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ECONOMIC OUTLOOK USA

SPRING 1979

Vol. 6 No. 2

A quarterly publication of the
SURVEY RESEARCH CENTER
Institute for Social Research
THE UNIVERSITY OF MICHIGAN

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Drug Use Among American Youth—New Findings

Published Quarterly by the
SURVEY RESEARCH CENTER
THE UNIVERSITY OF MICHIGAN
 426 Thompson Street
 P.O. Box 1248
 Ann Arbor, Michigan 48106

EDITOR'S NOTE:

ECONOMIC OUTLOOK USA is designed to aid private and public decision makers in achieving a better understanding of the economic and social environment in which they will be operating. The analysis in this publication incorporates direct measurements of the expectations, attitudes and plans of both consumers and business firms with the economic and financial variables traditionally used in forecast models. The philosophy of this publication is that a blend of anticipatory and traditional measures provides richer insights into prospective developments, insights which will produce more consistently reliable forecasts of both economic and social change.

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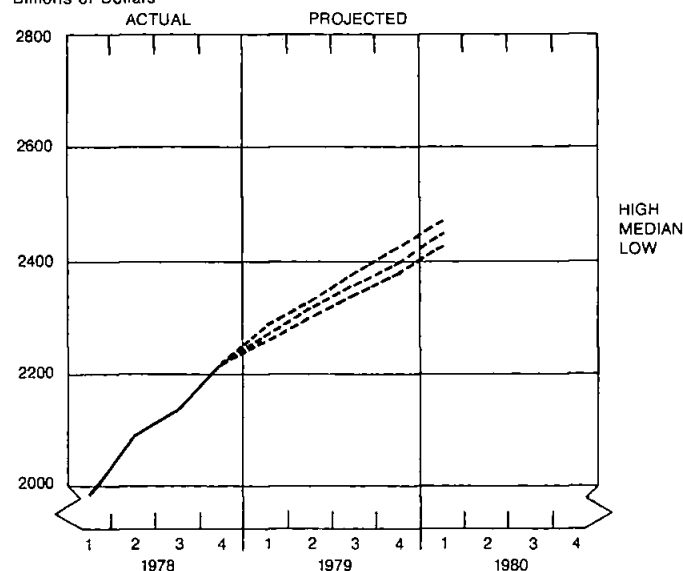
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ECONOMIC PROSPECTS

Actual and projected; seasonally adjusted quarterly data at annual rates

GROSS NATIONAL PRODUCT

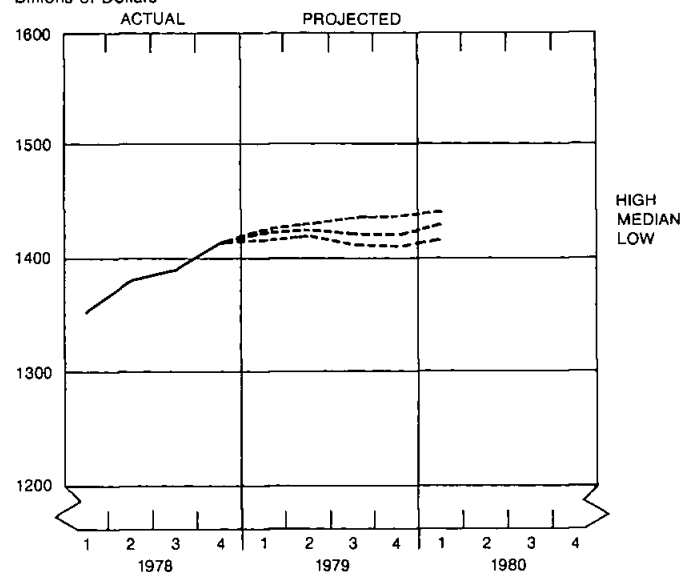
IN CURRENT DOLLARS
 Billions of Dollars



Sources: Actual data, U.S. Department of Commerce; projected data, ASA-NBER Panel of Forecasters.

GROSS NATIONAL PRODUCT

IN CONSTANT 1972 DOLLARS
 Billions of Dollars



Sources: Actual data, U.S. Department of Commerce; projected data, ASA-NBER Panel of Forecasters.

Frequently Used Abbreviations:

ASA	American Statistical Association
BEA	Bureau of Economic Analysis, U.S. Department of Commerce
NBER	National Bureau of Economic Research
SRC	Survey Research Center
197x:y	yth quarter of 197x

The Policy Dilemma for 1979

F. Thomas Juster
Director, Institute for Social Research
Professor of Economics
The University of Michigan

The most important issue facing economic policymakers over the next year is not whether the economy will experience a recession in 1979, but rather how to make effective use of economic weakness to develop policies with a reasonable prospect of lowering the rate of price inflation.

Most of the data, both on the recent performance of the economy and on indicators of probable future performance, suggests that 1979 is likely to be characterized by economic softness. That is of course the purpose of present monetary and fiscal policy: to restrain demand by significantly reducing the growth rate of money, which has pushed interest rates up to double-digit levels, and by paring the budget deficit.

Whether the softness that is likely to develop during 1979 will ultimately be characterized as a recession or merely as a period of sluggish growth is not obvious at this writing. Depending on whether the economy dips into a negative growth pattern for some period of time this year, or simply approaches a zero growth path, future historians will label 1979 as either a "classic" recession or a "growth recession." But the difference in economic circumstances or policy options between a slightly positive growth rate and a slightly negative one does not seem very important.

If forced to choose one scenario or the other, I would probably opt for the recession scenario. That seems more consistent with the data, especially with the consumer survey data detailed elsewhere in this issue in the article by Richard Curtin. Unless speculative buying by consumers continues with sufficient strength to hold down the personal saving rate, the combination of dropping housing sales, dropping automobile sales, and rising saving rates, in conjunction with the effects of tight money and a tight budget on other sectors of the economy, seems more likely to produce a recession than anything else.

Policy Options

The fiscal and monetary policies now in place are not of course intended to produce a recession. Rather, they are designed to hold down the inflation rate, or at least to keep it from escalating further. The trouble is that the economy is likely to respond initially to fiscal and monetary restraint by a reduced rate of growth in real output, with little if any impact on the rate of increase in prices.

Recent history suggests that the effect of demand restraint on prices begins to be observable only after those policies have significantly reduced real growth and increased unemployment. Even worse, the effect of restraint on prices may not even begin to be noticeable until unemployment rates above seven percent have appeared, and the price effect is not substantial until high unemployment rates have been around for a long period of time to weaken cost pressures. A slightly less pessimistic

view would look for earlier effects on prices via lower sales, less incentive to mark up prices in anticipation of future cost increases, and greater incentives to maintain sales by reducing profit margins.

Roots of the Present Inflation

It is fashionable these days to say that economists no longer understand the economy, and that we are living in an environment where old fashioned inflation remedies don't work. There is a grain of truth to that allegation, but not much more than a grain. Economists understand the economy all right, but the conventional solutions to current economic problems comprise an unappetizing array of choices.

The key to understanding both policy alternatives and the dilemma they present is to recognize that the present inflation rate is not a simple consequence of too much money chasing too few goods. Rather, the present inflation results from the pervasive inertia represented by costs being passed through into prices, in conjunction with a widespread expectation among decision-makers that future inflation rates will look much the same as past ones (see the "expected price change" chart, p. 45). Every interest group in the economy is convinced, with some justification, that it needs to have an increase in its income sufficient to recoup the ravages of past inflation. Implementing those increases insures that future inflation will be just as virulent as past inflation.

Conventional Demand Restraint

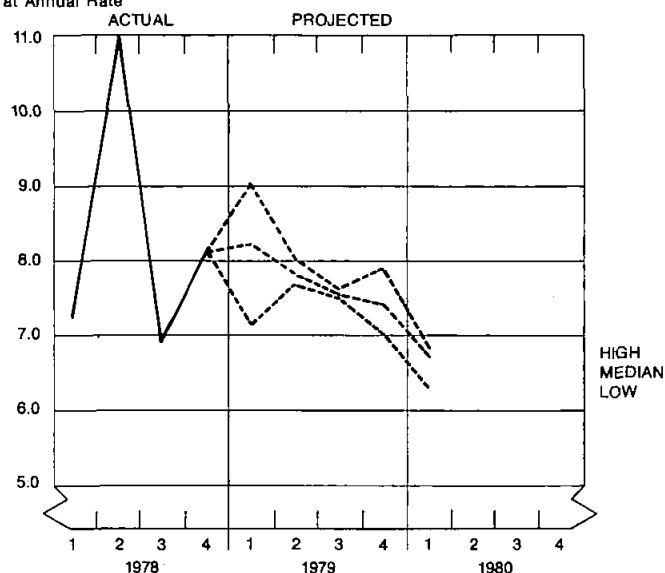
Conventional demand restraint policies can eventually have an impact on these inertia and expectations forces, but only after they have been operating for a long time and only very slowly. As noted earlier, demand restraint bites first by cutting back employment and output: eventually it weakens the ability of business decision-makers to pass along cost increases into price increases, and still later it begins to shape a different expectational environment. But all these favorable impacts on costs and prices take time—an interminably long time.

It is well to recognize that there is no villain here. Labor has justifiable demands for recouping last year's inflation rate, farmers have been baked into higher costs and thus need higher prices to compensate, and business cannot be expected to expand investment without reasonable prospects of a fair return on investment. But all these justifiable demands add up to continuation of the same inflation rate or worse.

If mild demand restraint is unlikely to have much impact on prices, and then only after a long time, an obvious alternative is to impose policies of severe restraint. That policy would undoubtedly work, in the sense that it would cool down the inflation rate to tolerable proportions. But it would do a few other things as well, all of

GNP IMPLICIT PRICE DEFLATOR

Percent Change
at Annual Rate



Sources: Actual data, U.S. Department of Commerce; projected data, ASA-NBER Panel of Forecasters.

them costly, many of them unpredictable, and some of them downright dangerous.

It may be doubted that the U. S. would tolerate double-digit employment rates in the same way that it has occasionally tolerated double-digit inflation rates. Yet something like that may be required to bring inflation under control within a reasonable period of time if anti-inflation policy consists solely of holding down demand via tough monetary and fiscal policies. In addition, the effects on long-term business confidence of the severe recession implied by tough demand-suppressing policies could be quite serious, and might do a great deal of damage to long-term investment and growth prospects. Hence, hardly anyone recommends severe restraint policies, whether they be conservatives or liberals, because the costs seem way out of proportion to the potential gains.

Hence the dilemma: moderate restraint doesn't affect prices at all for a while, and doesn't have much effect even after it has been applied for some time; severe restraint would probably work, but it would cause major human suffering and social disruption, with unpredictable long-term consequences.

Alternative Policies

This dilemma underpins the preoccupation of many policy-oriented economists with what are broadly described as "incomes" policies. At bottom, incomes policies are devices to reduce the severity of cost-increasing pressures by providing incentives to workers and employers to moderate their claims for a share of total income.

The spectrum of policies designed to influence cost-push pressures covers a wide range, and includes various kinds of tax-based incentive systems, voluntary cooperation via guidelines, and mandatory controls of one kind or another. All are based on the premise that re-

straining the demand for goods and services will not be effective in reducing the momentum of inflation, and that effective inflation-control policies must impact more directly on costs and thence on prices. That general subject will be discussed more fully in a subsequent issue of this publication.

If one accepts the proposition that an effective inflation policy has to impact on the inertia produced by a tendency to pass on cost increases, and on the expectational environment, then policies which arbitrarily interrupt momentum and affect expectations—like a freeze on prices and wages—need to be considered.

Mandatory Controls

The U. S. has had limited experience with this form of mandatory controls, and the experience is commonly judged to be unfavorable. The most recent experience occurred over the period 1971-73, when a temporary price freeze was followed by successive relaxations of controls and eventual total removal. Conventional wisdom is that the price explosion of 1973 was a direct consequence of the price freeze *cum* guidelines begun in the fall of 1971.

One can argue that the conventional wisdom is wrong. Since an arbitrary freeze on prices and wages is clearly one way to influence both inertia and expectations, perhaps we can learn from the past about circumstances when such policies might have some chance of success. The key to implementing a controls strategy lies in recognizing two facts:

1. An effective price and wage freeze will create inequities, and these inequities cannot be resolved without partially, and perhaps significantly, destroying the effectiveness of the controls. Thus one may have to be prepared to live with inequities, at least temporarily. Moreover the inequities created by an arbitrarily timed freeze may be no worse than the inequities created by a continuation of present inflation rates.
2. An arbitrary price and wage freeze has a reasonable chance of success only if it is instituted and kept in place during a period when demand is relatively weak, and thus when market incentives to get around the freeze are also relatively weak.

If the economy behaves as most people expect during 1979, the opportunity to have an impact on the inertia and expectational components of inflation by way of an administrative action like a price and wage freeze becomes feasible in terms of timing and appropriate preconditions. The policy could be initiated when economic conditions weaken and maintained in place as the weakness runs its course. If weakness lasts long enough, and if the policy creates a general halt in rates of wage and price increase, it may be possible to have moved from a 7-10 percent basic inflation rate to one that is significantly lower. One would like to see controls removed then—when they have been in place long enough to have a significant influence on inertia and expectations, but not long enough to build up severe distortions of either equity or resource allocation.

