

# The Cliometric Society

February 1992 Vol. 7 No. 1

## CLIO AT ASSA: NEW ORLEANS, JANUARY 1992

by Dianne C. Betts (S.M.U.)

The Cliometric Sessions at the ASSA meetings, arranged by Lee Alston (Illinois) and Don McCloskey (Iowa), yielded much of interest with diverse topics ranging from cartels to labor economics. Attendance increased over past years because there were fewer 8 a.m. sessions and less direct competition from economic historians appearing on other sessions. The Clio cocktail party was hosted by William Hutchinson in the Miami University suite where early arrivals were treated to a spectacular fireworks display over the Mississippi River.

The first session, "Long Run Perspectives on Cartels," was chaired by William Hutchinson (Miami U) and consisted of four papers on cartels and monopolies in the 19th and early 20th centuries. Peter Grossman (Washington U) began with a paper on the railroad express cartel which dominated parcel post service in the United States until World War I. The paper focused on two key elements in the success of the express cartel: (1) its proficiency at deterring entry and (2) its ability to prevent defections among its members. Grossman argued that the threat of severe retaliation, usually a price war, was credible because of the character of the industry. Entry barriers allowed the cartel to function as a monopoly and earn rents which furthered credibility.

Pascal St. Amour (Queen's) commented on the paper and applauded the use of historical evidence to describe a cartel functioning as a natural monopoly. Most of his remarks concerned cost issues and the need to account for all costs. He noted the lack of a cost-benefit study of trans-shipment contracts, without which gains would be overestimated. In addition, he questioned whether the returns to all cartel members were the same, calling for a clearer theoretical framework. General discussion revolved around additional cost issues and attempts at government regulation. Sam Williamson (Miami U) asked about the differences between this cartel and the railroads and about the percentage of profits that were diverted from railroads. David Weiman (Yale) remarked on the importance of capital as a barrier to entry and the inability of regional firms to compete with the cartel's distribution network. Another suggestion was to model a repeated game that would incorporate uncertainty and show monopoly was a possible outcome.

The concept of natural monopoly was the topic of the second paper, "Preying for Monopoly" by David Weiman and Richard Levin (Yale). They focused on the predatory pricing behavior of Southern Bell as a means of securing market

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## Editor's notes

### New Directory

Enclosed with this Newsletter is a copy of our membership directory. Our assistant, Margaret Voyles, has spent many hours trying to make the information as accurate as possible. As we become more and more interlinked by Fax machines and electronic mail, having the correct address becomes a necessity. For phone numbers we have tried to be consistent on the basis of inter-country calls. That is, we give you the country and city or area code to be used when calling from overseas, plus the local number. Internal dialing codes may differ from international codes, or, as in the USA and Canada, may be identical with the international codes.

Those of you who gave us a correct E-mail address have received a message asking you to confirm the address; if so, we hope you have responded. Many addresses did not work and we have excluded from the directory all we could not confirm. If you have informed us of an E-mail address but it is not given in the Directory, please send us a message so we can correct our error.

### Bye-Laws

A sub-committee of the trustees has been working on a set of Bye-Laws for the Society. This committee is composed of Susan Carter, Roger Ransom, Jeffrey Williamson, and myself. We have come to the point where it is advantageous to formalize some of the procedures used for holding elections, organizing meetings, and for financing our operations. If you have any suggestions, please send them to one of the committee.

### Elections

Eugene White and Barry Eichengreen have been elected trustees for a four year term. They replace Knick Harley and Elyce Rotella, who have served the Society well for the past four years and to whom we are very grateful.

### ASSA Meetings

As you can see from the back of the *Newsletter* we will again sponsor sessions at the ASSA meetings in January of next year. Gene White and Bill Sundstrom will serve as co-program chairs. If you plan to attend but have not submitted a paper, please let Gene or the Society Office know whether you can act as a chair or discussant. We must know by June 22 so that we can get the information into the program.

### Our Address

While we hope to keep your address correct, we want to make sure you have ours correct as well. Regrettably, some of our past mailings have included errors. Please note that the postal and E-mail addresses and the phone numbers on the cover of the Directory are the correct ones.

