

$$\begin{aligned} \text{Intake} = & \beta_0 + \beta_1 \text{ URB} + \beta_2 \text{ INCOME} \\ & + \beta_3 \text{ INCOME SQUARED} + \beta_4 \text{ RACE2} \\ & + \beta_5 \text{ RACE3} + \beta_6 \text{ CH1}_4 + \beta_7 \text{ CH5}_9 \\ & + \beta_8 \text{ F10}_19 + \beta_9 \text{ F20}_44 + \beta_{10} \text{ F45}_64 \\ & + \beta_{11} \text{ F65} + \beta_{12} \text{ M10}_19 + \beta_{13} \text{ M45}_64 \\ & + \beta_{14} \text{ M65}. \end{aligned}$$

The model is linear when β_3 INCOME SQUARED is omitted.

Regression analysis was used to estimate the parameters which provides a measure of the direction and magnitude of impacts of socioeconomic and demographic variables on nutrient intakes. Given information on region,

Table 1. Description of the variable name used in the analysis of the survey of food intake of individuals in the U.S., USDA/SFII, Spring 1977.

Independent Variable	Description
URBAN = 1	Urban area
RURAL = 1	Rural and unspecified (omitted category)
INCOME = 0.5	Under \$1,000
= 1.5	\$1,000 - \$1,999
= 2.5	\$2,000 - \$2,999
...	...
= 95.5	\$95,000 and over
RACE 1 = 1	White (omitted category)
RACE 2 = 1	Black
RACE 3 = 1	Other
CH 1_4 = 1	Child less than 5 years of age
CH 5_9 = 1	Child 5 to 9 years of age
F 10_19 = 1	Female 10 to 19 years of age
F 20_44 = 1	Female 20 to 44 years of age
F 45_64 = 1	Female 45 to 64 years of age
F 65 = 1	Female 65 years of age and over
M 10_19 = 1	Male 10 to 19 years of age
M 20_44 = 1	Male 20 to 44 years of age (omitted category)
M 45_64 = 1	Male 45 to 64 years of age
M 65 = 1	Male 65 years of age and over

Table 2. Per capita average nutrient intake per day by region, USDA/SFII, Spring 1977.

Region	Food				Vitamin
	Energy kcal	Fat g	Calcium mg	Iron mg	C mg
Northeast	1,847	83.6	747	12.4	94.6
Central	1,879	85.1	767	12.8	85.0
South	1,752	78.9	643	12.4	76.5
West	1,871	87.1	810	12.9	88.2
United States	1,827	83.2	728	12.6	84.7

urbanization, race, household income, age and sex, the estimated equations may be used to predict per capita nutrient intake per day. Furthermore, profiles of nutrient intake across socioeconomic and demographic variables included in the model may also be developed.

In this study, the proportion of the population classified by variables related to race, urbanization and age-sex composition for a given state was used as weights in the equation to calculate per capita nutrient intake in the state. The use of the estimating equation will be illustrated in the results presented and the accompanying discussion.

REGRESSION RESULTS

Regression results derived from ordinary least squares estimation of the specified nutrients for four census regions are available from the authors upon request. In general, urbanization was estimated to not have a significant effect on intake of nutrients. Exceptions were found that calcium intake by urban individuals was significantly lower than that of rural individuals in the Northeast and West, and only in the West region was per capita intake of vitamin C by urban individuals significantly higher than that of individuals living in rural areas.

Income was generally found to have a significant effect on nutrient intakes in all regions except in the North Central. In addition, nutrient intakes of food energy, calcium and iron in the Northeast, and iron intake in the West were not responsive to changes in household income. Where significant impacts of income were estimated, nutrient intakes either strictly increase, or increase and then decline over the range of income.

The effects of race on nutrient intakes were mixed except for calcium intake where black individuals in all four regions and "other race" individuals in the Northeast and South were estimated to have significantly lower calcium intake than white individuals.

Age-sex was the dominant factor affecting per capita intake of nutrients. In general, males' nutrient intakes were higher than those of females in all age-sex categories. Except for vitamin C, males 10-19 and 20-44 years of age had the highest level of nutrient intakes than individuals in other age-sex categories. No clear pattern of significantly different levels of vitamin C intake is noted among age-sex groups.

INTAKE PROFILE EXAMPLES

The parameter estimates from the regression analysis were used to develop profiles of nutrient intake across race, age-sex of individuals and household income levels. The food energy intake profile for individuals living in the urban area of the North Central

and South is presented in table 3. Across age-sex classifications, individuals in the South had lower food energy intake than individuals in the North Central, and white individuals had higher intake than black individuals. Within both regions and income levels and across race and age-sex classifications, the per capita food energy intake of males is higher than for females. For each of the race and age-sex classifications, the per capita intake of food energy in the North Central and South increases as income increases from \$10,000 to \$50,000.

The fat intake profile for individuals living in the urban area of the North Central and South is presented in table 4. For the race and age-sex classifications, per capita fat intake in low income households (\$10,000) in the South is lower than that in the North Central. However, per capita fat intake for individuals in the South increase more rapidly than that in the North Central as income increases from \$10,000 to \$30,000. In both regions the white and black male 20 to 44 years of age is estimated to have the highest per capita intake of fat. Of the sex classifications, females are estimated to have lower fat intake than males.

The calcium intake profile for individuals living in the urban area of the North Central and South is presented in table 5. For all race and age-sex classifications, per capita intake of calcium in the North Central decreases slightly as income increases, while per capita intake of calcium in the South increases significantly. White individuals in both regions have higher calcium intake than black

individuals across all age-sex groups. For both black and white individual, males 10 to 19 years of age have the highest calcium intake in both regions.

The per capita iron intake profile for individuals living in the urban area of the North Central and South is presented in table 6. For the race and age-sex classification, per capita iron intake of low income households in the South is lower than that in the North Central, but as household income increases to \$30,000 and \$50,000 per capita intake of iron in the South is generally higher than that in the North Central. Within both region and race and across income categories, the greatest difference in the level of iron intake between male and female individuals is in the 20 to 44 years of age groups. For the same income level and age group, per capita iron intake differs only slightly between white and black individuals in both the North Central and South.

The vitamin C intake profile for individuals living in the urban area of the North Central and South is presented in table 7. Per capita intake of vitamin C for all race and age-sex groups increases linearly with increased income in both regions; and for each \$20,000 increment of income, per capita intake of vitamin C in the South increases by 14 milligrams while in the North Central an increase of 3 milligrams is estimated. In both regions, black individuals in all age-sex classifications are estimated to have higher level of vitamin C intake than the white individuals. Within regions and income levels and across race and age-sex classifications, per capita vitamin C intake of males is higher than for females.

Table 3. Profile of per capita food energy intake per day by age-sex and household income for white and black individuals living in urban area of the North Central and South, 1980.

Race/Age-Sex	Household Income/Region					
	\$10,000		\$30,000		\$50,000	
	NC	S	NC	S	NC	S
White	(kilocalories)					
Child less than 5 years of age	1233	1090	1248	1212	1262	1232
Child 5 to 9 years of age	1728	1563	1742	1685	1757	1705
Male 10 to 19 years of age	2332	2226	2347	2348	2361	2368
Female 10 to 19 years of age	1766	1763	1781	1885	1795	1905
Male 20 to 44 years of age	2425	2220	2440	2342	2454	2362
Female 20 to 44 years of age	1587	1515	1602	1637	1616	1657
Male 45 to 64 years of age	2225	2090	2240	2213	2254	2232
Female 45 to 64 years of age	1521	1481	1536	1603	1550	1623
Male 65 years of age and over	2017	1824	2032	1946	2046	1966
Female 65 years of age and over	1482	1393	1497	1515	1511	1535
Black						
Child less than 5 years of age	1227	1031	1241	1153	1256	1173
Child 5 to 9 years of age	1721	1504	1735	1626	1750	1646
Male 10 to 19 years of age	2326	2167	2340	2289	2355	2309
Female 10 to 19 years of age	1760	1704	1774	1826	1789	1845
Male 20 to 44 years of age	2418	2161	2433	2283	2447	2303
Female 20 to 44 years of age	1580	1455	1595	1578	1609	1597
Male 45 to 64 years of age	2219	2031	2233	2153	2248	2173
Female 45 to 64 years of age	1514	1422	1529	1544	1543	1564
Male 65 years of age and over	2010	1765	2025	1887	2039	1907
Female 65 years of age and over	1476	1334	1490	1456	1505	1476

Table 4. Profile of per capita fat intake per day by age-sex and household income for white and black individuals living in urban area of the North Central and South, 1980.

Race/Age-Sex	Household Income/Region					
	\$10,000		\$30,000		\$50,000	
	NC	S	NC	S	NC	S
(Grams)						
White						
Child less than 5 years of age	50	46	51	53	51	53
Child 5 to 9 years of age	73	66	73	73	73	73
Male 10 to 19 years of age	103	99	104	106	104	106
Female 10 to 19 years of age	76	78	77	85	77	85
Male 20 to 44 years of age	114	103	115	110	115	110
Female 20 to 44 years of age	72	70	72	77	73	76
Male 45 to 64 years of age	108	101	108	108	108	107
Female 45 to 64 years of age	73	70	73	76	74	76
Male 65 years of age and over	92	87	92	94	92	93
Female 65 years of age and over	64	63	64	70	64	69
Black						
Child less than 5 years of age	53	41	53	48	54	48
Child 5 to 9 years of age	75	61	76	68	76	68
Male 10 to 19 years of age	106	94	106	101	107	101
Female 10 to 19 years of age	79	73	79	80	80	80
Male 20 to 44 years of age	117	98	117	105	118	104
Female 20 to 44 years of age	74	65	75	71	75	71
Male 45 to 64 years of age	110	96	111	102	111	102
Female 45 to 64 years of age	75	64	76	71	76	71
Male 65 years of age and over	94	82	95	88	95	88
Female 65 years of age and over	66	58	67	65	67	64

Table 5. Profile of per capita calcium intake per day by age-sex and household income for white and black individuals living in urban area of the North Central and South, 1980.

Race/Age-Sex	Household Income/Region					
	\$10,000		\$30,000		\$50,000	
	NC	S	NC	S	NC	S
(Milligrams)						
White						
Child less than 5 years of age	767	599	765	629	763	658
Child 5 to 9 years of age	917	728	915	757	913	787
Male 10 to 19 years of age	1133	918	1131	948	1129	977
Female 10 to 19 years of age	848	697	846	726	844	755
Male 20 to 44 years of age	869	701	867	731	865	760
Female 20 to 44 years of age	631	509	629	538	627	568
Male 45 to 64 years of age	727	740	724	770	722	799
Female 45 to 64 years of age	512	526	510	555	508	585
Male 65 years of age and over	739	654	737	684	735	713
Female 65 years of age and over	637	592	635	621	633	651
Black						
Child less than 5 years of age	633	537	631	567	629	596
Child 5 to 9 years of age	783	666	781	695	779	725
Male 10 to 19 years of age	999	856	997	885	995	915
Female 10 to 19 years of age	714	634	712	664	710	693
Male 20 to 44 years of age	735	639	733	669	731	698
Female 20 to 44 years of age	497	447	495	476	493	505
Male 45 to 64 years of age	592	678	590	707	588	737
Female 45 to 64 years of age	378	464	376	493	374	522
Male 65 years of age and over	605	592	603	621	601	651
Female 65 years of age and over	503	530	501	559	499	589

Table 6. Profile of per capita iron intake per day by age-sex and household income for white and black individuals living in urban area of the North Central and South, 1980.

