\$1,074	\$1,074	3.07%	3.07%	20.74%	33.60%	17.67%	\$465	(\$609)	0.00%
\$37,500	\$6,885	\$8,102	\$1,217	\$1,217	3.24%	3.24%	21.60%	33.60%	18.36%	\$465	(\$752)	0.00%
\$40,000	\$7,585	\$8,944	\$1,359	\$1,359	3.40%	3.40%	22.36%	33.60%	18.96%	\$465	(\$894)	0.00%
\$42,500	\$8,285	\$9,787	\$1,502	\$1,502	3.53%	3.53%	23.03%	33.60%	19.49%	\$465	(\$1,037)	0.00%
\$45,000	\$8,985	\$10,629	\$1,644	\$1,644	3.65%	3.65%	23.62%	33.60%	19.97%	\$465	(\$1,179)	0.00%
\$47,500	\$9,685	\$11,472	\$1,787	\$1,787	3.76%	3.76%	24.15%	33.60%	20.39%	\$465	(\$1,322)	0.00%
\$50,000	\$10,495	\$12,424	\$1,929	\$1,929	3.86%	3.86%	24.85%	38.60%	20.99%	\$430	(\$1,499)	0.00%
\$52,500	\$11,320	\$13,392	\$2,072	\$2,072	3.95%	3.95%	25.51%	38.60%	21.56%	\$430	(\$1,642)	0.00%
\$55,000	\$12,145	\$14,359	\$2,214	\$2,214	4.03%	4.03%	26.11%	38.60%	22.08%	\$430	(\$1,784)	0.00%
\$57,500	\$12,970	\$15,327	\$2,357	\$2,357	4.10%	4.10%	26.65%	38.60%	22.56%	\$430	(\$1,927)	0.00%
\$60,000	\$13,795	\$16,261	\$2,466	\$2,499	4.17%	4.11%	27.10%	38.60%	22.99%	\$430	(\$2,037)	1.31%
\$62,500	\$14,620	\$17,182	\$2,562	\$2,642	4.23%	4.10%	27.49%	38.60%	23.39%	\$430	(\$2,132)	3.02%
\$65,000	\$15,445	\$18,102	\$2,657	\$2,784	4.28%	4.09%	27.85%	38.60%	23.76%	\$430	(\$2,227)	4.55%
\$67,500	\$16,270	\$19,023	\$2,753	\$2,927	4.34%	4.08%	28.18%	38.60%	24.10%	\$430	(\$2,323)	5.94%
\$70,000	\$17,095	\$19,943	\$2,848	\$3,069	4.38%	4.07%	28.49%	38.60%	24.42%	\$430	(\$2,418)	7.19%
\$72,500	\$17,920	\$20,864	\$2,944	\$3,212	4.43%	4.06%	28.78%	38.60%	24.72%	\$430	(\$2,514)	8.34%
\$75,000	\$18,745	\$21,784	\$3,039	\$3,354	4.47%	4.05%	29.05%	38.60%	24.99%	\$430	(\$2,609)	9.39%
\$77,500	\$19,570	\$22,705	\$3,135	\$3,497	4.51%	4.04%	29.30%	38.60%	25.25%	\$430	(\$2,705)	10.35%
\$80,000	\$20,395	\$23,625	\$3,230	\$3,639	4.55%	4.04%	29.53%	38.60%	25.49%	\$430	(\$2,800)	11.24%
\$82,500	\$21,220	\$24,546	\$3,326	\$3,782	4.58%	4.03%	29.75%	38.60%	25.72%	\$430	(\$2,896)	12.06%
\$85,000	\$22,045	\$25,466	\$3,421	\$3,924	4.62%	4.02%	29.96%	38.60%	25.94%	\$430	(\$2,991)	12.82%
\$87,500	\$22,870	\$26,387	\$3,517	\$4,067	4.65%	4.02%	30.16%	38.60%	26.14%	\$430	(\$3,087)	13.52%
\$90,000	\$23,695	\$27,307	\$3,612	\$4,209	4.68%	4.01%	30.34%	38.60%	26.33%	\$430	(\$3,182)	14.18%
\$92,500	\$24,520	\$28,228	\$3,708	\$4,352	4.70%	4.01%	30.52%	38.60%	26.51%	\$430	(\$3,278)	14.80%
\$95,000	\$25,345	\$29,148	\$3,803	\$4,494	4.73%	4.00%	30.68%	38.60%	26.68%	\$430	(\$3,373)	15.38%
\$97,500	\$26,170	\$30,068	\$3,898	\$4,637	4.76%	4.00%	30.84%	38.60%	26.84%	\$430	(\$3,469)	15.92%
\$100,000	\$26,995	\$30,989	\$3,994	\$4,779	4.78%	3.99%	30.99%	38.60%	27.00%	\$430	(\$3,564)	16.43%

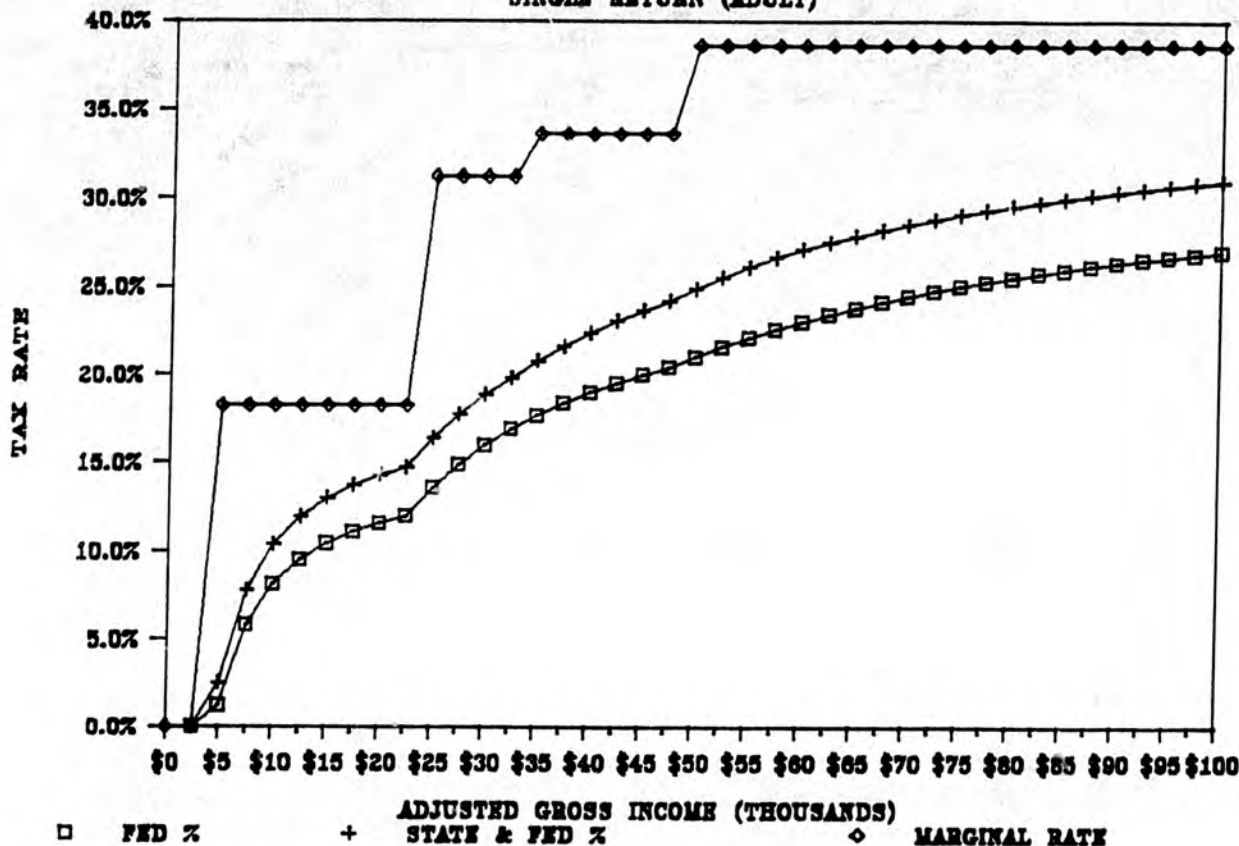
NOTE: THE INCOME LOSS MEASURE IN THE LAST COLUMN IS THE DIFFERENCE IN DISPOSABLE INCOME BETWEEN THE FOLLOWING:
1. IMPOSE INCOME TAX AND PAY DIVIDEND, AND 2. NEITHER IMPOSE TAX NOR PAY DIVIDEND.

PF DIVIDEND	\$700	LOW TAX RATE TO	FEDERAL \$17,900	STATE \$30,000
STANDARD DEDUCTION	\$2,600	HIGHEST RATE AFTER	\$43,200	
EXEMPTIONS	1	EXEMPTION	\$2,000	\$3,000

FEDERAL TAX REFORM ACT OF 1986, HB-154 AND SB-148

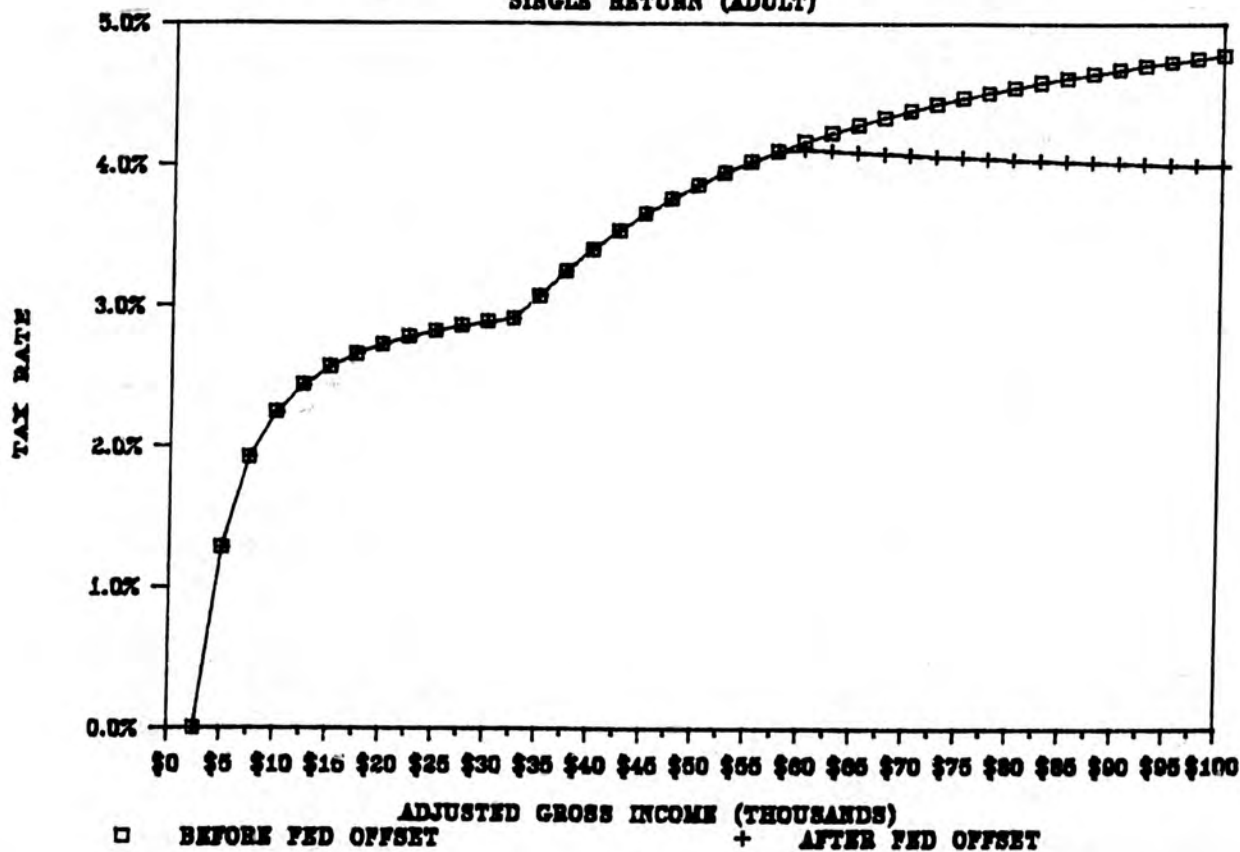
TOTAL TAXES AS PERCENTAGE OF INCOME

SINGLE RETURN (ADULT)