The usual argument against mandatory controls is that they are an administrative nightmare, that they create severe inequities by freezing people in different stages of catchup from past inflation, that they seriously distort the

price signals needed to make sensible resource allocation decisions, and that they only postpone the inevitable inflationary effects of excess demand.

One can get around the first objection by simply having no administrative apparatus at all, relying on public pressure to insure reasonable compliance. That seemed to work in 1971, when mandatory controls consisted of a temporary freeze followed by general guidelines. The second objection unquestionably has merit, and there is no good answer to it. Controls do create serious inequities. But inflation also creates inequities, and it is not obvious that one set of inequities is any worse than the other.

The resource distorting impact of mandatory controls is only serious if the controls last for a long time. If controls are designed solely to cut into momentum and change expectations, then to be removed and allow market forces to come in to play, there isn't much potential for serious damage to resource allocation decisions.

Finally, while allowing excess demand pressures to build up under the protective coloration of a controls system would be a prescription for future inflation, putting controls in place during a period of economic weakness and removing them while weakness still persists does not seem subject to that objection.

One issue which would not be satisfactorily handled by an arbitrary freeze on prices and wages is the set of issues relating to energy policy. For purposes of guiding both

production and consumption decisions, a compelling argument can be made that energy prices ought to rise rapidly over the next year. That price rise should be allowed to happen, and is best interpreted as a rise in the price of energy relative to other prices. But a major increase in energy prices would have consequences for other prices, since energy prices are costly to almost all production operations. In some industries, energy costs are important and one could not ignore the impact of higher energy prices on costs. Hence any controls program may have to make special allowance for energy, by permitting energy prices to rise substantially and allowing some pass through of energy costs.

Summary

The principal point of this discussion is not that mandatory controls represent a panacea for present economic difficulties. Rather, it is that an effective anti-inflation policy has to use any period of developing weakness during 1979 as an opportunity to work on the basic inflationary forces of inertia and expectations. Controls are one way to do that, though there are others, perhaps with greater political feasibility and lesser economic risks. But sole reliance on conventional demand restraint seems an unlikely bet; the chances are that we will end up with a recession and about the same basic inflation rate.

March 1979

Mounting Fears of Double-Digit Inflation

Richard T. Curtin
Director, Surveys of Consumer Attitudes
Survey Research Center
The University of Michigan

Widespread Declines During 1978

The Index of Consumer Sentiment was 73.9 in the February 1979 survey, largely unchanged from the 72.1 recorded in January 1979 and 75.0 recorded in November 1978. This recent maintenance at lowered year-end levels nonetheless represents a loss of more than 10 Index points from the February 1978 reading of 84.3. Mounting fears of double-digit inflation have severely depressed both business and personal financial expectations, as well as stimulating buy-in-advance motivations.

Among families with incomes of \$15,000 and over, the Index of Consumer Sentiment was 70.9 in February, somewhat above the 67.7 recorded last November. This small recent improvement, however, did not offset the more than 12 Index-point decline from a year ago, when the Index value was 83.2 in February 1978. Smaller but repeated declines were recorded among families with incomes of less than \$15,000, with the Index value falling to 68.3 in February, down from 73.6 in November 1978 and 77.0 in February 1978.

During the past year, consumer sentiment among residents of the Northeast and Western regions fell sharply. In the Northeast, the Index value fell by 15 Index points

from February 1978 (83.0) to February 1979 (68.0), and among residents of the Western region the Index value declined by nearly 17 points (from 94.2 to 77.5). The sharp and significant loss during the past year among Western residents, however, was preceded by modest improvement during the prior year. Residents of the North Central and Southern regions reported slower but consecutive declines in confidence during the past two years: the Index value for the North Central region fell to 75.8 in February 1979, from 81.9 in February 1978 and 87.7 in February 1977; among residents of the Southern region, the Index value fell to 73.5 in February 1979, from 81.6 in February 1978 and 89.4 in February 1977.

Consumer sentiment among households with heads under age 35 declined by almost 19 Index-points during the past year, reaching 80.9 in February 1979 versus 99.7 in February 1978. This rate of decline during 1978 was more than twice that recorded among respondents 35 and older. The accelerated decline during 1978 among younger households followed modest improvement recorded during 1977. In contrast, declines were recorded during both 1977 and 1978 among 35-and-older respondents.

Divergent Trends Slow Decline

The current decline in consumer sentiment has not been uniform across its several attitudinal components. During the past two years evaluations of current personal finances and buying conditions have remained largely unchanged, while expectations for improvement in personal finances and business conditions have grown significantly pessimistic. This sharp loss in the three expectations components of the Index is shown in Table 1, the largest declines occurring in the short-term business outlook. As a result of this divergence in the underlying patterns of change, the overall decline during the past two years is significantly less than that recorded in the years prior to the last recession (see the chart on page 45). The Index of Consumer Sentiment posted nearly identical readings in February 1977 (87.5) as in February 1972 (88.3). During the subsequent two years, the Index fell more than twice as much from February 1972 to February 1974 (27.4 Index points) as from February 1977 to February 1979 (13.6 Index points). Evaluations of both current and expected changes in economic conditions declined by much smaller amounts during 1977-79 than during 1972-74, especially evaluations of current finances and buying conditions. Heightened fears of inflation coupled with buy-in-advance psychology underlie this divergence and have acted to slow the overall declines.

Table 1. CHANGE IN ICS AND COMPONENTS DURING TWO PERIODS

	Index	Index Components				
		Current		Expected		
		Personal Finances	Buying Conditions	Personal Finances	Business Outlook 12 Months	5 Years
February 1972	88.3	104	136	126	131	95
February 1973	81.4	106	136	118	100	72
February 1974	60.9	88	121	100	45	46
2-year Index point loss	-27.4	-16	-15	-26	-86	-49
February 1977	87.5	99	141	121	115	97
February 1978	84.3	106	139	109	108	89
February 1979	73.9	99	138	98	75	71
2-year Index point loss	-13.6	0	-3	-23	-40	-26

Personal Financial Outlook Bleakest Recorded

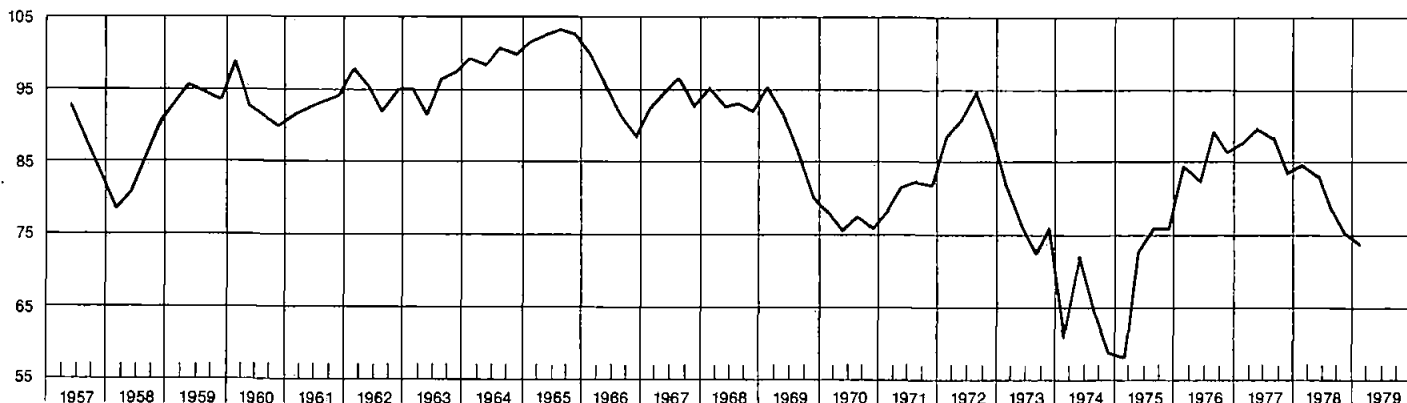
In the years following the 1974-75 recession, personal financial evaluations never regained the favorable levels recorded earlier in the 1970s or the 1960s. In early 1979, one-third of all families reported being better off financially, one-third reported being worse off than a year earlier, and one-third reported that their financial condition had remained about the same. Compared with a year ago, approximately the same proportion of families reported being better off in February 1979 (34 percent), while the proportion who reported being worse off financially increased from 27 to 35 percent. This increase in unfavorable evaluations can be traced to more frequent references to higher prices making families worse off financially, increasing from 1 in 4 in February 1978 to 1 in 3 in February 1979. Compared with two years ago, the February 1977 and 1979 readings were almost identical.

Although consumer evaluations of their current financial situation remained largely unchanged, expectations for improvement have declined significantly. The February 1979 survey found expected changes in personal finances to be less favorable than in any previous quarterly survey, with deterioration rather than improvement in personal finances expected more frequently (26 versus 24 percent). Last year at this time, favorable exceeded unfavorable expectations by 26 to 17 percent. This sharp deterioration has resulted from heightened price expectations more than offsetting expected increases in nominal incomes.

Reports of expected increases in family income continued to be widespread in early 1979. In the February survey, 23 percent of all respondents expected their income to increase by 10% or more during the next year, up from 18 percent in February 1978. Among families with incomes of \$15,000 or more, 31 percent expected their income to increase by 10% or more during the next 12 months, in both the February 1979 and February 1978 surveys. High-income families more frequently expected their incomes to increase by 6-9% in February 1979 (20 percent) than in February 1978 (13 percent), and less frequently expected their income to remain the same or de-

INDEX OF CONSUMER SENTIMENT

February 1966 = 100



Note: Shaded areas indicate recession periods as designated by the National Bureau of Economic Research, Inc.

cline (21 percent in February 1979, down from 28 percent in February 1978).

Despite this maintenance of favorable income expectations, expectations of declining *real* incomes have grown significantly during the past year. In February 1979, 49 percent of all families expected prices to go up by more than their income, compared with 38 percent who held similar views in February 1978. In contrast to the more than 60 percent of all families who expect nominal income increases (79 percent among high-income families), just 10 percent of all families (17 percent among high-income families) expect real income increases during the next year.

Evaluations of personal financial conditions over a longer time horizon have also grown less favorable during the past year. In February, 50 percent of all families reported that their current financial situation was better than 5 years ago, compared with 33 percent who reported being worse off financially. This distribution of responses is less favorable than in May 1977 but nearly identical to the November 1977 reading (see Table 2). Since 1977, expected changes in personal finances during the next 5 years have *slowly* grown less favorable, in contrast to the more rapid declines in near-term expectations. In February 1979, 37 percent of all families expected to be better off financially in 5 years (42 percent in May 1977), and 22 percent expected to be worse off financially (16 percent in May 1977).

**Table 2. EVALUATIONS OF
PERSONAL FINANCIAL CONDITIONS**

	May 1977	Nov. 1977	Feb. 1977
	Compared with 5 Years Ago		
Better	54%	52%	50%
Same	15	14	15
Worse	29	33	33
Don't know, not ascertained	2	1	2
	100%	100%	100%
	Expected Change in 5 Years		
Better	42	39	37
Same	33	34	34
Worse	16	15	22
Don't know, not ascertained	9	12	7
	100%	100%	100%

Near-Term Business Expectations Reach Record Low

Increasingly unfavorable news of business developments have been heard and recalled by respondents during the past two years. In February 1977, favorable news items were reported about as frequently as unfavorable items. A year later unfavorable items were reported twice as frequently, and in February 1979 three times as frequently (61 versus 21 percent).

The majority expect bad times financially in the economy as a whole during the next 12 months (54 percent) and 5 years (52 percent). These readings remained largely unchanged in early 1979 from the second half of 1978, but are significantly less favorable than year-ago readings. Among high-income families, the change in the

balance of business expectations represented a complete reversal of opinion: in February 1978 the majority of high-income families expected good times financially (51 versus 29 percent); in February 1979 the majority expected bad times financially by the same margin (29 versus 51 percent).

More than twice as many consumers in February 1979 reported that they expected business conditions to worsen rather than to improve during the next 12 months (34 versus 14 percent), a record low reading. This represents a significant decline from a year ago when improvement rather than deterioration was more frequently expected by a margin of 27 to 16 percent. Greatly heightened price expectations played the dominant role in severely depressing prospects for business conditions. On average, respondents reported that they expected prices to increase by 10.7% during the next 12 months, up from the 8.9% recorded in the November 1978 survey and 7.8% recorded in February 1978. This replicates the record peak in price expectations recorded in November 1974 (see the chart on page 45).

Reports of expected changes in the level of unemployment were similar in the February 1979 survey to late 1978, with one in three expecting increased unemployment during the next 12 months, although significantly less favorable than a year ago. Inflation rather than unemployment, however, continues to be reported as the more serious economic hardship facing the nation by a margin of 67 to 24 percent.