Race/Age-Sex	Household Income/Region					
	\$10,000		\$30,000		\$50,000	
	NC	S	NC	S	NC	S
White	(Milligrams)					
Child less than 5 years of age	9.6	9.0	9.8	10.0	10.0	11.0
Child 5 to 9 years of age	10.8	10.3	11.0	11.3	11.2	12.3
Male 10 to 19 years of age	15.5	14.5	15.7	15.6	15.9	16.6
Female 10 to 19 years of age	10.5	11.5	10.7	12.5	10.9	13.5
Male 20 to 44 years of age	16.0	15.0	16.2	16.0	16.4	17.1
Female 20 to 44 years of age	10.6	10.4	10.8	11.4	11.0	12.4
Male 45 to 64 years of age	15.4	15.2	15.6	16.3	15.8	17.3
Female 45 to 64 years of age	11.3	11.1	11.5	12.1	11.7	13.1
Male 65 years of age and over	15.5	13.9	15.7	14.9	15.9	16.0
Female 65 years of age and over	11.6	10.5	11.8	11.6	12.0	12.6
Black						
Child less than 5 years of age	9.7	9.0	9.9	10.0	10.1	11.0
Child 5 to 9 years of age	10.9	10.2	11.1	11.2	11.3	12.3
Male 10 to 19 years of age	15.6	14.5	15.8	15.5	16.0	16.6
Female 10 to 19 years of age	10.6	11.5	10.8	12.5	11.0	13.5
Male 20 to 44 years of age	16.0	15.0	16.2	16.0	16.4	17.0
Female 20 to 44 years of age	10.6	10.4	10.8	11.4	11.0	12.4
Male 45 to 64 years of age	15.4	15.2	15.6	16.2	15.8	17.3
Female 45 to 64 years of age	11.4	11.1	11.6	12.1	11.8	13.1
Male 65 years of age and over	15.5	13.9	15.7	14.9	15.9	15.9
Female 65 years of age and over	11.7	10.5	11.9	11.5	12.1	12.5

Table 7. Profile of per capita vitamin c intake per day by age-sex and household income for white and black individuals living in urban area of the North Central and South, 1980.

Race/Age-Sex	Household Income/Region					
	\$10,000		\$30,000		\$50,000	
	NC	S	NC	S	NC	S
White	(Milligrams)					
Child less than 5 years of age	71	60	74	74	77	88
Child 5 to 9 years of age	78	71	81	85	84	99
Male 10 to 19 years of age	103	76	106	90	109	104
Female 10 to 19 years of age	73	73	76	86	79	100
Male 20 to 44 years of age	87	72	90	86	94	100
Female 20 to 44 years of age	73	63	76	77	79	90
Male 45 to 64 years of age	87	78	90	92	93	106
Female 45 to 64 years of age	83	77	87	91	90	104
Male 65 years of age and over	100	94	103	108	106	121
Female 65 years of age and over	93	81	96	95	99	108
Black						
Child less than 5 years of age	94	70	97	84	100	98
Child 5 to 9 years of age	101	81	104	95	107	109
Male 10 to 19 years of age	126	86	129	100	133	113
Female 10 to 19 years of age	96	83	99	96	102	110
Male 20 to 44 years of age	111	82	114	96	117	110
Female 20 to 44 years of age	96	73	99	86	102	100
Male 45 to 64 years of age	110	88	113	102	116	115
Female 45 to 64 years of age	107	87	110	101	113	114
Male 65 years of age and over	123	104	126	118	130	131
Female 65 years of age and over	116	91	119	104	122	118

The foregoing provides examples of using regression parameter estimates to derive nutrient intake for specified characteristics of individuals. Any set of characteristics of the individual that have been measured can be used for differing profiles of intake levels. Profiles showing food energy, calcium, iron and vitamin C as a percentage of Recommended Dietary Allowance (RDA) are available from the authors upon request. Except for vitamin C, intake of food energy, calcium and iron were most often below the RDA.

STATE ESTIMATES

Estimates for individual nutrient intake at the state level were derived by combining parameter estimates from the regressions with census of population data for 1980. An example of the derivation of state estimates of food energy intake for Georgia is presented in table 8. Parameter estimates for the South in column 1 are multiplied by weighting values for Georgia in column 2 to determine the weighted intake amount for each variable which when summed determine total food energy intake for Georgia. The weights represent the proportion of the population by race, urbanization and age-sex classifications, and mean household income in Georgia in 1980. Parameter estimates for each

Table 8. Computation of weighted average per capita nutrient intake of food energy (kcal) per day for Georgia for 1980^a.

Variable	South	Weighting value	Weighted intake
	(1)	GA variable ^b (2)	GA value (1)X(2)
Intercept	2,161.758	1.000	2,161.758
Urban	-41.136	0.624	-25.665
Income	11.227	18.423	206.829
Inc_Sq	-0.128	339.398	-43.336
Race 2	-59.359	0.268	-15.914
Race 3	-115.610	0.009	-1.040
Ch1_4	-1129.788	0.076	-85.525
Ch5_9	-656.846	0.082	-53.664
F10_19	-457.203	0.089	-40.828
F20_44	-705.254	0.195	-137.877
F45_64	-739.017	0.096	071.241
F65	-827.098	0.058	-48.385
M10_19	5.950	0.094	0.562
M45_64	-129.642	0.085	-11.020
M64	-395.969	0.036	-14.215
Per capita food energy intake (kcal) per day			1,820.437

a. Estimation based on regional model for region in which state is located.

b. The variable value for income is in thousands of dollars while all other variable values represent the proportion that each variable is of the total population, e.g. in Georgia 62.4% of the population resides in the urban area.

state within a region are assumed to be identical but the distribution of the population differs from state to state according to population data. Estimated per capita food energy intake for any other state can be computed in the same manner as described for Georgia. When comparing states in different regions, it should be noted that both the parameter estimates and the weighting values differ between states.

The estimated weighted average per capita intake for the five nutrients studied are reported for region and state in table 9. Per capita food energy intake ranged from a high of 1959 kilocalories in Nevada to a low of 1789 kilocalories in Mississippi, a difference of 170 kilocalories. Except for Utah, all states in the West region had a per capita food energy intake higher than states in the other regions. Average per capita fat intake was highest in the West region states, ranging from 87.4 grams to 92.1 grams, and lowest in the South region states, ranging from 80.5 grams to 85.1 grams. Per capita fat intake in states in the North Central region was generally slightly higher than states in the Northeast region. On average, per capita intake of calcium in the West region states was 24 percent higher than per capita calcium intake in the South region. Excluding the District of Columbia which had the lowest calcium intake, Mississippi was estimated to have the lowest per capita calcium intake of about 644 milligrams as compared to Wyoming with the highest per capita calcium intake of nearly 847 milligrams. Although per capita calcium intake in the Northeast and North Central states varied within their respective regions, per capita intake in these states were more comparable than with states in other regions. The average per capita iron intake ranged from a high of 13.41 milligrams in California to a low of 12.48 milligrams in Mississippi. While states in the Northeast, South and West regions were estimated to have state to state variation in per capita iron intake, per capita iron intake in the North Central region states had extremely little state to state variation. Whereas the West region had the highest average per capita intake of nutrients previously discussed, the Northeast region was estimated to have the highest per capita intake of vitamin C. The per capita intake of vitamin C in the Northeast region is estimated to be nearly 27 percent higher than in the South region. The lowest per capita intake of vitamin C was estimated for Kentucky of 77.2 milligram with the highest in Connecticut of 103 milligrams.

Table 9. Weighted average per capita nutrient intake per day by region and state for 1980.^a

Region /State	Food Energy kcal	Fat g	Cal-cium mg	Iron mg	Vitamin C mg
N.East	1,862	84.9	753	12.66	101.1
CT	1,882	86.1	763	12.73	103.0
ME	1,882	84.2	791	12.65	98.4
MA	1,878	85.7	764	12.68	101.4
NH	1,895	85.3	794	12.73	100.9
NJ	1,862	85.5	745	12.67	102.2
NY	1,848	84.5	739	12.65	100.7
PA	1,863	84.6	760	12.63	100.6
RI	1,872	85.4	761	12.65	100.3
VT	1,893	84.5	803	12.71	99.5
North					
Central	1,882	86.2	758	12.92	86.4
IL	1,884	86.3	750	12.94	88.1
IN	1,881	86.1	761	12.89	85.7
IA	1,878	85.9	766	12.92	84.6
KS	1,881	86.1	760	12.95	85.5
MI	1,887	86.5	756	12.93	87.3
MN	1,887	86.1	771	12.94	84.6
MO	1,874	85.9	752	12.90	86.7
NE	1,877	85.8	765	12.91	84.8
ND	1,889	86.6	774	12.98	83.7
OH	1,880	86.0	755	12.89	86.6
SD	1,880	86.2	773	12.94	83.2
WI	1,886	86.2	767	12.94	85.2
South	1,822	83.1	653	12.75	79.8
AL	1,805	81.9	649	12.60	79.1
AR	1,798	81.6	652	12.53	77.5
DE	1,845	84.5	660	12.89	81.1
DC	1,802	81.9	616	12.91	87.5
FL	1,810	83.3	651	12.77	80.9
GA	1,820	82.7	651	12.69	79.8
KY	1,825	83.2	662	12.64	77.2
LA	1,813	82.4	651	12.68	80.5
MD	1,856	85.1	658	13.04	83.5
MS	1,789	80.5	644	12.48	78.8
NC	1,826	82.8	650	12.69	78.7
OK	1,816	82.9	653	12.73	78.2
SC	1,818	82.4	648	12.66	79.4
TN	1,820	83.0	655	12.66	78.5
TX	1,826	83.4	653	12.84	79.8
VA	1,850	83.6	657	12.91	81.0
WV	1,831	83.4	662	12.66	80.0
West	1,941	90.5	811	13.25	97.5
AZ	1,914	88.8	812	12.19	95.9
CA	1,953	91.0	800	13.41	99.8
CO	1,941	91.0	823	13.05	95.2
ID	1,895	88.8	843	12.61	88.1
MT	1,980	89.5	839	12.74	89.0
NV	1,959	92.1	813	13.19	96.4
NM	1,905	87.7	821	13.25	92.7
OR	1,915	90.1	825	12.82	92.7
UT	1,878	87.4	833	12.68	92.3
WA	1,936	91.0	825	12.97	95.0
WY	1,940	91.3	847	12.79	92.9

a. Based on estimated regional models from USDA/SFII, Spring 1977 and 1980 Census of Population and Housing data.

CONCLUSION

This study has focused on the use of individual food intake survey data to statistically estimate the average nutrient intake of individuals at the state level. The nature of the USDA/SFII restricts its direct application to the estimation of state per capita nutrient intake. State estimates are based upon the assumption that for states within a region intake behavior is the same for individuals possessing the same characteristics. Hence, state to state differences in average per capita nutrient intake is dependent on the distribution of the population according to the measured socioeconomic and demographic characteristics. The procedure used in this study for obtaining weighted average per capita nutrient intake estimates is offered as an improvement over the simple unweighted average value.

It is apparent that improvement in estimates below the region level requires survey data for the defined geographic area, e.g. state. However, the cost of obtaining such detailed information may be prohibitive. Therefore, statistical procedures such as those presented herein can be further developed as a means to estimate per capita intake and profiles based on characteristics of individuals.

REFERENCE

Huang, C. L. and R. Raunika, "Spatial Market Estimates on Consumption of Broiler Market," Agribusiness 1(2): 153-163 (1985).