STATE TAXES AS PERCENTAGE OF INCOME

SINGLE RETURN (ADULT)



REFERENCES

- Aaron, Henry J., and Joseph A. Pechman, ed. How Taxes Affect Economic Behavior. Washington, D.C.: The Brookings Institution, 1981.
- Alaska Department of Labor. Nonresidents Working in Alaska in 1985, January 1987.
- Alaska Department of Revenue. Federal Income Taxpayer Profile 1978, 1981, 1982 by Alaska Community and Income Level and Filing Status, n.d.
- _____. "Revenue Alternatives: Individual Income Tax." Report prepared by Mary Ellen Frank, Dave Tonkovich, and Al Zangri, December 1986.
- _____. 1982 Federal Tax Leakage Associated with the Permanent Fund Dividend Program. Report prepared by P.S. Dhillon and Mary Ellen Frank, July 1983.
- Alaska Public Employees Association. Alaska Cost of Living Study. Vol. 2., Juneau, 1986.
- Bosworth, Barry P. Tax Incentives and Economic Growth. Washington, D.C.: The Brookings Institution, 1984.
- Bradford, David F. Untangling the Income Tax. Cambridge, Mass.: Harvard University Press, 1986.
- Ebel, Robert D., and Robert M. Kamins. Who Pays Hawaii's Taxes? Monoa: University of Hawaii, Social Sciences & Linguistics Institute, 1975.
- Ehrlich, Morton. Discretionary Spending. New York: National Industrial Conference Board, Inc., 1966.
- Frank, Mary Ellen. Personal communication on the historical and projected figures for the percent of personal income tax paid by nonresidents. May 11, 1987.
- Fried, Neal. The Economic Impact of the University of Alaska on Fairbanks. Fairbanks North Star Borough, Community Research Center, Special Report No. 8, 1980.
- Goldsmith, O. Scott. "A Cursory Analysis of The Economic Impact of Different Categories of State Government Expenditures." Memorandum to Dona Lehr, Alaska Division of Policy Development and Planning, March 11, 1982.
- _____. "How State Spending Reductions Affect Economic Activity." Anchorage: University of Alaska, Institute of Social and Economic Research, Working Paper 86.2, March 5, 1986.

- _____. "Simulations of State Government Fiscal Policy: The Balanced Budget Multiplier." The Annals of Regional Science 18 (March 1984): 57-65.
- _____. "A State Personal Income Tax Simulation Model." The Annals of Regional Science 13 (March 1979): 44-53.
- Goldsmith, O. Scott, Teresa Hull, and Stephen Colt. "Monitoring the Performance of the Alaska Economy: The 1986 ISER MAP Economic Database." Anchorage: University of Alaska, Institute of Social and Economic Research, Working Paper 86.5, June 1986.
- Hirsch, Werner Z. The Economics of State and Local Government. New York: McGraw Hill, 1970.
- Joint Income Tax Working Group, "Briefing Documents: Proposed Alaska Individual Income Tax, HB-15 and SB-148," March 15, 1987.
- Knapp, Gunnar et al., The Alaska Permanent Fund Dividend Program: Economic Effects and Public Attitudes. Report prepared for the Alaska Permanent Fund Corporation. Anchorage: University of Alaska, Institute of Social and Economic Research, 1984.
- Laird, Paul. "Raising Revenues or Stimulating Growth," Alaska Business Monthly, April 1987, pp. 18-26.
- The McDowell Group and Alaska Attitudes, Inc. Alaska Geographic Differential Study. 2 vols. Prepared for Alaska Department of Administration, 1985.
- Park, Thae S. "Relationship Between Personal Income and Adjusted Gross Income: Revised Estimates, 1947-83." Survey of Current Business 66 (May 1986): 34-40.
- Pechman, Joseph A., and Benjamin A. Okner. Who Bears the Tax Burden? Washington, D.C.: The Brookings Institution, 1974.
- Phares, Donald. Who Pays State and Local Taxes? Cambridge, Mass.: Oelgeschlager, Gunn and Hain, Publishers, 1980.
- Pierce, Brad. "State Employee Spending Patterns." Memorandum to Representative Don Clocksin, Alaska State Legislature, House of Representatives, March 25, 1986.
- Reinhardt, Uwe E. "Enjoy the Party--For Tomorrow Somebody Will Have to Pay." Princeton Alumni Weekly 87 (February 25, 1987): 13-19.
- Tourtellot, Lisa Marie. Personal communication on state employee benefits, May 1987.

U.S. Department of Commerce, Bureau of the Census, 1980 U.S. Census Public Use Sample.

U.S. Department of Labor, Bureau of Labor Statistics. Consumer Expenditure Survey: Diary Survey, 1980-81. Bulletin 2173, 1983.

_____. Consumer Expenditure Survey, 1980-81: Interview Survey, 1980-81. Bulletin 2225, 1985.

U.S. Department of the Treasury, Internal Revenue Service. Individual Income Tax Returns. Washington, D.C.: Government Printing Office, various years.

_____. Internal Revenue Service. Highlights of 1986 Tax Changes (including the Tax Reform Act of 1986), Publication 553.

Walkush, Jerry. Personal communication of state employee benefits, May 1987.

Zangri, Alfred. Personal communication on adjusted gross income for 1982 for Alaska census areas or communities, May 1, 1987.



UNIVERSITY OF ALASKA ANCHORAGE

3211 Providence Drive
Anchorage, Alaska 99508

SCHOOL OF PUBLIC AFFAIRS

INSTITUTE OF SOCIAL AND
ECONOMIC RESEARCH
(907) 756-7710 FAX (907) 786-7739

FACSIMILE TRANSMITTAL SHEET

DATE: 8/4/95TIME: 1:55TOTAL PAGES: 5
Including Cover SheetFROM: LINDA LEASK
EDITOR, ISERTRANSMITTED TO: BOB WALSH
258 - 9869

COMMENTS:

SENT BY: Monette

RECEIVER:

Please deliver this transmission to the above addressee. If you do not receive all of the pages in good condition, please advise the sender at your earliest convenience. Thank you for your assistance.

Table 1
STATE OF ALASKA - UNRESTRICTED REVENUES
TAX PORTION

(\$ millions)	FY 12	FY 13	FY 14	FY 15	FY 16	FY 17	FY 18	FY 19	FY 80	FY 81	FY 82	FY 83	FY 84	FY 85
Corporate General	6.5	6.8	8.2	17.3	31.1	35.8	33.5	24.8	17.9	34.8	34.8	30.3	39.5	36.0
Corporate - Petroleum	--	--	--	--	--	--	--	232.6	547.5	860.1	668.9	236.0	265.1	168.6
Fiduciary	--	--	--	.1	.1	.1	.1	.1	.1	--	--	--	--	--
Individual	39.1	43.4	49.2	86.9	146.2	210.4	145.7	117.2	100.5	--	--	--	--	--
TOTAL INCOME	45.6	50.2	57.4	104.3	177.4	246.3	179.3	374.7	666.0	894.9	703.7	266.3	304.6	204.6
Alaska Business License	6.1	6.7	7.5	11.2	19.1	23.2	21.7	28.2	4.2	5.4	5.5	6.9	19.9	38.8
Fish - Canned Salmon	2.7	1.7	1.4	1.6	1.8	3.8	5.5	6.7	4.3	5.9	8.6	4.3	5.5	5.6
Fish - Shore Based	.3	.5	.9	.8	.8	1.9	2.3	3.3	1.6	11.0	8.7	11.5	7.1	8.3
Fish - Floating	.2	.3	.5	.3	.5	.5	.5	1.9	2.7	3.8	5.5	4.7	6.4	4.8
Salmon Enhancement	--	--	--	--	--	--	--	--	--	--	2.4	2.6	2.2	2.6
Seafood Marketing	--	--	--	--	--	--	--	--	--	--	--	.9	1.1	1.0
Insurance Companies	3.5	3.7	3.8	4.4	6.1	8.1	10.0	10.8	10.4	10.6	12.5	13.8	16.2	17.5
Other	.5	.6	.6	.7	1.0	1.3	1.6	1.9	2.1	1.2	1.4	1.6	2.0	2.1
TOTAL GROSS RECEIPTS	13.3	13.5	14.7	19.0	29.3	38.8	41.6	52.8	31.3	37.9	44.6	46.3	60.4	80.7
Gravel, Timber, Etc.	--	--	.3	.8	1.8	1.0	.8	1.7	1.6	2.7	--	--	--	--
Oil & Gas Production	11.4	12.0	14.8	26.6	27.9	23.7	107.6	173.6	506.2	1,169.9	1,581.1	1,493.0	1,392.4	1,388.7
Oil & Gas Conservation	--	--	--	--	.1	.1	.1	.2	.3	.3	.6	.7	.7	.7
TOTAL SEVERANCE	11.4	12.0	15.1	27.4	29.8	24.8	108.5	175.5	508.1	1,172.9	1,581.7	1,493.7	1,393.1	1,389.4
Oil & Gas	--	--	--	6.6	83.4	139.1	173.0	163.4	168.9	143.0	142.7	152.6	131.0	128.4
Oil & Gas Reserves	--	--	--	--	223.1	270.6	--	--	--	--	--	--	--	--
Vehicle Registration	--	--	--	--	--	--	.2	.2	.1	.2	--	--	--	--
TOTAL PROPERTY	--	--	--	6.6	306.5	409.7	173.2	163.6	169.0	143.2	142.7	152.6	131.0	128.4
Alcoholic Beverages	4.8	5.2	5.7	6.6	7.8	8.0	7.6	7.4	7.4	8.3	9.0	10.4	13.0	13.9
Fuel Taxes - Aviation	1.5	1.3	1.6	2.8	3.0	2.5	3.3	3.4	4.0	4.1	6.3	8.7	8.1	8.0
Fuel Taxes - Highway	8.9	10.1	11.0	14.0	20.2	16.7	17.9	16.3	18.9	15.6	20.3	23.7	20.2	23.7
Fuel Taxes - Marine	1.0	1.1	1.2	1.1	1.2	1.3	2.1	2.6	3.2	3.5	3.7	4.3	3.9	4.3
Tobacco Products	1.2	1.2	1.3	1.5	1.7	1.8	1.7	1.7	1.6	1.7	1.9	2.0	2.0	2.0
TOTAL SALE/USE	17.4	18.9	20.8	26.0	33.9	30.3	32.6	31.4	35.1	33.2	41.2	49.1	47.2	51.9
Estate	--	--	.1	.1	.2	.2	.2	.1	.2	.5	.3	.7	.7	.5
School	1.5	1.6	1.6	2.2	2.6	2.6	2.4	2.5	2.6	--	--	--	--	--
TOTAL OTHER	1.6*	1.6	1.7	2.3	2.8	2.8	2.6	2.6	2.8	.5	.3	.7	.7	.5
TOTAL TAXES	89.3	96.2	109.7	185.6	579.7	752.7	537.8	800.6	1,412.3	2,282.6	2,514.2	2,008.7	1,937.0	1,855.5