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## An 'Interview' with Robert E. Gallman

### *Editor's Note:*

*Robert E. Gallman is the Kenan Professor of Economics and History at the University of North Carolina at Chapel Hill, where he has taught since 1962, except for the stints as a visitor at various centers of learning. Bob received his A.B. from Cornell University in 1948 and his M.A. (1949) and Ph.D. (1956) from the University of Pennsylvania. Our "interviewer" was Bill Hutchinson, who writes:*

*Bob is the kindest and one of the most helpful people I have ever met. Most conversations with Bob are peppered with stories that he relates with great care and detail, usually ending with some surprise or impact that was not totally expected by the listener. These stories are often drawn from the vast stock of mystery novels that Bob has read. Having previously read his work, I first met Bob at the joint E.H.A. and World Congress of Economic History meetings at Bloomington, Indiana in September of 1968. (For many Cliometricians, this conference generated its share of interesting tales.) That was the first of many times that Bob's encouragement would serve as an incentive for me in my own work.*

*In what follows Bob relates many situations where he has either collaborated with others or enabled them to generate first rate research of their own. His extensive service in a variety of editorial capacities is further evidence of his willingness to assist other scholars in their efforts.*

*Bob and I discussed a variety of issues and questions while I was visiting at UNC-CH last year. What follows are Bob's thoughts on the issues and questions, expressed in the form of a letter to me. We have edited and adjusted the exact text during telephone conversations and via the indispensable fax machine.*

Dear Bill,  
Instead of an interview, how about a letter dealing with some of the issues you mention in your list of questions? John Hughes wrote many of us a number



of years ago and said we should set down our recollections of the early days of cliometrics, before all that history was lost. That is the plan I propose to follow.

As everyone has said, there were three events that got cliometrics going: the joint meetings of EHA and the Conference on Research in Income and Wealth (Williamstown and Chapel Hill), on the one hand, and the early Purdue sessions of the Seminar for the Application of Economic Theory and Quantitative Methods to the Study of Economic History. I was lucky enough to be present at all three. The Williamstown meeting came first—fall of 1957—and I got advance word of it by way of an invitation from Raymond Goldsmith to do a paper. Raymond was chairman of the Income and Wealth Executive Committee at the time. It may be that he was one of the moving spirits for Williamstown—certainly he always had an interest in historical topics and was the first person to propose the Chapel Hill meeting, to my knowledge. He was an encouraging, open-minded kind of man, in my dealings with him. He must have

got my name from Simon Kuznets, or perhaps from Raymond Bowman, who was also on the Executive Committee and whom I knew when I was a graduate student at Penn.

I agreed to do the paper and the next thing I knew one William N. Parker descended on me. I was then at Ohio State and Parker turned up, partly to visit his family in Columbus and partly to work out something about the sessions with me. There comes to my mind as I think of this meeting—and many other meetings with Bill—a line from an old scat song: “scheming schemes and dreaming dreams.” That seemed to be what we were always up to.

In 1956 I went off for a year to visit at Hopkins, where I met three other cliometricians. The first was Lance Davis. I described that meeting in my introduction to Lance’s presidential address to the EHA. Here’s a piece of that description. Lance was part of a group discussing the Democratic Presidential Convention, which was then in progress. The discussion displeased Lance, who after bearing up in silence for some time, finally spoke. I did not know Lance at that point and he was not addressing me, but his performance had a big effect on me, anyway:

“His speech was decisive and authoritative; it demolished all previously expressed opinions; it was brief and energetic; it was delivered at a scarcely credible speed. What it reminded me of most was a burst from a sub-machine gun. I was tempted to look at my chest to see if his words were spelled out there in bullet holes.”