THE USE OF USDA'S FOOD CONSUMPTION DATA
IN THE DEVELOPMENT OF FOOD PLANS

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Nutritional quality, cost, and palatability are the primary concerns of the USDA food plans. This paper presents an overview of the food plans. It includes a brief history, a description of the data and methods used to develop the plans, and some uses of the plans.

INTRODUCTION

What are the most important factors that we consider when selecting food? Certainly taste is very important, and cost, and most adults also say they are concerned with the nutritional quality of the foods they eat (Food Marketing Institute, 1987). These are the same factors that we consider when we develop the USDA food plans.

The USDA food plans are sets of nutritious diets at four levels of cost. They show quantities of foods that households could purchase to prepare nutritious meals and snacks for a week for household members. The food plans are based on food consumption patterns in U.S. households. We believe this is important because food guidance and food budgeting advice is more likely to be accepted and followed if it takes into account the food practices of the user. The major national survey that provides data on both food consumption and food cost is USDA's Nationwide Food Consumption Survey (NFCS).

HISTORY

USDA guides for food budgeting go back to the 1890's when W. O. Atwater suggested several combinations of foods to meet the needs of the average American male for protein, fat and carbohydrate. In this early guide, consideration was given to the same criteria used for all later food plans -- nutrient needs, food composition, and the relative cost of nutrients in foods in average American diets (USDA, 1962).

Department bulletins in the 1920's discussed five basic food groups: (1) vegetables and fruits; (2) meat, poultry, fish, eggs, dairy products, nuts, legumes; (3) cereal grains; (4) sugars; (5) fats and oils. A single food plan composed of these 5 groups at a moderate cost level was suggested for the average American family of the time -- a man and a woman and 3 children under 12 years old.

In the early 1930's, Dr. Hazel Stiebeling developed the first food plans for individuals of different ages. She interpreted the growing knowledge about nutrient composition and needs in terms of quantities for 12 food groups. Plans were developed at four levels of nutrient content and cost.

These plans were used throughout the 1930's by economists planning production programs, and by nutritionists, home economists, social welfare workers, and homemakers needing guidance for selecting a nutritious diet at reasonable cost. In 1941, the National Research Council published its first set of Recommended Dietary Allowances. The food plans were adjusted slightly to comply with these new standards.

Over the years, the plans have been revised from time to time to take into account new information on food consumption patterns, the nutrient content of foods, dietary standards, and the relative cost of nutrients in foods in American diets.

NATIONWIDE FOOD CONSUMPTION SURVEY

The source of our information on food costs and food consumption patterns is the Nationwide Food Consumption Survey. USDA has conducted nationwide food consumption surveys at approximately 10-year intervals since the mid-1930's. The most recent comprehensive survey was conducted during a 1-year period from April 1977 through March 1978 (Rizek, 1978).

This survey provided data from a representative sample of about 15,000 households in the 48 conterminous States and about 36,000 individuals living in those households. Similar information was also collected in a supplemental low-income survey from about 4,700 households who were eligible for the Food Stamp Program. These households had about 12,000 household members.

The 1977-78 NFCS has two major components. The household component provides data on food used by the household from home food supplies during 1 week and the prices paid for those foods. The individual intake component provides data on food eaten both at home and away from home over 3 days by individual household members. In the household component, a trained interviewer asked the respondent to recall the kinds and amounts of foods that had been used from home food supplies over the previous 7 days. That is, food that was brought into the kitchen. This included food used to prepare meals and snacks, food that was discarded, and leftovers that were

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fed to pets. For each food item used, the respondent was asked the source of the food (i.e., whether it was purchased, home-produced, or received as a gift or pay). If the food was purchased, the interviewer also collected information on the unit of purchase and the price paid.

The individual intake component of the survey consisted of a 24-hour recall and a 2-day food record. Upon completing the household component of the survey, the interviewer asked each household member to recall the kinds and amounts of foods eaten on the previous day. Then respondents were shown how to keep records of the foods they ate for 2 additional days.

USDA has relied on such national survey data to develop food plans for approximately 50 years. Information from the surveys about food prices and eating patterns in the U.S. are used along with information on food composition and human nutritional needs in periodic revisions of the plans. The last revision was completed in 1983.

DEVELOPMENT OF FOOD PLANS

We develop food plans at four cost levels -- thrifty, low-cost, moderate-cost, and liberal. At each cost level, there are food plans for individuals in 11 sex-age categories. The 1983 food plans suggest quantities of foods for a week to purchase in 31 food groups that together will meet the nutritional goals we specify. Each plan meets the same nutritional goals, but the cost level and assortment of foods is different (Cleveland and Peterkin, 1983), (Kerr et al., 1984).

Food plan development includes three major steps. First, we identify food consumption patterns using data from the Nationwide Food Consumption Survey. Second, we establish the nutritional goals and cost limits for the food plans. Third, we use a computerized mathematical model to help develop the food plans. This model is designed so that it makes the smallest possible change in the food consumption patterns we identified while meeting the nutritional goals and cost limits desired for the plans.

Food consumption patterns are the starting points for developing the food plans. We derive the food consumption pattern for each sex-age category by estimating the amount of food consumed from each of 31 food groups. These food groups were developed taking into account the nutritive value and cost of foods and the way foods are used in meals. All foods and beverages (except alcoholic beverages) are covered in this grouping and are included in the food plans. The quantities of each food group are expressed as the amount of food "as purchased," or as brought into the kitchen.

Food consumption patterns used to develop the thrifty food plan were derived from the supplemental low-income survey (USDA, 1981 and

1982). This was appropriate because all of the households that participated in the low-income survey were screened to be eligible for the Food Stamp Program, and the thrifty food plan is used as the cost basis for food stamp allotments. Food consumption patterns for the other three food plans were derived from the 1977-78 NFCS (USDA, 1983a and 1983b). We used households with increasingly greater food costs at home per person to develop consumption patterns at the three cost levels.

We used the same nutritional goals for all four food plans. The nutritional goals were based on the 1980 Recommended Dietary Allowances (RDA) and the USDA-DHHS Dietary Guidelines for Americans (Cleveland et al., 1983). Briefly, each plan provides food energy at the midpoint of the RDA for the appropriate sex-age category. In addition, it provides at least the full RDA for protein and most of the vitamins and minerals for which RDA have been set. Exceptions are zinc, folacin and vitamin E. For these nutrients, plans must provide at least 80 percent of the RDA. Levels below RDA were used because, when the plans were developed, we had limited food composition data for these nutrients and meeting full RDA caused substantial distortion of consumption patterns that had nutrient levels below the RDA. Furthermore, there is little or no evidence of deficiency of these nutrients in the United States (USDHHS-USDA, 1986). We also set nutritional goals for fat, cholesterol, sodium, and added caloric sweeteners. These dietary components were limited to maximum levels, which we describe as moderate. This means that they were generally between levels in consumption patterns and those recommended by authoritative groups.

The cost limits for the food plans were set so that we would have plans appropriate for food budgets in essentially all U.S. households and so that each sex-age category would have an equal chance for a nutritious diet.

The last step in the food plan development process is using our computerized mathematical model to derive a food plan for each sex-age category at each cost level. Starting with the food consumption pattern for a sex-age category, the model is designed to select a combination of the 31 food groups that meets the nutritional goals and cost limits we specify and represents the smallest possible total change in the consumption pattern. The model produces small percentage changes in several food groups rather than a large change in one group to meet the nutrition and cost criteria. The resulting food plan provides food for meals and snacks for one week and meets the nutritional needs we have defined.

For every sex-age category at every cost level, food consumption patterns had to be modified to meet the nutritional and cost criteria. This was necessary because none of the food consumption patterns met all of the nutritional goals and cost criteria set for the plans.

The types of nutritional shortcomings in the consumption patterns were consistent across all four cost levels. Calcium, zinc, iron, magnesium, and folacin were the nutrients most often below the nutritional goals. Young children, teenage girls, and women had the greatest shortages of these nutrients. Also, consumption patterns for almost all of the sex-age categories exceeded the maximum levels allowed for fat, sodium, and added caloric sweeteners. Patterns of males 15 years and over exceeded the cholesterol standard.

Costs for the food plans are updated and released each month by USDA. The costs are estimated by updating average prices paid by survey households for all of the foods reported in the survey. The prices are updated using information from the Bureau of Labor Statistics on the change in price indices for detailed food categories from the time of the survey to the month of the estimate (USDL, monthly).

Such information can be used to estimate food costs for households of any sex-age composition by totaling costs for household members at the desired cost level. For example, a reasonable cost for feeding a four-person household with a mother age 20-50 and three children ages 3-5, 6-8, and 9-11 at the low-cost level in January 1988 was \$14.20 plus \$18.80 plus \$21.40 plus \$22.00 or a total of \$76.40 per week. These costs are based on an assumption that all food eaten by household members is purchased at the store and prepared at home.

Table 1. Cost of Food at Home for One Week, January 1988

	Thrifty	Low	Moderate	Liberal
Child:				
1-2 years	\$10.60	\$12.90	\$15.10	\$18.20
3-5 years	11.40	14.20	17.50	21.00
6-8 years	14.00	18.80	23.60	27.50
9-11 years	16.70	21.40	27.50	31.80
Male:				
12-14 years	17.40	24.20	30.30	35.60
15-19 years	18.00	25.10	31.30	36.20
20-50 years	19.40	25.00	31.30	38.00
51+ years	17.60	23.70	29.30	35.30
Female:				
12-19 years	17.40	21.00	25.60	31.00
20-50 years	17.70	22.00	26.80	34.60
51+ years	17.40	21.30	26.50	31.70

USES OF THE FOOD PLANS

Both the costs and the quantities of foods in the plans have a wide variety of users and uses. Perhaps the most notable use of the plans is in establishing food cost standards or food allowances for needy families. Both public and

private assistance agencies use them for this purpose. We mentioned that USDA uses the thrifty food plan as the cost basis for setting food stamp allotments. A predecessor of the thrifty food plan -- the economy food plan -- is at the core of poverty thresholds set by the Census Bureau and the Office of Management and Budget. In the 1960's, when the Federal government first began measuring poverty, these thresholds were roughly three times the cost of the economy food plan. Since 1969, when the thresholds were officially recognized by the Office of Management and Budget, the thresholds have been adjusted for changes in the overall Consumer Price Index (Weinberg, 1985).

Other users include the Internal Revenue Service, courts, and lawyers who use the food plans to determine the cost of a nutritious diet when they set rates for care of dependents. State institutions and camps use the plans to estimate food needs and monitor food use. Nutritionists, credit counseling services, and others use the food plans as a basis for food budgeting help for consumers.

Food plan research and development is an ongoing process. Currently, data are being collected for the 1987-88 Nationwide Food Consumption Survey. This new survey will provide the three basic types of food consumption data that we will need to revise the food plans -- data on household food use, food intakes by individuals, and food costs. An updated and expanded nutrient data base will also be available, and with these pieces of information, we can begin the next revision of the plans.

REFERENCES

- Cleveland, Linda E., and Betty B. Peterkin (1983), "USDA 1983 Family Food Plans," Family Economics Review, (No. 2): 12-21.
- Cleveland, Linda E., Betty B. Peterkin, Andrea J. Blum and Sharyl J. Becker (1983), "Recommended Dietary Allowances as Standards for Family Food Plans," Journal of Nutrition Education, 15(1): 8-14.
- Food Marketing Institute (1987), Trends -- Consumer Attitudes and the Supermarket, Washington, DC: Food Marketing Institute.
- Kerr, Richard L., Betty B. Peterkin, Andrea J. Blum and Linda E. Cleveland (1984), "USDA 1983 Thrifty Food Plan," Family Economics Review, (No. 1): 18-25.
- Rizek, Robert L. (1978), "The 1977-78 Nationwide Food Consumption Survey," Family Economics Review, (Fall): 3-7.
- U.S. Dept. of Agriculture. Agricultural Research Service (1962), Family Food Plans and Food Costs, Home Economics Research Report No. 20, Washington, DC: Government Printing Office.