*Includes disaster relief

	NON-TAX PORTION													
(\$ millions)	FY 12	FY 13	FY 14	FY 15	FY 16	FY 17	FY 18	FY 19	FY 80	FY 81	FY 82	FY 83	FY 84	FY 85
<u>LICENSES & PERMITS</u>														
Business	2.8	3.2	4.1	4.2	5.1	5.5	6.8	7.5	8.1	9.1	10.8	10.8	10.8	11.9
Non-Business	6.3	6.6	6.8	9.4	11.3	10.6	12.3	12.3	10.7	12.2	13.0	14.9	15.9	17.0
TOTAL	9.1	9.8	10.9	13.6	16.4	16.1	19.1	19.8	18.8	21.3	23.8	25.7	26.7	28.9
<u>INTERGOVERNMENTAL RECEIPTS</u>														
Federal Shared Revenues	9.0	7.7	8.0	10.6	6.4	2.5	3.6	4.1	4.8	8.5	21.7	33.3	14.0	10.5
<u>STATE RESOURCE REVENUE</u>														
<u>SALE/USE</u>														
Bonus Sales	.3	3.8	24.8	1.0	--	--	--	--	342.4	7.6	5.0	36.2	10.1	11.5
Investment Earnings	61.3	43.2	41.1	38.5	31.7	34.8	44.2	59.2	119.9	227.8	324.7	375.8	282.7	233.5
Rents	3.3	3.7	4.0	4.3	4.1	3.4	2.3	2.1	3.0	5.4	3.5	4.3	6.0	5.1
Royalties	24.6	23.5	28.7	40.0	43.3	34.3	149.6	249.2	688.2	1,118.5	1,157.3	1,078.4	1,047.5	1,034.0
Sale of State Property	1.4	1.7	1.4	12.2	1.9	1.8	1.9	8.4	5.7	4.8	5.2	6.3	7.0	8.5
Gravel, Timber, etc.	--	--	--	--	--	--	--	--	--	--	1.2	4.0	2.9	3.1
TOTAL	96.9	75.9	100.0	96.0	81.0	74.3	198.0	318.9	1,159.2	1,364.1	1,496.9	1,505.0	1,356.2	1,295.7
<u>FACILITIES RELATED CHARGES</u>														
Airports	.5	.7	.6	.5	.6	.7	.8	.9	.8	1.1	1.6	1.4	1.5	1.6
Ferry System--SE	8.1	10.1	9.6	12.0	13.9	15.4	14.0	17.1	18.7	21.0	25.2	26.4	28.5	29.6
Ferry System--SW	.9	.9	1.0	1.2	1.3	1.5	1.6	1.8	2.4	3.4	4.0	4.0	3.5	3.8
Other	2.2	3.8	4.3	2.1	2.2	2.7	4.0	3.1	4.1	3.7	3.6	5.5	4.3	7.9
TOTAL	11.7	15.5	15.5	15.8	18.0	20.3	20.4	22.9	26.0	29.2	34.4	37.3	37.8	42.9
<u>SERVICES RELATED CHARGES</u>														
Court System	1.7	1.6	1.9	3.0	3.7	3.6	2.8	2.8	2.8	2.9	3.5	4.2	4.1	4.5
Other	.3	.3	.4	1.4	.7	.9	1.7	2.3	2.0	4.1	6.1	5.9	4.8	5.2
TOTAL	2.0	1.9	2.3	4.4	4.4	4.5	4.5	5.1	4.8	7.0	9.6	10.1	8.9	9.7
TOTAL RESOURCE	110.6	93.3	117.8	116.2	103.4	99.1	222.9	346.9	1,190.0	1,400.3	1,540.9	1,552.4	1,402.9	1,387.7
Miscellaneous Revenue	1.2	1.2	8.5	7.4	3.9	3.9	3.9	1.2	6.7	5.5	7.8	10.9	9.5	16.8
Total Unrestricted														
Non-Tax Revenue	129.9	112.0	145.2	147.8	130.1	121.6	249.5	378.0	1,220.3	1,435.6	1,594.2	1,622.3	1,453.1	1,404.5
Less: Native Claims Payments	--	--	--	--	--	--	22.4	45.6	131.4	--	--	--	--	--
TOTAL NET UNRESTRICTED														
NON-TAX REVENUE	129.9	112.0	145.2	147.8	130.1	121.6	227.1	332.4	1,088.9	1,435.6	1,594.2	1,622.3	1,453.1	1,404.5
Total Unrestricted														
Tax Revenue	89.3	96.2	109.7	185.6	579.7	752.7	537.8	800.6	1,412.3	2,282.6	2,514.2	2,008.7	1,937.0	1,855.5
TOTAL UNRESTRICTED REVENUE	219.2	208.2	254.9	333.4	709.8	874.3	764.9	1,133.0	2,501.2	3,718.2	4,108.4	2,631.0	3,390.1	3,260.0

Table 28

Historical General Fund Unrestricted Revenues -Tax Portion-

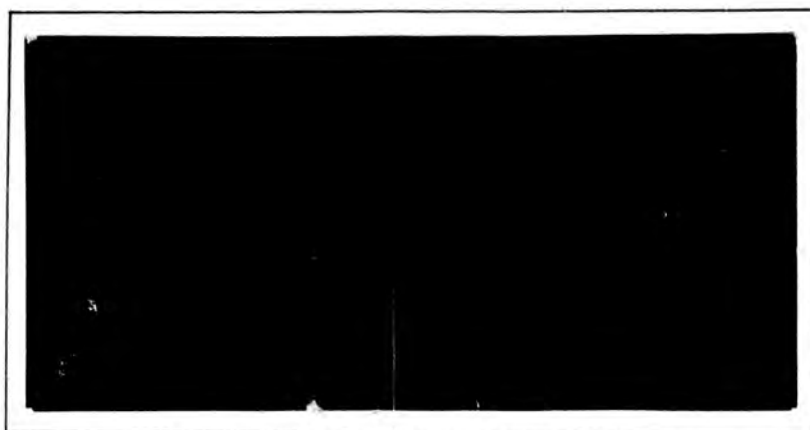
(\$ millions)	<u>FY 80</u>	<u>FY 81</u>	<u>FY 82</u>	<u>FY 83</u>	<u>FY 84</u>	<u>FY 85</u>	<u>FY 86</u>	<u>FY 87</u>	<u>FY 88</u>	<u>FY 89</u>	<u>FY 90</u>	<u>FY 91</u>	<u>FY 92</u>	<u>FY 93</u>	<u>FY 94</u>
Corporate - General	17.9	34.8	34.8	30.3	39.5	36.0	11.2	20.5	23.4	38.0	45.3	37.9	33.7	37.6	44.3
Corporate - Petroleum	547.5	860.1	668.9	236.0	265.1	168.6	133.9	120.4	158.0	166.0	117.2	185.1	165.5	834.7	17.8
Fiduciary	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Individual	<u>100.5</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
Total Income	666.0	894.9	703.7	266.3	304.6	204.6	145.1	140.9	181.4	204.0	162.5	223.0	199.2	872.3	62.1
Alaska Business License	4.2	5.4	5.5	6.9	19.9	38.8	2.1	1.5	1.4	1.0	0.1	0.0	0.0	0.1	0.2
Fish	14.6	20.7	22.8	20.5	19.0	18.7	21.1	26.5	22.5	26.7	25.1	31.1	30.1	42.2	33.9
Salmon Enhancement	0.0	0.0	2.4	2.6	2.2	2.6	4.3	4.4	5.8	9.5	6.5	6.2	4.2	6.8	5.0
Seafood Marketing	0.0	0.0	0.0	0.9	1.1	1.0	1.1	1.4	2.7	3.3	3.3	3.3	2.8	3.6	2.1
Salmon Marketing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7
Fish Landing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Insurance Companies	10.4	10.6	12.5	13.8	16.2	17.5	21.1	23.7	23.7	19.4	22.7	24.4	25.5	26.3	26.1
Other	<u>2.1</u>	<u>1.2</u>	<u>1.4</u>	<u>1.6</u>	<u>2.0</u>	<u>2.1</u>	<u>2.2</u>	<u>2.3</u>	<u>2.4</u>	<u>3.2</u>	<u>4.6</u>	<u>4.1</u>	<u>4.1</u>	<u>4.0</u>	<u>4.5</u>
Total Gross Receipts	31.3	37.9	44.6	46.3	60.4	80.7	51.9	59.8	58.5	62.1	62.3	69.1	66.7	83.0	75.6
Gravel, Timber, etc.	1.6	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Oil & Gas Production	506.2	1169.9	1581.1	1493.0	1392.4	1388.7	1107.4	647.3	816.4	696.4	972.3	1253.8	1022.2	989.4	662.8
Oil & Hazardous Release	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26.9	28.0	28.7	26.1	27.0
Oil & Gas Conservation	<u>0.3</u>	<u>0.3</u>	<u>0.6</u>	<u>0.7</u>	<u>0.7</u>	<u>0.7</u>	<u>0.5</u>	<u>1.2</u>	<u>2.3</u>	<u>2.4</u>	<u>2.4</u>	<u>2.3</u>	<u>2.3</u>	<u>2.1</u>	<u>2.3</u>
Total Severance	508.1	1172.9	1581.7	1493.7	1393.1	1389.4	1107.9	648.5	818.7	698.8	1001.6	1284.1	1053.2	1017.6	692.1
Oil & Gas Property	168.9	143.0	142.7	152.6	131.0	128.4	113.5	102.5	96.2	89.7	89.8	85.0	69.0	66.9	61.5
Vehicle Registration	<u>0.1</u>	<u>0.2</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
Total Property	169.0	143.2	142.7	152.6	131.0	128.4	113.5	102.5	96.2	89.7	89.8	85.0	69.0	66.9	61.5
Alcoholic Beverages	7.4	8.3	9.0	10.4	13.0	13.9	13.3	12.6	12.1	11.8	12.0	12.2	12.0	11.9	12.0
Fuel Taxes - Aviation	4.0	4.1	6.3	8.7	8.1	8.0	8.1	8.5	9.0	10.1	9.4	10.7	10.7	6.4	6.9
Fuel Taxes - Highway	18.9	15.6	20.3	23.7	20.2	23.7	22.7	18.3	19.3	20.0	22.9	19.1	23.2	25.6	25.5
Fuel Taxes - Marine	3.2	3.5	3.7	4.3	3.9	4.3	5.3	5.4	5.3	7.2	9.2	10.0	9.4	8.8	8.1
Tobacco Products	<u>1.6</u>	<u>1.7</u>	<u>1.9</u>	<u>2.0</u>	<u>2.0</u>	<u>2.0</u>	<u>4.9</u>	<u>6.6</u>	<u>6.1</u>	<u>6.4</u>	<u>11.0</u>	<u>14.0</u>	<u>14.3</u>	<u>14.0</u>	<u>14.1</u>
Total Sale/Use	35.1	33.2	41.2	49.1	47.2	51.9	54.3	51.4	51.8	55.5	64.5	66.0	69.6	66.7	66.6
Estate	0.2	0.5	0.3	0.7	0.7	0.5	0.7	1.1	0.3	0.7	1.1	3.3	1.0	0.9	1.6
School	<u>2.6</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
Total Other	2.8	0.5	0.3	0.7	0.7	0.5	0.7	1.1	0.3	0.7	1.1	3.3	1.0	0.9	1.6
Total Taxes	1412.3	2282.6	2514.2	2008.7	1937.0	1855.5	1473.4	1004.2	1206.9	1111.8	1381.8	1730.5	1458.7	2107.4	959.5

