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DISSERTATION

THE ECONOMIC AND SOCIAL ASPECTS OF WORK TIME

Submitted by

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In partial fulfillment of the requirements

for the Degree of Doctor of Philosophy

Colorado State University

Fort Collins, Colorado

Fall 2000

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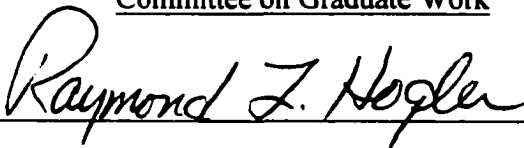
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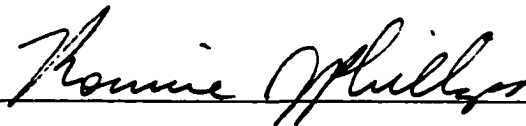
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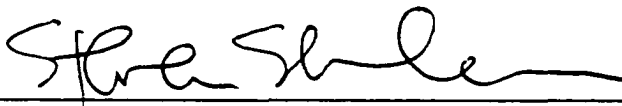
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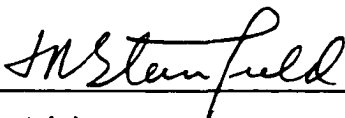
WE HEREBY RECOMMEND THAT THE DISSERTATION PREPARED
UNDER OUR SUPERVISION BY ROBERT MARTIN LaJEUNESSE
ENTITLED *THE ECONOMIC AND SOCIAL ASPECTS OF WORK TIME* BE
ACCEPTED AS FULFILLING IN PART REQUIREMENTS FOR THE
DEGREE OF DOCTORATE OF PHILOSOPHY.

Committee on Graduate Work









Advisor



Department Chair

ABSTRACT OF DISSERTATION THE ECONOMIC AND SOCIAL ASPECTS OF WORK TIME

The intent of this study is to investigate the economic and social optimality of contemporary work schedules and to elucidate how work time has compounded societal problems and worker anxieties. An historical inquiry chronicles that work history has been a contentious social issue in industrial societies and that the “efficiency” grounds for the present workweek may be untenable. Since the standard competitive theory of labor markets has yielded unambiguous conclusions about the effect on working-time of changes in parameters such as real wages, and the productivity of labor and capital, an alternative narrative of the work time issue that draws heavily on the works of Institutionalist economists is offered as a superior way of analyzing work time issues.

The alternative narrative suggests that the external social costs of long work hours should be given more sway in work time discussions. Additionally, the alternative narrative examines the work time implications of the ubiquity of the market relations and the emphasis on economic growth in contemporary market society. Alternative measures of social health are also investigated to suggest that the orthodox bent towards greater economic growth may not be enhancing social welfare. The environment destruction that is wrought by our

work and spend society is also featured as evidence that an alternative division of our social labor is needed.

A corollary objective of the research is to investigate the immediate effects of work hours on the productivity of workers. The industrial effects of work time reduction are examined through an efficiency *week* hypothesis that parallels the efficiency wage arguments. The assertion is that productivity increases are the result of two primary forces- wages and work durations. Just as higher wages may yield lower per unit labor costs, so might prudently-determined work hours. The research concludes that work times are far from optimal in both an economic and social context and that public policy designed to assist firms in expanding their payrolls could serve to ameliorate social welfare.

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To all of my Irish relatives who taught me the value of work time.
And to all of my French relatives who taught me *to* value leisure time.

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INTRODUCTION

"The greatest prospect that we face – indeed what must now be counted one of the central economic goals of our society – is to eliminate toil as a required economic institution."

— John Kenneth Galbraith (1973, p.260)

In the late 1940s, labor analysts correctly predicted that by the end of the century the productivity of American workers would afford a commensurate standard of living in less than half the amount of work time. Indeed, at the dawn of a new millennium, the average American worker could choose to reduce the workweek to twenty-two hours, work six-months per year, take every other year off, or retire at the age of thirty-eight and still realize a standard of living tantamount to that experienced in the early 1950's. It has also been suggested that if the United States were to devote just one year of labor productivity growth to the objective of work time reduction, each worker could enjoy an additional week (42.15 hours) of vacation time annually with no loss of output (National Public Radio Marketplace, Sept. 6 1999).¹ In reality, such drastic shifts in work time have been far from commonplace as American

¹ The argument can be validated using BLS estimates for average annual labor hours of approximately 1950 and the five-year average growth rate of output per hour of labor in the nonfarm business sector of 2.18 percent ($1950 \times .0218 = 42.15$ hours). Incidentally, the BLS estimate for annual labor hours are conservative relative to the estimates used by the International Labour Organization for the United States.

workers toil for approximately as many hours today as they did five or six decades ago.

Yet, many workers and employers worldwide have begun to question the optimality of long work hours. Labor and political leaders have renewed their interest in the work time debate and have begun looking to economists for insightful answers. Since the genesis of their science, economists have continually visited the issue of work time but in a piecemeal and almost fleeting manner. Consequently, there is no well-known, comprehensive study of the effects of work time. Indeed, work time studies do exist, but none of these has achieved the authoritative stature that writings on other economic topics, such as efficiency wages, have enjoyed. Nevertheless, the renewed interest shown by labor unions, politicians, employers and workers in the subject of work time reduction has again created fertile ground for economic analysis. The intent of this discourse therefore is to build upon the economic contributions previously made to the work time in order to elucidate whether or not current workweeks are optimal from both an economic and social perspective and to examine how contemporary work schedules may be compounding societal problems and anxieties. Creating a research mosaic of the work time issue will hopefully help identify where past economic analysis has been useful and where economists have more work to perform.

Work Time and Society

In the last three decades, the typical US worker has rarely chosen (or been given the choice) to exercise productivity dividends in the form of reduced work

times. Instead, long-run trends (between WWII and the mid-1970s) show that 75 to 80 percent of the productivity dividend has been used to finance greater consumption and production, with the remaining portion used to increase leisure (Levitan and Belous, 1977). Since the 1970s, these modest gains in leisure time have likely been erased by the sedulous work habits shown by Americans during the final decades of the twentieth century. Examining a longer period, Stephen Hill (1989, p.69) concludes, “since 1950 it appears that that most of the benefits from rising real wage rates have been taken in the form of extra income.” In a 1980 United Nations study, Shipley (1980, p. 50) states that, “left to themselves, workers will continue to barter leisure and rest time and possibly some of their health for more money.” These observations lend credence to admonitions that Americans are stuck in an insidious work and spend cycle- a Faustian bargain of money for work.

There is growing evidence, however, that workers want out of the “capitalistic squirrel cage” and would like to be freed of the “gospel of consumption” and the “Treadmill Syndrome” (Galbraith 1984, Hunnicutt 1988, Stanfield and Stanfield, 1980). The lion’s share of labor strikes in the United States of late have centered on overtime or excessive work hours. Both the Bell Atlantic and US West strikes of 1998 were instigated by mandatory overtime (AP Aug. 1998). Additionally, on April 24 1997, General Motors workers walked off the job to register their demand that GM hire more employees in order to curtail overtime hours (USA Today, 4/24/97). In another case, 183 Food Lion employees filed a class-action suit claiming that the company pressured them to work extra hours “off the clock.” In a 1993 capitulation, Food Lion settled with the Labor Department, agreeing to pay \$16.2 million in back

wages to 30,000 to 40,000 employees. The greater visibility of work-time conflicts is likely a result two related developments; one being society's increased resistance to arduous work schedules, and the second being labor's greater bargaining power in a time of relatively tight labor markets.

Heterodox economists have long been concerned about the habituation of material acquisitiveness. John Kenneth Galbraith (1984, p.288) may have posed the most pregnant economic question of our time: "Why should life be made intolerable to make things of small urgency?" The tendency in democratic industrial societies to identify commodities with human needs can be viewed as an affront to societal welfare. What Marx referred to as commodity fetishism is seen as pernicious to human progress because it obfuscates the true social relations within industrial economies. According to Stanfield and Stanfield (1980, 89), the capitalistic structure is made to "appear as relations among things or commodities, rather than among people." This ethos of avarice causes individuals to seek fulfillment and solutions to their problems through the accumulation of commodities. Americans have come to identify the 'goods life with the good life'- living by the maxim that, "if you are unhappy, you should buy something (Brown, 1985)."

Even Nobel Laureate Robert Fogel has begun to question of the social efficacy of pursuing more material goods and while sacrificing other rewarding activities. In his latest book, The Fourth Great Awakening, Fogel (1999, p. 2) argues that Americans are not likely to find self-realization from increasing stocks of material goods, but rather through a "postmodern egalitarian agenda" that addresses the urgent spiritual needs of our society. Fogel (1999, p.1) opines that "spiritual (or immaterial)

inequity is now as great a problem as material inequity, perhaps even greater.”

Although there are still glaring deficiencies in the distribution of material commodities that must be addressed in America, our wildly productive system has made consumer products so cheap that even the poorest households have transcended the abject poverty of a century ago. Medical advancement has also benefited nearly every social class in American. These developments have led Fogel (1999) to conclude that there is a great potential for a vast democratization of leisure time.

The central goal of Fogel’s (1999) postmodern egalitarian agenda is to answer Socrates’ time-honored question of “what is the good life?” In a postmodern world of material abundance, growing numbers of people will face a dilemma that was previously only a concern for the landed rich – how to realize personal growth and self-realization. Freed of the pressing need to work, the wealthy Athenians of ancient Greece sought self-realization in public service, military adventures, philanthropy, the arts, theology, ethics, and moral philosophy. It remains an open question whether Americans will seek self-realization through greater earning and spending or through the other immaterial pursuits, which are less dependent upon work time.

Social change and the altered composition of the paid labor force have placed work time back in the political and economic limelight. The last few decades have witnessed a sea change in who works and how they work. The changing composition of the laborforce has consequently given work time higher priority on political economic agendas. The feminization of the workforce and the ascendancy of part-time labor contracts have drastically altered the labor market; yet labor policies in the

United States governing work schedules and employment are mired in a pre-World War II mentality. The disconnect between what we expect from market employment and what we are held accountable for has led to an erosion of our social fabric. Workers, families, and even employers routinely experience anxieties in balancing work schedules and the social and personal needs of individuals and their families.

Work time anxieties are not only manifest in the spate of recent labor strikes, but are also articulated by workers in surveys and grassroots political organizations. The *1997 National Study of the Changing Workforce* reports that sixty-three percent of workers would prefer to work less. Male and female workers are equally eager to reduce their work hours and would trim their workweek by approximately 11 hours on average if given the opportunity. Additionally, the proportion that would like to work fewer hours has increased by 17 percentage points since 1992. Multiple surveys of the US workforce even show a growing willingness on the part of workers to forfeit a portion of their pay for more leisure time (See the Half International and Bozell reports cited below). According to a poll conducted by KRC Research, 49 percent of Americans say society puts too much emphasis on work and not enough on leisure. That is a monumental shift in thinking from just 11 years ago when the Opinion Research Corporation found that only 28 percent of workers felt that way.

Evidence clearly suggests that the American workforce is increasingly demanding fewer work hours— even at the sacrifice of higher income. With unemployment rates near record lows and the labor participation rate higher than ever, the stage may be set for a greater resistance to long work hours than in the recent past.

This dissertation will attempt to show that a “workweek revolution” can foster increased labor productivity and societal improvements certain to benefit both present and future generations of American workers. A corollary objective of the research is to any answer the question: Should work hours be reduced in America?

A Note on Methodology

In economics, and the social sciences in general, the *process* of explaining how to understand, interpret, and explain the reality which surrounds us has been a source of great controversy. The orthodox approach to economic analysis holds that only the subject matter will differ from one analysis to the next, not the method. Economic inquiry then becomes an exercise akin to the practice of experimental science. Much the same way that the laws of gravity are tested and validated in a vacuum, the positive economist aspires to conduct controlled experiments with few external influences. As such, orthodox economic methodology is heavily reliant on a formal system of logical relationships abstracted from any empirical content it might have in the real world. It utilizes ahistorical assumptions about economic agents acting rational in *any* process of production, using *any* factors of production, at *any* set of relative prices, with *any* type of technology (Wilbur and Harrison, 1978). This has long been the explicit goal of conventional economics. Samuelson (1969, p.185) illustrates this positivist bent when he comments on the tendency of economics to move from “the realm of genuine history” to the “realm of science.” In moving to the abstracted realm of science, the practice of economics escapes the complexities and

contradictions of social behavior to a plane where pure logic and deterministic models reign omnipotent.

The goal of this positivist approach is to obtain a system of generalizations that can be used to make accurate predictions about the results of a change in circumstances. Orthodoxy consequently prides itself on its predictive prowess, as accurate predictions imply accurate explanations. Since successful prediction of economic issues has been consistently lacking over the past decades, heterodox economists have proffered alternative approaches to the method of understanding economic phenomena.

Robert Heilbroner (1973, p.129) has argued that social science lacks predictive power because “the objects observed by the social scientist all possess an attribute that is lacking in the objects of the natural universe...this is the attribute of consciousness— of cognition, or ‘calculation,’ of volition.” Although heterodox economists agree that economic agents will at times behave in ways that simulate the objects of physics or chemistry, even the most routine actions manifest an element of latent willfulness that is lacking from the processes of nature (Heilbroner, 1973). Thus, human behavior is characterized by both purposiveness and a capriciousness behavior that makes prediction tremendously more difficult for the social scientist than for the natural scientist. Heterodox approaches to economic methodology have thereby dismissed the “positivist fiction” that has largely ignored the real-world origins of social arrangements and preferences over the course of the last 200 years. If we accept that social value judgments influence economic outcomes, then those

judgments should become part of the analysis of causal relationships. As W.K. Tabb (1999, p.10) has opined, “how people are socialized has major economic implications.” Indeed the manner in which people are socialized in the modern market society has profound implications for work time.

The importance of history and the “real world” in shaping economic analysis can be delineated along two divergent schools of thought: the absolutist and the relativist (Landreth and Colander, 1994). The mainstream approach outlined above typically falls under the absolutist classification. Absolutists stress internal forces, such as an increasing sophistication of economic tools, to explain the development of economic theory. The progression towards superior economic solutions does not depend on historical circumstances for the absolutists, but rather on the discoveries and explanations of unsolved problems and paradoxes by skilled professional reacting to intellectual developments within their profession. Consequently, absolutists typically view the most recent theory as being more accurate and truthful than previous theories.

Relativists do not dismiss historical circumstances quite so easily and contend that they play an important part in the development of any economic theory. Relativist historians feel it imperative to consider the historical, economic, sociological, and political forces that brought society to examine certain economic questions. Moreover, the way in which these forces shape the context of emerging theory is critically important. As Tabb (1999, p.1) states, “the work of most economists consciously or not involves a characterization of their own time and place.” A relativist would argue, for example, that just as Keynesian economics

cannot be fully understood devoid of a historical, social and political knowledge of the great depression, the work time issue cannot be truly understood without reference to historical, social and political events such as labor struggles, cultural pressures towards greater consumption, and pre-industrial work time regimes. In short, relativists believe that a broader, historically- and socially-centered approach to doing economics offers a deeper understanding of economic issues.

Methodological mavericks largely agree that the subject matter of economics does not lend itself to the positive, scientific approach taken by the mainstream. Wilbur and Harrison (1979, p.67) argue that, “the instability of economic data makes ahistorical generalizations exceedingly problematic and severely limits the ability of economists to predict successfully.” The subject matter of social sciences and economics has poor experimental quality because it is not amenable to controlled experiments. Just as it is absurd to expect the paleontologist to recreate the dinosaur and exact a drastic global climate change to test the creatures’ hardiness and behavior, the economist cannot be expected to engineer another great depression for the sake of science. Yet, there are other methods the economist may employ in order to gain a richer understanding of economic subject matter.

Institutionalists, building upon the sturdy foundation laid by Veblen, employ a method characterized as holistic, systemic, and evolutionary. Implicit in the work of the leading Institutionalists is an “investigatory mode” or model of explanation that conforms to a pattern model. The holistic scientist attempts to explain the ‘whole’ system, emphasizing the interconnectedness or unity of the system. A wide variety of data (previous case studies, survey data, personal observations, and so forth) is

typically consulted to test the hypothesis or interpretations put forth by the researcher. After an adequate number of themes have been satisfactorily validated, the holist proceeds to building a model.

The model is constructed by linking valid hypotheses or themes in a network or pattern. Benjamin Ward (1972, p.180) refers to the process as “storytelling” and describes it as “an account of an interrelated set of phenomena in which fact, theory, and values are all mixed together in the telling.” He further argues that even positivist researchers end up resorting to storytelling because the counting, model-building, and statistical estimation that they employ are not proven methods of scientific research in dealing with human interaction. Indeed, “they are rather crude second-best substitutes for the primary technique, storytelling (Ward, 1972 p. 185).” According to Wilber and Harrison (1978, p.76) “this type of model with its emphasis upon recurrent themes within or around the individual system is aptly known to philosophers of science as the pattern model of explanation.” A virtuous facet of the pattern model is its ability to refer to the multiplicity of connections between a part and the whole system. Within this process, individual descriptions of particular parts of the system are continually tested as to how well they fit together in a pattern and to what extent they explain new evidence within the pattern.

A corollary characteristic of holistic concepts is that they are often related dialectically. As Diesing (1971, p.212) clarifies,

Two concepts are dialectically related when the elaboration of one draws attention to the other as an opposed concept that has been implicitly denied or excluded by the first; when one discovers that the opposite concept is required for the validity or applicability of the first; and when one finds that the real theoretical problem is that of the interrelation between the two concepts, and the

real descriptive problem that of determining their interrelations in a particular case.

The terms ‘servant’ and ‘master’ serve as clarifying examples of the dialectic connection, for one cannot fully understanding the meaning of master absence the realization of the servant’s duties. In the context of work time, it is difficult to realize the opprobrium of oppressive work time absence the knowledge of a more humane regime. By way of example, the working conditions that Marx describes in the 1800s likely seem more odious in hindsight than they did at the time. Similarly, subsequent generations, enjoying a less-intense labor market, may view the current 46-hour workweek as oppressively abhorrent.

The issue of work time seems particularly suited to the Institutional method of inquiry because the holistic, systemic and evolutionary aspects of the “storytelling” all lend profound understanding that might otherwise be lacking. For example, the work time issue requires a holistic approach in order to achieve a true understanding of the relations between employers, workers, families, government, and others involved in the work hours determination process. Likewise, the issue is systemic because responses within the system (such as worker productivity improvements resulting from an hours reduction) influence other agents in the system (employer’s acceptance of further reductions). Lastly, the work time issue cannot be fully understood without at least a modicum of evolutionary background to be used, if nothing else, for comparative purposes. Knowledge of the historic struggle to reduce work times and the evolution of economic thought on the subject, lends a profound understanding of the implications of present work time reductions.

Although it does not necessary attempt to rule out the valuable analytical work time contributions made by experts of a positivist or absolutist bent, this discourse employs a research method that is largely consistent with the heterodox standards outlined above. The method could perhaps be best described as a “let a thousand flowers bloom” approach to the analysis of work time. Indeed, one of the chief virtues of the heterodox approach is the wealth of potential alternatives or “visions” it fosters in the course of examining economic issues. By employing a broad or holistic research method, the heterodox approach avoids the methodological dangers of succumbing to the trap of ethnocentrism. According to Tabb (1999, p.8) the mainstream approach is often ensnared in the trap, defending “a preference set concerning the best way the world can be organized that is far from value neutral.” The danger of falling victim to ethnocentrism may be particularly acute while analyzing work time, because modern market societies tend to associate work schedules with the imperatives of the capitalistic market system rather than the many other social systems that have served to allocate material goods throughout history. In searching for truly perspicuous insights into the work time issue and for highly innovative solutions to work time scheduling, it makes sense then to employ as well equipped a toolbox as possible. The heterodox approach places a much wider array of theoretical and analytical tools at the economist’s disposal.

By drawing upon the Institutionalist methodology delineated above, this study attempts to create a mosaic of the work time issue in order to present an alternative way of understanding the work-time-determination process. This work time mosaic will commingle various types of evidence during the telling of the story, including

literature reviews, anecdotal testimony, qualitative statistics, survey results, case studies and, to some extent, appeal to commonly accepted canons of logic and intuition. The chief methodology contribution of the study therefore lies in providing the groundwork for a more comprehensive investigation of the determination of work time, which has been largely absent from the economics discipline in the past. Although the issue of work time has been a recurrent theme in economics, there is a notable dearth of far-reaching and authoritative studies. Thus the novel intent of the research is to espouse a new perspective to the issue of work hours determination that encompasses the viewpoints of the firm, the individual and the society at large rather than just a narrow constituency of vested individuals.

To summarize, the “critical historical method” seeks to narrate a very different story than that proffered by conventional economics. The method is not solely reliant upon the introduction of new data, but upon re-examining and re-contextualizing familiar and well-worn data. While it is still considered a minority viewpoint in economics, this approach should be recognized as having a long and rich tradition (Landreth and Colander, 1994 and Tabb, 1999.) Its application therefore serves an important function in preserving that tradition and providing insight into a continuing economic controversy. Moreover, as the evidence presented herein suggests, this approach may be more in tune with the other social sciences and humanities in this age of post modern fervor (Block, 1990 and Fogel, 1999).

Overview of the Present Study

The present study begins with an historical examination of the work time issue. The objective of the historical overview is to decipher whether work time decisions have been governed by natural or economic laws or by other institutional or cultural influences. This section also includes theoretical commentary on the work time issue from prominent economic thinkers. The history of the labor movement's crusade for shorter work hours is also presented under the historical heading. The historical examination of work time sets the stage for an examination of the contemporary work time debate. In an attempt to elucidate the debate over growing work hours in the United States, the discussion examines the pros and cons of the primary work time measurement techniques. The research then analyzes the work time statistics of both individuals and households over several decades to draw conclusion about trends in the average workweek. After careful examination of government survey data, labor studies, and other discussions, the chapter concludes by presenting two undeniable trends in American work schedules. Those trends being the increase in household work hours and the bimodal distribution of work hours.

Following the historical investigation of work time issues and the contemporary work time trends, the third chapter of the study critically examines the neoclassical approach to work time determination. This investigation features both the labor supply and labor demand aspects of the work hours determination, but, due to the emphasis that orthodox theory places on individual preference theory, disproportionate time and space is devoted to the foundations of the labor supply

curve. Specifically, the notion of a backward-bending labor supply curve is questioned, and a multitude of explanations are offered as to why workers may not retract their offer of work in the face of higher wage rates. The works of Institutional economist are drawn upon to illustrate that conditioned, traditional, or ceremonial behavior may prevent individual workers from supplying an “optimal” number of work hours. The analysis then turns to the many obstacles (chiefly proffered by New Institutional Economists) faced by the firm in the determination of optimal work hours, including bounded rationality, myopia, X-efficiency and ingrained habituation.

The fourth chapter suggests an alternative definition of optimal work time from the microeconomic perspective of the firm and the worker. The chapter focuses on the immediate productivity effects of work hours. The term ‘immediate’ is chosen to differentiate short-term productivity effects from the long-term societal benefits that feed back into the productivity of future workers. Since labor productivity, or per-unit-labor costs, is typically the salient concern for business managers, analyzing the effects of work time on worker output is a fruitful endeavor. The premise that work hours are a major determinant of productivity is advanced through an efficiency *week* hypothesis that parallels the efficiency wage arguments. The theory is founded in the notion that productivity increases are the result of two primary forces – wages and work durations. Just as higher wages may yield lower per unit labor costs, so might judiciously determined work hours. Empirical evidence from the implementation of work time reductions at the firm level is examined to elucidate the

impacts on labor productivity and firm efficiency. The corollary intent of including this chapter on the “industrial effects” of work time reduction is to show that the implications of short work time are not incongruous with the implications of the broader, more sociologically-centered approach that is presented in the fifth chapter.

After examining the determination of work hours at the firm and individual level, chapter five lays the foundation for an alternative approach to work time by questioning the pecuniary market bias in mainstream economic thought. The discussion in the fifth chapter suggests that the mainstream approach to work time determination has neglected the cultural context that surrounds and motivates the production and distribution of goods and services. The chapter reinforces the need for a holistic approach to the study of work time in order to erode the market mentality that has consistently placed the prospect of increased free time in the service of more consumption and greater production. The origins of consumer demand and the social competence of consumers are analyzed in this chapter in order to contemplate the urgency of production in a high-consumption economy. In addition to the psychological burdens that the market mentality places on both consumers and workers, the ecological costs of market-determined work time are also analyzed in this chapter. Finally, the possibility of increased leisure time being used in an anti-productive or odious behavior is examined in this chapter and ultimately dismissed as a non-sequitor.

The sixth and final chapter investigates the social costs that may result from a heavy reliance on a market-based determination of work hours. In order to capture the true social costs of excessive work times, traditional economic measures are

abandoned in favor of broader measures of social health and progress. Worker surveys are also offered as *prima facie* evidence of the growing conflict between work time preferences and actual work schedules. This chapter endeavors to show that the sacrifices made through long work hours are much more substantial than those arising as incidental externalities of a free-market determination of work hours. Chief among these sacrifices are parenting time, volunteerism, civic engagement, healthcare and self-realization. Since many of the social costs of overwork are of an 'opportunity cost' nature, the various macroeconomic and fiscal issues related to work time are discussed in this chapter. Mention is also made of the congruence between work time reduction models and the social efficiency models that a minority of economists has been advocating of late. Since the success that European countries have had in reducing work time suggests that the US could experience similar macroeconomic and social improvements from a nationwide reduction in work times, the chapter concludes by examining the results national work time reductions in other countries.

Based on the conclusions formulated from the re-contextualization of the social and economic optimality of work hours that the holistic research approach offers, implications for policy and further research are suggested in the concluding chapter. If alternative studies reach the conflicting conclusion that few social costs exist in the labor market and that work hours are near some optimal level, then future research efforts need only sophisticate the measurement methods presented in this study so that societies can routinely employ them to ensure that the economy is utilizing efficient work schedules. In other words, if work times are already widely

optimized, this research is still worthy because it contributes to the establishment of a comprehensive formalization of the potential costs of overwork, which seems to be woefully lacking at present.

However, if substantial social costs of overwork are present, or if there is no reason to believe that present workweeks are socially optimized, then the possibility arises for a more active role by industry, government and workers. Government must be prepared to assist employers in implementing progressive work patterns through a broad-based reform agenda, which is not limited to the labor market regulation alone. Indeed a workweek reduction strategy may have to be coupled with other national policies, such as a socialized system of healthcare or a more flexible retirement system, in order to make the endeavor of a socially-optimal workweek a less daunting task. Moreover, the final discussion over the optimality of reducing workdays, workweeks, work-years, or work-lives suggests that further research is needed on the specific manner in which to reduce work time.

CHAPTER ONE
THE HISTORICAL DEVELOPMENT OF THE WORKWEEK

"In effect, the progress towards a shorter work-day and a shorter workweek is a history of the labor movement itself."

-George Meany, 1956

As mentioned above the issue of work time has continually surfaced within the discipline of economics. However, unlike efficiency wage theories or other compensation and employment topics, it is rare to find an economic inquiry solely devoted to issue of work time. In order to grasp the full import of the work time issue, therefore, one has to refer to the works of many economic thinkers spanning multiple economic epochs. As a critical component of the alternative work time narrative, this chapter traces the history of work time and relevant economic thought in order to enlighten the reader as to the ramification of the work time issue and the rich intellectual history that the topic has enjoyed despite its disjointed nature.

This historical account attempts to ascertain whether contemporary work times are founded on technical grounds or whether they have been institutionally determined. Investigating the workweeks of pre-capitalist societies will help resist the temptation to tincture the work time analysis with our present definition of humane or oppressive work time regimes. The evolution of economic thought on the

issue of work time is of paramount importance because it illustrates the controversy and disheveled nature of the commentary on the subject. This chapter also attempts to chronicle the contributions that organized labor has made in establishing work time throughout history as those contributions speak volumes of the institutional nature of the work time debate.

A definitional clarification of terms should precede any discussion of work time. Whenever possible the discussion will be limited to just two different states of activity- working time and leisure time. Granted the term leisure time lacks specificity and conjures an image of frivolity, but labor market analysis has conventionally referred to all non-paid work time as leisure. Time away from the paid laborforce may more appropriately be labeled “discretionary time” but the usefulness of the demarcation does not warrant a break with traditional parlance.

However, it should not be lost upon the reader that time away from work can be used in a variety of fashions, ranging from idle pursuits to socially-reproductive endeavors. For the purposes of this discourse, the term “leisure time” will be all-encompassing, capturing all hours that are not used in paid-labor. This broad category captures a sundry of activities, including household production, housework, do-it-yourself repairs, commuting, personal care, sleeping, eating, et cetera. Thus, the notion of leisure time does not only refer to indolent hours spent in rest and relaxation but also to the many productive uses of discretionary, non-work time such as those devoted to caring or nurturing.

Work Time in Pre-Capitalist Societies

Myopic historical accounts of work time often give the impression that contemporary workweeks are relatively humane. Comparing a forty-five-hour workweek with the excruciatingly long weeks that were common during the Industrial Revolution paints a rather favorable picture of modern working conditions. Delving deeper into the history of work time, however, provides a starkly different perspective (Hunnicut 1996). Within Feudal societies, for instance, many more holidays were afforded the working class – in some years approaching as many as 150 annually. The work of the feudal serf was seasonal, which resulted in substantial leisure time for workers during the fallow season. Moreover, many experts argue that even during the harvest the work was conducted at a rather leisurely pace by today's standards (Schor 1991, Hunt 1995).

Searching further into our ethnographical past provides even greater evidence that the grueling work durations of the nineteenth century were an historical aberration. Marshall Sahlins (1972, p.3) argues that what we often refer to as primitive societies should be more appropriately termed "original affluent societies." Since hunters and gatherers are less prostrate to the narrow calculus of "Homo economicus," they tend to enjoy greater amounts of leisure time than their industrialized brethren do. According to Sahlins (1972, p.14), "a good case can be made that hunters and gatherers work less than we do." Rather than a continuous travail, "their quest for food is intermittent, leisure abundant, and there is a greater

amount of sleep in the daytime per capita per year than in any other condition of society (Sahlins, 1972 p.16).”

Studies of tribes from the African continent also suggest that the hours devoted to subsistence among these groups are relatively short. Studying the subsistence production of a dry season camp of 40 !Kung bushmen in Botswana, Richard Lee (1968) illustrated the sufficiency that the whole tribe enjoyed. Lee estimated that one man’s labor in hunting and gathering supported for or five people. This suggests that Bushmen were more efficient at procuring food than the French farmer in the period up until World War II, when more than 20 percent of the population were engaged in feeding the rest (Sahlins, 1972). In the particular camp that Lee observed, 65 percent of the tribe was effective food producers, the remainder being too young or old to contribute. Yet, these 65 percent of the people only worked 35 percent of the time. Hence, the !Kung bushmen workweek was approximately 15 hours long – or an average of just over 2 hours per day.²

Misperceptions about primitive societies were also rendered evident by the studies of Australian ethnographers, McCarthy and McArthur (1960). In their observations, they found that the average Australian aboriginal clan-member devotes between four and five hours a day to the appropriation and preparation of food. On other continents primitive societies have been know to devote as little as 2 or 3 hours per day towards food procurement (McCarthy and McArthur, 1960). Since the other material desires of tribesmen are minimal, the remainder of their time is spent in

² This weekly hours estimate does not include food preparation and maintenance of personal implements, but neither do modern measures of work time.

leisure. Perhaps the most salient lesson to be learned from primitive societies is that 'wants' may be satiated in two manners: by producing much or desiring little.

The leisurely work habits and casual attitudes towards time that were common among our progenitors ended with the mechanization introduced during the Industrial Revolution. The transformation from a tradition and command economy to a market society was not a smooth and gradual process but a long, tortuous and sometimes bloody one (Heilbroner and Thurow, 1998). In England, the bonds and customs of the medieval world were broken as peasants were expelled from their lands and forced to migrate to production centers. The British Enclosure Laws, the state fixation of wages, and the self-interested manipulation of the food supply effectively enslaved the peasant to the factory owner (Nyland, 1989).

Expensive investments in machinery during the industrial revolution caused the need for longer production runs. In order to economize on the costs of training and downtime, nineteenth-century employers regularly subjected workers to long work durations. Hunt (1992) argues that as England's putting-out system developed, eighty-hour workweeks were commonplace. Mechanization was unfettered by natural limits to the workday as gas lamps surmounted the daylight issue. The longer runs led to a greater demand for factory labor, which was effectively satisfied by the colonization of the agrarian household.

As workers became reliant on increasingly sophisticated machines to perform their tasks, training costs accrued – chiefly to the capitalist. The greater the number of skilled workers who mixed their labor with a particular machine, the greater the

training costs associated with a particular level of production. Employers came to believe that the more workers utilizing a specific machine, the greater the potential for productivity loss involved with transition time and reduced experience. As a result, standardized work intervals became much longer in industrialized economies than those of less automated countries.

The long workweeks brought about by the industrial revolution were fortunately an historical anomaly. It was generally agreed that the expensive equipment used during the Industrial Revolution should not be left idle, but surely more than one worker should be responsible for its efficient utilization. Class conflict and growing labor unrest eventually forced employers to abandon extensive work times. Although the shortened day arguably became more intense, workweeks eventually declined to the ubiquitous 40-hour standard, hovering slightly above that in the United States today.

The alternative historical narrative of work time illustrates how focusing our frame of reference on the era of the Industrial Revolution can lead to erroneous conclusions about trends in work time. John Rae (1894, p.217) offers particularly poignant commentary on the topic,

It would appear then, from many different sources of evidence, that in the old England before the industrial revolution, people everywhere accustomed to season their toil with a due admixture of repose. It is the short day, after all, like liberty, that is ancient; long hours, at least in this country, are but a modern and happily transitory innovation.

Economic Thought and the Work Hours Issue

As previously mentioned, many prominent figures in the history of economic thought have visited the issue of work hours. Although the issue has not received the attention that other labor market topics, such as wage compensation, have been afforded, economists have repeatedly been called upon to contemplate the work time issue. Not surprisingly, Adam Smith was one of the first observers to comment on the subject of work hours. Smith broke with the mercantilist doctrine that low wages and long hours were required for high rates of daily output. In the *Wealth of Nations*, Smith ventured the notion that shorter hours and higher wages could enhance the incentive to produce.

It is the call of nature, which requires to be relieved by some indulgence, sometimes of ease only, but sometimes too of dissipation and diversion. If it is not complied with, the consequences are often dangerous, and sometimes fatal, and such as almost always, sooner or later, bring on the peculiar infirmity of the trade. If the masters would always listen to the dictates of reason and humanity, they have frequently occasion rather to moderate, than to animate the application of their workmen. It will be found, I believe, in every sort of trade, that the man who works so moderately, as to be able to work constantly, not only preserves his health the longest, but in the course of the year, executes the greatest quantity of work. (Smith, 1994 p.94)

Although Smith (1994) realized that short hours could yield industrial and social dividends, he questioned the ability of the working class to comprehend these benefits and pursue reduced work time. In modern economic terms, Smith questions whether workers could adequately balance the benefits of greater income with those of increased leisure. The lion's share of workmen would not discount their future labor in a manner that is optimal for industry and society. Smith (1994, p93) expounded that,

Some workmen, indeed, when they can earn in four days what will maintain them through the week, will be idle the other three. This, however, is by no means the case with the greater part. Workmen, on the contrary, when they are liberally paid by the piece, are very apt to over-work themselves, and to ruin their health and constitution in a few years.

Thus for Smith, the typical workman would not substitute leisure for income in a manner that was optimal for industry and/or society.

Irrespective of Smith's admonitions about the sedulous nature of the working class, many of his successors put greater faith in the ability of workers to desire and obtain greater leisure time. Marginalists believed that if the pains or dangers of overwork came to outweigh the benefits of higher income, workers could indeed register their dissatisfaction. Since workers had not adamantly protested long working hours, Marginalists concluded that the perils of overwork were not as severe as Smith had warned. Consequently, economic theory came to reinforce the industrial policy that work time could be increased with little disruption to the productivity of the system. As such, economic thought assumed a positive linear relationship between work hours and output. Even with the productivity windfall brought about by mechanization, few economic theorists seriously considered reduced work time as a means of distributing the new found fruits of the economic system.

Perhaps a major reason Smith's successors did not give more store to the ability of work hour reduction to boost productivity is the conservative view of human nature that permeates neoclassical economics. Neoclassical economists have come to rely on Mill's notion that workers are innately slothful. Their paradigm is founded upon the force of terror or hunger as an impetus for work. Neoclassical

theory and policy almost always manifests a reliance upon Arthur Young's maxim that "everyone but an idiot knows that the lower classes must be kept poor or they will never be industrious (cited in Nyland, 1989)."

The emphasis placed on Mill's characterization that the working class possesses a natural indolence illustrates the class biases inherent in classical political economy. Evading the question of how to divide the benefits of improved productivity between investment, consumption, and free time, was easier than making normative distributional decisions. It was less controversial to direct the productivity dividends back into the economic system in the name of further economic growth than to broach work time and quality of life issues or to test the presumed torpor of the working class.

As the industrial revolution reached its maturity, however, there was a fledgling movement to protect the working-class from the capitalists' bias towards more output and greater automation. The oracle Karl Marx became the chief spokesperson against the capitalists' attempt to extract greater surplus value from the worker. Karl Marx held a quite different view of the effects of wage hikes or work time reductions on the welfare of the worker than those of the neoclassical camp. Although optimistic that better wages or shorter hours would make workers more productive, he questioned whether workers would ever be allowed to share in the fruits of the enhanced productivity under a capitalistic regime.

Marx reckoned that the capitalist, even though he had the data and wherewithal to truly study productivity issues, would not easily see the virtue in high wages or short work hours. Workers were treated as the reified inputs of a capitalistic

Leviathan. Moreover, Marx was not optimistic about technological advances bringing about a reduction of work hours. In fact, his theory of the capitalist's falling rate of profit relies on the recalcitrance of the workday. As capitalists substitute capital for labor, they do not reduce the workday: but rather the hours of labor devoted to subsistence wages falls while the hours devoted to surplus labor grows. In *Capital* Marx (1867, p.236) writes,

Like every other increase in the productiveness of labour, machinery is to cheapen commodities, and, by shortening the portion of the working day, in which the labourer works for himself, to lengthen the other portion that he gives, without equivalent, to the capitalist.

Hence, Marx did not dismiss the usefulness of a work hour reduction but relied on external, namely revolutionary, forces to bring about its implementation.

One of the main goals of the *Communist Manifesto* and Marx's chapter on the "The Work Day" in *Capital* was the reduction of work hours. Marx (1867) argued that with the all-round development of the individual, productivity would not be a problem. By increasing the non-paid labor pursuits of the individual, the worker would become more productive during the shorten time spent in the paid-labor force. Marx (1867, p.232) noted that, "the labourer needs time for satisfying his intellectual and social wants, the extent and number of which are conditioned by the general state of social advancement." As was often thought of subsistence wages, Marx believed that the length of the working day was ruled by psychological and social factors rather than physiological concerns. The optimal workday (and wage rate for that matter) was not defined by hard and fast economic or natural laws but rather by the state of

‘sociological advancement.’ For Marx, more advanced societies would require more non-work time to allow for the complete development of the human experience.

Although Marx was appalled by the inequities of capitalism and the material deprivation of the working class of his time, he was aware that with the increasing productivity of the capitalistic system it would become possible for the workers to win higher wages and greater material possessions. The fundamental evil of capitalism, Marx insisted, was not necessarily the material deprivation of workers. Rather, it was the fact that capitalism systematically prevented individuals from achieving their potential as human beings. Marx (1969, p.67) admonished that,

A man who has no free time to dispose of, whose whole lifetime, apart from the mere physical interruptions by sleep, meals, and so forth, is absorbed by his labour for the capitalist, is less than a beast of burden. He is a mere machine for producing foreign wealth, broken in body and brutalized in mind. Yet the whole history of modern industry shows that capital, if not checked, will recklessly and ruthlessly work to cast down the whole working class to this utmost state of degradation.

The production process stultified the human experience. The capitalist system arrested the development of the workers biological, emotional, aesthetic, and intellectual potential (Hunt, 1995). Thus, Marx was more solicitous about the system alienating the worker than depriving them of material necessities and accoutrements.

Although Marx was mostly concerned with the working class and the overall welfare of society, he was also aware that a reduced workweek could be a boon to the capitalist in the form of higher labor productivity. Marx was prescient in his suggestion that increased labor productivity was chiefly a result of an increase in the intensity of the work effort. Marx (1967, p.533) insisted that,

The readers will clearly see that we are dealing here, not with temporary paroxysms of labour but with labour repeated day after day with unvarying uniformity. Hence, a point must inevitably be reached where extension of the working day and intensification of labour become mutually exclusive so that the lengthening of the working day becomes compatible only with a lower degree of intensity and inversely, a higher degree of intensity only with a shortening of the working day.

Since the intensity of the work effort was the paramount source of labor productivity, increased productivity depended heavily on the morale workers brought with them to the factory. According to Marx, any shortening of the workday would be accompanied by an increase in the intensification of labor. The gradual reduction of the workweek to forty hours from the extensive workweeks of the 1800's was indeed made possible by an intensification of work effort. Nascold (1979) correctly cautioned that, "the traditional trade union policy of countering increased intensification by curtailing the length of the workers labour fails to consider the consequences in terms of intensity that will follow a contraction of this nature."

It is not surprising that Marx was one of the first to emphasize the intensity of work in the work time debate because he was also one of the first to articulate the fact that human laborers are starkly different from the labor power that is extracted from them. Unlike machines, a worker can apply herself with varying degrees of intensity and zeal. As Nyland (1989) points out, the employment contract typically consists of two elements: first, an agreement on the wage per unit of time; second, an agreement on the amount of work to be undertaken – that is an "effort bargain." Typically, the wage rate is precisely defined while the effort bargain is implicit or nebulously defined. According to Nyland (1989, p.38),

At most there are vague references to an implied level of effort considered acceptable which rests on intuitive norms of what constitutes a fair day's work... What the employer pays is predetermined while what is received for this payment is open-ended.