Lance was in Baltimore for part of the summer, and then returned to Purdue. The next cliometricians to turn up were Doug North and Ken Buckley, who came down from New York to talk with Kuznets about their research. Simon asked me to sit in. North, Buckley, and Dick Easterlin were visiting at the National Bureau in New York that year and Dick had filled me in on Ken and Doug and what they were up

to and the adventure of putting in time with them. Doug was then writing his first book and Ken was working his way into the population data for Quebec. Both were interested in long swings. Doug spoke first and in standard Doug style. In a minute or two the enthusiasm had filled the room, about up to our necks, and we were in danger of floating up to the ceiling. Kuznets was charmed. Now it was Buckley’s turn. He gulped once or twice and then started off in the most modest, shyest manner one could imagine. This was not what I had expected of him, or what, on other meetings, he delivered. He was a dashing fellow. But meeting Kuznets seemed to have completely unnerved him. Or maybe it was the prospect of trying to get anyone to pay attention to him, after Doug had had the floor for half an hour.

You ask how the cliometric approach sat with my more traditional colleagues in economics and history. The exchanges at Williamstown between Conrad and Meyer, on the one hand, and the discussion of their slavery paper, Douglas Dowd, on the other, have fixed the notion of early conflict firmly in the history of the period. My own recollection of the Williamstown and Chapel Hill meetings, however, is somewhat different. Conrad and Meyer were very young and very cocky at the time, and they infuriated Dowd, partly for ideological reasons. Dowd ranted and they grinned. The rest of the discussion of that paper, and a second on methodology, which Conrad and Meyer presented was lively, but I do not recall a general division between cliometricians and traditionalists throughout the meeting. The quantifiers were warmly welcomed by people such as Hal Williamson, that marvelous man, and I do not remember that the Income and Wealth papers upset the traditionalists in any way. Three of them gave very thoughtful and friendly reviews of these papers. But, of course, there is probably some selection bias here; those people who attended the meetings presumably had interest in the topics and lots of tolerance to begin with.

The exchanges between cliometricians and historical traditionalists were sharper in other settings, and they became sharper still after the publication of Bob

Fogel's work on the railroads. I remember a meeting at Hagley—Bob was not there—at which a railroads paper was given that contained no mention of Bob's work. In the discussion, I mildly asked why not, and got a reasonable response. After the session, however, a wrathful Fritz Redlich descended on me. That madman Fogel, he said, plans to build canals across the Appalachian Mountains!

Years later I attended a *Time on the Cross* conference in South Carolina, at which Bob, who was there, and Stan, who was not, were smitten hip and thigh by all the panelists but me. I made one point: Bob has always had the knack of obliging everyone to talk about what he wants to discuss. He did it with railroads and Stan and he did it with slavery. Those five panelists had each devoted God knows how much time to sifting *TOTC* in search of errors of fact or inference. Stan and Bob got the advantage of all that criticism; they had recruited the profession as their research assistants. And now I find myself drafting, with John Wallis, an introduction to a volume that deals, among other things, with height-by-age measurements. Bob Fogel has struck again.

The conflict that occurred during the early period was all between cliometricians and traditional historians. Economists had no loud complaints about us. They seemed to be pleased that economic history was making more use of theory and quantitative methods and they were quite encouraging, when they paid any attention at all. I don't quite have that feeling now. Don McCloskey has been warning us for years that we must make our case to economics, if we are to survive, and we have been encouraged by others to draw the policy implications of what we are finding out, for the same reason. I am sure this is good advice, if we want to prosper, but it does seem to call for designing our research programs to suit the preoccupations of others, rather than our own.

In my presidential address to the E.H.A. I took a somewhat different tack from Don's. I pointed out the interesting work that was going on in the new social history and suggested that we read it and that we begin talking seriously to the people who were

doing it. I think Don was not then happy with that advice, since he preferred that we turn toward economics, not history. But I think it was good advice (and he has certainly since followed it). I continue to be impressed by the new social history—and the new political history, the subject of Lance's presidential address—and I find the Social Science History Association meetings lively and stimulating. I do wish that the powers that be in history would pay more attention to this work, as I wish the powers in economics paid more attention to our work. But there have been some recent movements in this direction. Stan Engerman reminds me that the findings of the new social history have made their way into the history texts. So far as economics is concerned, the revival of interest in long-term growth, such as in the work of Paul Romer, Christina Romer and Robert Gordon, is certainly encouraging, and the recent NSF initiative with respect to environmental issues seems to represent, among other things, an opening to the economic historians.

