Report on the Development of the American Economy Summer Institute
Harvard University, July 16-19 1990
by Rick Steckel (Ohio State University)

A long-term approach to understanding economic phenomena has traditionally been a part of the research agenda at the National Bureau of Economic Research. Before the late 1970s these efforts focused on macro phenomena, which stemmed from the Bureau's path-breaking research on national income accounts and related measures. In 1979 the NBER established its program on the Development of the American Economy (DAE), with Robert Fogel as program director, to investigate long-term changes that occurred at the microeconomic level. This effort required the construction of new data sets on the labor force, technological change, state and local government behavior, education, wealth, the capital stock, wages, savings, fertility, health and mortality, and migration. Research endeavors have been organized around subprograms on (1) labor and population; (2) capital and savings; (3) technology and productivity change; and (4) an industrial organization approach to government and firms.

Findings have been disseminated through the NBER Working Paper Series and through a recently introduced series of working papers on Historical Factors in Long-Run Growth, which is designed to reach a wider audience of economists and historians. Research has been presented and discussed at the annual DAE Summer Institute and at occasional meetings such as the 1984 Williamsburg conference on Long-Term Factors in American Economic Growth, organized by Stanley Engerman and Robert Gallman, and the 1990 conference in Cambridge on Early Industrialization and the Standard of Living in America, organized by Robert Gallman and John Wallis. The Bureau also initiated a monograph series on Long-Term Factors in Economic Development, in which Claudia Goldin's Understanding the Gender Gap was the first publication. Additional monographs are forthcoming on race and schooling in the American South (Robert Margo), nutritional status in the United Kingdom (Roderick Floud, Annabel Gregory, and Kenneth Wachter), and child mortality in late-nineteenth century America (Sam Preston and Michael Haines).

Future plans for the DAE include projects on macroeconomic history, historical studies of industry, and political economy. Several conferences have been proposed, including Getting Inside the Business Enterprise; The Evolution of Modern Labor Markets: Theory and History; Political Economy: Setting a Research Agenda; The Macroeconomy; Government, International Trade, and Productivity; and an International Conference on the Uses of Anthropometric Data for the Analysis of Secular Trends in Mortality and the Standard of Living. Claudia Goldin will become program director of the DAE in 1991.

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Editor's Notes

Attentive readers will have noticed that the current issue of the Newsletter is the fourth of three: Volume 5, No. 4. Volume 6 will commence with the February 1991 issue, so that Cliometric Society membership by calendar year will then coincide with full volumes of the Newsletter.

In future issues we will continue our series of interviews with the more mature members of the Society who were among the founders of the “New Economic History” and the annual conclaves of Cliometricians in the United States. Likewise, as in the present issue, we will continue to report on conferences not sponsored by the Society but of interest to the membership. Such reportage has been dominated by summaries of meetings in the English-speaking world, and we wish to encourage sponsors and organizers of economic history meetings elsewhere to publish summaries (in English) of their deliberations. Finally, to speed communication among members of the Society, we shall (again) offer air-mail delivery of the Newsletter to members outside North America at a supplementary fee of $5.00 per year—look for the relevant box on the membership renewal form to be sent at the end of November.

The corrections and additions to the Cliometric Society Directory of Members, announced on page 30 of the July Newsletter, will not be available until February 1991. Timely membership renewal or notification of corrections (by the end of January) will allow us to provide a more accurate and useful compendium.

Contrary to our statement of page 1 of the last Newsletter, Tom Weiss was able to distribute permanent mementos to earlier holders of “The Can” only through the diligent efforts of Betsy Field-Hendry (Queens-CUNY), who traced Clio olive oil to its North American distributors in Brooklyn, and who persuaded them to provide the Society with six cans sans oil.

DAE Report (continued from page 1)

About 30 participants gathered at Harvard’s New Quincy House from July 16 to 19 for the annual DAE Summer Institute. This year’s effort, which was organized by Kenneth Sokoloff and Richard Steckel, featured twelve papers that encompassed a wide range of subjects dealing primarily with the era from the late antebellum period through the Great Depression.

Peter Temin (MIT) opened the program with his paper on “Free Land and Federalism: American Economic Exceptionalism.” This thought piece explored the implications of free land and a federal system of government for economic growth and the organization of economic life in the U.S. during the eighteenth and nineteenth centuries. Temin argued that free land in the North led to free labor, which
helped create the American System of Manufactures, but Southerners created a land-owning aristocracy and a labor institution (slavery) that inhibited industrialization. The crucial features of government were its representative or popular nature and the diffusion of power through a federal system, a combination that left economic forces relatively free to operate. The most distinctive feature of the American experience was the high rate of population growth. Discussion focused on the empirical foundations of the linkages set forth in the paper.

The second paper in a Monday morning session devoted to industrialization featured David Dollar (UCLA and the World Bank) and Kenneth Sokoloff (UCLA) on “The Organization of Manufacturing during Early Industrialization: A Model and Evidence on the Contrast between Britain and the United States.” The authors developed a general equilibrium model of the choice between alternative manufacturing technologies to explain the contrast between Britain and the United States in their reliance on the putting out system. Specifically, their analysis highlighted the contrasts in the ratio of labor to land to understand why the cottage industry system endured well into the nineteenth century in a wide range of British industries, but was rare in the United States. Several comments centered on the role of part-time or seasonal labor in the production process.

