1. SOME BRIEF REMARKS ON THE LIFE AND WORK OF JACOB MINCER

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In July 2002 a group of colleagues and students of Jacob Mincer gathered on the occasion of his 80th birthday to celebrate his accomplishments. This occasion offered an opportunity to reflect on the achievements of Jacob Mincer and the legendary Labor Workshop at Columbia which he helped found and which he conducted with Gary Becker and alone for many years.

In order to place the contributions of Mincer and the Labor Workshop in perspective, it is helpful to look back briefly to the state of labor economics in the early 1950s. At that time, most economists viewed the study of the labor market as the province of labor relations experts, institutionalists and sociologists. The dominant Keynesian paradigm in macroeconomics ignored labor supply, incentives and skill formation entirely and focused on problems of demand management. With the exception of H. Gregg Lewis at Chicago, and Melvin Reder at Stanford, the labor economists of the day did not know or apply price theory to the study of the labor market. Bodies of "facts" were accumulated which were difficult to interpret within any coherent intellectual framework.

In the mid 1950s, this began to change. Gary Becker's work on discrimination and wage differentials, H. Gregg Lewis's work on unionism and the time series of labor supply, Melvin Reder's work on the occupational wage structure and Jacob Mincer's work on human capital-induced wage differentials were the first major efforts to apply basic price theory to understand aspects of the labor market.

Building on this work, labor economics was transformed into analytical labor economics in the period 1955–1975 largely through the efforts of Gary Becker, Jacob Mincer and the participants and affiliates in the Columbia Labor Workshop, many of whom gathered to honor Mincer's birthday. An entirely new field of household economics was created by the early efforts to understand female labor supply and fertility that were centerpieces of workshop discussion. A theory of earnings determination and wage inequality emerged.

This enterprise was enriched by, and stimulated, the production of microdata that were becoming available to the economics profession on a wide scale in the 1960's. The challenge of using the new theory and the new data helped spawn the modern field of microeconometrics. The Columbia workshop attracted and produced some of the best minds in the profession who responded to the intellectual challenges and opportunities created by its pioneering research.

Central to the success of this entire enterprise was Jacob Mincer. Mincer emphasized the importance of using economics to understand data from households and the labor market. He used clearly formulated economic principles to explain the "facts," and he thought broadly and deeply. His relentless application of theory to evidence and his careful attention to the evidence makes his work both distinctive and influential.

Mincer's contributions fall into two main bodies of work. Mincer was a leading member of a group of economists at Columbia University and the University of Chicago who systematically developed the empirical foundations of human capital. His 1958 *Journal of Political Economy* article (Mincer 1958) showed the power of the concept of equalizing differences in explaining earnings inequality due to educational differences among people. His 1962 *Journal of Political Economy* paper (Mincer 1962b) presented the first systematic empirical analysis of learning on the job as a determinant of life cycle wage growth. His magisterial *Schooling, Experience and Earnings* (1974) showed the power of the human capital investment concept in accounting for diverse patterns of earnings inequality and wage growth over the life cycle. He demonstrated the empirical importance of complementarity in skill formation – that skill begets skill- and that more educated people do more post-schooling investment in learning than less educated people. This research established the Mincer earnings function as a widely used and widely replicated cornerstone for interpreting earnings data in many fields of economics. His subsequent work on job turnover, on the measurement of firm specific training, on investment responses to technology change and in accounting for the recent rise in wage inequality within an economic framework, enriched the basic Mincer model and showed its analytical and empirical power.

Mincer also pioneered the study of female labor supply and the economics of the household. His seminal 1962 paper on the labor supply of married women (Mincer 1962a) showed that accounting for the influence of the price of time – the market wage – explains why female labor supply increased at the same time that the real wealth of society (and that of the women's husbands) was increasing. It reconciled apparently contradictory time series and cross section evidence. That work, and a subsequent 1963 paper (Mincer 1963), showed the importance of accounting for the household choices women face in explaining female labor supply and fertility. This research helped to foster the emergence of household economics as an independent field within the larger discipline of labor economics. Mincer's insights on labor supply, human capital and fertility laid the foundations for understanding how economic development transforms the role of women and the family.

I conclude with a few personal notes. First, a personal note about Jacob Mincer himself. It is an amazing piece of good fortune that Jacob Mincer ever made his seminal contributions. Born into a Europe ravaged by war and persecution, Jacob Mincer survived captivity in the Holocaust only through chance. His memoirs reveal the incredible obstacles he overcame before he arrived in America in the late 1940's. He more than caught up for the time he lost in concentration camps by his extraordinarily productive stretch from age 35 to the publication of *Schooling, Experience and Earnings* (1974), at age 52.

Second, on a personal note of my own, I owe Jacob Mincer an enormous debt. As a graduate student in economics at Princeton, I was very discouraged by much of the economics that was taught there and was considering leaving the field. As a prospective development economist, I came to realize that the computation of shadow prices for project evaluation was a sterile and unproductive activity, and that the models of economic development I was reading had little contact with the real world.

My whole vision of economics changed when by chance I read Mincer's (1963) fundamental paper on female labor supply. It's concise, insightful analysis of the theory of female labor supply and its brilliant interplay of simple theory and econometrics excited me and led me to become a labor economist and work on many of the ideas and open problems that appear in that paper.

On a final personal note, my years as his junior colleague both at Columbia and the New York NBER expanded my horizons and educated me in labor economics, the economics of the household and in empirical economics. From him, and the first rate people who congregated around him as students and colleagues, I learned much. My interactions with him and his group shaped my lifetime research agenda.

We are all grateful to Jacob Mincer for illuminating the study of empirical economics.

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