Indeed, work intensity is determined by a plethora of factors. The most salient determinates being; work satisfaction (through both material and intangible rewards), work safety, effectiveness of management, cost of job loss, and equality or opportunity. Workers, treated as societal beings and not reified inputs into the production process, will likely manifest a more intensive labor power. Their personal lives matter and the time they spend away from work may greatly enhance their productivity while on the job. Braverman (1974, p.9) employs similar terminology in his commentary of the separation between labor and labor power,

Labor, like all life processes and bodily functions, is an inalienable property of the human individual. Muscle and brain cannot be separated from persons possessing them; one cannot endow another with one's own capacity for work, no matter at what price, any more than one can eat, sleep or perform sex acts for another. Thus, in the exchange, the worker does not surrender to the capitalist his or her capacity for work. The worker retains it, and the capitalist can take advantage of the bargain only by setting the worker to work. But what the worker sells, and what the capitalist buys, *is not an agreed amount of labor, but the power to labor over an agreed period of time* [sic].

Whereas classical economists made work time a non-economic issue, Marx's emphasis on class relations and productivity brought the subject back to the forefront. As Nyland (1989, p.78) notes, the neoclassicalists made "no real attempt to integrate the issues of fatigue and the workers' need for adequate time to recuperate from the demands of the production process into the debate as did Smith, Marx, Chapman and Florence." Marx's caustic criticism of the conflicting nature of capital and labor was crucial in compelling the economics profession to

address the issue of labor market inequities. Thus the stage was set for work time to become a central issue in the dialectical relations between worker and capitalist and one that labor activists would soon seize upon.

Although Veblen did not comment specifically on work time at any great length, his essay on “The Instinct of Workmanship and the Icksomeness of Labor” (1964) is particularly insightful when examining how individuals view the work process in a capitalistic setting. For Veblen the aversion to labor, seemingly ubiquitous in industrial democracies, is merely a habit of thought created by invidious displays of predatory power. In Veblenian terms, the instinct of sportsmanship may appear to dominate workmanship, if those with a proclivity to fight or pillage rather than work unduly influence cultural customs and norms. In explaining why labor is often viewed as irksome, Veblen (1964, p.83) writes,

If mankind is by derivation a race not of workmen but of sportsmen, then there is no need of explaining the conventional aversion to work... Work is unsportsmanlike therefore distasteful, and perplexity then arises in explaining how men have in any degree become reconciled to any but predacious life.

Since the spoils of work result from a dominance over oneself, there is little room for exploitation and hence little to attract the predacious individual. Only the dominant soul will try to rid himself of the “need” to work in order to devote more time for exploitative pursuits. Society has thus come to think of leisure time as being synonymous with superiority, wealth and power. Leisure time becomes an invidious display of wealth and is, therefore, neurotically coveted by individuals from nearly every station of society.

The “neurosis” stems from the fact that the cultural mores compelling us towards the pursuit of leisure time are in discord with what our natural instincts are telling us. Veblen (1964, p.84) offers substantial evidence that mankind has historically been driven by workmanship rather than sportsmanship,

Throughout the history of human culture, the great body of the people have almost everywhere, in their everyday life, been at work to turn things to human use. The proximate aim of all industrial improvement has been the better performance of some workmanlike task... It will not do to say that the work accomplished is entirely due to compulsion under a predatory regime, for the most striking advances in this respect have been wrought where the coercive force of a sportsmanlike exploitation has been least... Whenever they dispassionately take thought and pass a judgment on the value of human conduct, the common run of mature men approve workmanship rather than sportsmanship.

The lesson in Veblen’s teachings is that purposeful activity is not in and of itself irksome, but laboring under a predatory or sportsmanlike system may create the confusion that it is the labor rather than the situation that is resented. Veblen refers to this confusion or workplace disharmony as a sort of spiritual disincentive. Veblen (1964, p.95) writes,

The irksomeness of labor is a spiritual fact; it lies in the indignity of the thing. The fact of its irksomeness is, of course, none the less real and cogent for its being of a spiritual kind. Indeed, it is all the more substantial and irremediable on that account. Physical irksomeness and distastefulness can be borne, if only the spiritual incentive is present.

Culturally instilled values of competition and acquisitiveness create a demand for leisure as a display of conspicuous wealth, not as a means of escaping social involvement or useful effort. The fact that those in the lower stations of the work force typically show a greater aversion to work speaks to the fact that the repulsion does not necessarily stem from the work itself, but the predatory hierarchy of the

system. In a Veblenian sense, restructuring economic activity – perhaps by supplanting corporate production with household production or volunteerism – may well lead to a more enjoyable way of obtaining material sufficiency.

Veblen's analysis of the predatory nature of work arrangements complemented Marx's strictures of capitalistic labor processes and provided mounting evidence for proponents of reduced work time. As Marxist and other social criticisms of the labor market began to threaten the mollifying powers that the pursuit of growth had on the working class, Neoclassicalist economists routinely appealed to free will as an argument against work time reductions. A legislated reduction of hours, it was argued, would be an infringement upon the civil liberties of those who wished to work longer. In the neoclassical mindset, work time decisions should be the prerogative of the sovereign worker. For instance, the Marginalists chose to explain the late nineteenth-century movement for shorter hours as the propensity of workers to seek free time as real incomes rose. The movement towards shorter hours was thereby trivialized in mainstream economics as a simple consumer choice calculus between goods and leisure, rather than a bona fide means of bringing about improvements in labor productivity and societal welfare. Thus, although some questioned the distributional justice of industrial economies and the ability of workers to make truly sovereign decisions, the "rising tide" of economic growth and deregulated labor markets persisted as lodestars of economic policy.

Political Economist John Rae took exception to the notion that the short hours movement grew out of a penchant among the working class for shorter hours as a

result of greater real incomes. Rae (1894, p.218) claims that, “this theory of the origin of the short hour movement, while containing elements of theoretical plausibility, is not in accordance with the historical facts.” It was not the high-paid workers that were demanding shorter hours with their new-found, greater disposable income, but just the opposite. Rae (1894) believed that relatively low-paid workers had been the true gadflies in the short hour movement, often sacrificing out of their abject penury to obtain them.

Since it is more difficult for penurious workers to cope with wage reductions, there was added incentive to increase productivity. Consequently, Rae (1894) was convinced that increases in labor productivity would be the salient result of further work hour reductions. In 1894, Rae (p.240) wrote:

The question of questions therefore, in connection with any proposed further reduction of the hours of labour, is the question of the probable effect of the change on the personal efficiency of the workpeople. If short hours meant short product, they would mean short profits and short wages too; and good wages are at present as essential to the improvement of most of the working class as more leisure; but shorter hours may not really mean shorter product, for they may so better the quality of labor that as much is done afterwards in the short day as was done before in the long. They have invariably had that result sooner or later hitherto; and the pith of the eight-hours question is the question of how far a new reduction of the day of labour may be reasonably expected to be attended with that result again.

Rae (1894) believed it impossible to predict an exact measure of the degree to which the quality of the workers’ labor power would be enhanced by a further reduction in work time, but that such knowledge could be gained by experimentation. Rae called for more empirical studies to be undertaken in hope of overcoming the prevailing preconceptions of those asserting that work time and output were proportionately related.

Rae (1894) also groped towards the notion that firms could experience productivity enhancements from work hour reductions through a type of “shock effect.” Competition alone may not be a sufficient means of ensuring that capitalists utilize resources in the most productive manner. He argued that firms often possess hidden “reserves of personal efficiency” that tended to be discovered and tapped wherever and whenever reductions in standard times were introduced. Rae (1894) promulgated three manners in which work time reduction could foster greater labor productivity. First, a work hour reduction enabled both machine and worker to toil more intensively. Second, shortened work time also enabled workers to labor more intelligently due to lessened fatigue. Third, better management practices would allow employers to tap a reserve of efficiency formerly concealed by long work schedules.

Productivity improvements could come from a ‘hauling in of slack,’ from abolishing old habits of working in fits and starts or of sheer dawdling. When employers are compelled to adopt reduced schedules, they put more effort into ensuring that labor time is utilized as efficiently as possible. In addition to using workers more efficiently, an alteration of work times could inveigh firms to better manage their plant, property and equipment. As contemporary experience in Europe has shown (see Chapter 6), the management of personnel and machinery scheduling in the United States might be stuck in a rather backward state.³ The extension of machine-operating hours represents a potential reduction of per unit labor cost for employers and, consequently, a higher standard of living for workers. The interest

³ International airline carriers may provide the best example of the efficient use of expensive capital equipment as they make valiant attempts to keep their aircraft in flight as frequent as possible.

and other overhead costs of plant, property and equipment can be economized upon when operating hours are expanded.

S.J. Chapman (1909, p.369) offered a simplistic way of contemplating the benefits of longer operating hours,

If work hours per day were raised from ten to twenty-four, then, the reaction on the efficiency of labor (of reduced work hours) still being disregarded, the old output could be obtained with five-twelfths the old capital; the consequence would be a fall in interest, an augmentation of the amount of the plant per head of the people working with it at one time, and therefore, an increased output per head.

As the link between individual labor hours and operating hours was broken, the capitalists could economize upon almost every fixed cost of production. Thus, one implication of work time reductions continues to be a re-examination of shiftwork and its relation to production and operations management. As the industrial revolution reached maturity, operations management in both the United Kingdom and the United States underwent a restructuring of this sort in the name of Taylorism—named after its innovator Fredrick W. Taylor.

As the close of the nineteenth century set in, both the United States and Europe witnessed the development of large monopolies and the wholesale consolidation of large industries (Nyland, 1989). The greatly expanded size of the US corporations in particular enabled them to exercise substantial control over the market.

Rather than using the traditional method of increasing efficiency to bring about an acceptable level of profit, American firms used their significant clout to curtail competition and restrict production (Veblen, 1978). Growth in the size of firms

created difficulties with labor control because workers soon realized that, given the existing wage system, there was little to gain from working harder. Capitalists of the time tended to view the buying and selling of labor as a “zero-sum game” in which a gain to the employee was a loss to the employer. A fair day’s wage was set in accordance with the customary wages prevailing in the locality, and piece rates were frequently reduced if per unit labor costs rose much above those for time rates (Nyland, 1989). With firms paying what many today would call “inefficient wages,” workers had an inordinate incentive to shirk and voluntarily withdraw their productivity.

The labor management problems stemming from the concentration of industries soon gave rise to a new movement of scientific management. Since the movement was spearheaded by Frederick W. Taylor, it came to be recognized under the label of “Taylorism.” Taylor believed that his systematic approach provided the means to ameliorate the managerial problems of low productivity, stagnant wages and slacking profits. He also believed that the scientific management of large firms could provide a profound benefit - that being a means of easing the struggle between the classes. He argued that workers wanted, above all, high wages from their employers, while the employer coveted labor power at a price that would lower costs of production. These motives, Taylor insisted, were not diametrically opposed. They could be made congruous if “both employer and worker turned their attention from the division of the spoils of production and concentrated instead on applying science to increasing the magnitude of the output and surplus (Nyland, 1989).”

Taylor envisioned productivity increases so large that the long-standing frictions between capitalists and workers would vanish into thin air. However, he believed there were two primary obstacles to be overcome in attaining the goal.

Taylor (1903, p.1348) writes,

The chief causes which produce this loss to both parties are: First, and by far the most important: The profound ignorance of employers and their foreman as to the time in which various kinds of work should be done (and this ignorance is shared largely by the workmen) ...Second: their indifference and ignorance as to the proper system to adopt and the method of applying it, and as to the individual character, worth, and welfare, of their men...On the part of the men the greatest obstacle to the attainment of this standard is the slow pace which they adopt, or the loafing, soldiering or marking time, as it is called.

Since capitalists had little knowledge of what was the most effective means of accomplishing production tasks or how much work their employees were capable of sustaining, they had no accurate way of knowing if they were receiving a fair return on the wages they paid. Consequently, they were perpetually tempted to cut wage rates or demand longer hours when faced with increased competition. Based on his assumption that workers were innately indolent, Taylor felt that capitalists could not rely on the workers' goodwill to bring forth higher labor productivity. Higher productivity could only be brought about by the pecuniary rewards of higher wages (Taylor, 1903).

Taylorism was greatly disparaged for its supposition of financial reward being the worker's primary motivation. The theory was maligned for ignoring the human relations of workers and the worker's capability to respond to influences other than money (Nyland, 1989). The failure to treat workers as social beings had the potential to inflict acute distress upon the working class. Many British critics argued that the

development of scientific management needed to be accompanied by the growth of a strong, independent labor movement with the power to bridle the manner in which Taylor's tools were used. As Cole (1928, p.56) argues,

Time-study, motion-study, and the other expedients of Scientific Management may have some beneficent results, especially in such spheres as the study of industrial fatigue and the relation of output to hours of labour. But here again science must not be the monopoly of the management or of the employer. The Trade Unions must equip themselves with the knowledge that is required, and "science" must become the handmaid of collective bargaining.

Thus, in addition to being a management issue, the "science" of labor usage became a major concern for labor unions.

A cadre of progressive minded political thinkers in Britain provided the labor movement with a sound theoretical foundation for an hours-reduction movement.

The theory of hours redistribution, espoused by advocates as varied as H.M.

Hyndman, Sidney Webb, George Bernard Shaw, Henry George, J.S. Mill, and David Hume, held that fewer hours would shift wealth from capital to labor (Cross, 1989).

In essence, the redistributionist argument was a rejection of the classical Wage-Fund theory, which claimed that job-sharing schemes would only reduce individual

salaries. The "Redistributionists" showed how reduced hours could raise wages:

workers' pay was not the product of output divided by the supply of labor but was

determined by labor demand. Reduced hours would force employers to hire

additional workers and thus raise wages. This argument relied on what has become

known as the "lump-of-labor" theory. It is essentially the proposition that there is a

limited number of work hours within the economy and that limiting individual hours

is akin to a reduction of labor supply. According to this reasoning, limiting work hours was an effectual way to reduce the “surplus army of unemployed workers.”

Acting in unison, workers could inflict a collusive reduction in the supply of labor – not unlike the method used by the cartels of other productive factors. Lower profit, interest and rental income would soon follow for the capitalist, rentier, and landlord. The “Redistributionists” thusly joined Adam Smith in his admonition that a single unorganized worker was at a competitive disadvantage in bargaining over wages and hours with employers who are always and everywhere in a state of collusion. For these later day disciples of J.S. Mill, labor unions and strikes became a valid strategy for labor in its attempt to counterbalance the power of the capitalist.

The Labor Movement and Work Time

"I want bread and butter for every working man and an hour to think."

– Samuel Gompers

During the inchoate days of labor union history, increases in leisure time were viewed by labor leaders as a benefit of a well-functioning economy. Workers, who were liberated from the tyranny of the clock, were able to engage in socially-favorable activities such as childcare, skills transfer, volunteerism, and other community efforts. Mindful of the fact that productivity increases could yield dividends in the form of shorter workweeks or higher wages, labor unions once battled as truculently for hour reductions as they did for wage increases.

In their fight for shorter hours, however, labor leaders did not take an "anti-progress" approach to the cause. Unions were initial apologists of automation, viewing mechanization as a means for all workers to share in the fruits of increased free time. Thus, efforts to preserve the family did not look to revert to the earlier agricultural or cottage industry, but rather advocated family time spent away from the factory. Instead of abandoning the factory system, reformers searched for ways to make it more humane.

Britain's Ten Hour Act of 1847 was the first major work hour reduction achieved through organized efforts. The movement started in 1819 when legislation demanded a twelve-hour day for children in cotton textile factories. By 1833, the maximum work hours for children were reduced to eight. Finally, in 1847 working hours for women and children were restricted to ten. Initially, these laws only applied

to textile factories, but were gradually extended to a variety of trades. Although they excluded men, Cross (1989, p. 25) argues that, “the close relationship between male and female labor often led to the same reduced hours for men.” The combined labor legislation of the mid-1800s is commonly referred to as the Factory Acts.

The Factory Acts provided the first real pretext for an advance debate on work time. Nassau Senior was particularly active in the debate, but, unfortunately, his insights paled in comparison to his alacrity for the issue. Although his analysis was later disparaged and largely discredited, Senior asserted that a reduction in work hours would inevitably lead to a reduction in output due to idle capital. In his *Letters on the Factory Acts, 1837*, Senior states, “When a labourer lays down his spade, he renders useless, for that period, a capital worth eighteen pence. When one of four people leaves the mill, he renders useless a capital that has cost 1000.” What Senior and others had overlooked is that the spade or machinery could certainly be employed by other workers. Indeed, if but one employee is trained to use a piece of capital equipment, the productivity of that capital will be much lower than if a team of trained employees were to mix their labor with it at different times. But nothing says that multiple workers cannot mix their labor with capital at various times to prevent it from ever laying idle. Such swiftwork was quite prevalent during the time of Senior’s commentary, which is what makes the banality of his analysis most curious. As the case studies in chapters four and six illustrate, productivity windfalls associated with the ascendancy and sophistication of shiftwork in the intense market economy is testament to the benefits of the frugal usage of expensive capital and overhead.

British workers were not the only ones to enjoy relief from excessive work hours. Resistance to exhausting work standards heightened throughout the 1800's, and culminated in major hours reduction in a variety of countries. As early as 1827 in France, J.J. Bourcart, a textile manufacturer, argued that the fifteen-hour day in French mills was less productive than the twelve-hour day that prevailed in Britain. Moreover, long hours for French children were producing a generation of moral and physical degenerates. Bourcart cited British medical advisers such as Dr. C.T. Thackrah of Leeds, who stressed that with long factory hours, "human beings...decay before they arrive at the term of maturity (Cross, 1989 p.31)."

With work hour restrictions in place, however, employers became increasing crafty in their speed-up techniques and the ten-hour day was soon perceived by workers as being exasperatingly intensive. This increasingly intensity led to still greater efforts to make working hours less extensive around the globe.

Toward the end of the 19th century, the shorter work hours movement became popular in America as well. Work hours were central to one of the most infamous labor conflicts in American history. In Chicago on May 4, 1885, three thousand persons gathered to protest long hours and abject working conditions. As dawn approached, 180 policemen advanced and ordered the crowd to disperse. When a bomb exploded near the police – killing seven officers and wounding sixty – they fired into the crowd killing several people and wounding two hundred. With no evidence as to the origin of the bomb, the police arrested eight anarchist leaders in Chicago – only one of which had even been at Haymarket that day. When the jury

found them guilty and sentenced them to death, it immediately incensed global interest in labor conditions. The Haymarket Massacre galvanized the labor movement and served as an impetus for labor to become an influential political force in America.

In the early day of the American Labor movement, the curtailment of the working day was a chief political concern in America. During the Great Depression, for instance, significant work reductions were proposed as a stratagem to reduce unemployment. The thirty-hour-work week, it was argued, would put pressure on employers to hire back a portion of the 25 percent of the work force that had been laid off in the early 1930's. Legislation of a thirty-hour-work week actually passed the Senate during the Roosevelt Administration, but met truculent opposition by business leaders whose political clout allowed them to convince the President to abandon the bill.

In the post WWII era, the Labor movement in the US seemed to ascribe less importance to the issue of work duration than it had historically commanded. After a long post World War II hiatus, however, work time issues have slowly climbed back to the top of labor union agendas in both America and Europe. Since unemployment remains a chronic malady in many European countries, the lion's share of work time reduction plans proffered overseas are done so with an eye towards reducing unemployment or layoffs.⁴ In America the objective of most work time reduction plans is to increase employee retention and recruitment. This goal has tended to

⁴ Unemployment would likely be as significant a problem in the US as it is in Europe if it were not for massive Federal employment of military personnel and the controversial incarceration of 1.5 million working age men (See Reich, 2000 *Marketplace*.)

favorably impact the firm's overall productivity and is quite congruent with the efficiency week approach to work time determination that is presented in chapter four.

Although the objective of European work time reforms of 'spreading the work' and increasing economic participation throughout society is a commendable one, they have tended to overlook the productivity gains that have been realized by simply allowing workers to toil fewer hours per week. Labor unions might be better served by emphasizing the potential for labor productivity enhancements over the employment gains brought about by work time reductions. Present day labor leaders should indeed take advantage of the growing body of European evidence that supports the "efficiency week hypothesis," outlined below. In so doing, they could begin to advocate an agenda of work time reform that has the potential of returning the US economy to the productivity growth rates that were once prevalent when Americans worked less.

The alternative narrative to the history of work time offered in this chapter has uncovered evidence that casts suspicion on the notion that the workweek is founded upon technical or physiological criteria. Work hours have been characterized by substantial variation across countries, industries, cultures, and societal arrangements. Just as the iron-law of wages was culturally defined rather than physiologically determined, work durations are prostrate to similar institutional influences. Prevailing work hours seem to result from a culmination of influences including; labor struggles, the altruism of welfare capitalists or progressive governments, and even tight labor markets. To say that work hours are solely determined by the economic calculus of workers and employers does not seem consistent with historical

facts. On account of this inconsistency, the work hour determination process will be further examined in chapter three. Prior to that, however, it is worth investigating the manner in which contemporary economists have come to measure the work hours the average American worker and other critically important laborforce subgroups.

CHAPTER TWO

CONTEMPORARY U.S. WORK HABITS AND THE WORK TIME DEBATE

This chapter attempts to illuminate the trends in work time for the average American worker and important sub-groups within the laborforce. It addresses the now controversial topic of whether or not the average American worker is logging more hours today than in the early 1970s. The examination of this controversial topic requires an investigation of the evidence in the debate over the growth rate of average working hours and the measurement techniques commonly used. This inquiry is potentially fruitful because it assists in contemplating worker claims of excessive work hours and also helps in considering the impacts of labor market trends on labor and social productivity. The subject of the variability of work hours also casts light on the broader research question of whether or not contemporary work times are determined by technical or natural laws or if other institutional aspects are governing work schedules.

Work Hours for the Average American Worker

Be it an effort to achieve increasingly profligate lifestyles or simply an attempt to combat declining real wage rates and job insecurity, Americans have not

enjoyed more free time as a quid pro quo for their increased labor productivity. Quite the contrary, most work time studies have concluded that the average American worker has experienced a steady increase in work hours over the past several decades. Reports from the International Labour Office (ILO) recently indicated that the average US worker logs more work hours than any other industrial worker does. The ILO's *Key Indicators of the Labour Market* reports an average American workweek of forty-six hours in 1998.

Indeed, much of the increase in work hours has been a result of the strong economic growth the US has experienced relative to other nations over the last decade. However, even when such growth is statistically controlled for, work time figures have shown a gradual increase for nearly three decades. Depending on the estimate chosen, the average American manufacturing worker now toils between 65 to 165 hours more per year than in the early 1970's (Schor 1992, 29; Mishel and Bernstein 1994; Bloodstone and Rose, 1997). This same time span has been plagued with a gradual deterioration in productivity growth rates. A principal objective of this discourse is to address two questions that stem from these developments. First, could the overworking of the American hireling be contributing to paltry *labor* productivity gains? Secondly, could longer individual work hours, an inequitable work hour distribution, and longer paid labor hours for households be resulting in smaller gains in *social* productivity? Before addressing these productivity issues in later chapters, the objective of this chapter is to separate fact from fiction in the debate over the growth of working hours.

Claims of increased work time among American workers are not without their critics. A minority of analysts has argued that work hours have actually fallen in the U.S. This conflict has sparked a debate over how to properly measure work time and correctly interpret the data. Since this debate warrants attention in any work time discussion, it is instructive to explore it here before attempting to discern the actual trends in modern work time.

Since the late 1980's, the topic of working hours has increasingly captured public attention. A growing number of economists are now challenging the notion that Americans are subject to rather constant levels of working hours. On one side of the debate, economists have employed survey data from sources such as the Current Population Survey (CPS), the Census and the Panel Study of Income Dynamics (PSID) to show a marked increase in working hours. On the other side, researchers, relying on time diary data, have claimed that Americans are experiencing more leisure time than ever before.

Generally, there are three main data sources for hours of work. The first is data provided to the government by businesses. This data source has had little bearing on the working hours debate because it measures hours per job function rather than per person. Due to the growth in moonlighting and the underground economy, the establishment data is not particularly useful in analyzing trends in individual or household time data (Schor, 1997). The second type of data is household surveys. These are typically large government data sets that provide representative samples of the population. They use recall questions about weekly hours and weeks of work per year such as "how many hours did you work last week?" The inquiry as to "weeks of

work per year” greatly differentiates the household surveys from the third data source– time diaries. In time diary surveys, respondents are asked, at fifteen-minute intervals, to record how they are using their time over a 24-hour period. Some of the time diary surveys use recall methods similar to those of the household surveys in every manner but frequency.

As Table 1 illustrates, household surveys have been the most popular, and perhaps the most reliable, source of data on work time. Their superiority over the employer surveys stems from the fact that employers only record hours on particular jobs. Therefore, the hours worked by multiple job-holders are not captured by employer data. If a worker switched from working 40-hours at one job to working 25-hour at two jobs, the employer survey would signal shorter working time while household surveys would show just the opposite. The chief advantage household surveys have over time-diary surveys is that time diaries only accurately measure weekly hours and have not been used to measure annual hours.

Table 1. Work Time Research Findings

Period	Change in Work Hours (Average)	Sample	Data	Sources
1979 to 1994	+3% Increase (63) Annually +36% Increase (317) Annually	Men Women	CPS	Economic Policy Institute
1976 to 1993	+2.4% (1) Weekly, (100) Annually +5.9% (2) Weekly, (233) Annually	Men Women	CPS	Rones, Ilg & Gardner (1997)
1982 to 1995	+140 Annually	Workers Aged 24-54	CPS	Uchitelle (1997)
1967 to 1989	+3.3% (66) Annually	Workers Aged 24-54	PSID	Bluestone & Rose (1997)
1982 to 1995	+140 Annually	Workers Aged 24-54	PSID	Bluestone & Rose (1997)
1982 to 1995	+600 Annually	Working Couples	PSID, CPS	Bluestone & Rose (1997)
1969 to 1989	+7% (86) Annually, +16% Annually	Average Worker, Working Families	CPS	Leete & Schor (1994)
1969 to 1987	+98 Annually, +305 Annually +163 Annually	Men, Women, Average	CPS	Schor (1991)
1973 to 1995	+10.3 Weekly (Median)	Workers	Poll	Louis Harris & Assoc.
1960 to 1988	-2.1% (.9) Weekly, -1.9% (.8) Weekly, -2.0% Weekly, -3% Weekly	White Men Black Men White Women Black Women	Census	Coleman & Pencavel (1993)
1965 to 1985	-5 Weekly	Workers	Time-Diary	Robinson & Godbey (1997)

As previously mentioned, the contention that Americans are working longer is not without controversy. In A Quest for Time, authors Robinson and Godbey (1997) argue that time diaries more accurately reflect work times than the government surveys which analysts have hitherto relied upon. Their analysis of time diary data results in average work hours actually falling between 1965 and 1985. The scholars claim that interviewees have a clouded notion of what they consider work when reporting it to government officials, because they often include lunch breaks and commuting time in their estimates. Presumably, the nebulous effect does not apply to individuals logging work time into a diary at shorter intervals.

The motivation behind why an individual would exaggerate their work hours to a government interviewer is difficult to fathom and frustratingly unexplained by the time diary analysts. To the contrary, Veblenian psychology provides some reasoning as to why individuals might just as likely opt to under-estimate their work times while responding to a survey. Rather than wanting to appear assiduous to the same government officials that collect taxes every spring, survey respondents may wish to display an indifference to work. One of the chief ways in which Veblen's leisure class displayed their pecuniary prowess was through a detachment from the labor process. By not needing to work, the wealthy could invidiously distinguish themselves from others. In our contemporary work and spend society, there is little reason to believe that respondents are any less susceptible to such temptations today. Perhaps it is not that survey respondents over estimate their work hours, but that time diaries under estimate work times.

Nevertheless, inspection of the time diary data leads the authors to conclude that modern workers are not overworked but that they simply feel that way. Rather than spending more time on the clock, the US workforce may be spending more time in front of the television. Robinson and Godbey (1997) concluded that between 1965 and 1985 hours of work have actually fallen for the average worker by approximately 5 hours per week. Weekly hours for women declined from 36.8 to 30.8, while men's declined from 46.5 to 39.7. It is important to note, however, that a great deal of the decline occurred between the years of 1965 and 1975. After 1975, weekly hours increased by 2.5 for women and fell by 4.2 for men. What is even more curious is why the authors elected to exclusively focus on the 1965 to 1985 period when more recent time-use data are available.

While time diary advocates critique the quality of answers provided in the household survey, others (Schor, Leete, Mishel, Rose, Bluestone) claim that the surveys are superior to time diaries because they emphasize the importance of measuring annual hours and accounting for business cycles and labor market trends. They argue that the time diary approach, which simply takes a snapshot of a 24-hour period, fails to account for changes in working hours due to altered vacation time or a variety of macroeconomic influences. To illustrate the importance of considering annual hours worked, two-thirds of the increase in working hours cited by Schor (1992) occurred as a result of a growth in weeks of work per year. These substantial increases are unlikely to be adequately reflected in the smaller samples used under the time diary methodology, which only measure 24 hour periods.

Perhaps the greatest point of contention between proponents of household surveys and those of time diaries is the treatment of variations in the labor market and macroeconomic conditions. It is commonly accepted that average work hours rise during expansions and fall during recessions. The recent growth in overtime hours among US workers, spurred in part by robust economic growth, typifies the problematic nature of the long-term measurement of work trends. In order to capture a trend in work hours over an extended time period, working hours should be calibrated at consistent points in the business cycle (i.e. from peak to peak). Otherwise, the trend regression should be corrected by the inclusion of a cyclical variable. Such corrections are now standard practice among economists using household data. Time diaries have never taken these problematic factors into account, likely because it would be near impossible to correct for them (Schor, 1997).

An additional criticism of the time diary approach offered by proponents of the household survey is that time diaries divide the population into the employed and unemployed. The failure to differentiate between states of robust economic activity, characterized by high labor market participation, and depressed economic conditions, characterized by unemployment and underemployment, results in a faulty representation of leisure time trends. Schor (1997, p. 5) argues that this is probably the most important source of difference between her estimates and the time diary studies of Robinson, et al. Schor (1997, p. 5) claims that during the period under consideration, “there was a pronounced upward trend in unemployment and, more importantly for the estimates of hours among employed persons, in under-employment, defined as involuntary part-time and part-year work.” Whereas the

household surveys identify the “labor-market constrained” the time diaries do not, leading to a misleading picture of the typical Americans time schedule.

Schor’s estimates correct for the growth of the underemployed, which partially explains why her findings dwarf the increase in working hours found in studies that solely adjust for business cycle fluctuations. Also telling in this respect are the findings of Coleman and Pencavel (1993). Using Census data, they find that hours of work have fallen for individuals of low educational attainment, and risen for those with high attainment. Underemployment has been concentrated among those of lower educational attainment, and also among black males. Since time diaries do not separate the underemployed, they fail to capture the growth of a bi-modal distribution of work hours.

If average hours of work for a random sample fall because involuntary underemployment is rising for certain populations within that sample, the general conclusion that Americans have more free-time, while strictly speaking true, is misleading. Although aggregate free time in society may be creeping upward, those doing the work of the world may be more harried. As Schor (1997, p. 6) illustrates, “the growth of a bi-modal distribution in hours (of work) which has emerged since the late 1960’s is perhaps the major development in time-use trends which cannot be illuminated by the time diaries [*sic*].”

Today’s labor force seems to be comprised of an overworked segment of full-time workers and a growing group of underemployed whose annual hours are shrinking. Schor (1997, p.6) reiterates her critique of the time diaries by stating that,

Failure to account for this development, rather than the psychological processes they invoke, may well be the most important source of the disconnect between Robinson and Godbey's claim that the average American has more free time than ever before, and the pervasive sense of overwork, stress, and speeded-up pace of life that everyone agrees has taken hold.

While there is little controversy that time diaries are the most accurate measures of individual time use at a particular point in time, they are not particularly useful in assessing trends in the average work hours over an extended period of time. It is difficult to imagine how time diaries could adequately assess trends in working hours over a long time period.

Numerous studies using household surveys, such as the CPS and PSID, have shown that in the last two decades work durations have steadily increased. Juliet Schor (1991,1) points out that the change in any one year is imperceptible (9 hours), but, cumulatively, the increase is alarming. By Schor's (1992, p.29) estimation, the average manufacturing worker in the US now labors an additional month- 163 hours per year. In response to these provocative conclusions, other analysts have corroborated the increased incidence of longer work hours amongst American workers, but on a slightly smaller scale. A study by Mishel and Bernstein (1994), for instance, confirms the mettle of manufacturing workers, by concluding that from 1973 to 1992 annual average hours increased by 100 (or 6 percent).

Bluestone and Rose (1997, p.58) have more recently examined the issue and, although their magnitudes are more modest, they likewise find an increase in work durations. Using data from the Panel Survey of Income Dynamics (PSID) and statistically controlling for business cycles, the researchers find a 66-hour increase in

average annual work hours from 1967 to 1989 – the equivalent of 1.5 weeks of full-time work per year. Bluestone and Rose (1997, p.65) argue that data from the Panel Survey of Income Dynamics provides a more accurate measure of work hours because respondents are questioned in greater detail about vacation days, leaves, primary and secondary jobs and the like. “Unlike the CPS, this longitudinal data set includes many questions about work experience including multiple job holding and overtime (Bluestone and Rose, 1998, p. 428).”

The feminization of the workforce is a major factor influencing the expansion of work time. As a general rule, there has been a slight reduction of men’s work hours and a substantial increase in women’s hours. Bluestone and Rose (1998, p.434) find that female workers have experienced a nearly continuous increase in both weekly and annual work hours. It was once thought that burgeoning work hours for women would plateau but the levels continue to rise as more women are shifting from part-time to full-time positions. Between the years of 1989 and 1996, the average work hours for women increased by 61 hours (3.4 percent) per year – continuing a generally unbroken trend toward increased hours dating back several decades.

Consistent with almost all other survey data sources, the Panel Study on Income Dynamics shows that work hour increases have not been colorblind. Although the gap between whites and blacks is closing, white workers still log more hours per week. “In 1975, whites worked 1.6 more hours per week than blacks; by 1996, the gap had closed by more than half to 0.64 hours (Bluestone and Rose, 1998 p.434).” However, the attenuation of the racial gap has been less

promising when annual hours are considered, as black workers routinely work fewer hours per year. Hispanics have generally shown the slowest increase in weekly hours.

Work time trends can also be delineated by educational attainment. The vast majority of surveys show that the more educated the worker, the longer the workweek. According to Bluestone and Rose (1998, p.434), college educated workers averaged 41.8 hours per week in 1996 compared to only 35.1 hours for high school dropouts. The fact that higher educated workers often have higher quality jobs of less physical and psychological burden makes them less resistant of workweek increases. Moreover, the Fair Labor Standards Act exempts employers from paying overtime compensation to professional/intellectual workers, giving employers a financial incentive to overwork their professional staff. Whatever the incentive structure, highly educated individuals are clearly working longer hours.

Two Unequivocal Work Time Trends

Although the work time of the *average* worker continues to be debated, two trends have unequivocally emerged from the work time data. First, there has been a drastic increase in labor hours performed per household. Second, the distribution of work time has assumed a bi-modal pattern, with clusters of individuals working either longer or shorter hours. Nearly every data source that can feasibly capture household work statistics shows that households are now logging substantially longer workweeks. Bluestone and Rose (1997, 66) have recently analyzed PSID data to illustrate a mammoth increase in the average hours worked by households. Their

calculations conclude that “for all husband-wife working couples, family work effort increased by more than 32 hours per year for each year of the 1970s and 1980s (Bluestone and Rose 1997, 66).” This amounts to households increasing their annual work time by an enormous 684 hours- or 4 months- over the course of two decades.

Jacobs and Gerson (1998, p. 456) find similar evidence of this trend using Current Population Survey data to analyze weekly rates. The CPS data confirms that most couples joint workweek has dramatically increased. As table 2 shows, the average couple is working 10 more hours per week for pay than was the case in 1970 (62.8 hours of paid employment, compared with 52.5 hours in (1970). Such findings show that, although the actual increase in work durations for an individual manufacturing worker may be slightly lower than Schor (1991) estimates, the increase for families is prodigious. Schor (1997, 3) also cautions that the rise in household working hours is not entirely due to rising workforce participation rates among married women. Her estimates compare today’s dual-earner household with dual-income families in 1967 and still show astonishing growth rates of 640 more hours per year.

Table 2. Joint Weekly Hours of Paid Work by Married Couples, 1970 to 1997.

	1970	1997
Total (All Couples)	52.5	62.8
Male Breadwinner	44.4	44.7
Dual Earner	78.0	81.3
Wife Only Works	35.5	36.9

Source: Jacobs and Gerson (1998) analysis of CPS data.

Heath et al (1998) also find that from 1971 to 1991 the average dual-earner family increased their paid labor hours by 8.5 percent (from 69.6 hours to 75.5 hours), or nearly 6 hours per week. The analysts further examined the composition of the increased paid labor force participation of households. Male earners in traditional families actually decreased their labor market hours by 2.5 hours per week (5.5 percent). By contrast, females heading households increased their paid labor hours over the period by 3.4 hours per week (10.9 percent). Incidentally, the payoff to this increased work on behalf of women was low, relative to the poverty threshold. Real labor incomes for dual-income families only grew from \$616 to \$694 between 1971 and 1991 (Heath *et al.* 1998).

David Gordon (1996) offers an indirect suggestion of increased household work hours by examining the disconnect between workers' wages and family incomes. Despite the fact that workers' hourly real wages have fallen for more than twenty years, real median annual family incomes have remained relatively flat. In 1973 median family income was \$36,893 (in 1993 dollars). Twenty years later, real median family income had only increased a minuscule \$66 to \$36,959. Stating the somewhat obvious, Gordon (1996, p. 102) writes, "arithmetically, the only way for real median annual income to have stayed roughly constant, while hourly wages were falling in real terms, was for average hours worked per family per year to have increased."

What is perhaps causing workers to feel increasingly harried is the fact that increases in paid labor effort are not being met with commensurate reductions in

unpaid labor. Eighty-five percent of U.S. wage and salaried workers live with family members and have immediate, day-to-day family responsibilities off the job.⁵ Nearly half (46 percent) of all wage and salaried workers are parents – that is they have children under 18 that they live with at least part-time. Among families with children, the number of unpaid hours of productive labor performed per week has declined over the past twenty years, reflecting the increasing imperative of market work as well as greater household efficiencies. However, families have not been able to reduce unpaid (i.e. household) work in the same proportion that they have increased their paid labor market engagement. As Heath et al. (1998) point out, average weekly household hours of paid work rose by nearly six hours (from 69.9 to 75.5) between 1971 and 1991, while unpaid weekly hours fell by less than 2 hours (30.5 to 28.6).

The *1997 National Study of the Changing Workforce* also provides intriguing insights into the shifts that have occurred within households' non-paid labor hours. For instance, the time fathers spend with their children has increased slightly over the past twenty years, while the time mothers spend has remained the same. Fathers spend an average 2.3 hours per workday caring for and doing things with their children, an increase of 30 minutes since 1977. Mothers spend nearly one more hour per workday with their children than fathers (3.2 versus 2.3). Although parents have been managing to jointly spend more time with their children, 70 percent of both fathers and mothers feel they do not have enough time with their children. Time

⁵ The 1997 National Study of the Changing Workforce defines family members to include anyone related by blood, marriage or adoption.

spent on household chores has followed a pattern similar to time spend in childrearing. In the course of two decades, female engagement in household chores has fallen by 36 minutes per workday, while men's time has increased by one hour.

Such shifts in time allocation beg wonder as to the source of the increased non-paid work time. The Work and Family Institute's 1997 study also found that married employees with children spend less time on their own personal activities than similar employees did 20 years ago. The more drastic decline for fathers than mothers suggests a convergence between men and women in the usage of time away from work. On average, fathers spend 54 fewer minutes per workday (1.2 hours) engaged in their own free-time activities than they did 20 years ago (1997 National Study of the Changing Workforce). The average mother has reduced her free-time activities by 42 minutes in the last two decades to 0.9 hours per workday.

The decreased time fathers have been spending on themselves suggests how they have coped with increased responsibility in child-rearing and household chores. The decreased time spent by mothers on household chores and their own free time implies that women have managed to preserve time for their children despite longer work hours. It bears mentioning that the reduction in personal time begets other troubling issues such as workers' mental health, the *quality* of time spent with family, and the long-run productivity of the worker (addressed in chapter 4 below). Work time statistics at the household level patently illustrate the family struggle to balance paid work and sufficient unpaid labor in the home to fulfill the collective responsibility for social reproduction. As we will examine below, the trend towards a greater paid labor commitment fails to value or support the consequent scarcer unpaid

labor performed in the home and opens the door to a plethora of negative externalities that ultimately increase the social costs of more paid labor.

A second trend that rings clarion from the time data is the bifurcation of the workforce. Mostly along educational lines, there is increasingly a bi-modal distribution of work hours. Larger portions of Americans are working either longer or shorter hours. This phenomenon is most likely driven by employers economizing on worker benefits. By forcing full time workers to work more hours, often without overtime compensation, employers can minimize their fixed labor costs while spreading them over more units produced (Kelly, 1998). Businesses have also found that they can hire an army of part-time workers to support their primary employees at substantial savings due to the fact that most lack sick pay, health benefits, pension plans, and the like.

The temporary employment of part-timers confers powerful advantages to employers – a chance to hire workers only as long as needed, and the opportunity to evaluate potential employees without making any long-term commitments. As a result of the flexibility it provides in hiring and firing, temp-agency employment has expanded twenty-fold since 1960. Today Manpower Incorporated, the leading temp-agency, employs more people in a given year than any other private employer in the United States. Temporary agency employment only amounts to 2 percent of the workforce, however, if other contingent employees are added to the figure the total reaches a more substantial 11 percent of the workforce (Tilly, 1998)

Since it is less likely that 24-hour time dairies would manifest the work hour bifurcation as clearly as monthly survey data, most analysts have relied on survey

data. In their 1998 examination of CPS data, Jacobs and Gerson (p. 443) confirm the bifurcation of the workforce,

American men are working about 42 to 43 hours per week for pay, while American women are working about 36 to 37 hours per week on the job. The stability of these averages, however, masks some important shifts in the variation around the average. While the average has remained largely unchanged since 1970, both long and short workweeks have become increasingly prevalent.

While the 40-hour week continues to dominant as the standard, Table 3 below shows that it is less common than it was nearly thirty years ago.

Table 3. The Changing Distribution of Work Hours

	Mean hours, all jobs (s.d.)	Percent working less than 30 hrs. weekly	Percent working 50+ hrs. weekly
Men	42.5	9.6	25.2
1997	(14.1)		
1970	43.5	4.5	21.0
	(10.6)		
Women	36.7	20.5	10.8
1997	(12.2)		
1970	37.0	15.5	5.2
	(9.6)		

Source: Jacobs and Gerson estimates of CPS data, 1998.