U.S. Dept. of Agriculture. Human Nutrition Information Service (1982), Food and Nutrient Intakes of Individuals in 1 Day, Low-Income Households, November 1977-March 1978, Nationwide Food Consumption Survey 1977-78, Preliminary Report No. 11, Hyattsville, MD: U.S. Dept. of Agriculture.

U.S. Dept. of Agriculture. Human Nutrition Information Service (1983a), Food Consumption: Households in the United States, Seasons and Year 1977-78, Nationwide Food Consumption Survey 1977-78, Report No. H-6, Washington, DC: Government Printing Office.

U.S. Dept. of Agriculture. Human Nutrition Information Service (1983b), Food Intakes: Individuals in 48 States, Year 1977-78, Nationwide Food Consumption Survey 1977-78, Report No. I-1, Washington, DC: Government Printing Office.

U.S. Dept. of Agriculture. Science and Education Administration (1981), Food Consumption and Dietary Levels of Low-Income Households, November 1977-March 1978, Nationwide Food Consumption Survey 1977-78, Preliminary Report No. 8, Hyattsville, MD: U.S. Dept. of Agriculture.

U.S. Dept. of Health and Human Services and U.S. Dept. of Agriculture (1986), Nutrition Monitoring in the United States--A Report from the Joint Nutrition Monitoring Evaluation Committee, DHHS publication no. (PHS) 86-1255, Public Health Service, Washington, DC: Government Printing Office.

U.S. Dept. of Labor. Bureau of Labor Statistics (monthly), CPI Detailed Report, Washington, DC: Government Printing Office.

Weinberg, Daniel H. (1985), "Measuring Poverty," Family Economics Review, (No. 2): 9-13.

USDA'S FOOD CONSUMPTION DATA FOR POLICY DECISIONS:
A DISCUSSION

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Food accounts for a large and important share of the total household budget. Proper food selection is essential for good health and well-being. Therefore, food and nutrition policies affect, directly or indirectly, the consumers' welfare. USDA's food consumption surveys provide rich sources of information for policy decisions.

The U.S. Department of Agriculture's Nationwide Food Consumption Survey and related surveys provide rich sources of detailed information to public and private agencies and individuals--including the Congress; the U.S. Department of Agriculture (USDA); other Federal agencies, such as the Food and Drug Administration and the Environmental Protection Agency; state and local agencies; the numerous and diverse food industry; and research and educational institutions.

Research on food consumption may be used in many ways to develop, to administer, and to evaluate public policies--as well as socioeconomic, educational, and regulatory programs associated with the people and the food they eat. Examples include:

- o Estimation of those individuals with adequate food and nutrient intakes, or of percentages of households likely to obtain nutritionally adequate diets when spending specified money on food;
- o Analyses of income elasticities and marginal propensities to consume in cost-benefit studies of food assistance programs;
- o Studies on the effect of family size on economies of scale, the results of which are used to derive food budgets, food allotments, and the value of food stamps to be received;
- o Evaluation of regulatory programs, such as for estimating safety levels and tolerances to be prescribed from fortification, additives, pesticides, and other residues in food; and
- o Identification of socioeconomic and other factors affecting food consumption as basis for demand projections, assuming no changes in consumer preferences over time.

The USDA Nationwide Food Consumption Survey (NFCS) 1977-78 and its 1985 and 1986 Continuing Survey of Food Intakes by Individuals (CSFII) components have provided major sources of information for developing and evaluating food and nutrition policies and programs. The three studies presented here provide distinct examples of research for these purposes.

Helen Jensen's paper determines the importance of deriving efficient methodology in evaluating those individuals that are at nutritional risk. For the most appropriate policy decisions, it would be most rewarding to obtain food intake and health status information from a large sample, for a number of consecutive days, and over longitudinal time (waves). Budgetary constraints by the researchers and time and other constraints by the respondents limit the use of such methodology. Therefore, an alternative solution is to devise the most efficient method to obtain valid and reliable estimates from existing data.

Helen's paper reminds us that with limited resources, programs can most efficiently allocate resources by "targeting" very specific groups so that program assistances are directed to those most in need. A target group that is too narrowly defined may exclude "too many" in need of assistance and a target that is too wide may permit allocation of assistance to "too many" recipients. Consequently, program policies may be implemented in a manner that may leave those people with inadequate nutritional level short of their needs.

Different methods of assessing the nutritional adequacy of diets are available, depending on the goal and policies of the program. Each method contains advantages (benefits), disadvantages (costs), and limitations. For this reason, policy officials should carefully define and evaluate the requirements of the programs before applying an appropriate methodology.

In the past, USDA has published the results of the Nationwide Food Consumption Surveys by the four Census regions (USDA, 1983 and 1985). Food consumption data from NFCS 1977-78 showed that they differed by region in some respects. For example, more people in the West chose whole-grain breads and used lowfat milk than in other regions, while the mean calcium densities were somewhat higher and thiamin densities were somewhat lower for several sex-age groups in the West than elsewhere.

Frequently, researchers have been asked to provide data on nutrients and food components at a State level. To assist these State public policy officials in program planning, estimates of the nutrient and other food component intakes of the State population are needed. Such information must be calculated from a national level.

In estimating State levels, there are two methods one might consider. They are the econometric approach and the spreadsheet approach. In the latter approach, the mean food and nutrient intakes are classified by the most discriminating variables--sex, age, and race. Then, the mean values are weighted by the proportion of the State population representing the particular category.

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In the econometric approach, statistical models are used to determine the relationship between the nutrient or other component and each socioeconomic and demographic characteristic (region, urbanization, income, race, etc.). These nutrient relationships with the characteristics are then used with the Census data on the distribution of the population in the State by the characteristics to estimate the average nutrient or food component levels in the State. Bob Raunikar used this approach to estimate nutrient levels of food energy, fat, calcium, iron, and vitamin C for each of the 48 conterminous States.

For both approaches, strong assumptions are made--that food and nutrient levels in a specific State are the same as in the nation (or region) as a whole for people of the defined characteristics. One also assumes that aside from those factors (sex, age, urbanization, race, income, etc.), the "average" individual in a specific State is like the average individual in the nation--that is, in terms of their preferences.

In addition, caution should be exercised regarding some survey specific problems. For example:

(1) Since sampling for NFCS is done on a regional basis, some States may not be among those included in the primary sampling unit (location of surveyed households). Consequently, for any State in a given region, it must be assumed that the population in that State has consumption patterns that are similar to those of the other States in the region; (2) some subpopulation groups (Puerto Ricans, Vietnamese, etc.) are not represented in sufficient numbers to provide estimates at the national level and more so at the State level; and (3) socioeconomic and demographic variables in the survey data that can be matched to the State level would be limited to the information that is available from the Bureau of the Census or other sources of State information.

Our third presentation focuses on one of the most popular uses of USDA's Nationwide Food Consumption Survey data--the USDA Food Plans. As Richard Kerr's paper indicates, these Plans have strong policy implications to consumers. Perhaps the most known is the Thrifty Food Plan that is used as the cost basis for setting food stamp allotments. Homogeneity (or fixed quantity) is assumed in a market-basket approach as the Food Plans. Although adjustments are made for economies of scale for different household sizes and varying food costs for different months of the year, this approach does not adjust for other factors, such as race, region, and seasonality in food selection. Also, the present Food Plans are based on the results from the 1977-78 survey.

The period between the last nationwide survey and now has witnessed the proliferation of new food products. Changes in patterns of food consumption are inevitable--reflecting economic changes in incomes, relative food prices, and demographics. Other factors may also contribute to changing food consumption patterns: an increased frequency of eating away from home, a greater emphasis on ethnic foods, ready-to-eat convenience foods, and popular use of aseptically packaged milk and

beverages. Since 1977-78 there has been increased concern about the relationship between diet and health, resulting in a greater variety of low-sodium and low-fat products becoming available. Also, revisions in food programs--such as the Food Stamp Program, the School Lunch Program, and the Women, Infants, and Children Program (WIC)--may have influenced intakes of their participants.

In April 1987, USDA began collecting the seventh Nationwide Food Consumption Survey (NFCS 1987) (Hama and Riddick, 1988). The NFCS 1987 is comprised of a sample of about 6,000 households of all incomes and a sample of 3,600 households of low incomes. Both the household food consumption and the individual intake phases are included in this survey. For the first time, interviewers used laptop computers to collect the data in the household phase. It is expected that this methodology will provide information to the public in a more timely manner.

The NFCS 1987 is one of several Federal surveys that provides national statistics on food consumption. It is a major component of the National Nutrition Monitoring System (NNMS), a set of related Federal activities instituted to provide regular information on the nutritional status of the population.

The USDA initiated the Continuing Survey of Food Intakes by Individuals (CSFII) in 1985 and 1986. The CSFII was designed to monitor the dietary status of relatively small national samples of women and young children in the general and low-income populations in the years between the larger decennial surveys, such as the NFCS 1987. Plans call for conducting the CSFII in 1989 on a continuing basis, with data collection each year to obtain information on food intakes over 3 consecutive days by all household members in 1,500 households in the general population and 750 low-income households. As a followup to the CSFII 1989, plans call for a telephone survey of consumer knowledge and attitudes about certain diet/health and safety issues. This followup study will provide the basis for studies of food intake behavior relative to knowledge and attitudes on a national sample.

With increasing knowledge about up-to-date consumers' food consumption patterns, USDA's food consumption surveys supply information that makes it possible to form sound policy decisions and program alternatives.

REFERENCES

- Hama, Mary Y., and Howard A. Riddick (1988), "Nationwide Food Consumption Survey 1987," Family Economics Review, 2: 24-27.
- U.S. Department of Agriculture, Human Nutrition Information Service (1983), Food Consumption: Households in the Northeast (North Central, South, West), Seasons and Year, 1977-78, NFCS Report No. H-7 (H-8 through H-10).
- U.S. Department of Agriculture, Human Nutrition Information Service (1985), Food and Nutrient Intakes: Individuals in Four Regions, 1977-78, NFCS Report No. I-3.

FINANCIAL PLANNING FUNDAMENTALS FOR HIGH SCHOOL STUDENTS

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The College for Financial Planning provides a High School Financial Planning program without cost to teachers, as a public service of the college. The objective of the program is to help students learn to be responsible with money.

HIGH SCHOOL PROGRAM

The High School Financial Planning Program is a public service of the College for Financial Planning in Denver. The program introduces students to goal-setting, earning, spending, using credit, protecting against risk, and investing. A team-teaching approach is suggested between the classroom teacher and a professional financial planner. An Instructor's Manual is provided to high school teachers who participate in inservice workshops.

The College

Established in 1972 as an independent, nonprofit corporation, the College for Financial Planning enjoys an international reputation as a respected institution in the financial planning field. Currently more than 26,000 financial service professionals benefit from the College programs, including the CFP Professional Program which leads to the CFP designation.

A Financial Concern

A concern of the College is that many Americans do not know how to wisely plan and manage their money. Personal bankruptcies continue to be a financial problem for many, and Social Security Administration statistics show that at age 65, only 1 out of 10 people are able to take care of themselves financially.