Gary Libecap (Arizona) presented work at the grant-proposal stage with Elizabeth Hoffman (Arizona) on “Historical Investigation of Government-Sponsored Cartels: Agricultural Marketing Orders.” They intend to examine the political history of legislation through the Agricultural Marketing Agreement Act of 1937; the characteristics of crops that lent themselves to marketing agreements; and the process of compliance with quotas, administration, and enforcement of marketing agreements for oranges in Arizona and California. Gary also presented joint work with Ronald Johnson (Montana State) on “Patronage to Merit: Political Change in the Federal Government Labor Force.” This paper examined the origins and effects of civil service rules on the federal labor force. Beginning with the movement from patronage to merit signaled by the Pendleton Act of 1883, they investigated the refinement of civil service rules; factors leading to the Hatch Act of 1939, which restricted political activity of federal employees; and the implications of civil service rules for worker productivity.

Eugene White (Rutgers) and Peter Rappoport (Rutgers) began a day of papers devoted to money-macro issues by presenting “Was There a Bubble in the 1929 Stock Market?” The authors developed a measure of speculative behavior that is based on the behavior of the premia demanded on loans collateralized by stock purchases. Using a parametric model, they estimated a series for the path of the bubble, which was added to a regression of stock prices on dividends to produce strong evidence of cointegration of the three series. This result and weak evidence for cointegration of prices and dividends alone suggest that a bubble existed in the stock market of 1929. Much of the discussion focused on ways to extend the simple formulation of the model for brokers’ loans.

In her paper on “What Finally Ended the Great Depression?” Christina Romer (Berkeley) studied the roles of self-corrective forces and activist policy in the eventual return of the economy to full employment. The paper used the behavior of the economy after the largely accidental contraction of the money supply in 1937 to estimate the effects of changes in the money supply in the interwar period. It appears that, using this policy multiplier, the rapid monetary expansion in the mid-and late-1930s can account for much of the recovery that subsequently occurred. Thus, improvement was the result of a large aggregate demand stimulus rather than a self-corrective process. Discussion clarified the extent to which the stimulus of the mid- and late-1930s could have resulted from activist policy as opposed to a monetary development.

Charles Calomiris (Northwestern) presented joint work with Larry Schweikart (Dayton) on “The Panic of 1857: Origins, Transmission, and Containment.” They argued that the proximate cause of the panic
was the collapse of the market for speculative western land and railroad securities which, in turn, hinged on new political expectations about the probability that Kansas and Nebraska would become slave states. As a result of the turmoil, these territories became less attractive to immigrants, leading to a decline in the value of railroad securities in the East, the failure of Ohio Life and Trust, and increased financial pressure on New York banks. The discussion featured questions about opportunities for empirical verification of the linkage between land prices in Kansas and Nebraska and the value of railroad securities.

Stephen Haber (Stanford) explored the connection between sources of finance and industrial structure in his paper on “Industrial Concentration and the Capital Markets: The United States and Latin America, 1840-1930.” Using the cotton textile industry in Brazil, Mexico, and the United States as case studies, Haber investigated ways that capital market imperfections translated into product market imperfections. The U.S. had the most completely developed financial system and the least concentrated textile industry whereas Mexico exhibited the highest concentration and the least capable financial system. Brazil was an intermediate case in which maturation of the capital market in the 1890s resulted in greater competition in its textile industry. Questions probed alternative explanations such as economies of scale and market size, for observed patterns of industrial structure.

Brad De Long (Harvard) discussed “Did J.P. Morgan’s Men Add Value? A Historical Perspective on Financial Capitalism.” The paper began by noting the highly concentrated structure of investment banking in the early twentieth century, which was exemplified by J.P. Morgan and Co., and then turned to an investigation of the sources of this company’s comparative advantage and of what its personnel did to add value. Regressions of the average relative price of a firm’s common stock on various measures of fundamental values and on whether or not the firm’s board included a Morgan partner show that the addition of a Morgan partner added 5% to 40% to stock values. De Long suggested that the Morgan partner signaled to the market that the company was well-run. Discussion focused on alternative interpretations and model specification.

John Legler (Georgia), Richard Sylla (North Carolina State), and John Wallis (Maryland) gave an update of their project on state and local public finance in the nineteenth century. Introductory remarks focused on the complications of data collection and the tribulations of constructing a standardized data base of revenues and expenditures from diverse sources. Their paper on “Growth and Trends in U.S. City Revenues, 1820-1902” reported that real per capita revenues varied directly with city size, that real per capita activity increased at an annual rate of roughly 2.3% over the period, and that tax revenues amounted to approximately one-half of total revenues. Several suggestions were directed toward an econometric model of fiscal behavior that would be suitable for testing hypotheses about determinants of revenues and expenditures.

The concluding day of sessions focused on migration and wealth. Clayne Pope (Brigham Young) presented joint work with David Galenson (Chicago) on “Precedence and Wealth: Evidence from Nineteenth Century Utah.” Using information for households matched from the census manuscript schedules of population in 1860 and 1870, they analyzed the relationship between high levels of wealth and early arrival. In a departure from earlier work typical of the field, Galenson and Pope measured duration by the percentage of households in the 1870 sample who were present ten years earlier (the precedence rate). They reported that the strength of the wealth-duration relationship is inversely correlated with the precedence rate for the county, and positively related to the extent of inequality in the county and the size of the county. Discussion focused on possible mechanisms that led to these results.