Buying Attitudes Remain Favorable

In contrast to the unfavorable business evaluations held by the majority of consumers, favorable attitudes toward market conditions for durable goods were reported by 61 percent (71 percent among high-income families), favorable house-buying attitudes were held by 49 percent (55 percent among high-income families), and favorable car-buying attitudes were held by 43 percent (48 percent among high-income families). Overall, market attitudes have improved since late 1978, and in February were nearly equal to year-earlier readings.

Underlying the overall maintenance of favorable buying attitudes have been widespread reports of buy-in-advance rationales. In February 1979, 35 percent of all respondents said buying conditions for household durables were favorable because prices would only go higher in the future, up from 29 percent in February 1978 and 27 percent in February 1977. With regard to the automobile market, 29 percent reported buy-in-advance rationales in February 1979, up from 25 percent a year earlier. Higher car prices have also increased unfavorable evaluations of the automobile market during the past year, and their frequency now nearly equals buy-in-advance rationales. Although one in three consumers continue to mention buy-in-advance rationales when evaluating market conditions for houses, references to high interest rates increased to 22 percent in February 1979 from 8 percent in February 1978, resulting in significantly less favorable buying attitudes.

Respondents were questioned in the February 1979 survey whether they would be reluctant to use savings or take on new debt to make a major purchase. Both then and in February 1978 similar proportions (29 percent) re-

ported that they thought it would be "okay" for them to use their savings. As shown in Table 3, these predispositions toward the use of savings have remained largely unchanged since 1976. Reluctance to use credit to finance new purchases grew somewhat during the past year, especially among families with incomes of \$15,000 and over. From February 1978 to February 1979, the proportion who reported that it would be "okay" to use credit fell from 32 to 23 percent, while the proportion who reported being reluctant to use credit increased from 65 to 74 percent.

Summary Outlook

The survey data indicate that consumers' fears of inflation, at an all-time record level in February 1979, have resulted in the least favorable evaluations of expected changes in personal finances and business conditions recorded in these surveys. Fears of inflation, however, have not up to now significantly depressed buying attitudes. Buy-in-advance psychology continues to uphold favorable buying attitudes and has acted to postpone sharp declines in spending. Inflation has thus become the single dominating correlate of both mounting pessimism and continued spending.

Heightened fears of inflation will not subside with the onset of a recession, since consumers associate recessions with high rates of inflation rather than with any

Table 3. OPINIONS ABOUT THE USE OF SAVINGS OR CREDIT TO MAKE LARGE EXPENDITURES

	Feb. 1976	Feb. 1977	Feb. 1978	Feb. 1979
All Families				
Okay to use savings	28%	33%	28%	29%
Reluctant to use savings	51	50	54	57
Okay to use credit	20	22	20	16
Reluctant to use credit	74	70	77	82
Families with Incomes of \$15,000 and Over				
Okay to use savings	33	42	38	39
Reluctant to use savings	53	50	55	56
Okay to use credit	30	31	32	23
Reluctant to use credit	64	64	65	74

consequent declines. Moreover, few consumers expect actual or relative price declines for houses and cars. Consequently, buy-in-advance rationales are likely to persist, even as income uncertainty argues for postponement.

These trends in consumer attitudes and expectations are consistent with developing but limited declines in consumer spending during 1979, although the widespread pessimistic outlook among consumers points toward an increasing potential for more sizable declines in sales.

March 1979

The Economy Under Stress and Business Investment

Victor Zarnowitz
Professor of Economics and Finance
The University of Chicago

The Current Situation and Prospects

The economy operates at near full resource utilization, except for stubbornly high youth unemployment. The declining jobless rate for adult men is approaching levels observed during past boom periods, and employment is higher than ever relative to the total population of working age. The rates of capacity utilization in manufacturing and, particularly, for materials appear to be rising and high by historical standards. Rapidly increasing backlogs of unfilled orders have reached record levels, and lengthening delivery periods are reported by most purchasing executives. In 1979:1 inflation accelerated to two-digit annual rates for both consumer and producer prices. Fears of price controls and tighter energy supplies, as well as the increasingly strained general supply conditions, may well have contributed to the worsened inflation figures.

While actual output has increased faster than expected, estimates of productivity and growth of potential output have been lowered. None of the current signs of the narrowing gap between the actual and the full-employment output are inconsistent with the prevailing forecasts of a weakening economy. Indeed, these predictions find support in the fact that several important lead-

ing indicators declined and several important lagging indicators rose sharply in the most recent months covered by the data. Such developments typically foretell a deterioration in the short-term outlook on both the demand and the supply side: slower growth of sales and faster increase in costs of labor, capital, and materials threaten profit margins and depress business expectations. And it is, of course, precisely at the time when the economy comes close to the capacity "ceiling" that events are likely to take this turn.

Moreover, economic policies are now presumably designed to bring about a substantial slowdown, though not a recession. The lower and sporadically negative growth rates in the monetary aggregates reflect in part the recent institutional and legal changes causing reduced demand for M_1 , in part the Fed's policy restricting the growth in the supply of reserves to the banking system. The Federal budget projections lean toward conservatism, and, in fact, the deficit of the Federal government declined in 1978 to levels that are very close to those of the total surplus of state and local governments.

All of these factors, however, work with varying but sizable lags, and there is probably still a good deal of momentum in the economy. Let us recall that each of the six recessions since 1948 was preceded by a short period

of low but positive growth (on the last two occasions, in the 1970s, these slowdowns lasted about nine months each, but the earlier ones averaged four months). Thus history suggests that an imminent downturn is unlikely; for the present and the immediate future a transition to a low-growth phase is much more probable. Indeed, the first signs of a slowdown may already be emerging in the most recent readings on industrial production and real personal income and sales (these refer to January and, in a very fragmentary and preliminary way, to February). If a major retardation develops, which is very likely, the chances that it will turn into a recession are high but still not overwhelming.

In the past, forecasts of recession were rare; the present situation is most unusual in that such forecasts are numerous and spreading. Fears have been expressed that this may create pessimistic expectations among businessmen and consumers, which could prove self-fulfilling by leading to cutbacks in spending. This is debatable on several grounds: for example, it is evident that the overly optimistic predictions in late stages of past expansions did not prevent recessions by encouraging spending, so the argument suggests an asymmetry the reasons for which are not clear. Presumably, economic agents are motivated primarily by the particular (micro) circumstances and incentives they face rather than by the general (macro) expectations they may share. But it also seems that they are increasingly aware of the importance of general economic changes and policies, so the influence of macroforecasts, which are now widely used, may be on the rise. The more convergent the forecasts, the greater should be their net overall impact. However, all of this is quite speculative: the truth is that very little is known yet about these highly interesting but complex matters.

Business Investment Spending and Capital Formation

Among the currently strongest indicators are new orders received by capital goods industries (nondefense) and commercial and industrial construction contracts. These are for the most part firm commitments, so when they run high the levels of business capital spending in the near future should be high, too. But not all of the increase in these outlays results in additional productive capacity or improved efficiency: much gets dissipated in rising prices and a sizable portion represents spending to comply with government regulations on air, water, solid waste and other pollution abatement and control (PAC). Moreover, business capital investment in constant dollars has long been relatively weak in the present expansion. After a sharp drop during the late stages of the recession in 1974-75, it revived sluggishly during the recovery in 1975-76. This applies particularly to investment in structures, which was throughout this period much weaker than investment in equipment (but one must note that it is often difficult to estimate well the two separately).

The average rate of new (real) capital formation in the U.S. is widely regarded as less than would be desired for the sake of an economy with more sustained growth, higher productivity, and less inflation in the long run.

Several culprits are suggested:

1. The sharp increases in fuel prices have altered the relative costs of the different production factors. Given the new price structure and government regulations to conserve energy, firms adjust input patterns in efforts to minimize unit costs. These adjustments involve less use of energy and, on balance, of capital services, compensated by more use of labor.
2. Rises in the supply price of new capital goods have had a depressing effect on the desired stock of capital. Since 1974, the costs of producing equipment, and particularly of plant construction, have risen considerably faster than the general price level. At the same time, the rather disappointing developments in the equity market would suggest that the aggregate value of the existing stock of corporate plant and equipment has increased much less than the cost of new capital goods.
3. The present accounting practices and tax laws evolved in times of relatively stable prices; they are to a large extent not suited to an economy with the recent rates of inflation, where they cause large overstatements and excessive taxation of capital gains and business profits. Because of inflation and inadequate accounting for inventory valuation and capital consumption (depreciation), business concerns pay taxes on high nominal incomes which actually represent low or even negative real incomes. In fact, business concerns (like individuals) now often pay taxes on income they did not earn, which means that the taxes are really paid out of capital.
4. The composition of business investment has been changed by the PAC regulations, the government restrictions and rules in the energy field, and the various associated uncertainties, confusions, and litigations. According to many analysts, the shifts impose additional costs on the producers, which result in higher prices to the consumers; they reduce the growth of capacity and productivity. On the other hand, there are the hoped-for gains in healthier, safer, and generally more attractive environment that ultimately outweigh the above shorter-term costs in the thinking of many environmentalists, regulators, and others.

In this limited space, I can only touch on some aspects of these interrelated developments. The rising fuel prices are clearly going to be with us for some considerable time. Our overadvertised "energy policy" is for the most part either futile or counterproductive, and little good will probably come from further improvisations along the same lines. Unfortunately, the problem is an immediate and growing one, whereas the remedies—development of new sources of, and substitutes for, energy—are of the long-run nature. There is simply no desirable nonmarket treatment for the effects of changes in relative prices of input factors (points 1 and 2 above). The situation is entirely different with respect to the tax factor (point 3), where legal remedies exist and are actively promoted and much debated at the present time. Here the solution lies in adjusting the tax rates and rules so as to allow for the effects of inflation on incomes and balance sheets.

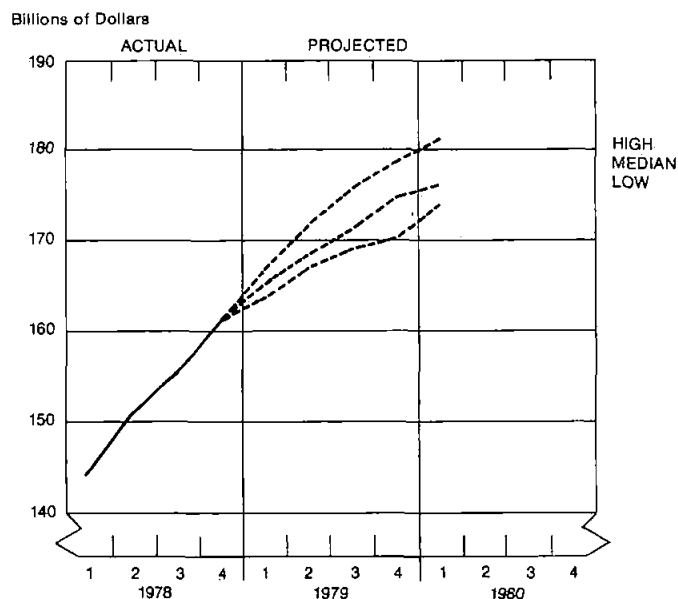
Estimates of Antipollution Expenditures

The available estimates of national antipollution (PAC) expenditures are incomplete and the total cost of the program is uncertain. The latest government figures show overall outlays of \$24.5 billion in 1972 dollars for 1977, up about 2 percent from 1976. This is much less than the nearly 6 percent average annual gain during 1972-77. As the compliance with the regulations continues and the standards and deadlines are gradually met, one would expect these expenditures to grow more slowly, and they do. For "pollution abatement" outlays, a breakdown by sectors is available. In 1977 the PA subtotal was \$23 billion, of which nearly \$14 billion (61%) was accounted for by business, somewhat less than half of it on capital account. The latter estimate amounts to about 5 percent of total nonresidential fixed investment in 1972 dollars. The average proportion for the years since 1972 is similar. It is important to note that these figures understate the total costs to business of regulatory compliance. For example, there are no data on investment projects that were rejected, postponed, or cancelled in connection with the government regulations in this area.

The Near-term Investment Outlook

The strength of business fixed investment apparent in the recent data on new capital appropriations and commitments cannot be projected beyond the near future. It certainly does not preclude a downturn in real expenditures on plant and equipment in the second half of the year, which would be consistent with an early recession. The swing in these outlays would then be expected to exceed that in total output both before and after the peak, as happened typically during past business cycles. Investment in plant and equipment would suffer a setback

BUSINESS CAPITAL OUTLAYS



even in the case of a major slowdown without a recession, but its decline would then be smaller and probably somewhat delayed. For 1979 as a whole, business capital outlays in constant dollars may show considerably more growth than real GNP, perhaps as much as 3 to 4 percent. In the longer run, much will depend on the greatly needed encouragement of saving, innovation, and capital formation through selected tax reform and deregulation measures.