- Non-Tax Portion -

(\$ millions)	FY 80	FY 81	FY 82	FY 83	FY 84	FY 85	FY 86	FY 87	FY 88	FY 89	FY 90	FY 91	FY 92	FY 93	FY 94
Business	8.1	9.1	10.8	10.8	10.8	11.9	11.3	10.0	8.6	8.1	6.7	5.8	5.3	6.9	5.6
Non-Business	<u>10.7</u>	<u>12.2</u>	<u>13.0</u>	<u>14.9</u>	<u>15.9</u>	<u>17.0</u>	<u>18.0</u>	<u>19.2</u>	<u>19.7</u>	<u>20.2</u>	<u>21.1</u>	<u>23.3</u>	<u>27.1</u>	<u>25.8</u>	<u>30.1</u>
Total Licenses & Permits	18.8	21.3	23.8	25.7	26.7	28.9	29.3	29.2	28.3	28.3	27.8	29.1	32.4	32.7	35.7
Intergovernmental Receipts															
Federal Shared Revenues	4.8	8.5	21.7	33.3	14.0	10.5	14.5	9.7	6.9	6.1	10.0	14.8	11.4	10.3	4.3
State Resource Revenue															
Bonus Sales	342.4	7.6	5.0	36.2	10.1	11.5	34.7	0.5	5.6	11.4	0.0	18.9	2.6	38.3	0.6
Investment Earnings	119.9	227.8	324.7	375.8	282.7	233.5	195.2	161.9	132.6	100.7	117.9	125.0	101.8	70.9	31.7
Rents	3.0	5.4	3.5	4.3	6.0	5.1	6.2	6.0	6.0	5.3	5.3	5.9	3.9	6.0	4.6
Royalties	688.2	1118.5	1157.3	1078.4	1047.5	1034.0	830.7	439.3	694.8	605.9	747.4	951.6	702.4	711.3	512.1
Sale of State Property	5.7	4.8	5.2	6.3	7.0	8.5	8.7	7.0	3.8	4.9	4.3	4.7	1.0	4.0	9.0
Gravel, Timber, etc.	<u>0.0</u>	<u>0.0</u>	<u>1.2</u>	<u>4.0</u>	<u>2.9</u>	<u>3.1</u>	<u>2.9</u>	<u>7.2</u>	<u>1.1</u>	<u>0.5</u>	<u>0.8</u>	<u>0.4</u>	<u>0.6</u>	<u>0.6</u>	<u>0.4</u>
Total Sale/Use	1159.2	1364.1	1496.9	1505.0	1356.2	1295.7	1078.4	621.9	843.9	728.7	875.7	1106.5	812.3	831.1	558.4
Airports	0.8	1.1	1.6	1.4	1.5	1.6	1.5	1.5	1.8	1.2	1.5	1.3	3.4	1.2	0.5
Ferry System	21.1	24.4	29.2	30.4	32.0	33.4	32.3	31.3	29.8	33.1	34.0	40.7	42.3	40.8	40.4
Other	<u>4.1</u>	<u>3.7</u>	<u>3.6</u>	<u>5.5</u>	<u>4.3</u>	<u>7.9</u>	<u>5.2</u>	<u>4.1</u>	<u>0.7</u>	<u>1.4</u>	<u>1.7</u>	<u>1.5</u>	<u>2.3</u>	<u>1.4</u>	<u>6.1</u>
Total Facilities Charges	26.0	29.2	34.4	37.3	37.8	42.9	39.0	36.9	32.3	35.7	37.2	43.5	48.0	43.4	47.0
Court System	2.8	2.9	3.5	4.2	4.1	4.5	5.1	5.3	5.5	6.0	5.8	6.4	6.2	6.8	6.6
Other	<u>2.0</u>	<u>4.1</u>	<u>6.1</u>	<u>5.9</u>	<u>4.8</u>	<u>5.2</u>	<u>4.1</u>	<u>4.8</u>	<u>2.0</u>	<u>1.9</u>	<u>3.2</u>	<u>7.3</u>	<u>32.2</u>	<u>4.9</u>	<u>4.8</u>
Total Services Charges	4.8	7.0	9.6	10.1	8.9	9.7	9.2	10.1	7.5	7.9	9.0	13.7	38.4	11.7	11.4
Total State Resource Revenue	1190.0	1400.3	1540.9	1552.4	1402.9	1348.3	1126.6	668.9	883.7	772.3	921.9	1163.7	898.7	886.2	616.8
Miscellaneous Revenue	6.7	5.5	7.8	10.9	9.5	16.8	13.0	16.9	16.1	10.0	10.9	14.9	61.4	45.0	36.2
Sub-Total Non-Tax Revenue	1220.3	1435.6	1594.2	1622.3	1453.1	1404.5	1183.4	724.7	935.0	816.7	970.6	1222.5	1003.9	974.2	693.0
Less: Native Claims	131.4														
Plus: Income from prior years							418.7	70.5	163.9	257.7	154.8	33.6			
Total Non-Tax Revenue	1088.9	1435.6	1594.2	1622.3	1453.1	1404.5	1602.1	795.2	1098.9	1074.4	1125.4	1256.1	1003.9	974.2	693.0
Total Tax Revenue	1412.3	2282.6	2514.2	2008.7	1937.0	1855.5	1473.4	1004.2	1206.9	1111.8	1381.8	1730.5	1458.7	2107.4	959.5
Total General Fund Unrestricted Revenue	2501.2	3718.2	4108.4	3631.0	3390.1	3260.0	3075.5	1799.4	2305.8	2186.2	2507.2	2986.6	2462.6	3081.6	1652.5

SCOMM

101:72



INSTITUTE OF SOCIAL AND ECONOMIC RESEARCH

UNIVERSITY OF ALASKA ANCHORAGE

**A COMPARATIVE ANALYSIS OF THE
ECONOMIC EFFECTS OF REDUCED
STATE GOVERNMENT
EMPLOYEE COMPENSATION**

prepared by

Oliver Scott Goldsmith
Matthew D. Berman
and
Linda Leask

Institute of Social and Economic Research
University of Alaska Anchorage
3211 Providence Drive
Anchorage, Alaska 99508
(907) 786-7710

prepared for

Senate Finance Committee
Alaska State Legislature

June 12, 1987

This publication is printed on recycled paper.

TABLE OF CONTENTS

List of Tables	v
Executive Summary	vii
 PART 1. The Aggregate Economic Effects of Reducing State Government Employee Compensation	1
Summary	1
How Does Public Spending on Personnel Impact the Economy?	10
Do Public Employees Spend Their Income Differently than the General Population?	11
What is the Difference in Effect Between Increasing The Wage Rate and Increasing State Employment?	21
What is the Timing of the Economic Impact of Higher Personal Income?	26
How Does Consumption Vary Over the Business Cycle? . .	29
Is the Response of the Economy Different When Employee Compensation is Reduced	30
 PART 2. Cyclical Movements in Alaska Real Wages	33
Summary	33
Introduction	33
Cyclical Movements in Average Alaska Earnings, 1970-1986	35
Comparing Alaska and U.S. Wage Fluctuations	38
Cyclical Movements in Wage Rates of Alaska Industries .	40
Explaining Short-term Wage Behavior	47
Policy Issues for Public Employee Compensation	51

PART 3. Changes in Compensation of Some Alaska Workers and National Trends in Compensation Levels . . .	59
Private Sector Alaska Trends	59
National Trends in Pay and Benefits	62
References	67

LIST OF FIGURES AND TABLES

Figure 1. Real Wage and Employment Indexes	36
Figure 2. U.S. Employment and Earnings Indexes	39
Figure 3. Alaska and U.S. Real Annual Earnings	41
Figure 4. Real Wage and Employment Indexes, General Construction	44
Figure 5. Real Wage and Employment Indexes, Food Processing	45
Figure 6. Real Wage and Employment Indexes, State Government	46
Table 1. Impact of Reduction in State Work Force at All Pay Scales	4
Table 2. Impact of Cut in Public Salaries and Benefits at All Pay Scales	7
Table 3. Average Wage by Employer and Household Type	12
Table 4. Consumer Expenditures by Income Class	13
Table 5. Home Ownership Pattern of Alaska Households	16
Table 6. What Factors Explain How Much Housing People Purchase?	17
Table 7. Characteristics of Four Southeast Alaska Communities .	18
Table 8. Annual Expenditures by Selected Income Groups: The 1972 Consumer Expenditure Survey	20
Table 9. Sample of Alaska Households with State Workers	22
Table 10. Joint Return	23
Table 11. Single Return	24
Table 12. Expenditure Responses to Income Changes	27

Table 13. Cyclical Flexibility of Alaska Real Wage Index	37
Table 14. Cyclical Flexibility of National Real Wage Rates . . .	38
Table 15. Effect of Employment on Real Wage Levels in Selected Industries, 1971-1986	42
Table 16. Effect of Employment and Wage Index on Real Wage Levels in Selected Industries	50
Table 17. Computation of Average Wage Elasticities	54
Table 18. Effect of State Compensation Reduction on Other Alaska Real Wage Rates	55

EXECUTIVE SUMMARY

A big share of the state budget goes to pay state workers--so how to cut state spending for public employees and by how much has been a hot topic in Alaska over the past year, as smaller oil revenues force continuing budget cuts. The Senate Finance Committee of the Alaska Legislature asked us to look at the different economic effects of two possible ways of reducing future employee costs: cutting wages of all state workers, or saving the same amount of money by laying some workers off.

We found that saving \$100 million by laying workers off would have bigger effects on the economy than would saving the same amount by cutting pay of all state workers. Laying workers off would mean more job loss throughout the economy, more loss of personal income, and more houses standing empty. On the other hand, reducing public employees' pay would also reduce business costs and the cost of consumer goods throughout Alaska more than would laying workers off.

We also looked at historical fluctuations in wage rates for various industries in Alaska and asked some of Alaska's larger employers how they were holding down employee costs in the current recession.

Below we discuss our findings.^a We want to emphasize that pay cuts affect the Alaska economy differently than do layoffs. Rather than advocate one alternative over the other, we analyze and report the likely economic consequences of each alternative. We did not investigate the effect of either alternative on the quantity or quality of public services. And there are other possible ways of cutting public employees' compensation that we did not consider;^b each of those would also have different effects on the delivery of public services, the numbers of jobs in Alaska, and price and income levels.

^aTo gauge the economic effects of pay cuts or layoffs we had to make assumptions about, among other things, the average federal tax rates applicable to state workers and the share of state workers' pay spent locally. The values we use for these assumptions, of course, affect the outcome, but altering those values within reasonable ranges does not alter the general study conclusion.