Professional or managerial workers are typically the individuals logging long workweeks. As Jacobs and Gerson (1998) illustrate, over one in three men (34.5 percent) employed in professional, technical or managerial positions in 1997 worked more than 50 hours per week, while just one in five (20 percent) of men in other occupations toil as long. For women, the respective figures are one in six for the professional and managerial trades and less than one in fourteen for other occupations.

Not surprisingly, the bifurcation of the workweek is related to educational differences as well. “Nearly two in five American men with four or more years of college education work 50 hours per week or more, compared to less than one in eight with less than a high school degree (Jacobs and Gerson, 1998 p.445).” Bluestone and Rose (1998 p.436) corroborate the educational link to long work hours, “80 percent of the long-run increase in work time over the past twenty years can be associated with the increased education level of the workforce.” As examined in the next chapter, the fact that highly-educated, and presumably well-paid, individuals are working longer hours poses a conundrum for the traditional labor supply analysis that predicts a curtailment of hours as incomes rise. Since professional/salaried employees are not typically paid for their extra hours, the bifurcation of the workforce may be a major factor contributing to the stagnation of aggregate earnings.

Shifting work from hourly employees to salaried employees with no claim to overtime compensation can be a potentially lucrative ledger item for employers, but it is apt to have deleterious implications for income distributions. In 1995, the Employment Policy Foundation roughly estimated the annual loss to employees from unpaid overtime to be \$19 billion (Kelly, 1998). Since the overtime hours logged by professional workers poses such a financial windfall for employers it is difficult to believe that employees are opting for such hours of their own volition. Indeed, with such high stakes at hand, “corporate compulsion” is partially to blame for the inequity of working hours and income in the modern economy.

Despite the additional cost of paying time-and-a-half to their non-salaried employees, employers have even been demanding longer overtime hours from non-

professional, hourly employees. As the proportion of European workers laboring more than fifty hours per week is falling, overtime hours for workers in the US are rising (Jacobs and Gerson, 1998). For manufacturing workers, overtime recently reached a record average of five hours per week. Overtime earnings are becoming a critical part of compensation, accounting for 15 percent of the average manufacturing worker's pay in 1995.

International comparisons show that these trends are not ubiquitous. While Australia rivals the US in the proportion of the men laboring 50+ hours per week at around 22.5 percent, most other industrialized democracies require less than 15 percent of their male workforce to toil more than 50+ hours per week. Working hours for women also vary dramatically across industrialized countries. American women, like American men, have among the longest workweeks in nine OECD countries (Luxembourg Income Study). The proportion of U.S. women working part-time is among the lowest, and the proportion working 50 hours or more per week is among the highest of the OECD members. These international comparisons suggest that other industrialized countries have been able to attain and maintain a high and growing standard of living by utilizing a starkly different distribution of work hours than in the United States. Moreover, the severe bifurcation of working time in America emerges as a unique trend that is not being replicated in most other affluent democracies.

Upon first inspection, the bifurcation of the work force appears to be economically rational because production is flowing towards the most productive factors. As a factor is utilized more intensively, however, the marginal productivity

gains tend to evaporate. More importantly, the intensive use of scarce resources often leads to escalating external costs borne by third parties. Long work hours might be more palatable if they were freely chosen by workers, but mounting evidence suggest that greater numbers of workers would actually prefer to work fewer hours (Jacobs and Gerson 1998, *National Business Employment Weekly* 1996, Roedinger and Foner, 1989).

The bifurcation of work schedules is also a volatile gender issue, which has attracted the attention of the feminist front (See Work and Family Institute and the Center for Work and Family). The reduction of working time can be viewed as a new feminist vehicle to effect equality between men and women in the paid labor force. Part-time work, which, in practice, is predominately performed by women, tends to relegate women to a powerless position of financial dependence. Their paltry part-time earnings make it difficult to free themselves from labor market dominance and the tyranny of an unequal division of household and family tasks. A more equitable distribution of work time would shift the balance of power back towards the feminized segment of the labor force, or, in the parlance of labor economics, reduce the market segmentation along gender lines.

If workers are browbeaten into longer hours, the marginal efficiency of an additional hour of work may very well plummet. Not only will “overtimers” be disgruntled, inefficient employees, but they will also tend to derive less satisfaction from the shrinking hours of leisure time they enjoy away from work. When viewed from a long-term or societal perspective, as provided in Chapters five and six, the benefits of a discriminating distribution of work hours may be but dust in the balance

when weighed against broader societal costs. The trend towards a bifurcation of work time along educational lines also poses troubling questions for society: such as “who will be left to raise and edify our children if the most-educated among us are devoid of free time?”

Although the growth rate of the workweek in America may be difficult to capture, most analysts would agree that there has not been a significant retraction of work hours for individuals in the last five decades. The growth in work hours for the average household is a less ambiguous story. Almost all measures of work time show increases in paid labor hours for “joint-earner” households. The 40-hour workweek was designed for men with stay-at-home wives. When the workday was finished, they went home and relaxed. Today’s dual-earner workforce returns home from paid employment to a second-shift: cooking, cleaning, shopping and childcare. The immutable trend of longer household work time nearly renders the debate of individual work time moot. If households are harried and overworked, then the ill-effects will surely be manifest in both the individual worker and society at large.

The bifurcation of work hours between over-worked and under-worked individuals poses equally troubling question about the distribution of market work and social responsibilities. While the most educated Americans toil longer hours, other critically important social functions, such as child rearing, are left to those with less education. As the following chapter suggests, if the social externalities associated with the disparities of work time were more immediate or observable, perhaps greater numbers of people would realize the need for reforming paid work schedules.

In 1973, John K. Galbraith (p.255) prognosticated that,

In a society of high and increasing affluence, there are three plausible tendencies as regards toil. As the production of goods comes to seem less urgent, and as individuals are less urgently in need of income for the purchase of goods, they will work fewer hours or days in a week. Or they will work less hard. Or, as a final possibility, it may be that fewer people will work all the time.

It seems that the latter two possibilities have come to fruition, with productivity slacking and employers increasingly relying on the part-time labor of harried households. However, the alternative narrative presented in the remaining chapters of this discourse suggests that Galbraith's third possibility of working fewer hours or days in a week might be a superior way of allocating work time in an increasingly affluent world.

CHAPTER THREE
THE CONVENTIONAL CANONS OF WORK TIME DETERMINATION
AND THEIR SHORTCOMINGS

This chapter examines the paradox that the evidence in chapter two poses for the standard competitive theory of hours determination. The evidence in chapter two has shown that although productivity and income have been rising over the past four or five decades, work time has not receded and may well have rising since the mid-1970s. In an effort to analysis this conundrum, this chapter offers a critical examination of the standard competitive model of work time determination. The objective of the critical inquiry is to test the orthodox model's usefulness in explaining the work time determination process and other labor market trends.

The chapter begins by presenting the mainstream explanation of work hours being determined by forces of supply and demand in the labor market. In the orthodox theory, sovereign workers strike agreements with firms operating under competitive conditions to arrive at a work hours arrangement that balances the desires of the worker and the needs of the firm. The mainstream explanation of the labor supply is founded upon a utility preference theory that represents the workers valuation of additional income in the light of leisure time. The critical examination questions the orthodox approach to hours determination by first; examining the ability

of workers to optimally choose their hours and secondly; whether or not the employer actually engages in a passive acceptance of work hours.

After introducing the notion of a backward-bending labor supply curve, multiple explanations are proffered as to why workers may not retract their offer of work in the face of higher wage rates. This critical investigation, founded upon the works of Veblen, Galbraith, and Schor, suggests that rising target incomes impede the worker's ability to choose optimal work hours from both a microeconomic and social prospective. These work preference barriers go a long way in explaining the growing, or at least recalcitrant, work hours observed in American in the face of rising labor productivity during the second half of the twentieth century.

This chapter also addresses the firm's role in determining work hours. As competition is often accepted as being imperfect in the orthodox paradigm, firms may have a more active role in setting work hours. The discussion offers various reasons why firms may not use their power to determine work hours in an optimal fashion. In addition to the criticisms commonly accepted by orthodox theorists, such as externalities, competitive imperfections and X-inefficiencies, the chapter also probes the New Institutional concepts of bounded rationality, myopia, and habituation as barriers to optimal hours determination. As a whole, the topics discussed in this chapter illustrate the problematic nature of work hours determination and suggest that a "laissez faire" reliance on the market system may not be the best way to allocate work time.

Conventional Labor Market Analysis

The standard argument that the free market allocates labor optimally is easily stated. Firms hire labor up to the point where wages equal marginal products. Stiff competition in product markets ensures that all firms pay workers of homogenous quality an equivalent wage. It follows immediately that the marginal product of like workers in all industries is equalized. It is worthy of mention that workers in this textbook model are numerous and uncombined so that it would not be plausible for them to withhold their labor and alter employment levels. The multitude of homogenous workers also allows the firm to realize various output levels at relatively stable labor costs. An argument of this type underlies the orthodox defense of the desirability of free markets and free trade.

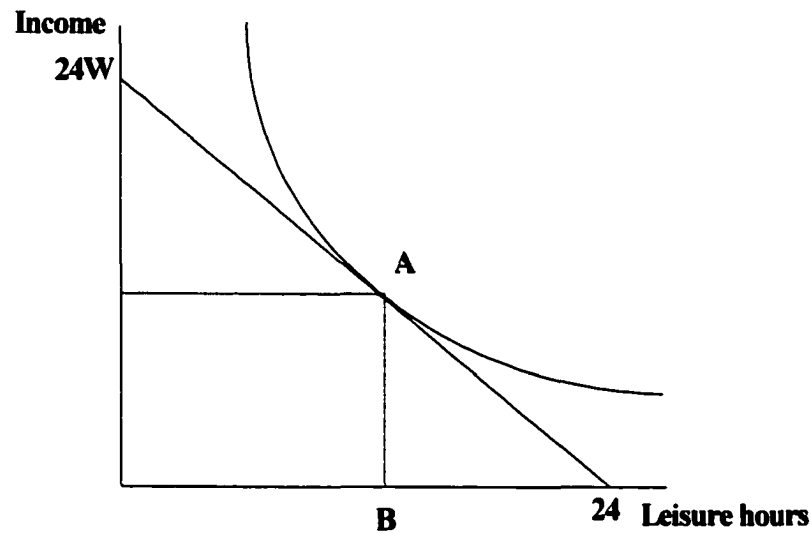
The allocation of work hours is then a result of sovereign workers striking agreements with competitive firms based on worker preferences of income and leisure time. The intersection of the labor supply and labor demand curve determines the real wage and the aggregate level of employment. The labor demand function in this model is rather sterile or fixed due to the competitive conditions placed on the firm. Firms, hiring workers in competitive factor markets, are subject to the prevailing wage and hours preferences demanded by workers. Just as employers would be hard pressed to find any workers when offering abysmally low wages, competitive factor markets also restrain them from demanding excessively-long work hours from their employees. The orthodox assumption of perfect competition consequently results in work hours being primarily determined by labor supply phenomenon, representing the will of workers rather the might of employers.

It is assumed that the labor supply curve is a result of individuals choosing the income/leisure time combination from the set of available opportunities that best matches their preferences between the satisfaction derived from goods purchased with earned income and the utility generated from non-work (leisure) time. Competition in the product and factor markets then ensures that employers offer income/working-time alternatives that accord with worker preferences. The familiar competitive process is dependant upon factor costs falling (and thereby increasing profits) for employers fast enough to respond to the changing preferences of present employees.

The preferences that underlie the individuals labor supply decision in the neoclassical theory are typically illustrated with the use of indifference curve constructs akin to the one shown in Figure 1. Assuming a fixed wage rate, the worker is presumably able to choose a precise number of work hours. The budget line then becomes a straight line between 24 hours of income ($24W$) and 24 hours of leisure (24).⁶ As both income and leisure provide positive utility, the worker is forced to make a trade-off based on their personal utility valuation of the two states of being. The individual's preferences are represented with an indifference curve, showing combinations of income and leisure that give rise to the same level of satisfaction. Utility is maximized when the indifference curve is at a tangent to the income/leisure constraint (point A). The individual worker then opts to labor for the hours equivalent to 24-B in figure 1.

⁶ The linear nature of the budget constraint implies that daily hours of work have no effect on productivity per hour, making the employer indifferent to a various number of worker/working hours combinations. If productivity in fact varies with hours, the linearity of the income/leisure constraint is lost and variations in tastes will ensure that the hours/income combinations offered by firms will be non-uniform. (See Hill, and Barzel, 1973)

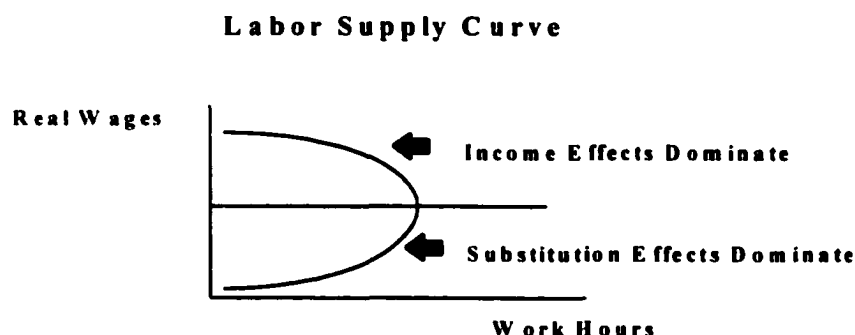
FIGURE 1. THE INCOME/LEISURE TRADE-OFF



The aggregation of every worker's income/leisure trade-off decision yields the supply curve for the labor market. The received wisdom in the labor market holds that the supply curve for labor is upward sloping – as if labor were any other factor of production. Yet, mainstream economics typically affords the labor supply curve a special status. Most labor market theorists admit that the curve can bend backwards as the income effects of higher wages dominate the substitution effects. Under the income effect, increases in income induce workers to work less, or, in effect, consume more leisure. As income rises, however, an additional hour

of leisure has a higher opportunity cost, inducing workers into longer hours. This is the substitution effect. Normally, economists envisage substitution effects dominating decision making at lower wage rates. As seen in Figure 2, the substitution effects are reflected in the upward-sloping section of the labor supply curve. However, income effects tend to dominate at higher wage levels where the supply curve is backward bending.

FIGURE 2. THE TRADITIONAL LABOR SUPPLY CURVE

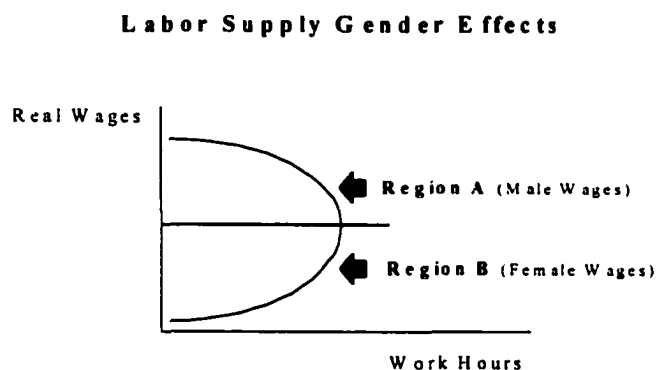


On the backward bending portion of the curve, the offer of higher wages can reduce hours worked while lower wages may actually increase work hours.⁷ This construct can be used to illustrate the claim that falling real wages, particularly for men, are a primary cause of increased work hours (Gordon, 1996). From a labor demand perspective, it is consistent with the mainstream theory that falling wages would have encouraged firms to use relatively more labor in the production mix. As the average wage falls, other things being equal, firms are likely to substitute labor for capital and expand the total hours of employee time that they hire.

Although female wages have been making modest gains over the last two decades, the average real wage has shown almost zero growth. As figure 3 illustrates, these wage trends are likely encouraging both men and women to work longer hours. Real male wages, which actually declined from the early 1970s to the mid-1990s, may have previously been on the backward bending portion of the curve. This notion is reflected as region A in figure 3. As wages fall, reverse income effects dominate and men feel compelled to increase their work hours. Meanwhile, female wages, which have been increasing since they entered the labor force en masse in the sixties and seventies, are likely located on the upward-sloping portion of the curve. As region B in Figure 3 illustrates, if substitution effects dominate when female wages rise, women are likewise encouraged to work longer hours.

⁷ It has been suggested (Gordon, 1996) that the labor supply curve for women, due the existence of non-work spousal income, is much more responsive to wage fluctuations than the male curve.

Figure 3. Gender Effects on the Labor Supply Curve



Shortcomings of the Orthodox Explanation of Hours Determination

The simple income/leisure choice model has proven ineffectual in explaining the stability of the average American workweek and other labor market trends.

Stephen Hill (1989, p.75) writes that, “economic theory has failed in the task of yielding unambiguous conclusions about the effect on working-time of changes in parameters such as real wages, and the productivity of labor and capital.” The difficulty in “commodifying” labor greatly complicates conclusions drawn from

However, the feminization of the workforce would certainly erode such a phenomenon.

traditional labor supply and demand constructs. Perhaps the most troubling notion is that of the backward bending section of the labor supply curve. The stability of the average workweek and the work and spend mentality that permeates modern American society both stand in stark opposition to the theory that hours of work will decrease with rising incomes. This section examines a handful of reasons why replacing the backward-bending section of the labor supply curve with a vertical section might better represent the contemporary labor market.

The basis of the neoclassical approach is that individual employees freely choose their work hours. Yet, it is far from obvious that employees are generally able to choose their hours of work. Neoclassicalists typically concede that individual preferences do not determine working hours directly. Since individual bargaining over working hours is rare, institutional forces generally decide basic hours.

However, adherents of the standard competitive model maintain that these institutional forces (i.e. unions) merely reflect individual preferences and are no more than a passive mechanism translating preferences into working hours (Rubin and Richardson, 1997). This issue of worker bargaining power will be taken up subsequently while considering the influence of labor demand on work hours. Suffice it to say here, that even with imperfect competition in product and factor markets and asymmetric information between workers and employers, there may be at least a narrow range of hours from which workers can choose. Indeed, in the extreme, workers can change employers or entire industries to register their work schedule choices. Therefore, although the employers' demands may be the most influential

force in work hours determination, we must first address the issue of whether workers themselves are capable of choosing (i.e. supplying) optimal work hours.

Assuming temporarily that workers are not browbeaten into longer hours, there is still nothing in the conventional labor market model that ensures workers will discount future labor in a manner that is optimal for society. As was previously illustrated, conventional economic theory relies on a utility function comprising both consumption and labor. The worker's choice between consumption and labor cannot be generalized because it depends on whether income or substitution effects dominate. As either productivity or incomes rise, for example, the worker can afford the same amount of consumption goods with less labor or more goods with constant labor. Yet, the received wisdom among orthodox economists is that the income effects associated with higher productivity and wages will militate towards a reduction in work time.

The orthodox explanation contends that when productivity or income rises to some psychological threshold, income effects will begin to dominate substitution effects. The question to then be addressed is whether the level of this psychological threshold is conducive to the welfare of society. If individuals are disproportionately governed by acquisitive behavior, they may make work time decisions that inflict substantial costs on third parties. In practice, workers may fail to internalize the true costs of longer work hours. With the existence of an externality abating the income effect, the labor substitution effect will tend to be the predominant force in the utility function, leading to workers choosing work time over free time. The mere definition of an externality infers that it is not captured by the market and properly processed by

“utility maximizers”. Workers may therefore be making labor supply decisions that are not optimal from a sociological viewpoint because their utility calculations do not accurately reflect the social costs of additional work hours. (This chapter ignores the social opportunity costs of overwork that are mentioned in detail in chapter 6.)

The persistent inability of workers to measure the costs and benefits of their labor force participation relative to their home production has led to a cottage industry of household labor planners and “downsizing consultants.” These advisors help dual-earner households make seemingly simplistic cost-benefits comparisons of work expenses, such as childcare and commuting, in relation to the rewards of work (Dappen, 1997). The need for assistance in calculating even the most immediate and obvious costs of work, suggests that few workers can delineate the true social cost of an extensive attachment to the work process.

Over five decades ago, Mitchell (1937) illustrated how the process of household consumption had progressed relatively little when compared to business procurement. Mitchell (1937, p.3) observed individual consumption patterns that would bankrupt many enterprises and concluded, “the vast majority (of households) would gain as much from wiser spending as increased income.” As this may still be largely true today, more free time might provide the time and energy needed for improved household consumption, partially obviating the need for more income.

If the social cost of work time is not given adequate sway under current labor arrangements, negative externalities will result. If workers are governed by avarice in their work time decision making, society may shoulder the burden of low future

productivity, high health care costs, a lack of skills transfer to future workers, and, in the extreme, a reduction in fertility rates. Modern industrialism has displayed a bias towards producing tangible goods over leisure. Accumulation of material wealth has reduced time to money. The resultant dearth of leisure time for those enamored with large stocks of material possessions may have profound sociological consequences that are not entirely obvious. Consequently, the benevolent aspects of leisure are often sacrificed during the accretion of still more material goods.

A salient fear of such acquisitive behavior is that some workers may be willing to sacrifice their future health and productivity for current income and consumption. This creates a future societal burden in the form of illness, lost productivity, and larger medical expenses that will likely be shouldered by society at large. Moreover, by working longer hours, individuals are defaulting on a panoply of social responsibilities, including familial investment, civic engagement, and their own personal growth.⁸ Even though the external costs stemming from overwork can be quite diverse, this discussion separates them into two general categories: the health of the worker, and the stability of the family.

The physical discomforts of the individual worker are generally more visible than the hidden pains experienced by families. Long work durations have been linked to high incidences of heart disease, hypertension, gastric problems, depression, short-term memory loss, headaches, exhaustion, and sleep deprivation (National Center for Health Statistics). The latter being the most immediate and salient drag on

productivity. Since 1985, the National Center for Health Statistics has been collecting data about people's perceived stress levels in its National Health Interview Surveys (NHIS). Virtually all demographic groups reported increased stress levels between 1985 and 1993. In 1993, 56 percent of adults reported "a lot" or "moderate" stress in the past two weeks, up from 50 percent in 1985. Women feel more stress, on average, than men do. Perceived stress peaks among those aged 35 to 44 and drops sharply after age 54. Those with more education and more money also claim to feel more stress.

A 1991 Hilton Time Values Project also measured current stress levels through a series of attitudinal questions about stress and other time-related factors. Between 21 and 43 percent of respondents agreed with each of ten statements, including: "I just don't have time for fun anymore," and "I consider myself a workaholic." The most prominent result of the Hilton study was that almost half of employed respondents would be "willing to give up a day's pay to have an extra day off from work."

The pernicious effects of overwork on the health of the hireling have long been documented. In his horrific chapter on the workday, Marx (1867) chronicles the genetic degradation of families employed in the pottery trade. In reporting to the Children's Employment Commission (1863), Dr. Boothroyd claimed, "each successive generation of potters is more dwarfed and less robust than the preceding one." Dr. Greenhow, likewise, reported in *Public Health* (1860) that, "since he began

⁸ Such destructive societal behavior meets the measure of J.S. Mill's gauge of invasive public policy. That is, policy that prevents individual behavior from inflicting harm upon other members of society is

to practise among the potters 25 years ago, he observed a marked degeneration especially shown in diminution of stature and breadth.” Also from the report to the commissioners in 1863, Dr. J.T Arledge was quoted,

The potters as a class, both men and women, represent a degenerated population, both physically and morally. They are, as a rule, stunted in growth, ill-shaped, and frequently ill-formed in the chest; they are prematurely old, and are certainly short-lived; they are phlegmatic and bloodless, and exhibit their debility of constitution by obstinate attacks of dyspepsia, and disorders of the liver and kidneys, and by rheumatism. But of all diseases they are especially prone to chest disease, to pneumonia, phthisis, bronchitis, and asthma. One form appears so peculiar to them, and is known as potter’s asthma, or potter’s consumption.

Although today’s work standards do not invite such harmful health effects, moral, intellectual or social degradation may well persist. The fact that the physical stature of the contemporary worker may no longer be “stunted in growth” does not, by default, afford her intellectual and social advancement the same luxury. Mental or psychological oppression is not always outwardly apparent. The mental and psychological stultification of the work force is less obvious than the physical atrocities that Marx spoke of but may nevertheless still exist.

For some reason, we have drawn the line for employers at physical rather than mental, social, or familial abuse. The invisible nature of such non-physical oppression creates the verisimilitude of free will. The opaqueness of the oppression makes it easier for the capitalist to argue that workers have “chosen” to work excessive hours– even at the expense of slowly forfeiting their mental wherewithal. As P. Shipley (1980, p. 40) suggests in a United Nations report,

a just and prudent use of State power.

Perhaps it is time for a new science of chronopsychology...It is, after all, more than two decades since the United Nations proposed that the state of an individual's health be accepted as a major 'quality of life' criterion, and many would define health these days to include psychological as well as physical well-being.

Although the long-run price that society pays for being overworked may be difficult to quantify, it is rather intuitive— particularly for parents— that profound social costs can be incurred by families. Families may feel the greatest burden of long work hours, due to the time-intensive nature of raising children. The ramifications of the decline of leisure time in American may not be immediately discernible if our children are the ones to shoulder the burden. As Economist Sylvia Hewlett points out, “parenting deficit” greatly contributes to poor academic performance, mental problems, drug and alcohol abuse, and teen suicide. Victor Fuchs (1988) has similarly documented the exigency of the issue. His surveys have shown that between 1960 and 1986, the time parents actually had available to spend with their children fell ten hours a week for whites and twelve hours for blacks.⁹ In a 1990 *Los Angeles Times* survey of 1,000 families, 57 percent of fathers and 55 percent of mothers reported feeling guilty that they spend too little time with their children (Hochschild, 1997, p. 11).

The effects of overwork on the family have been given significant shrift in the work time literature. It is often argued that family heads, who undervalue the utility of other members and opt for long hours to secure consumption goods for themselves, inflict a cost upon society as a result of parental negligence. Stanfield and Stanfield (1980, p. 90) argue that society tends to sacrifice the art of living in its unfettered

desire to accumulate more goods. They refer to the increased covetousness of commodities and the dearth of time remaining to use them as the 'treadmill syndrome.' Elsewhere the authors bemoan the fact that the pecuniary emphasis of society has lead to a 'nurturance gap' in contemporary society (Stanfield and Stanfield, 1997). Stanfield and Stanfield (1997, p.119) write "time being money and money being the universal calculus of worth, we are systematically instructed that the non-pecuniary is priceless and therefore worthless." The unfortunate aspect of the 'treadmill syndrome' is that voiceless children are often taken along for the ride, or shopping spree, as the case may be. Consequently, the ramifications of a dearth of leisure time in America may be most discernible in the burden it places on our children.

Dalton Garis (1998) has recently studied the link between an eight-grader's supportive family attributes and that child's later involvement in various forms of at-risk behavior, including drug and alcohol use and sexual activity. Garis (1998, p.1100) concludes that,

While parents' staying married is of some significance in reducing youth at-risk behavior, it is far less important than the involvement of both parents in raising their children... Children need the input and oversight of both parents, and the father's input is of far more importance than has generally been accredited to it by policymakers.

The gist of Garis' findings is that the parenting time available to the household as a whole should be given more importance in our society.

Garis' concern seems particularly relevant when, according to Danielle Ewan (1999) of the National Child Care Information Center, 45% of children

under the age of one are enrolled in early care programs; and 84% of five-year olds are enrolled in some sort of childcare program. Of course, enrollment, in and of itself, is not problematic, but excessively long hours of daycare utilization is far from beneficial to childhood development. A study by the Urban Institute provides some insight as to how long children are under the purview of hired hands. In 1989, the children of working mothers (with children four years old or younger) averaged thirty-four hours of childcare per week (Hofferth, Brayfield, Deich, Holcomb).

A recent psychological study published by Elizabeth Harvey (1999) echoes Garis's conclusion. In her analysis of the National Longitudinal Survey of Youth she found that the hours of work, as opposed the extant employment, of mothers was associated with slightly lower language development and cognitive academic achievement that lasted through elementary school.¹⁰ Harvey's study can clearly be viewed as a criticism of *long* working hours for mothers, but it does not serve as a blanket indictment of motherhood employment. Her research questions the putative importance of the mother's non-working presence in the household, while championing combined parental involvement with children.

These two studies illustrate the importance of fathers in childhood development as well as the damage caused by long working hours of either parent. Policies that buttress the ability of fathers to interact with their children may be a powerful way to reduce at-risk behavior among youth and curtail the many social costs that result from deviant behavior. Moreover, since moderate working hours

on behalf of mothers has minimal impact on childhood development, greater gender equality in both the household and the labor market could be a boon to families rearing a future generation of workers.

Even if workers are cognizant of the social costs associated with long work hours, it cannot be presumed that all workers will clamor for the opportunity to spend more time at home when presented with a bona fide opportunity to reduce work time. The difficult vicissitudes of family life experienced by some workers may result in work being a source of refuge for them. A small minority of workers may indeed view the workplace as an emotional respite from their disheveled lives at home. In his three-year expose of an anonymous family-friendly firm, Arlie Hochschild (1997), found that workers with young families paradoxically worked longer hours than those without. It is likely, however, that such long work hours may be correlated more closely with age than with family status.

The reasons why individuals may not opt for shorter work hours are manifold, including financial constraints, fear of employer retribution, or an ignorance of their availability. However, a less talked about explanation is that people sometimes find work more rewarding than home life, especially since the rewards of work are much more immediate than the rewards of child-rearing. Hoshschild (1997) reports that many workers, particularly fathers, are much more confident that they “can get the job done” at work than at home. An anonymous human resource specialist points out, “Now, we don’t know a meaningful way to reward a parent. At work, we get paid and promoted for doing well. At home, when you’re doing the right thing, chances

¹⁰ It must be noted that these correlations were very small and tended to fade over time.

are your kids are giving you hell for it (Hochschild, 1997 p.89).” In some sense then the factory family has replaced the nuclear family with work consuming more and more of our lives. Consequently, long work hours may now be viewed as a shirking of our social reproduction responsibilities – and one that surely threatens the long-run vitality of the “factory family.”

Due to a reduction of the waking hours spent at home, household activities have become more “time conscious” and efficient. Home life is becoming more “industrial” while work life is becoming more “social.” The long hours we spend at work are increasingly divided between productive work time and periods of conversation, sending e-mails, resolving quarrels, or gossiping. Thus, the long workday has come to represent hidden pockets of inefficiency and reservoirs of work time. The question raised by such a trend is whether or not excessive hours spent at the workplace is beneficial to the profitability of the firm and optimal from a societal standpoint.

As the preceding discussion has indicated, the costs of overwork can be inflicted upon individuals who are distant from the original work contract in many different ways. The prevalence of work time externalities creates a barrier to the optimal determination of work time because it distorts the individual’s true utility preference calculation. If workers are only cognizant of a portion of negative aspects of longer hours, their utility maximization is not likely to result in socially-favorable outcomes. Thus, the failure of the income/leisure utility model to incorporate substantial negative externalities limits its relevancy and usefulness in explaining

worker behavior. The backward bending portion of the labor supply curve is also brought into question by the existence of work time externalities as well as by modern statistics that tend to refute the notion that workers decrease their work time as incomes rises.

A small but growing number of economists have come to reject the neoclassical view that growing income is the principal cause of reduced hours. John Rae was one of the earliest economists to take exception to the income/leisure trade-off and argued that industrial efficiency and not some vague, unperceivable notion of an income-leisure trade-off was the central issue regarding work time. Rae (1894) commented on the historical significance of the income-leisure trade-off in bringing about past work time reductions. Rae felt that shorter hours were not brought about by highly-paid workers demanding more leisure, but rather by the lowest paid of workers. Rae (1894, p.218) states,

It is true, no doubt as a general principle of human nature that after a given standard of requirements is secured men will then prefer more ease to more wealth, but this preference did not play in the short hour movement so general a part as Mr. Jevons believed, for the simple reason that the working men's standard of requirements kept constantly rising along with their wages, and never suffered them to become practically so indifferent to money, and so unwilling to work hard as his theory requires.

Rae (1894, p.219) also countered the marginalists by arguing that workers are more often than not found working "a little harder during the shortened day to prevent that very loss of wages which Mr. Jevons supposed them so ready to bear." At the time of some of the earliest work time reductions, such as the mandatory ten-hour day, wage rates were so low that workers could scarcely afford to do anything other than to work harder in hopes of abating downward wage pressures. Thus, there is

little accuracy in the claim that the short hour movement was the brainchild of highly paid workers, ready out of a newfound abundance to buy more leisure than labor.

More recently, economists have employed an Institutionalist approach in questioning the income-effect explanation of past and potential work time reductions. In the late 1950's, McCormick (1959) viewed unemployment as an important motivation for reduced hours in Europe. William Roche (1996) rejected the idea that changing employee preferences explain working hours in Britain in the post-War period. On the contrary, Roche (1996, p.64) argues that, "structural change and cyclical perturbation in the political economy determine changes in working-time patterns in modern Britain." The main components of the 'structural change' are increasing employer demands for non-standard working hours and major changes in technology affecting labor demand. Michael White (1987) does not attempt to explain why hours have been reduced in the past, but he clearly rejects the neoclassical explanation. White believes that future reductions in hours depend on both employers and unions adopting an approach that exploits the potential of reduced hours for increased productivity.

The recent recalcitrance of work time in the face to rising productivity and income, suggests that workers tend to constantly increase the level of income and consumption they feel they need to achieve to be satisfied. Likely unaware of the social costs of discounting future work, workers appear to heavily value current income over future income. Therefore, the notion of a "target income" or "target consumption" level is useful in illustrating why the income effect in the labor market may be largely non-binding.

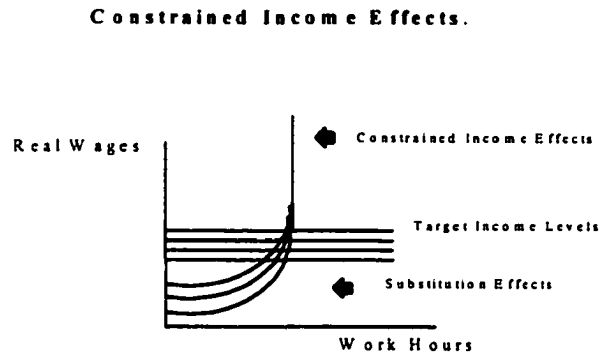
Consideration of a wage reduction facilitates the understanding of the target income concept. If the wage rate falls, workers will work more hours to compensate for the lower pay rather than reducing work hours. For the typical American worker, a wage reduction means longer work hours to achieve a fixed nominal level of income that allows them to fulfill their commitments to mortgages, car payments and other debt obligations. In theory, the income effect could still place backward pressure on the labor supply curve when wages rise, but if consumer demand is insatiable; the income effect may be inconsequential for rising wages as well. Higher wages might induce workers to cut back on hours once a target consumption level is achieved, but there is nothing that ensures that the target level of income is an absolute measure.

The backward bending assumption of the labor supply curve is therefore not a foregone conclusion. Although some labor economists believe that unions, younger workers and married couples will inevitably make their preferences for shorter work hours felt in the labor market, desire alone may not succeed. There may be a plethora of institutions, ceremonies, traditions, and influences that keep workers from opting for reduced work time. J.S. Duesenberry (1949) was one of the first economists to point out how rising *average* incomes could confound the income effect of higher wages. His relative income hypothesis – commonly used as a sociological theory explaining the rising secular average propensity to consume – argued that satisfaction does not increase with rising income, because as everyone receives more income, relative incomes remain more or less unchanged. Rising average incomes will deny

an individual the higher status attendant to higher wages and create added pressure for longer hours and still more income.

Galbraith (1984, p.127) has also illustrated that the target level of income may indeed be a creeping minimum, constantly redefined by the capitalists' efforts to fabricate new wants and desires. Given the impressionable nature of consumer demands in a capitalist society, workers may never attain their target incomes. In other words, there is nothing to ensure that target incomes are based on *absolute* needs as opposed to the *relative* needs that merely serve to differentiate us from our neighbors. As a result of ever-rising target incomes, the backward-bending portion of the labor supply curve may be better represented by a vertical schedule as shown in figure 4 below.

Figure 4. The Constrained Income Effect



In *The Overspent American*, Juliet Schor (1999) offers contemporary evidence that target incomes are still prone to an upward creep. Over the last couple of decades, growing income levels have failed to mollify American consumers' voracious appetite for more money and goods. Schor's research suggests an ever-rising target income level. In a 1986 Roper poll, Americans were asked how much income they would need to satisfy their dreams (see table 4). The answer in 1986 was \$50,000. By 1994, the answer had more than doubled to \$102,000, far outpacing inflation. Since past increases in work effort and commensurate income gains have

left many Americans with a feeling of ill-content, perhaps reduced work time rather than higher wages could serve as a more effective antidote to the work and spend cycle that has left so many of its victims feeling unfulfilled.

Table 4. Can Dreams Come True?

Question: *How much income per year would you and your family need to fulfill all of your dreams?* Source: Schor, 1999.

<u>Year</u>	<u>Median Response</u>
1987	\$50,000
1989	\$75,000
1991	\$83,800
1994	\$102,000
1996	\$90,000

There are indeed many Americans for whom material deprivation is real and, in Keynes' words, absolute. However, there may be equally as many people who experience a culturally-driven deprivation. Surveys show that the postwar threefold increase in incomes has left citizens no better off in terms of happiness. Many people appear to be beyond the point where more income, or consumption, yields a large psychological benefit. Perhaps a lifestyle alteration such as a reduction of work hours would have a more profound impact on the collective psyche.

The standard labor supply analysis assumes that raising incomes do not alter relative prices. However, Gary Becker (1973) has espoused persuasive reasoning

why higher earnings may change the relative prices of less time-intensive goods. The implications of Becker's theory is that wealthy consumers, owing to a greater opportunity cost of non-work time, will have a greater demand for less time-intensive goods. Wealthy individuals will also have an incentive to substitute the time of others for their own (relatively expensive) time. Evidence of this phenomenon can be seen in the rash of traditionally non-market activities that are now considered part of the labor market. Examples of expansive market activity range from childcare, to housecleaning, to dining out.¹¹

Prior to Becker's contribution, the time required to "consume" products was believed to militate towards a reduction in work hours. However, if extra income leads to the substitution of less time-intensive goods for more time-intensive products, hours of work could remain constant or even increase. Obviously, there are bounds to the labor substitution effects brought about by less-time intensive goods, but Becker's analysis provides an additional explanation for why the labor supply curve may fail to bend backwards. The present shift away from time-intensive goods could plausibly be resulting in a fall in the time spent in consumption and therefore an increase in the time spent at work.

A vertical supply curve would predict rather stable workweeks over time. Indeed the *average* workweek in America has remained relatively constant over the last three or four decades – hovering around 35 hours per week when overtime is excluded. Considering the income and productivity advances achieved during this

¹¹ Even the symbolic peanut butter and jelly sandwich is not sacred: a NY entrepreneur is now selling gourmet peanut butter sandwiches deli-style.

period, recalcitrant workweek statistics question the efficacy of the income effect to bring about a reduction in the *average* workweek. As previously mentioned, the bifurcation of work hours has allowed some workers to opt for shorter hours, but it seems that equally as many individuals are working longer. The stability of the average workweek appears to lend credence to the notion of a vertical supply curve.

Thus far, this critical examination of the orthodox model has ignored the labor demand condition that competition force firms to passively accept the wages and work hours fleshed out by the market. Relaxation of the competitive assumption, however, creates the possibility that the employer actually takes an active role in the determination of work hours. Indeed, most orthodox labor economists admit that competition is imperfect and that the firm has a modest amount of influence in the determination of work hours. The question which then arises is, “how equipped is the firm in determining optimal work hours?” This section explores the firm’s ability to request a level of work hours that is optimal from both a microeconomic and societal prospective.

One way to categorize the firm’s ability to inveigh workers into longer or shorter work hours is the broadly familiar notion of bargaining power. If the working class possesses relatively little bargaining power (during recessionary times, for instance), firms will have a greater ability to inflict longer or shorter hours on workers. The assumption of competition in the labor market assumes that the job market clears like any other commodity market. Yet, it is rather reasonable to assume that in slack economic times the competitive checks and balances of the labor market wane and firms have much more influence over the determination of work hours.

With imperfect competition and asymmetric information, there is likely a relevant range of work hours and wages. In the absence of unions, the balance is tilted further in the favor of the employer, giving them greater bargaining power over the actual terms of the employment contract. The bargaining power over the employee is said to be greater for hours than for wages, since wages can often be negotiated individually, but standard hours schedules are typically offered on a take-it-or-leave-it basis (Owen 1989, p.34). Thus, the determination of work hours may be skewed in the employer's favor far more than orthodoxy admits.

Even America's foremost pioneer in reducing workweeks was under no illusion that the move towards short work time was a manifestation of workers individually registering their desire for more leisure over greater income. Ford (1926, p.11) opined that

The hours of labor are regulated by the organization of work and by nothing else. It is the rise of the great corporation with its ability to use power, to use accurately designed machinery, and generally to lessen the wastes in time, material, and human energy that made it possible to bring in the 8-hour day.

Ford viewed the work time determination process as a power struggle between management and labor, in which labor was greatly disadvantaged. On this issue, Ford may have had a much better understanding of economics than many of the contemporary labor economists who afford the worker far greater sway in the work hours determination process.

Like individuals, firms may be acting in a rational manner even though negative externalities may result from the work schedules they demand from their employees. Orthodox value theory typically regards the losses suffered in the

course of the planned market as accidental and exceptional. Self-interested beings will behave in a manner that signals their choices and most external costs will eventually be reflected in market prices. Mainstream economics has come to purport that labor market intervention should only be tolerated in those few cases in which the direct or indirect losses suffered by third persons cannot be resolved with private market solutions.

One problem with this approach is that there may be a variety of externalities that are not recognized as such. William Kapp was one of the more influential scholars to delineate the social costs of business activity. While orthodox theory has continued to regard the losses suffered at the hand of the market as minuscule and exceptional, Kapp (1950) believed that social losses or “external” costs should not fall outside the scope of economics proper. Kapp (1950, p.9) noted that, “to measure development in terms of a single monetary indicator...is a selection of one goal and hence an exclusion of other goals.” Valuing labor inputs by the narrow measure of profits produced, for instance, may be highly problematic if doing so ignores the other important social functions performed by workers.