March 1979

Evaluating the Quality of Employment

Graham L. Staines, Stanley E. Seashore,
and Joseph H. Pleck*
Survey Research Center
The University of Michigan

Conducted in late 1977 by the Institute for Social Research and sponsored by the U.S. Department of Labor, the 1977 Quality of Employment Survey includes an expanded array of questions concerning certain work-related issues of current interest to trend-watchers and to those interested in emerging new issues. A household sample was drawn to represent workers 16 years or older, employed 20 hours or more per week for pay, and living in the conterminous 48 states. Because it is representative of employed members of the nation's labor force, the sample includes workers in a wide variety of occupations and industries.

The survey was modeled in large part upon similar sur-

veys of 1969 and 1973, thus providing some early evidence regarding changes that may be occurring in the workplace, as well as certain related information that refers only to the late months of 1977. The interview refers to a broad array of topics concerning the quality of employment as it is experienced by the American worker. This brief report, however, deals with only three topics: working hours and schedules, attitudes toward labor unions, and interference between work and family life.¹

¹The information is reported more fully, along with the rest of the survey data, in *The 1977 Quality of Employment Survey: Descriptive Statistics, with Comparison Data from the 1969-70 and 1972-73 Surveys* by Robert P. Quinn and Graham L. Staines. (Ann Arbor: Institute for Social Research, 1979.) Persons interested in analyzing data from these surveys can obtain data tapes and documentation from the Inter-university Consortium for Political and Social Research, Box 1248, Ann Arbor, Michigan, 48106.

*Dr. Pleck is now with the Center for Research on Women, Wellesley College.

Working Hours and Schedules

Amount of Time Spent Working

The "forty-hour week" persists as the prevalent conception of a "normal" work week and, indeed, more workers report working 40 hours than any other single number. However, the surveys reveal a distinct and significant decline between 1969 and 1977 in the proportion of people working exactly 40 hours per week on their main job (from 39 percent to 30 percent) and increases in the proportions working more than 40 hours (from 39 percent to 42 percent) or less than that amount (from 22 percent to 28 percent). Taking a broader range of hours (i.e., 35-44) as "normal," there is still a significant decline in the proportion of people working such a "normal" work week (from 57 to 51 percent). One might think that these changes reflect sex differences in work-hour preferences or in the labor force composition, but this is not the case. The same pattern of changes applies to both men and women, with a decline in the proportions working exactly 40 hours per week and with compensating changes of similar magnitude and directions.

Of course, not all time spent at work is time spent working. Yet, trends aside, the 1977 data indicate that workers take off very little time for personal activities during a regular work day. Among full-time workers, for example, 60 percent spend no more than 30 minutes a day on meal breaks. Nor do workers take off much time during an average work day on regular coffee breaks or scheduled rest breaks. Almost 40 percent of all full-time workers get no such time off, and over 70 percent get less than half an hour. Workers were also asked how much additional time they spend on things like talking to friends, doing personal business, or just relaxing. Among full-time workers, 45 percent report no time off at all, and two-thirds report less than half an hour. By way of comparison, among part-time workers (i.e., 20-34 hours per week) the use of time during an average work day for these various personal activities is even more restricted: Almost a third of all part-time workers (versus 8 percent of all full-time workers) report no time off for meal breaks; and almost a half of all part-time workers (versus 39 percent of all full-time workers) report no time off for coffee or rest breaks. By their own accounts, workers spend virtually all of their time at work on the tasks for which they are paid.²

Control Over Work Schedule

Another important dimension of working hours concerns the extent to which workers have control over their work schedules, including, for example, control over their own overtime work. Between 1969 and 1977 there was an overall increase in the percentage of workers reporting control of their overtime hours. More workers in the third survey place themselves in the top two categories of control over overtime (mostly up to worker whether he or she works overtime; both worker and employer determine, but worker can refuse without pen-

alty), up significantly from 36 percent in 1969 to 52 percent in 1977. Fewer workers fall into the middle category of control over overtime (mostly up to employer but worker can refuse without penalty), down significantly from 46 percent in 1969 to 29 percent in 1977. The percentage of workers reporting the lowest level of control over overtime (mostly up to employer and worker can *not* refuse without penalty) remained fairly constant between 1969 and 1977 at about 16 percent. The percent of workers reporting some kind of problem concerning "... the hours you work, your work schedule, or overtime" rose nonsignificantly between 1969 and 1977 (from 30 percent to 34 percent) but the nature of these problems appears to have changed. Of the total *number of problems* mentioned, inadequate control by workers over their hours (excluding the issue of overtime) rose dramatically from 4 percent of the problems in 1969 to 16 percent in 1977. Beyond the issue of trends, additional evidence of worker concern regarding control over working hours comes from data available only in 1977 on several other schedule-related problems. The key observation here is that lack of control over conditions very often appears to be a problem, even though the conditions themselves are not currently a problem. For example, lack of control over days worked (77 percent) is a problem more frequently than is working on days that do not suit the worker (12 percent); and lack of control over hours worked (72 percent) is higher than unsuitability of actual hours worked (19 percent).

Such evidence points to a sizeable constituency among workers that would be receptive to flexitime and other experimental innovations through which workers could help determine their own work schedules. Indeed, 78 percent of workers in the 1977 sample believe that non-supervisory employees should have at least "some" say about their work schedules.

Attitudes Toward Labor Unions

Trend data are not available on most union issues because the questions asked in 1977 differ from, and are more numerous than, those asked in the previous surveys. By and large, workers in the 1977 sample express positive attitudes toward labor unions, as revealed in their perceptions of the goals of unions in general and also as indicated by their assessment of the performances and priorities of their own unions.

Goals

Based on an open-ended question about union goals, all workers were asked what they thought unions in this country are trying to do. Among union members, 66 percent mention *only* positive things such as improving conditions for members or promoting fair treatment, whereas 15 percent mention *only* negative things including self-aggrandizement for unions or their officers. Among the nonmembers, the corresponding figures are 45 percent and 28 percent, respectively. Table 1 shows how these responses for members and nonmembers compare, when aggregated into gross positive and negative categories. It appears that workers' views are somewhat polarized, with a small minority attributing harmful intentions to unions.

²But see Stafford and Duncan, "Market Hours, Real Hours, and Labor Productivity," in the Autumn 1978 issue of this journal (5:4, 74-75), for another measure of time spent "at work" on the job.

Table 1. WORKERS' BELIEFS ABOUT UNION GOALS

"People have different ideas about what labor unions in this country are trying to do. What do *you* think are the main things unions are trying to do?"

Goals	Percentage of Goals Mentioned*	
	Union Members	Nonmembers
Specific Improvements in Working Conditions (wages, hours, security, health/safety, physical conditions, retirement/pensions, etc.)	60.6	47.8
Social Justice (represent workers, secure fair treatment, promote workers' dignity, protect workers from exploitation, etc.)	15.0	10.8
Self Aggrandizement (build the unions, get political power, get economic power, control the labor supply, etc.)	5.7	7.8
Harm Employers (make unfair demands, hurt business, dominate business firms, etc.)	4.5	8.5
Social Malevolence (create inflation, hurt the country, create problems, ruin the country, hurt the workers, etc.)	6.0	13.2
Other	8.2	11.9

*The percentages refer to 1,080 responses (weighted) given by 383 union members and 2,735 responses (weighted) given by 1,128 nonmembers. This table is adapted from Table 11.2 in *The 1977 Quality of Employment Survey*, op. cit., p. 180.

Performance

Union members were asked to evaluate the overall performance of their own unions, and the extent to which their union's priorities matched their own sense of what the union should do. By way of overall evaluation, members express a high degree of satisfaction with their own unions. Among white collar workers, 77 percent report that they are "somewhat" or "very" satisfied, whereas for blue collar members the figure is 71 percent.

Members give particularly high marks to their unions for their handling of traditional union functions. About three-quarters of the members, both white collar and blue collar, say their union does a "somewhat" or "very" good job in getting better working conditions, including better wages, better fringe benefits, improved safety and health, and improved job security. Members feel less positive about their union's handling of non-traditional matters: helping to make jobs more interesting, getting workers a say in how they do their jobs, and getting them a say in how their employing organization is run. Only a third to a half of workers say their unions do a good job on these matters. As to the responsiveness of unions to their members—for example, in keeping members informed and in handling grievances—members rate their own union's performance favorably. An exception concerns "giving members a say in how the union is run," for which the ratings are "very" or "somewhat" good among only 65 percent of the white collar workers, and among blue collar workers even lower, at 52 percent. Across this roster of union activities, white collar members rate their union's performance somewhat more favorably than do blue collar members, although the differences are not large.

Priorities

As noted, these data display a pattern of union member evaluations in which their unions are seen as performing well at providing the *extrinsic* benefits of work (pay, fringe benefits, etc.) but not so well at providing the *intrinsic* benefits, such as having interesting work, having some say in running their employer's business, and having a say in how they do their jobs. In contemporary public debate concerning the qualities of working life, it is often argued that workers generally need and want more interesting work, more democracy at the workplace. The foregoing data may suggest to some readers that unions are lagging behind their membership in addressing such "new" concerns of workers. This is plainly not the case, however.

When workers in the sample were asked to rate 10 areas of union activity as to how much effort their own union *should* give to each of them, the rank order of members' priorities matches very well the rank order of rated union performance (Table 2). To illustrate with extreme cases: white collar union members strongly say (81 percent) that their union *should* give "a lot of effort" to handling members' grievances, and also say (47 percent) that their own union does a "very good" job in grievance handling; this union activity rates at the top of the list for both "should do" and "does do." Conversely, the activity "helping to make jobs more interesting" is at the bottom in both ratings for white collar workers. In between such top- and bottom-ranked union activities, there are few discrepancies between workers' own priorities for their unions, and their unions' priorities as implied by ratings of actual union performance. There are only two discrepancies worth noting: first, blue collar workers give a

Table 2. RANK ORDER OF UNION MEMBERS' PRIORITIES AND THEIR UNIONS' PERFORMANCES*

Union Activity	Union Should Give "a Lot of Effort"		Union Does a "Very Good Job"	
	White Collar	Blue Collar	White Collar	Blue Collar
	1	1	1	2
Handling members' grievances	1	1	1	2
Telling members what union is doing	2	2	2	4
Getting better wages	3	6	3	1
Getting better fringe benefits	4	3	4	3
Giving members say in how union is run	5	4	7	7
Improving job security	6	5	5	5
Improving safety and health	7	7	6	6
Getting workers say in how they do job	8	9	8	8
Getting workers say in how organization is run	9	10	9	9
Helping make jobs interesting	10	8	10	10

*In some instances, adjoining rank orders are based on small and insignificant numerical differences. This table is derived from Tables 11.9 and 11.10 of *The 1977 Quality of Employment Survey*, op. cit., pp. 186-189.

middle ranking to the union activity of getting higher wages, but see their unions as doing this best of all; second, both white and blue collar workers would like more emphasis given to providing members a say in how the union is run. By and large, however, unions appear to be doing what their members want them to do.

The foregoing data on priorities for union efforts should not be interpreted as indicating that union members care little about the "intrinsic" qualities of their jobs. In fact, evidence from other parts of the survey reveals that members are quite concerned about such matters. What the data on union priorities do suggest is that union members do not look to their unions for major efforts to improve intrinsic factors.

Future Trends

Some clues to possible future trends in union membership may be derived from the surveys of 1969, 1973, and 1977. For one thing, a continuing decline in union members as a percent of the work force is confirmed. The percentage of blue collar workers who are members of unions (or of employee associations of similar purpose) declined from 45 percent to 41 percent between 1969 and 1973, and further to 33 percent in the 1977 sample. For white collar workers the percentages are 21, 22, and 16 for the same succession of years. Some part but not all of the decline is accountable in terms of increases in the number of people who are employed, and the changing mix of jobs. Furthermore, workers who are members do not necessarily remain members: in the 1977 sample, about 30 percent of both white collar and blue collar workers who are not now union members were members at some prior time. In making estimates of future union membership, it might be more useful to consider preferences and intentions, rather than past events. Nonmembers were asked: "If an election were held with secret ballots, would you vote for or against having a union or employees' association represent you?" Among white collar workers 29 percent say they would vote for union representation; among blue collar respondents, the figure is 39 percent. There is plainly a significant potential for increased union membership and representation if these pro-union workers are concentrated in like-minded clusters, but perhaps not if they are dispersed throughout the workforce.

Interference Between Work and Family Life

The questions on the relationship between work and family life were asked only in the 1977 interview; no trend data, therefore, are available. Such questions concern overall rates of interference between work and family life, as well as the specific nature of the interference. Data are presented here first for all workers living with family members, and, subsequently, for various subgroups of this population.