^bReducing hours or cutting retirement benefits, for example.

Effects of State Wage Cuts or Layoffs

- Cutting \$100 million from the state budget by reducing all state employees' wages by the same percentage (with a portion of that cut in benefit reductions) would cost Alaska \$80 million in disposable personal income--\$60 million of which would be income lost by government workers and \$20 million of which would be income lost by private industry workers as a result of less spending by government workers.^c
- Cutting \$100 million from the state budget through layoffs, proportional at all wage levels, would take about \$95 million in disposable personal income out of the economy--\$70 million of which would come from income lost by laid-off government workers, and \$25 million of which would come from private industry employees who previously served the laid-off government workers.
- Reducing the state budget through pay cuts rather than through layoffs would take less income out of the economy for two main reasons:
 1. The federal government would share more of the burden under pay cuts because the federal income tax system is progressive; that is, the higher your income, the larger the percentage that goes for taxes. Among state employees, the marginal tax rate--the rate they pay on the last dollar they earn--is nearly twice as high as their average tax rate, which is the rate they pay on their total incomes.

Taking a dollar out of the economy by cutting wage rates of state employees, a dollar would reduce disposable personal income by about 74 cents, because the wage cut would reduce state employees' federal tax liability by around 26 cents. But taking a dollar out of the economy by eliminating jobs would cut disposable personal income by 85 cents because the average tax rate on total income of state employees is about 15 percent.

^cTo achieve a \$100 million savings would require about a 13 percent reduction in overall public employee compensation. We include University of Alaska and seasonal workers in all of our calculations.

2. In general, households spend most of their income and save some portion. Pay cuts would likely hit first at income that might not have been spent in the local economy anyway--money that workers would otherwise have saved, or possibly spent on trips outside the state. On the other hand, eliminating the entire incomes of some workers by eliminating their jobs would essentially cost the economy all of the income they would have spent locally.
- Cutting \$100 million in state spending by reducing wages would maintain the current number of public jobs but cost private industry 960 jobs. Using layoffs to save the same amount would eliminate a total of 3,880 jobs--2,640 public jobs and 1,240 private jobs. Private industry would lose trade and service jobs in both instances mainly because government workers would be spending less, but the effects would be greater under layoffs than under wage cuts.
 - Increased vacancies in all kinds of housing would follow either state wage cuts or layoffs, but the effects would be greater under layoffs. Most state workers with reduced wages would still be able to pay for housing, but many who lost their jobs would probably leave the state. Private industry workers affected by state wage cuts or layoffs would also find it more difficult to pay for housing, and some would leave. The drop in demand for housing units could be as high as 750 if state wages were cut and 3,000 if workers were laid off.
 - Cutting government salaries or laying state workers off would both tend to push down private wages, but the effect would be larger under wage cuts. For example, if the average state government wage were reduced 10 percent, the prevailing wage rate in the Alaska economy would eventually fall about 4 percent. That would likely happen because wage levels in most industries are at least partly determined by prevailing wages throughout the economy. If the state laid off 10 percent of its workers, prevailing wages in Alaska would probably drop about 1 percent because there would be less demand for labor--and wage rates are also partly determined by demand.
 - A drop in prevailing wage rates could increase the competitiveness of Alaska businesses and reduce the costs of living in Alaska.

Other Findings

- Annual wage rates in Alaska since 1970 have varied considerably among industries over the course of the business cycle. In comparing wage rates among industries, one has to control for differences due to the influence of the business cycle. For example, one can't justify a 10 percent reduction or increase in state government wage rates based on a comparable change in wages in the construction industry--because employment in the construction industry rises rapidly when the economy is expanding and falls precipitously during recessions, putting strong upward and downward pressure on wages. Employment in the public sector, on the other hand, is relatively stable.
- Measures to cut employee costs in private industry in Alaska have been widespread since the current recession started, according to a quick, informal survey we made of a number of large Alaska employers and some unions. The severity of the measures varies with how hard the individual employers have been hit by the recession. Most employers we talked to have eliminated at least some jobs as they became vacant, many have laid workers off and frozen wages, and virtually all have adopted ways of reducing their costs for employee health insurance and tightened up or reduced costs for other benefits. A few have reduced wages; if they are hiring new employees at all, many are starting new workers at a lower base pay than they would have formerly.

PART 1. THE AGGREGATE ECONOMIC EFFECTS OF REDUCING
STATE GOVERNMENT EMPLOYEE COMPENSATION

A. SUMMARY

Cutting the state budget by reducing the average wage rate of government employees would have a smaller contractionary impact on both aggregate employment and personal income than saving the same amount of money by reducing the number of public employees. For example, if \$100 million were cut from the budget in 1988 by a proportional reduction in all wage rates, the loss of disposable income in the economy would be \$80.4 million, and the loss of jobs would be 962 annually. If the \$100 million cut were accomplished by reducing the labor force proportionally at all levels, the loss of disposable income would be \$95.2 million, and the loss of jobs would be 3,885 annually.

The smaller contractionary effect of the wage rate reduction is primarily the result of two factors. First, federal sharing of the cut through reduced federal income tax payments is unequivocally greater with a wage cut. Higher marginal federal tax rates apply to a wage cut than the effective (average) tax rates that apply to a reduction in the total annual earnings of a few workers. Even though the new federal tax code is less progressive than previously, the marginal tax rate for state workers is about double the effective, or average rate. Thus, the removal of a dollar of income from the economy by reducing the wage rate by one dollar reduces disposable personal income after taxes by only 74 cents because federal tax liability has fallen by 26 cents. If a dollar of income is removed from the economy by eliminating a job, disposable income would fall by 85 cents after taxes because the effective tax rate on state employees is about 15 percent.

Second, there is less tendency for marginal wage income to be spent in the local economy than average wage income. People are more likely to save their marginal income, and thus reducing that income would affect how much they contribute to saving rather than to spending. On the other hand, most income is spent, and the elimination of all wage income for an individual would reduce spending by almost as much. It is also probable but not certain that marginal income is more likely to be spent in ways that do not impact the local economy, such as pleasure and buying trips outside the state.

In either case, 18 percent of the cut is in the form of benefits reduction. Consequently, after the effect of reduced tax liability is taken into account, disposable income of government workers declines \$60.6 million from a salary reduction and \$69.6 million from a reduction of the work force. No government jobs are eliminated by the salary reduction, but 2,644 are eliminated by the work force reduction alternative.

The effect on the private sector--trade and services--results primarily from reduced spending out of the disposable income of government workers but also from the reduction in benefits paid a part of the government employee compensation package. A portion of benefits paid, particularly physicians and dental services, impacts the local economy. The loss of jobs and income in the private sector is less with the salary reduction compared to the work force reduction--\$19.8 million and 962 jobs annually, compared to \$25.4 million and 1,241 jobs annually.¹

The salary reduction plan would increase excess capacity in housing by a smaller proportion than the work force reduction alternative. A salary reduction would not directly eliminate the ability of a household with a state employee to pay for housing, but the loss of all wage income to 2,644 state employees would cause a significant out-migration of households. In either case, there would be excess capacity created in housing and commercial real estate from the reduction of private sector jobs and income. A smaller private effect would result from the wage reduction alternative.

The pattern of excess capacity created is related to the pattern of home ownership. If 2,644 state workers became unemployed, 2,388 households would be impacted. Of these households, 64 percent are homeowners and 36 percent are renters. The loss in demand for housing units of all kinds would be increased in either case by the loss in jobs in the private sector.

The salary reduction alternative would impact the economy with a lag because it takes some time for households to adjust their consumption habits to the continued expectation of reduced income. Some of the reduction in purchasing power will be compensated for by a drawdown of accumulated savings. Consumer durables, non-essentials, and discretionary spending would be reduced first. Over time, households would reduce their nondiscretionary spending and their purchases of nondurables to bring their spending into line with their lower level of income. The work force reduction plan would impact the economy more immediately, due to out-migration of households and their purchasing power. In addition, the depressed condition of the construction industry would continue for a longer time with higher out-migration of households, which would increase and prolong the excess capacity in the housing market. This factor creates an additional negative aggregate economic impact associated with workforce reduction, which has not been quantified in this study.

¹We assume in Part 1 of this analysis that the private sector does not respond by reducing wages; however, the analysis in Part 2 of this report indicates that a portion of the private response, particularly if the government wage rate were to fall, would be in reduced private sector wages rather than in private sector employment reductions.

The magnitude of the effects of these budget-reducing alternatives depends primarily on the values chosen for the marginal and average federal income tax rates applicable to state workers, the marginal and average propensity to consume locally of state workers, and the local income (or value added) component of that local spending. Also, the size of the effects would be greater if concentrated among lower wage categories of employees and smaller if concentrated among higher wage categories. For reasonable ranges for the value for these and other parameters, the general conclusion of the study is not altered. The aggregate economic effect of state wage reductions would be less than that of workforce reductions. Tables 1 and 2 summarize the results of the impact analysis as well as sensitivity analyses.

TABLE 1. IMPACT OF REDUCTION IN STATE WORK FORCE AT ALL PAY SCALES

****CASE A. ****PAGE 1.				*****CASE A.			
REDUCE STATE WORK FORCE AT ALL PAY SCALES				REDUCE STATE WORK FORCE AT ALL PAY SCALES			
READ IMPACT SOURCE ACROSS AND LOCATION DOWN*****	ALASKA INCOME (MILL \$)			DISPOSABLE INCOME (MILL \$)			EMPLOYMENT (ANNUAL AVERAGE)
	PRIVATE	PUBLIC	TOTAL	PRIVATE	PUBLIC	TOTAL	PRIV PUBLIC TOTAL
****SUMMARY*****							
PRIVATE SECTOR	\$0.0	(\$74.9)	(\$74.9)	\$0.0	(\$63.7)	(\$63.7)	\$0.0 (\$51.0) (\$51.0) 0 -1241 -1241
PUBLIC SECTOR	\$0.0	(\$250.0)	(\$250.0)	\$0.0	(\$174.2)	(\$174.2)	\$0.0 (\$139.3) (\$139.3) 0 -2644 -2644
TOTAL	\$0.0	(\$324.9)	(\$324.9)	\$0.0	(\$237.9)	(\$237.9)	\$0.0 (\$190.3) (\$190.3) 0 -3885 -3885
TOTAL 87:3-4	\$0.0	(\$65.0)	(\$65.0)	\$0.0	(\$47.6)	(\$47.6)	\$0.0 (\$38.1) (\$38.1) 0 -3885 -3885
EFFECT 88:1-2	\$0.0	(\$65.0)	(\$65.0)	\$0.0	(\$47.6)	(\$47.6)	\$0.0 (\$38.1) (\$38.1) 0 -3885 -3885
88:3-4	\$0.0	(\$65.0)	(\$65.0)	\$0.0	(\$47.6)	(\$47.6)	\$0.0 (\$38.1) (\$38.1) 0 -3885 -3885
89:1-2	\$0.0	(\$65.0)	(\$65.0)	\$0.0	(\$47.6)	(\$47.6)	\$0.0 (\$38.1) (\$38.1) 0 -3885 -3885
89:3-4	\$0.0	(\$65.0)	(\$65.0)	\$0.0	(\$47.6)	(\$47.6)	\$0.0 (\$38.1) (\$38.1) 0 -3885 -3885
PRIVATE SECTOR 87:3-4	\$0.0	(\$15.0)	(\$15.0)	\$0.0	(\$12.7)	(\$12.7)	\$0.0 (\$10.2) (\$10.2) 0 -1241 -1241
88:1-2	\$0.0	(\$15.0)	(\$15.0)	\$0.0	(\$12.7)	(\$12.7)	\$0.0 (\$10.2) (\$10.2) 0 -1241 -1241
IMPACT 88:3-4	\$0.0	(\$15.0)	(\$15.0)	\$0.0	(\$12.7)	(\$12.7)	\$0.0 (\$10.2) (\$10.2) 0 -1241 -1241
89:1-2	\$0.0	(\$15.0)	(\$15.0)	\$0.0	(\$12.7)	(\$12.7)	\$0.0 (\$10.2) (\$10.2) 0 -1241 -1241
89:3-4	\$0.0	(\$15.0)	(\$15.0)	\$0.0	(\$12.7)	(\$12.7)	\$0.0 (\$10.2) (\$10.2) 0 -1241 -1241
PUBLIC SECTOR 87:3-4	\$0.0	(\$50.0)	(\$50.0)	\$0.0	(\$34.8)	(\$34.8)	\$0.0 (\$27.9) (\$27.9) 0 -2644 -2644
88:1-2	\$0.0	(\$50.0)	(\$50.0)	\$0.0	(\$34.8)	(\$34.8)	\$0.0 (\$27.9) (\$27.9) 0 -2644 -2644
IMPACT 88:3-4	\$0.0	(\$50.0)	(\$50.0)	\$0.0	(\$34.8)	(\$34.8)	\$0.0 (\$27.9) (\$27.9) 0 -2644 -2644
89:1-2	\$0.0	(\$50.0)	(\$50.0)	\$0.0	(\$34.8)	(\$34.8)	\$0.0 (\$27.9) (\$27.9) 0 -2644 -2644
89:3-4	\$0.0	(\$50.0)	(\$50.0)	\$0.0	(\$34.8)	(\$34.8)	\$0.0 (\$27.9) (\$27.9) 0 -2644 -2644