Kapp (1950, p. 11) outlined two reasons why the unregulated market economy failed to achieve “the maximization of the want-satisfying power of scarce resources.” The first is the presence of obstacles to the rational behavior of consumers and entrepreneurs as well as outright non-rational behavior patterns in modern industrial society. The second obstacle arises from the fact that social returns and costs diffuse themselves throughout society and, since they cannot be sold in markets or adequately appraised in terms of dollars, are largely neglected by private enterprise. Kapp (1950)

also pointed out that while the social costs of production are sometimes felt immediately, in many instances the ill effects of unfettered market activity remain hidden for considerable periods of time. This seems to be particularly true of excessive work hours. Whereas extremely long work hours generally come to bear immediately on the health or morale of the worker, a nagging or gradual increase in work time might only manifest itself in larger societal problems.

In Kapp's (1950, p. 14) words, "indeed, the actual damages caused by private productive activities may be distributed over so many persons that any one of them may individually sustain only a relatively small loss." Market failure in the determination of work hours often results in harmful consequences and damages inflicted upon third persons for which private entrepreneurs are seldom held accountable. Moreover, negative externalities may only be observed with a time lag. Thus, the subaltern productivity or the growing deviant behavior of successive generations may be the only indication of whether or not erstwhile work schedules were onerous.

When examining the cost of excessive work hours it is helpful to envision labor as a fixed cost of business that can be depreciated like any other factor of production. Kapp (1950, p.163) argues that, "the impairment of the worker's physical and mental health in the course of modern industrial production does not differ fundamentally from the depreciation of nonhuman factors of production." Yet, the impairment of the workforce is less likely to be reflected in the customary wage contract because it is diffused over many societal members over a period of many years.

Not only is the human factor in the *current* production process subject to deterioration, but the production and upkeep of the long-term workforce is also at issue. Monetary outlays are required to raise a new generation of workers and provide them with some kind of training, varying from the elementary erudition of the unskilled worker to the highly specialized training of professional workers. Such costs are relatively constant in that a certain minimum must be provided under all circumstances whether the worker is employed or not. As J.M. Clark (1923, p.16) contends, “if it is not borne, if the maintenance is not forthcoming, the community suffers a loss through the deterioration of its working power.” In this sense, the costs of labor, or at least a substantial part of them, constitute a kind of overhead cost not solely for the individual worker but for the society as a whole.

Under current labor market conditions, the fixed costs of labor are translated into variable costs. This translation (or obfuscation) results from the fact that the laborer is a free person who sells his services by means of a free wage contract. Under such a system, the burden of all overhead costs of labor falls upon the individual worker. “He is under our social system, a free being, responsible for his own continuous support and that of his family; hence his maintenance is his own burden and not an obligation of industry, except so far as he can exact wages that will cover it (Clark, 1923 p.17).” Clark’s analysis has been antiquated somewhat by the establishment of social security systems, but in large measure industry still escapes much of the fixed cost of maintaining the labor force.

Although Clark and Kapp related the fixed cost of labor to the social costs of unemployment, the concept also lends itself to the distribution of work time.

Indeed the underemployment of a segment of workers is a direct corollary to unemployment, and the overwork of other segments may dramatically increase the fixed costs of labor by hindering the maintenance of both the current and future workforce. Thus, although the firm's work time optimization process may appear to be "rational," the diverse, hidden, and lagged nature of the negative externalities of work time may result in significant social costs.

Cognizant of the success with which orthodoxy has deflected concerns over negative externalities arising from market activity, the point of this discussion has been to illustrate the magnitude and deceptive nature of the externalities associated with work time. The works of Kapp and Clark have delineated many reasons why social costs may not be internalized by the labor market even when firms are acting in a supposedly "rational" manner. However, is it fair to assume that even if firms are knowledgeable of the social costs of their behavior that they will indeed act rationally?

Bounded Rationality, Habituation, Myopia and X-Efficiency

In addition to the aforementioned difficulties that may keep a firm from internalizing the external costs of excessive work time, the firm may also face substantial barriers to rational behavior. Many economists, particularly of the New Institutional persuasion, have questioned the firm's ability to act in a perfectly rational manner and affect an optimal allocation of goods and resources. Barriers to the allocation process such as bounded rationality, myopia, habituation or X-

efficiency may result in a work hours regime that is far from optimal for either the worker, society, or the firm itself.

Beginning with the assumption that firms act rationally in order to maximize profits and minimize costs, it has been shown by Simon (1997) and others that the rationality of economic actors may be both costly and bounded. At times, truly rational behavior inflicts substantial observation, communication and calculation costs upon the agent doing the rationalizing. A firm may indeed incur substantial costs attempting to estimate the costs its long work hours inflict upon society or the productivity implications of a work time reduction. Capturing the social costs of health problems associated with work place stress, for instance, is not only time consuming but also expensive. It seems valid to assume therefore that most firms would devote few, if any, resources to the endeavor of sorting out the social costs related to its labor schedule.

In addition to presuming agents have the wherewithal or volition to engage in such analysis, advocates of rational behavior often overlook the cognitive limits of individuals. If firms find it daunting to calculate all of the costs that are external to their labor process, it seems near impossible for them to internalize those costs and implement a socially-optimal workweek. Savage (1972) has labeled this the 'small-world assumption' of rationality. The assumption supposes that the decision maker understands all the consequences of her actions and is able to assign a probability to each state of nature. In the 'large world,' considering all of the events that are relevant to a decision may be an awesome undertaking.

Considering again the issue of work-related stress caused by long hours, it may require the knowledge of a medical doctor coupled with a social scientist to properly measure all of the costs associated with various work time regimes. Firms would not be expected to employ such specialists. Thus, completely rational behavior may not only be a costly task but a Herculean one. As a result, Wall (1993) claims that, “information processing tends to be parsimonious, and solutions tend to be simple-minded.”

Even if firms had the volition, resources, and ability to calculate the rationality of the workweek, behavioral models predict that a deviation from the status quo is more often the exception than the rule. Weber (1922) suggested that *traditional* behavior, which comprises the bulk of everyday actions, is a pattern of response determined by ingrained habituation. In terms of exchange relations, such as those in the labor market, well-practiced or institutionalized routines can be thought of as traditional behavior. Such behavior may become part of the firm’s corporate culture. Thus, a firm may obstinately adhere to a pattern of transacting for no other reason than ‘this is the way it has always been done’ (Lyons and Mehta, 1997).

Mere myopia might also militate against firms implementing shorter work hours. If the productivity benefits are felt with a lag or dispersed among the whole of society, the payout to the firm may be too distant for a near-sighted employer to grasp. Rosthchild made a similar argument in the 1960’s:

The beneficial effects of more leisure and “better nerves” will need some time to make themselves felt. In so far, then, as employers tend to take a rather short view of their actions, they will quite logically resist any reduction of working hours unless it is accompanied by a corresponding reduction in total wages.

Rothschild's central argument was that on account of the high level of risk aversion generally displayed by employers, competition alone could not ensure that optimal time schedules would be established. He suggested that employers would normally need to be externally shocked before introducing change to standard times even when the new schedule could prove more productive than the old one. Nyland (1989 p.234) offers a similar observation:

If so innovative an entrepreneur as Ford needed to be pressured by an acute shortage of labour power or fear of unionism before he would introduce rationalized worktimes, the overwhelming majority of capitalists would require a good deal more pressure.

An additional pillory of the firm's ability to efficiently utilize factor inputs was put forward by Harvey Leibenstein (1960) in his work on the notion of X-efficiency. Leibenstein's argument is parallel to Chapman's contention that the art of machinery management can often be described as backward. Leibenstein formalized the notion that firms may not utilize inputs, such as labor and machinery, in a cost minimizing/profit-maximizing fashion. Commenting specifically on industry's failure to recognize, or even research, the virtue of reduced work hours Leibenstein (1960, p. 402) states that,

Economists frequently assume that for a given capital stock and quality of work force, output will be proportional to number of hours worked. Experiments during World War I and later showed that not only was the proportionality law untrue, but that frequently absolute output actually increased with reductions in hours – say from a ten-hour day to an eight hour day. It was also found that with longer hours a disproportionate amount of time was lost from increased absenteeism, industrial accidents, and so on. In many cases it would obviously have been in the firms interest to reduce hours below that of the rest of the industry. Firms could have investigated these relations and taken advantage of the findings. For the most part, governments sponsored the necessary research on the economics of fatigue and unrest under the stimulus of the war effort.

Indeed, the employers' indifference to, or ignorance of, the relation between work hours and output serves as a prime example of X-efficiency.

Leibenstein's central premise was that there is no reason to presuppose that the decision makers involved will use inputs as effectively as possible. The difference between maximum effectiveness of the utilization of inputs and the actually effectiveness is referred to as the degree of X-efficiency. Of course, X-efficiency can also be measured in terms of actual quantity produced for a given combination of capital and labor, which lends itself well to the comparison of two different work time regimes. The notion expresses the idea that although inputs might be efficiently allocated to firms, it is not a forgone conclusion that those inputs will be used in an efficient fashion.

Moreover, X-efficiency is not the same as what is frequently referred to as technical efficiency, since X-efficiency may arise for reasons external to the firm and foreign to the knowledge of the managers. Thus, by X-efficiency Leibenstein (1980, p. 12) has in mind "decisions and processes of implementation, that are nonoptimal, and which are an inherent part of organisational life." The salient point of the X-efficiency theory is that firms do not minimize costs and, indirectly, do not maximize profits. Can they then be trusted with the important economic and social obligation of optimizing work hours?

If employers have substantial influence in the work time determination process, the fallacy of composition might keep any one worker from opting for shorter hours. What is good for society at large is not necessary beneficial for the initial pioneers who often suffer while goading society towards a higher standard.

Although all workers may covet and endorse shorter hours, it may be detrimental, if not disastrous, for the first workers who voluntarily reduce their hours. The fear of appearing indolent or being passed over for promotion will tend to limit any one worker's alacrity for reduced hours. Any effort to reduce hours on behalf of the workers must then be achieved on a collective basis.

Widespread cultivation of the virtue of long working hours makes it difficult for any one individual to break from tradition. Refusing to work overtime, for example, will often raise the ire of colleagues who regularly volunteer to work extra hours for the firm.¹² A continued commitment to long work hours strengthens the power of the firm over the working class and perpetuates the putative "need" for the worker's physical presence in the workplace. Time-honored traditions begin to appear as "natural" or "economic" laws when their basis is really just prolonged subjugation by the vested interests.

This chapter has examined the many "exceptions" to the efficient allocation of work time that are typically conceded to by mainstream economists. Although orthodoxy has traditionally dismissed these market imperfections as inconsequential, the growth of New Institutional Economics is causing many economists to place more emphasis on the magnitude and pervasiveness of shortcomings with the standard competitive model. This investigation has shown that a market determination of work time is rife with imperfections from both the labor demand and labor supply perspectives. Externalities, insatiable target incomes, ingrained ceremonies, and the inelasticity of time-saving goods are all reasons why workers may fail to choose an

optimal mix of labor and leisure. Firms possessing the bargaining power to impact work scheduling may be equally impaired in their ability to demand an optimal amount of work time from their employees as their decisions are often hampered by the difficulty of measuring external costs, bounded rationality, cognitive limits, myopia, ingrained habituation, or the problems falling under the label of X-efficiency.

The diversity and significance of market imperfections in the labor market shed a penumbra of suspicion on the notion that sovereign workers and competitive firms can arrive at a socially-optimal workweek if left to their own devices. The path toward an optimal workweek may not be determined by timeless, immutable natural laws, as was the path of the planets under Newton's classical mechanics. The search for a superior path is often complicated by the fact that the search is usually localized and sequential (Wall, 1993). Moreover, the search for a new and better solution may only be undertaken when it is deemed necessary by unmet goals, causing the first solution that is 'good enough' to be retained (Wall, 1993). Thus, although society might be gradually progressing towards a socially-optimal workweek, we could be temporarily stuck in a 'good enough' stage.

Modern work times may simply be an artifact of a time when worker bargaining power was minimal or when Calvinistic work ethics held greater sway. The survival of the customary workweek may have led to the illusion of it being objectively determined, but the reality might be far from the perception. As Gary Cross (1989, p.234) points out, "The contemporary distribution of time and money is not a natural allocation of work, rest, and material need: there is no physiological or

¹² See Fried's *Taking Time*, 1998..

psychological optimal workday and workyear, which once reduced, need not be further reduced.” Indeed, the Panglossian acceptance of a market-determined, 40-hour workweek needs to be seriously reconsidered in light of our rapidly changing economic and social system.

CHAPTER FOUR

AN ALTERNATIVE VIEW OF THE INDUSTRIAL EFFECTS OF REDUCED WORK TIME

In light of the work time imperfections and inefficiencies suggested in the previous chapter, this chapter examines the relationship between work time and the productivity of the individual worker and the firm. The intent of the chapter is to suggest an alternative way for both firms and workers to approach an allocation of work hours that is optimal from an industrial or microeconomic perspective. It is important to note that this alternative industrial approach is highly compatible with the broader societal approach suggested in the final chapters. In short, this chapter posits that a reduction in work hours can be as beneficial to the firm and the worker as it would be for society in general.

Since the issue of labor productivity is itself a controversial one, an examination of the problematic nature of measuring productivity is warranted before offering opinions on the productivity-enhancing effects of work time alterations. The

discussion then builds upon efficiency wage theories to introduce an *efficiency week* approach to work time determination that is congruent with the objectives of the alternative narrative of work time determination. Specifically, the *efficiency week* hypothesis posits that a reverse causation may exist between work hours and the productivity of the worker and the firm. The analysis is akin to the efficiency wage hypothesis, which has engendered an alternative view of the implications of wage hikes. Just as efficiency wage theories have been used to explain the failure of factor price equalization across industries, the *efficiency week* hypothesis argues that a greater inter-industry variance in average workweeks is theoretically possible. The chapter offers an examination of inter-industry workweek differentials in order to suggest that factor equalization has already become less observable across sectors and that the *efficiency week* concept may do as good a job explaining such differentials as the efficiency wage theories have done for inter-industry wage differentials. A formalization of the *efficiency week* is then presented to elucidate how firms might optimize work hours in much at the same way some firms have done with wages. Lastly, the evidence gleaned from various types of work-time-reduction experiments at the firm level is offered as an indication of the potential industrial rewards offered by shorter work hours.

Labor Productivity- Caveats and Concerns

It is commonly held by economists that the average rate of wages, the length of working hours, and the general standard of living is determined by the productiveness of labor. However, the measurement of labor productivity is highly

controversial and therefore warrants closer examination. Many scholars have warned that valid productivity figures are illusive if not impossible to capture. Measuring the productivity of the factor of labor is particularly troublesome due to the added complexity introduced by the human element. As mentioned previously, the difficulty in separating labor from labor power makes the measurement of labor productivity much more problematic than that of capital (Braverman, 1974 and Bowles, Gordon, Weiskopf, 1990.)

Labor productivity measures are commonly criticized along three fundamental lines of attack. First, the productivity of a worker may be immeasurable at any particular instant in time. Especially in our service-oriented economy, labor productivity may only be observable on a monthly, annually, or lifetime basis. Second, given the modern economy's complex working milieus, it is becoming increasingly difficult to discern individual productivity from group productivity. Roland Cullivier (1984, p.51) writes, "the concept of 'individual output' is almost impossible to define, in so far as a large and growing number of jobs in advanced industrial societies are concerned." Lastly, a sundry of influences come to bear on productivity – such as worker skill, regional location, the productivity of the industry, capital accumulation, technical know-how, et cetera – making it very difficult to isolate just one factor. Separating the contribution of labor to the productive process from that of capital is a particularly vexing problem in measuring labor productivity.

Although wages in specific industries may not always reflect changes in the productivity of workers and implements in that sector, the average wage in a

community is generally believed to follow the average productiveness of the factors of production in use in the community at the time. For instance, a cotton-spinner, by means of more efficient machinery, may produce ten times as much thread in a day as his counterpart could have a century ago. A bricklayer, however, is less likely to mortar more bricks today than his skilled brethren did a century ago. But the bricklayer's real wages have risen *pari passu* with the cotton-spinner. In this manner, even those industries that have not directly experienced productivity revolutions can share in the results of the productivity gains made elsewhere in society. This reasoning is essentially an anecdotal way of saying that individual productivity may not be nearly as important as social productivity.

Clarence Ayres (1967) has offered perspicacious commentary on the issue of separating individual productivity from societal productivity. Ayres took particular exception to the notion that any one individual's contribution to society could be separated from the group effort. Commenting on productivity in the general sense, Ayres (1967, p.3) states that,

This word suggests, whether intentionally or not, meanings which are not true and are exceedingly harmful; and all of us who know this to be the case have a public duty to repudiate these suggested meanings and to denounce the whole institutional structure they support.

One such notion that the misconception of the term supports is the belief that free competition tends to give labor what labor creates, and capitalists what capital creates.

Indeed the rewards of work may depend more on labor's bargaining power and societal beliefs about the structure of wages than on "work effort" or individual productivity. Ayres appeals to economists to dispel the fallacies surrounding the term

“productivity” to the whole of society. He claims that this is an economist’s ideological responsibility because,

Economists should know better than anyone else that no one creates anything except as a participant in the culture he shares with all the other members of the community, and that it is utterly impossible to determine how different the future of his society would have been if he had never been born. Better than anyone else economists should know that price theory is tautological: that we know what the various participants in our economy “create” only insofar as this is “revealed” by what they get. There is no independent gauge.

Indeed the total productivity of the production process may be far more important than individual labor productivity. Since labor productivity is but a small and decreasing component of total productivity, its overall influence on the “efficiency” of the system may be limited. Block (1990, p. 95) points out that “in advanced manufacturing, direct labor costs have fallen to less than 10 percent of the total costs of production.” Consequently, labor productivity might be *more so determined* by total productivity rather than vice versa. If, for example, the entire productive process becomes more “efficient” due to the fact that production runs have increased and the capacity utilization is higher, labor will be one of many factors of production that will become more productive.

The message in these semantics is that a high and sustained level of capacity utilization will likely have a greater impact on total productivity than the impact achieved from increasing the productivity of any singular factor of production. This phenomenon has been illustrated by the growing productivity statistics that have accompanied the high economic growth figures in the United States in the late 1990’s. As is typically the case, productivity improvements have been positively

related to capacity utilization rates in the 1990's. This correlation reflects the commonsense notion that productivity, or per unit costs, will tend to improve as a firm's fixed costs are spread out over more units of output.

The specter of insufficient or depressed output may then pose the largest obstacle to labor productivity improvements. It may well be that the businessperson, in protecting the price of their product, causes more damage to labor productivity than any that could possibly be caused by a work time reduction. Veblen (1919) has commented that the term sabotage should not be reserved for the actions taking by workers, because the captains of industry themselves routinely orchestrate a "conscientious withdrawal of efficiency" to ensure their continued prosperity. For Veblen, the rate and volume of output is adjusted to "make a market," not to the working capacity of the available resources, equipment and manpower, nor to the community's need for goods. This "capitalistic sabotage" likely wreaks more havoc on productivity than any withdrawal of efficiency the working class could affect.

If maximizing output is not the modern capitalist's true *sine qua non*, productivity issues should not be an obstacle for the movement towards shorter work time. If the captains of industry are themselves interested in restraining production, they could use reduced work time as a fictitious guise for reducing output. As this chapter attempts to show, however, such a pretext is false because labor productivity per unit of output will likely rise. Consequently, the capitalists' real fear may be that shorter work time will bring about greater production and threaten the scarcity premium that they often achieved through a "conscientious withdraw of efficiency."

In other words, a workweek that enhances the efficiency of labor stands in contrast to any capitalistic sabotage employed to bolster profits.

In summation, discerning the productivity effects of higher wages or shorter workweeks may be a Herculean task. Since the output of so many workers is unknown in the modern workplace, employers may operate under the false delusion that high labor hour inputs (i.e. long hours) will ensure high levels of output. The logic is spurious, however, because working longer does not necessarily translate into producing more. Even if output does rise in absolute terms in the short run, a policy of long work hours will likely result in higher per unit labor costs in the long-run as production inefficiencies come to fruition. As was suggested in the theoretical discussion of work time in the second chapter, detaching work hours from operating hours can make better use of shiftwork and substantially increase the total productivity of the production process by extending production runs. As goes total productivity, so too goes the productivity of individual factors. Yet, it remains quite uncertain which way the causation has more force – from total productivity to factor productivity or vice versa.

Measuring labor productivity is a double-edged sword – for if we cannot use it to evince productivity improvements then claims of detrimental productivity effects are likewise limited. Since it is difficult to separate individual or total productivity from social productivity, the role of labor productivity in the work time debate is admittedly limited. In short, if workers feel overworked,

immeasurable productivity concerns should not obviate policy reforms that address the hardships of the workforce.

The Efficiency Wage Theory - A Springboard to the Efficiency Week Hypothesis

Before the emergence and widespread acceptance of the efficiency wage hypothesis, it was believed that increased productivity led to dividends being paid to workers in two basic forms: higher real wages or reduced working hours. The efficiency wage theory, however, reversed the arrow of causation between the two variables by purporting sound reasons why higher wages may be a *cause* of higher productivity as well as a *result*. The chief posit of this chapter is that productivity advances are also correlated with another significant determinant of productivity—work duration. Thus, just as an efficiently high wage may serve to lower per unit labor costs, so might judiciously determined workweeks. Since a thorough understanding of the efficiency wage model is crucial for grasping the *efficiency week* hypothesis, the detailed exposition of efficiency wages that follows should prove useful in understanding the relationship between wages, work time and productivity.

In The Wealth of Nations, Adam Smith commented on the fact that higher wages would lead to increased industry among the working class. Smith (1994, p.93) effectively laid the foundation for the efficiency wage hypothesis when he wrote,

The liberal reward of labour, as it encourages the propagation, so it increases the industry of the common people. The wages of labour are the encouragement of industry, which, like every other human quality, improves in proportion to the encouragement it receives. A plentiful subsistence increases the bodily strength of the labourer, and the comfortable hope of bettering his condition, and of ending his days perhaps in ease and plenty, animates him to

exert that strength to the utmost. Where wages are high, accordingly, we shall always find the workmen more active, diligent, and expeditious, than where they are low.

Since Adam Smith published his magnum opus, economists have discovered additional reasons why high wage rates can serve to increase the productivity of both the individual worker and the milieu in which she toils. Thus, economists have advocated many explanations as to why per unit labor costs– the capitalists' sine qua non– can often times be lowered by paying an efficiently-determined wage rate.

In its simplest form, the efficiency wage hypothesis states that labor productivity depends on the real wage paid by the firm. As Janet Yellen (1984, p.200) points out, “if wage cuts harm productivity, then cutting wages may end up raising labor costs.” The productivity gains attributable to the employee primarily result from greater incentives to work coupled with a diminished incentive to shirk. However, the employer can also raise the productivity of her operation by utilizing higher wages to reduce turnover, improve morale, decrease monitoring costs, and attract superior job applicants (Yellen, 1984, and Stoft, 1982).

The link between labor productivity and the real wage paid by firms is perhaps most apparent in the less-developed country context. In this setting, it is quite obvious how higher wages can abate such productivity drags as malnutrition and illness. The understanding is still rather intuitive when extended to the developed countries as we can imagine such productivity enhancements as training, wellness investments and even psychiatric help being financed out of higher wages. However,

most models pertaining to industrialized economies tend to emphasize the productivity gains reaped from a reduction in shirking and employee turnover.

Since piece rates are impracticable in most jobs, monitoring of employees becomes an expensive endeavor. Direct observation of worker effort is often costly or otherwise impracticable. Therefore, monitoring can be accomplished by either purchasing more direct supervision or by purchasing self-supervision (Leonard, 1987.) The payment of efficiency wages results in the direct cost of monitoring being supplanted by a reduced incentive to shirk (i.e. self-supervision). The ultimate penalty for shirking is the possibility of being sacked upon discovery of the impropriety. This has been termed the “cheat-threat” theory by Stoft (1982) because, if there is a cost to being fired on account of cheating, the threat of being axed creates an incentive not to shirk. If a firm were to hire a worker for less than or equal to the going wage rate, it would be in the interest of that worker to shirk, because similar replacement employment could be easily obtained. Firms that realize this will want to offer wages that are competitive with those within their particular industry, and consequently reduce their direct monitoring expenses.

As the subsequent section will illustrate, this argument may have even more sway under an efficiency week arrangement. Even fewer resources are lost to monitoring under an efficient week because workers are not only less apt to shirk but their production mistakes are substantially curtailed (Hunnicutt, 1995, Saltzman, 1997). Rather than paying individuals to tyrannize over, putatively, unruly workers, society could employ efficiency wages and weeks in order foster socially-superior results. Both the efficiency week and efficiency wage alternatives to monitoring are

socially optimal because resources are devoted to the production process rather than the subjugation of the work force.

Firms may also offer wages in excess of the market-clearing rate in an effort to reduce labor turnover. For reasons similar to the reduced shirking argument, workers will be more reluctant to quit the higher the relative wage paid by the current employer, and the higher the aggregate unemployment rate. Since less turnover translates into lower training costs for the firm, paying a higher relative wage could be a windfall for firms with substantial training costs.

Henry Ford was one of the first welfare capitalists to benefit from the increased mettle brought forth by efficient wages. Facing worker rebellion against the intensification of work resulting from the implementation of his assembly line tactics, Ford was pressured to take steps to offset a planned unionization drive in the automobile industry. He was also facing the prospect of having to retrench tens of thousands of workers during the re-tooling of the Model A (Sward, 1968). In 1928 Ford shocked American industrialists by paying his workers an unprecedented five dollars a day. Ford was not the first U.S. capitalist to introduce the five-day work schedule, but no one had implemented it on such a grand scale. His move was praised by organized labor and attacked by most major industrialists (Laue, 1926).

Having decided to introduce the 5-day week, Ford became a very vocal champion of the virtues of the policy. Indeed, the benevolent implications of the new work schedule gave Ford plenty to discuss. Ford's policy simultaneously increased the productivity of his workers and bolstered effective demand for his automobiles. Before the lessons of the five-dollar day, big business adamantly opposed higher

wages. An increase in the factor cost of labor, it was argued, would prescribe a curtailment of production. The reduction in output would maim the very workers it intended to benefit. What these myopic opponents of higher wages were not grasping was the aggregate demand effects and productivity gains that abound from well-paid and well-rested workers.

Ford's main concern was the absenteeism and turnover of his workforce. Employee turnover was such a menace that the firm even took to referring to the higher wage as a "profit share" in an attempt to enfranchise workers. Giving workers greater stake in the company was essentially a strategy to ameliorate a turnover rate that had reached 370 percent at Ford in 1913 (Summers and Raff, 1986). This reasoning can be seen in the quid pro quo that was expected in return for the higher remuneration. In order to qualify for five-dollar day workers had to have a tenure of six months and prove to one of the 150 inspectors from Ford's Sociological Department that the higher wages would not be frittered away. As a 1914 Ford pamphlet wrote, "a worker is only put on the list of profit sharers after he has been carefully 'looked up' and the company is satisfied that he will not debauch the additional money he receives." The Ford executives emphasized the fact that the policy was a profit-sharing rather than a wage-increasing plan in order to symbolize the payments as gifts rather than a market compensation they had a right to expect. The fact that such "gifts" were being shared with workers was claimed to be justification for the company conditioning the payments on worker's spending their salaries wisely. Akerlof's gift exchange was patently at play in Ford's strategy, and

may even suggest that many types of gift exchange can have efficiency wage effects – even the gift of work time reduction.

Adverse selection provides further credence to the relation between productivity and wages. If workers' ability and reservation wages are positively correlated, firms with higher wages will attract more qualified job candidates. In such a scenario, each firm offers an efficiency wage and optimally turns away applicants offering to work for less than that wage. The willingness to work for less places an upper bound on ability; raising the firms estimate that the applicant is a lemon.

Inter-Industry Wage Differentials

Many economists have attempted to discern the impact of efficiency wages by showing that their existence is responsible for inter-industry wage differentials. Since mainstream economic labor theory holds that worker attributes which do not directly affect the worker productivity should have no effect on the level of wages, workers possessing similar skills should receive comparable wages. As Stiglitz (1986), Bulow and Summers (1986) and others have argued, efficiency wage theories have positive and normative implications that contrast those of the standard competitive model. In perfectly competitive labor markets with minimal transaction costs, firms pay a wage that is just sufficient to attract workers of the quality they desire and no higher. The competitive model also avers that flexible wages would clear labor markets and eliminate involuntary unemployment. The wages of workers would tend to equalize across firms and would not be influenced by age, race, sex or location. Wage

differentials for workers could not persist because firms would only hire the low wameworkers, causing an excess supply of high-wage workers.

Krueger and Summers (1988) have argued that inter-industry wage differentials, which are chiefly explained by efficiency wages, have persisted for extended periods of time. For decades wages across industries have shown marked differences which cannot be explained by variations in worker productivity, human capital, sex, race, age, gender, union involvement or a host of other factors that tend to influence wages. The studies typically find the inter-industry wage differentials to be remarkably stable across space and time. Krueger and Summers (1988) conclude that, “The finding here of large inter-industry wage differentials suggests that profits may be relatively insensitive to wages over a wide range. This attenuates firms’ incentives to adjust wages in the face of unemployment.” At a minimum, formal studies of the impact of efficiency wages on inter-industry wage differentials have shifted the burden of proof to those who would wish to explain wage differentials in terms of conventional competitive models.

The Efficiency Week Hypothesis

The efficiency *week* hypothesis espouses productivity gains for reasons akin to those argued by the efficiency wage theories. Foremost, just as a higher wage may afford a worker the *finance* to invest in their human “capital” or “physical maintenance” (i.e., nutrition, health, general or specific training), reduced work hours afford that worker the *time* to make that investment. Surely, workers will require time to better nourish, clothe, educate, and rejuvenate themselves. Secondly, the cheat-

threat argument that shirking will be less prevalent within high paid positions also holds true for jobs that offer compassionate hours. The risk to losing steady yet not overly rigorous employment could be even more detrimental to a family than losing high-paid sporadic work. Finally, the reduction of monitoring costs may have even greater sway under the efficiency week hypothesis than in the high-wage theories.

A reduction in hours of work may do as much for the morale of the workforce as a wage increase. Indeed, when the morale of military troops has waned throughout history their commanders did not send them back into battle with larger wads of cash in their fatigues, but rather they offered their war weary subjects time for rest and relaxation. The effects of free time on morale are similar within the commercial environment, particularly where flextime policies are lacking. Thus, time should surely serve as one of the main ingredients of the morale-boosting elixir rationed to workers in an effort to raise productivity.

Short work hours can also reduce the firms exposure to labor turnover. Short hours can provide a tremendous boon to a firm's personnel retention and recruitment efforts. This factor alone can result in sizeable reductions of per unit labor cost. For each skilled employee who quits, for example, it costs the average employer \$40,000 to hire and train a replacement (Hochschild, 1997). Consistent with that estimate, a study of Merck and Company found that losing an exempt employee costs the company one and a half times that employee's annual salary. When workers do leave a firm that offers progressive work schedules, the policy of short hours can serve as a powerful recruitment tool. Recently, American firms—vexed by tight labor markets—

have used short work hours as way to retain and attract the most desirable employees. Work time reductions that reduce employee turnover and training costs have the potential to more than pay for themselves by favorably influencing per unit labor costs.

In addition to the benevolent psychological and behavioral effects that accrue from reduced workweeks (i.e., increased morale and decreased employee turnover), perhaps the most intuitive arguments for the proposition are physiological. In extreme cases, longer work hours blatantly come to bear on productivity levels; but even when work durations are within moderate ranges, substantial productivity effects are discernible. Long work durations are typically accommodated by adjustments of pace or work intensity. Most workers can intentionally and surreptitiously ration their productivity by slowing their movements or pausing shortly between movements. Moreover, since long work durations often lead to greater absenteeism and infirmities, the interdependence of workers operating in complex milieus may be interrupted- hindering the output of all employees.

Scientific research on the physiology of labor initially took place in the United Kingdom during the First World War. The war provided a unique opportunity to study the relationship between work hours and industrial production. During peaceful industrial conditions, it is difficult to engage in extended observations of a variety of work schedules. In the first eighteen months of Britain's involvement in World War I, however, the British War Office had imposed extremely long schedules on the workers in the munitions industry, creating an ideal work time laboratory.

Under the auspices of the Industrial Fatigue Board, researchers investigated why the British munitions industry failed to respond to an increased demand for output, despite unrestricted budgets that allowed for ample overtime compensation. Through meticulous observations of munitions factories, Vernon (1977) was able to show that increases in output were ephemeral. Over longer periods, the level of output tended towards an equilibrium. As White (1987, p.47) illustrates, “this equilibrium is considerably influenced by the hours of work, by the physical effort demanded in the work, and also the regularity of the work.” In general, a longer work duration tended to manifest itself in lower long-run equilibrium levels of output.

Copious other field and laboratory studies have made similar claims regarding the trade-off between work time and physical performance (Shipley, 1980). For instance, sustainable long-term muscular effort has been shown to have a log-linear relationship to the duration of the work effort (Birk, Bonjer, and van der Sluys, 1961; and Bonjer, 1968). A report entitled “Practical Experiences with the Reduction of Working Time in Western Europe” claims that,

It is generally admitted that the reduction in working time leads of itself to productivity gains to the degree that it affects the least productive periods of labour. Productivity tends to diminish at about the sixth hour of the workday. The reduction of the workday or week thus affects the least productive parts of the day. The same is the case regarding overtime, the productivity of which is a fortiori still less than that of the last hours of the normal working time (European Trade Union Institute, 1984).

The suggestive analytics section of this chapter will further demonstrate how work time influences the worker’s physical productivity and, in particular, how the ill effects of fatigue have manifest themselves through daily and weekly productivity contractions.

Finally, the efficiency week hypothesis improves upon the efficiency wage argument of decreased monitoring costs. As is evidenced by numerous case studies presented in at the end of this chapter, prudently determined work durations may cause monitoring costs to fall by even more than the efficiency wage theories predict. The cost of guarding against shirking may be diminished under a reduced workweek merely because fewer breaks are required. However, since manufacturing companies will most likely experience fewer injuries, accidents and production mistakes, on account of their workers being well rested and alert, it would follow that both the *actions* and *output* of the workers would require less supervision and inspection. S.J. Chapman (1909, p.360) realized this virtue of reduced work hours as early as the turn of the last century when he wrote:

The use of leisure affects, of course, mental vitality, culture, and character, and it will therefore be generally observable that labour which has had its hours reduced will be capable after a time—when the use of leisure has been improved and the improvement has produced its effects—of managing satisfactorily more complicated machinery, and will be generally more responsible and trustworthy, and therefore less in need of continuous watching and directing.

This says more than the efficiency wage theories that show a reduction in the costs of solely monitoring worker behavior and not production. The behavior of a high-wage, over-worked assembly line worker may require less oversight than her low-wage counterpart, but she stills needs to be closely monitored for quality. A well-rested, alert worker will likely make fewer mistakes and the quality of her work will, consequently, requires less oversight. Thus if workers are given the opportunity to opt for fewer working hours in lieu of wage increases, it may serve to obviate both shirking and fatigue- thereby improving the overall quality of their output.

Using workers' compensation insurance costs as a proxy for production mistakes, recent studies show that part-time workers may be less costly than full-time employees. Park, Butler, and Zaidman (1999 p.6) find that, "even after controlling for other factors such as age, gender, occupation, industry, type of injury and date of injury, the workers' compensation costs for leased employees are 3 times greater than they are for regular full time workers, and almost 10 times greater than they are for regular part time workers." It is understandable why the frequency and severity of claims is significantly higher for contingent employees than permanent employees. But why are there so many more workman compensation claims from full-time employees than part-time employees relative to leased employees? The lower worker compensation cost of part-time workers vis-à-vis full-time workers suggests that shorter work hours result in fewer job-related mistakes. Although, contingent workers may be more costly to the firm in terms of production mistakes, these results suggest that part-time permanent workers are actually less expensive than full time permanent workers are.

The American Management Association and the CIGNA Corporation recently conducted a similar type of study. The analysis investigated the effects of downsizing on long-term disability claims. Firms who had laid off workers experienced more claims from the employees who remained. Stress from long work hours and job insecurity topped the list of factors leading to disability. The lesson is clear: shorter hours equal less stress resulting in fewer disability claims and decreased per unit labor costs. Thus, firms with substantial monitoring costs might realize a cost savings by employing efficiency weeks among their permanent staff rather than squandering

resources on unproductive monitoring schemes. Likewise, any firm placing high value on product quality could also employ efficiency weeks to curtail production mistakes and the adverse consequences of an inferior product.

As a corollary to the reduction in monitoring costs, reduced workweeks may also be a vehicle for lower per unit overhead costs. As the workweek of capital becomes increasingly divorced from that of labor, longer production runs present the potential for prodigious efficiencies. Economies of scale in the use of electricity, real estate, machinery, and almost all other fixed costs await those firms that have erstwhile put their factories to sleep a while workers recuperated. The workweek of capital probably equaled that of labor in the earlier days of industrialization. However, recent evidence, including the Hewlett-Packard case presented below, suggests that workweek for fixed capital is expanding. Murray Foss concluded that the workweek of establishments has been increasing for some sixty years now. He found an overall increase of 3.6 percent in weekly hours from 1929 to 1950 and an additional 5 percent increase from 1950 to 1976. As would be expected, the increase was especially large for manufacturing, but even retail trade increased by 6.1 percent for the whole period. If the workweek of labor can remain disparate from the expanding workweek of capital, longer hours of operation may serve as a boon to firm efficiency with minimal external costs.¹³

¹³ Indeed the third party effects may even behoove the stewardship of the environment and limited natural resources.

Inter-Industry Workweek Differentials

By viewing the workweek as a fixed cost of labor, parallels can be drawn to the research performed on inter-industry wage differentials. The reduced workweek can be readily viewed as a fixed labor cost because fewer hours worked per worker would result, *ceteris paribus*, in more workers hired. As payrolls expand the fixed cost per unit hour of labor will increase since firms will have to offer benefits to a greater number of individuals. Indeed, the fixed costs associated with workweek reductions might explain why firms have been loath to reduce workweeks during recessionary times. Average annual workweeks have been somewhat immune to economic slowdowns, indicating that firms prefer to reduce payrolls—likely to avoid some of the fixed costs of labor—rather than reducing the workweek. Incidentally, the practice of reducing payrolls contradicts the predictions made by insider-outsider models that argue that firms will go to great lengths to retain skilled and senior employees. If firms are prone to defend weekly work hours rather than payrolls, it suggests that the fixed costs of labor are of a greater concern to the employer than training costs.

Just as competitive models predict that the *variable* cost of labor (wages) should equate across firms, so should the *fixed* cost of labor (workweeks). When faced with abnormal levels of unemployment, the competitive model would have firms dropping wage rates and adjusting the workweek to clear labor markets. Inter-industry wage differentials, however, have shown that firms are reluctant to lower wages. A causal investigation of inter-industry workweek hours data suggests that

firms are likewise apprehensive to alter workweeks. Inter-industry variations in workweeks suggest that profit-maximizing firms deviate from the average workweek in order to benevolently influence worker productivity. If paying greater benefits per unit hour of labor (through reduced workweeks) did not favorably affect productivity, firms would find it unprofitable and return to the equilibrium mix of hours and wages that is most acceptable to the average worker across all industries.

The stability of the average U.S. workweek does not preclude a substantial amount of variation across industries. A cursory inspection of industry-wide workweek data indicates significant variation in workweeks across different sectors of the economy. As Table 5 illustrates, the average workweek ranges from a low of 31.1 hours in the wholesale and retail trade industry to a high of 44.9 in the motor vehicle and equipment sector. Granted this data represents average industry workweeks and does not control for part-time work or differences in education, age, seniority, and other productivity-enhancing characteristics, but it still seems to suggest more variation than competitive labor models are able to explain. For example, one would expect that the mining sector and the construction trade would have rather homogeneous workers, but the their average workweeks are 43.3 and 39.4, respectively. So even at a time of robust building activity, construction workers are logging nearly four fewer hours per week than their skilled brethren in the mining sector are.

Table 5. Average Weekly Hours of Production Workers by Industry

<u>Industry</u>	<u>Hours</u>	<u>Industry</u>	<u>Hours</u>

Total Private	34.6	Fabricated metal products	42.2
Goods-producing	41.1	Industrial machinery and equipment	42.1
Mining	43.3	Electronic equipment	41.1
Construction	39.4	Transportation equipment	44.1
Manufacturing	41.7	Motor vehicles and equipment	44.9
Durable goods	42.2	Instruments and related products	41.1
Lumber and wood Products	41.5	Nondurable goods	40.9
Furniture and Fixtures	40.2	Food and kindred products	42.0
Stone, clay, and glass products	43.8	Tobacco	36.6
Primary metal	43.7	Textiles	40.8
Wholesale and retail trade	31.1	Apparel and other textiles	37.3

Source: US Bureau of Labor Statistics (December 1998).

In his comparative study of work time in Germany and the United States, Daniel Hamermesh (1996) finds much more variation in weekly work hours than in workdays. Thus, although work hours per week may be somewhat standardized, the number of days worked per week is even more universal. The ubiquity of the five-day workweek may delude us into thinking that the typical workweek is therefore forty hours long; when in reality it is much more variegated than workdays. Hamermesh's (1996) findings coupled with the suggestions made by the industry workweek data warrant further research on the issue of inter-industry workweek differentials. The apparent existence of inter-industry workweek differentials implies conclusions akin to inter-industry wage differentials. Namely, that firm profits are

insensitive to hours of work and that firms have little incentive to alter workweeks in the face of unemployment. As was the case with efficiency wages, the efficiency week model may prove to be more convincing in explaining inter-industry workweek differentials than the competitive labor market model.

A Preliminary Formalization of the Efficiency “Week”

Formal models of the efficiency wage hypothesis, chiefly purported by Katz (1986) and Yellen (1984), envisage an economy of identical firms in perfect competition. Each firm faces a short-run production function of the following form:

$$(1) Q = \alpha F(e(w)L)$$

where

Q = Output.

α = Autonomous productivity.

e = The efficiency function representing worker effort, $e' > 0$, $e(0) \leq 0$.

w = Real wage (the elasticity of $e(w)$ with respect to w declining in w).

L = The number of employees.

The profit-maximizing firm chooses both the optimal level of wages and the quantity of labor to solve the following optimization problem:

$$\text{Max}_{w,L} \alpha F(e(w)L) - wL.$$

The solution yields:

$$(2) e'(w^*)w^*/e(w^*) = 1. \text{ and}$$

$$(3) e(w^*)\alpha F'(e(w^*)L) = w^*.$$

Thus, at the optimal wage, the elasticity of effort with respect to the wage is 1. Since w^* minimizes per unit wage costs, it is known as the efficiency wage. Each firm hires labor up to the point where its marginal product equals the efficiency wage (w^*).