David Galenson’s paper on “Economic Opportunity on the Urban Frontier: Nativity, Work, and Wealth in Early Chicago” investigated a sample of adult men who were linked in the 1850 and 1860 census continued on page 8
The proceedings began with a paper by Paul Ormerod (Henley Centre) on “Profitability and Unemployment in Interwar Britain.” Building on a disequilibrium framework suggested by Malinvaud, Ormerod stressed the importance of the profit share for the determination of unemployment. He reported a series of non-nested tests between the profitability and other models of unemployment, including aggregate demand, benefits, capital shortage and the real wage, concluding that profit share was the key variable. Evidence was also provided to show that the profit share was not Granger caused by fluctuations in aggregate demand.

In the discussion, Kent Matthews wondered if it was really possible to distinguish among the various models, since, for example, a benefit induced decrease in labour supply might be expected to lead to a rise in the real wage and a fall in the profit share. Simon Vicary questioned the use of the profit share rather than the profit rate, and Mike Kitson questioned the appropriateness of non-nested tests. Steve Broadberry wondered what factors caused the low profitability if aggregate demand and real wages were being discounted. James Foreman-Peck suggested the need for a structural profitability model, and Bill Kennedy suggested that a look at profitability across sectors might be illuminating. Nick Crafts asked about the implications for 1930s policy makers.

The second paper was “A Model of the U.K. Interwar Economy,” by NicholasDimsdale and Nick Horsewood (Oxford), which presented a number of policy simulations on a mainstream macroeconometric model, in contrast to the new classical model of Kent Matthews and the ‘crude’ Keynesian model of T. Thomas. In answer to the question “Could Lloyd George have done it?,” the pessimistic simulation results suggested that he could not, since the operation of the supply side of the model considerably muted the demand side effects.

Matthews was quick to defend his dominant position in complete macro models of interwar Britain, pressing for more details on what was being held constant in the simulation of higher government spending levels. He noted that if the benefit to wage ratio was held constant, this would rule out the fall in the real wage that allowed Lloyd George to do it in the Matthews model, while, if nominal benefits were held constant and the money wage allowed to rise in the simulation, this ought to lower dramatically the natural rate of unemployment, which was highly elastic with respect to the benefit to wage ratio in the Dimsdale/Horsewood model. Broadberry questioned the assumptions underlying the simulation of a lower exchange rate, which amounted to assuming that a ten percent depreciation of the pound against the dollar led to a ten percent fall in relative export prices, with no adjustment of profits. Crafts questioned the purely statistical criteria for preferring a specification of the consumption function with an interest rate effect rather than a price change effect, while Ormerod sounded a skeptical note on the usefulness of policy simulations that went beyond the very short run, given the poor track record of contemporary models in providing a guide to the long run effects of policy. Finally, Matthews spotted the answer to Crafts’ question on Ormerod’s paper. In the Dimsdale/Horsewood model, profits depend on short term interest rates, so policy makers can encourage a recovery of profits by lowering interest rates which, of course, was the point of the cheap money policy from 1932.

John Treble and Simon Vicary (Hull) presented a paper on “Absenteism and Effort: Labour Supply at the Gareshield Bute Pit, Co. Durham, June 1890-June
1892.” After setting out the peculiarities of the payment system, Treble and Vicary set out to examine their large data set on the mean earnings per pair of miners per fortnight (it really was a peculiar payment system). It had been hoped to obtain an estimate of the elasticity of effort with respect to the wage rate by examining the relationship between earnings and wage rates, allowing for variations in seam quality and the movement of workers between seams under the caving system, where miners were assigned to seams by a lottery. Unfortunately, however, the complexity of the payment system, together with a tight deadline, defeated the authors, and no reliable estimate of the elasticity had been obtained.

Despite the insistence by Treble and Vicary that they were taking the payment system as given, Maxine Berg, Sue Bowden, Tony Corley, Foreman-Peck and Bob Millward all wanted an explanation for the peculiar payment system in Co. Durham. As Dudley Baines pointed out, however, all coalfields in nineteenth century Britain had peculiar payment systems. Crafts asked if better results could be obtained by modelling the relationship between absenteeism and wage rates (they couldn’t) and Broadberry asked if the inclusion of time dummies in addition to seam dummies improved the results (it didn’t).

The Friday sessions finished with a paper by Theo Balderston (Manchester) on “The Dynamics of the German Labour Market, 1924 to 1930,” in which he reexamined the thesis propounded by Knut Borchardt that wage increases and the system producing them made the German economy unviable in the later 1920s. He argued that, on the contrary, by raising the participation rate, wage increases supplied the labour to meet the avid demand for it. Low profits should be explained from the demand side rather than the supply side, and the whole process should be viewed within the framework of Germany’s progressive reintegration into the world economy, which raised the price level and, hence, wages.

In the discussion, Gunnar Persson wondered if an examination of short run evidence could disprove the Borchardt thesis, which concerned long run viability. Broadberry noted that one way of organizing the short run evidence in a framework with implications for long run viability was to use the Layard and Nickell labour market model, also utilized by Dimsdale and Horsewood in their paper. An exogenous increase in the target real wage would not be damaging in the long run if there had also been an increase in the feasible real wage underpinned by improvements in productivity and the terms of trade. Kennedy noted that the financial system provided an important link between short run profitability and long run viability. Dimsdale questioned the evidence on labour force participation and its sensitivity to the real wage. Berg asked about the impact of cartels on the wage setting process, while Foreman-Peck asked about the impact of the exchange rate.