****ASSUMPTIONS*****DANGER!!!!!!!!*****

A. PRIVATE EFFECTS*****

C. DIRECT INCOME CHANGES*****

			PRIVATE	PUBLIC
* 0.2 OFFSET1	FEDERAL OFFSET: MARGINAL FEDERAL TAX RATE ON ALASKA INCOME			
* 0.08 LEAK1	TAX EXPORTING: PORTION OF INCOME TAX PAID BY NON-RESIDENTS			
* 1.3 MULT1	ECONOMIC MULTIPLIER ON RESIDENT DISPOSABLE PERSONAL INCOME	87:3-4	0	-50
0.85 DPIRATE	RATIO OF DPI/PI FOR SUPPORT SECTOR INCOME	89:1-2	0	-50
0.021 WAGESUP1	AVERAGE SUPPORT SECTOR WAGE (MILLION \$)	88:3-4	0	-50
0.15 COMP2	SUPPORT SECTOR BENEFITS AS % OF WAGE	89:1-2	0	-50
0.8 MPC1	MARGINAL PROPENSITY TO CONSUME OF TAXPAYER OR PF DIV RECIPIENT	89:3-4	0	-50
0.8 MPC3	MARGINAL PROPENSITY TO CONSUME OF SUPPORT SECTOR EMPLOYEE			
		TOTAL	0	-250

B. PUBLIC EFFECTS*****

* 0.15 OFFSET2	FEDERAL OFFSET: AVERAGE FEDERAL TAX RATE FOR STATE EMPLOYEE	1 POR1	PORTION OF \$
* 1.3 MULT2	ECONOMIC MULTIPLIER ON STATE EMPLOYEE DISPOSABLE PERSONAL INCOME		SPENT ON
0.031 WAGEGOV1	AVERAGE STATE/LOCAL WAGE (MILLION \$)		PUBLIC JOBS
0.22 COMP1	STATE GOVERNMENT BENEFITS AS % OF WAGE	0.25 DPI1	PORTION OF
0.8 MPC2	MARGINAL PROPENSITY TO CONSUME OF GOVT EMPLOYEE		NON-JOB
0.4 BEN1	LOCALLY SPENT PORTION OF PUBLIC EMPLOYEE BENEFITS		EXPENDITURES
0.4 INC1	INCOME PORTION OF LOCALLY SPENT BENEFITS		

****CASE A. *****PAGE 2.
REDUCE STATE WORK FORCE AT ALL PAY SCALES

*****CASE A.
REDUCE STATE WORK FORCE AT ALL PAY SCALES

=====												
ALASKA INCOME (MILL \$)			DISPOSABLE INCOME (MILL \$)			DISCRETIONARY SPENDING (MILL \$)			EMPLOYMENT (ANNUAL AVERAGE)			
PRIVATE	PUBLIC	TOTAL	PRIVATE	PUBLIC	TOTAL	PRIVATE	PUBLIC	TOTAL	PRIV	PUBLIC	TOTAL	

87:3-4												
DIRECT EFFECT												
Private Sector	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	0	0	0	
Public Sector	\$0.0	(\$50.0)	(\$50.0)	\$0.0	(\$34.8)	(\$34.8)	\$0.0	(\$27.9)	0	-2644	-2644	
Total	\$0.0	(\$50.0)	(\$50.0)	\$0.0	(\$34.8)	(\$34.8)	\$0.0	(\$27.9)	0	-2644	-2644	
INDIRECT EFFECT												
Private Sector	\$0.0	(\$15.0)	(\$15.0)	\$0.0	(\$12.7)	(\$12.7)	\$0.0	(\$10.2)	0	-1241	-1241	
TOTAL EFFECT												
Private Sector	\$0.0	(\$15.0)	(\$15.0)	\$0.0	(\$12.7)	(\$12.7)	\$0.0	(\$10.2)	0	-1241	-1241	
Public Sector	\$0.0	(\$50.0)	(\$50.0)	\$0.0	(\$34.8)	(\$34.8)	\$0.0	(\$27.9)	0	-2644	-2644	
Total	\$0.0	(\$65.0)	(\$65.0)	\$0.0	(\$47.5)	(\$47.5)	\$0.0	(\$38.1)	0	-3885	-3885	

99:1-2												
DIRECT EFFECT												
Private Sector	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	0	0	0	
Public Sector	\$0.0	(\$50.0)	(\$50.0)	\$0.0	(\$34.8)	(\$34.8)	\$0.0	(\$27.9)	0	-2644	-2644	
Total	\$0.0	(\$50.0)	(\$50.0)	\$0.0	(\$34.8)	(\$34.8)	\$0.0	(\$27.9)	0	-2644	-2644	
INDIRECT EFFECT												
Private Sector	\$0.0	(\$15.0)	(\$15.0)	\$0.0	(\$12.7)	(\$12.7)	\$0.0	(\$10.2)	0	-1241	-1241	
TOTAL EFFECT												
Private Sector	\$0.0	(\$15.0)	(\$15.0)	\$0.0	(\$12.7)	(\$12.7)	\$0.0	(\$10.2)	0	-1241	-1241	
Public Sector	\$0.0	(\$50.0)	(\$50.0)	\$0.0	(\$34.8)	(\$34.8)	\$0.0	(\$27.9)	0	-2644	-2644	
Total	\$0.0	(\$65.0)	(\$65.0)	\$0.0	(\$47.5)	(\$47.5)	\$0.0	(\$38.1)	0	-3885	-3885	

88:3-4												
DIRECT EFFECT												
Private Sector	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	0	0	0	
Public Sector	\$0.0	(\$50.0)	(\$50.0)	\$0.0	(\$34.8)	(\$34.8)	\$0.0	(\$27.9)	0	-2644	-2644	
Total	\$0.0	(\$50.0)	(\$50.0)	\$0.0	(\$34.8)	(\$34.8)	\$0.0	(\$27.9)	0	-2644	-2644	
INDIRECT EFFECT												
Private Sector	\$0.0	(\$15.0)	(\$15.0)	\$0.0	(\$12.7)	(\$12.7)	\$0.0	(\$10.2)	0	-1241	-1241	
TOTAL EFFECT												
Private Sector	\$0.0	(\$15.0)	(\$15.0)	\$0.0	(\$12.7)	(\$12.7)	\$0.0	(\$10.2)	0	-1241	-1241	
Public Sector	\$0.0	(\$50.0)	(\$50.0)	\$0.0	(\$34.8)	(\$34.8)	\$0.0	(\$27.9)	0	-2644	-2644	
Total	\$0.0	(\$65.0)	(\$65.0)	\$0.0	(\$47.5)	(\$47.5)	\$0.0	(\$38.1)	0	-3885	-3885	

CASE A. **PAGE 6.
REDUCE STATE WORK FORCE AT ALL PAY SCALES

=====

SENSITIVITY ANALYSIS

=====

DISPOSABLE PERSONAL INCOME

		% FEDERAL TAX (C48)				
	+J12	5%	10%	15%	20%	25%
	1.10	(\$226)	(\$214)	(\$203)	(\$192)	(\$180)
MULTI-	1.20	(\$245)	(\$233)	(\$220)	(\$208)	(\$196)
PLIER	1.30	(\$265)	(\$251)	(\$238)	(\$225)	(\$211)
(C49)	1.40	(\$284)	(\$270)	(\$255)	(\$241)	(\$227)

EMPLOYMENT

		% FEDERAL TAX (C48)				
	+P12	5%	10%	15%	20%	25%
	1.10	-3246	-3226	-3206	-3186	-3167
	1.20	-3626	-3586	-3546	-3506	-3466
	1.30	-4005	-3945	-3885	-3825	-3765
	1.40	-4384	-4305	-4225	-4145	-4065

		% FEDERAL TAX (C48)				
	-237.87	5%	10%	15%	20%	25%
	0.20	(\$259)	(\$245)	(\$232)	(\$219)	(\$206)
LOCAL	0.30	(\$262)	(\$248)	(\$235)	(\$222)	(\$208)
BENEFIT	0.40	(\$265)	(\$251)	(\$238)	(\$225)	(\$211)
SPENDING	0.50	(\$267)	(\$254)	(\$241)	(\$227)	(\$214)
(C53)	0.60	(\$270)	(\$257)	(\$244)	(\$230)	(\$217)

		% FEDERAL TAX (C48)				
	+P12	5%	10%	15%	20%	25%
	0.20	-3894	-3834	-3774	-3714	-3654
	0.30	-3949	-3889	-3830	-3770	-3710
	0.40	-4005	-3945	-3885	-3825	-3765
	0.50	-4061	-4001	-3941	-3881	-3821
	0.60	-4117	-4057	-3997	-3937	-3877

TABLE 2. IMPACT OF CUT IN PUBLIC SALARIES AND BENEFITS AT ALL PAY SCALES

CASE B. **PAGE 1.