Asked only of workers living with a spouse and/or children under 18, a closed-ended question was used to tap workers' perceptions of the degree of conflict between their work and their family life: "How much do your job and your family life interfere with each other?" The response categories provided were "a lot," "somewhat," "not too much," and "not at all." Workers indi-

cating that their work and family life interfered with each other either "a lot" or "somewhat" were asked an open-ended follow-up question: "In what ways do they interfere with each other?" Responses to this open-ended question were coded into 25 detailed categories, with each response receiving up to three codes, and subsequently collapsed into the following seven categories: 1) *excessive amount of work* prevents worker from spending enough time with family; 2) *work schedule* interferes with family life; 3) *uncertainty of work schedule* interferes with family life; 4) *other time conflicts* between work and family, not further specified; 5) work consequences such as exhaustion, irritability, or psychological preoccupation *spill over* into family life; 6) *amount of travel* required by the job interferes with family life; 7) *vacation schedule* is inconvenient or worker does not get enough vacation.

Overall Work-Family Interference

Table 3 presents frequency distributions on the basic closed-ended work-family interference question for the total sample and for various subgroups. As indicated in the table, about one-third of workers experience work-family interference to either a moderate ("somewhat") or severe ("a lot") degree. There is some variation in the incidence of work-family interference among the various subgroups. The most consistent trend is, as might be ex-

Table 3. DEGREE OF WORK-FAMILY INTERFERENCE, FOR TOTAL SAMPLE AND SELECTED SUBGROUPS^a

Group	Work-family Interference Occurs:			
	Not at All	Not Too Much	Somewhat	A Lot
Total sample ^b	24.3%	41.3%	24.0%	10.4%
Employed husbands	25.9	40.4	23.6	10.1
Wife employed	26.7	41.8	21.0	10.5
No children	35.1	37.1	20.3	7.4
Youngest 0-5	22.9	41.3	22.9	12.8
Youngest 6-17	20.0	46.8	20.7	12.3
Wife not employed	25.0	38.7	26.6	9.7
No children	35.0	38.7	20.0	6.3
Youngest 0-5	20.4	32.8	37.1	9.7
Youngest 6-17	20.3	45.6	20.9	13.3
Employed wives	22.5	40.5	26.5	10.5
Husband employed	22.9	39.1	27.7	10.4
No children	37.1	33.7	18.5	10.7
Youngest 0-5	11.8	40.3	36.1	11.8
Youngest 6-17	16.3	43.5	31.0	9.2
Husband not employed	18.6	55.8	14.0	11.6
Employed female single parents	17.0	58.0	13.6	11.4
Youngest 0-5	18.6	55.8	9.3	16.3
Youngest 6-17	15.6	60.0	17.8	6.7

^aPercentages are based on weighted sample.

^bAll with spouse and/or children under 18 in household.

pected, that workers with children, especially preschool children, experience interference more frequently than do other workers. This difference is in fact statistically significant and it is significant within both sexes. It is of interest that, comparing those without children to those with children, being a parent increases the combined incidence of moderate and severe interference by about 7 percentage points among husbands in dual earner families, 19 points among sole-breadwinning husbands, and 10 points among wives with employed husbands. It should also be observed that, in this sample of workers in families, parents outnumber nonparents by about two to one. These two observations lead us to conclude that in terms of both intensity and proportion of total prevalence, work-family interference in our society is a phenomenon particularly characteristic of working parents. In other words, a large number of what are thought of as work-family conflicts are really work-parenting conflicts.

Workers' reports of work-family interference are, interestingly, not related to several other plausible explanatory factors. There is no appreciable difference between employed husbands and employed wives in the incidence of work-family interference. Spouse's employment status does not appear to make much of a difference. Perhaps most surprisingly, female single parents do not register more work-family interference than married workers with youngest children in the same age range. The absence of higher rates of work-family interference among employed wives and employed single parents than among employed husbands can be interpreted in at least two ways. These two female groups might be less willing than employed husbands to acknowledge interference, perhaps because they feel that others will use any acknowledgement of such problems as evidence that they should not be working. Alternatively, those employed wives and employed single parents who experience the greatest interference may leave the workforce. That is, in these two groups, there may be a selective "exiting" from the sample of those experiencing the most interference, so that the level of interference among those remaining is an underestimate of its true incidence.

Specific Work-Family Interference Problems

Table 4 presents the percentages of those workers indicating moderate to severe interference who report the various specific work-family interference problems. The first four problem categories all concern various aspects of time interference, and these categories account for the majority of the specific problems reported. Exactly half the total sample with moderate or severe interference report excessive work time as a specific problem, and slightly more than a quarter report incompatibility between their work and their family schedules. Uncertainty about work schedule is reported by about 5 percent, and other time problems by 14 percent. Of the remaining three categories, only one, physical and psychological work "spillover" (exhaustion, irritability, and psychological preoccupation), is evident as moderate or severe interference among any appreciable proportion of the total sample (nearly 15 percent). The two remaining categories (not shown in the table), concerning work

travel and vacation-related problems, are each reported by fewer than 5 percent of the sample.

Examining these relative frequencies suggests that the principal forms of work-family interference or conflict involve the time and scheduling demands imposed by work on the family, and work spillover. Insofar as we can tell from workers' own reports, interference is predominantly experienced as an interference of work with the family rather than the reverse. For example, the high rates in the categories of excessive work time and work spillover suggest that work-family interference typically originates in the workplace and impinges on the family.

When the various subgroups are compared on the incidence of specific interference problems, three interesting sex differences are evident. First, employed men are more likely than all groups of women to report excessive work time as a specific manifestation of work-family interference. Second, women are more likely than men to report work-family schedule incompatibility. Third, women are also more likely to say that negative physical or psychological consequences of work spill over into their family life. All three differences are statistically significant.

Employed female single parents show what may be speculatively interpreted as an extreme version of the general female pattern, or as the endpoint of a continuum ranging from husbands to wives to female single parents. Among men, reports of excessive work time exceed re-

Table 4. PREVALENCE OF SPECIFIC WORK-FAMILY INTERFERENCE PROBLEMS, FOR TOTAL SAMPLE AND SELECTED SUBGROUPS^a

Group	Excessive Work Time	Schedule Incompatibility	Work Schedule Uncertainty	Time, Not Further Specified	Work Spillover
Total sample ^b	50.0% ^c	28.0%	4.5%	14.1%	14.8%
Employed husbands	59.1	20.4	6.7	14.6	8.8
Wife employed	62.8	22.4	6.4	11.5	10.9
No children	52.8	31.4	5.7	13.2	15.1
Youngest 0-5	65.8	42.1	5.3	5.3	10.5
Youngest 6-17	69.2	12.3	7.7	13.8	7.7
Wife not employed	55.8	18.6	7.0	17.4	7.0
No children	57.5	22.5	5.0	20.0	5.0
Youngest 0-5	53.1	19.8	7.4	18.5	7.4
Youngest 6-17	58.8	13.7	7.8	13.7	7.8
Employed wives, husband employed	38.7	38.7	0.0	12.5	27.4
No children	36.4	31.8	0.0	4.5	43.2
Youngest 0-5	26.4	41.5	0.0	20.8	26.4
Youngest 6-17	49.3	40.8	0.0	11.3	18.3
Employed female single parents	10.0	50.0	5.0	10.0	15.0

^aPercentages are based on weighted sample.

^bAll with spouse and/or children under 18 in the household.

^cPercentage of group reporting "somewhat" or "a lot" of work-family interference indicating this specific type of interference. Since workers may have more than one interference problem, row percentages can total more than 100%.

ports of schedule incompatibilities by nearly two to one; among employed wives they are equal; among employed female single parents, reports of excessive work time are outnumbered by schedule incompatibility five to one—a complete reversal of the employed husbands' pattern. Thus, the ratio of reports of excessive work to those of schedule incompatibility varies markedly in these three

groups. Though employed wives are intermediate between employed husbands and employed female single parents in this comparison, there is another respect in which employed wives are distinctive. Over a quarter of them report work "spillover" in the form of adverse physical or psychological consequences of work, a higher proportion than any other group.

Consumer Attitudes and Perceptions and Automobile Fuel Economy Standards

Daniel H. Hill and Martha S. Hill
Survey Research Center
The University of Michigan

The fuel economy standards mandated under Title V of the Vehicle Information and Cost Savings Act of 1974 constitute one of the first pieces of the national energy program to be put in place. These standards, which originally applied primarily to passenger vehicles, compel domestic manufacturers to meet increasingly stringent fuel economy standards or face substantial financial penalties. The target set forth in the act is a sales-weighted fleet average of 27.5 miles per gallon by the model year 1985. In effect, this goal forces domestic manufacturers to produce a European-style automobile. Whether or not the American consumer will accept such an automobile in the absence of European-style petroleum prices is a question yet to be answered.

The mere fact that manufacturers must be compelled to alter current vehicle characteristics in order to improve fuel economy indicates that the American consumer has a well-developed taste for large, heavy, relatively inefficient passenger cars. For Title V to be successful consumers must be willing to make some sacrifices. Because the standards apply only to certain classes of new vehicles, prospective automobile buyers have a number of alternatives to the fuel efficient passenger vehicles being offered by domestic manufacturers. These alternatives range from shifting to larger car classes than would otherwise be bought or to trucks, vans, or other nonpassenger vehicles, to delaying the purchase decision by holding on to existing fuel inefficient automobiles. The success of the program mandated under Title V depends crucially on which alternatives are chosen by the consumer. Thus, while the fuel economy standards are mandatory for manufacturers, their actual success depends to a certain extent on the willingness of consumers to make voluntary sacrifices.

The consumer's response to the type of vehicle being produced in order to comply with the fuel economy standards depends on his or her attitudes and perceptions about a large number of factors specific to the automobile itself and to the market in general. Over the years the Survey Research Center has collected a great deal of attitudinal and perceptual information on many of these factors. In the following pages we examine this information from the point of view of its implications toward the success of the fuel economy standards program.

Perceptions of the Need for Resource Conservation

The goals of the program are to increase the fuel economy of the American vehicle fleet so that our limited supplies of fossil fuels, in particular petroleum, will last until alternative sources of energy can be developed, or until alternative modes of transportation can evolve. Thus a basic premise of the program is that our supplies of petroleum are limited and, unless actions are taken now to curb our consumption of this energy source, the transition to alternative fuels or modes of transportation will be very painful to the American public. To some extent, the success of the program depends on whether U.S. consumers agree with and will respond to the basic goals of the program.

Some insights into the views and behavior of the American consuming public can be gathered from an analysis of the opinions of vehicle-owning households concerning the need for conservation of resources and the relation of those opinions to transportation behavior.

In both the fall of 1974 and the spring of 1977 representative samples of American primary adults¹ were asked the following question:

There has been talk about shortages of energy, food, and raw materials in this country. Do you think that in the coming years we will have plenty to meet our needs, a sufficient amount, or will we have to consume less?

Responses to this question indicated that in both years about two-thirds of these respondents believed that limits to resources are severe enough to require curtailment of future consumption. Only a small proportion, less than 10 percent, thought there would be plentiful supplies of energy, food, and raw materials, while nearly a quarter believed supplies would be just adequate. Between late 1974 and mid-1977 there was, however, a small but significant shift away from the opinion that resources would be inadequate to meet existing consumption demands (from 68 to 63 percent). The fact that in both years very few of the respondents (about 2 percent) said that they did not know indicates that most Americans had given some thought to the problems of shortages and could express an opinion.

Impact of Perceived Conservation Need on Gasoline Consumption

The mere fact that most American consumers are concerned about the adequacy of resources does not mean that they will make the sacrifices implied by the fuel economy program. Although we do not have much direct evidence of the impact of concern about the adequacy of resources on willingness to make sacrifices in the type of vehicle driven, we do have data on its impact on another factor related to gasoline consumption—the amount of driving actually done. If people are willing to make the quantitative sacrifice of driving less, then they may be willing to make qualitative sacrifices in vehicle size, weight, and performance in order to stretch energy supplies longer. To investigate this possibility, we examined the relationship between the likelihood of vehicle-owning households reporting reduced driving in the fall of 1974 and their opinions concerning the adequacy of resources (Table 1). Even though large proportions of vehicle owners expressed belief in a societal need for conservation, those with this belief were not significantly more likely to have reduced driving than those with lesser concern about the adequacy of resources. This was true in a simple bivariate sense (unadjusted proportion) and with the addition of several controls for demographic factors such as differences in family size and family income (adjusted proportion).²

As further evidence of the minimal impact of conservation consciousness on transportation behavior, we found that when a separate cross-section of households who had reduced their annual miles driven were specifically

asked why they were driving less, the overwhelming majority of responses were unrelated to energy considerations (Table 2). Less than 10 percent of the drivers mentioned energy considerations as a reason for reduced

Table 1. RELATIONSHIP BETWEEN HAVING REDUCED DRIVING DURING THE PAST YEAR AND PERCEPTIONS OF RESOURCE ADEQUACY^a

Perceptions as to Adequacy of Resources	N ^b	Weighted Percent	Proportion Having Reduced Driving	
			Unadjusted	Adjusted ^c
Plentiful supply	73	5.9	.549	.581
Sufficient supply	304	24.2	.545	.548
Inadequate supply; must consume less	835	67.9	.614	.609
DK; NA ^d	24	2.0	.673	.711
Eta ²			.0045	
Beta ²				.0039

^aResponses from primary adults in households with a vehicle, fourth quarter 1974. The overall (mean) proportion having reduced driving was .594, with a standard deviation of .491.