The Saturday sessions opened with a paper by Sue Bowden and Paul Turner (Leeds) on “Productivity and Long Term Growth Potential in the U.K. Economy, 1924-1968,” which examined the long term structural determinants of labour productivity for the U.K. using a panel data set. Trade union, product market competition, and human capital explanations were embedded within the model and compared. Labour quality, or human capital, was found to be the most important of the explanations considered. In the presentation, an appeal was made for help in understanding why unemployment was strongly statistically significant in a linear specification, but insignificant in a log-linear specification.

Vicary noted that all the explanatory variables concerned the extent to which opportunities were exploited, ignoring variation in the opportunities for productivity growth. Crafts noted that the introduction of a time dimension added problems to the interpretation of the results, since, for example, the growth of import penetration over time could be taken as an indicator of competitive pressure (good for productivity) or as an indicator of domestic failure (bad for productivity). He suggested that some of the potential explanations had not been given a run for their money, and that human capital had only won the race because the other ‘horses’ had been hobbled; product market competition, for example, was not
adequately captured by the concentration ratio. Broadberry questioned the use of price deflators obtained from Feinstein’s real output series, since the latter move quite differently from the real output series for the interwar period presented in the Census of Production. Millward sought reassurance that the Cobb-Douglas specification of the production function did not substantially affect the results. Kitson responded to the authors’ plea for help by suggesting that perhaps the change in unemployment might give better results than the level of unemployment.

Lennart Schon (Lund) presented a paper on “Electricity, Productivity and Structural Change in Swedish Industry, 1890-1990,” arguing that electricity has made a particularly large contribution to Swedish growth and development over the last century. He identified three periods of transformation where there was a large degree of structural change associated with a surge in electricity use. Each period of transformation was followed by a period of rationalization, with rapid productivity growth, a stable structure and stable patterns of energy use.

Millward asked if it was possible to quantify the contribution of electricity to Swedish growth, drawing an analogy with the debate over the role of railroads in America. Dimsdale drew a comparison with Britain, noting the different resource endowments of the two countries, with Sweden developing cheap hydroelectricity and Britain dependent on its large coal industry. Crafts asked about differences in the relative price of electricity between Sweden and other European countries. He also had reservations about Schon’s periodization and the robustness of the notion of a development block, given the chequered career of that concept in the economic history of Britain.

In his paper on “The Anatomy of British Big Business: Aspects of Corporate Development in the Twentieth Century,” Peter Wardley (Bristol Polytechnic) noted that the contribution of the service sector to British productivity growth has been neglected. He assembled a data base which showed that the service sector made up a large proportion of Britain’s largest companies and, furthermore, that British companies were large by international standards. The statistical data base accumulated to investigate the emergence of big business in Britain also allowed examination of a number of subsidiary issues, including the changing patterns of concentration, corporate survival, geographic location and interlocking directorates.

In the discussion, Broadberry asked if the fact that there were a lot of large service companies necessarily showed that the service sector made a strong contribution to productivity growth, since size could be associated with monopoly power as well as dynamic development. Kennedy noted that information on financial rates of return would be useful as a measure of performance. Balderston noted that comparison of company size between Britain and Germany at the start of the century was complicated by the importance of railway companies in Britain, since German railways were state owned. Crafts was surprised at the author’s neglect of Millward’s work on the measurement of productivity in services. The rest of the discussion centered on a series of network diagrams depicting the pattern of interlocking directorates among Britain’s fifty largest companies. Treble couldn’t see any basis for Wardley’s claim that the structure was more efficient in 1985 than in 1904 or 1934, while Dimsdale argued that it would have been helpful to have distinguished between executive and non-executive directors. Baines wanted a theory of interlocking directorates.

The conference closed with a paper by Graeme Snooks (Australian National University) on “A Quantitative Approach to Economic Growth in the Very Long Run,” which provided a quantitative picture of growth in Britain from 1086 to 1987. To do this the author linked together the McDonald and Snooks work on the Domesday economy with the standard national income estimates for the period from 1688. The result was that per capita income between 1086 and 1688 grew at the respectable rate of 0.3 percent per annum, which implied that growth
rates during the first half of the Industrial Revolution were only marginally higher than the average achieved for the previous six hundred years.

As Bowden pointed out, this paper represented the other end of the time scale to the Treble/Vicary paper, and should make us think more carefully before using the term “long run”. Persson wondered if such a high growth rate was consistent with the observed patterns of occupational structure. His own work on thirteenth century Tuscany suggested that growth on this scale for this length of time would have all but wiped out the agrarian labour force. Roderick Floud wondered about the interpretation of average per capita income growth over such a long period without any reference to the distribution of income. Schon was worried about the use of constant weights in the price index over such a long period, while Millward questioned the estimation of peasant income in the Domesday economy. More supportively, Crafts suggested that the Snooks estimates were broadly consistent with the work of Wrigley and Schofield, so long as it was accepted that there were long swings between 1086 and 1688 rather than monotonic growth. In particular, the impact of the Black Death meant that two observations six hundred years apart could only give a very incomplete picture. Baines pointed out that there was still a sense in which the Industrial Revolution represented a discontinuity because the energy constraints of the pre-industrial era provided a clear limit to the growth process. John Latham welcomed the news of pre-modern growth as an early example of the enterprise culture, arguing that there was now evidence to suggest that markets were more widespread in the Dark Ages than had once been thought, particularly in the northern counties that were not included in the Domesday Book.