Let me return to the beginnings of cliometrics, for a moment. The Income and Wealth meetings were certainly successful—and the one at Chapel Hill was also a lot of fun—but I do not believe that they created the *esprit de corps* that developed among cliometricians, the sense of revolutionary adventure. For one thing, those of us who did the Income and Wealth papers for volumes 24 and 30 were contributing to an existing literature and joining an established group of scholars drawn from many cohorts. Measurement, after all, was not new to the Income and Wealth people—Abramovitz, Kuznets, Goldsmith, Denison, the Ruggles, Brady—or to the NBER people or to Arthur Cole or George Taylor or Tom Berry or Anne Bezanson—the scholars who had been assembling price index series. There was an audience for such work and there were people to talk with.

The creation of a special cliometrics group with a sense of identity came from the Purdue meetings. These meetings brought the young Income and Wealth types together with other young people who were doing good analytical empirical work, but were

not essentially in the Income and Wealth mold. Before I went to the first Purdue meeting, I thought of myself as a development economist of a Kuznetsian variety. After a couple of clio meetings it was clear to me that, in view of what I wanted to do by way of research, I could find a congenial home among cliometricians. There was plenty of room among them for Kuznetsian historians. Discovering that there was a group of scholars who were interested in the full range of issues that had captured my imagination and who were at work on really creative, useful research along these lines was the most exciting discovery of my scholarly career. Here were people to talk with and exchange papers with. Each year there were new people, most with good ideas. I remember distinctly the first time that Al Fishlow and Paul David came and dazzled us all, and I remember with great pleasure my first long talk with Stan Engerman, on a Lake Central plane on the way back to Chicago. Then there was Dick Easterlin—whom I had known in graduate school—administering the third degree to North, Ed Ames, and Joe Stiglitz, all of whom gave as good as they got.

Early in the game there developed the unwritten rule that one could be as frank and free in discussion as one wished, but that eventually one ought to come up with some constructive suggestions. Reputation went to those who could show how to repair a flawed paper, which is one reason why Engerman's and Fishlow's reputations are so exalted. Good constructive criticism is one of the things that made the meetings so valuable.

At Ohio State I had been teaching development, public finance, and money and banking (my graduate major, until I took Simon Kuznets's class and went through my conversion experience, was finance) and had been researching 19th century U.S. growth. When I went to Chapel Hill I shifted over to teaching economic history and, while I continued researching the 19th century, took up a new piece of work in collaboration with Bill Parker. But first let me tell you that at Chapel Hill I inherited Bill's desk, which contained his grade book. The latter I looked through with wonder. Here I found that one Jones got on his

midterm a grade of B +++, while Smith got B -+++. Could I be so scrupulous as that? Not likely.

Bill had been very active, indeed, during his few years at Chapel Hill—years, incidentally, in which he spent enough time in Washington to warrant acquiring a house there. (When I was being recruited by UNC, Bill wrote me that Chapel Hill was a great place to get some work done. How he knew that, I do not know, in view of the fact that he was so rarely there.) He had caused to be assembled in the UNC library microfilms of the manuscript censuses of agriculture, slave population, and free population for the South at mid-century. Together with a first rate graduate student, Don Shilling, now at the University of Missouri, he drew samples from the Louisiana and Georgia agricultural schedules for 1860 and matched them to the two population schedules. The sampling and matching were done in blocks of 50 farms.

Shilling stayed on for a year or so after Bill left and worked with the sample. Bill and I then put in to NSF for a grant to create a more comprehensive sample and to analyse it. We got the grant in 1964, two years after Bill had left Chapel Hill, and I remember Bill's letter to me about it, straight from *The Child's Garden of Verses*: "The world is so full of a number of things I'm sure we should all be as happy as kings." The grant was for \$55,000 or \$65,000—some mountainous sum.

The new sample was organized by Jim Foust and Dale Swan, graduate students at Chapel Hill. They decided that we could sample and match in blocks of five and get better results, which we did. The sample was to describe what we called the cotton South and it was to represent every county in the U.S. in 1860 that produced at least 1,000 bales of cotton. To give you an idea about that cutoff, if we had made it a little lower we would have had to include a county in Illinois.