^bNumber of observations

^cOther variables in the multivariate analysis were family income, family size, respondent's sex and relationship to household head, education, age, marital status, household head's occupation, city size, number of vehicles owned, and whether household had reduced heat or electricity during the past year.

^dRespondents who answered "don't know" or from whom no response was ascertained.

Table 2. REASONS GIVEN FOR HAVING DRIVEN LESS^a

Reason	N ^b	First Mention	Second Mention	Sum of 1st & 2nd Mentions (Percent)	
		Weighted Percent	N	Weighted Percent	
Cost					
Cost of gasoline	134	26.0	25	4.9	30.9
Can't afford to drive as much	37	7.4	6	1.0	8.4
Expense of operating and maintaining a car	3	0.6	5	1.0	1.6
Energy Considerations					
Availability of gasoline	8	1.4	1	0.1	1.5
Other energy considerations	35	6.1	10	1.8	7.9
Shorter or Fewer Trips					
Not taking long trips	34	5.8	18	3.4	9.2
Living closer to destinations	49	8.1	8	1.2	9.3
Planning trips more carefully	4	0.9	4	0.7	1.6
Don't go places as much	20	3.9	9	1.6	5.5
Change in Transportation Mode					
No longer driving to work	11	1.8	5	0.9	2.7
Car pooling	9	1.5	4	0.5	2.0
Using mass transit more	4	0.5	—	—	0.5
Change in Employment Status					
Unemployed	21	3.7	2	0.4	4.1
Retired; family member left labor force	30	6.4	2	0.4	6.8
Other Personal Reasons					
(e.g., sick)	78	16.1	24	4.6	20.7
Other ^c	40	8.1	8	1.4	9.5
Don't know	2	0.5	—	—	0.5
Not ascertained	6	1.3	—	—	1.3
Total	525	100.0	131	24.1	124.1

^aThe question was "Why are you driving less now?", which followed the question concerning whether respondent was driving fewer miles per year compared with "a couple of years ago." Responses are from primary adults in households with a vehicle, second quarter 1975.

^bNumber of observations.

^cMiscellaneous responses not classified elsewhere.

¹By primary adults we mean husbands, wives, and single household heads aged 18 or older. This excludes minors and extra adults in a household such as aged parents and other adult relatives.

²Significant differences in proportions having reduced driving would be associated with Eta² and Beta² values more than twice those actually observed.

driving. A much more prevalent reason for reduced driving concerned the cost; 30 percent of the respondents mentioned the cost of gasoline as a reason for driving less.

Preferences for Vehicle Modifications to Improve Fuel Economy

As noted above, in order to comply with Title V, automobile manufacturers must implement engineering modifications which yield improved fuel efficiency. If consumers dislike the modifications they may not purchase the new vehicles. To date, manufacturers have concentrated on downsizing vehicles as a primary means of improving the fuel efficiency of their fleet; the last 5000 pound domestic passenger automobile rolled off the assembly lines in spring 1978 while several new minicompact models have recently been offered. The attitudinal evidence suggests ambivalence among consumers to such changes.

Although the downsizing of automobiles is one of the most viable means of improving fuel economy, in 1976 most consumers expressed a preference for changing car engines rather than downsizing as a means of improving the fuel efficiency of new cars. Early in 1976 the following question was asked of a representative sample of American households who owned a vehicle:

There are various things the auto manufacturers could do to improve the gasoline mileage that new cars get. They could make cars *shorter and lighter*, they could make cars with *fewer options*, or they could make cars with *less powerful engines and acceleration*. For your purposes, which would you rather have them do?

Of these alternatives, reducing engine power and vehicle acceleration was the most popular method for increasing fuel efficiency. More than half the sample (61 percent) gave this response as a means of improving fuel efficiency whereas less than one-fifth wanted cars to be reduced in size and weight, and about the same proportion wanted to reduce the number of options offered.

The wording of this question tends to force respondents who want changes in engines to say they want less powerful engines. In fact, indications are that what most consumers really want are more efficient engines. When questions are phrased in such a manner as to suggest that compliance with Title V *could* come about by improved engine efficiency, consumers jump at the opportunity to voice their approval. The following question was asked in the spring of 1976:

Recently the federal government passed a new law that says that the average new car made in 1985 will have to get 27 miles to the gallon of gasoline, which is ten miles per gallon more than the average new car gets today. How do you think auto manufacturers will do this—by making new cars shorter and lighter, or by making engines more efficient?

More than 60 percent of vehicle-owning households said that compliance would involve improvements in engine efficiency. Only 12 percent thought that reducing vehicle size alone would be the source of the improved fuel efficiency needed in meeting the standards.

Most consumers apparently hoped that manufacturers would be able to improve engine efficiency so that fuel

economy could be increased without sacrificing performance or size. It would seem that consumers view the energy that is emitted from the exhaust pipe as pure waste, while that which is dissipated as a result of having large, heavy cars is not seen as wasteful. If forced to give up something in order to meet the fuel economy standards, consumers seem to have a preference for giving up engine performance as opposed to vehicle size.

Consumers' Reactions to the Idea of Downsizing Domestic Cars

Since downsizing is, in fact, one of the most expedient means of improving fuel economy,³ it is important to understand more specifically how American consumers react to the idea of domestic cars becoming shorter and lighter. Survey data for 1976 and early 1977 indicate that, although vehicle-owning households were doubtful that downsizing would result in substantial fuel economy improvements, a slim majority of them approved of the shorter and lighter cars being offered by domestic manufacturers. In late 1976, when asked, "Now thinking about all sizes of domestic cars, do you think making cars shorter and lighter is a good idea, or a bad idea, or what?", 54 percent of the consumers sampled said that they thought it was a good idea and only 21 percent said it was a bad idea; the remaining 26 percent were largely undecided and could see both good and bad aspects to downsizing.

³With engine displacements decreased so as to maintain equal overall performance, a 10 percent reduction in vehicle weight can improve fuel economy by 8 percent.

Table 3. REASONS FOR THINKING THAT MAKING CARS SHORTER AND LIGHTER IS A GOOD IDEA^a

Reason	First Mention		Second Mention		Sum of 1st & 2nd Mentions (Percent)
	N ^b	Weighted Percent	N	Weighted Percent	
Price					
Mileage	210	37.4	50	9.6	47.0
Other price factors	88	13.1	58	9.9	23.0
Performance					
Handling	25	5.9	25	4.1	10.0
Other performance factors	6	1.0	5	1.1	2.1
Safety/Quality/Service	17	3.7	16	2.8	6.5
Size/Weight					
General size	42	7.3	12	2.2	9.5
Parking	46	9.8	32	6.6	16.4
Other size/weight factors	20	3.2	11	1.5	4.7
Ecology/Conservation					
Energy crisis; availability of fuel	32	6.2	16	2.8	9.0
Other ecology/conservation factors	35	5.5	19	3.0	8.5
Other ^c	19	3.4	8	1.2	4.6
Don't know	1	0.1	—	—	0.1
Not ascertained	16	3.3	—	—	3.3
Total	547	100.0	252	45.1	145.1

^aThe question was "Why do you say so?", which followed the question asking whether respondent thought making cars shorter and lighter was a good or bad idea. Responses are from primary adults in households with a vehicle, fourth quarter 1976.

^bNumber of observations.

^cMiscellaneous responses not classified elsewhere.

The reasons given for either favoring or opposing downsizing indicate perceptions of an economy/safety tradeoff associated with vehicle size and weight. The major reason given for approval of downsizing was economy—both expected fuel savings and other cost savings (Table 3). Improved gas mileage was the first thing that came to mind for 37.4 percent of those who thought making cars shorter and lighter was a good idea. An additional 9.6 percent of the people who approved of shorter and lighter cars mentioned gas mileage as a second reason, making a total of 47 percent of those favoring downsizing doing so at least in part because it would improve gas mileage. Other price factors such as lower initial purchase price were mentioned by almost one-quarter of those favoring downsizing. The dominant reason given by consumers who did not favor downsizing was that they believed that smaller cars were not as safe as traditional-size passenger cars. As Table 4 indicates, 47.2 percent of the consumers who thought making cars shorter and lighter was a bad idea mentioned safety as a reason. (Interestingly enough, more recent data indicate that the use of seatbelts is a strong predictor of stance on downsizing, but it is the drivers who *rarely* wear their seatbelts who are most likely to oppose downsizing.)

These data suggest that consumers' subjective valuations of the merits of economy and safety dominate their feelings about downsizing. However, differing opinions concerning the relative merits of downsized and traditional-size cars with respect to handling also seem to play some role. A substantial proportion of consumers indicated that they liked the idea of smaller and lighter cars because they believed these cars would handle better. (Parking ease was also a plus for smaller cars.) However, an equally large proportion of consumers indicated that they opposed downsizing because they believed it would result in deteriorated handling performance. Thus it appears that consumers differ substantially in their notions of what constitutes good handling performance in a car, just as they seem to differ in their subjective valuations of the importance of economy and safety.

In a multivariate analysis of factors associated with stance on downsizing, we found that the proportion of consumers favoring downsizing was higher among the highest education categories, for people in white collar occupations, and for those people who expected significant increases in gasoline prices. This last conclusion is consistent with the observed volatility of the small car market whenever gasoline prices change rapidly. Immediately after the 1973-74 oil embargo, and apparently now in the aftermath of the Iranian oil crises, sales of small fuel-efficient vehicles increased rapidly while sales of large cars and of trucks and vans weakened. During the intervening period, when real gasoline prices were rising only slowly, the pattern of sales reversed.

Table 4. REASONS FOR THINKING THAT MAKING CARS SHORTER AND LIGHTER IS A BAD IDEA^a

Reason	First Mention		Second Mention		Sum of 1st & 2nd Mentions (Percent)
	N ^b	Weighted Percent	N	Weighted Percent	
Price	10	5.6	6	3.6	9.2
Performance					
Handling; way it drives	29	13.9	10	5.4	19.3
Comfort; (soft) ride	8	2.4	10	4.9	7.3
Other performance factors	—	—	1	0.3	0.3
Safety/Quality/Service					
General safety, including safety related to weight of car	83	41.5	12	5.7	47.2
Quality	17	6.6	2	1.0	7.6
Other safety/-quality/service factors	—	—	1	0.4	0.4
Size/Weight					
General size	15	6.9	4	1.5	8.4
Weight	18	11.0	8	3.8	14.8
Other size/weight factors	9	3.2	3	1.2	4.4
Other ^c	9	5.4	—	—	5.4
Not Ascertained	8	3.3	—	—	3.3
Total	206	100.0	57	27.8	127.8

^aThe question was "Why do you say so?", which followed the question asking whether respondent thought making cars shorter and lighter was a good or bad idea. Responses are from primary adults in households with a vehicle, fourth quarter 1976.

^bNumber of observations.

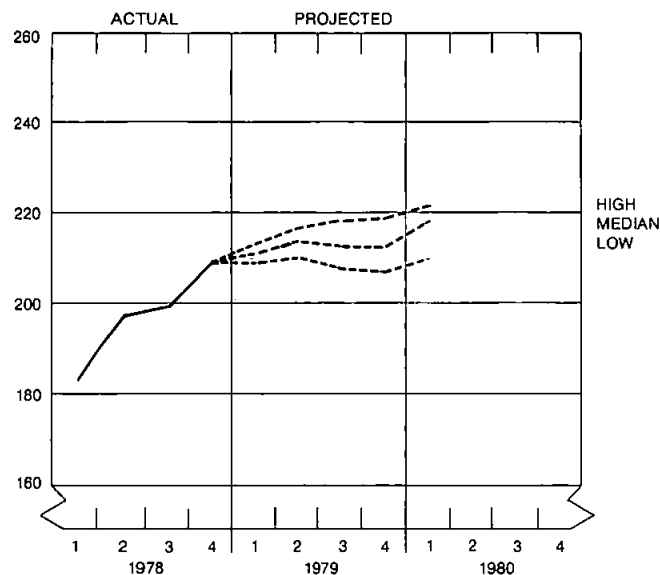
^cMiscellaneous responses not classified elsewhere.

Summary and Conclusions

As we noted in our introduction, the success of the economy standards program mandated by Federal legislation depends to a large extent on the willingness of the consuming public to make voluntary sacrifices in the size of passenger automobiles they buy. If driving behavior is any indication of their willingness to make such sacrifices for altruistic reasons, then the program is likely to have serious problems: people who report reductions in driving attribute these reductions to fuel-price-related issues and not at all to the need to conserve energy. Their consciousness of limited resources has no effect on their reported driving behavior. Price perceptions, particularly gasoline price perceptions, seem to play a much more important role in both their reported driving behavior and their stance on downsizing as a means by which manufacturers can meet the fuel economy standards. Thus it seems unlikely that consumers will accept the type of vehicle being offered by manufacturers in order to meet the fuel economy standards unless they believe that gasoline prices are going to rise radically.

