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A Brief History of QOL Studies in Economics

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Concerns about quality of life are of central importance throughout the history of economics, even though such concerns are sometimes implicit, rather than openly addressed. Of foremost significance as a measure of welfare has been national income, which, in the first half of the twentieth century, was transformed from an abstract theoretical concept to a solid empirical measure. In the last half of the twentieth century, as national income measurement evolved into a system of national economic accounts with GDP at the center, alternative approaches to measuring well-being have been proposed and developed, many of them foreshadowing or linking up with today's quality-of-life measures. These approaches go in several directions. There are attempts to restore GDP to the original goal of measuring economic welfare by adjusting it for various "goods" and "bads." There are also efforts to develop measures that relate directly to specific aspects of quality of life, such as food and housing. Finally, there are attempts to develop more comprehensive indicators of well-being by synthesizing indicators relating to material living conditions, length of life, education, and the like.

All of this work has involved what are usually referred to as "objective" measures, although, as shall be noted below, this work, including that on national income and GDP inevitably requires subjective judgments by the analyst on the meaning and content of well-being. Personal reports on feelings of well-being, such as individual happiness or life satisfaction, have customarily been dismissed by economists on the grounds that it's

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what people do that's important, not what they say (Fuchs 1983, 14). As data on happiness and life satisfaction have accumulated, however, there has been a small but growing amount of economic research on reported happiness and life satisfaction, and these measures have started to be used in discussions and analyses of public policy choices (Donovan and Halpern, 2002; Gruber and Mullainathan, 2002).

In what follows, I touch briefly on economic research in each of these areas of quality-of-life research, focusing chiefly on developments in the United States.[2]

National income and GDP

These days GDP is commonly faulted as a measure of well-being, but it was not always that way. Since the French Physiocrats of the late eighteenth century, national income has played a central role in economic analysis. In the 1920s volume, The Economics of Welfare, by British economist A.C. Pigou, one of the founding fathers of modern welfare economics, national income is taken as the primary measure of economic well-being. Pigou also distinguishes between economic welfare and a broader concept of "social" welfare, of which economic well-being is a component. But his view "that there is a clear presumption that changes in economic welfare indicate changes in social welfare in the same direction, if not the same degree" is still widely held by economists (Pigou, 1929, p. 3).

The foundation work in the measurement of national income was done by Simon Kuznets, the third Nobel laureate in economics. Kuznets built on the work of numerous predecessors, and was paralleled in his efforts by other scholars, most notably British

[2] For a more extended historical overview, see Engerman, 1997. A good brief survey is also contained in Donovan and Halpern, 2002, Annex 2.

statistician A. L. Bowley. But it was Kuznets who, starting in the late 1920s, established a comprehensive research program on national income under the sponsorship of the National Bureau of Economic Research (NBER), which was at the time the United States' leading organization in empirical economic research. Kuznets played the leading role in the early development of United States official measures of national income, and was a founder of the NBER's Conference on Research in Income and Wealth, and subsequently the International Association for Research in Income and Wealth. The long series of conference volumes produced by these two Associations explore in detail many of the issues of national income measurement.

Kuznets identified and examined at length the same questions that plague scholars today in developing a comprehensive measure of well-being. He argued vigorously that national income is an attempt to appraise an economy's performance in the light of some generally accepted end purpose(s); in ordinary times, this purpose is to provide commodities and services that contribute to consumer's well-being, both present and future. Empirical implementation of this concept raises three types of questions – scope, netness, and valuation – questions which continue to be debated today in all quality-of-life assessments. With regard to scope the problem of non-market economic activity – goods produced and consumed in kind – was of major importance, particularly with regard to goods produced and consumed within the home. Less important quantitatively, but not conceptually, were the products of activities often deemed illegal, such as narcotics and the services of prostitutes. The issue of netness involves distinguishing between final and intermediate goods. Are governmental expenditures to provide police and fire protection appropriately thought of as end products or are such outlays largely necessary costs to ensure the production by business firms of goods that do contribute directly to consumer welfare? What of military expenditures – does a growth in such expenditures translate into a corresponding increase in consumer welfare? Are consumer outlays on commutation and labor union fees a final product or a cost to consumers of securing the final goods that do contribute to their well-being? And once one has established in terms of scope and netness the goods that are appropriately included in national income, how should they be valued in order to aggregate them into a summary measure? Kuznets brought to consideration of these questions a concern with comparing welfare across widely diverse economies – from Great Britain to India, from the United States to the former Soviet Union. Much of what he said is as germane today as it was more than half a century ago (Kuznets 1933, 1941, 1945, 1946).

The obvious element of subjectivity in national income measurement, which Kuznets repeatedly stressed, was hard for those in government and international agencies to swallow. Spurred by a desire to develop general purpose measures and to clothe their work in the mantle of objectivity, they formulated a system of national economic accounts, on analogy with business accounts. Subjective judgments defining the scope, netness, and valuation of the economy's end products were described merely as "conventions." In the United States, publication of these national income accounts occasioned a heated exchange between Kuznets and officials in the Department of Commerce's National Income Division, some of whom were Kuznets' former students (Kuznets 1948; Gilbert, Jaszi, Dennison, and Schwartz, 1948). In time the weight, if not the wisdom, of officialdom prevailed, and a common system of national economic accounts was adopted by the United States, United Kingdom, and other countries, as well as the Statistical Office of the United Nations, due particularly to the pioneering work of 1984 Nobel laureate Sir Richard Stone (1985).