The task of putting together that sample was onerous. I will not describe the routine of choosing counties, manuscript pages, etc. (Jim and Dale wrote up accounts of the sampling and testing processes,

mimeographed copies of which are still extant. Parts appear in Jim's dissertation and in the *Agricultural History* volume devoted chiefly to the project.) The people gathering the data had their heads inside microfilm readers—they couldn't read the films, otherwise—and they took down data by punching keys on an adding machine, blind. Foust worked out a system of check totals that worked quite well. Those miserable tapes then had to be converted to computer cards, and the cards were then put on computer tape—each transition opening the opportunity for error. The computer was a Univac; it took up the whole basement of Phillips Hall and was apparently a little less powerful than the P.C. on which I am typing these ramblings. Foust and Swan should be memorialized—say with plaques on the wall of the current meeting room for cliometrics. They are heroes of cliometrics.

Foust went on to add a smaller sample for 1850 and to write a good dissertation on yeoman farmers in the cotton South; Swan created a very comprehensive sample for the rice counties and also wrote a first-rate dissertation based on this material. Later, Mark Schmitz and I put together samples for the Louisiana sugar regions and the parts of Kentucky and Tennessee that concentrated on the production of provisions and tobacco. Mark did a good dissertation on the basis of the sugar data and Don Schaefer has used the Kentucky and Tennessee samples in his very exciting work on migration. Finally, Ralph Anderson did a fine dissertation on self-sufficiency, based chiefly on his research in the plantation records of the Southern collection of the UNC library. Anderson's work nicely rounded out the project on self-sufficiency, which pursued one of the major topics originally laid out in the Parker-Gallman proposal to the NSF. There were also some papers on the distribution of wealth in the South and in the rest of the country, and one by Foust and Swan on productivity. So for a while, a fair amount of work on the Southern economy went on at Chapel Hill. For me, the capstone of the project came at a joint meeting of the Agricultural History Association and the American Historical Association in New York toward the end of the 1960s. A session was devoted to the

project; Bill and I were immensely flattered to find the place packed when we arrived. Our joy was dissipated some when we learned that the *Times* had published a story that day concerning threats issued against one member of the party—remember, this was the end of the 1960s and protest was the order of the day. Violence was by no means unknown. Bill and I began to wonder whether all those people had come to hear us or to see us shot. If the latter, they were disappointed. There was no violence, even between paper-givers and discussants. Bill, Stan and I then went off to dinner with Rina Rosenberg and Bill's mother and aunt, three lively women. I remember the dinner as hilarious, although it probably did not seem so to the *maitre d'* and the other clients of the place.

You have asked about the criticisms of the sample made by Frederick Bode and Donald Ginter. Bode and Ginter very kindly got in touch with me as soon as they had opened up their project and found themselves questioning our work. I talked with Bill about the matter and he pointed out that the sample, had it been human, would have been old enough to vote at that time and he therefore thought it ought to be able to take care of itself. He proposed to stay clear of further discussion. Bill, you will remember, once said that Doug North never responded to criticism because he was too anxious to get on to his next mistake. Bill and I could be characterized in the same way, for our failure to respond formally to Bode and Ginter, but you must remember that many years had passed since we had helped build the sample and returning to those records was a little bit like exhuming a former intimate, long ago interred. I did correspond with Bode and Ginter and I think the exchanges were very useful. Certainly I learned from the exchanges, and I enjoyed coming to know Bode and Ginter (although we have never met in person). One could not have fairer critics.

It seemed to me initially that Bode and Ginter were setting excessively high standards for evidence. That is, they had found errors and ambiguities in the Georgia census data for 1860 and were initially inclined to write off the census as a source. I argued

that all of the data used by historians are flawed in one way or another, and that we had no choice but to use these data — carefully and cautiously, of course. I think that by the end of the correspondence we were much nearer agreement than at the beginning, although I think they remained more pessimistic than I.