**DAE Report (continued from page 4)**

manuscript schedules of population for Chicago. The paper employed multivariate regression analysis to analyze possible determinants of persistence and of wealth. Consistent with other studies, married and wealthier men were more likely to have persisted. The native born had substantially more wealth than the foreign born, but surprisingly, wealth differentials by nativity were due to occupational differences, rather than to wealth differences between immigrants and natives within the same occupation categories. The latter result contrasts with findings obtained for communities such as Utah and Boston for which the foreign-born held less total wealth than the native-born, controlling for age, occupation, and duration of prior residence. Several questions were directed at possible explanations for these intriguing results from Chicago.

Georgia Villaflor (San Diego State) concluded the meetings with a paper on “Changing Patterns of Internal Mobility in Early Nineteenth Century America.” Her work is based primarily on military data which give places of birth and place of residence at the time of enlistment for the regular army and for Civil War recruits. Following introductory remarks and discussion about the nature of the sample, the presentation took up the major findings. Between the Revolution and the Civil War persistence rates at the state level declined in the Northeast and Mid-Atlantic regions, there was a significant increase in long-distance movement, and the direction of migration shifted from north-south to east-west. During the nineteenth century movement was concentrated within narrow bands of latitude. Several questions focused on models of migration behavior.
A conference on “The Standard of Living in Early 19th Century America,” organized by Robert E. Gallman and John Wallis, was held at the Hyatt Regency Cambridge on July 20-22, 1990. The conference, held in conjunction with the Summer Institute of the NBER’s Development of the American Economy Program, was attended by twenty-four scholars. Its purpose was to describe, discuss, and evaluate the literature on U.S. economic growth between the Revolutionary War and the Civil War, although the time period covered did vary among authors. There were seven papers, eight discussants, and a final closing discussion.

The lead-off paper, “U.S. Labor Force Estimates, 1800-1860,” by Thomas Weiss (University of Kansas and NBER) provided the most recent update of his revisions to the Lebergott labor force series, focusing on changes in the total and agricultural labor forces. While the total labor force estimates remain little changed by Weiss, there have been dramatic changes in the level and share of the agricultural labor force. As shown by application of the Kuznets-David procedure to estimate national income growth, this does provide for significant change in the growth rate of U.S. income per capita and in the estimated levels of per capita income for various years in the period. As discussant Claudia Goldin (Harvard University and NBER) commented, Weiss’s U.S. is seen to be richer and slower growing than that of David’s estimates. Goldin pointed out the extent to which Weiss’s agricultural labor force estimates track the change in the rural population, allowing for trend. She found the gradual increase in income shown by Weiss to be plausible. Weiss compared the U.S. experience with estimates of income growth for Britain, finding, however, that the comparison depended on which British series was utilized. A detailed appendix describing the “Estimation of the Antebellum Labor Force Figures” was also provided. These included breakdowns for states by age and gender (the calculation of the latter leading to several questions) but, as Weiss noted, they did not allow for patterns of seasonality or for the intensity of labor use.

Robert A. Margo (Vanderbilt University and NBER) presented a paper on “Wages and Prices during the Antebellum Period: A Survey and New Evidence” drawing upon the sources of nominal wage data by region utilized in previous work with Georgia Villaflor and with Claudia Goldin, and providing comparisons with the recent real wage series of David and Solar and of Williamson and Lindert. The three nominal wage series presented for unskilled labor had somewhat different trends between 1821 and 1856, and there were also significant differences depending upon the particular price deflator used. While all variants showed a rise in real wages over the period, the specific timing of movements within the period differed. In what appeared to be Margo’s preferred estimates, there was no growth in the 1830s, a rapid expansion in the 1840s, and a small decline in the 1850s. In general, although nominal wages tended to be sticky, movements in prices meant considerable fluctuation in real wages. The first discussant, Donald Adams, Jr. (West Virginia University) pointed to some complexities he had confronted in his own work in estimating nominal wages from data in archival sources, including components which tended to make wages look more inflexible over time. Jeffrey Williamson (Harvard University) placed the growth experience of U.S. real wages in an international perspective, arguing that the U.S. growth rate in the period was below that of the British. Following Margo and Adams, he also raised questions of the measurement of rent in the price deflator (a point pursued in the general discussion), and argued that
the data presented by Margo and others indicates nominal wage stickiness was a pre-twentieth century phenomenon, an issue studied by Margo in a joint paper with Goldin. In the discussion, Stanley Lebergott (Wesleyan University) asked about the appropriateness of choosing retail or wholesale prices for the price deflator, and pointed to other useful sources of wage data. Questions were raised more generally about the interpretation of real wage changes, given the limited data on unemployment, as well as length of the workday, intensity of work, etc. Others stressed the importance of more information on such questions as labor seasonality, the ethnic composition of the labor force, and the urban housing crisis, particularly in the 1840s and 1850s with the rapid increase of immigration.