Under the efficiency week hypothesis, firms optimize hours of work in addition to wages and the quantity of labor in the short-run. As previously mentioned, if a reduced workweek is analogous to a higher wage (due to greater payroll costs), inclusion of an average workweek variable in the production function may be a feasible formalization of the efficiency week. Thus, the efficiency week function could be shown as:

$$Q = \alpha F(e(w)(h)L)$$

Where Q , α , e , w , and L are the same as above and h is average hours worked per week. In this instance, each firm hires labor up to the point where its marginal product equals the efficiency week (h^*). The variable representing hours worked per week (h) does not represent more labor hours devoted to the productive process, but rather a payroll expansion that lowers average hours worked per week. It might be illustrative to think of it as the counterpart to wages - a sort of fixed cost of labor. Just as the firm “optimizes” the wages it pays on the labor hours it employs it must also “optimize” the number of workers it employs and the attendant benefits offered. Thus, optimizing the fixed portion of employee compensation (i.e. the costs benefits associated with payroll expansion) may be as important as wage optimization.

The failure of firms to model workweek determination in this fashion may explain wage and workweek dispersion across industries with seemingly identical workers. The apparent existence of inter-industry workweek differentials suggests that some firms optimize workweeks while others may be oblivious. The empirical evidence presented in the next section is a testament to the notion of reduced workweeks foster increased productivity at the level of the firm.

Just as efficiency wage theories have led to alternative interpretations of wage increases, the efficiency week notion fosters similar optimism for work hour reductions. The reduction of monitoring costs may have even more sway under efficiency weeks than efficiency wages since fatigue comes to bear on both the behavior and the workmanship of the hireling. Under the efficiency week hypothesis, firms optimize hours of work in addition to wages and quantity of labor. If a reduced workweek is analogous to a higher rate of worker compensation (i.e. a non-financial reward), the inclusion of an average workweek variable in the formal production function is justified and perhaps long overdue.

Suggestive Analytics of Work Time Reduction Experiments

This section examines a multitude of work time reduction experiments that have taken place over the last century at the firm level. Many firms experimenting with reduced work times have realized both employment and productivity benefits. Therefore, this analytical examination attempts to be particularly mindful of the original objectives of each work time experiment. Only then can it be ascertained whether or not the anticipated results were brought to fruition. Comparing

expectations with results can be edifying in formulating new expectations and objectives for future work-time reductions. Although work-time reductions have been implemented for a variety of reasons, a common result has been that productivity advancements often overshadow other worthy objectives such as reduced unemployment. It is worthy of mention that many of these firms are located in those very countries that have realized favorable aggregate effects (featured in chapter six below). This finding is certainly not surprising and decreases the likelihood that correlations between work reductions and productivity gains are clouded by some other influence. In short, if most firms are experiencing beneficial results from work time reductions; it stands to reason the macro-results will be equally benevolent.

On November 24, 1930, William Keith Kellogg implemented a six-hour day in his gargantuan cereal factory as a stratagem to ameliorate unemployment in Battle Creek, Michigan. The progressive capitalist publicly proclaimed to Mayor William Perry that “if we put in four six-hour shifts...instead of three eight-hour shifts, this will give work and paychecks to the heads of three hundred more families in Battle Creek (Hunnicut 1996, 13).” Unexpectedly, Kellogg’s six-hour day became much more than a cure for unemployment. The practice led to a more rewarding, restfully, and fulfilling personal life for the Kellogg workers that spilled over into their work habits. When the productivity bonanza associated with the six-hour day became apparent to the company, the shortened workday grew into a way of life at Kelloggs-persisting until 1985.

In his book Kellogg’s Six-Hour Day, Benjamin Hunnicutt (1996), alludes to an internal memo extolling the virtues of the company’s reduced work durations.

After five years of six-hour work days, the company brass concluded that the “burden (or overhead) unit cost was reduced 25%...labor unit costs reduced 10%...accidents reduced 41%... the severity of accidents (days lost per incident) improved 51%...(and) 39% more people were working at Kellogg’s than in 1929.” W.K. Kellogg vehemently maintained that the six-hour day “isn’t just a theory with us...we have proved it with over five years experience.” Mr. Kellogg had found that with shorter work durations, “the efficiency and morale of our employees is so increased, the accident and insurance rates are so improved, and the unit cost of production is so lowered that we can afford to pay as much for six hours (of work) as we formerly paid for eight (Hunnicut, 1996, p.35).”¹⁴

One reason the Kellogg experiment was so successful was the fact that it vastly reduced the use of overtime. Hunnicutt (1996, 20) maintains that the “pest of so many manufacturing plants, unnecessary overtime that somehow takes on the appearance of necessity,” had been eliminated at Kellogg. Workers at Kellogg displayed a greater willingness to accept speed-ups and production bonuses because of the lure to leisure. Indeed, most workers accepted working harder instead of longer for premium pay (Hunnicut, 1996).

¹⁴ Hunnicutt (1998) provides three explanations for why the six-hour day fell into abeyance at Kellogg. The first is that it was interrupted by Franklin Roosevelt’s executive order mandating longer work hours as a wartime measure. Secondly, although the company returned to the six-hour policy after the war, the fixed costs associated with each worker on the payroll had increased. Kellogg management attempted to prorate retirement pay, insurance benefits, and other benefits, but organized labor fought for increases. A third factor was that Kellogg himself relinquished the helm of the company. The new chief, Watson Vanderploeg, did not share Kellogg’s welfare capitalist philosophy and began romanticizing work rather than leisure as a means to international competitiveness (Hunnycutt, 1998). Company officials, threatening to move production to low-wage countries, finally cajoled Kellogg’s workers to abandon the six-hour day in 1986.

Such sanguine statements about work time reductions were echoed by yet another welfare capitalist, Henry Ford. In a 1926 interview Ford claimed that, “now we know from our experience in changing from six to five days and back again that we can get at least as great production in five days as we can in six, and we shall probably get greater, for the pressure will bring better methods.” Ford and Kellogg cannot take full credit for the genesis of the shorter workday however. The six-hour workday was widely experimented with by Lord William Hesketh Leverhulme in the late 1800s. The British soap baron wrote in his book The Six-hour day & Other Industrial Questions, (1919) that, “working shorter hours with lessened fatigue does not reduce output, but generally, and with very few exceptions, tends to increase output.”

More recently, tight labor markets in America have spawned a contemporary breed of workweek mavericks. With unemployment levels near historic lows, far below the 10 to 12 percent level that European nations are experiencing, American firms have been experiencing a starkly different labor market difficulty. American companies have been struggling to fill job vacancies and retain workers, who now wield an increasingly strengthened bargaining power. Thus, in America the campaign for shorter hours is being driven more so by personal and family needs than macroeconomic exigencies.

Many workers have found little relief in workplace programs once considered highly progressive, such as childcare and flextime. The US Labor Department reports that in May 1997 about 25 million full-time wage and salary workers had flexible work schedules. This amounts to 27.6 percent of workers, up appreciably from 15.1

percent recorded in May 1991 and 12.4 percent in May 1985. Although flextime still serves as a popular way for harried households to balance longer work hours with family demands, it does not seem to be providing substantial relief. Now a growing number of workers simply want to devote less time to work and more time to family, community, and fun.

The favorable employment environment enjoyed by US workers for most of the 1990's has placed substantial pressure on employers to offer work time reductions as both an employee recruitment and retention strategy. In the past two years, Management Consultant, Ron Healey, has convinced 11 companies to cut their workweek to 30 hours while paying employees for 40 (Saltzman 1998). The results, according to the companies using the plan, include increased productivity, lower employee turnover, higher morale, and better recruitment. At Covance incorporated, a pharmaceutical development company, managers have also found that they can get more work in fewer hours out of employees who telecommute to work as a result of the shorter hours plan.

The lion's share of the firms implementing the 30/40 plan has experienced greater productivity amongst their work force. After switching to 30 hours work for 40 hours pay in July of 1997, Metro Plastics Technologies saw customer returns drop by 72 percent – an indication of the quality improvements predicted by the efficiency 'week' hypothesis. Likewise, Metro Plastic Technologies costs resulting from the need to re-work parts have fallen 79 percent since the implementation of the shorter workweek.

Many of the benefits accruing to Metro Plastics can be linked to a decrease in employee turnover. Lower turnover translates into lower training costs and more experienced workers on the job site. It is difficult to determine if the virtues of the 30/40 plan are a result of employees working an optimal amount of hours or just the fact that the best workers are attracted to the companies offering “family-friendly” hours. In either case employers may now be able to harness the benefits of attractive hours in much the same way high-wage employers have done with attractive compensation. Metro Plastics manager, Sam Morris explains that, “productivity gains from the new schedules offset the higher payroll costs (Wells, 1997).”

Precision Plastics in Columbia City, Indiana also implemented the 30-40 workweek as a recruitment and retention strategy. Manager Ron Richey states, “we see the 30-40 workweek as a way to exert greater control over our recruiting, turnover and absenteeism, and offer employees a real incentive to be here (Wells, 1997).”

Precision issued help-wanted advertisements in May of 1997 announcing the shortened schedule and received 540 applicants within a week. Given the recent tightness of the labor market, this response may be as monumental as the one received by the Ford Motor plant in the wake of its offer of a \$5-day and a reduced workweek.

Volkswagon was one of the first global companies to move to a 34-hour workweek. The policy was designed to avert mass layoffs at their Germany production plants. These types of workweek reductions, often referred to as Short Time Compensation (STC), attempt to replace layoffs with work time reductions. Rather than employment by lottery – in which those lucky enough to land a job work

too many hours – STC plans, such as Volkswagen's, mandate that everyone works less, but at least everyone works.

Productivity concerns were central to Volkswagen's decision to reduced workweeks. Company Manager Peter Schlilein noted that in the face of falling automotive demand and "the very big progress in our productivity," Volkswagen was faced with either eliminating 31,000 workers or shortening the workweek to 28.8 hours. Although take-home pay was reduced by 20 percent, lower taxes and a spreading of holiday bonus were expected to soften the impact of the wage reduction.

Based on the success at the Volkswagen plant and IG Metal's insistence on shorter hours, the majority of Germany automotive workers now enjoy workweeks of 37 hours or less. Workers at BMW in Germany have reduced their workweek from thirty-seven to thirty-one hours while still being paid for thirty-seven. In return the workers have agreed to work non-standard shifts, allowing new high tech plants to operate around the clock. BMW reckons they can double or triple their productivity in this manner and afford to pay workers for shorter hours.

Arthur Anderson has also been on the vanguard of efficiency weeks in both America and France. The consulting firm has implemented a 33-hour workweek for its French employees with a 5.0 percent pay cut that was chiefly offset by a more generous profit-sharing plan. The restructuring resulted in an expansion of Anderson's payroll to the tune of 10 percent. The payroll expansion was facilitated by the French government forgiving an 8.8 percent payroll tax. According to Jeremy Rifkin's (1995) estimates, if the French offered enough payroll tax exclusions to

eliminate 2 million unemployed, it would cost the government \$21.8 billion a year while saving \$27.5 billion.

Another French firm that has taken advantage of the government's offer is computer-maker Hewlett Packard. At its Grenoble plant, production workers have switched to 33.5-hour shifts from their previous 37.5-hour shifts for the same pay. Workers realize a 4-day workweek, but the plant runs 24 hours-a-day, 7 days a week. Production has tripled at the plant largely because the company is able to stay in continual operation, instead of being idle for 2 days, as was formerly the case.

Digital Equipment initiated a slightly different reduction scheme in its European plants. The company offered its workers a four-day workweek with a 7.0 percent pay cut. Of the company's 4,000 workers, 530 (13 percent) opted for the shorter workweek. Their cooperation saved ninety jobs that would have otherwise been eliminated. Robin Ashmal, a company spokeswoman, stated, "a larger number of people were interested in working less and being paid less than was expected." It must be emphasized that this plan was only offered in Digital's European plants, where workers already enjoyed far shorter annual working hours than their American counterparts.

Although business managers have not embraced shorter workweeks on a grand scale, many of them possess a rather optimistic view of the concept's economic impacts. In a US News/Bozell poll, 62 percent of managers surveyed, stated that shorter work hours would give employees an incentive to be more productive on the job. These mentality shifts coupled with the increasing evidence of productivity improvements resulting from reduced workweek experiments may signify that the

time is ripe for productivity advances to be a driving force behind the shorter workweek. If companies continue to experience an efficiency 'week' while pursuing other virtues such as decreased unemployment and greater employee retention, perhaps the objective of enhanced productivity will soon become their chief motivation rather than a benevolent side-effect or afterthought.

CHAPTER FIVE

TOWARDS AN ALTERNATIVE VIEW OF ALLOCATING SOCIAL LABOR

"The fixing by society, or by a union of workers, of a maximum working day would, within certain limits, be of distinct advantage to the workers and consequently to the most numerous class of society."

-Knut Wicksell, 1934

"Since the length of the working day is itself one of the principal repressive factors imposed upon the pleasure principle by the reality principle, the reduction of the working day...is the first prerequisite for freedom."

-Herbert Marcuse, 1955

Whereas the previous chapter focused on the determination of work hours at the firm and individual level, this chapter considers the broader societal and ecological issues surrounding work schedules. Indeed the "market mentality" that has pervaded almost every aspect of life in democratic industrial societies has had profound implications for work time as well. This chapter addresses the social and environmental dangers that an "econocentric" analysis of work time presents. Approaching the issue of work time with a market-based prospective and using the nomenclature of the standard competitive model is not likely to produce the innovative or illuminating thinking that an alternative narrative has to offer. In other words, investigating social issues through market-based blinders results in an analysis that is devoid of the depth and breadth offered by a more holistic approach.

One of the chief virtues of the holistic research approach employed thus far is the breadth of imaginable alternatives to current work time regimes. A holistic analysis of work time may result in our thinking being less tainted by the market mentality and engender alternative work time regimes that would otherwise not be forthcoming. As Stanfield (1986, p.51) points out in advocating such a universal perspective, "if democratic society is to have any chance against the magnitude and multitude of its social problems, it must approach them with as wide a range of instruments as possible." Failure to utilize any possible tool of thought or analysis that could serve to enhance human welfare smacks of professional malfeasance. Considering alternative explanations of human behavior or the importance of social relationship to "economic man," for instance, may be the intellectual wellspring to a superior method of dividing society's labors. This chapter therefore attempts to question the presumed urgency of the work process in a market society. Specifically it challenges the notion that the production and consumption of the vast majority of goods exchanged in contemporary market societies is urgent or, in many cases, even socially redeeming.

The discussion in this chapter suggests an alternative approach to work time determination that is broader or more sociologically-focused than the traditional market-oriented process. The works of Original Institutionalist Economists are featured to argue that the problems resulting from a strictly market-based determination of work time run deeper than incidental externalities and competitive imperfections. The works of scholars such as Veblen, Galbraith, Leiss, and Schor are drawn upon to criticize the reliance on the unregulated market-system as a way to

distribute work hours in a socially-optimal fashion. The initial section of the chapter outlines the conventional theory of consumer demand, which, by extension, is a theory of the demand for the work hours that yield the income needed to fulfill those demands. After a cursory presentation of the theory, a stricture of the paradigm and its assumptions is offered. The discussion then analyzes the implications of the prevailing consumer demand theory on the urgency of the production process.

Ultimately, this discussion endeavors to suggest how the putative notion of insatiable consumer demand and the paramount importance given to production has influenced the present allocation of work time and limited our capability to envision alternative work schedules. Since our view of human nature, specifically how people tend to utilize increased leisure, also influences our zeal for more leisure time, the debate over the desirability of more leisure time is also considered at the end of the chapter.

The Gospel of Consumption and its Implications on Work Time

Labor Historian and founder of a recent short hours movement in the US, Benjamin Hunnicutt has argued that overproduction and the prospect of ‘need saturation’ in industrial economies has resulted in economics playing a principal role in the preaching of the importance of consumption. Inculcating the need for greater consumption was particularly crucial during the depression of the early 1920s when middle-class Americans were increasingly viewed as approaching a material sufficiency. As one industry spokesman of the time warned, “it is perfectly clear that the middle class American already buys more than he needs (Grimes from Hunnicutt, 1988 p.41).” Flooded markets, overproduction, underconsumption, increased

productivity and saturated demand lead to a fear of unemployment and depression. Since many Americans had achieved a standard of living above “need,” the prevalent view in the early 1920s was that economic growth was doomed.

In response to such business fears, Hunnicutt (1988) argues that economists began to intensify their efforts to assure business men and some labor leaders that the motive to buy was not limited to some set of specific human needs and would readily expand in accordance with growing incomes. Economists began stating their long-held belief that human wants were insatiable with a clarion voice. Americans would not work themselves out of jobs by producing more than they would consume. By the mid 1920s, such fatalistic attitudes were being replaced with a vigorous optimism that consumption could save economic growth and redeem employment. Edward S. Cowdrick, an industrial relations “advisor” to several of the largest American companies referred to the movement as the “new economic gospel of consumption (Hunnicutt, 1988 p.42).” Businessmen became increasingly convinced that Americans could be persuaded to buy things produced by industry that they had never needed before and could consume goods and services, not in response to some out of date set of economic motives, but according to the “pursuit” of a constantly improving standard of living.

Hebert Hoover’s Committee on Recent Economic Changes was one of the first to report on the possibility of overproduction. The committee criticized pessimistic predictions about ‘saturation points’ calling these predictions “abstract” and the likelihood of market saturation “remote.” They pointed to economic theory and actual experience to counter the notion that the economy was reaching a steady-

state of abundance. From the theoretical standpoint, “economists have long declared that consumption, the satisfaction of wants, would expand with little evidence of satiation if we could so adjust our economic processes as to make dormant demands effective (cited in Hunnicutt, 1988 p.43).” In practice, America had proven that the theory actually worked in the 1920 by manifesting an “almost insatiable appetite for goods and services, this abounding production of all things which almost any man wants (Hunnicutt, 1988 p.43).” Thus the economics profession would prove very useful in legitimizing and at times championing the high consumption/production movement.

The very assumptions upon which mainstream economics is built lend themselves to the inculcation of a high consumption lifestyle. Perhaps the principal assumption underlying mainstream economic thought is the notion that “more is better.” Human nature is thought to possess an insatiable thirst for more commodities. As one popular economics textbook puts it, “For practical purposes, human wants may be regarded as limitless. An occasional individual may have everything he needs, but man’s capacity to generate new wants as fast as he satisfies old ones is well-known psychologically (Lipsey, et al, 1973).” Adherence to the assumption of “more is better” subjects humanity to an insoluble dilemma – no matter how wealthy or productive our society becomes, we would always require greater levels of production and quantities of goods.

The insatiable nature of humanity serves as the foundation for the orthodox theory of consumer demand, which can be bifurcated into two broad propositions.

The first is that the urgency of wants does not diminish as greater *varieties* of them are satisfied. Galbraith (1984, p.119) summarizes the theory thusly, “when man has satisfied his physical needs, then psychologically grounded desires take over.” The latter type of needs can never be satisfied, or at least cannot be objectively proven to be satisfied. The second proposition is that these wants originate from within the consumer. The putative primacy of consumer desires, limits the economist’s task to maximizing the goods that satisfy consumer wants. Orthodox economics has therefore divorced itself from any judgment on the goods it seeks to proliferate. Any notion of necessary versus unnecessary has generally been excluded from mainstream discussions of economics.

To be certain, there has been dissent to this theory of consumer demand. Institutionalists have long recognized the power distinctions and ceremonial influences that pervade our economy and warrant inclusion in any economic analysis. Consumption patterns in modern, market societies can only be understood when class distinction, emulative behavior and corporate influence are taken into account. Veblen is perhaps best-known for his strictures of hedonic man and the orthodox consumption theory. Veblen (1899) sarcastically summarizes the concept of *homo economicus* thusly, “the hedonistic conception of man is that of a lighting calculator of pleasures and pains, who oscillates like a homogeneous globule of desire of happiness under the impulse of stimuli that shift him about the area, but leave him intact.” Rather than consumer wants originating “naturally” from within, Veblen (1899) viewed consumer behavior as “habits of thought” or “prevailing or dominant types of spiritual attitude and aptitudes.” For Veblen (1899 p.263), economic

institutions (such as consumer demand) were not founded in immutable psychological or otherwise natural laws, but are “habitual methods of carrying on the life process of the community in contact with the material environment in which it lives.”

Veblen maintained that the root of ownership and accumulation was emulation and invidious distinction rather than the innocuous search for subsistence and physical comfort. Since wealth confers honor, the desire for goods that display wealth may be limitless. Most people, in Veblen’s estimation, will attempt to evidence their affluence, be it real or feigned, through a display of conspicuous consumption. According to Veblen (1899), self-actualization or individuality has become the goal of consumption in the intense market environment, and such individuality is thought to be attained by assembling a unique collection of commodities.

Since the ubiquitous acceptance of the notion of insatiability in market societies was largely a result of emulative or invidious behavior, Veblen opined that individuals might someday experience a surfeit of consumer desires if those wants were founded upon a different type of economic calculus. Veblen (1899, p. 268) writes,

If as is sometimes assumed, the incentive to accumulation were the want of subsistence or of physical comfort, then the aggregate economic wants of a community might conceivably be satisfied at some point in the advance of industrial efficiency; but since the struggle is substantially a race for reputability on the basis of an invidious comparison, no approach to definitive attainment is possible.

The scarcity that mainstream economists treat as a given was thus a social phenomenon for Veblen. Scarcity in Veblen’s view was not a natural or economic

constraint, but stemmed from abundant resources being allocated in a wasteful, unjust, and socially irrational manner. Later critics of orthodox consumption theory have perpetuated the view that scarcity is a socially created condition arising from a particular pattern of productive activity. William Leiss (1976, p. 29) has written,

The threat of scarcity is a permanent feature of our present society, no matter how vast the supply of available goods, because the escalation of material demands only plunges individuals more deeply into the ambiguous ensemble of satisfactions and dissatisfactions-- and thus into greater confusion about the relationship of their needs to the many dimensions in the sources of possible satisfaction.

Social developments since Veblen's day have merely intensified the process and have allowed a much greater proportion of the population in industrialized societies to participate in the aggrandizement of commodities. It is useful, therefore, to examine the rich history that has been established by a variety of social scientists in determining the origins or primacy of consumer needs. Since the time of the earliest Greek philosophers, social science has been impaled upon the horn's of a dilemma of how to differentiate between socially-driven consumer wants and desires arising from "material" or "basic" needs. In his Topics and Rhetoric, Aristotle offered a taxonomy of human desires that has withstood the test of time and has come to enjoy a rich tradition in the economics discipline.

Aristotle bifurcated economic exchanges into two categories; isolated exchanges and market exchanges. Isolated exchange is characterized by two parties exchanging goods in accordance with their own subjective preferences in the absence of alternative market alternatives. Market exchange takes place when individual traders make decisions based on the influence of continuous, pervasive trading among

large numbers of participants in an organized market. For Aristotle, isolated exchange arose from the existence of surpluses and differing subjective values among traders. Isolated trade existed, therefore, to satisfy humanity's "natural" desires. Market exchange, however, was quite different from the necessary exchange of households. Since market exchange was unbridled by the limited needs of the family and by diminishing marginal utility, it occurred merely for the purpose of accumulating wealth. Thus although Aristotle condoned the use of exchange to satisfy (natural) individual and collective wants founded in material necessity, he did not approve of the use of exchange as a mere device for accumulating wealth. Since wealth accretion was without natural limit, its relentless pursuit ran the risk of impoverishing the many in order to profit a few.

Although the terminology has changed somewhat over the years, many in the economics profession have retained Aristotle's age-old classification of economic exchange and the consumer desires they attempt to fulfill. Marx's employed terminology directly descendant from Aristotle when he delineated between "use-value" and "exchange-value." For Marx, a commodity's use-value reflected the innate or biological desires of consumers while exchange-values reflected the greed and oppression of the capitalistic system. Keynes's terminology likewise differed, although his reasoning was not far a field from that of Aristotle and Marx. Keynes (1978) found it useful to distinguish between relative and absolute needs. Absolute needs are those that, "we feel whatever the situation of our fellow human beings (Keynes, 1978)." Relative needs represent those desires that give us satisfaction by

making ourselves feel superior to others, making them highly invidious or neurotic nature.

The importance of the taxonomy of consumer demands notwithstanding, the questioning of consumer competence has been tremendously broadened and sophisticated over the last few decades. Contemporary scholars such as William Leiss, John Kenneth Galbraith, James R. Stanfield, Jacqueline B. Stanfield and Juliet Schor have attempted to further the study of consumer desires, focusing particularly on the pathologies of consumer behavior pioneered by Veblen.

William Leiss offered path-breaking analysis on the subject in the 1970s when he suggested that for the average individual living in a high-consumption economy a substantial amount of confusion exists between consumer needs and the sources of satisfying those wants. In The Limits to Satisfaction, Leiss (1976, p.72) argues that most theories of needs are “incomplete because they attempt to analyze the components of human needs in isolation from actual social patterns of satisfaction.” Consequently, a state of confusion arises between needs and commodities. Leiss maintains that people tend to misinterpret the relationship between their perceived needs and the possible sources of satisfaction for them.

One reason that the modern consumer many experience difficulty matching his needs with the goods that will satisfy them is the sheer number and variety of products that are offered from year to year. The enormity of the opportunities offered as “want satisfaction” makes it difficult to base our decisions on knowledge of the quality of the commodities. Leiss (1976, p.15) argues that the “knowledge that seems appropriate for judging the suitability of things in relation to the objectives of our

needs is the knowledge that is applied to craft skills.” Since craft knowledge provides an intimate understanding of the material and processes used in the production of a good, it affords a better way of determining what is suited to our needs. Consumer purchases founded upon even rudimentary levels of craft knowledge may provide a fuller, not to mention safer, existence than buying things because we are told to. Even a dilettante automotive mechanic possessing only a modest knowledge of combustible engines, for example, will have a better idea of what types of fuels, additives or lubricates will satisfy his vehicle’s driving needs than that of the disinterested car owner.

As the division of labor becomes increasingly minute in market societies, craft knowledge is likely to atrophy. When an acute division of labor is coupled with long working hours, most individuals can only hope to develop craft knowledge in but one or two domains at best. Consequently, the highly-specialized worker is forced to rely on purchases of finished goods for the vast majority of their needs. The very same system that creates inordinately productive workers gradually renders those workers unsophisticated and ignorant as consumers. If an extensive attachment to the labor process makes it impossible to attain the craft knowledge needed to make informed consumer decisions, the consumers must then decipher and decide among the many claims advanced on behalf of the commodities (chiefly by advertisers and other consumers). Given the prodigious number of goods available and the intricacy of their composition, consumer choice as a whole becomes a rather random activity. Leiss (1976 p.15) comments on the likelihood that such an arrangement will bring about an adequate level of want satisfaction,

Such 'choice' [*sic*] represents little more than subjecting one's body and mind to a grand experiment in the marketplace in order to determine whether any of the increasingly bizarre claims made on behalf of the products will prove to be valid. One-armed bandits in the dingiest of casinos offer better odds.

The incessant pressure to consume that is patently evident in the popular culture media is a critical component of the alternative approach to work time determination. Since work is the principal means of financing overly acquisitive behavior, any work time analysis that fails to consider the powerful effects of modern marketing and "salesmanship" will be devoid of significant insights into the demand for work hours and the sterility of the "income effect" on the supply of labor addressed in chapter three. As Herman Daly (1999, p. 3) expounds,

If you want to know what is wrong with the America economy it is not enough to go to graduate school, read books and study statistical trends – you also have to watch TV. Not the Sunday morning talkinghead shows or even documentaries, and especially not the network news, but the really serious stuff – the commercials.

Advertising tends to compound the confusion that individuals possess over their needs and the satisfaction of those needs and perpetuate the high-consumption-long-hours lifestyle (Leiss, 1976). It is estimated that the average American is exposed to approximately 21,000 television commercials per year (Mander, 1991). Television, however, is only one medium of communication that has been commercialized by productive interests. When radio, journalism, and other advertising mediums are mixed into to the equation, it becomes much easier to grasp why consumers may be suffering from confusion over their wants and what will truly satisfies those wants.

The images employed in the construction of advertising messages often incorporate a set of ambiguities about consumer wants and objectives. Examples of this abound in the automotive industry. One of the most common forms of automobile advertisements features a sport utility vehicle in a remote and pristine natural environment – near mountain ranges, oceans, rural settings, and other relatively unoccupied locations. The covert message in the advertisement suggests the vehicle's usefulness in accessing those settings that are so inaccessible to others. If this were the primary reason for the purchase of a sport utility vehicle for millions of Americans, those settings would not remain remote and pristine for long. However, for the vast majority of drivers, four-wheel drive and large engines are unnecessary, unused and expensive features. According to Ford Motor Company, 87 percent of Ford Explorer owners have never taken their vehicle off-road (Harpers, 1998). Sport utility usage statistics suggest that drivers of such vehicles may be suffering from confusion over their needs for urban transportation – good gas mileage, maneuverability, and parking ease – and the status and independence that these vehicles promise through expensive advertising campaigns.

Advertisers routinely escalate consumer desires and compound consumer confusion by inculcating and perpetuating what Schor (1998) has labeled the “Diderot effect.” In the eighteenth century, French philosopher Denis Diderot wrote an essay entitled “Regrets on Parting with My Old Dressing Gown.” Diderot's regrets were provoked by the receipt of a beautiful scarlet dressing gown. Diderot was smitten with his new gown and quickly discarded its less-elegant predecessor. His pleasure

soon waned however as he began to sense that his surroundings did not properly suit the elegance of his new garment. Growing dissatisfied with his study, he replaced the tapestry, desk, chairs, and bookshelves. In the end, Diderot found himself sitting in opulent and stylish surroundings, regretting the work of “this imperious scarlet robe [that] forced everything else to conform to its own elegant form (Diderot, 1964, p.311).”

Advertisers have prayed upon the desire for material conformity to give consumer desires an upward creep. In Veblenian terms, ‘the emulation process is boundless.’ The market imperative is bigger and more, and rarely is this escalation mentality more evident than in the actions of consumers. The purchase of a new home serves as the impetus to replace the old furniture and, in many cases, the old wardrobe. Schor (1998, p145) offers the escalator as the operative metaphor, “when the acquisition of each item on a wish list adds another item, and more, to our must have list, the pressure to upgrade our stock of stuff is relentlessly unidirectional, always ascending.” The association between social conformity and consumer goods, that advertisers have largely instilled and perpetuated, is part of what keeps the consumer escalator moving ever upward. In short, the notion of primal insatiability is irreconcilable with the fact that more than \$135 billion are spent each year on advertising and salesmanship in the effort to fabricate consumer demand.

Stanfield and Stanfield (1980, p.93) also question the competence of the contemporary market consumer, suggesting that a great chasm exists between the responsibility that market society assigns to consumers and their prudence in executing this role. The discussion lends particular insight into why some workers

willingly shirk parental and other social responsibilities in the pursuit of more goods. The examination of consumer competence also elucidates whether consumer demand in market economies is of a congenital origin or if it is culturally fashioned by such institutions as advertising and salesmanship.

Stanfield and Stanfield (1980) point out that in addition to the disadvantages that households face relative to the firm, such as the problem of scale and a vaguely-defined objective function, families may be subject to great pressure to go along with or “keep up appearances” that smack of Veblen’s invidious comparison. Even those aware of and uneasy with the emulative and invidious nature of certain expenditures are frequently cajoled to play the part in order to advance or ensure their own position within the system. The wrong suit, automobile, wristwatch or similar accoutrement could threaten or severely limit one’s career in many professions. Indeed profound societal pressures to “fit in” create obstacles for consumers otherwise intent on making responsible purchases.

Stanfield and Stanfield (1980, p. 444) also argue that consumer competence is threatened by the growing tendency in high-consumption societies to “identify human needs with commodities.” Since this tendency is chiefly derivative of the doctrine of insatiability that permeates intense market economies, it can be viewed as a socially-conditioned phenomena. Stanfield and Stanfield (1980, p.444) state that, “the identification of needs with commodities is a learned orientation.” Due to a fixation on commodities as a source of satisfaction, individuals become obsessively oriented towards earning and spending. This analysis draws heavily upon Marx’s notion of commodity fetishism and the reification of the worker. When consumption and the

work that affords it are reified, relations among people are made to appear as relations among commodities or things. This obfuscation of the social impacts of consumption further compounds consumer incompetence.

Advertising tends to rear its pernicious head again, befuddling consumers about their needs and responsibilities. As outlined above a great deal of advertising does not relate relevant or accurate information to the consumer, which amounts to “selling the sizzle rather than the steak.” Suggestive advertising “leads people to seek life through commodities, to solve their frustrations and problems and establish social bonds with one another through commodities (Stanfield and Stanfield, 1980 p.446).” The pursuit of more and more goods typically fails to fulfill human needs due to an inability to relate personal and social needs to the commodities best able to fulfill them. Stanfield and Stanfield (1980, p.446) argue that the current pattern of consumption, being passive, invidious, neurotic and self-justifying in nature, is inimical to the art of living because its time requirements result in a dearth of time available for socially-redeeming pursuits.

The lack of time required to realize the virtue of the begotten possessions is indeed a rather obvious shortcoming of the quest for commodities but it is rarely emphasized. Perhaps one the greatest paradoxes of modern society is that of all the resources devoted to the encouragement of consumption, the most obvious facilitator of greater consumption may have gone largely overlooked: time. This line of thinking is akin to Aristotle’s admonition that the skill of the musician should not be attributed to the leir, but to the time and effort the musician has invested in the mastery of the instrument. Staffan Linder wrote a path-breaking book on the

problems that time poses for consumption entitled, The Harried Leisure Class. Linder (1970) pointed out the obvious, but often overlooked, fact that consuming goods takes time and that an individual's time is limited. In a high-consumption society, goods will become increasingly cheap, and time more expensive.

According to Linder (1970), time limitations result in an increased intensity of goods in the pursuit of enjoyment. If the clearest examples of pleasures are among those activities based on the use of things, consumption may be accelerated to increase the yield on time devoted to consumption. Greater levels of industrial efficiency result in more things being available for the same expenditure of real income. Consumption of goods must therefore rise to ensure that an equal benefit is achieved for each unit of time devoted to that pursuit. By way of example, if the average person consumes \$50 worth of things in each hour devoted to a particular consumption activity, \$50/hour would be the yield on that consumption time. However, if productivity doubles, the average person must now double the value of their consumption to \$100/hour in order to maintain the same yield on consumption time. Attempting to maintain a constant yield on consumption in the face of rising productivity creates increasing pressure on an individual's time and a tendency for activities requiring the use of material objects to crowd out non-material activities. Linder (1970, p.91) argues that the result of this time bind is that "more goods will not increase the pleasure derived, but actually reduce it."

The time bind that results from overwork may result in many goods providing a rather ephemeral sense of satisfaction. Leiss (1976, p. 16) again offers perspicacious insight,

The accelerating rate of product turnover provides a clue to the shallowness of wants in the prevailing market setting: things that appear so indispensable one day, only to be discarded in favour of others on the next, cannot be presumed to stir the wellsprings of desire very deeply.

In a high-consumption lifestyle the individual is induced to become more and more indifferent to their specific wants relative to the increasing amount of time and resources devoted to the total activity of consumption. A Gresham's Law principal arises in the realm of consumption as the satisfaction derived from ever-greater numbers of commodities tends to depreciate all types of satisfaction that are not dependent upon the consumption of things (Leiss, 1976). In simpler terms, bad consumption – based on accumulation – drives out good consumption – based on craft knowledge or leisure time.

The Primacy of Production

Consumers and workers have long paid homage to the infatuating notion of more is better. The citizens in many industrialized democracies are increasingly defining progress by what and how much one consumes. The relentless campaign by big business to convince consumers that wants are insatiable and that more is always better has been quite successful. Now there is even a concerted effort afoot to instill this mentality amongst the most disadvantaged occupants of the world as many multinational corporations are exporting their products and consumerist message to third world countries.

In large part, Capitalism is sustained by the hope of acquiring more. It is the sustenance of this general hope for ever-greater numbers of ever-more glossy goods

that mollifies many into a passive acceptance of the intolerable aspects of the system. The belief that “every plateau of satiation merely affords a glimpse of vistas still more magnificent,” obfuscates the costs incurred during the ascent and the difficulty of the search for raw materials to satisfy the newly-urgent desires (Leiss, 1976, p. 6). It is then taken as an article of faith that the economy should continue to expand and to offer an ever-widening array of commodities for consumers.

Although the market system represents an improvement over past systems of economic distribution and direction, it may not be the most favorable method of allocating resources. Leiss (1976, p. 4) writes,

Modern society represents the first large-scale attempt to found stability and authority not upon the earlier patterns of inherited privilege or traditional associations, but rather directly on the achievements of economic production and the satisfaction of needs... The primary social bond is the identification of the self-interest of the individual, intent upon maximizing the satisfaction of his needs, with the interest of society as a whole, which is to maximize total productive output. In concrete terms, the well-being of every individual is thought to be identical with the steady rise of the Gross National Product.

Breaking the ties between economic power and inherited privileges or traditions is indeed laudable, but is the current emphasis on production and pecuniary clout the best way to organize economic activity?

Institutionalists, building upon their criticisms of the primacy of consumer wants in the intense market society, have also come to question the urgency of production in high-consumption economies. The orthodox emphasis on the sovereign consumer results in the view that primary human desires tend to direct production in a socially-optimal fashion. Orthodox economics maintains that as sovereign consumers make their desires felt in the free market, supply adjusts to demand, and production

adjusts to consumption. In other words, supply follows the demands registered by self-directed consumers. Observing the influence of large firms in market-based economies, Institutionalist economists have taken exception to the notion that firms are innocuously reacting to consumer desires that naturally or instinctively originate from within the consumer.

John K. Galbraith has persuasively argued that just the opposite is likely true of most modern industrial democracies. That is, production calls the tune of consumption via the massive expenditures that firms devote to selling activities. The usefulness of commodities in the market-system is subject to the fallacious test of “what can be sold” rather than “what is needed.” Since large corporations wielding enormous advertising budgets can sell products of even the most suspect usefulness, Galbraith contends that producers have come to rule the planning system and that consumers are subject to the choices that the productive system finds it profitable to offer them. Galbraith (1984, p.127) expounds,

So it is that if production creates the wants it seeks to satisfy, or if the wants emerge *pari passu* with the production, then the urgency of the wants can no longer be used to defend the urgency of the production. Production only fills the void that it has itself created.

A recent and largely unprecedented public announcement by the Ford Motor Company validates Galbraith’s claim that producers will offer “that which can be sold” over “that which is socially useful.” In its first Corporate Citizen Report, issued at the company’s annual shareholders meeting in May 2000, Ford Motor Company said that its highly-profitable sport utility vehicles contributed more than cars to global warming, emitted more smog-causing pollution and endangered other

motorists.¹⁵ The company said that it will continue producing the vehicles because they are so profitable but would seek technological solutions and consumer alternatives to sport utility vehicles. Ford's public admittance that its most profitable products are not socially responsible is indeed rare, and provides powerful evidence that impugns the notion of consumer competence and the primacy of production.

Galbraith's denigration of the capitalistic production and planning system is founded upon the notion put forth by Veblen and his disciples that in the modern market society the desire to get more and superior goods is a culturally-driven phenomena that takes on a life of its own. Galbraith expands on the theory of emulative and invidious behavior by illustrating the effects that powerful corporations have on consumers through advertising and other, often less explicit, selling techniques. Since power or vested interests are pervasive within the market system, consumer desires are prostrate to the what Galbraith (1973) calls a *technostructure* of influences. These external influences reduce the likelihood that individual desires are primal or urgent in the sense that the wants originate physically or instinctively from within the individual. The whole superstructure results in needs being culturally conditioned. Since the ruling class developed the *technostructure* that perpetuates the system, it is greatly biased towards economic output and economic growth (Galbraith 1973 p.40). That is the beliefs, laws, culture, religion, morality, and patriotism that have been culturally engrained support the ascendancy of the productive process, though not necessary the maximization of output.

¹⁵ Sport utility vehicles are nearly twice as common in Colorado than in other states – roughly one of every seven licensed drivers, compared with one in 13 drivers nationally.

Examples of Galbraith's superstructure abound in market system: Protestant or Calvinistic work ethics; laws and social systems that promote work; schools that train students to be good workers rather than good citizens or independent thinkers; advertising that creates or manufactures a fictitious demand for goods. Today, it is not uncommon for companies spend nearly as much, if not more, money manufacturing demand for a product as they do actually producing product.

Galbraith further claims that these culturally-instilled beliefs create a false image of consumer choice that allows the ruling class to absolve themselves of the implications of the myth. Galbraith (1973, p. 6) states that an imagery of choice makes the pursuit of production exculpable,

Economics and particularly the imagery of choice puts the business firm in the service of a higher deity. In consequence it is not responsible – or is only minimally responsible – for what it does...If the goods that it produces or the services it renders are frivolous or lethal or do damage to air, water, landscape, or the tranquility of life, the firm is not to blame.

The imagery of choice creates the semblance that such types of activity reflect the public choice – the firm is simply responding to the sovereign desires of the market.

If people are abused by overwork for instance, it is because they choose self-abuse. If economic behavior appears on occasion insane, it is because people are insane.

The cultivation of the imagery of choice continues to induce the individual to abandon the goals he might otherwise pursue and accept those of another person or organization. Recently the cultivation has principally taken place through persuasion rather than force, but the threat of physical suffering was once a more prevalent means of inculcating the message. Hunger or the disesteem of poverty if one does not

work for the wages and thereby accept the goals of the employer is an ancient form of cultivation that persists on a limited scale today. With increasing incomes, people have become less vulnerable to the threat of economic deprivation, making persuasion the chief instrument for the exercise of economic power.

The persuasion often takes the form of instruction designed to implant the imagery of choice. It persuades people that the goals of the productive system are really their own or at least sows the seeds for such persuasion. Economics has taken on this instructive role as a relic of its past (Galbraith, 1973 p.8). Since competitive agricultural firms produced the bulk of economic output during the genesis of the discipline, economics came to characterize firms as responding to changing costs of production and changing market prices. They were subordinate to the instruction of the market. However, as oligopolies and monopolies arose, economics remained captive to its origins. As Galbraith (1973, p.8) argues, “economics thus slipped imperceptibly into its role as the cloak over corporate power.” As the power which the model protects has become much more palpable, disguising it has lost much of its intellectual decency. However, advertising and salesmanship have burgeoned where economics has withered, perpetuating the imagery of consumer choice.