Teenage Spending

A recent Wall Street Journal article reported that teens spend approximately \$78 billion dollars a year with \$32 billion being spent on discretionary items. Other studies indicate that teens have access to more than 3.5 million credit cards.

Teenagers are often the target for major advertising campaigns, they sometimes have poor spending habits, and may be misled by the premature affluence of their teen years. Units in personal finance in the high school curriculum could help teens gain financial decisionmaking skills and avoid serious financial errors.

A Teacher's Manual

In 1984 the College introduced the High School Financial Planning Program as a public service. The objective of the program is to help students learn to be responsible with money, to spend wisely and to make informed financial decisions. A basic concept of the program is that financial planning is a life-long process, not just a series of products. The program has been introduced to more than 30,000 students in approximately 490 high schools in 45 states.

The curriculum contains six one-hour units including financial planning basics, earning income, spending, using credit, protecting against risks, investing, and matching a financial plan to personal goals. The manual also provides teaching aids such as transparency masters, student handouts, quizzes and case studies.

Financial planning units are often taught in high school courses in business, economics, home economics and math. The program encourages a team-teaching approach that uses the combined expertise of a classroom teacher and an experienced local volunteer financial planner.

For Further Information

Teachers and teacher educators who would like further information about the program and the 1988-89 revised edition of the instructor's guide should write to High School Financial Planning Program, College for Financial Planning, 9725 East Hampden Avenue, Denver, Colorado 80231.

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DEMYTHOLOGIZING, DEBUNKING AND DELINEATING
'DEREGULATION'

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Recently, most of the Congressional subcommittees with jurisdiction over banking have been conducting hearings and undertaking studies on what the future shape of the banking industry ought to be. Given the importance of banking to consumers in performing their many and varied financial functions, the form and structure which banking ultimately takes is obviously then of crucial importance.

One of the single most distinguishing characteristics of banking as contrasted with most other important consumer-oriented industries has been the sheer amount and degree of regulatory oversight to which financial institutions (hereinafter "banks") have been subjected historically. And, perhaps no aspect of present banking structure has come under closer scrutiny in the current Congressional debates than has the role of the regulation of banks, and the costs and outgrowths of regulation, both specifically and generically.

It is important in considering the role of regulation on the shape of banking in the future to understand the public purposes undergirding bank regulation in the past. With an appreciation for why banks have been regulated in the past. With an appreciation for why banks have been regulated, one can then examine what changes might be expected to occur if parts of that regulatory web are relaxed or eliminated and what those changes portend for banks, for their consumer customers, and ultimately for the shape of future regulation.

Historic Bases For Regulation

Banks have generally complained of the level of regulation to which they have been subjected. They argue that regulation imposes costs, and that as economic entities, they are required to pass such costs along to their customers in the prices of their products and services. While regulation undoubtedly imposes costs in an economic sense, it has nonetheless been widely imposed upon banks. Presumably then, regulation has been imposed notwithstanding these costs to serve various public policy goals. What are these goals, these historical bases that have led to such relatively expansive (and arguably expensive) regulation?

Banks historically have been subject to governmental oversight for three primary public purposes. First, they have been regulated to assure their institutional solvency, their safety and soundness. Second, they have been regulated to promote certain societal goals, the achievement of which is viewed as being inextricably intertwined with the unique and peculiar functions served by banks. Third (and most recently), they

have been regulated to provide 'consumer protection', i.e., to adjust perceived imbalances in bargaining power as between the seller and the typical (retail) buyer of banking services to remedy legislatively perceived imperfections in unfettered market operation. It is worthwhile to examine each of these bases briefly.

1) Safety and Soundness

The principal historical basis for bank regulation has been to promote the safety and soundness of banks. Throughout the history of this country, banks (and indeed, the economy generally) have performed in a highly cyclical manner. History is replete with cycles of boom and bust when numerous banks were established and operated over relatively short life spans, and then closed in waves of economic chaos that created enormous hardships for businesses, individuals and entire communities.

Given both the crucial importance of banking to an expanding and growing economy and the disruptive economic and social fallout in such a pattern, these recurring cycles of success and failure were widely resented and viewed as highly undesirable. Accordingly, numerous legal constraints evolved whereby governments imposed various requirements on banks so as to moderate the volatility of such wild and potentially devastating swings in economic activity.

The focus of such regulation on banks reflected a widely accepted awareness of the critical role that banking functions played in enabling, promoting or crippling the level of overall economic activity. Examinations were mandated; capital requirements were instituted; restrictions or prohibitions were imposed on banks preventing them from engaging in various practices.

2) Promotion of Societal Goals

Until relatively recently, the societal goals sought by the regulation of banks have fallen primarily into two identifiable groupings. First, banks have been regulated to restrict undue concentrations of economic power. Second, they have been regulated to promote the availability of various bank services, especially credit.

a. Concentration

Banks historically were viewed by a largely agrarian society as possessing undue and potentially dangerous concentrations of economic power if left to their own devices in unrestricted markets. The laws of the country, particularly those in the initially almost exclusively agricultural Midwest

and South, reflected the distrust of the population generally for such potential concentrations of economic power.

State laws in the upper Midwest, for example, have only recently begun to relax the prohibitions on branching or interstate ownership of banks. Vestiges of this fear remain to this day in such acquisitions only on a relatively tightly controlled and regional (as opposed to national) basis. Even one of the pending Congressional proposals would still restrict inter-industry mergers or acquisitions based on the size of the involved institutions.

Such restrictive regulations were promoted as well by many bankers in the guise of restricting concentration when what was in fact feared was competition from other institutions. The underlying motivation is less important than the fact that restrictions were sought by many different interests and justified in large part based upon the fear of concentration. The efficacy of such regulatory restrictions against undue concentration is best reflected in the sheer number of banks in the USA--over 14,000, by far the greatest number in the world.

b. Availability of Services

Unconstrained banks, like any other entity whose primary purpose is the maximization of profit, will endeavor to serve those markets where the total return on investment is optimized. Thus, a bank will, all other things being equal, lend where its risk-return trade-off is optimal. While this may be efficient in a raw economic sense, it also leads in many instances to selected markets or populations being underserved or unserved, or to being served at unacceptable cost. As banking services, particularly credit services, are crucial to most if not all economic activity, situations wherein these services have been inadequately available have then been widely viewed as intolerable, particularly by those for whom credit supplies are inadequate in amount, exorbitant in price, or simply unavailable.

Accordingly, a variety of legal inducements or mandates exist to encourage or require banks to serve various targeted markets. Perhaps no area of economic activity has benefitted more from this governmentally-directed targeting than residential housing finance. Many economists have pointed out the inherent relative weaknesses of housing finance--for example, it is, given its inherent long-term nature, structurally more exposed to the problems of interest rate volatility, and it does not add to nor enhance future income producing capacity.

Yet, despite such structural weaknesses in housing finance, no country on earth possesses the residential housing stock of the USA. This phenomenon is the direct result of numerous governmental policies designed precisely to promote the relative attractiveness of residential purchase financing to both borrowers and lenders. For example, mortgage interest and real estate

property taxes are essentially wholly deductible against state and federal income taxation; capital gains can be deferred and in many instances totally avoided; tax advantages are given to certain institutions engaging in housing finance to specified levels; and numerous programs exist whereby governmental assurances reduce risk in housing lending to the point where institutions deem it attractive to engage in such activities.

Further important examples of this phenomenon abound. Federal deposit insurance on deposits made into banks attracted funds in massive amounts for such purposes. Interest rate ceilings kept the interest rate volatility risk to a minimum, thus furthering the feasibility of the long-term financing which is characteristic of residential housing lending.

Similarly, other forms of governmental requirements and inducements trigger the availability of other banking services in various markets. The Community Reinvestment Act specifically creates a duty for financial institutions to lend in certain markets where presumably they would not lend absent such a requirement. New York State allows state-chartered banks to invest in real estate in direct proportion to the adequacy of their performance under the New York State Community Reinvestment Act. In a like manner, many jurisdictions are requiring (or considering requiring) that banks provide basic consumer banking services on a lowcost basis.

The critical factor for purposes of this discussion is that these regulatory strictures are in place to promote a specific societal goal, namely, greater availability of banking services and thus more widespread participation of various population segments in the traditional financial services system.

3) Consumer Protection

The most recent basis for the regulation of financial institutions has been to redress the perceived imbalance in the relative bargaining power between banker and retail customer, the consumer. Thus, institutions have been directed to conform their consumer contracts to prescribed forms, to give standardized disclosures of information to prospective customers, and to refrain from including certain provisions in their contracts or engaging in specified actions. All of these can be classified as regulation to the end of consumer protection.

The basis for such regulation is founded upon an implicit recognition that competitive forces may not sufficiently exist in certain markets so as to preclude various objectionable practices or to encourage other desirable (admittedly, as legislatively defined) market characteristics. Accordingly, the government has inserted itself into the business of 'bargaining' for the consumer thus attempting to remedy the perceived imbalances in negotiating power. Whether these actions truly optimize consumer interests or not is not pertinent to the fact of the existence of such a wide-

spread basis for regulation.

This consumer protection has typically taken two distinct forms. First, the law requires that various transactions be preceded by standardized disclosures of information and that contracts be written in specified ways, often in easily comprehensible language. The underlying theory is that consumers will make rational decisions in their own self-interest if they are given the information necessary to exercise an informed opinion, in a format which they can understand, and at a time when it is meaningful. The existence of such information is, of course, one of the prerequisites for competitive markets.

The other primary form of consumer protection regulation consists of substantive requirement, either mandate or prohibition. Thus, for example, financial institutions must engage (or refrain from engaging) in certain procedures when attempting to collect an obligation, or in contract formation or enforcement. The range of such regulations on both the state and federal level is extensive.

The Deregulation Phenomenon

To state that banking has been going through a revolution has become a cliché. In considering the role of regulation in this revolution, the basic forces precipitating change must be analyzed. At least three major factors have been identified as being primary in driving this revolution.

1) Inflation

The inflation of the 1970s and 1980s altered the way in which consumers valued assets. When inflation was relatively high, the relative value which consumers placed on financial assets declined and they sought to protect their worth in tangible assets. Equally important, the fear of future inflation also diminished the relative value of financial assets. As financial institutions deal almost exclusively in financial assets, the quite predictable impact on those institutions was enormous and generally adverse.

Another major impact of inflation on banks arose from the diminished attractiveness of the relatively meager returns which banks paid on their deposits in an inflationary economy. Literally hundreds of billions of dollars fled depository institutions in a few years to seek the higher returns of the money market mutual funds. Locked in a regulatory straight-jacket which restricted their ability to pay competitive rates, banks suffered enormously from the resulting disintermediation.

2) Demographics

The migration of enormous amounts of core deposits experienced by banks due to this inflation-driven disintermediation was accompanied and accelerated by concomitant increases in age and wealth of the population as a whole. This trend was critical given the differing financial services needs that

consumers have during the various stages of their life cycles.

As consumers become older and increase their net worths, they typically become net lenders to banks (i.e., savers) in contrast to their earlier status as net borrowers. In other words, since consumers in the aggregate were changing demographically, the makeup of the services (again in the aggregate) that they wanted from banks was also changing. Inflation was eroding the value of deposits just as the population was shifting to a greater preponderance of net savers, i.e., depositors. Savings rates had been regulatorily constrained--in large part to provide the necessary stable base of funds to promote housing finance. Accordingly, the political pressures which had previously favored borrowers at the expense of savers began to shift. The result was a demand for 'deregulation' of savings rates.