In his paper on “Stature and Living Standards in the United States,” Richard H. Steckel (Ohio State University and NBER) provided a discussion of the evolution of two types of measures of living standards, national income and anthropometric measures (particularly stature), and commented upon their independent developments. He then presented evidence drawn from a wide variety of sources on heights, and described various factors that influence adult heights. Of particular interest was the finding presented for the U.S.: the achievement of nearly modern stature in the colonial period, with ensuing cycles, such that, after a plateau for birth cohorts 1780-1830, heights declined to the late 1890s before observed twentieth century improvements. Steckel presented regional comparisons within the U.S. and comparisons for free whites and slaves with populations elsewhere. The discussant, Carole Shammas (University of Wisconsin-Milwaukee) raised several issues that were pursued in the general discussion, including the possible role of genetic factors in influencing heights and the conflict, in measuring national income, between concepts stressing standards of living and those stressing productivity. The general question of explaining possible different trends in national income per capita and in heights was raised, as was the use of measures of income inequality or of absolute income to determine the effect of changing income distri-
which increased the output and productivity of labor and led to a decline in the agricultural labor force were analyzed, and their effects upon Shays's Rebellion (1786) were described. By studying farm labor contracts drawn from account books, they argued that there was an increase in long-term contracts, also permitting de-seasonalization of labor and longer periods of employment in agriculture. Descriptions of changes in productivity in manufacturing stressed the broad spread of productivity improvements across industries and the use of county-level patent data in analyzing the locus of productivity change. The role of market expansion, with transport growth, in explaining the patterns of patent activity and productivity growth was emphasized. The discussant, Jeremy Atack (University of Illinois, Urbana-Champaign and NBER) asked about the role of changing labor intensity, changing seasonality, and hours of work in accounting for productivity growth and about the role of state-financed turnpikes and highways in explaining market expansion. Questions were raised about the interpretation of possible trends in the long-term labor contracts in agriculture; Rothenberg linked the duration and nature of labor contracts to patterns of labor mobility and the quality of agricultural labor.

Lee Soltow (Ohio University) presented a paper on the “Shares of Lower Income Groups: Indicators of Their Magnitudes for the United States, 1798-1875” which drew upon numerous and diverse indicators for the U.S., Canada, and the Netherlands in describing the changing conditions of those below the median level of income. Sources included the U.S. Census data on wealth, real estate records for Ohio, dwelling data for New York State, federal dwelling tax data for 1798, rental data for various times and places, and marriage data for Amsterdam. The pattern of changes over time was mixed, depending on the specific data set examined. The discussant, Clayne Pope (Brigham Young University and NBER) pointed to some of the difficulties in making comparisons of inequality over time, due to variations in wealth-to-income ratios (given the large numbers with zero recorded wealth in most censuses); the importance of studying rates of mobility out of poverty over time, owing to life-cycle and other reasons; and the need to consider absolute as well as relative levels of living. Others pointed to the need to consider human capital formation in evaluating the changing distribution of wealth.

Robert E. Gallman (University of North Carolina, Chapel Hill and NBER) expanded upon some of his earlier estimates to present details for 1774, 1799, 1805, and 1815 to link with his estimates for 1840 and after, in his paper on “American Economic Growth Before the Civil War: The Testimony of the Capital Stock Estimates.” In addition to presenting the underlying details of the estimates, he drew upon them to discuss the pattern of pre-Civil War growth indicated by the level and structure of the capital stock. These indicate that the rate of growth quickened sometime between 1815 and 1840 and that, while the structure of the capital stock began to change after 1815, sharp changes occurred only after 1840 with a shift to producers equipment and away from animal inventories. The discussant, Stanley Engerman (University of Rochester and NBER) noted that the patterns of growth of Gallman’s estimates of capital stock per capita fit in with those for per capita income estimated by Weiss for this conference, with acceleration sometime before 1840. He also pointed to the more rapid growth of capital stock in the U.S. than in the other large growing economy of the period, Great Britain. The issue of the measure of the land component in Gallman’s estimates, with the importance of the agriculture land clearing and improvement shares in the early years of the period studied, was discussed, and the role of human capital was raised again.

The final session was devoted to various issues raised by the conference. It opened with a general discussion by Robert W. Fogel (University of Chicago and NBER). Fogel’s summary pointed to the usefulness of the diversity of sources and the variety of analytical techniques employed in the papers and to the importance of even the moderate differences in conclusions in setting the research agenda for subsequent work. The various measures used to evaluate the standard of living were noted, and the means to resolve conflicts between indicators (e.g., between
per capita income and biomedical measures) were discussed. It was also noted that issues of equity and distributional considerations require further attention. The particular features of the American economy at this time, with differences by region, rural-urban location, and ethnicity (and immigrant vs. native), raise major complications for analysis. In evaluating the changes in the economy, the importance of determining which changes were exogenous and which endogenous, and what might have been alternative feasible patterns in the absence of industrialization, pose additional conceptual problems.

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**SCHEDULE OF CLIOMETRIC SESSIONS**
**AT THE ALLIED SOCIAL SCIENCE ASSOCIATION MEETINGS**
December 28-30, 1990 Washington, D.C.