CONSUMER DURABLE OUTLAYS

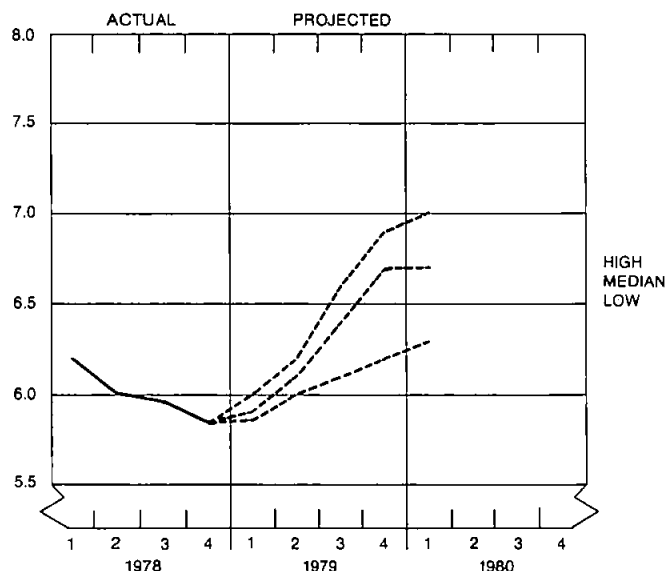
Billions of Dollars



Sources: Actual data, U.S. Department of Commerce; projected data, ASA-NBER Panel of Forecasters.

UNEMPLOYMENT RATE

Percent



Sources: Actual data, U.S. Department of Commerce; projected data, ASA-NBER Panel of Forecasters.

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*Beginning page number.

Actual and Projected Economic Indicators

seasonally adjusted

SERIES FORECAST BY THE ASA-NBER PANEL															
ECONOMIC INDICATOR	Quarterly Data												Annual Data		
	Actual						Projected						Actual		Proj.
	1977:2	1977:3	1977:4	1978:1	1978:2	1978:3	1978:4	1979:1	1979:2	1979:3	1979:4	1980:1	1977	1978	1979
GROSS NATIONAL PRODUCT	1867	1917	1958	1992	2088	2136	2212	2269	2318	2358	2395	2442	1887	2107	2335
GNP IMPLICIT PRICE DEFLATOR (index, 1972=100)	140.9	142.6	144.6	147.1	151.0	153.5	156.6	159.6	162.6	165.6	168.6	171.4	141.6	152.0	164.1
GNP IN CONSTANT DOLLARS (billions 1972 \$)	1325	1344	1354	1354	1383	1391	1413	1421	1425	1421	1418	1428	1333	1385	1421
INDUSTRIAL PRODUCTION (index, 1967=100)	137.0	138.4	139.3	139.6	144.0	147.0	149.6	151	151	150	148	149	137.1	145.1	150.0
UNEMPLOYMENT RATE (quarterly measure, percent)	7.17	6.90	6.60	6.20	6.00	5.97	5.83	5.90	6.10	6.40	6.70	6.70	7.03	6.00	6.30
CORPORATE PROFITS AFTER TAXES	102.8	104.8	104.4	102.1	120.5	119.2	130.7	129.0	126.0	123.5	122.6	124.7	102.1	118.1	125.3
EXPENDITURES FOR NEW PLANT and EQUIPMENT	134.2	140.4	138.1	144.3	150.8	155.4	161.2	165.0	168.5	171.0	174.8	175.8	135.8	152.9	169.8
NEW PRIVATE HOUSING UNITS STARTED (millions)	1.925	2.022	2.090	1.805	2.102	2.044	2.074	1.850	1.760	1.690	1.620	1.680	1.963	2.006	1.730
CHANGE IN BUSINESS INVENTORIES	17.0	21.9	13.1	16.7	20.1	13.6	11.6	15.3	16.4	14.0	7.7	9.7	15.6	15.5	13.4
CONSUMER DURABLE EXPENDITURES	175.6	177.4	187.2	183.5	197.8	199.5	209.2	211.5	214.0	213.0	212.7	218.3	178.4	197.5	212.8
NATIONAL DEFENSE PURCHASES	93.7	94.4	97.1	97.9	98.6	99.6	102.1	103.7	105.9	107.7	111.4	113.5	94.3	99.6	107.2

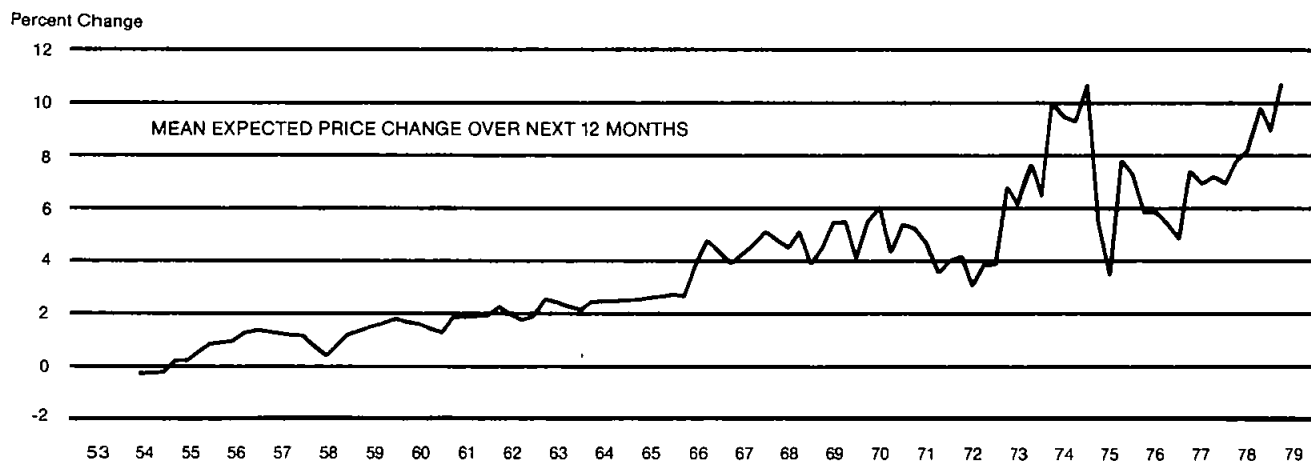
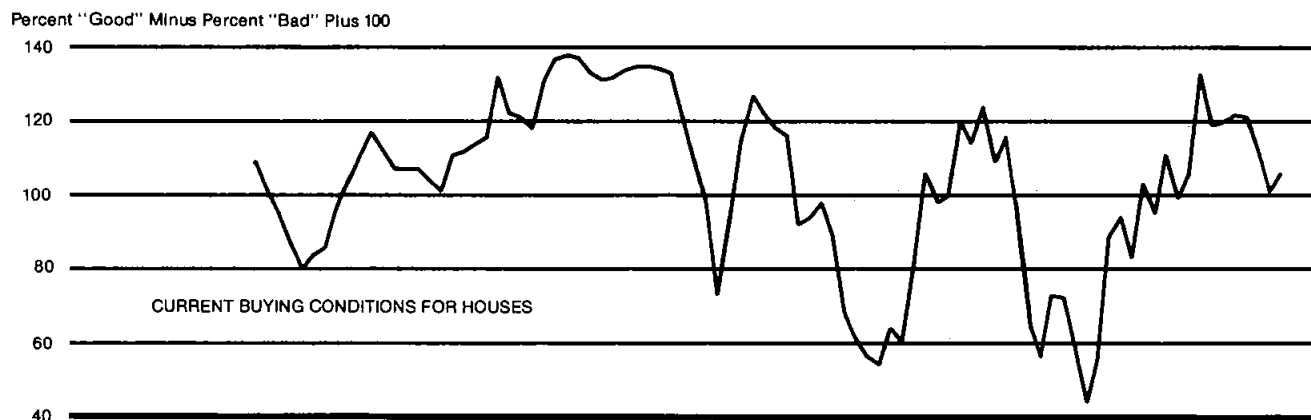
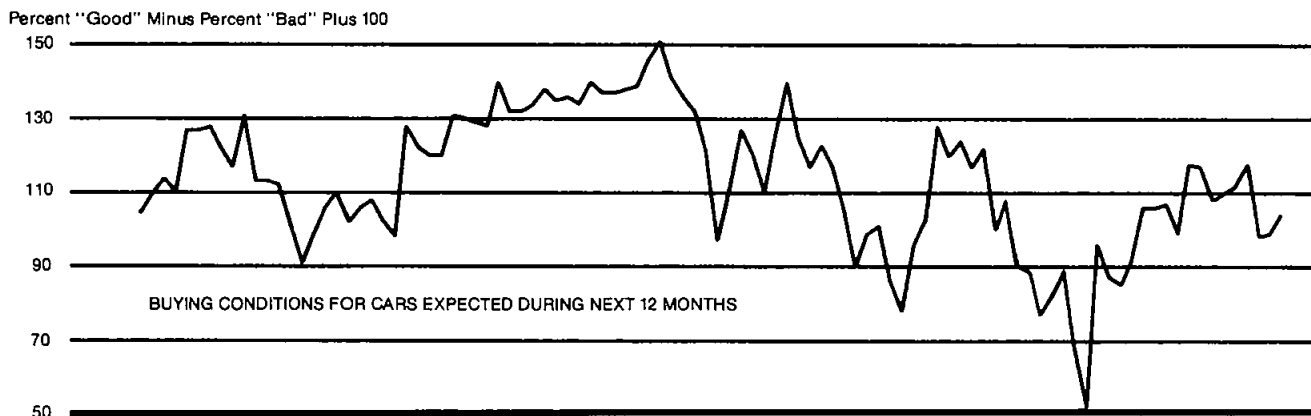
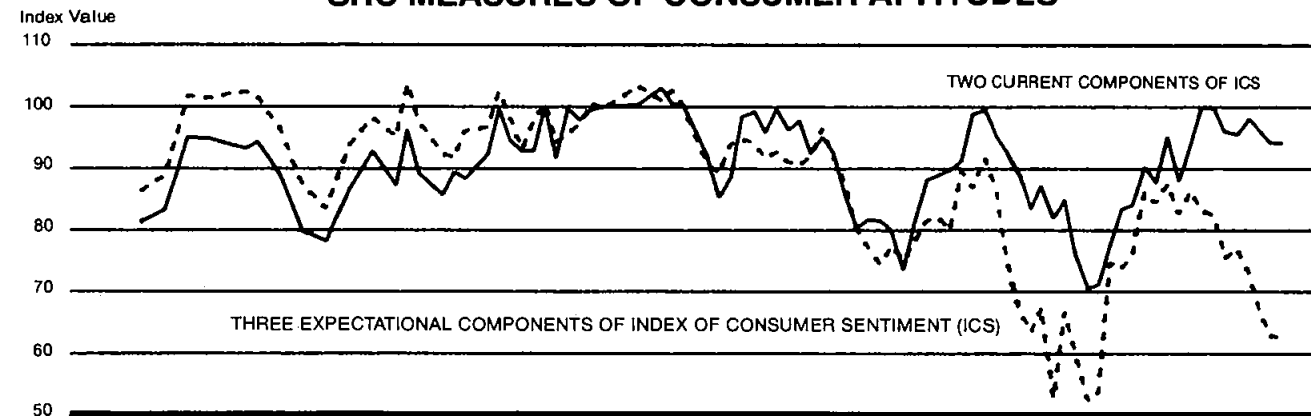
SERIES FROM THE GROSS NATIONAL PRODUCT ACCOUNTS															
ECONOMIC INDICATOR	Quarterly Data												Annual Data		
	1976:1	1976:2	1976:3	1976:4	1977:1	1977:2	1977:3	1977:4	1978:1	1978:2	1978:3	1978:4	1976	1977	1978
GROSS NATIONAL PRODUCT	1650	1685	1716	1750	1807	1867	1917	1958	1992	2088	2136	2212	1700	1887	2107
PERSONAL CONSUMPTION EXPENDITURES	1054	1075	1098	1134	1168	1189	1215	1255	1277	1323	1357	1405	1090	1206	1340
DURABLE GOODS	152.2	154.7	156.7	162.8	173.2	175.6	177.4	187.2	183.5	197.8	199.5	209.2	156.6	178.3	197.5
NONDURABLE GOODS	430.3	437.4	444.5	458.3	465.9	473.6	479.7	496.9	501.4	519.3	531.7	553.5	442.6	479.0	526.5
SERVICES	471.3	483.0	497.2	512.6	528.6	539.4	557.5	571.1	591.8	605.8	625.8	642.5	491.0	549.1	616.5
GROSS PRIVATE DOMESTIC INVESTMENT	231.5	243.5	249.9	247.1	272.5	295.6	309.7	313.5	322.7	345.4	350.1	360.1	243.0	297.8	344.6
NONRESIDENTIAL	157.7	162.2	168.1	170.5	180.6	187.2	193.5	200.3	205.6	220.1	227.5	235.2	164.6	190.4	222.1
RESIDENTIAL STRUCTURES	62.4	65.9	67.3	77.1	81.6	91.4	94.3	100.2	100.3	105.3	109.0	113.3	68.2	91.9	107.0
CHANGE IN BUS. INVENTORIES	11.4	15.4	14.5	-0.6	10.3	17.0	21.9	13.1	16.7	20.1	13.6	11.6	10.2	15.6	15.5
NET EXPORTS	10.4	9.7	6.9	2.8	-8.5	-5.9	-7.0	-23.2	-24.1	-5.5	-10.7	-7.8	7.5	-11.1	-12.0
GOVERNMENT PURCHASES	354.0	357.2	360.4	366.3	375.0	388.8	399.5	412.5	416.7	424.7	439.8	454.6	359.5	393.9	433.9
GNP IN CONSTANT DOLLARS (billions 1972 \$)	1255	1268	1277	1284	1307	1325	1344	1354	1354	1383	1391	1413	1271	1333	1385
PERSONAL SAVING RATE (% of disposable income)	6.4	6.0	5.7	5.0	4.2	5.3	5.6	5.4	5.9	5.3	5.2	4.6	5.7	5.1	5.3

Note: All data are at annual rates and in billions of current dollars unless otherwise indicated.