Even the powerful and largely immutable law of diminishing returns is not considered applicable to all goods as a whole and cannot be relied upon to militate against the need for greater production. In his Principles of Economics, Alfred Marshall (1890, p.78) contended that, “there is an endless variety of wants, but there is a limit to each separate want.” In the orthodox paradigm, while the marginal utility of an individual good undoubtedly declines with increasing stocks, the utility or

satisfaction from a new or different good is not lower than the utility derived from the last unit of the initial good. In Galbraith's (1984, p.122) characterization, "so long as the consumer adds new products – seeks variety rather than quantity – he may, like a museum, accumulate without diminishing the urgency of his wants." Moreover, the rewards to those possessing the consumer "artifacts" are more or less proportionate to their supply. The production that satisfies these wants therefore assumes a position of exalted status. Galbraith (1984, p.123) states, "The production that supplies these goods and services, since it renders undiminished utility, remains of undiminished importance."

Galbraith finds great folly in the fact that diminishing marginal utility is not capable of making intertemporal value judgments about consumption. He criticizes the orthodox denial that anything useful can be said of the comparative states of mind and satisfaction of the consumer at different periods of time. Galbraith (1984, p.123) hints at the absurdity of the notion with the following parody,

This position ignores the obvious fact that some things are acquired before others. Yesterday the man with a minimal but increasing real income was reaping the satisfaction which came from a decent diet and a roof that no longer leaked water on his face. Today, after a large increase in his income, he has extended his consumption to include color television and eccentric loafers. But to say that his satisfactions from these latter amenities and recreations are less than from the additional calories and the freedom from rain is wholly improper.

Since orthodox theory cannot render a comment on the satisfaction derived from additional goods, and more precisely from different goods, when acquired at later times, it likewise is incapable of arguing that temporally later increases in a consumer's stock of goods does not diminish. Hence, it cannot make the argument

that the production of more goods does not diminished importance or urgency of the goods.

This section has attempted to question the urgency of the productive process in high-consumption industrial economies. Insight into the urgency of the productive system casts suspicion on the urgency of work time. There appears to be few recurring exigencies within the capitalistic system that would justify workers logging extensively long work hours. Long work hours may be tolerable in a state of war or similar national emergency, but in normal times there appears to be little urgency to the consumer needs that the productive process both satisfies and influences. To summarize, since the primacy or urgency of the production process is suspect, then an extensive attachment to the workforce may also be of questionable social worth.

Corporate Compulsion Towards Long Work Hours

Galbraith's analysis of the *technostructure's* ability to cajole workers into longer work hours has many parallels to the Veblenian notion that employers often manifest predatory behavior. Veblen's discussion of predatory behavior lends a credible explanation as to why workers may have little choice in the work hours determination process. If work time is not governed by economic or natural laws, as suggested in earlier chapters, its historical recalcitrance may very well serve as the apotheosis of Veblen's predatory behavior. If firms wield substantial influence over workers, they may inveigh strongly against shorter hours, limiting the worker's ability to choose more leisure hours in the face of raising incomes.

Veblen (1904) speculated on the causes of social stagnation and social control and pointed to the predatory or pecuniary power of institutions as a major influence of behavior. For Veblen (1904), technology is the only true source of progress because it is indifferent to tradition. In the modern computerized economy, it is readily apparent that for a given level of output, technology has reduced the workweek of capital, while tradition has stagnated the workweek of labor. Veblen espouses that the conventional culture – be it ethics, religion, law, manners, custom, or other forms of authority – arrests the beneficial changes of unfettered technological advance. Institutional factors operate to keep people's perceptions frozen in the past, whereas the machine process serves as a "saboteur of the status quo (Eby, 1998, p. 689)." Although technology progress may be militating towards an alternative and superior work time regime, deeply-seated institutions, such as those championed by a market mentality, may be stagnating society's progress towards new and possibly better work scheduling.

Veblen (1904) further argued that, due to their relative stability, institutions cause established behaviors and social structures to seem "natural" and therefore correct. Institutions confer power on individuals whom Veblen calls "vested interests," allowing them to exploit the general public or, in the case of the labor market, the "common worker." Veblen (1919, p.100) notes that his term "vested interest" refers to a "marketable right to get something for nothing." "Vested interests" abound in today's labor market, as modern managers are even more detached from the production process than when Veblen wrote in the early 1900's.

His analogy of a true business manager interacting as a conductor does with his orchestra is still highly elusive. The managerial ignorance of the production process and the time required to produce certain goods, which was mentioned in chapter three, serves as a prime example of an institutional force that hinders the technological progression towards innovative work schedules.

Few economic issues better illustrate the exploitive behavior of vested interests than the length of workweek. The “downward stickiness” of the average workweek and involuntary increases in overtime over decades of productivity gains speaks to the fact that employers attach some sort of virtue to the custom of long work hours. In a labor market characterized by salaried employees receiving substantial payroll benefits (averaging close 30 percent of compensation in 1998), it may be particularly difficult for employees to resist employer demands for longer work hours. The current trade-off for many workers may be to work longer hours or lose their job. It seems intuitive that if salaried employees looked more like journeymen, working for piece rates, they would feel less obliged to work overtime hours for their employers. The work time trade-off for piece rate workers would be less severe: work more hours, or lose the income associated with those hours only.

As we approach a new millennium, a Calvinistic mentality that captive, idle workers are somehow more disciplined than emancipated workers still persists. Keeping individuals idle in the workplace is viewed as superior to having them subjected to their odious whims and cravings while away from their jobs. Even though the workday may continue to be highly porous, there is still a penchant among employers to lord over the work hours of their employees. Employers are not solely

responsible, however, as the mentality of control and the socialization of work habits are manifest in much of our modern culture. Even our school systems seem to be organized around inculcating good “factory habits” rather than innovative or independent thinking.¹⁶ However, the recent ascendancy of home schooling shows promise for work time reform. The liberation that comes with home schooling will hopefully broaden students’ academic exposure and introduce them to a less regimented way of life – planting the seeds for a similar revolution in work time.

Ecological Implications of Work Time

One of the best examples of the dangers inherent in a narrow view of economic allocation is the ecological damage that the standard competitive model of work time determination is currently inflicting upon our ecosphere. Attempting to ameliorate social welfare through greater material possessions alone will, at some point, detract from the satisfaction we derive from the natural world that surrounds us. Thus, any analysis of work time that does not take into account the ecological plunder caused by our current patterns of work and consumption cannot be expected to advocate truly welfare-enhancing work regimes.

Given the material and growth bias of orthodox economic thought, many social critics have begun to question the long-run sustainability of insatiable consumption patterns on environmental grounds (Leiss, 1976; Brown, 1998; and Daly, 1999). They argue that our finite supply of certain non-renewable natural

¹⁶For instance, if our school systems were less interested in fashioning disciplined workers, perhaps we would edify them with a more accurate account of our country’s history such as the one chronicled by

resources will soon come in conflict with the notion of insatiability and the economic goal of greater growth. Although new sources of supply will continually be discovered, the Malthusian specter of certain limits being place on our current rate of acquisitiveness looms large. William Leiss (1976, p.8) has posed a pointed question in this regard, “should we not ask why certain societies embarked upon a path of social development that would necessitate sustained exploration and technological innovation?” By measuring our worth in terms of our productive and consumptive prowess, we may be setting ourselves up for failure or more cataclysmic consequences.

Natural resource limitations are often presented as barriers to permanently sustaining an insatiable thirst for more material goods. Leiss (1976, p.6) summarizes the sterile view of our penchant for economic growth, “if the ascent to [magnificent consumption vistas] has no natural terminus, all that remains is to organize the hunt for sufficient materials with which to construct the landscape of desire.” Thus the pursuit of unquenchable target incomes infers profound burdens upon the ecology of the nation and the world. The neoclassical reliance on insatiability and greater economic growth poses the troubling question of whether or not we should continue on a path of trajectory that necessitates sustained exploration and technological innovation simply to prevent our natural resources from exhausting its entire known supply.

A work time reduction may have favorable ecological impacts by a striking a more harmonious balance between resource use and the Earth’s biosphere.

Howard Zinn in *A People’s History of the United States*.

Production and consumption in contemporary industrial societies tends to threaten global ecological systems on two levels: the technique and the magnitude of production. Ecological homeostasis, which is a state of dynamic equilibrium wherein an organism responds continuously to external and internal stimuli and seeks to balance them within certain parameters, can be pursued by either producing less or producing better. A work time reduction may foster a twofold improvement in the natural environment by both reducing the *level* of production and changing the *process* of production.

However, given the likelihood that the efficiency *week* phenomena will make our economy more productive, it seems that the ecological gains of work time reduction will primarily be a result of wiser production processes rather than less-extensive production. A reduction in work hours may not necessarily result in a reduction of material throughput. For the reasons outlined in chapter four, an alternative distribution of work time is unlikely to reduce production on a grand scale. Even if work time reduction leaves economic throughput unchanged, as the efficiency *week* hypothesis anticipates, ecological gains are still quite possible, due to the production process becoming more sophisticated and sustainable. Work time reduction that allows households to engage in more recycling, composting, and water and energy conservation could encourage firms to use more recycled goods in their production mix. Perhaps more importantly, enlightened consumers may effectuate a greater demand for ecologically-friendly products such as cars, food products, hygiene products, et cetera. Moreover, the increase in home production that may well replace a portion of current market production will likely result in a net ecological

benefit, even though the genesis of cottage industries supplying do-it-yourself supplies and expertise may result in total economic output remaining unchanged. The natural environment stands to benefit as home production is typically less detrimental to the biosphere. Imagine the reduction in paper waste and atmospheric effluents that could result if the consumption of fast food and dry cleaning were curtailed.

Even if work time reduction leads to a large output reduction that reduces the material utility of individual consumers, the positive ecological effects of such a reduction may still result in a welfare-enhancing distribution of work time. That is to say that the current ecological costs of our high-consumption economy may be inflicting more harm in a social sense than the utility derived from the goods produced. Herman Daly (1999) has illustrated this possibility in promulgating the need to pursue economic development rather than economic growth. Daly (1999, p. 6) describes growth as a quantitative term meaning “to increase in size by the accretion or assimilation of material.” In defining economic development, Daly (1999) uses qualitative terms emphasizing the improvement in the structure, design and composition of the physical stocks of wealth that results from greater knowledge. A growing economy gets bigger, while a developing economy gets better. Thus as society progresses along the path to John Stuart Mill’s stationary state, growth must, at some point, give way to development. Daly (1999, p.8) argues that more growth can become “uneconomic” as it increases the costs of “depletion, pollution, disruption of ecological life-support services, sacrifice of leisure time, disutility of some kinds of labour, destruction of community in the interests of capital mobility, takeover of

habitat of other species, and running down a critical part of the inheritance of future generations.”

Work time reduction anticipates the shift from the imperative of economic growth to economic development. Many industrial societies may be approaching a threshold at which greater production and consumption impose severe social costs. At the very minimal, a reduction in work hours stands to restrain further denigration of the ecology by initiating a break with the work and spend mentality. It is very unlikely that a work time reduction that removes some of the imperative attached to consumption and production will lead to greater output. By offering an alternative to market production, the pecuniary aspects of life could possibly assume a less important role in the economy. Since the productivity dividend will have already been realized in the form of increased leisure time, one would not expect consumption-driven output to increase with a reduction of working hours. Such a “growth restriction” is timely in an ecological sense, as the world’s natural resources have been acutely strained over the last few decades. Lester Brown (1998) admonishes that,

[An] unprecedented surge in population combined with rising individual consumption, is pushing our claims on the planet beyond its natural limits. Water tables are falling on every continent as demand exceeds the sustainable yield of aquifers. Eventual aquifer depletion will bring irrigation cutbacks and shrinking harvests. Our growing appetite for seafood has pushed oceanic fisheries to their limits and beyond. Collapsing fisheries tell us we can go no further. The earth’s temperature is rising, promising changes in climate that we cannot anticipate. We are triggering the greatest extinction of plant and animal species since the dinosaurs disappeared.

Expansion of the global economy, given its current structure, is severely limited if the ecosystem on which it depends continues to deteriorate at such a rapid rate.

In the near future humanity will be forced to reverse, or at least halt, its voracious consumption of the world's natural resources. At the very least, a reduction of working hours can be viewed as an ecological moratorium. Productivity benefits taken in the form of greater leisure rather than greater consumption is a far more sustainable economic policy than those that have predominated over the last few decades. Hopefully, a work time reduction regime would result in "ecologically-friendly" production and consumption patterns that not only arrest the depletion of natural resources but also begin to reverse it.

One of the principal goals of environmentalism is to fulfill our material needs more efficiently. Our ultimate societal goal should be the accomplishment of more while using less. The increased productivity that springs forth from reduced workweeks can indeed be viewed as a form of environmental conservation that does not involve a sacrifice of material well-being. Energy Expert Amory Lovins is fond of saying that, "with increased efficiency we can get our cold beer and hot shower, but use less energy (cited in O'Hara, 1998)." Higher labor productivity resulting from efficiency workweeks can improve our quality of life while reducing resource use and pollution, not necessarily due to a smaller economy but as a result of a more efficient one.

The environmental impacts of a reduced workweek depend upon consumer reaction to an increase in leisure time. If shorter work time results in less economic throughput, then the natural environment is likely to benefit from an alternative distribution of labor. However, the efficiency *week* hypothesis suggests that labor productivity will burgeon under a reduced work time regime, meaning that any output

contraction will likely be minimal. Although reduced work time may not necessarily result in a smaller economy, there is reason to believe that it will result in a smarter economy. If the leisured worker is granted more time to research and contemplate the environmental impacts of certain activities, such as commuting in a sport utility vehicle or consuming beef, the natural world could be the main benefactor.¹⁷ Thus a work time reduction may or may not reduce the overall level of economic production, but in either case the welfare of humanity is likely to greatly enhanced.

As mentioned above, the environmental virtues of reduced work time depend on how workers utilize their additional free time. Since many of the other potential social benefits abounding from greater free time are also heavily dependent on the benevolent use of time, it is worth examining the issue of how greater leisure time is likely to be used by the average worker. In practice, it is nearly impossible to anticipate how the “representative” worker will react to having more free time, but the possibility of this time being squandered in the minds of some individuals presents a political obstacle to work time reform. Thus, the following section addresses whether more leisure time will lead to virtue of vice amongst the working class.

Increased Leisure– Blessing or Scourge?

Addressing the beneficence of leisure time inevitably draws upon one’s view of human nature. Conservatives have typically feared that leisure time would subject

¹⁷ Federal regulations allow SUVs to waste 33 percent more gasoline than passenger cars. The federal corporate average fuel economy (CAFE) standards set the fuel economy goals for new passenger cars at 27.5 miles per gallon (m.p.g.). But under the law, SUVs (and other light trucks) only have to achieve 20.7 m.p.g.

individuals to a greater temptation of odious habits and desires. In the conservative view, humans are governed by strong passions that can be directed toward either evil or good. The human capacity to reason is limited and highly variable from one person to another. The manner in which human behavior and desires are molded is a function of the roles played and associations formed with other societal members.

Conservatives espouse that humans cannot develop as persons unless directed by social organization. The workplace serves as an organization to inculcate behavior in a manner conservatives feel is conducive to social harmony. Thus, rather than allowing workers and society to be victimized by the individualistic, materialistic, and selfish behavior brought about by free time, conservatives would prefer that workers remain under the purview the employer, even if their prolonged work time is subject to frequent idleness. When the social order is followed, work can have a profound intrinsic value. Even those performing menial tasks can experience great reward and fulfillment knowing that they have made a contribution to a smoothly-operating society. Conservatives will concede, however, that increases in leisure time can be constructive as long as some sort of social-organizing force replaces the disciplinary functions of the workforce. For instance, obligatory civic participation that benevolently harnesses human behavior could be an improvement over idle work time (Clark, 1991, p.185).

The conservative views held by business leaders forcefully came to light in 1920's when organized labor began requesting that more producers adapt the 5-day workweek that Henry Ford had so successfully implemented in his plants. George L Markland, Board Chairman at Philadelphia Gear Works, declared that "any man

demanding a forty hour week should be ashamed to claim citizenship in this great country...the men of our country are becoming a race of softies and mollycoddles (from Hunnicutt, 1988 p.40).” Another CEO of the time, James C. Martien, warned that “mankind does not thrive on holidays” and that “idle hours breed mischief.” James F. Dewey, a Vermont executive, wrote that “nothing to my mind could be worse...than the five-day week (Hunnicutt, 1988 p.41)” Essentially, business leaders opposed to work time reductions feared the decline in the importance of work and the implications of this decline for future economic growth. Thus, conservative business leaders, who routinely lamented that “government should get off people’s backs,” had no qualms about building a highly-intensive market society on the backs of the working class.

Heterodox economists advance a much more sanguine view of human nature. Veblen (1898) maintains that the average worker is not as hedonistic as mainstream economists claim, and that most individuals possess an inveterate “instinct for workmanship.” Contrary to conservative predictions, increased leisure time is likely to beget useful tasks and tinkering rather than acts of indolence, indiscretion, and impropriety. Veblen (1989) writes that,

All men have this quasi-aesthetic sense of economic or industrial merit, and to this sense of economic merit futility and inefficiency are distasteful. In its positive expression it is an impulse or instinct of workmanship; negatively it expresses itself in a deprecation of waste. This sense of merit and demerit with respect to the material furtherance or hindrance of life approve the economically effective act and deprecates economic futility.

Institutionalists have thus come to place greater store in the ability of increased leisure time to bring about social improvements than more conservative-minded economists.

Heterodox economists would tend to agree that what individuals choose to do with their free time is a very real problem, but it is not a leisure problem. It is a social problem. Free time is not necessarily the source of deviant or altruistic behavior, but it can be a facilitator of either.

Even one of America's most paternalistic capitalists, Henry Ford, was optimistic about human nature being inquisitive enough to make productive use of more free time. Ford (1926) argued that, "it is high time to rid ourselves of the notion that leisure for workmen is either 'lost time' or a class privilege." Ford agreed that leisure time could be dangerous and, therefore, went to great lengths to monitor what use his workers made of their spare time and money. Ford (1926) observed that a few workers took on night shifts and a small fraction took to "rioting in the alehouses", but the vast majority either bankrolled their surplus money or made productive use of it by building their own houses. To meet the demand for good and cheap lumber, Ford allowed them to buy wood harvested from his forests, which led to a reduction in their cost of living. Ford soon found the behavioral oversight of his employees to be unnecessary and fruitless and devoted more effort to assisting workers in their endeavors to improve their lives than to monitoring them.

The experience at the Ford Motor Company suggests that the productivity dividend of increased free time is no more odious than that of higher income. If we are going to excoriate free time for the poor uses it has been put to, should we not

hold money to a similar standard? Few economists question the pursuit of money, even though it has frequently been used in a less than redeeming fashion. The perverse or pathological use of money has rarely threatened the role of pecuniary compensation in the modern market economy. Similar reasoning holds that the tendency of certain individuals to squander free time should not militate against reduced workweeks. We should not scrutinize leisure time and money alone, but rather the manner in which they are used. People can opt to do both good or bad with ample stocks of time and money. It then becomes an open question as to whether good will preponderate over bad if society were afforded more time or money.

Since the level of societal advancement is the major determinant of how we use our free time, the popular scapegoat of television viewership becomes a red herring in the work time debate. Television has become a peeve to many groups that attribute a great many of our social ills to its pervasive influence. Time diaries have indicated that a growing number of our leisure hours are being spent in front of the television. But is this use of leisure time inherently bad, anti-social, or unproductive? Robinson and Godbey (1997) lament that, "television is the 800-pound gorilla of leisure time." Jerry Mander (1991), one of the more influential critics of television, contends that television is antithetical to society because of the stupefying effects it has on the development of the brain and the subjugation of viewers to the desires of those controlling the broadcast (i.e. advertisers). Mander (1991) claims that watching television promotes; passivity of brain waves, perceptual speed-up and confusion, acceleration of the nervous system, and confusion of reality.

According to Mander (1991) scientists studying brain-wave activity have found that the longer one watches television, the more likely the brain will slip into alpha level: a slow, steady brain-wave pattern in which the mind is in its most receptive mode. Alpha mode is a noncognitive mode in which information can be placed into the mind directly, without viewer participation. In other words, when watching television, people are receiving messages into their brains without thinking about them. Mander views this as deleterious because advertisers take advantage of it to convince viewers how they should eat, drink, dress, smell, look, and, in general, consume. He is rightfully concerned that approximately 75 percent of commercial network television is paid for by the 100 largest US corporations. Mander (1991, p. 79) warns that, "the average American who watches five hours of television per day sees approximately 21,000 commercials per year." That amounts to 21,000 repetitive messages cajoling consumers to find satisfaction and fulfillment in commodities.

Mander's pillory of television, however, seems to be ill focused. The fact that a small number of advertisers can directly implant messages into the minds of scads of viewers naturally lends itself to an argument against advertising rather than a blanket condemnation of television. The fact that a non-cognitive technique of imparting information to viewers is presently being monopolized by advertisers does not detract from that medium's potential to be utilized in a manner benevolent to society. The regulation of advertising and programming content could eliminate much of television's pernicious effects, while allowing society to benefit from its powerful ability to transfer information.

Since it is absurd for viewers to respond to a television, Mander (1991, p. 83) argues that television creates a cycle of impulse and suppression. When the set is turned off, Mander would have the viewers leaping from their chairs in bursts of disorganized, frantic, hyperactive behavior that is a result of the stored-up energy created by television. However, it is equally absurd to speak back to a book, movie screen, computer terminal or opera company. Should we therefore condemn these forms of media for likewise inciting our emotion and not providing for an adequate venting of our feelings?

Most of the invectives lobbed at television can be likewise thrown at bad press or propaganda. Television is not the only form of media to invite passivity, isolation, confusion, addiction, and alienation, but since it is the most effective, and therefore pervasive, it has been singled out. Eliminating television is like killing the messenger. Watching television is not all vice. Educational and otherwise redeeming programming does exist. Sometimes the student is better served watching a cooking or home remodeling show rather than trying to learn the technique from a book. Moreover, technological advances make television more akin to a theater experience, which Mander (1991, 81) argues is a more thought-provoking and engaging experience. Although there is plenty to loathe about television programming and advertising, particularly its dominance by corporate America, society has benefited tremendously from the medium of television.

Robert D. Putnam claims that television viewing is negatively correlated to social trust and group membership. However, social trust may very well be a function of naiveté. If television footage had featured bloody details of some of early

America's unscrupulous war efforts or inner city conditions, perhaps previous generations would have been as cynical and less trusting as Putnam claims current generations to be. Moreover, Putnam fails to address the issue of selective bias. Perhaps those inclined to be less trusting tend to find refuge with their television, rather than television detracting from the viewer's ability to trust in their brethren. Today many of the same introverts that were formerly drawn to televisions can be found in front of computer screens. Does that mean we will soon be issuing sweeping indictments of the Internet? The most important lessons to be taken from the debate over the use of leisure time is that we should not condemn leisure time for society's failure to direct individuals towards socially-redeeming activities.

The medium of television alone is not odious, but the manner in which it is presently used is highly suspect. Currently vast economic resources are spent on what Galbraith has called the fabrication of demand. Without advertisers telling us how we should talk, walk, eat, sleep, smell, and look, the television becomes less intrusive. Greater programming options and more control over the subject matter viewed on television has curtailed many of the intrusive and neurotic aspects of viewership. Limitations on advertising could go even further in reducing the harmful aspects of television. The statement that increased television viewership is socially harmful, fails to address the truly harmful aspect of this pastime – poor programming and advertising. Thus, statistics that associate more free time with time spent in front of television screens should not stand in opposition to reduced work time.

This chapter has suggested that the gospel of consumption may simply be bad religion. The importance given to consumption and production in the market

economy has had several implications for work time. Instead of being seen as a way to increase productivity and perfect the productive process, work time has been pressed into the service of consumption. Some level of leisure is often seen as valuable in the mainstream, not because it perfects work or leads to higher things, but because it is helpful in promoting greater consumption and its attendant profits. However, many heterodox economists and social scientists have come to question not only the ecological sustainability of the market-based economic system, but also its psychological longevity. Workers are growing increasingly dissatisfied with the long work hours they have been working largely in part to accumulate “museums” of material possessions. The satisfaction derived from those mounding piles of possessions may soon be diminished to the point at which a greater resistance to longer working hours will be forthcoming.

The alternative narrative of work time suggests that the solution to the social and economic concern of overwork may not be found in the traditional market-based model of economic analysis. A superior and sustainable pattern of work time is more likely to find its genesis in a holistic analysis of work time that is free from the blinders of the market mentality. The primacy of production and insatiability of consumer wants that serves as the foundation of orthodox economic thought do not provide adequate insight into the work time issue. In fact, reliance on this paradigm may actually compound the social and environment costs caused by inefficient work times. When 63 percent of workers indicate that they would rather have more time off than more money, the economic mentality of “more is better” is only likely to exacerbate the anxieties of the workforce. If the physical and psychological

preferences expressed by workers fail to make inroads in bringing about a drastic alteration of work time, the ecological burdens that the current market mentality inflicts upon our environment may have much greater sway. Ecological concerns have opened the door for the ascendancy of a third sector – that of the non-market or home production – which places far less emphasis on paid work time.

The topics considered in this chapter suggest that in order to bring about a more psychologically and environmentally sustainable allocation of work time, society will likely need to abandon some of its zeal for a market-based society. More importantly, economists will have to break through the narrow calculus that presently limits the vision of work time reform and begin employing a broader set of tools that will likely include some of the social concepts of economic health and efficiency outlined in the following chapter.

CHAPTER SIX
THE SOCIAL COSTS OF EXTENSIVE WORK HOURS:
WHAT HAS THE US SACRIFICED?

Another aspect of the alternative narrative is the social costs or civil sacrifices that result from long work hours. These social costs warrant a discussion separate from the externalities discussed in chapter three because many of the issues have yet to be considered by orthodox economists. For instance, there are but a handful of economists cognizant of the social models of labor productivity outlined in this chapter. As the previous chapter suggests, many economists are disinterested in the social or ecological costs of economic activity in general. If such costs are incidental or of minor consequence, then little harm is done in continuing to follow the conventional paradigm. If, on the other hand, the social costs of the market system are substantial and growing, finding an alternative to the high consumption/high production mode of life takes on a greater sense of urgency. This chapter attempts to illustrate that the costs of working long hours to achieve ever-greater consumption levels have been significant and that the social sacrifices we are making are worthy of an alternative approach to work time determination.

Since an improved method of measuring the social costs of overwork relies on broad-based measures of social welfare, the chapter begins by questioning whether traditional economic measures alone can adequately reflect the social health of the nation and its workforce. This search for broader measures of social health reflects the important objective of the alternative narrative to achieve a closer harmony with the other social sciences and humanities. Worker preferences, as evidenced by workplace and general surveys, are then analyzed in an effort to suggest the existence of unmeasured social costs related to the workers' desire to be engaged in other productive activities. The survey data also lends insight into the broader research issue of whether or not modern workers are freely choosing long working hours. The examination then focuses on some of the social issues that typically skirt the negative externality definition such as the opportunity costs of overwork and the macroeconomic sacrifices associated with excessive or inequitable work times.

When large portions of the population work excessively long hours and when work time is poorly distributed, there may be a sundry of social sacrifices (including macroeconomic and fiscal issues) that countries make in failing to take ameliorative action. Some of these cost categories could be encapsulated into the externality-type arguments presented in chapter three, but their nature does not typically classify them as such. Since the notion of social sacrifice is best illustrated through a comparative exercise, the results of work time reductions implemented on a national scale in other industrialized democracies are also featured in this chapter.

Measuring Social Health

The heavy reliance in orthodox economics on utility maximization and rational behavior is founded on the axiomatic assumption that 'more is better.' The widespread acceptance of this heuristic within the profession has generally led to an unfettered pursuit of growth as the measure of progress. In a strictly economic sense then progress is narrowly and misleadingly defined. Purely economic measures of progress are misleading in the sense that economic growth may bring with it adverse consequences for social health both at home and abroad.¹⁸ Plane wrecks, divorce, disease, crime, war, and natural disasters boost economic growth because they lead to direct and indirect expenditures of money.

As Miringoff and Miringoff (1999, p.24) point out, "The factory pollutes water: the GDP goes up. People buy bottled water to replace the questionable stuff from the tap: the GDP goes up some more. People contract cancers or other diseases from the toxic chemicals that are emitted: medical bills make the GDP go up again." Returning to Galbraith's (1984, p.228) admonition, although Gross Domestic Product (GDP) has increased and goods of questionable urgency have been produced, life may now be substantially less tolerable not only for workers, but for all inhabitants, human and otherwise.

A society that promotes the ideal of an acquisitive lifestyle will tend to ignore reliable measures of the improvements in the quality of life while it emphasizes those charting expanding productive and consumptive activity. The United States has

¹⁸ Indeed immiserizing growth in the developed democracies has been maligned for the increasing absolute poverty it has inflicted upon the inhabitants in the third world.

exemplified this tendency with the GDP waxing in popularity while other broader measures of social health have achieved only modest notoriety. Many social critics have argued that the GDP is a poor measure of social health because of its narrow focus on what is produced and sold within a society, rather than on how people are doing.

Questioning the merit of the GDP as a social barometer is not a recent practice. More than thirty years ago, Senator Robert F. Kennedy eloquently expressed his doubts in the measure.

The Gross National Product does not allow for the health of our children, the quality of their education, or the joy of their play. It does not include the beauty of our poetry or the strength of our marriages; the intelligence of our public debate or the integrity of our public officials. It measures neither our wit nor our courage; neither our wisdom nor our learning; neither our compassion nor our devotion to our country; it measures everything in short, except that which makes life worthwhile.

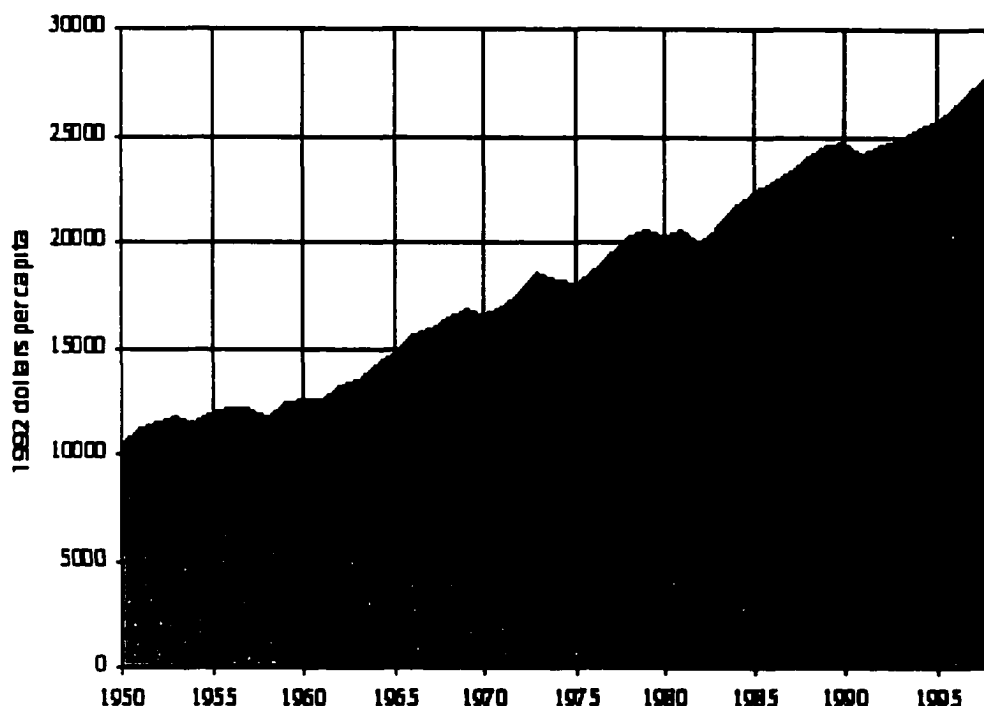
Since the time Kennedy expressed his distaste for GNP as a policy lodestar, there has been a growing sense that the GNP does not accurately assess many important aspects of our lives.

Periodically economists have joined other social scientists in the endeavor of devising a new measure of a nation's social well-being. These attempts were often sporadic, resulting in one-time publications with little follow up. In the 1920s President Herbert Hoover appointed Wesley Mitchell to chair an ad hoc committee on the study of social changes. The committee published a report titled, "Recent Social Trends" in the United States, which addressed issues as wide-ranging as the environment, health, recreation, religion, urban and rural life, the family, labor, crime

and the arts. Unfortunately, the effort was not on-going and it took decades for a permanent measure of social health to be established.

Recently annual indices of social health have been growing in popularity and prominence in the United States. Since 1993, Redefining Progress Inc., an independent research institute, has been publishing the Genuine Progress Indicator (GPI). The authors of the indicator take exception to the Gross Domestic Product counting everything that is produced and sold as a “good.” Since counting things like car wrecks, divorces, disease, and crime does not portray the economy that people actually experience, the GPI attempts to count as costs what its authors believe the public perceives as costs. This approach resulting in subtracting crime costs, environmental degradation, and the burdens of ill health, while adding as growth those aspects of social life that the GDP does not measure, such as the value of housework and volunteer work. Comparing the GPI with the GDP in figure 5 below illustrates how focusing on the strictly economic side of things may be misrepresenting the level of our collective felicities.

Figure 5. Gross Domestic Product vs. Genuine Progress Indicator, 1950 to 1998.



Source: Redefining Progress Inc. 1999

As conventionally measured, 1998 was quite a good year for the economy. The GDP rose by 3.9% (after adjusting for inflation), just as it did in 1997. In per capita terms, this corresponds to an impressive 3% growth rate. These were the two highest growth years in a decade. Before we congratulate ourselves on a highly productive economy, however, we have to ask what grew, who benefited, and at what cost to our social and environmental health. In 1998 official reports celebrated a booming economy, and the stock market kept reaching record highs. However, the GPI, the measure of household well-being, continued to slide, as it has for more than

two decades. While the GDP rose from \$20,310 per capita in 1980 to \$27,939 per capita in 1988, the GPI fell from \$8,722 per capita in 1980 to \$6,649 per capita in 1998 (all given in 1992 dollars; see table 6 below).

Table 6. Gross Production versus Genuine Progress Indicator, 1950 to 1998

YEAR	GDP (billions of 1992 dollars)	GPI (billions of 1992 dollars)	GDP PER CAPITA (1992 dollars)	GPI PER CAPITA (1992 dollars)
1950	1,611	810	10,582	5,317
1960	2,263	1,226	12,525	6,783
1970	3,398	1,781	16,569	8,686
1980	4,615	1,982	20,310	8,722
1990	6,136	1,965	24,600	7,879
1998	7,552	1,770	27,939	6,549
TOTAL CHANGE (1950 - 1998)	+5941	+960	+17357	+1,232

There is also an older measure of social health that is often offered as an alternative to traditional economic benchmarks. Since 1987 the Fordham Institute has been publishing its Index of Social Health. The Index of Social Health focuses on the concept of national performance utilizing social indicators such as child abuse,

suicide, drug use, health care, average earnings, poverty, and inequality. The index combines these indicators into a single number for each year going back to 1970. The usefulness of a social health indicator relative to a strictly economic indicator can be illustrated by comparing the Fordham Institute's Index of Social Health to Gross Domestic Product. Comparing nine social indicators during the period 1959 to 1996, it can be seen that until the mid-1970s the Index tended to track quite closely with GDP. From the 1970s through the mid-1990s, however, the two measurements have diverged sharply.

Today, perhaps more than ever, growth and money measures alone fail to provide a true picture of American life. Societal and labor market change is occurring at a rapid pace. The social contract among government, corporations, and employees has been dramatically altered by labor market developments such as downsizing, outsourcing, the weakened position of large segments of the work force and declining or stagnant real wages. The inevitable result has been growing social inequality and a deterioration of our societal fabric. Miringoff and Miringoff (1999, p. 5) point out that the social health of the United States in 1998 was far from hale and hearty.

Several indicators are performing poorly. Suicide rates among the young are 36 percent higher than they were in 1970 and nearly triple the rate in 1950. Income inequality is at its third worst level in fifty years. More than 41 million Americans are without health insurance, the worst performance since records have been kept. Violent crime remains almost double what it was in 1970, even with substantial improvements during the 1990s. Average wages for American workers have fallen sharply since the early 1970s, despite the strong economy. Child abuse has increased dramatically: an estimated 3.1 million children were reported abused in 1996 alone. Approximately one in every five children in America today lives in poverty, a 33 percent increase since 1970.

The magnitude of the downward trend of social indicators is a matter for serious deliberation by policy makers, especially those formulating labor market

policies. Continuing to focus on purely economic barometers while ignoring social health measurements presents the risk of squandering an enriched and informed national dialogue. Since social measures of the nation's overall welfare are far more encompassing than many popular economic measures, it behooves the economist to afford social health statistics far greater sway in analyzing the impact of economic policy. In the context of work time, for example, the long work hours logged by US workers may coincide with robust economic growth, but social measures of progress tell a quite different story. The Index of social health stood at 43 of a possible 100 points in 1996, down from its peak performance of 76.9 in 1973. Alternative measures of society's progress paint a picture of decline and stagnation in social health, while economic indicators sketch a landscape of Elysian Fields. Despite the economy realizing long-term growth and workers steadily increasing their work hours between 1973 and 1996, progress, broadly defined, has been highly elusive.

Broader measures of social health suggest that the average US worker is worse off today than she was three decades ago. The despair is more than simply suggested in the statistics; evidence has shown that the misery rings clarion in the expressions found in public-opinion data and worker surveys as well. Surveys and reports on job satisfaction indicate that workers are not choosing to work longer hours based on the enjoyment they derive from their labors. Workers may be opting for longer hours as a way to ameliorate stagnant incomes, or to satisfy falsely contrived desires, but that does not mean they are happy with their plight and the options availability to them. If workers were truly choosing an optimal lifestyle in the face of ample alternatives, we

should witness raising levels of job satisfaction as hours worked increases. The evidence over the last two decades is quite the opposite.

The Opinion Research Center has conducted surveys on job satisfaction dating back to 1948. Their research shows that over the business cycle peaks of 1948, 1966, and 1973 the workers surveyed who reported that they like their job “very much” or “a good deal” remained fairly constant, at about 70 percent. However, from 1973 to 1979, this measure of job satisfaction slid precipitously from 68 percent to 59 percent. Surveys extending into the 1980s and 1990s show similar results. Data collected by Roper Starch Worldwide, Inc. show that those describing themselves as “extremely satisfied” with their jobs declined from 47 percent in 1973 to 27 percent in 1994.

The Gallop Poll has been asking workers if they derive more enjoyment from time “on the job” or “off the job.” Those favoring on-the-job time fell from 38 percent in 1955 to 22 percent in 1993. The statistics regarding more specific aspects of the work experience are likewise disheartening. For example, between 1989 and 1993, the percent of employees “satisfied” with their job security declined from 87 percent to 79 percent. Those “satisfied” with the amount of on-the-job stress to which they are exposed dropped from 76 to 60 percent.

The proportion of American workers preferring fewer hours has drastically grown over the last two decades. Jacobs and Gerson (1998, p.442) find that, “there is a notable mismatch between the hours many Americans put in on the job and the work schedules they would like to have.” Analyzing information from the 1992 National Study on the Changing Workforce, a national probability sample of 3,381 employed men and women, the authors found that nearly half of respondents

indicated that their usual workweek was longer than their ideal hours.¹⁹ Nearly one-third of the total sample expressed a desire to work between 1 and 10 fewer hours per week, and about one in seven of the total sample wanted to work at least 20 fewer hours per week. Regardless of whether or not the current workforce actually works more than earlier generations, the majority of American workers *feel* overworked – at least compared to their ideals. Jacobs and Gerson (1998, p. 453) conclude that, “there is little indication that those putting in long hours are doing so because they prefer work over family and personal pursuits.”

Similar to the Time Project finding that nearly half of current workers are willing to trade a day’s wages for a day’s work, more and more work time surveys are beginning to specify the economic sacrifices workers are ready to make for increased leisure time. The Work and Family institute has recently shed some light on the issue by classifying its survey respondents into different income categories. Its survey found that even those in lower income categories expressed as much zeal for work time reductions as those of more comfortable means. Roediger and Foner (1989) purport an even more specific claim. After reviewing Labor Department Studies, they conclude that the average U.S. worker is willing to forgo 4.7 % of earnings in exchange for more free time (Roediger and Foner 1989, p.275). In a survey conducted by Robert Half International, two-thirds of 1,000 men and women said they would welcome a cut in hours and pay to spend more time their families. A similar study found that 51 percent of 1,000 working adults would pick more time

¹⁹ The Changing Workforce survey only includes information on currently employed individuals, failing to capture desires of the unemployed to work more.

over money if given the choice (Bozell Worldwide and US News and Report.) These studies suggest that, if the workers' contingent valuation of leisure time is a reliable measure of the value of free time, the market may be grossly underestimating the value of that time in determining work schedules.

Trends in job satisfaction make it difficult to believe that workers are freely choosing to work longer hours. Perhaps a limitation of the choices may exude the appearance that their behavior is governed by free will, but the reality might be quite different. If presented with an alternative way of abating declining real incomes and market pressures to work and spend, many dissatisfied workers might opt for less time in the workplace. The inability of workers to access the greater leisure time they desire creates both psychological and societal costs that may only be observable in the long-run or if we begin to view the labor market from a social rather than economic prospective.

Social Models of Efficiency

Social models of productivity have emphasized the intangible affects of human character in the production process. Fred Block (1990) has argued that in an increasingly post-industrialist economy we need to re-conceptualize what is necessary for the efficient use of labor. As high-tech machines and computers replace workers in our advanced industrial society, employers become reliant on workers with high skill levels. Managers today need workers to commit themselves to the production process with unprecedented levels of attention and intellectual creativity. Since the failure to do so results in costly consequences, the issue of motivating employees

becomes a critical ingredient in a firm's success. Social models of efficiency attempt to foster a highly motivating work environment by recognizing the social relations, responsibilities, and demands that modern workers face. In a work time context, social efficiency models attempt to relax the rigidity in the number of hours associated with a particular job in order to ease the hardships of harried employees balancing work with family and/or social needs.