Adjusting GDP

Despite the establishment of "official" concepts, the thorny issue of the use of such magnitudes as GDP or GNP as a measure of economic welfare surfaced repeatedly in the economics literature and was a recurrent theme in the volumes of the two Associations on Research in Income and Wealth. Perhaps the best known attempt within the economics profession to adjust GNP to obtain a more meaningful measure of economic well-being is a study by William Nordhaus and James Tobin (1973), which is a direct forerunner of contemporary measures such as the Index of Sustainable Economic Welfare. Nordhaus and Tobin follow Kuznets' ideas of scope and netness by adjusting GNP to include the value of nonmarket economic activities; by eliminating "consumer costs," governmental military spending and similar outlays necessary for the economy's functioning; and by subtracting the costs of "disamenities" associated with urbanization and congestion. Of these, the biggest adjustment by far is the imputation for nonmarket activities, which is nearly equal in magnitude to the flow of consumer goods and services through the market. The total for consumption thus obtained is then virtually doubled by an imputation for the value of leisure, on the grounds that twice as much consumer output would have been available if people had forgone leisure for work. These adjustments to GNP are made to United States data for 1929 to 1965. In the end Nordhaus and Tobin arrive at a conclusion, which, like that of Pigou's noted above, is comforting to economists: "Although GNP and other national income aggregates are imperfect measures of welfare, the broad picture of secular progress which they convey remains after correction of their most obvious differences" (Nordhaus and Tobin, 1973, p. 532). In contrast, the recently proposed Index of Sustainable Economic Welfare grows hardly at all in the United Kingdom between 1950 and 1996 (Jackson, Marks, Ralls, and Stymne, 1998). Among other differences from the Nordhaus-Tobin measure, this index includes sizeable adjustments for income inequality, costs of climate change, and the cost of ozone depletion, and does not include an imputation for leisure.

Alternative Indicators

Early on, as national income morphed into a system of "general purpose" national accounts, some economists interested in measuring welfare began developing alternative indicators. Typically this work proposed a set of measures, each relating to a specific dimension of well-being, and then combined the elements of the set into a single comprehensive measure. Some of this work focused primarily on economic well-being, especially consumption; some went beyond to noneconomic aspects of welfare. Two dominant concerns motivated this work: first, serious reservations about the validity of GDP or GNP as a measure of welfare, and, second, after World War II as economic research increasingly turned toward less developed countries for which statistical sources were scarce, the need for quality-of-life indicators that drew on whatever limited data were available.

Among the leaders of those motivated by the desire to get meaningful empirical measures for less developed areas were scholars at Stanford University's Food Research Institute. M.K. Bennett sought to compare international differences in consumption levels in 1934-38 by developing 16 non-monetary indicators ranging across five categories of consumption: food and tobacco; medical and sanitary services; housing; education and recreation; and transportation and communications (Bennett 1951; cf. also, 1937). W.O. Jones and Christian Merat tried to study material living levels in sub-Saharan Africa by drawing on the data most widely available, statistics of international trade (Jones and Merat, 1962). This work foreshadowed in a modest way current efforts to develop alternative indexes of economic welfare that build out from measures of personal consumption, such as the Osberg-Sharpe Index of Economic Well-Being, which incorporate, in addition to consumption, allowances for wealth accumulation, inequality, and, an especially novel element, economic insecurity, that is, the risk of unemployment, illness, single parent poverty, and old age (Osberg and Sharpe, 1998; Osberg, 2001).

Among early reactions against primarily economic measures of well-being were the reports of the United Nations Department of Social Affairs, which assembled data on the world's social situation and pointed out that international disparities in conditions such as length of life did not simply parallel those in economic condition (United Nations 1952, 1961). A valuable study in this vein was published in 1970 by four economists at the United Nations Research Institute for Social Development (McGranahan, Richard-Proust, Sovani, and Subramanian, 1970). This body of work has its counterpart today in such measures as Richard Estes' Weighted Index of Social Progress (Estes, 1995).

In 1979 economic historian Morris David Morris proposed a physical quality of life index (Morris, 1979), combining measures of economic output, life expectancy, and education. This measure is a direct forerunner of today's Human Development Index published annually in the United Nations Human Development Report (2002, 149-152).

Currently, economic historians, following the lead of Robert W. Fogel (1986, 1993), are focusing on measures of stature, taken to be indicative of an undefined “biological” standard of living (Komlos 1995, Steckel and Floud, 1997).

Self-reported well-being

The first attempt in economics to assess the trend of well-being in terms of personal reports on happiness or life satisfaction is that of Easterlin (1974), which found that over the period 1946 to 1970, average happiness in the United States rose through the late 1950s, and then fell, returning to near its 1946 level. Economic research on subjective testimony languished over the next two decades with only a few exceptions (Scitovsky 1976, Frank, 1985), although Bernard M.S. van Praag made notable advances in the analysis of subjective data on the adequacy of income (see the overview in van Praag and Frijters, 1999).

Since around 1990 there has been a small upsurge in economic research on subjective well-being. Considerable credit for this is due to the work of British economist Andrew Oswald and his collaborators, as well as to Bruno Frey, a long-time scholar in economic psychology (Oswald, 1997, Frey and Stutzer, 2000). A major difference from the so-called “objective measures” described in previous sections is that these subjective measures do not require value judgments by the analyst on the questions of scope, netness, and valuation, because the aggregation of the various dimensions of well-being is performed by the respondent in arriving at his or her stated well-being. Use of these measures does, of course, entail a judgment by the analyst that individual happiness or life satisfaction is the social goal in which one is interested.

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