Sources: Projections: American Statistical Association — National Bureau of Economic Research panel of forecasters. (Forecasts were released in March 1979.)

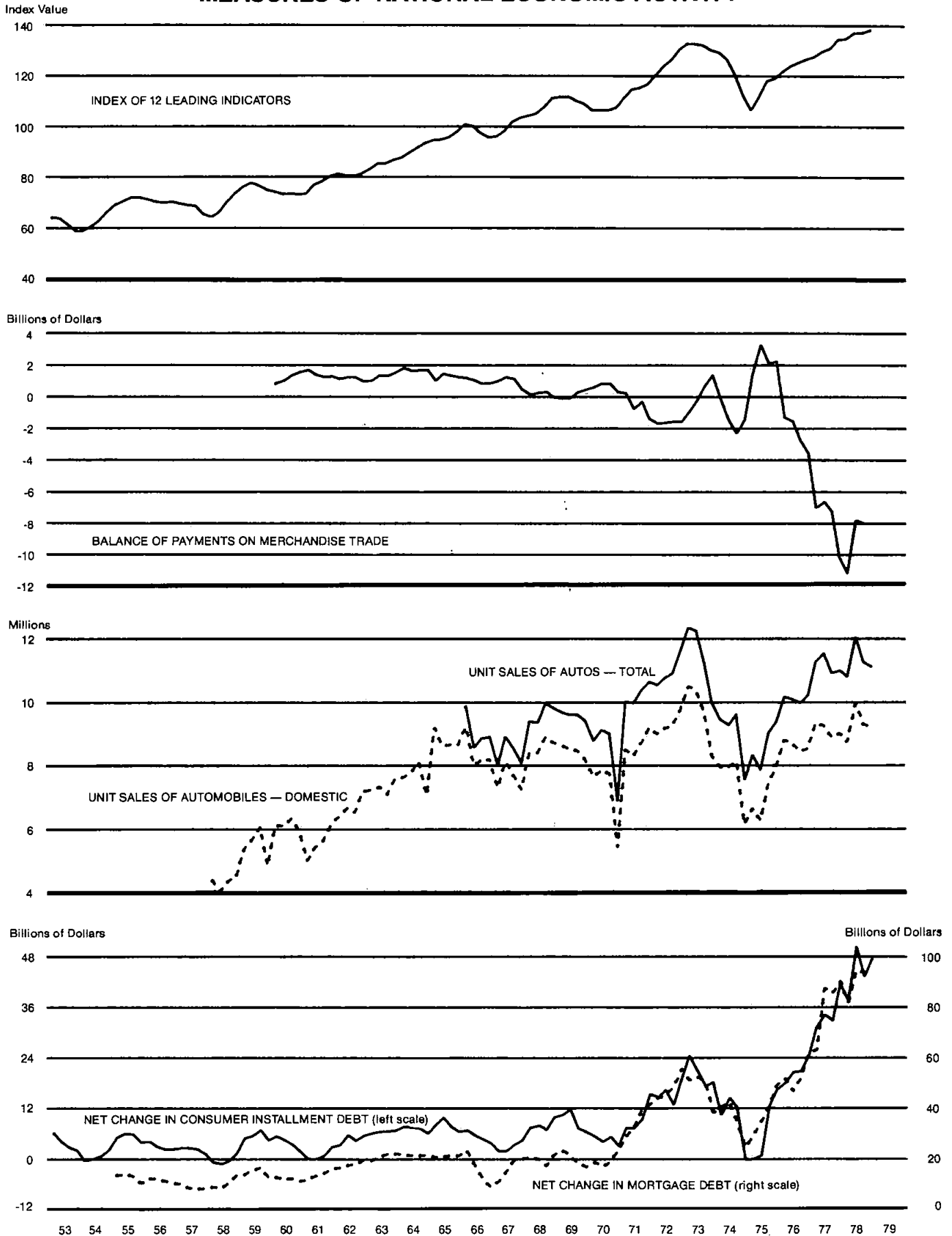
Actual Data: U.S. Departments of Commerce and Labor, Board of Governors of the Federal Reserve System.

SRC MEASURES OF CONSUMER ATTITUDES



Note: Shaded areas indicate recession periods as designated by the National Bureau of Economic Research, Inc.

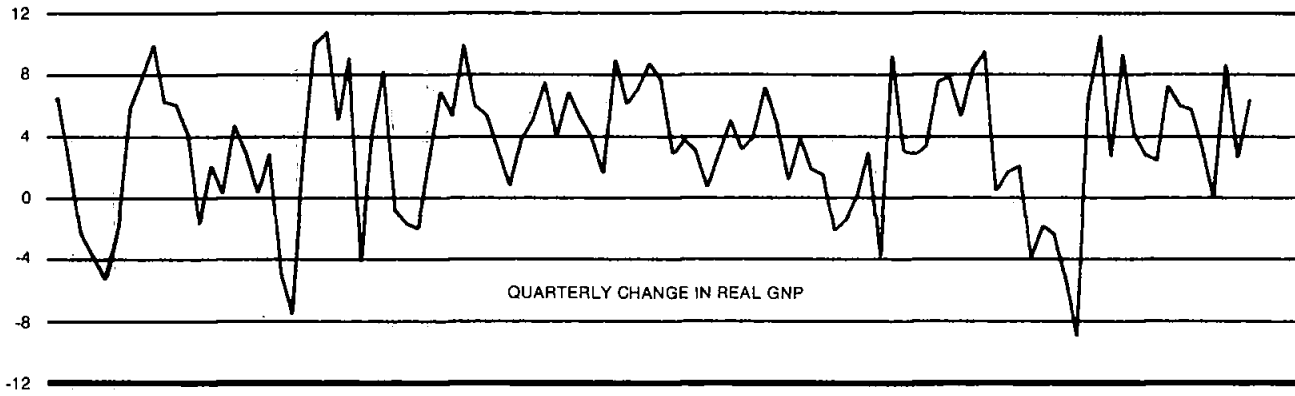
MEASURES OF NATIONAL ECONOMIC ACTIVITY



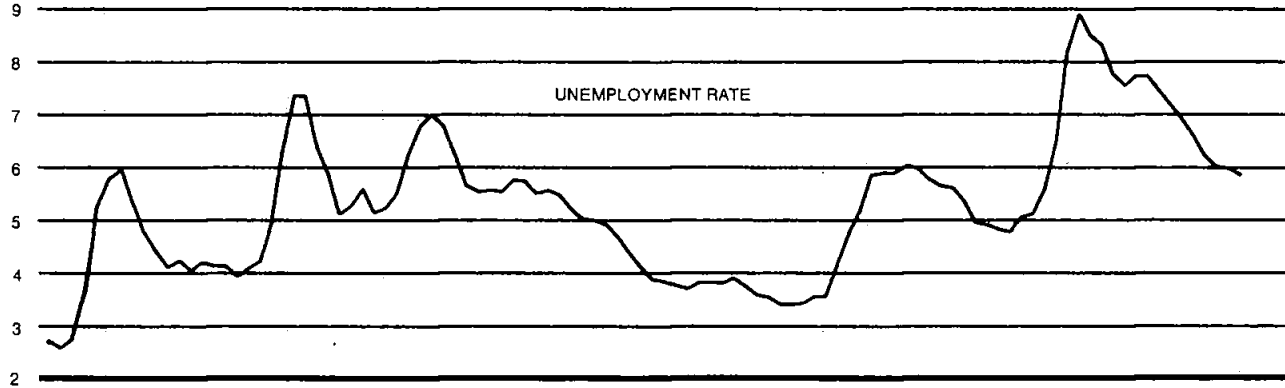
Note: Shaded areas indicate recession periods as designated by the National Bureau of Economic Research, Inc.

MEASURES OF NATIONAL ECONOMIC ACTIVITY

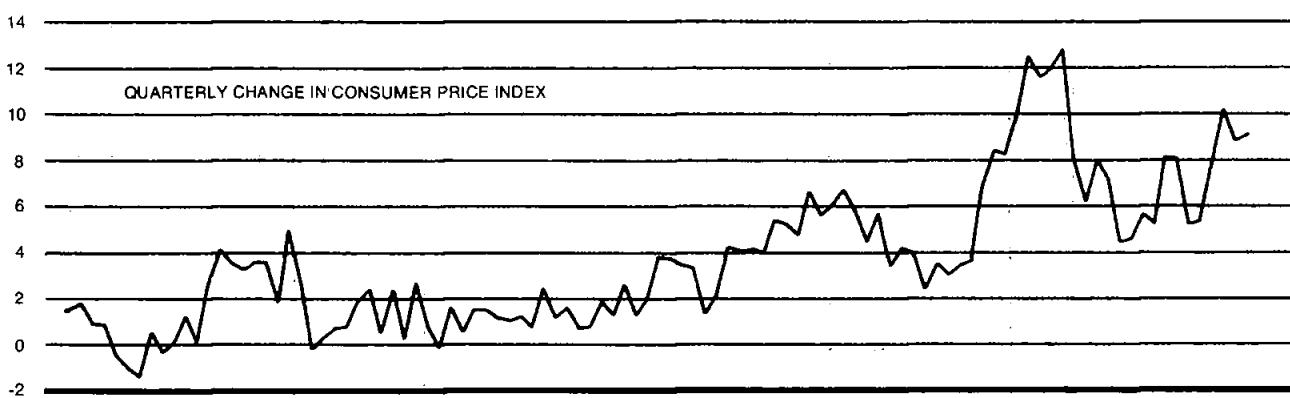
Percent Change



Percent

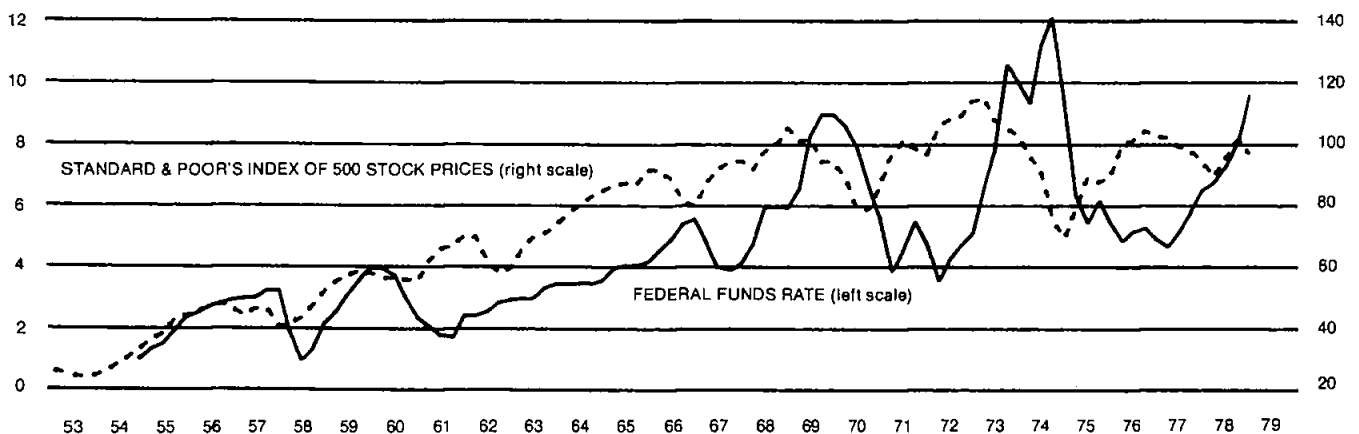


Percent Change



Percent

Price Index



Note: Shaded areas indicate recession periods as designated by the National Bureau of Economic Research, Inc.

The 1977 Quality of Employment Survey

**Descriptive Statistics, with Comparison Data
from the 1969-70 and 1972-73 Surveys**

by Robert P. Quinn and Graham L. Staines

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job satisfaction and mobility	labor unions
supervision and participation	job content
effect of family	motivation
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