**December 28-8:00am**
**Economies in Times of Crisis**
Presider: C. Knick Harley, University of Western Ontario
Presenters: Robert Higgs, Seattle University,
Adam Klug, Princeton University
William H. Phillips, University of South Carolina
Discussants: To be announced

**December 28-10:15am**
**Employment Segregation in the Early Twentieth Century**
Presider: Price Fishback, University of Georgia
Presenters: Robert Margo, Vanderbilt University
William Sundstrom, Santa Clara University
Warren Whatley, University of Michigan
and Gavin Wright, Stanford University
Discussants: Robert Higgs, Seattle University
Joseph Reid, George Mason University
Robert Whaples, University of Wisconsin

**December 29-8:00am**
**Financial Institutions: Failures, Insolvency and Moral Hazard**
Presider: Larry Neal, University of Illinois
Presenters: Lawrence Kryzanowski, Concordia University
and Gordon Roberts, Dalhousie University
Lee Alston, University of Illinois,
Wayne Grove, University of Illinois,
and David Wheelock, University of Texas at Austin
Richard Grossman, U.S. Dept. of State
Discussants: Genie Short, Federal Reserve Bank of Dallas
Kenneth Snowden, University of North Carolina-Greensboro
Michael Bordo, Rutgers University

**December 30-10:15am**
**Industrial Dynamics in a Historical Setting**
Presider: Peter Temin, Massachusetts Institute of Technology
Presenters: Anthony O’Brien, Lehigh University
Susan Carter, University of California-Riverside
Timothy Bresnahan, Stanford University
and Daniel Raff, Harvard University
Discussants: Fred Carlsten, University of Connecticut
Others to be announced
Partly because Australian census authorities have destroyed the manuscript returns for more than 150 years and partly because Australian governments have been such assiduous publishers of data, research in quantitative Australian economic history has, until recently, tended to pay less attention to nominal records than elsewhere. Steve Nicholas (UNSW) has edited studies (Convict Workers) of the convict colony of New South Wales, based on convict indent records exploited only recently. The underlying claim is that convicts were ordinary working class men and women, that is, a random sample of the British or Irish populations from whom they were drawn. In the paper presented here, Nicholas and Rick Steckel (Ohio State) analyze data for 11,300 English and 5,000 Irish convicts transported between 1817 and 1840 to challenge the claim made by Roderick Floud (who used army recruitment data) that average height, and thus living standard, of the English increased substantially between 1790 and 1820. They argue that the convict data suffer less, or not at all, from the problems of sample truncation and age heaping than the army data. Contrary to Floud, they find that average height fell after the 1770s, in both urban and rural areas (less in the latter). The Napoleonic wars and poor harvests were offered as obvious explanations, and food riots as confirmation; regional analysis and literacy tests both support and fill out the case. In the brief period left for discussion, Keith Trace (Monash) questioned whether Nicholas and Steckel could separate the effects of war from those of the industrial revolution. Joel Mokyr (Northwestern) challenged the claim that convicts were a random sample of the population (a matter on which Nicholas has had much practice in defense).

From the same data sources, Deborah Oxley (Melbourne) discussed “Female Convict Workers.” Convict women, Oxley claimed, were not from “the criminal class,” had useful skills, and have had their work undervalued by the (mostly male) historians. Skills must be seen as an ideological production (although Oxley did rely upon the Armstrong skill classification from which convicts were a random sample).

Two other papers discussed women’s work: by Carole Adams (Sydney) on how women came to dominate certain office jobs in Germany and by Flora Gill (Sydney) on how Australian wage-setting arrangements adversely affected the welfare of women. There was a third paper on women by Chris Nyland (Wollongong), a man, on “Locke on the Position of Women.”

One session was devoted to economic development in the long run. Graeme Snooks (ANU) delivered his estimates of per capita income in Domesday England and its comparison with that of 1688 (King via Lindert and Williamson). Prices were deflated by the Brown and Hopkins series (household consumables) and the Rogers series (wheat). The remarkable result is that per capita income rose at almost 0.3 percent per year between 1086 and 1688, giving a 475 percent cumulative increase per person (or 300 percent per household). Snooks credits improvement in the physical environment (especially housing) for much of the increase in real consumption.

The ANU provided another quantitative revisionist in David Pope, “Australia’s payment adjustment: 1870-1913.” Rejecting N.G. Butlin’s interpretation, Pope used a monetary theory of induced flows (i.e., accommodated to changes in economic conditions within Australia and those external conditions that affected Australia). Following the line pushed elsewhere by Ian McLean, Pope modelled a small open economy in which the Australian actors, es-
especially the bankers, are bit players. (He did not, however, find a stable demand for money equation).

In an action-packed thirty minutes, H.M. Boot (ANU) laid out the salaries and career earnings of 352 office employees of the Bank of Scotland, 1730-1880. His data suggest a high degree of constancy in relative salaries, at least after 1800. He presented some fascinating profiles of age-related salaries for tellers and clerks, but did not really seem to justify his claims that only age-related salary data are reliable.

Philippa Mein Smith (Flinders) discussed the fall in infant mortality in NSW, 1900 to 1940, ruling out, on local cause, the “well baby” movement. Her explanation, improved maternal care, needs testing.