Social efficiency models are closely parallel to the efficiency *week* model outlined above. Gordon (1996) claims that, "people in the productive process affect productivity independently of technical environs." Since work can be performed with widely varying degrees of intensity, the issue of conflict and struggle between the employer and employee becomes as important as the technical conditions of production. Moreover, Bowles, Gordon, and Weisskopf (1990, p.110) estimate that 84 percent of productivity fluctuations can be attributed to work intensity. Thus the rather intuitive belief that work *time* and work *intensity* is negatively correlated lends credence to the efficiency *week* hypothesis proffered above and suggests that long work hours may result in significant social sacrifices.

Bowles, et al. (1990), contend that the failure to consider the human element in the production process results in prodigious levels of macroeconomic waste. They estimate the prodigality to be on the scale of a third (31.9%) of annual Gross Domestic Product. By eliminating environmental, labor force, military and medical waste, US citizens could easily afford to alter their lifestyles. The authors boldly aver a 3 1/2-day workweek as but one of the luxuries a national re-prioritization could achieve. Bowles, et al. (1990, p.219) claim that "the 3 1/2-day week remains a

realistic long term goal because in the long run democratic economics enhances productivity.” This quote renders evident the scholars’ belief in the reduced workweek as an end rather than a means to societal improvement. Thus, even these otherwise well-intending advocates of reduced workweeks fail to reverse the arrow of causality between workweeks and social productivity. However, as chapter three has shown, it may be possible that workweek reductions could very well serve as the *source* of social advancement rather than the *result*.

Irrespective of the path of causation, it is rather intuitive how social waste can arise from unscrupulous employers requiring long work hours of their employees. Admittedly, competitive labor market conditions will tend to limit the ability of employers to extract extremely long work hours from employees, but there is still substantial room for amoral behavior on behalf of employers in setting work time. Weak, or otherwise unprofitable, firms may realize a competitive basis by requiring their employees to work hours that are long by industry standards. The prolonged existence of these inefficient producers can be viewed as a waste of economic resources. The firm that offers progressive work times is then placed at a competitive disadvantage by his competitors’ unscrupulous business ethics. In addition to the economic waste of workers being misemployed by otherwise uncompetitive employers, there are substantial social opportunity costs associated with employers utilizing long weeks.

Efficiency wage advocates often emphasize the social costs related to employers opting for increased monitoring rather than higher wages. Bowles and Gintis (1983) claim that, “the profit-maximizing firm uses too many monitoring

resources and not enough wage incentives.” Since monitoring requires resources that could otherwise be used in a more productive fashion, it represents an opportunity cost to society. The same analysis holds in the case of work time as most employers could supplant a significant portion of their monitoring costs with reduced work times. If shorter hours (like higher wages) bring forth effort levels commensurate to those under the erstwhile monitoring regime, then efficiency *weeks* (like efficiency wages) are a socially-superior alternative to monitoring because resources formerly devoted to monitoring can be used in more socially-productive pursuits.

Bowles, et al. (1990) espouse five other categories in which substantial amounts of societal waste might be eliminated. A brief examination of each category suggests how a reduction in working hours may, in and of itself, serve to eliminate a significant portion of social waste. Thus, rather than reduced workweeks being the dividend of some other societal action that serves to obliterate waste, a reduction in working hours may serve as the impetus of waste reduction. Thus, similar to the argument that an increased minimum wage can effectively shock firms and workers into being more productive, it is advocated here that a reduced workweek can have an equally salutary “shock effect” on both worker and social productivity.

The first broad category of waste is workplace democracy. Bowles, et al. (1990, p.182) contend that the key attributes of a productive workforce are commitment and cooperation. Worker commitment and cooperation can best be achieved through the fair treatment of the work force. The authors suggest that improvements in workplace democracy could yield dividends totaling more than 16 percent of GDP. Therefore, policies such as profit-sharing or less extensive and

flexible workweeks could pay prodigious productivity dividends. As workweek reductions create pressures to equalize the bi-modal distribution of work hours and advance gender equality in the workforce, they can be viewed as promoting workplace democracy and the greater labor productivity associated with it.

Another waste category to be considered involves the ever-important issue of human-resource allocation. This is simply the notion that an underemployment of human resources is an egregious act of prodigality. As the evidence from reduced workweeks in Europe suggests, a more egalitarian sharing of paid labor might be a favorable way to utilize the resources otherwise squandered through unemployment or underemployment. According to Bowles, et al. (1990) re-arranging the division of labor could bolster GDP by nearly 10 percent.

The third category concerns the peace dividend. Here Bowles, et al. (1990) claim that reducing expenditures for bellicose purposes could result in dividends on the order of two percent of GDP for the United States. A reduction in working hours that affords individuals more time to travel or educate themselves about distant cultures may reduce the perceived need for armaments. If peace were to supplant hostility, a substantial portion of present military spending could be devoted to other social priorities.

Improving the health care system in the United States is another source of savings and one particularly linked to the issue of work hours. Many of the health consequences of overwork have already been addressed under the negative externality heading, but little has been said about improving the collective health of the nation. The lower stress levels and overall better health that could potentially abound from

shorter hours could tremendously curtail health care expenditures. Former Surgeon General C. Everett Koop has opined that seventy percent of American health care costs are lifestyle induced. Thus there are propound improvements to be made in preventative medicine. In a society that is disproportionately aged, a shortened workweek that freed individuals to act as volunteers in the provision of preventative medical services would certainly be beneficial. Increased leisure might also reduce the stress and strain of daily living, which, in turn, could ease the demand for healthcare services of many kinds.

The five broad categories outlined above may only scratch the surface of the benefits derived from social efficiency models. The benefits to society of greater leisure time are obviously far more diverse. If parents have more time at home, their children would presumably receive better parental supervision, which could reduce the caseload of social workers and clear the juvenile-court docket. More leisure time could afford people more time to volunteer in their communities. The elderly might be visited more often by younger relatives. Residential and commercial structures might be kept in better repair, creating positive externalities for neighbors. Schools might attract more students out of a genuine interest in learning. More inventions might be hatched in garage or basement workshops. Some of these leisure time uses may seem like work. In fact, there is no reason why “free” time cannot be additional time for work that fosters the trade knowledge lacking in today’s intense market society. The work however will be more self-directed and free of the tyranny of the clock.

Macroeconomic and Fiscal Issues

In addition to the benefits encapsulated under the social efficiency models, there may be many macroeconomic or fiscal advantages to shorter work times. A host of macroeconomic and fiscal issues may arise from excessively-long or poorly-distributed work hours that are typically not given mention in the externality context. The macroeconomic plagues of temporary and permanent unemployment, under-employment, and under-consumption can all be compounded by long work hours. The problems associated with under-consumption are perhaps the most intuitive and familiar. As previously mentioned, overwork may lead to a time shortage that ill-affords workers the time to acquire and enjoy the products they have produced. This concept has macroeconomic implications in that long work hours may leave insufficient time to acquire, consume or develop the sophisticated tastes to demand improved products. Moreover, an inequitable distribution of work hours will tend to undermine consumer confidence and create more economic instability than a more equal sharing of work hours would. Since consumption comprises the lion's share of GDP, work time reform that leads to a more stable and egalitarian consumption pattern offers an added benefit to society in the form of greater economic stability.

Henry Ford may have been the first to grasp this so-called 'big economic picture' as his policy of higher wages and shorter workweeks certainly served as a boon to automobile demand in the 1920's (Ford, 1926). More recently, the increased productivity of the modern economy may have created an urgency for the four-day workweek, because – as Henry Ford said of the five-day week – “without it the

country will not be able to absorb its production and stay prosperous.” Curiously, Ford’s five-dollar-day has become standard fair in economics, while his implementation of shorter workdays and workweeks receives relatively little attention.

In Ford’s opinion, the more prosperously that leisured workmen are paid, the larger their wants will become. However, only in a high-wage, adequately-leisured environment will workers have the time to enjoy life and the means to finance that enjoyment. As Ford (1926, p.614) pointed out,

The industry of this country could not long exist if factories generally went back to the ten-hour day, because the people would not have the time to consume the goods produced...For instance, a workman would have little use for an automobile if he had to be in the shops from dawn until dusk...It is the influence of leisure on consumption which makes the short day and the short week so necessary...The people who consume the bulk of the goods are the people who make them. That is a fact that we must never forget– that is the secret of our prosperity.

In the case of Mr. Ford’s automobile, the demonstration effect of consumption had particular sway because it freed the worker and “gave them a chance to find out what is going on in the world – which leads them to a larger life that requires more food, more and better goods, more books, more music – more everything.”

Just as the automobile provided for the liberation and sophistication of tastes to Ford’s workers, a long-overdue increase in vacation time (which could be taken on a weekly, monthly or annual basis) in America could have the same enlightening effect on contemporary consumers. Even as work time has remained stable, the economy has experienced rapid growth in recreation, restaurant-dining, and other leisure-oriented activities. With more leisure time and either constant or growing

incomes, the demonstration effect of travel and increased social engagement could create a demand for a wider array of products as well as a more equitable distribution of those goods and services. Indeed, some of the attraction to the new products would represent an invidious display of consumption, but that should not obviate the bulk of society from enjoying the virtuous spoils of sophisticated and advanced goods and services.

In allegiance with Ford's advice, a handful of economists believe that an increase in leisure time would stimulate consumer spending and, thereby, give the economy a boost in the arm. If personal savings rates are too high, then a reduction in work hours may raise the proportion of income consumed. As the US economy does not seem to currently suffer from too much saving, perhaps a more important result of a work time reduction is its ability to stabilize economic activity. By maintaining income among employees that would otherwise be laid-off, work time reduction policies that spread the ill-effects economic recessions across a larger number of workers can stabilize local and national economies by maintaining consumer capacity and confidence. Thus, shorter working hours may have the potential to provide a more equitable distribution of the harmful effects of economic recessions. A more equitable sharing of economic hardships can be viewed as an anti-discrimination policy. Greider (1986) argues that the Federal Reserve is rarely an equal opportunity "dis-employer" when it engineers a recession, due to the fact that women and minorities are usually the first to lose their jobs. With more people participating in the labors of society, consumption, and economic activity in general, can be expected to lose some of their mercurial

tendencies. Just as the Short Time Compensation (STC) policies implemented in many States in America have cushioned the economic impacts of layoffs in the past, a national work time reduction could have equally salutary effects (Best, 1988).²⁰ John Owen (1989, p.38) has pointed out that a workweek reduction would, “maintain purchasing power among a wide base of workers and so stabilize the retail trade and financial industries.”

Another macroeconomic concern is the impact that overwork and an inequitable distribution of work time will have on government fiscal balances. As highly-skilled workers toil long hours, the less-skilled may be relegated to underemployment or unemployment, placing prodigious burdens on transfer programs while path-dependency effects serve to perpetuate their existence in the ranks of the underclass. The employment and fiscal impacts of work time reductions are consequently an important consideration that will likely affect the political acceptability of work time reform.

The advancement of socially-progressive policies has often been hamstrung by the notion that federal governments are financially constrained. The scarce financial capital argument is routinely wielded to stifle benevolent social movements. However, the prohibitive cost argument has not been particularly damning in the case of work time reductions because of the offsetting effects of increased employment and productivity. As featured in the empirical section below, a fiscal windfall has

²⁰ Short-time compensation is also known as work-sharing unemployment insurance. The policy provides partial unemployment insurance benefits to employees who have taken a reduction in hours in order to prevent layoffs or dismissals within a specific firm. The program is generally viewed as having been particularly successful in California, Canada, and Germany.

accrued to the French Government in the wake of its workweek reduction, and many other European countries are beginning to strike similar fiscal mother lodes. Indeed, even when offering payroll-tax relief, countries have been able to realize a net fiscal gain from the increased employment brought about by reduced workweeks (TimeWork Web).

Recent studies in North America have also substantiated the claim that European governments are acting prudently when offering tax reductions in an attempt to generate larger tax receipts via employment growth. Bruce O'Hara (1998) has offered fiscal savings estimates for Canada that are similar to those used in the successful lobby for a 35-hour week in France. O'Hara (1998) argues that, "a 32-hour week would put a million unemployed Canadians back to work, saving the public purse billions of dollars on welfare, unemployment insurance and related social expenditures."

Workweek reductions implemented at the National level have shown rather significant increases in employment and consequently benefited the implementing government's fiscal condition. However, even if the fiscal benefits of reduced workweeks are less promising than currently believed, financial hand-wringing should not threaten policies that address the welfare of the working class. As the Chartalist approach to federal finance promulgates, the government is never constrained in its borrowing because it is a monopoly supplier of the currency used to finance its own spending (Wray et al, 1998). In other words, the flow of finance does not run from deficit borrowing to spending, but rather in the opposite direction.

The government can only borrow as much as it spends, which means that “permanent consolidated government deficits are the theoretical and practical norm in a modern economy (Wray, 1998).” Thus, the *fiscal* feasibility of a workweek reduction is not a concern for most heterodox economists who repudiate the notion of scarce financial capital. Even for those solicitous over such financial matters, the positive fiscal results of past work time reductions should not pose a threat to the political feasibility of a work time curtailment. As Wray (1999, p. 686) poignantly articulates, “only monetary economies have unemployment – the pharaoh puts idle men to work to build a pyramid...only the modern economy is financially unable to do what is technically possible.”

Wray’s aphorism touches upon what may be the most nefarious social cost of recalcitrant workweeks – the compounding of unemployment. The harmful ill-effects of unemployment are well documented and have recently included the persistent influence of path dependency or hysteresis. Hysteresis occurs in the labor market when high levels of unemployment bring forth higher or sustained unemployment levels. In other words, the more workers unemployed (and the longer they are unemployed) the more skills will atrophy and the more difficult it will be to boost future employment levels. The consequences of unemployment are circular as they often feedback into yet more unemployment. For example, increased unemployment might well exacerbate psychological and social problems that have been linked to joblessness, including alcoholism, domestic abuse, and mental and physical illness. Therefore, work-sharing programs may be the best way to abate the long-lasting

effects of unemployment and reduce the external social costs brought about by extensive and inequitable workweeks.

Hysteresis is a concern particularly relevant to the present bifurcation of work times. As highly-educated workers toil longer hours, the less educated may be relegated to welfare rolls placing prodigious burdens on state assistance programs while the path-dependency effect of unemployment perpetuates their existence in the underclass. Hysteresis, however, is not solely reserved for the labor market. It can likewise be applied to the growth side of the economy. If the bifurcation of work time leads to a segment of the workforce being unemployed, economic growth will likely be constrained. The hysteresis arises when low levels of aggregate demand and slow growth lead to low levels of investment and innovation, which then further decreases aggregate demand. In other words, a large segment of unemployed workers may have path-dependent effects that make it that much more difficult to raise the future level of both aggregate supply and demand.

An additional macroeconomic phenomenon of the workweek is the potential of an elastic labor supply curve disrupting inflation expectations. In the wake of longer workweeks among salaried employees, the macroeconomic notion of the labor supply curve may now be altered. If the labor supply curve is more malleable than previously suspected, the inflationary pressures of an economic expansion will be less immediate. A greater willingness of incumbent workers to work longer hours results in a greater quantity of labor supplied at any given measured unemployment rate. As Bluestone and Rose (1998, p.425) warn, “because of the upward structural trend in

weekly hours, monetary policy authorities must now recognize that standard jobless measures have become a misleading gauge of available labor.”

The characteristics of the current economic expansion in the United States are consistent with this theory. In the second quarter of 2000, the unemployment rate sank to 3.9 percent, the lowest in three decades, yet inflation was scantily observed. A sharp increase in average weekly work hours and weekly overtime hours is a likely factor confounding of the mainstream conception of a Phillip’s Curve trade-off between inflation and unemployment. Bluestone and Rose (1998 p.426) point out that, “American workaholism may have debilitating effects on family and community, but increased working time has one apparent benefit: it permits faster economic growth without the fear of accelerating inflation even when the official unemployment rate is well below 6 percent.” By way of example, weekly hours have expanded from a low of 37.6 in 1982 to nearly 39 in 1998 (Bluestone and Rose, 1998). Viewed from a labor supply perspective, this is equivalent to increasing the number of workers in the economy by 3.6 percent- or adding 3.6 million new full-time workers to the total workforce. Particularly, if these hours are being absorbed by incumbent salaried employees, it is easy to see how upward wage pressures are dampened by elastic workweeks.

Whether or not this is a beneficial characteristic of the modern economy depends on one’s view of inflation. Low inflation generally favors the rich while it is less virtuous to the poor. Indeed low or nonexistent rates of inflation may be detrimental to the vast majority of Americans, especially since the recent economic boom has been fueled by unprecedented levels of consumer debt. If lower rates of

inflation are the only windfall from longer hours, there may be little benevolence resulting from the recent trend of longer working hours.

This section has suggested that work time reductions may result in a lower level of unemployment that places a floor under the hourly wage rate by helping workers resist wage cuts. Greater employment growth and stability would likely lead to greater and more stable consumption levels. A reduced workweek that limited the path-dependency effects of unemployment could shorten and ease the severity of economic contractions. Work hour reduction has the potential of fostering a more equitable distribution of the burdens of unemployment in a way that would be more palatable to both employers and employees than the traditional response of layoffs. Employers benefit from the increased continuity of their employee training programs. Work-sharing programs not only abate the pernicious effects of hysteresis, but they also afford an uninterrupted training of workers and intergenerational transfer of human capital. One can only speculate as to how much a workweek reduction would have attenuated the economic slowdowns of the 1970s, 1980s and early 1990s, but it makes intuitive sense that a work-sharing program has the potential to reduce the atrophy of skills among the unemployed and result in a more robust economic recovery. Admittedly, the Keynesian approach of work time reductions stabilizing the economy may have had more sway during the 1930s when work hours were significantly longer, but Keynes's insights are far from passé. The macroeconomic arguments for work time reductions still have persuasive merit. Indeed, in a period of rapid technological advance and drastic labor market changes, the idea of using hours

rather than dollars to address social and economic problems should be given far greater consideration in the immediate future.

Past Work Time Reform Proposals in the United States

Past work time reform proposals in the US have primarily focused on the macroeconomic aspects outlined above, rather than targeting the productivity improvements that have more recently come to light. One fervid proponent of reduced work time has been US Congressman John Conyers, Chairman of the powerful Government Operations Committee of the 96th Congress. In proposing his bill for a 30-hour workweek and an increase in overtime pay to double time, Conyers underscored that while production in the manufacturing sector had doubled from 1955 to 1976 the amount of labor employed in the industry had only grown by 3 percent. His analysis argued that the 40-hour workweek was a tool for labor market segmentation that excluded nearly 9 million people from employment in the manufacturing sector. The quantity of work required to produce the same amount of output had been halved; but, because it had been divided up into a specific number of jobs, the number of workers required to double production had grown only slightly. In a letter to his legislative colleagues soliciting support for his reduced workweek bill, Conyers wrote,

One of the chief methods of keeping unemployment in check during the great depression was the adoption of the 40-hour workweek. During the past 30 years, however, the workweek has remained substantially unchanged despite the frequency of massive unemployment, and considerable gains in productivity. We ought to look at reducing the workweek and spreading employment among a greater number of workers, once again, as a means of reducing joblessness without sacrificing productivity (in Rifkin, 1995, p. 231).

A more recent bill introduced in October 1993 by Congressman Lucien E. Blackwell, proposed a government-mandated thirty-hour week. It also included a provision to raise the minimum wage to \$7 per hour and index it to the consumer price index. Proponents of the bill emphasized the savings in unemployment compensation and welfare payments that could have resulted from employing millions at a shortened weekly work schedule. Canadian proposals have employed a similar macroeconomic calculus. By offering social security tax exemptions to employers that offer reduced workweeks, officials estimate that the foregone revenue will be more than offset by reduced welfare rolls (O'Hara, 1998). If the United States was intent on offering such an incentive to reduce work hours, it has already set a precedent for a large scale employment incentive with the tax cuts it presently grants companies that hire welfare recipients. Given that the United States currently boasts a robust economy, a favorable fiscal situation, and a tight labor market, it seems well positioned for a legislated reduction of work times.

In the late 1980's, Senator Eugene McCarty (1989) contended that unless the workweek is shortened, somewhere between 20 and 30 million people will slip into the poverty class where they will have to be maintained with food stamps and subsidies. This thinking is akin to Jeremy Rifkin's prognostication that the information revolution will cause increasing numbers of manufacturing or working class jobs to evaporate. Rifkin (1995, p.308) admonishes that,

As machines increasingly replace human beings in every sector and industry, the choice will be between a few being employed for longer hours while large numbers of people are jobless and on the public dole, or spreading the available

work out and giving more workers the opportunity to share shorter weekly work schedules.

As wage-related jobs disappear, those without a claim to profits will need to be sustained by some type of income source. High-tech, industrialized societies can choose to downsize and subsidize or they can curtail the impact by spreading work hours. Reducing the workweek retains the worker as a stakeholder of the firm and reduces the support the state must provide.

The prevalence of wage and salary income as a source of personal income has been contracting for some time now in the United States. In 1970 wage and salary income represented 65.8 percent of total personal income. By 1997, that figure had fallen to 56.9 percent. In an economy where wage income represents a contracting share of national income, the economic calculus of whether to keep employees on company payrolls or to sustain them on public payrolls takes on a new sense of urgency. Normative decisions about the distribution of national income will cut to the heart of who is “deserving” of work and income as America increasingly becomes a “workerless” society. A consequence of machines replacing workers is that those with a claim to profits accumulate a larger share of national income than the erstwhile laboring class. Therefore, in order to ensure consumption levels adequate to sustain entrepreneurial profit levels, incomes may need to be meted out in a less market-oriented manner.

The potential of the information revolution ushering in higher levels of technological unemployment and the decreased reliance on labor in the production process in general creates a new macroeconomic urgency for reducing work times.

Since work-sharing programs can stabilize employment and consumption while generating government fiscal savings, prudent policy-making would dictate that we take advantage of the stabilizing effects of reduced work time. Pursuing a more equitable distribution of work time could assuage the path-dependency effects that tend to make economic contractions more severe and protracted. Many industrialized democracies have employed work time reductions to bring about favorable effects on employment, productivity and the government's fiscal condition. The evidence from work time reductions enacted in other countries presented in the next section, lends critical insight into the social sacrifices that are being made by countries with a less experimental approach to work time.

International Evidence on National Work Time Reductions

“To know your own country you must have traveled abroad.”

– Samuelson, 1969

Since the social costs presented in this chapter have primarily been of an “opportunity cost” or “what-could-have-been” nature, it seems useful to examine what other countries have gained through a more experimental approach to work time reductions. The evidence illustrates how other countries have implemented ‘socially efficient’ work time policies to bring about lower unemployment, more equitable laborforce participation, and greater productivity. This evidence differs from the firm-specific data presented in chapter four in that it is of a macroeconomic nature. The evidence presented here relates to either an entire industry or economy. As noted

in chapter four, however, the productivity data found at the national level tends to mirror the favorable productivity effects experienced by firms operating within short hour countries.

European countries have been far more aggressive in their attempts to reduce work times for the average worker than efforts made in the United States. Although most work time reductions have been undertaken in an effort to reduce unemployment and spread work opportunities, some countries have pursued shorter hours chiefly on moral or culturally-driven grounds. Britain and France have been the most experimental economies with efficient work durations. Bienefeld (1972) has observed that major reductions of hours in British economic history have preceded, rather than followed, peaks of productivity growth. Bienefeld was apprehensive, however, about suggesting a causality between the two variables. Other British studies have shown the productivity-enhancing effects of shorter workweeks, but still fail to assert an outright correlation between the two variables. There seems to have been a great deal of reluctance in espousing a causation from work hours to productivity due to the many macroeconomic factors that influence the outcomes of work time experiments. In their work for the Policy Studies Institute, White and Ghobadian (1984, p188), concluded that, "While it would clearly be unwarrantable to suggest that reductions in working time "caused" (*sic*) productivity improvements, it seems prudent to regard their *association* as more than coincidental." Their reluctance in proposing a causal relationship was due to the fact that their evidence (from a variety of countries and time-periods) considered periods of complex change that involved numerous other influences. For these authors the clouding effects of

macroeconomic influences (i.e. recessions, inflations, etc.) were the sole barriers preventing the induction of a simple causal relationship between work hours and productivity.

During the First World War Britain's Industrial Fatigue Board demonstrated that work reductions were often followed by considerable productivity increases (Vernon, 1917). Additionally, the Industrial Fatigue Board found that the productivity effects of overwork were manifest throughout the workweek. After a slothful Monday start, worker productivity in the cotton weaving industry tended to rebound on Tuesday and Wednesdays, but then showed a drastic decline in the latter part of the week (MRC, 1923). Table 7 displays the productivity decreases in cotton weaving establishments found by Great Britain's Industrial Fatigue Board in the 1920's.

Table 7. Productivity Decreases in the 1920's Cotton Industry
(Percent change using 10:00 a.m. Tuesday morning as a base)

<u>Workday</u>	<u>A.M. (8:15)</u>	<u>P.M. (10:15)</u>
Monday	1.6	5.8
Tuesday	0.9	6.4
Wednesday	1.8	6.4
Thursday	2.2	6.7
Friday	2.6	7.5

If the precipitous decline in productivity later in the week is ubiquitous, there may be some validity to the modern day witticism that an automotive lemon is a “Friday car.”

Dr. Vernon’s own words best summarize his fatigue and labor productivity findings. Commenting on the production of British women employed in the manufacture of aluminum fuses during World War I, Vernon (1917) concludes that,

It is therefore to be inferred that had these women been working uniformly a nominal 50-hour week their gross output would have been as large as when they were working a nominal 66-hour week, and considerable greater than when they were working a 77-hour week. In other words, a considerable addition to the leisure time of the operatives would have substantially improved the total output of the factory.

A group of 40 women engaged in the light labour of milling a screw thread on the fuze bodies improved their gross output by 2 percent when actually working 54.8 hours a week, the standard being their gross output when working 64.9 hours per week. A further reduction of actual working hours to 48.1 resulted in such an improvement of hourly output that the gross output was only 1 percent less than when the actual working time was 16.8 hours more.

A group of 56 men engaged in the heavy labour of sizing the fuze bodies improved their gross hourly output by 37 percent and their gross output by 21 percent when actually working 51.2 hours, the standard being the hourly and gross outputs observed when the actual weekly hours were 58.2.

In its final analysis, the Health of Munitions Workers Committee stated that,

Speaking generally, the data (adduced for the committee by Dr. Vernon) show that a reduction in the weekly hours of actual work, varying from 7 to 20 hours per week, in no case resulted in more than an insignificant diminution of total output, while on the average it produced a substantial increase.

Despite the fact that workers in the World War I munitions industry were highly motivated by patriotism, the extension of working time to 12 hours a day, 6 days a week, resulted in total output falling to less than what it had been under a shorter work day regime. The British government then acknowledged that there did appear to be an inverse relationship between effort and time and consequently reduced standard schedules in order to boost the level of output (Nyland, 1989).

More recently, a 1981 analysis of work reductions in the British engineering and printing industries provides further evidence of productivity gains. The government-sponsored study tracked the effects of a work reduction in 140 establishments and concluded that productivity rates rose while unit wage costs fell (White and Ghobadian, 1984). Even when work reductions are conducted below the conventional 40-hour workweek level, productivity benefits still abound. When a British pharmaceutical factory reduced its hours from 38.75 to 36.25 per week, overtime was actually reduced and productivity increased to the tune of 20 percent (White, 1987).

In the United Kingdom, the Trade Union Research Unit (1979) has long argued that a reduction in working time can stimulate increased productivity. The union-backed researchers promulgate that, “excessively long working hours sap workers’ morale and output and increase absenteeism; they may encourage the undertaking to use out-of-date machinery and thus put a brake on investment in the new and more efficient process.” A reduction in working time would stimulate management to be more imaginative and parsimonious in their resource use. As the Trades Congress Union began to champion workweek reductions, Britain’s Department of Employment was likewise asserting that productivity gains would compensate for 40 percent of potential output reductions from shifting to a 35-hour workweek.

France has experienced similar productivity boons from its various work time reduction policies. Until 1982, work hours in France were largely regulated by the law of 21 June 1936, which established the 40-hour workweek and paid annual leave.

Macroeconomic models and detailed studies carried out over the next 40 years in various enterprises that had reduced or reorganized the workweek showed differing results. Reductions (usually with unaltered compensation plans) failed to create jobs in large numbers (Roche, et al, p.164). The paltry job growth was largely due to productivity gains swallowing up any gains in employment. The French government became chary of the inefficacy of the 35-hour week to increase employment, and politicians consequently placed the objective on a rear burner. However, the notion of reduced workweeks was not completely abandoned, and in the early 1980's it enjoyed a resurgence as a political issue. Due to its popularity among French voters, several measures were taken by the government to encourage flextime and wider adoption of part-time employment.

During the early 1980's, legislation designed to assuage high levels of unemployment in France led to a 39-hour statutory workweek, which represented a reduction of approximately one hour for the average worker. Laws were passed in 1982, 1986, and 1987 to entice enterprises to reduce and reorganize hours of work. Although the chief objective was to decrease unemployment, these French experiments provided a fair share of evidence relating shorter weeks to windfall productivity gains. A survey of firm's reactions to the reduction found many types of productivity-enhancing responses, particularly in the larger establishments. In 1983 – the year the 39-hour workweek was implemented – hourly productivity in France rose by about 6 percent. This is quite substantial when one considers that in the previous year productivity only increased 2 percent and has not exceeded 6 percent since.

Michael White (1987, p.15) contends that at least 90 percent of the impact of the shorter workweek legislation in France was absorbed by productivity improvements as opposed to the hiring of new recruits.²¹ Thus if employment gains are the sole touchstone of an hours reduction scheme, the France experience is not particularly promising (although positive gains were still realized). However, one runs the risk of discarding the baby with the bath water if the productivity gains resulting from past reductions are not given ample sway in the work time analysis.

Encouraged by the success of the mandated workweek reduction of the 1980's, France has recently legislated a further reduction from the current 39-hour maximum to a new 35-hour limit. The 1998 law forces privately-owned companies with more than 20 employees to reduce the workweek to 35 hours by January 1, 2000. Smaller firms will be granted another two years to adjust their work schedules. In advocating the new law French Labor Minister Martine Aubry claimed that studies had shown the 35-hour week will create 700,000 jobs, if wage increases are minimal and productivity improves 3.0 to 3.5 percent. This estimate assumes that income levels are constant and therefore have little impact on aggregate demand.

Business, labor and political leaders in France, have embraced the idea of the government assuming a portion of the short-term burden placed on business of a reduced workweek. In order to assuage any short-term competitive disadvantages that French firms might encounter during a switch to a reduced workweek, the French government has agreed to waive a substantial portion of the employers'

²¹ White (1980, p.23) cautions that during economic recessions additional recruitment might be replaced by simple job retention, minimizing the employment impacts of shorter work hours. Even

unemployment compensation premium. French policymakers anticipate that the hiring of additional workers will significantly reduce welfare and other relief payments, canceling out any additional cost the government might have to assume through lost unemployment compensation.

Despite being a long-standing bastion of sedulous work habits, Japan has also made in-roads in the work-time-reduction arena. Although still one of the longest in world, Japan's average workweek has been gradually declining over the past three decades. (According to the O.E.C.D.'s Labour Market Indicators, Japan is now second only to the United States in having the longest average workweek.) Concurrent to this period of contracting work time, Japan has realized a dramatic increase in productivity and economic growth. The juxtaposition of these two phenomena belies the fallacious claim that less work translates into sagging competitiveness and profitability.

In the late 1960's, the Ministry of Labor in Japan embarked on a work-time reduction campaign for a somewhat novel reason. Large manufacturing firms were encouraged to convert from 6-day workweeks to 5-day weeks in order to counter the "sweatshop" image of Japanese manufactured goods. As experienced elsewhere, the work time reduction policy brought about an unexpected boon to productivity. In Japan's case, a workweek reduction with the mere objective of social consciousness brought about an increase in labor productivity. An article in the Wall Street Journal on January 18, 1973 underscored the benevolence of the plan for Japan, while lamenting the unfortunate results for American exporters:

reduced overtime can have the effect of preserving jobs, obviating the need for additional recruitment.

The Japanese five-day week would seem like good news for U.S. companies battling tough Japanese competition. After all, a shorter workweek should mean less production. It should- but it doesn't. For the Japanese are working harder than ever, and companies that have cut the workweek say that if anything, production is rising...one reason Japan succeeds in world business is that it works hard, analysts say. But how hard it works seems to have little to do with how long it works. Average weekly working hours in Japan have been falling steadily for years. Employees were at the job 45.8 hours a week in 1967; by the end of 1971 this had decreased to 42.5 hours...and in just that period productivity has been rising, wages have been rising, and they're still selling to us like mad.

Obviously, the Japanese did not take the work reduction policy to great extremes as they continue to have relatively long workweeks and annual working hours compared to other industrialized nations, but the favorable results of even moderate reductions indicate the potential for further reductions. Recent economic turmoil in Asia, has rekindled work time reduction proposals as a method of bolstering sagging consumer demand and further boosting labor productivity. Japan has recently considered legislation to extend the weekend through Monday in an effort to boost consumption in a society suffering from what Keynes (1979) called an "anal propensity to save" (*Financial Times* October, 1998).

Sweden, like most of its Scandinavian neighbors, has been highly committed to the pursuit of work time reduction. The goal of full employment plays a greater role in Swedish social and economic policy than in most other countries. Education, work programs, and other enticements keep people in work, and, until recently, keep unemployment rates relatively low. The Swedish employment policy could be characterized as the "job-line" rather than the "welfare-line," because the government is more apt to hand out work tasks than payments in kind. According to the OECD (1988), about 75 percent of the labor market policy budget goes to active means and

only 25 percent to unemployment benefits. In 1989, the Swedish unemployment rate stood at just 1.4, although the number has been approaching the rates of other European countries of late.

Since the dirge of unemployment is the focus of so many other economic policies, work time reduction has been pursued on moral or social grounds. In Sweden, 40 hours per week is the maximum working time or, when under the terms of specific agreements, 40 hours a week as an average over a four-week period. Every week employees shall be afforded 36 hours of continuous free-time. There is a general prohibition against night work between midnight and five o'clock in the morning – obvious exceptions being granted (i.e. hospitals, police, and other public safety services). The law allows for 50 hours of overtime per month, but no more than 200 hours per year.

A maximum workweek of 40 hours does not sound particularly humane, until the generous vacation and parental leave that almost all Swedes receive is considered. The fifth vacation week was introduced into Swedish law in 1978. Since 1990, the annual vacation law has been 27 days. Since it is possible for employees to save one week per year up to five years, the opportunity exists for Swedish workers to have ten full weeks off every sixth year. In 1989, the Swedish parliament decided to extend parental leave to 18 months in three stages. In 1991, working parents were granted the right to paid leave for one and a half years per child. The compensation rate during parental leave is 90 percent of the lost wage, and the administration and payment is organized by the social insurance system. Leave can be taken exclusively

by one parent, or shared between the two parents. Parental leave must be used before the child is eight years old. But even if all leave has been utilized, the parents still have the right to work 75 percent of full time (six-hour days) until the child is eight years old.

Since Sweden already leads many industrial nations in the pursuit of shortened work hours, a chief policy objective has become the flexibility of working hours. Work schedules that meet both the needs of workers and producers are imperative in order to obviate costly production bottlenecks. There is also a concern over the high level of marginal taxes in Sweden and their effects on work incentive. However, since Sweden continues to enjoy a rather high labor-force-participation rate, it seems that the country's tax policy has hardly stifled work incentive.

Macroeconomic studies by Economist Yngve Abreg have suggested that the hours-reduction campaign in Sweden has had a positive impact on both employment and productivity. Admittedly, his econometric methodology had to make considerable adjustments in order to control for the sundry of external factors influencing labor productivity, but his results still suggest a strong correlation between work hours and productivity growth and employment gains for the aggregate economy. Using data from the Swedish National Accounts, Aberg (1987) shows that between 1963 and 1986 a one percent reduction in working hours translated into a .27 percent increase in production in manufacturing and a .45 percent increase in the general private sector.

Denmark boasts some of the shortest work hours in Europe and one of the lowest unemployment rates at 6.1 percent in 1998. Therefore, as in neighboring Sweden, work time reduction is seen less as a way to create jobs, than as a way to improve the lives of workers, allow parents to have more time with their children, and promote gender equity by making it possible for men and women to participate in both market and household labor. In addition to a 37-hour week, Denmark has been innovative in giving workers the right to take partially paid educational, parental and sabbatical leaves, with unemployed workers hired as replacements.

Some people might see Denmark's 1998 strike for a sixth week of paid vacation as a sign that its workers are spoiled. However, this can be seen as a justifiable attempt by workers to share in the country's recent economic success and as an enlightened choice of time over money as a way of realizing that prosperity. In the words of one young worker, "Everyone is talking about the good economic results in Denmark. As for me, I want my share in the form of free time (Time Work Web)."

Another trendsetter in the work hour revolution has been the Netherlands. Known for its high level of consensus among government, business and labor, it has reduced average annual work hours to the lowest level among developed nations. This has helped cut unemployment from 12% in the early 1980s to 3.8% by the end of 1998. The workweek was reduced in the mid-80s to 38 hours, and has since been cut to 36 hours for about half the workforce. This has generally been without any loss in pay, but workers did give up pay increases they otherwise might have gained.

Work time reduction has led to a dramatic expansion of "part-time" work (less than 35 hours) in the Netherlands. Thirty-seven percent of Dutch workers now work part-time. Due to its concentration among women, the pervasiveness of part-time work might be considered a source of controversy. But the fact that about 85 percent of part-timers say they do not want full-time hours suggests the Netherlands has found ways to make part-time an attractive choice.

Most collective agreements give Dutch workers the right to reduce their work hours. There are also strong legislative protections to guarantee equal treatment for part-timers in terms of hourly wages, benefits, and promotion prospects. One new work time bill will give Dutch employees the right to receive benefits pay if they interrupt their careers for care or study leave, on the condition that an unemployed person is hired as a replacement. Another proposal to extend the right to voluntarily reduce one's hours of work, with a proportionate cut in pay, to all employees is expected to become law shortly.

Germany is also well-known for its "Socialistic" approach to work hours. In the 1980's reductions of weekly working hours became increasingly popular. In 1987 a new agreement was signed in the metal and printing industry that was to reduce working time in two stages to 37 hours with full wage compensation. The unions had to concede to more flexibility and to calculate hours over a six-month period as opposed to the erstwhile two-month period.

More recent union contracts have made the 35-hour week a reality for many German workers. In 1993 the 36-hour week was negotiated, and in 1995 a 35-hour

week was finally achieved. The unions (mostly metal and printing) again conceded to more flexibility. Thirteen percent of the employees in a plant may opt to work up to 40 hours per week, but nobody can be obliged to work overtime. Longer hours must be compensated with sabbaticals within two years. Employees with small children have the right to work flextime and may take parental leave for 5 years with re-employment guaranteed in factories of more than 500 employees.

Since 1985, numerous studies have been completed on the employment effects of Germany industry's 38.5 workweek with relatively fewer reports focusing on the labor productivity impact. The vast majority of studies lament the difficulties in separating the employment impact of working-time reductions from those of economic growth and technological change. However, nearly every analysis, including those of the employer's association, concludes that working-time reductions had a positive employment effect (Nyland, 1989).

German labor unions estimate that one million jobs were saved or created by work time reductions implemented from the mid-80s to mid-90s. Yet, unemployment remains stubbornly high – at roughly 10%. More ambitious plans are now being proposed to reduce the workweek even further. In May 1998, IG Metall approved a new campaign for a 32-hour week, or 1400 hours annually. The head of the DGB trade union federation has even spoken of 25 hours as an eventual goal. German labor is also debating whether to stick to the traditional demand of shorter hours for the same pay, or to embrace a "solidaristic wage policy" which accepts some loss in pay for high-income workers in return for more job creation.

A rare exception to the dearth of work time reduction studies focusing on the productivity benefits of work time reductions in Germany is a report on work-time-induced stress and strain prepared by Naschold (1979) for the International Institute for Comparative Social Research. By the late 1970s, the received wisdom was that work time regimes were low enough to avoid substantial work induced health problems. Naschold and his colleagues attempted to discern whether the time element accounted for overall strain and stress to a degree that justifies a further curtailment of working time. They concluded that changes in the production process have led to changed requirements as regards skill and work capacity, resulting from workers having greater responsibility and accountability in the workplace. These changes, in turn, reflect changes in the form of physical and mental strain and stress emanating from work, and these changes are increasingly undermining the health of the working population. Naschold castigates those scholars who presumed, without any evidence, that working times and human capacities are no longer in conflict. Naschold (1979, p.36) states, "the abstract and moralistic argument often heard during the fifties and again today, that a forty-hour week is an optimal duration overlooks and underestimates a historical change in the risk structure." The risk structure encompasses many labor market changes, chief among them being increased work intensity, responsibility and accountability all in a period of stagnant work time.

Clearly, economic investigations of work time reductions in a variety of countries reveal that work time and output are not proportionately related. Rather, they tend to suggest that there may be substantial productivity and employment gains to be reaped from work time reduction. As intuition would anticipate, the

macroeconomic evidence appears to parallel the results of work time reductions implemented at the firm-level. These results lend credence to the claim that the benefits realized by firms from implementing efficiency *weeks* tends to spill over into macroeconomic improvements that ultimately result in the betterment of society. Countries that choose to ignore these preliminary results run the risk of forfeiting aggregate employment and labor productivity improvements – generally accepted ways of bolstering a nation's long run standard of living.

To summarize this chapter, excessive work hours create social costs that fall beyond the purview of the typical externality discussion. Since many of the social costs of long work hours are of the nature of social opportunity costs, they are rarely reflected in market decision-making. The failure of the employment negotiation process to internalize the true cost of extensive work hours results in substantial societal costs. These costs are often hidden, but even when they are patent they may be incalculable. For instance, it is difficult to place a market value on the health of the workforce or the productivity of future workers. However, innovative measures of a nation's broader social health are beginning to lend economists some insight into the social implications of economic decision-making. The evidence presented in this chapter has suggested that the social costs of an insouciant reliance on the market determination process may be far more prodigious than most economists would anticipate.

This chapter has also shown how a reduction in work time can translate into socially-productive free time. Rather than merely being an opportunity to recuperate

from market work, free-time will hopefully become additional time for self-directed home production or useful human capital investments. America's relatively well-functioning democracy has the potential to produce more liberating leisure time and perhaps even more goods while using fewer resources. Whether measured by traditional pecuniary standards or more humanistic indicators, the achievement of more free-time and constant or increasing material possessions results in a higher and more sustainable standard of living.