The general rise in net worth of consumers also affected financial structure. Consumers with funds to lend to banks in the form of deposits were becoming increasingly attractive to banks. Much of the banks' core business--commercial lending--was bypassing them and going directly to the expanding commercial paper markets. Those commercial deposits remaining were concomitantly becoming increasingly skittish. Consumer deposits, in contrast, were relatively stable, generally cheaper, and, perhaps most importantly, increasingly abundant. Banks saw an expanding base of ever more attractive consumer deposits at the same time that their traditional commercial deposits were becoming scarcer and more expensive. Thus, in order to attract and retain consumer deposits, the banks found themselves increasingly allied with consumer savers in calling for 'deregulation' of savings rates, notwithstanding the recognition that this would generally lead to an increase in the costs of those consumer deposits to the banks.

3) Technology

The third major trend influencing the push for deregulation was the evolution of both modern data processing and telecommunications technologies and their application to consumer financial services. Data processing technology evolved to the point where it became economically feasible to provide relatively sophisticated services on consumer-sized financial products. Revolving credit, often with variable interest rates, and relatively sophisticated deposit services--both saving and paying--became profitable for banks and eagerly and widely enjoyed by consumers. Services that had previously been economically viable only for larger, typically commercial transactions became routine even for relatively modest consumer purposes.

At the same time, telecommunications capabilities mushroomed. It no longer was necessary to perform banking transactions on a face-to-face basis. Banks could 'talk' and thus do routine business with their customers at great distances and at hours convenient to customers. Consumers flocked to automated teller machines to perform certain

specified types of transactions. Banks viewed such technologies as both important marketing tools and significant potential cost saving mechanisms. Technology had enabled banks in many important respects to overcome the constraints of time and distance.

Impacts

These three major trends have been affecting the makeup of the consumer population, what they want from banks, how banks could and did provide services, and the costs for doing so. These forces in turn precipitated many changes in the kinds of products offered by banks, the delivery means utilized and the pricing structures attendant thereto. But, to paraphrase Isaac Newton in an admittedly different context, for every action there exists a reaction. A cursory examination of some of the reactions engendered by these occurrences is instructive.

As suggested above, at least two major trends contributed to political pressures to relax or eliminate restrictions on interest rates. Inflation made traditional savings instruments in banks less attractive in terms of their return. Demographic changes wherein consumers became both older (and thus more likely in the aggregate to be net savers) and wealthier (and thereby more likely to be moved to express themselves politically regarding the deleterious impacts of inflation on their typically larger savings) led to increased pressures to deregulate interest rates paid on deposits. Banks, seeking to curry favor with increasingly attractive consumers joined in such political efforts. In large part due to this public pressure, interest ceilings were phased out and banks were given the authority to pay whatever returns the market might demand. (1,2)

[These evolutions can be displayed visually, and are in the chart at the end of this paper. (Specific representations in the charts conform to the evolutionary effects identified in the text and are included both in the chart, and in the text, in parentheses.)]

At the same time, new products and services were developed at an unprecedentedly rapid rate. In part, new products were developed in response to demographic changes, as consumers became wealthier and relatively more attractive to banks as sources of deposits. (3) Variable rate instruments, sweep accounts, repurchase agreements, and asset management accounts all developed to attract and serve the changing consumer. And, technological innovations enabled and encouraged the provision and delivery of new, complex and relatively broadly available products as never before. (4)

The evolution of data processing techniques and their widespread application to the formation and delivery of retail financial services contributed substantially to another important development. As new products were introduced utilizing those technologies and existing products were increasingly adapted to them, the ability (and indeed the incentives) to price financial services explicitly expanded. The capital intensive nature of the

costs involved in utilizing the new technologies made the 'true' cost of providing the services more apparent (or, at least, seemingly so in light of the substantial costs of many of the accoutrements of those technologies). It also highlighted the costs of employing such technologies, and thus contributed to the concurrently emerging tendency toward explicit pricing of services.

The result has been a generalized unbundling of prices. Minimum balance requirements became widespread; periodic fees were introduced for credit card accounts; additional changes were widely imposed for returned items, telephoned transfers, stop payment orders, etc. Similarly, newer products were also generally explicitly priced. The days of the 'loss leader' demand deposit account came to an end. Implicit in this trend toward explicit pricing was a decline in the degree and amount of cross-subsidization which had previously been common if not indeed the norm with respect to the pricing of retail financial services. (5)

But, as is almost always the case, changes precipitated by underlying forces within the economy engendered further changes as banks and consumers adjusted and reacted to them. For example, the repeal of interest rate restrictions on deposit instruments led to a generalized increase in the rates paid by banks to attract and retain deposits. But, since deposits constitute the primary source of funds for loans, this increase led, in the absence of other actions by banks, to reduced spreads between the cost of funds and the rates charged for loans. Banks, wishing to maintain profitability, raised loan rates where possible.

But, banks were (and are) not free to simply raise loan rates in lock step with their costs of funds. As loan rates rise, the riskiness of those loans generally increases and the likelihood of defaults, chargeoffs and the increased costs associated therewith also increases. Thus, banks are typically constrained from raising loan rates as much as deposit rates. Accordingly, banks turned increasingly to imposing additional charges and fees for their services. (6) This helped to maintain profitability and also helped to reduce risk by realizing revenue at an earlier point in the course of an ongoing transactional relationship. These explicit charges also contributed to the previously described tendency toward reductions in cross-subsidizations as between various products.

Reduced spreads and the resultant increasingly explicit fees also contributed to reassessments of overall product mix. As certain traditional products became relatively less profitable, banks quite naturally began to deemphasize those products as compared with other, potentially more profitable offerings. (7) Just as they reviewed their product mix, they concomitantly reviewed particular markets or target populations where relative profit potential was believed to have declined and moved, where applicable, to other markets or target populations to perceived to have greater profit potential. These changes in

product and market focus were aided and encouraged by the previously mentioned increased ability to cost various services offered to different markets, and the generalized trend to reduce cross-subsidizations. (8)

The development of newer, more sophisticated products also engendered structural developments. As these newer products were increasingly offered via telecommunications technologies and operated in largely or entirely automated modes, products and services could be offered over greater distances and in more numerous and diverse markets. Once the consumer could deal with his or her bank across town via an automated teller machine and a switch, conceptually it was just as easy to deal with that bank across the county, the state or the country.

But, the balkanization of banking which has characterized the industry made it unlikely that the consumer's particular bank had any presence across the county, state or country. Thus, banks began to cooperate to offer interchange services so that they could utilize the new technologies to service (and thus retain) their customers at distant points. The bank (credit) card industry evolved into two enormous institution-controlled networks--VISA and Mastercard--wherein thousands of individual banks cooperated to provide services. Similarly, shared automated teller networks proliferated to allow customers with one bank's card to do business through the terminals of distant banks. (9,10)

Technological capabilities and demographic changes have enabled or led banks to offer a greatly expanded menu of products and services. Many of these products and services are relatively new to banks and bankers. They are thus offering many unfamiliar products, often in markets with which they have little if any experience, and typically, in competition with more experienced purveyors. Asset management accounts compete, for example, with those developed and pioneered by the major brokerage houses. Similarly, various insurance products are relatively unfamiliar to many banks and they are competing in what is, in many instances, a highly evolved and aggressively competitive market. Participation in such markets inherently can create greater overall degrees of risk for banks than those previously faced. (11,12)

But, banks and bankers (like all economic entities, including consumers) are generally adverse to risk-taking. Wherever possible, bankers will attempt to avoid taking risks. In response to increased riskiness then, bankers have reacted quite predictably. First, they have taken steps to disperse risks. In several key instances, consumer financial products have been changed in such a way as to shift risk to consumers. (13)

Perhaps the most prominent example of this has been seen in the growth of variable rate loans, first with mortgages and then with home equity lines and non-mortgage consumer credit. Shifting interest rate volatility risk from lender to borrower clearly is advantageous to lenders.

This advantage is reflected in the generally lower initial interest rates available with variable rate instruments as contrasted with fixed-rate instruments.

The second major way in which bankers have acted to address a more risky environment is by attempting to diversify their offerings. (14) Diversification of products helps to insulate bankers from downturns in particular markets. Thus, bankers have engaged in a broader range of services, including in many instances new and unfamiliar markets. (15) This, as explained, holds the potential of in turn leading to future problems of increased riskiness.

But, simply shifting risks to consumers has not been universally viewed as acceptable or desirable. The proliferation of new consumer products and services has, predictably, precipitated calls for, and, in several instances, enactment of regulations defining and restricting the terms of these products (e.g., caps on variable rate mortgages) and requiring disclosure of pertinent terms (e.g., open-end credit plans and home equity lines of credit). (16)

Change and the Bases of Regulation

Reflecting on the historic bases for the regulation of banks, it appears that many of the considerations which originally prompted various legislative and regulatory enactments have counterparts in modern times, as a result of the natural evolutionary process described above. Underlying trends have led, as shown, to the potentials for:

- increased riskiness (12);
- consolidation or sharing among ostensible competitors (10);
- reduced or eliminated availability of access to products or services for particular markets or target populations or both (7,8);
- undue transfers of risk(s) to consumers (13);
- inadequately described or understood new products and services (3,4); and,
- products needing substantive shaping, restriction, or disclosure to protect consumer (13,16).

These potentials, as indicated below, correspond to the historic bases underlying bank regulation.

Historic Bases for Bank Regulation

- I) Safety and Soundness
- II) Promotion of Societal Goals
 - A. Prevention of Undue Concentration
 - B. Availability/Access to Services
- III) Consumer Protection
 - A. Disclosures
 - B. Mandated/Prohibited Practices

I) Safety and soundness considerations become of greater regulatory concern when banks may engage in more higher-risk activities. This may well, in fact, be the case as seen in the chart at step (12)

II) A. Similarly, consolidation or sharing issues are but another way of expressing concern about concentration. Step (10)

II) B. Difficulty involving access to services--disenfranchisement from the traditional banking system--may also be a logical outgrowth of current evolutionary tendencies. Steps (7) and (8).

III) Consumers faced with new products, many of which involve risk-transfers to them, often are in need of consumer protection, both by way of disclosure and through substantive restrictions. Steps (13) and (16)

Perspectives on 'Deregulation'

Many opponents of the regulation of banks generally have seized upon the superficial popularity of (the supposed) lowering of bank costs through the wholesale elimination of regulation as a crusade against which can only be aligned anti-business, anti-consumer economic Luddites. It is frequently suggested that modern financial services markets are such that we not only can but should rely primarily on competitive forces to 'regulate' those markets. Despite the generalized benefits which consumers as a group realize from meaningful competition, this view, taken in an historical context and without elaboration, appears naive. While attractive on a relatively simplistic theoretical basis, this view appears to give insufficient weight to the public policy goals sought by bank regulation, and the likelihood of the inadequacy of market forces fully to realize those goals in a sufficiently broad range of markets and instances.