CUT PUBLIC SALARIES AND BENEFITS AT ALL PAY SCALES

*****CASE B.

CUT PUBLIC SALARIES AND BENEFITS AT ALL PAY SCALES

READ IMPACT SOURCE ACROSS AND LOCATION DOWN*****		ALASKA INCOME (MILL \$)			DISPOSABLE INCOME (MILL \$)			DISCRETIONARY SPENDING (MILL \$)			EMPLOYMENT (ANNUAL AVERAGE)		
		PRIVATE	PUBLIC	TOTAL	PRIVATE	PUBLIC	TOTAL	PRIVATE	PUBLIC	TOTAL	PRIV	PUBLIC	TOTAL
****SUMMARY*****													
PRIVATE SECTOR		\$0.0	(\$58.1)	(\$58.1)	\$0.0	(\$49.3)	(\$49.3)	\$0.0	(\$39.5)	(\$39.5)	0	-962	-962
PUBLIC SECTOR		\$0.0	(\$250.0)	(\$250.0)	\$0.0	(\$151.6)	(\$151.6)	\$0.0	(\$121.3)	(\$121.3)	0	0	0
TOTAL		\$0.0	(\$308.1)	(\$308.1)	\$0.0	(\$201.0)	(\$201.0)	\$0.0	(\$160.8)	(\$160.8)	0	-962	-962
TOTAL 87:3-4		\$0.0	(\$61.6)	(\$61.6)	\$0.0	(\$40.2)	(\$40.2)	\$0.0	(\$32.2)	(\$32.2)	0	-962	-962
EFFECT 88:1-2		\$0.0	(\$61.6)	(\$61.6)	\$0.0	(\$40.2)	(\$40.2)	\$0.0	(\$32.2)	(\$32.2)	0	-962	-962
88:3-4		\$0.0	(\$61.6)	(\$61.6)	\$0.0	(\$40.2)	(\$40.2)	\$0.0	(\$32.2)	(\$32.2)	0	-962	-962
89:1-2		\$0.0	(\$61.6)	(\$61.6)	\$0.0	(\$40.2)	(\$40.2)	\$0.0	(\$32.2)	(\$32.2)	0	-962	-962
89:3-4		\$0.0	(\$61.6)	(\$61.6)	\$0.0	(\$40.2)	(\$40.2)	\$0.0	(\$32.2)	(\$32.2)	0	-962	-962
PRIVATE 87:3-4		\$0.0	(\$11.6)	(\$11.6)	\$0.0	(\$9.9)	(\$9.9)	\$0.0	(\$7.9)	(\$7.9)	0	-962	-962
SECTOR 88:1-2		\$0.0	(\$11.6)	(\$11.6)	\$0.0	(\$9.9)	(\$9.9)	\$0.0	(\$7.9)	(\$7.9)	0	-962	-962
IMPACT 88:3-4		\$0.0	(\$11.6)	(\$11.6)	\$0.0	(\$9.9)	(\$9.9)	\$0.0	(\$7.9)	(\$7.9)	0	-962	-962
89:1-2		\$0.0	(\$11.6)	(\$11.6)	\$0.0	(\$9.9)	(\$9.9)	\$0.0	(\$7.9)	(\$7.9)	0	-962	-962
89:3-4		\$0.0	(\$11.6)	(\$11.6)	\$0.0	(\$9.9)	(\$9.9)	\$0.0	(\$7.9)	(\$7.9)	0	-962	-962
PUBLIC 87:3-4		\$0.0	(\$50.0)	(\$50.0)	\$0.0	(\$30.3)	(\$30.3)	\$0.0	(\$24.3)	(\$24.3)	0	0	0
SECTOR 88:1-2		\$0.0	(\$50.0)	(\$50.0)	\$0.0	(\$30.3)	(\$30.3)	\$0.0	(\$24.3)	(\$24.3)	0	0	0
IMPACT 88:3-4		\$0.0	(\$50.0)	(\$50.0)	\$0.0	(\$30.3)	(\$30.3)	\$0.0	(\$24.3)	(\$24.3)	0	0	0
89:1-2		\$0.0	(\$50.0)	(\$50.0)	\$0.0	(\$30.3)	(\$30.3)	\$0.0	(\$24.3)	(\$24.3)	0	0	0
89:3-4		\$0.0	(\$50.0)	(\$50.0)	\$0.0	(\$30.3)	(\$30.3)	\$0.0	(\$24.3)	(\$24.3)	0	0	0

****ASSUMPTIONS*****DANGER!!!!!!!!!!!!*****

A. PRIVATE EFFECTS*****

C. DIRECT INCOME CHANGES*****

			PRIVATE	PUBLIC
0.2 OFFSET1	FEDERAL OFFSET: MARGINAL FEDERAL TAX RATE ON ALASKA INCOME			
0.08 LEAK1	TAX EXPORTING: PORTION OF INCOME TAX PAID BY NON-RESIDENTS			
1.3 MULT1	ECONOMIC MULTIPLIER ON RESIDENT DISPOSABLE PERSONAL INCOME	87:3-4	0	-50
0.85 DPIRATE	RATIO OF DPI/PI FOR SUPPORT SECTOR INCOME	88:1-2	0	-50
0.021 WAGESUP1	AVERAGE SUPPORT SECTOR WAGE (MILLION \$)	88:3-4	0	-50
0.15 COMP2	SUPPORT SECTOR BENEFITS AS % OF WAGE	89:1-2	0	-50
0.8 MPC1	MARGINAL PROPENSITY TO CONSUME OF TAXPAYER OR PF DIV RECIPIENT	89:3-4	0	-50
0.8 MPC3	MARGINAL PROPENSITY TO CONSUME OF SUPPORT SECTOR EMPLOYEE			
	TOTAL		0	-250

B. PUBLIC EFFECTS*****

0.26 OFFSET2	FEDERAL OFFSET: AVERAGE FEDERAL TAX RATE FOR STATE EMPLOYEE	1 POR1	PORTION OF \$
1.25 MULT2	ECONOMIC MULTIPLIER ON STATE EMPLOYEE DISPOSABLE PERSONAL INCOME		SPENT ON
0.031 WAGESGOV1	AVERAGE STATE/LOCAL WAGE (MILLION \$)		PUBLIC JOBS
0.22 COMP1	STATE GOVERNMENT BENEFITS AS % OF WAGE	0.25 DPI1	NON-JOB
0.8 MPC2	MARGINAL PROPENSITY TO CONSUME OF GOVT EMPLOYEE		EXPENDITURES
0.4 BEN1	LOCALLY SPENT PORTION OF PUBLIC EMPLOYEE BENEFITS		BECOMING DPI
0.4 INC.	INCOME COMPONENT OF LOCAL BENEFIT SPENDING	0 SWCH	=1 IF JOB CUT

CASE B. **PAGE 2.

CUT PUBLIC SALARIES AND BENEFITS AT ALL PAY SCALES

*****CASE B.

CUT PUBLIC SALARIES AND BENEFITS AT ALL PAY SCALES

=====												
ALASKA INCOME (MILL \$)			DISPOSABLE INCOME (MILL \$)			DISCRETIONARY SPENDING (MILL \$)			EMPLOYMENT (ANNUAL AVERAGE)			
PRIVATE	PUBLIC	TOTAL	PRIVATE	PUBLIC	TOTAL	PRIVATE	PUBLIC	TOTAL	PRIV	PUBLIC	TOTAL	

87:3-4												
DIRECT EFFECT												
Private Sector	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	0	0	0	
Public Sector	\$0.0	(\$50.0)	(\$50.0)	\$0.0	(\$30.3)	(\$30.3)	\$0.0	(\$24.3)	0	0	0	
Total	\$0.0	(\$50.0)	(\$50.0)	\$0.0	(\$30.3)	(\$30.3)	\$0.0	(\$24.3)	0	0	0	
INDIRECT EFFECT												
Private Sector	\$0.0	(\$11.6)	(\$11.6)	\$0.0	(\$9.9)	(\$9.9)	\$0.0	(\$7.9)	0	-962	-962	
TOTAL EFFECT												
Private Sector	\$0.0	(\$11.6)	(\$11.6)	\$0.0	(\$9.9)	(\$9.9)	\$0.0	(\$7.9)	0	-962	-962	
Public Sector	\$0.0	(\$50.0)	(\$50.0)	\$0.0	(\$30.3)	(\$30.3)	\$0.0	(\$24.3)	0	0	0	
Total	\$0.0	(\$61.6)	(\$61.6)	\$0.0	(\$40.2)	(\$40.2)	\$0.0	(\$32.2)	0	-962	-962	

88:1-2												
DIRECT EFFECT												
Private Sector	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	0	0	0	
Public Sector	\$0.0	(\$50.0)	(\$50.0)	\$0.0	(\$30.3)	(\$30.3)	\$0.0	(\$24.3)	0	0	0	
Total	\$0.0	(\$50.0)	(\$50.0)	\$0.0	(\$30.3)	(\$30.3)	\$0.0	(\$24.3)	0	0	0	
INDIRECT EFFECT												
Private Sector	\$0.0	(\$11.6)	(\$11.6)	\$0.0	(\$9.9)	(\$9.9)	\$0.0	(\$7.9)	0	-962	-962	
TOTAL EFFECT												
Private Sector	\$0.0	(\$11.6)	(\$11.6)	\$0.0	(\$9.9)	(\$9.9)	\$0.0	(\$7.9)	0	-962	-962	
Public Sector	\$0.0	(\$50.0)	(\$50.0)	\$0.0	(\$30.3)	(\$30.3)	\$0.0	(\$24.3)	0	0	0	
Total	\$0.0	(\$61.6)	(\$61.6)	\$0.0	(\$40.2)	(\$40.2)	\$0.0	(\$32.2)	0	-962	-962	

88:3-4												
DIRECT EFFECT												
Private Sector	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	0	0	0	
Public Sector	\$0.0	(\$50.0)	(\$50.0)	\$0.0	(\$30.3)	(\$30.3)	\$0.0	(\$24.3)	0	0	0	
Total	\$0.0	(\$50.0)	(\$50.0)	\$0.0	(\$30.3)	(\$30.3)	\$0.0	(\$24.3)	0	0	0	
INDIRECT EFFECT												
Private Sector	\$0.0	(\$11.6)	(\$11.6)	\$0.0	(\$9.9)	(\$9.9)	\$0.0	(\$7.9)	0	-962	-962	
TOTAL EFFECT												
Private Sector	\$0.0	(\$11.6)	(\$11.6)	\$0.0	(\$9.9)	(\$9.9)	\$0.0	(\$7.9)	0	-962	-962	
Public Sector	\$0.0	(\$50.0)	(\$50.0)	\$0.0	(\$30.3)	(\$30.3)	\$0.0	(\$24.3)	0	0	0	
Total	\$0.0	(\$61.6)	(\$61.6)	\$0.0	(\$40.2)	(\$40.2)	\$0.0	(\$32.2)	0	-962	-962	

****CASE B. ****PAGE 6.

CUT PUBLIC SALARIES AND BENEFITS AT ALL PAY SCALES

=====

SENSITIVITY ANALYSIS

=====

DISPOSABLE PERSONAL INCOME

EMPLOYMENT

		% FEDERAL TAX (C48)					
	+J12	5%	10%	15%	20%	25%	
MULTI- PLIER (C49)	1.10	(\$226)	(\$214)	(\$203)	(\$192)	(\$180)	
	1.20	(\$245)	(\$233)	(\$220)	(\$208)	(\$196)	
	1.30	(\$265)	(\$251)	(\$238)	(\$225)	(\$211)	
	1.40	(\$284)	(\$270)	(\$255)	(\$241)	(\$227)	

		% FEDERAL TAX (C48)					
	+P12	5%	10%	15%	20%	25%	
	1.10	-602	-582	-562	-542	-522	
	1.20	-982	-942	-902	-862	-822	
	1.30	-1361	-1301	-1241	-1181	-1121	
	1.40	-1740	-1660	-1581	-1501	-1421	

		% FEDERAL TAX (C48)					
	+J12	5%	10%	15%	20%	25%	
LOCAL BENEFIT SPENDING (C53)	0.2	(\$249)	(\$236)	(\$223)	(\$211)	(\$198)	
	0.3	(\$252)	(\$239)	(\$226)	(\$213)	(\$201)	
	0.4	(\$255)	(\$242)	(\$229)	(\$216)	(\$204)	
	0.5	(\$258)	(\$245)	(\$232)	(\$219)	(\$206)	
	0.6	(\$261)	(\$248)	(\$235)	(\$222)	(\$209)	

		% FEDERAL TAX (C48)					
	+P12	5%	10%	15%	20%	25%	
	0.2	-1060	-1010	-960	-910	-860	
	0.3	-1116	-1066	-1016	-966	-916	
	0.4	-1171	-1121	-1071	-1022	-972	
	0.5	-1227	-1177	-1127	-1077	-1027	
	0.6	-1283	-1233	-1183	-1133	-1083	

B. HOW DOES PUBLIC SPENDING ON PERSONNEL IMPACT THE ECONOMY?

When the state government spends money on personnel, the economic impact can be measured by changes in the levels of personal income and disposable personal income in the economy and by the change in the number of jobs. Initially the money spent becomes personal income of existing or new employees. Some of this increase in personal income must be paid to the federal government in income taxes, but the remainder is available to households to spend in the economy.