SUMMARY AND CONCLUSIONS

John Kenneth Galbraith has often commented that the true province of the economist lies in addressing the anxieties, desires and vicissitudes that afflict the majority of inhabitants within a society. Rather than debating the metaphysical laws of market equilibrium or the behavior of abstract economic actors, an economist's faculties should be directed by the modern concerns of workers, consumers, investors, employers and the remaining host of economic agents. John Maynard Keynes (1978) attempted to address those anxieties when he wrote, in Economic Consequences for our Grandchildren, that we would be nearing the day when

Three-hour shifts or a fifteen-hour week would be quite enough to satisfy the old Adam in most of us. [Leaving the American worker to face the real problem of] how to use his freedom from pressing economic cares, how to occupy the leisure, which science and compound interest will have won for him, to live wisely and agreeably well."

This research has utilized a holistic approach to address the work time anxiety that is increasingly being experienced by workers in the twenty-first century. This alternative narrative of work time has hopefully broadened the reader's vision and inspired a willingness to conceptualize alternative approaches to work time determination. The open-minded approach to work time determination that this alternative methodology has attempted to inspire will hopefully do a better job addressing the anxieties of the US labor market, fulfilling the *raison d'être* that Galbraith has envisioned for the economics profession. The anxieties of the labor

market cannot be denied. They are manifest in a variegated and growing body of evidence that shows that increasing numbers of contemporary workers perceive themselves to be overworked and generally harried in their struggle to perform their work tasks as well as other critically important social functions such as human reproduction and elderly care. A pernicious conflict exists in America today between recalcitrant work times and a desire for more free time. Although the growing mismatch between the number of hours worked and the number of work hours desired appears to be fertile ground for economists, it has gone balefully uncultivated. The narrow calculus employed by mainstream economists has proven to be largely incapable of addressing these social conflicts, whereas the heterodox approach views them as central to any work time discussion. Therefore, the critical historical method of analysis results in a superior understanding of the problems and potential solutions surrounding the issue of work time.

The critical historical analysis approach compels the economist to be mindful of the plethora of societal issues that need to be delicately balanced when offering commentary in the work time province. The prudent practice of economics must begin to concern itself with more than imprecise notions of labor productivity and idle acceptance of current labor market outcomes. When more than one-half of the working population articulates a desire to trade a day's wages for a day's work, it casts serious suspicion on the notion that work times are optimally-determined by sovereign workers striking agreements with competitive firms. It also calls into question the firm's acumen in optimizing labor inputs, lending substantial credence to Leibenstein's claim that firms rarely optimize factor use and the many market

imperfections currently being emphasized by New Institutional Economists. The discontent displayed by workers also suggests a significant dissatisfaction with the organization of society into an intense market system, and lends merit to a search for an alternative method of dividing society's labors.

This discourse has presented manifold heterodox explanations of the barriers to optimally-determined work times. Perhaps the most heartening evidence that these barriers are indeed surmountable is provided by work time experiments presently taking place in Europe. Given the homogeneous nature of European and American products and production processes, the lessons being learned on the European continent lend themselves to the United States as long as other societal issues (e.g. healthcare and welfare systems) are given ample consideration. Work time experiments have suggested that the 40-hour workweek standard has been antiquated by the drastically altered demographics of the workforce and the highly automated workplace of the "new economy." Indeed, the time may be ripe for a widespread revolution in work time.

Whether the typical American worker toils longer today than in previous decades remains an open question, but the renewed debate over work time has shed considerable light on the issue of correctly measuring work time. The work time trends of specific labor market sub-groups have proven less controversial than the trend of the average worker. Combined household labor hours, for instance, have burgeoned over the last two decades, forcing heads of households to economize on their non-work time. This may be the most salient and logical reason why workers feel overworked, but it is certainly not the only explanation. Other factors that may

be contributing to the perception of overwork include; the erosion of wages and the welfare state, an obsession with the pecuniary aspect of life, the income and production fallacy, and the separation from community due to greater labor mobility.

Numerous explanations as to why work time has not been optimized in both an economic and social context have been examined as well as some of the costs related to excessive work hours. The standard income/leisure trade-off explanation of the labor supply curve has displayed a misplaced concreteness in failing to incorporate the complex decision making of workers. In short, the decision to work or engage in non-paid activities is governed by more than the traditional income/leisure utility analysis is able to encapsulate. Since a substantial portion of the social costs of overwork are immeasurable or imperceptible, it is highly unlikely that the true social cost of excessive work times can ever be represented in a work time utility function.

The efficiency *week* approach to work time determination offers a humanistic alternative for employers to deploy in reducing their per unit labor costs for generations to come. The efficiency *week* concept asserts that not only will employers benefit from a myriad of productivity enhancing effects such as reduced turnover and lower monitoring costs but society at large will benefit from workers having more balance in their lives. The societal benefits that accrue to workers are likely to “feedback” into the productivity of future workers and further benefit the firm. The fact that modern market economies put great store in the productivity of future workers is evidenced by the prodigious amounts of money devoted to education and training in the industrialized world. It seems counterproductive then to

throw money at the objective of human capital transfer without providing the requisite time for those transfers to be made. As has been shown by experiments across various countries, industries, and types of organizations, reduced work times can result in a rather immediate diminution of per unit labor costs as well as broader societal costs.

The fact that output does not rise or fall in direct proportion to the number of hours worked is a lesson that has seemingly been relearned by each generation. In 1848, the English parliament passed the ten-hours law and total output per-worker, per-day increased. In the 1890s, employers experimented widely with the eight-hour day and repeatedly found that total output per-worker increased. In the first decades of the 20th century, Frederick W. Taylor, the originator of "scientific management" prescribed reduced work times and attained remarkable increases in per-worker output. In the 1920s, companies like Ford and Kellogg experimented for several years with shorter work schedules and widely praised shorter hours in fostering productivity windfalls. Contemporary capitalists have realized equally favorable results from work hour reductions, prompting European governments to take a rather progressive approach to work time legislation.

Despite these historical lessons, the shorter work time movement has met resistance at every step along the way – in the 1840s, the 1890s and the 1920s the consensus of business opinion insisted that shorter hours would strangle output and spell economic ruin. The hope among a growing movement of “downsizers” and short-hours activists is that the twenty-first century capitalists will be more accepting

of productivity-enhancing reductions in work time. In lobbying employers to take an open-minded approach to work scheduling, workers now have a wealth of firm-specific evidence to draw upon. As more restrictions on work time are legislated (most likely in Europe), broader macroeconomic data may increasingly become available that corroborates the anecdotal experience provided by a growing number of firms.

The paramount result of reduced work time experiments in both the US and Europe has been that per unit labor costs were diminished through a reduction in working hours. This result has typically been a by-product of other objectives such as increased employee retention or reduced unemployment. Thus increasing worker productivity can become a valid objective of reduced workweeks in its own right. However, the societal gains that accrue from workers having more time with their families should not be overlooked as they irrefutably feed back into the productivity of both current and future workers. Although a few companies, such as Kelloggs, have been able to empirically document the productivity gains resulting from the shorter working day, there are doubtless societal and lagged benefits that have not been captured by industrial statistics.

Abundant research has shown that the productivity of future workers depends heavily on parental involvement during their formative years. Haveman and Wolfe (1995), as well as numerous other social scientists, have shown that the best predictor of a child's economic attainment is "home investment." Consequently, shorter work durations may have a lagged productivity effect that may not manifest itself until the

offspring of the current workforce enters the labor market. Indeed, the lagged benefits of work time reductions should be given more sway in the work time determination process than it has hitherto been afforded.

Competitive Issues

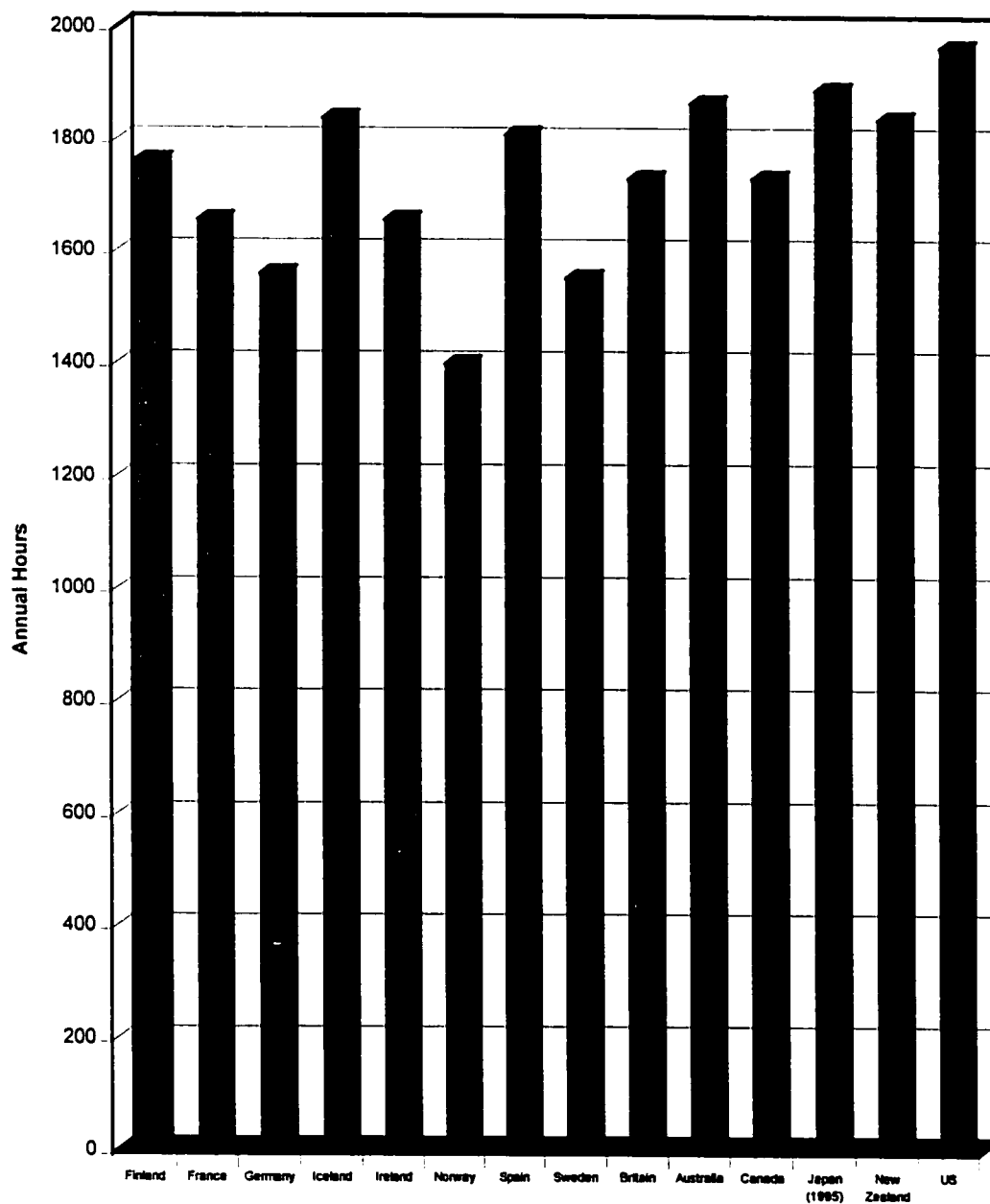
In order to avoid the criticism of offering a tinctured analysis, it is conceded that the firm may incur real costs if the productivity offset of shorter work hours is not complete or less than immediate. With shorter work schedules, more employees may need to be trained to meet the erstwhile scale of production. This may lead to higher communication and coordination costs in some work settings. Economies of scale in training – that is the training and better coordination of multiple workers as opposed to individual attention – could limit some of the costs, but it is probable that at least some employers would experience moderate cost increases while expanding payrolls.

Ideally, workweek reductions would eventually be an international effort so that the penalties or disadvantages to firms located in progressive countries would be mitigated. In reality, however, a workweek reduction, without wage or benefit cuts, may increase payroll expenses if firms do not experience the immediate productivity gains predicted by the efficiency *week* hypothesis. Hiring more workers will prove to be most costly to firms with substantial training costs and generous benefit plans. In order to avoid penalizing these types of corporate investments, it may be prudent to offer temporary subsidies or some other sort of assistance to employers in an attempt to keep them internationally competitive. There is consequently a role for a global

trade entity to play in balancing the international playing field. The “global policing” of work time is not unlike the endeavor to eliminate international competition based on low wages or inhumane working conditions. Indeed, long work hours are an important criteria in the assessment of tolerable working conditions.

There are global trade entities presently in place that could assume a much more aggressive role in standardizing work hours across industrialized nations. The World Trade Organization, for instance, could put pressure on those countries that are slow to adopt work hours that are comparable to their international competitors. McCarthy and McGaughey (1989) argue that it was indeed international trade pressures that forced Japanese leaders to legislate work time reduction in the 1980s. Today, however, the United States would likely be the first country to receive demands from its international competitors to reduce its annual work hours. Figure 6 suggests that the US may have recently been gaining a competitive advantage on the basis of long work hours, which could quite possibly become a contentious trade issue.

Figure 6. Average Annual Work Hours in Select Industrial Countries, 1997



The effects of reduced work time on domestic commerce is also a concern as firm profits may suffer in the short run until productivity improvements take hold. Payroll expansion is not costless, particularly in the US where health benefits are contingent upon an attachment to the workforce. Many firms are therefore likely to incur expenses that must be absorbed by higher prices or lower profitability. However, a substantial portion of the largely temporary training and recruitment expenses incurred by employers could be borne by the state in order to ease the burden that reduced work time might have on profitability and investment. At a minimum, the state could offer a reprieve on unemployment compensation premiums to firms expanding payrolls. At a more ambitious level, the public provision of healthcare would free employers from a rather substantial payroll expense.

Severing the link between certain employee benefits and employment could help stabilize economic activity and the investment predicated upon it. Particularly if one assumes a Chartalist approach to government finance, it is in the interest of the government to assume a portion of the fixed cost of employment.²² For instance, if benefits were paid by the government, there would be less financial urgency for firms to lay-off workers in slack economic times, thereby lowering government unemployment insurance and welfare payments. The French have been capitalizing on this principle since 1996, when the government announced that it would pay nearly half of the payroll cost of any company that reduced its average workweek by 15 percent.

²² Wray et al (1999) propose the government as an employer of last resort. Assisting in the expansion of payrolls can be viewed as a movement to that end.

A portion of the dividends from the reduction in unemployment compensation and other assistance programs could be earmarked to assist employers in the expansion of their payrolls. The government could also lay claim to a higher overtime premium to help pay for expanding payrolls. In other words, the employer could pay double-time for overtime hours while the employee continues to receive time and a half. The additional 50 percent of the hourly wage collected by the government could be used to subsidize the expansion of private payrolls, mitigating any short-term profitability problems for employers. When one considers the productivity effects fostered by overtime reductions, a higher overtime penalty rate seems less than onerous. The European Trade Union Institute states that the productivity gains from an overtime reduction scheme would exceed those obtained from a shorter normal working week (Cuviller, 1984).

Another competitive concern of work hours legislation should be to set a ceiling on weekly hours that discourages unscrupulous firms from competing on the basis of excessive work hours. Setting an economy-wide standard for hours of work close to that of the most efficient firms increases those firms' ability to benefit from their efficiency. It also makes it harder for inefficient firms to pass their hidden social costs on to the public in the form of substandard working conditions, wasted skills and knowledge, and stressfully long hours of work.

Over the longer term, competition will press the less efficient firms to invest in improved techniques and better management. The long-term employment gains come, not from the sharing out of an existing amount of work (although short-term

employment gains may be realized), but from the lower costs of production and higher effective demand that shorter work times stimulate. The main obstacle to understanding this dynamic comes from the stubborn (and highly unsupportable) assumption that output increases or decreases in direct proportion to the number of hours worked.

Akin to the shock-effect of higher minimum wages in which the higher price of labor forces inefficient firms out of operation or to employ more productive technology, a work hour reduction can have equally salutary effects on industry-wide productivity. Indeed the existence of minimum wage laws confirms a consensus that those firms whose competitive survival is predicated on low wages deserve be culled from the market by legislative efforts. The same logic should hold for long work hours, especially when considering that most salaried workers are not being compensated for their additional efforts.

Ideally, direct labor market intervention would be coupled with other policy initiatives designed to soften the employer's labor costs in an effort to keep them globally competitive. Broad-sweeping social measures could lower the firm's labor costs by shifting some of the fringe benefit expenses to public funding sources. As previously mentioned, the most effective public endeavor might be the establishment of a national health service that severs the provision of medical attention from the condition of employment. Short of such far-reaching reforms, there are other, more simplistic, ways the government could foster shorter and more-flexible work hours without compromising economic output. For a true work time revolution to come to

fruition, the government would most likely need to play an active role in support of longer establishment hours. In addition to simply altering local ordinances that presently limit operating hours, local authorities may need to mandate that certain critical support services extend their hours of operation. For instance, the government may need to expand police protection and like services for nighttime workers and consumers of market services. There may also be a role for peace officers to play in the regulation of daytime noise in residential areas.²³

Immediately switching to a reduced workweek of 32 hours would be tantamount to salaried workers receiving a 20 percent pay increase overnight. Under such a circumstance both the efficiency wage and efficiency week factors would come to force on the rate of productivity. Until the productivity gains are manifest, however, some may argue that we are paying people not to work. A powerful rejoinder can be borrowed from our nations agricultural policy. If we pay farmers not to farm because they are too productive, why not pay workers not to work for similar reasons?

Most of the problems mentioned here would be less daunting if a shorter workweek were to be phased in on a one-hour-per-year basis, but there will still be transitional losses in the short-run (Gans, 1985). Those employers who do not immediately experience productivity gains from the implementation of an 'efficient workweek' will have to receive compensation for their higher labor costs until the social boons to productivity take hold. If these firms fail to become competitive in

²³ Some European industrial towns offer soundproofed housing to shift workers at subsidized rates (Owen, 1989 p. 146)

the long-run, however, they should be abandoned on the grounds of sound industrial policy. In summation, the drawbacks to a national workweek reduction are but dust in the balance when weighed against the economic and social benefits of shorter working hours.

The Role of Government

Employers may now have a choice; in order to reduce worker turnover and boost both present and future productivity, they can offer either higher wages or shorter workweeks. If employers are too myopic to grasp the long-run productivity gains that abound to their workers and society from reduced workweeks, there is a role for the government to play in legislating such improvements. Historical evidence has indicated that when firms utilize excessively long work durations substantial costs are borne by society. If the medical, familial and social costs of overwork could somehow be quantified, then an internalization of those negative externalities would lead to a socially-superior allocation of resources. Failure to incorporate the copious societal costs of higher stress levels, parenting deficit, fatigue, reduced volunteerism, lower property values, lack of training and employment benefits, and atrophying labor skills into the work time calculus not only impedes the productivity of current workers but is doubly disastrous for future workers. Thus, if bounded rationality, habituation, myopia or some other barrier stands in the way of a socially-efficient work hour distribution, there may well be a role for government for to play in the regulation of work durations.

A work hour reduction campaign should invoke a holistic policy designed to accomplish the following goals; increase the number of people working, affect more equity in the distribution of work hours by limiting excessive work hours, enhance labor productivity, intensify daily productivity through an increase in shiftwork that increases capital utilization, and provide hours relief to all workers – but particularly to harried households with children. In order to accomplish these goals, the research provided in this dissertation suggests that a specific legislative agenda should aspire to: 1) reduce the legal workweek to somewhere in the range of 32-35 hours per week;²⁴ 2) *slightly* increase the overtime penalty but with added flexibility (i.e. a 4-6 week average) and broaden its applicability to include salaried workers; 3) force workers to remit the additional overtime penalty pay to the government to help finance unemployment insurance tax cuts for employers that expand their payrolls through work time reduction; 4) repeal any comp time measures that grant employers interest free labor loans from their workers.

Government involvement can take the form of encouragement or direct regulation. Tax policy has gained ascendancy as a favored way to inveigh individuals toward a particular form of behavior. Tax incentives are considered a less-intrusive form of behavior modification than regulation and enforcement and could be particularly successful at fostering short weeks when applied to the payroll taxes paid by both workers and employers. For instance, a tax on overtime hours could alter the

²⁴ If an ancillary goal of working time reduction is full employment, Herbert Gans (1985, p.58) suggests a 24-hour workweek as a societal standard. However, most analysts believe that a more immediate and politically-palatable target of between 32 and 35 hours per week is a realistic starting point.

employer's payroll calculus enough to encourage the hiring of more employees rather than relying on overtime hours. Moreover, a reduction in Social Security taxes would lower the firm's overall payroll costs relative to other production costs and possibly aid in payroll expansion.

Given the immediate productivity benefits of a shorter workweek and the existence of certain welfare capitalists within our society, it may require little persuasion to convince the private sector of the virtues of judiciously-determined workweeks. Historically, a few of America's great welfare capitalists have been cognizant of the costs of overwork and were bold enough to experiment with reduced work time. In the 1930s, W.K. Kellogg agreed with Henry Ford that the shorter workday was "one of the finest cost-cutting moves ever made (Hunnicut, 1996 p.32)." Similar to what Henry Ford was told when he posited his \$5 workday, a typical retort to earlier work reduction proposals was that workers would fill their increased leisure time with crime, vice, decay, degeneration, frivolity and drunkenness. However, just as Ford's workers opted to drive Thunderbirds rather than to drink Thunderbird, the evidence suggests that reduced workweeks would also foster more virtue than vice (LaJeunesse, 1999).

In order to ensure that the shift towards work hour reduction is widespread and economically viable, however, the government should take an active role in discouraging, if not limiting, long work hours. If mere suasion and tax incentives do not result in employers and workers mutually reducing work hours, legislative efforts

can be combined with payroll tax reform to reduce the average workweek.²⁵

Proposals of this sort are aided by the fact that a framework for a legislated work hour reduction is already in place in the form of the Fair Labor Standards Act, which presently limits work hours for the majority of hourly workers in the United States. It is worthy of mention that altering the FLSA does not create additional laws, but simply updates existing legislation. Profound economic, technological, and demographic changes have taken place since the FLSA was written in 1938, warranting a broad revision of the statutes. Senator John Conyers of Michigan has repeatedly proposed legislation to update the FLSA. His plan includes: reducing the standard workweek from 40 to 32 over an eight year period, increasing the penalty rate for overtime from time-and-a-half to double-time, and prohibiting mandatory overtime in labor contracts. In an era when machines and computers are performing an increasing portion of the world's work, the plan rightfully creates significant disincentives to long work hours.

Employers have devised creative gimmickry in appealing to worker demands for more free time. Flexible workweeks and compensation time in lieu of overtime pay are two of the more recent tactics. Flexibility as to when hours of work can be performed may relieve some of the market's burden on home production and social reproduction. It may also serve to reduce employee shirking and reduce turnover, if employees view the flextime as a gift from their employer (Akerlof, 1984). However, the flexible workweek does not address the existence of untapped work time or the

²⁵ The legislative objective of reducing the 'average' workweek is meant to include annual adjustments to work time such as vacation leave, which at only a fortnight in the US pales in comparison to the

petty pilfering of work time that Marx felt was endemic to the extraction of labor power from labor. If an employee's physical presence is still required for a predetermined amount of time, much of that time may be spent in idle pursuits. Therefore, flexible workweeks can only be expected to yield a fraction of the productivity benefits brought about by shorter workweeks.

Recent legislation has proposed that employers be allowed to offer non-monetary compensation (comp time) in lieu of overtime wages. As Lonnie Golden (1998) points out, the comp time is often delayed while the employer makes use of cheap overtime labor. Golden (1998, p. 41) states, "the ironic consequence is that managers with short time horizons will restrain current payroll costs by pushing more workers into the comp time option – and then deferring the use of comp time until the balances must be paid in cash at the end of the following January." Comp time effectively results in employees giving interest-free loans to their employers with minimal impact on the length of work hours. In fact such a policy creates an incentive for firms to increase their use of overtime labor, because they can delay the monetary penalty until some point in the future when their interest-free payment will be made in devalued dollars.

The Fair Labor Standards Act should not be altered to include comp time as a form of wage trade unless strict regulations ensure that workers are able to utilize the comp time within a short time horizon. Furthermore, if comp time is included in the FSLA, it should be extended to cover professionals and managers. Employers would then incur additional costs when requiring professional and managerial staffs

four or six weeks European workers have long enjoyed.

to work more than 40 hours per week. The ultimate objective of the FLSA should be to shift hours from the overworked to the underemployed, and to allow for shorter, more flexible work schedules. According to Golden (1998, p. 41) “evidence abounds that if firms take this ‘high road’ their costs may rise at first, but there will be great social benefits for workers, such as time for family and lifelong learning.” The firm will also benefit in the long run as workforce grows more productive and contented with their work arrangements.

There has been a growing tendency among employers to respond to work reduction mandates by increasing the utilization of overtime. Given the current cost of payroll additions, a free-standing mandate of reduced workweeks would be a costly proposition that employers would likely absorb through an increased reliance on overtime. Thus, the issue of the overtime penalty deserves special attention. As the cost of fringe benefits and of hiring and firing employees has increased, the time-and-a-half penalty has not served as an effective deterrent to excessive work hours (O’Hara, 1998 and Golden, 1999). In order to prevent the pernicious response of more overtime to shorter work hours legislation, the government should establish a punitive cost to the long-term use of overtime. The occasional use of overtime hours is ineluctable and quite acceptable. However, overtime work hours have become an institution in many firms and an anticipated source of income for many workers. Thus, the objective of work time legislation should not be the complete elimination of overtime, but rather the curtailment of its permanence in any one worker’s life.

Despite the overtime premium rate, it is often cheaper for employers to use overtime rather than hire more workers. It is cheaper because of the high proportion

of fixed costs per worker -- costs of hiring, training, fringe benefits, statutory holidays and breaks. The link between high per worker costs and overtime is old news and it has long been understood that public policy often encourages the long hours bias. What remains a mystery is why governments, employers and unions fail to take the logical next step: make labor costs depend as much as possible on the actual hours worked rather than the number of workers employed.

Zealous advocacy of an increase in the overtime premium typically fails to address the possibility that such a penalty could stimulate a further increase in fringe benefits, which could, in turn, offset the increase in the premium. If we accept that the recent rise of fringe benefits may have been-- at least in part-- a strategic response by employers to the overtime premium, then the best argument against increasing the premium would be its futility. By way of example, if we raise the overtime premium to 3 times, firms may reduce wages and supplant them with other non-wage benefits, potentially leaving the workweek unchanged. The possibility of benefits supplanting wages lends validity to increasing the inclusion of overtime hours rather than extreme increases in the overtime wage penalty. Consequently, the best way to deter overtime hours may be to slightly increase the overtime premium to double-time while greatly increasing the number of employees to whom it applies.

Advocates of reduced work time have often argued that short workweeks might produce less waste (McCarthy and McGaughey, 1989 and Bowles, et al, 1990). This research has suggested that such claims are largely true, but it bears repeating that a reduction in waste is not synonymous with a reduction in output. As the

efficiency *week* illustrates, the economy may become even more efficient with shorter workweeks. It is certainly plausible that this enhanced productivity could be used in wasteful manner, but it is less likely so if workers retain command over the conditions of their labor. A reduction of hours that brings the division of labor under the calculus of the household rather than the factory foreman could eliminate a substantial amount of social waste. The familiar benefits of decreased unemployment and increased free time such as lower crime rates, less suicide, less alcoholism, more volunteerism, better kept residences, and guidance for troubled teenagers, would likely abound from shorter work times.²⁶

American society has used past productivity advances to increase production in search of greater consumption, rather than greater free time. Falling victim to the trap, parents have been convinced that working long hours in order to afford their children such things as video games, unsupervised internet access and a latch key existence is well worth the additional effort. What seems to be increasingly apparent is that society would be better served if those assiduous workers were spending more time with their children and less time in their material pursuits.

The optimal length of the standard workweek has changed historically along with changes in the intensity of work – and it will continue to change. The optimal length at any particular time can only be determined by experimentation. The experimental research is not simple – the relationship between the hours of work and

²⁶ A decent review of the social costs of unemployment is found in an Economic Policy Institute report by Merva and Fowles (1992). They argue that a 1 percent increase in unemployment results in a 6.7 percent increase in homicides, a 3.4 percent increase in violent crimes, and a 2.4 percent increase in property crimes.

the intensity of effort is not as mechanical as previously thought. Past research on optimal work times has invariably found a lag between a change in schedule and an increase in productivity as people work out new ways of doing things and as they gradually recover from accumulated fatigue (Nyland 1989).

The question of the appropriateness of work time has been continually asked, by economists, but the answer has arguable not received the attention it deserves.

Galbraith (1984, p.265) likely speaks for many heterodox economists when he asks,

Why should men struggle to maximize income when the price is many dull and dark hours of labor? Why especially should they do so as goods become more plentiful and less urgent? Why should they not seek instead to maximize the rewards of all the hours of their days? And since this is the plain and obvious aspiration of a great and growing number of the most perceptive people, why should it not be the central goal of the society?

Indeed, working more means less time spent with family and friends, in community; in nature, learning, consuming, teaching, worship, play, and in rest. As more and more harried workers come to realize these sacrifices, “maximizing the rewards of all the hours of our days,” will likely become a more important objective in our society (Galbraith, 1984). Since precious little enlarges that liberty of a person more than the ability to control the length and intensity of their labor, efforts should be taken to ensure that the great bulk of our society is at least afforded the choice of fewer possessions and more time in social pursuits over greater material acquisition.

As Popper (1972) has suggested, critical discussion can never establish adequate evidence to enable one to claim that a theory is true. However, it is possible for rational analysis to provide sufficient reason to enable the following claim: “This theory seems at present, in the light of a thorough critical discussion and of severe and

ingenious testing, by far the best; and so it seems the one nearest to truth among the competing theories” (Popper, 1972 p.82). Hopefully, this mosaic of work time issues has provided a better approximation of the truth about the effects of a work time reduction than has previously been offered in the “Panglossian 40-hour world.” A prodigious amount of myth and propaganda have always preceded efforts to reduce work time, but the subsequent evidence has almost always redeemed work time reduction as a bona fide policy to ameliorate social welfare. Indeed, as any country becomes as prosperous and hegemonic as the United States has, precious little should stand in the way of workers realizing their unparalleled prosperity in the form of more leisure time. Greater autonomy in the scheduling of work time should be given exalted status in a country founded upon independence and the pursuit of life, liberty, and happiness. For few policies have the potential of fostering more liberty and less waste than a reduction in work time.

Further Research- Reducing Workdays, Weeks, Months, Years, or Lives?

Since the manner in which work time reduction is brought into being (i.e. shorter days, weeks, years, etc.) clearly impacts the greater societal good that accrues from it, further research should attempt to address which type of work schedule regime enhances the common good. European countries have brought about a reduction in average work hours using a variety of means. Some countries have placed limits on hours worked per week while others have essentially reduced the number of weeks worked per year through vacation and parental leave requirements. Since work time reduction can obviously be achieved through a variety of means, it is

worthwhile examining the social benefits derived from at least the most popular plans.

The consequences of work time reduction policies doubtlessly depend on the method or time horizon by which they are made. The economic benefits of each method of reduction should be carefully balanced against the social benefits of other methods in order to assess the most judicious policy measure. For instance, increasing annual leaves may be more productive than workweek reductions in an economic sense due to the coordination of holidays with production downtime, but other social concerns may favor a workweek reduction.

The French Democratic Labour Confederation and the IG Metall union of Germany, argue that increasing annual leaves is a more “efficient” way to reduce work time because leave can often be granted when business is slack. At a 1982 O.E.C.D. meeting of management experts on the adjustment of working time, the participants opined that long vacations had the least disruptive effects on production. However, the French government made a quite different evaluation when their estimates concluded that the increase in productivity was negligible in the case of annual leave, but that the productivity cost compensation for weekly reductions could reach 40 percent (Cullivier, 1984).

Irrespective of the industrial benefits, the reduction of the workweek may be a more “effective” way to bolster social productivity because it encourages and sustains increased volunteerism, social engagement and human capital transfers. It is unlikely that a worker who is granted an additional two weeks vacation will be as effective a volunteer as a person who can devote every Friday afternoon to their favorite cause.

Therefore, the predictability of a workweek reduction seems to have a more salutary effect on society than people simply taking longer vacations.

Some of the evidence presented in the efficiency week section was specific to a shorter workday, but a shortened workweek seems to be a socially superior objective. The virtues of one less day in the rat race are manifold. In espousing his 3-day workweek Millard Faught (1973) contends that human nature alone, rather than economic logic or data, will have significant sway in bringing about the workweek revolution. "The fact that millions of us patently want out of the resulting rat race now has become the greatest source of pressure moving us toward a shorter *workweek*- not a shorter *workday* (Fraught, 1973)."

Other social issues warrant a reduction of the workweek over monthly, annual or lifetime hours reduction. As the conventional 5-day workweek is inimical to both the environment and the family, a reduction of working days could serve as an ameliorative social policy. Foremost, fewer days of child care per week would not only be a financial blessing to many parents, but it would also serve as a childhood development and human capital transfer scheme that could benefit the productivity of our society for years to come. The total hours of childcare utilization could also be reduced by altering schooling schedules. It is not by accident that current school schedules correspond to the demand for agricultural labor. School hours were designed to meet the need of agriculture for child labor in the summer and in the early morning and late afternoon. Demographics have since rendered this schedule inappropriate for a postindustrial society. School schedules are an anachronism that should be altered to coincide with the modern work process.

Rethinking school schedules may also afford a more efficient use of classrooms and educational facilities. Under present scheduling schemes, schools and related appurtenances sit idle for many hours of the day as well as months of the year (typically June, July and August.) By eliminating or reducing the anachronistic summer vacation, students could attend school for close to eleven months of the year. Expanding the school year could allow for a less intensive school week, which would better correspond with reduced workweeks. The issue of high teacher-to-pupil ratios can also be addressed in this manner. Rather than building more classrooms, we could reduce the teacher-to-student ratio by simply hiring more teachers and using classrooms more efficiently. Classrooms often sit vacant in the afternoons and summers across the United States. Restructuring school schedules would allow more teachers more personalized access to our students.

Secondly, as traffic and pollution problems escalate at alarming rates in most American cities, commuting less often would hopefully assuage not only our environmental woes, but also the tempers of frustrated motorists.²⁷ Traffic Engineer, Vincent R. Desimone (1971, p.9), argues that the total amount of traffic may not be affected by widespread conformity to a four-day workweek, but he has found that, “maximum relief to the congested areas and freeway system could be achieved through a four-day workweek equally rotated Monday through Saturday.” As engines burn more efficiently at optimal speeds, the environmental windfall resulting from less traffic congestion is obvious. Furthermore, the potential environmental savings

of a twenty percent reduction in dry cleaning due to the fact that some of us will be wearing business attire one-fifth as often are colossal.

An additional reason a workweek reduction is superior to other forms of reduction, is that it offers harried parents the option of making intertemporal transfers of work time. The reduced workweek could be a superior alternative to a reduced working life for families if parents are able to transfer non-work time from the future to the present. Since time deficit seems to be an acute malady among working parents, an intergenerational time transfer may serve to assuage some of the time famine. Increasing life expectancies and advancements in medical technology have created the landscape for longer-working careers. When coupled with technological unemployment due to the vast automation of production, longer working lives create the specter of structural labor surpluses if the length of the workweek remains unchanged (Rifkin, 1995).

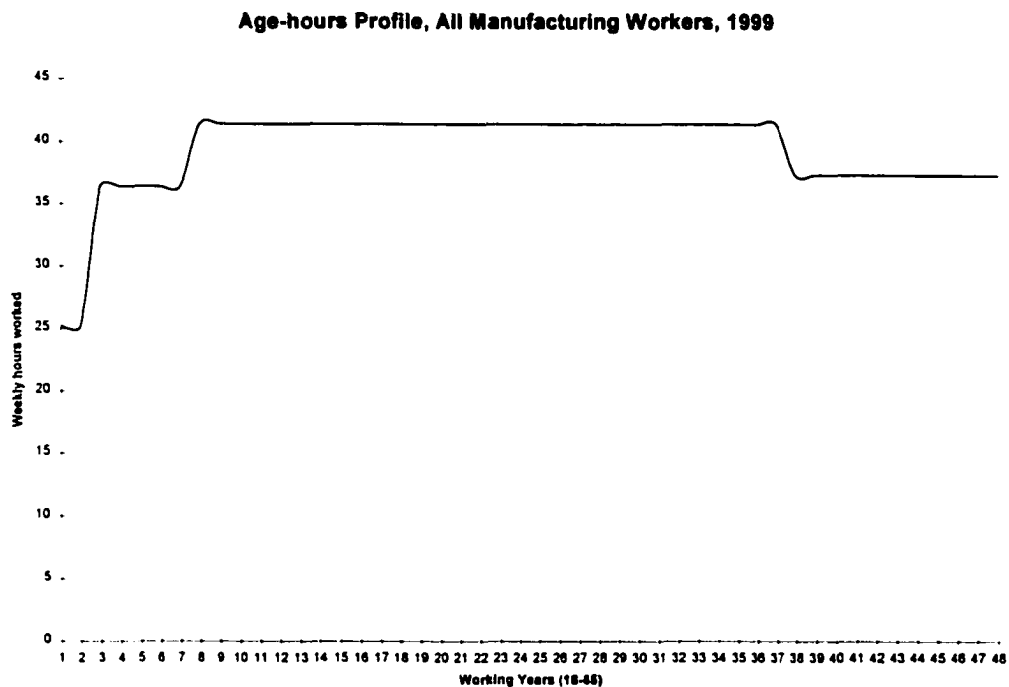
To remedy the anxieties of parents and younger workers, the structure of the workweek could borrow from those plans that attempt to smooth consumption functions by smoothing earnings patterns. Specifically, Glen Hubbard (1997) has proposed that younger workers be allowed to borrow against future social security receipts in order to bolster consumption levels in their lower earning years. Likewise, we should encourage working parents to smooth the burden of work hours by borrowing hours of retirement against longer working lives.

²⁷ The modern worker, who is increasingly able to “tele-commute,” may be able to address exigencies that arise in their absence via their home computers- making their physical presence at the workplace less important.

Figure 7 below displays the typical age-hours profile of a the US workforce.

Although the CPS data consists of rather limited age categories, it is worth mentioning that the nonlinear curve tends to peak during the same timeframe in which most families are raising children (i.e. between 25 and 52 years old.) The double burden of long work hours and child rearing could be assuaged by smoothing the age-hours profile. Allowing workers to borrow both future work time and earnings could result in a smoother or more linear curve than that sketched by the actually hours worked in Figure 7. Improving health standards, protracted life spans, and the growing earnings premium placed on education, all suggest that a smoothing of work hours could be accomplished by pushing the work hours peak towards older working ages rather than younger years. In other words, by making workweeks, or even workyears, less intensive, working lives can be prolonged so that the average senior worker is logging longer hours while parents are working less.

Figure 7. Age-Hours Profile of Manufacturing Workers



Hochschild's (1997) exposé of an anonymous multinational corporation illustrates the implicit priorities that large firms often manifest in their policies regarding work schedules. Amerco, had implemented a "40 percent system," whereby an employee could "retire" at age fifty, fifty-five, or sixty-five and then work 40 percent of his or her previous time. As one plant manager put it, "The 40 percent plan is very successful. We get their expertise. They get the balance they want (Hochschild, 1997)." The triumph of the plan left many Amerco parents wondering, "why couldn't Amerco implement a plan for young parents that it already successfully applied to older men?" Perhaps, the answer lies in the fact that the firm's "values" and workplace policies were being determined by the same hoary old men that enjoyed the benefits of the 40 percent plan.

An anonymous female Amerco executive, who had experimented with a 60 percent work schedule during the infancy of her two children, opines that:

To me, it seems like such a practical solution to just say, look if you want to have children, that's going to take time. Take time off; treat that time like graduate school or a sabbatical. And change the timetable on which you rise to where you want to go. You may lose a little ground. But you can catch up later. In fact, the real race should start later. We shouldn't think about retiring at age fifty-five. We should work until age seventy. The real heavy-duty management commitment, time commitment, should start in a major way in the mid-thirties. We could still have twenty-five or thirty years to work. Our most productive years would come *later*. When many fifty-five-year-old Amerco men are burnt out and ready to head for the golf course, we would be getting a second wind (Hochschild, 1997).

Unfortunately, this executive's vision of "part-time with ambition" existed nowhere on the Amerco landscape, and so part-time was associated with the notion of permanently renounced ambition (Hochschild, 1997).

As it stands today, many parenting workers log disproportionately long hours while grandparents often opt for early retirement to help care for their grandchildren. Essentially, the parents are often circumscribed from the child-rearing process, while the grandparents may be importuned by it. Thus, there may be an element of truth in Chris Nyland's (1989) notion of state pensions and other retirement schemes actually facilitate the intensification of the labor process by enabling those workers unable to maintain a heightened work pace to retire. Yet, if senior workers are more productive than younger workers, who are harried by their parenting duties, than quite possibly a work time transfer from younger workers to senior workers will result in a windfall of social and labor productivity.

The postponement of retirement may also ease the financial burden of attending college. Presently college attendance in the United States is more strongly

correlated with family income than academic ability (U.S. Department of Education Statistical Handbook, 1998). The fact that many students are financially constrained lends credence to an intertemporal work time transfer that affords young people the opportunity to enhance their future earnings potential. In short, the expectation of a longer, less intense, work life would provide more incentive for human capital investments at early working ages. Moreover, the ability to borrow time and money against future earnings could ease the financial burden of attending college. The granting of annual leave during production slack times could result in an annual hours reduction being more efficient than a weekly hours reduction from the employer's perspective. However, an annual hours reductions is not necessarily a better way to bring about greater social efficiency. The logistics of scheduling more volunteerism, parenting or other socially-redeeming activities into an annual leave break seem much more troublesome than devoting every fifth workday to a socially-redeeming cause in a routine fashion. In short, the social and environmental benefits of a reduced workweek far outweigh the cost advantages realized by producers from annual hours reductions.

Although it is difficult to predict with certainty how the average worker will utilize increased leisure time, normative judgments about work time and what we value as a society should be part of the work time decision-making process. If parenting is a highly valued social duty, then workweeks or workdays should be reduced rather than years or lives. This would afford working parents the opportunity to make intertemporal work time transfers akin to the consumption transfers afforded by consumer borrowing. If a clean environment is a valued objective, then a reduced

workweek that alleviates traffic congestion also has more prudence than reduced workdays or worklives. Although the results of European work time reductions suggest that nearly every type of work time reduction will foster economic and social benefits, further research should be devoted to ascertaining the best way to maximize those benefits.

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