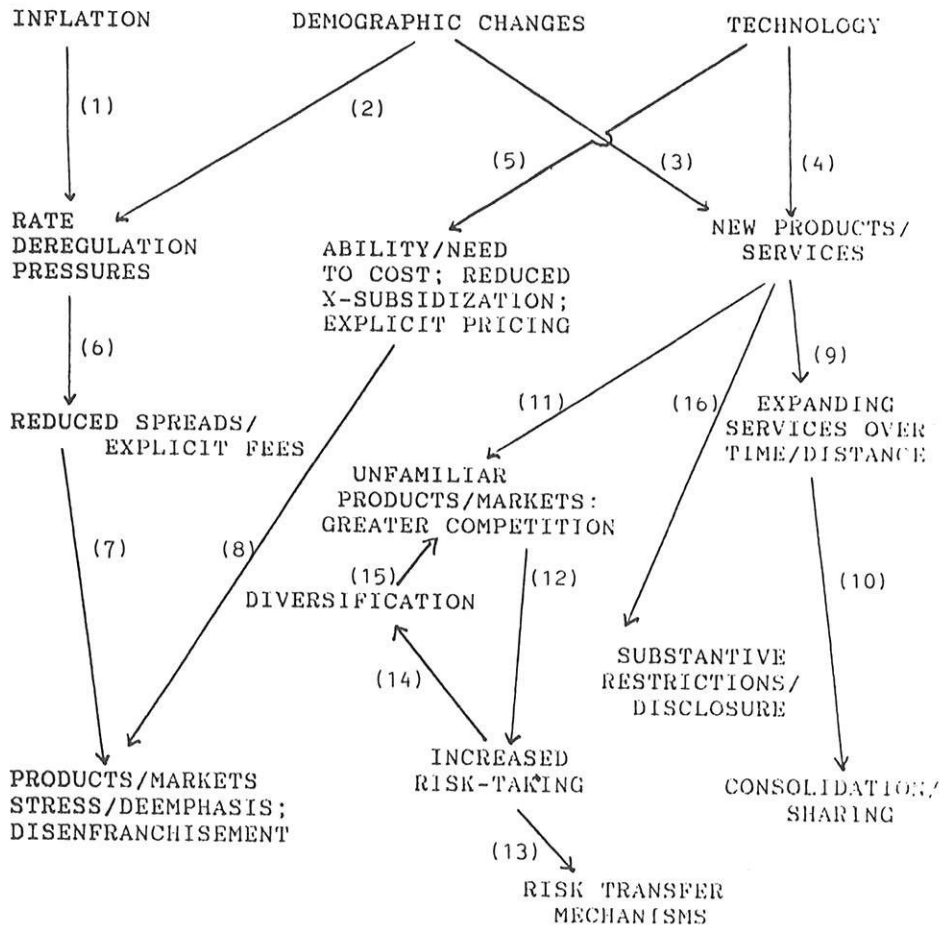
Meaningful competition is predicated on the presence of a variety of factors, including complete and comprehensible information, numerous purveyors and the absence of substantial inhibiting costs for exercising alternative choices. Quite clearly, many markets do not possess all these prerequisite factors in sufficient quantities to fully and adequately 'regulate' them to achieve the ends of the historic type described above. Accordingly, government intervention becomes not only unobjectionable, it becomes, given the importance of affordable and available banking services to economic activity, a necessity. The critical issues then are the optimal amount and form of regulation of banks. How are the costs of regulation weighed against the public policy benefits intended by such regulation?

This is not to suggest that the regulatory regimens of the future ought, of necessity, be similar to (or even resemble) those of previous eras. They may or may not ideally conform to previous structures, depending, for example, on the goals sought as a matter of public policy. But, the history of the regulation of banks suggests that future regulatory regimens reflect both the unique and crucial nature of banking functions in our economic society, and the naturally occurring evolutions in banks, banking and society.

The history of banking regulation suggests that naturally occurring marketplace evolutions leading to changes in the costs, forms or availabilities of crucial banking services, may, for recurring public policy purposes, also lead to regulatory responses to address and shape those

developments and their outgrowths. The recurrence in modern times of many of the forces and phenomena giving rise to extensive bank regulation in the past suggests that banks will, in all probability, always be subject to substantial degrees and types of regulation. This appears to be a function of the nature of banking services themselves, their importance and the markets in which they operate. Hopefully, this brief exposition of the history and purposes of bank regulation and the evolving world of banking will enable the public policy discussions regarding bank 'deregulation' to proceed on a more rational and substantive (and less emotional) basis.

CHART III



THE PERIL OF INFOMERCIALS AND CABLE NETWORK CLEARANCE

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Infomercials, program-length television commercials presented as objective programming content, blur the boundaries between commercial and non-commercial messages. This study identifies and defines the various product categories and program titles associated with this new form of broadcast advertising. Since the cable industry carries most of these commercials, advertising acceptance standards and guidelines applied by cable network representatives were investigated through telephone interviews. Results from the interviews are presented.

Since the Federal Communications Commission removed prohibitions on program-length commercials, it has become increasingly common practice for stations and cable networks to fill available fringe time with commercial advertising. "Infomercials," are 30 to 120 minute long sales efforts designed to appear to be regular programming. For example, they are even accompanied by their own spot advertising breaks within the "program" to create the impression of regularly scheduled programming with traditional commercial breaks. Yet, in reality, the entire program is a concerted sales effort produced and purchased for and by the advertising sponsor. This televised commercial programming differs in length, format and overall content from traditional television advertising. Given their growing use on several of the advertising-supported cable television networks, serious questions exist regarding the responsibility of media organizations towards their audience.

TERMINOLOGY, CHARACTERISTICS AND CONTENT

"An Ad is an Ad is an Ad"

It must be noted at the outset that these program-length commercials are so new that there does not yet exist a single recognized industry name for them. The term "infomercials" herein is used for convenience, not because of its universal acceptance. Each firm seems to use its own set of terms, such as "program buys," "program-length commercials," "DRs" (for "Direct Response Programs") or "sales programs," in addition to "infomercials." However, consistent applications occur within the confines of a single media organization.

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To Entertain and Sell

The term infomercials is a recognition that such programs do not clearly present themselves to viewers as advertising. As such, the "infomercials" neologism recognizes the hybrid format. Infomercials incorporate elements of news magazine and talk show formats that audiences have come to associate with straight forward informational programming, yet they are produced and programmed as a commercial sales message.

Media observers have criticized the increasingly "infotainment" characteristics of news and public affairs programming. Rapping (1987) has noted that noncommercial programming of television news magazines and talk shows always includes three elements: entertainment, information and sales. Similarly, these three elements can be observed in most commercial advertising. However, it is not the elements *per se* but how they are used that defines the format of programming and, in this case, differentiates infomercials from other types of commercial advertising.

Infomercials are presented as objective programming content to the viewers, blurring the boundaries between commercial and noncommercial messages. In addition, since television news magazine and talk shows have become the primary vehicles through which issues are presented and analyzed in our society (Rapping 1987), these formats may lend infomercials a credibility advantage that goes to the heart of numerous audience comprehension-miscomprehension-deception issues (Hayes 1987; Kerton and Bodell 1987; Preston and Richards 1986; Rotfeld 1983). For example, the infomercial, "Consumer Challenge," which promotes MDR fitness tabs, begins with the announcer proclaiming, "Consumer Challenge; Today we will investigate MDR Fitness Tabs: New product or consumer rip-off?"

Another problem is that these infomercials are often for the same products frequently found in the back pages of magazines. Referred to as "back of the book" advertising, they are seen by many advertising practitioners as a detriment to the practice and image of the entire advertising business (LaBarbera 1981b). However, in magazines these ads are buried in the final pages and not disguised as news. In fact, magazines often list on the advertising rate card a requirement that all advertising be clearly identifiable as such by either layout or style. Those ads that might be confused with editorial content by some readers carry labels, "advertising" or "advertisement" (Rotfeld and Parsons 1987).

Instead of targeting a few, special interest audiences that magazines are designed to reach, broadcast infomercials have the potential to reach much larger population groups. The basic cable services allow infomercials to reach national audiences. It remains unclear what the basic advertising-supported cable networks might be doing to limit the potential audience deception associated with infomercials.

Information Content

Consumer-interest professionals have historically fought for informative advertising that provides consumers with facts that can be applied to efficient decision-making. However, because of time constraints, television advertising has been characterized as providing more puff and fluff compared with the more informative nature of print media advertising. With their greater length, infomercials can theoretically provide more information which could aid consumer decision making. For example, SoloFlex disseminates an infomercial possessing strong potential to assist consumer decision-making. The thirty-minute infomercial is a demonstration which provides details about the characteristics and appropriate use of the product and is also distributed as a videotape "brochure." From a consumer-interest perspective, other infomercials are not as utilitarian.

Most infomercials use one of three general formats to distract viewers from the fact that the information is purely a sales message:

- (1) general news magazine or news documentary;
- (2) talk show; or
- (3) investigative consumer product review show.

All include various sales practices subject to past Federal Trade Commission rules, regulations and restrictions: claims alleging support from tests; reports or surveys; demonstrations and mockups of product usage; and celebrity and consumer endorsements. However, in these program formats, the information acquires an aura of objectivity as distinct from more familiar, traditional sales messages.

As seen in Table 1, five of the seven basic categories of infomercials cover product areas with potential for consumer abuse: personal wealth and financial investment plans; weight loss and weight control plans and products; hair loss remedies; anti-aging/age reversal preparations and health products.

Blurring Commercial and Noncommercial

Media critics and consumer advocates have struggled to maintain a distinction between editorial/programming and commercial content. Originally, the main form of television advertising was sole sponsorship with one advertiser possessing total financial responsibility for a program. Sponsors gained access to the commercial aspects of programming by having a visible product billboard during the credits or by the show's star doing commercial presentations or introducing commercial breaks. Infomercials are more than sole program sponsorship. Sponsored programs still

exist, but with an infomercial the sponsor no longer simply finances the program, which might lend indirect influence on content and direct control of commercial air time, the sponsor is the entire program.

The Federal Communications Commission's removal of restrictions on the broadcast of program-length commercials, coupled with the ever-increasing numbers of new economically marginal cable stations in need of advertising revenue and programming to fill open time, have provided a situation suited for the growth of this program format. Even some of the strongest of basic cable services have programming and advertising needs that they cannot currently fulfill on their own (Motavalli 1987).

Table 1. Infomercial Categories

1. PERSONAL WEALTH/FINANCIAL INVESTMENT

<u>Program</u>	<u>Product</u>
.Building Personal Wealth	. Tax Avoidance Digest . Coin Investment Kid . Family Preventive Law Pack . Lottery Busters . Secrets of Winning Sweepstakes . Penny Stock News
.Secrets of Winning Black Jack	. Home Black Jack Study Course
.Millionaire Maker	. Ed Beckley's No Down Payment Seminar Course

2. WEIGHT LOSS/WEIGHT CONTROL

<u>Program</u>	<u>Product</u>
.Look At Me Now	. Look at Me Now Diet Plan
.Can You Be Thinner?	. Diet of the Stars . The Multitrym Diet System
.Freedom From Fat	. Freedom From Fat Diet
.Saundra Brooks Diet	. Saundra Brooks Diet Program
.Cellulite Free In 28 Days	. Body Contouring System
.Weight Loss Made Easy	. Joe Land's Subliminal Weight Loss Program

3. HAIR LOSS PREVENTION/REGROWTH

<u>Program</u>	<u>Product</u>
.Baldness Fact or Fiction	. New Generation Hair Formula
.Studio 34 Video Magazine	. P-30 Hair Formula
.Discover	. Helsinki Hair Formula
.Hair Care	. Foligen Hair Fitness System

(Table 1 - Continued from previous page)

4. ANTI-AGING/AGE REVERSAL PREPARATIONS

<u>Program</u>	<u>Product</u>
.Can You Look Younger?	. Vikki LaMotta Anti-Aging Products
.Love Your Skin	. Linda Chae Basics
.Youth Secrets of the Stars	. Norwegian Secret of Youth
.Forever Young	. S.T. Go Skin Care System

5. SUCCESS IN LIFE GOALS

<u>Program</u>	<u>Product</u>
.Program Yourself for Success	. Joe Land's Subliminal Success Tapes
.Build a Winning Self Image	. The Mind Power Library
.How to Have a Million Dollar Memory	. Billy Burden's Memory Master
.Success is Not an Accident	. The Mental Bank
.Success Strategies for Women	. Rita Davenport's It's Time For You Program

6. HEALTH PRODUCTS

<u>Program</u>	<u>Product</u>
.Person to Person Magazine	. Nanci Corp.'s Children's Nutritional Supplement and Fitness Program
.Consumer Challenge	. MDR Fitness Tabs
.SoloFlex Exercise	. SoloFlex Exercise Machine
.Herbal Life Seminar	. Herbal Life Products

7. GENERAL CONSUMER PRODUCTS

<u>Program</u>	<u>Product</u>
.Consumer Challenge	. Blublocker Sunglasses
.Making of Santo Gold	. Simulated Gold Jewelry
.Our Secret Creations	. Simulated Precious Gem Jewelry
.Fat-Free Cooking	. Microwave Cooking

STANDARDS FOR ACCEPTABLE ADVERTISING

In broadcasting self-regulation, past attention has been directed toward trade practice guidelines and possible anti-trust violations (e.g. LaBarbera 1980; 1981a; 1983; Stern 1971). Recent studies have mentioned -- almost in passing -- activities of a few large broadcast stations, (e.g. Maddox and Zanot 1984). However, no published information describes the standards applied by individual broadcast stations or cable vehicles. Almost all attention, both in practice

and in the literature, discusses activities of the three major broadcast networks, ABC, CBS, and NBC (e.g. Rotzoll and Haefner 1986; Sewell and Jennerjahn 1982; Zanot 1985).