The spending of this disposable personal income within the economy creates jobs and income in the private economy, primarily in the support sectors of trade and services. The size of the private economic response depends upon how much of each additional dollar of disposable income is spent within the region (the marginal propensity to spend locally), rather than saved or spent outside the region, and also upon the proportion of that locally spent income, which becomes local value added. These two factors are the primary determinants of the size of the economic multiplier that measures the total economic change for the economy which is produced by a \$1 change in state personnel spending.

A portion of personnel expenditures, about 18 percent, is for employee benefits rather than wages and salaries. The largest components of this part of employee compensation are employee retirement contributions made by the employer and health insurance payments. If the health insurance program is actuarially fair, the amount which the insurance companies pay to health care providers in a year will be about the same as the amount set aside as health insurance by the state, net of administrative costs. This component of employee compensation will have an economic impact on the state through the jobs and income it creates in the health industry. Retirement benefits are like saving of individuals in that they do not result in current spending within the economy.

The size of the multiplier changes over time, depending upon the size of the economy, the phase of the business cycle, and other factors. On the one hand, the economic multiplier for Alaska is small because the size of the economy is small and does not warrant much "taking in of each other's wash." In particular, there is practically no manufacturing that occurs in Alaska. Thus, when demand for manufactured goods rises, that demand must be met by imports from outside the state with little impact on the local economy except in the transportation and trade sectors. On the other hand, the economic multiplier for Alaska has tended to be large in recent years because increases in demand have induced large spending increases in investment--housing, business, and government--and in government operating expenditures. In addition, the growing size of the market has resulted in import substitution and specialization of services and retailing which have increased the average as well as the marginal propensity to consume locally.

Simply put, there are now a lot more ways to spend consumer income locally than was the case ten years ago.

When the economy is in a recession, as is now the case, the multiplier will be reduced. This is largely due to the fact that induced investment dries up when the economy is growing slowly or declining in size. Basically no new construction and little business investment occurs in such an environment. In addition, import substitution and specialization do not fall when the market size stagnates or shrinks because of "threshold effects." That is, once having overcome the costs of entering the market, a business will remain even if the market contracts because the cost of remaining is less than of entry and the entry costs become irrelevant once they have been committed.

Consequently, for the purposes of this study, we use a multiplier value of 1.3. The interpretation of this value is that for each \$1 of personal income taken away from a state worker, an additional 30 cents of personal income is eliminated elsewhere in the economy for a total loss of \$1.30.

We assume that when state employee spending in the local economy is reduced and the income of businesses is reduced, businesses respond by reducing employment. For simplicity, we convert all the loss in personal income in the private sector into loss of jobs in the support industries. In reality, some of the loss of income would be in the form of reduced business net income rather than jobs, and some would likely be in the form of lower salaries for employees rather than job losses. This is particularly likely if the state government personnel cost reduction is carried out by a drop in the government wage.

C. DO PUBLIC EMPLOYEES SPEND THEIR INCOME
DIFFERENTLY THAN THE GENERAL POPULATION?

Public employee expenditure patterns may differ from those of private employees for two reasons--differences in per capita income or differences in taste. A different expenditure pattern could impact the economy in two different ways--a different propensity to spend or a different propensity to spend locally.

State employees on average have higher wage and income levels than the total population. The average annual wage in state government was \$32,381 in 1984. This is 13 percent above the average annual wage paid in all industries in Alaska in that year of \$28,586. Since state government employees may have income from other sources and may have different patterns of hours worked and job turnover than other groups in the population, this is an imprecise measure of relative income. Furthermore, this is a measure of wages paid by job, rather than a measure of wages paid per employee.

A more comprehensive measure of income by household is available from the U.S. Census. Data on state worker income revised by the Anchorage CPI to reflect inflation between the time of the Census and the present confirms that their average wage is above that of the average worker in the state but not by a large margin. Table 3 shows that the average wage for a full-time employed state worker in a single-wage-earner family was \$36,435 compared to \$35,022 for the average of all families with one full-time wage earner. The same pattern holds for families with more than one full-time wage earner and for nonfamily households.²

TABLE 3. AVERAGE WAGE^a BY EMPLOYER AND HOUSEHOLD TYPE

	Households with State Worker		All Households with a Wage Earner
	% of State Employees	Average Wage	
FAMILY			
1 Wage Earner	32%	\$36,435	\$35,022
More than 1 Wage Earner	44%	33,237	29,042
1 State Worker	28%	33,110	--
More than 1 State Worker	16%	33,675	--
NONFAMILY			
	23%	29,166	28,836

^aAverage of all household wage earners

SOURCE: U.S. Census Public Use Sample

²Since this data does not take into account possible changes in the relative wage in state government since the 1979 Census, it may not be completely accurate but is indicative of similarity of state worker and other households.

Consumption theory suggests that, at any point in time, we should observe people with higher incomes saving a larger percentage of their income and spending a smaller percentage than people with lower incomes. Economists say that the "average propensity to consume" and the "marginal propensity to consume" of high-income people is lower than that of low-income people. This hypothesis is confirmed by budget studies of consumer expenditures by income level. Table 4 shows the relation between income and expenditures for consumers taken from the 1981 Consumer Expenditure Survey of the federal government. Low-income households have expenditures which exceed current income while high-income households have expenditure levels below current income. High-income households are saving while low-income households are drawing from past savings in order to maintain consumption at levels in excess of current income. The average propensity to consume, the ratio of expenditures to income after taxes, declines as income rises.

TABLE 4. CONSUMER EXPENDITURES BY INCOME CLASS

	Income Range					Average of All Households
	Lowest 20% of Households	20-40	40-60	60-80	Highest 20% of Households	
Income	\$3,473	\$9,791	\$16,809	\$25,128	\$44,616	\$19,989
Taxes	125	590	1,668	3,356	6,768	2,505
Disposable Income	3,248	9,201	15,141	21,772	37,848	17,484
Expenditures	7,852	11,570	15,736	20,714	30,563	17,301
Average Propensity to Consume [Expenditures/ Disposable Income]	2.4	1.26	1.04	.95	.81	.99

SOURCE: U.S. Department of Labor, BLS Consumer Expenditure Survey: Interview Survey, 1980-81, Bulletin 2225, April 1985, Table 1.

While we observe this variation in the proportion of income saved and spent by different income classes at any point in time, economists have noticed a remarkable consistency over time in the proportion of aggregate personal income spent on consumption. This proportion--again the average propensity to consume--has exceeded 90 percent since World War II. As Table 4 shows, the average propensity to consume using the BLS definition was 99 percent for the population in 1981 in spite of substantial variation in the average propensity to consume among income classes. This suggests that consumption is determined not only by the current level of income but also by some expectation about lifetime income (the permanent income hypothesis or the life-cycle hypothesis) or by the relative income position of the household (the relative income hypothesis).

Thus, it may be that the average propensity to consume declines as we compare households in different income groups at a point in time because that income may not correspond to lifetime average income. Alternatively, households with high current income may be in that part of their life cycle consistent with high savings because income at that time is high relative to lifetime average income.

The theory suggests that two households with different current incomes but otherwise similar characteristics, both receiving the same portion of their lifetime permanent income should both spend and save similar portions of current income. Observed differences between average and marginal propensities to consume among households would be largely the result of differences in transitory income and the characteristics of the household. The consequence of this for the present analysis is that changes in income from wage changes which are viewed by the recipient as permanent may not change the average propensity to consume out of current income for that household.

In addition, studies done at the national level suggest that the portion of current income spent is a positive function of the stability of income. Since government employment income is relatively stable, this would suggest a higher marginal propensity to consume out of current income for government employees. For these reasons as well as the fact that the difference in average income of state-worker households and total households with workers is not great, we assume that there is no difference in the average propensity to consume of state workers compared to other workers in the economy.

However, we do assume that the marginal propensity to consume of state workers is below their average propensity to consume, both in the short- and long run. In the short run, changes in income are viewed partially as transitory, and current consumption is unrelated to transitory income. If the change in income is viewed as permanent, consumption would adjust, but with a lag. However, we

assume that leisure is a normal good so that at higher lifetime income levels, some people will choose to consume more leisure; that is, work less by retiring earlier, for example. Consequently, consumption as a percentage of current income would fall for these households since permanent income is not increased if leisure is substituted. To account for this, we assume the marginal propensity to consume is 95 percent of the average.

A second consideration is that state workers may have different tastes in consumption than the population in general. This could impact the economy because of differing local components in different goods. It is difficult to substantiate this hypothesis because we have no detailed Alaska consumption survey which distinguishes the occupation of the household. It has been suggested that state employees prefer to consume housing in excess of the general population.³ This is based upon a comparison of expenditure information in the Alaska Geographical Differential Study (AGDS), the APEA Cost of Living Study (APEA), and the U.S. Bureau of Labor Statistics Consumer Price Index. The APEA Study and the BLS Index have very similar "market basket" weights for important items, specifically housing, food and beverage, and apparel and upkeep for Anchorage.⁴ On the other hand, the statewide "market basket" weights for the AGDS study are very different from the APEA Study. The shelter category has about half the weight (18 percent) in the AGDS study as in the APEA study (36 percent).

Part of this difference in proportion of the household budget spent on shelter is due to the fact that the APEA study does not include some categories of expenditures included in the AGDS study, specifically recreation and entertainment and miscellaneous. Consequently, the weights on all included categories are about 10 percent higher than would be the case if the excluded categories were included. A second difference could be the result of using different survey methods. The AGDS study was done by telephone and thus subject to more error in response than the mail survey done for the APEA study. However, it is not possible to determine the direction of resulting bias, if any.

The majority of the difference can be explained by differences in income between the general population surveyed for the Alaska Geographical Differential Study and the population of APEA members surveyed in the Cost of Living Differential Study. This conclusion is based on the pattern of home ownership identified from the 1980

³Brad Pierce, State Employee Spending Patterns--Research Request 86-048, Alaska State Legislature, House of Representatives, Research Agency, March 25, 1986.

⁴APEA study, p. 55.