Paul Roberston (UNSW ADFA) and Richard Langlois (Connecticut) told us about “Networks and Innovations in Modular Systems: Stereo-components and Microcomputers.” The principal-agent problem and asymmetrical information were the background to Peter Burns’ (UNSW) interesting paper on the way Western Mining engaged and soon discharged a nickel selling agent in the early 1970s. Other “industry” or “firm” studies included wheat (Greg Whitwell, Melbourne), West Australian fish (Malcolm Tull, Murdoch), striking Methodist miners (Mel Davies, UNA), and Sydney public housing (Chris Keene, Sydney).

Joel Mokyr gave the invited A.C. Davidson Westpac lecture, entitled “Is Economic Change Optimal?” By means of hypothetical red balls and black balls, he convinced us of the difference between Chance and Necessity. There was no provision for discussion of his paper, but it did shed some light. Pity there was no heat (University of Sydney in winter provided neither insulation nor warmth).

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**Fill This Space!**

From time to time, as at present, the Newsletter has pink space with no copy to insert. The editorial staff now appeal to members to provide us with vignettes or anecdotes from past gatherings of Cliometricians, perhaps a tale of less serious moments when Lafayette, Indiana was snowed in, or maybe a story of the ups and downs of Lake Central Airlines when Clio met in Madison, Wisconsin. Serious and whimsical offerings will be treated with equal respect.

To begin, we offer the following, vintage 1978 (Chicago): at the Sunday morning session, when transport to O’Hare Airport was being arranged, the organizers pointed out that the 11:00 AM van was overbooked. True to Cliometric form, a participant shouted from the back of the room, "Raise the price!"
Bob Gallman Surprised, Honored, Puzzled
by Tom Weiss (University of Kansas)

A group of Bob Gallman’s friends, former students and colleagues gathered at Loyola College in Baltimore on Saturday, September 22 to stage a conference in his honor. The conference was organized by two former students, Don Schaefer and Tom Weiss, and by Matt Gallman, Bob’s son, who is on the faculty at Loyola. Papers were presented by Bob’s former students Colleen Callahan and Tom Weiss, both of whom earned degrees at UNC, and Barry Poulsom, who earned his degree at Ohio State. Papers were also presented by Lance Davis, Stan Engerman (co-authored with Claudia Goldin), Lou Gahambo, Dick Sylla, and Matt Gallman. The paper by Davis was co-authored by Bob Gallman and Teresa Hutchins, another of Bob’s students. Don Schaefer and Bill Parker, who claims some responsibility for hiring Bob at UNC, acted as session chairpersons.

The audience came from far (Chapel Hill, Jacksonville, FL, Seattle, Northampton, MA), near (College Park, DC, Wilmington and Baltimore) and in-between (Philadelphia, and Charlottesville, VA), and included some UNC colleagues, other former students, and economic historians from around the country. Stefano Fenoaltea, Max Hartwell, Farley Grubb, Cynthia Morris, and John Wallis, among others, did their best to make it resemble a cliometrics grill session.

Bob was clearly surprised by the event, and was left speechless when he first encountered the group who gathered the evening before. He had been lured to Baltimore on the pretext that he was to give a talk at Loyola. He made use of that talk about the history of cliometrics in his role as discussant at the end of the sessions. He was also a bit puzzled by the event since he has no plans to retire any time soon.

The festivities concluded with a banquet at which Bob was mildly roasted and heavily toasted for being an outstanding scholar and one of the nicest people we know.

It is anticipated that Stanford University Press will publish the collection of essays sometime in 1991. In addition to the papers presented, the volume will include articles by Bob Fogel, Douglass North, Don Schaefer, and Bill Parker.

Classifieds

A MUTUALLY ADVANTAGEOUS EXCHANGE

The Economic History Association’s Committee on Teaching is collecting reading lists, exams and writing assignments for economic history courses. Any teacher who sends in a diskette containing this material will receive the diskette back with copies of the material sent in by all other respondents. The committee would be interested in material for any economic history course, undergraduate or graduate, as well as for courses that have close connections with economic history (for example, courses in business or demographic history). If at all possible, please use Wordperfect to put the material on diskette. If this is not possible, xeroxes of your material would be of some use. Please use a 5.25 inch 360 K diskette, suitable for an IBM compatible computer. In order to receive back your diskette with the material of the other respondents, please include a stamped, self-addressed diskette mailer with your diskette. In order to receive the collection in time to plan for the 1991-92 academic year, please send your diskette in by May 30, 1991. Send diskettes to Prof. Robert Whaples, Department of History, University of Wisconsin-Milwaukee, Milwaukee, WI 53201.
CALL FOR PAPERS
1991 Cliometrics Conference

The Thirtieth Annual Cliometrics Conference will be held at the Indiana Memorial Union at Indiana University May 17-19, 1991. The conference will be hosted by Elyce Rotella, Fred Bateman, George Alter and other cliometricians resident at Indiana.

Support has been received from the National Science Foundation for the 1991 conference, so that we will be able to take care of most expenses for the majority of the 50 participants, as we have in recent years.

Relevant dates for those wishing to attend the conference are:

- Paper proposals and requests for invitations due: February 1, 1991
- Notification of acceptance of papers: March 1
- All other invitations issued: March 11
- Completed papers due: April 1
- Conference Books mailed: April 26

All those wishing to attend the conference should request an invitation by writing to the conference hosts at the address below. Those wishing to present papers should send three copies of a three-to-five page proposal.

Cliometrics Conference Secretary
Economics Department
901 Ballantine Hall
Indiana University
Bloomington, IN 47405 USA

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