Virginia Knauer, President Reagan's consumer adviser, lamented in a presentation to the National Advertising Division of the Council of Better Business Bureaus in New York that "only 18% (of publishers and broadcasters) specify that they don't accept questionable advertising; less than 2% of the papers refuse to accept ads in the classes of 'questionable therapies' or 'doubtful medical products.' Less than 2% reject ads for unconventional investment or stock promotion schemes" (Anonymous 1985). Knauer called upon the media and self-regulation groups to do more to screen ads for deception and potential consumer harm. While she failed to state the source of her statistics, the notion that industry fails to provide the consumer protection that the government has chosen not to supply was supported by Rotfeld and Parsons' (1987) magazine data. After failing to find any obvious, strong, pattern of formal oversight and control in advertising clearance for 78 magazines, they concluded that, "Although some publications exercise more exacting scrutiny than others, in general, caveat emptor remains the rule." Therefore, in terms of industry advertising standards, the basic media concern does not focus on consumer protection. Rather, it seems to be to avoid offending the audience and to maintain good public relations (e.g. Freeman 1987; Rotfeld and Parsons 1987; Winters 1986).

METHODOLOGY

Interviews & Inquiries

Telephone interviews were conducted with people from legal, sales and corporate offices of all except three of the 14 national advertising-supported cable networks. Not all networks carried infomercials, but the interviews mainly addressed advertising clearance policies in general to be contrasted with any distinctions drawn for program-length commercials. Three networks refused to discuss such "sensitive matters" on the phone; mail questionnaires were sent but not returned.

Final responsibility for the broadcast of infomercials was quickly found to lie with a variety of individuals. Multiple contacts were needed to even discover just which officers performed various clearance-related jobs. In fact, advertising and program clearance decisions themselves were often diffuse in the organizations; only two cable networks had an individual designated with the office title of "Standards and Practices" as is commonly found at large broadcast stations and the three major networks. Programming departments generally decided which time slots would be allocated for infomercials while sales management, traffic, legal or corporate officers to varying degrees, had input in policy or day-to-day decisions on the acceptability of individual programs. At some networks, responsibility for different types of advertising

rested with different corporate officers or departments.

Confidentiality

As noted, clearance personnel for three networks refused to discuss such matters over the phone. In fact, a representative from one of the largest networks refused to give any names of the people responsible for clearance decisions. At two networks, people requested that they first be sent a preliminary letter listing (a) the nature of questions to be asked and (b) the final use of the information. In almost all instances, interviewees insisted on confidentiality, asking that their names or organization not be identified to anyone. Some requested that others in the same organization not be told that they had discussed these matters.

Such paranoia might sound unusual, but it was not unexpected. Organizations might consider clearance activities a source of pride (Zanot and Rotfeld 1983), but they also fear that their activities may be misunderstood by the public. On one hand, they fear sounding petty, interfering with advertisers' rights to provide information, yet they do not want to appear negligent in serving their obligations to their audiences (LaBarbera 1980; 1981b). Furthermore, because they do not have any general trade association's advertising acceptance guidelines -- except for an agreement to not accept hard liquor or cigarettes -- they lack a public relations "buffer" of accepted industry standards.

Issues and Questions

Attention was directed towards four broad research issues, all of which are interrelated with more general concerns for all advertising acceptance decisions: 1) Procedures for selling and scheduling shows; 2) Considerations or concerns for identifying infomercials as paid commercial advertising; 3) Basis for accepting or rejecting programs and types of programs rejected in the past; 4) Existence of viewer complaints or complaints from "affiliates" (the business term for the local cable companies that carry their network) and how such problems are resolved.

RESULTS

Programming Decisions

The basic sales procedures appear to be quite consistent. Time periods are set aside for infomercials which are usually the least desired time periods on the schedule from an advertiser's point of view (e.g. low audience viewership). The sales staff makes arrangements to sell the set time period to a client, checking back at the programming office if the period desired is available.

At this early stage, the sales staff has a degree of power over the acceptance or rejection decisions. However, with a sales staff paid on commission, the primary basis for rejection was seen

by managers as being the salesperson's expectation that the program would eventually be rejected by the programming or standards and practices office. While all infomercials generally need the approval of programming or standards and practices departments, many firms have a different set of procedures for clearing infomercials than for clearing regular programs.

The cable networks all have clearly defined target audiences, so there is concern about infomercials offending or turning away audience members networks are trying to attract during the regular program periods. A few representatives expressed a general dislike for infomercials, but seemed to accept them as a necessary evil. These programs filled the program day during periods when they otherwise would not sell time. As audience penetration for each cable network increases, as their financial status strengthens and as their own storehouse of programming improves, the respondents reported that infomercials are being restricted to increasingly minimal blocks of time.

One vice-president said he aimed for less than a single hour of such programs per day, five days a week by January 1988, cutting back from a very heavy schedule of such programs a year ago. He also emphasized, however, that "some of these [infomercial programs] are well produced, extremely informative and popular with the audience. They fit in with our basic programming orientation."

"The Following is a Paid Commercial Program"

With magazines, Rotfeld and Parsons (1987) found a common requirement that all advertising content had to be readily discernible or labeled as such. However, this does not seem to be a strong concern with those cable networks carrying infomercials. In fact, until fairly recently, most of them did not have any disclaimers or labels. Most current network disclaimers that label infomercials as paid commercial advertising are new.

One network first started operations with a Standards and Practices office, but quickly cut it from staff when a lack of revenues forced budget cuts. This network only recently reinstated a system to review advertising and program-length commercials and, only after the insistence of the person in charge of that office, started labeling the infomercials as advertising at the start of every program.

At networks that did not carry disclaimers, some representatives interviewed did not sound pleased with the situation. A programming officer at one network said the idea had been discussed under the heading of "Maybe we should do this . . ." but nothing concrete has been decided. Management-level people at two different networks said, "That's a good question. Maybe we should." To them, it was a novel idea which they had not considered.

Only one network executive replied that advertising labels had been discussed and seriously considered but they had concluded that they did not understand the reason for it; "Why chase the audience away?" he queried. "Some of these programs are very entertaining." Those who did carry notes identifying the programs as advertising referred to them as "disclaimers," saying they inform the audience that they are not airing network shows. One person, bothered by the network's original decision to not carry ad-labels, said that it was not in keeping with other aspects of the network's programming image. The network personnel who most strongly felt the need for infomercial identification tended to have previously worked for either the National Association of Broadcasters or for large broadcast stations.

Rejections and Restrictions

All networks reported having rejected some infomercials in the past, but the reasons and motives differ. Then again, according to the responses in this study, cable networks screen infomercials more closely than other advertising submissions. With regular 30-second spots by large national advertisers, the decision seems easier. Many commercials have already cleared the tough and rigorous processes at CBS, NBC and ABC. Therefore, the major networks' screenings procedures are accepted as valid at most (but not all) cable networks. Infomercials, however, have not been previously screened by the major broadcasters.

Cable network personnel tend to screen every infomercial before it is run by examining whether the program is in "good taste," whether or not the claims are credible, and, in the case of medical products, if it might present a danger to users. Still, the primary concern appears to be focused on the fit between the infomercial and other programming which might run on the network. Secondary concerns center around the quality of production and whether or not the style of presentation would offend the target viewing audience.

Unless the infomercial strains the credulity of network pre-screeners, they usually do not ask for substantiation of claims nor do they test the products themselves. They reported having neither the time, facilities nor expertise to test the products. Some networks mentioned programs as deceptive that were noted by other networks as a source of "trivial" complaints. Often, acceptance or rejection was contingent upon the values and perspectives of the person primarily responsible for making clearance decisions. Only two networks reported recently turning down an infomercial because of concerns for the audience due to the unfair use of consumer paranoia. Playing on current fear and public misunderstanding of the nature of AIDS, an infomercial offered a disinfectant that promised to prevent users from contracting the disease.

For the most part, product and advertising acceptability seemed to be based on intuitive judgements made by programmers, sales managers

and legal personnel. Taste and entertainment value tended to influence decisions about infomercial acceptance. An additional consideration is a credit check for verification that the program producer can pay for the air time.

Viewer Complaints

The networks receive few complaints about the nature of effectiveness of the product. In fact, respondents described any complaints as "rare." Some network representatives reported that they had never received a viewer complaint. In general, when a viewer takes such action, personnel will reexamine the ad to decide if the complaint is valid. Personnel report that complaints about the products not working as promised are very rare and are seldom upheld under scrutiny.

Existing complaints usually fall under two headings: 1) the program and/or product did not "fit" with the rest of the content of the network; and 2) the product was not delivered as promised. The latter was the most frequently mentioned potential problem area. When the product is not delivered, the station directs the program supplier to "clean it up" and "make good" or else the program will no longer be welcome on the network. "They need us," one representative maintained, "so they know they better make good on customer complaints."

DISCUSSION

While cable network representatives stated that the allocated blocks of time for infomercials are continually being reduced, their perspective of "very few programs" might differ greatly from that of a researcher with a consumer protection orientation. The network personnel might think that the shows are informative or of interest to the viewers, but absent complaints or viewer surveys, their assessments are accurate only to the extent of their powers of audience empathy. It should also be noted that the perspectives herein are those of cable network personnel. Left unanswered is how the consumers actually perceive these programs and products. A more basic question might ask whether infomercials are more credible and powerful sales messages by appearing in a program format.

In discussing the advertising clearance practices at a handful of large-circulation magazines, LaBarbera titled her article on back-of-the-book ads as "The Shame of Magazine Advertising" (1981a). But the question remains as to whether or not consumers believe these products' claims. Moreover, the products might only appeal to the same people who mail order the product categories which were criticized by LaBarbera. Some consumers could be seeking these products and might actually want information on these products.

The network personnel apparently realize that infomercials aren't the best way to build a following to their network's programming, but they seem to retain the shows in their schedule