As to the Parker-Gallman sample, I agreed that it would be of very limited value for them, since they wanted to study land tenure, and the sample was not designed for that purpose. But it seemed to me then—and does now—that the sample had other important uses. For example, I do not think that the weaknesses that Bode and Ginter identified are important so far as the self-sufficiency studies conducted at Chapel Hill are concerned. The sample is not perfectly designed for the study of wealth-holdings; nonetheless, I believe that all of the major conclusions reached by Gavin Wright and me in our papers on this subject have held up very well indeed. And that does not surprise me at all. The sample also has served well in the efficiency studies conducted by Stan and Bob, Don and Mark, and in the very impressive work of Betsy Field.

As to the matter of land tenure, I have wondered if the Georgia findings can be generalized to the rest of the South. I have not kept up with this topic and therefore do not know if a Bode-Ginter style of attack has been launched on the data for other Southern states. But at the time that I was corresponding with them I did go back to our original code sheets for the other states and looked for clues of the kinds of phenomena unearthed by Bode and Ginter in the Georgia data. I got the impression that the Georgia returns might be unique. If so, I do not know whether this is because tenancy was less widespread elsewhere, or because enumerators handled the problem differently in other states—perhaps associating all inputs and outputs and the value of the farm with the farm, rather than splitting responses between owner and farm. To settle these questions would be a very big job, I think.

Some features of the sample that have proved troublesome to subsequent users would not have

done so if we had explained our procedures with greater clarity and in more detail, a point made in a good paper in *EEH* by Schaefer and Schmitz. For example, the census population schedules list occupations. Sometimes ditto marks appear below an occupational designation. In some instances this probably means that, indeed, the two or three people against whose names the ditto marks appear shared the same occupation; in other cases, it is clear that the ditto marks simply identify the members of the family of the person whose occupation is given. We did not plan to make use of the occupational data, but we gathered them, in case others might need them, and we told the coders to list exactly the data given by the census, even if it occasionally seemed obviously in error (a two-year old female overseer). We preferred to leave to the users of the data the task of setting out criteria for distinguishing real from erroneous data. But we apparently did not make this decision clear to subsequent users, which caused some of them some grief.

So much for my memories of early cliometrics—a small sample of a large universe of memories, with probably very much too much weight given to the Parker-Gallman sample. I have had to leave out any account of work on 19th century growth, in which I was fortunate to have collaborated with Lance, Stan, Tom Weiss, and Ed Howle. One could not have better collaborators.

I have spend so much space on the Parker-Gallman sample partly because of the questions you asked, and partly because Bill devoted little attention to the project in his interview and it seemed to me that more information should be provided. For my part, I think the project was worth doing, but I am not sure that I would not have done better to let someone else do it. It was a very difficult, frustrating project.

You have asked me questions about my own work, two surprisingly technical, but I am game. The technical questions are: "How do we deal with the problem of capital goods pricing in longitudinal studies of investment/capital accumulation—should we use historical or replacement cost? How do we



interpret considerable efforts at accumulation which are rapidly displaced by superior technologies?" Now that I have thought a little more about it, "technical" is not quite the correct term, but no matter.

I think that the valuation scheme one should use in the study of capital should depend on the questions one is interested in. For example, if one is interested in the issue raised by the second question—"efforts at accumulation"—then historical cost is what you want. That is, if you are concerned with savings efforts, then the savings rate—share in income—should be expressed in current prices. If you are dealing with a capital stock, however, there is an added problem. Summing up historical costs gives one a capital stock expressed in prices representing many years, and how one interprets such an aggregate is beyond me. One can still cope with the question you raise, however—or at least I think one can—by deflating the capital stock with a consumer price index. The deflation must be vintage by vintage, of course. But then one ends up with an aggregate that is expressed in the real value of the consumer goods given up to obtain the capital represented in the stock, a meaningful aggregate.

On the other hand, if one is interested in the capital stock as a factor of production, then presumably valuation should be at market price or, what should be virtually the same, net reproduction cost, expressed in constant prices. But obviously this is a very tricky area on which there is an enormous literature (including all those exchanges that make up the Cambridge controversies), and there is no full agreement as to the precise uses to which such a stock estimate may be put. It is worth noticing, however, that the two forms of deflation can result in strikingly different results, results that have analytical interest. For example, deflating the U.S. capital stock by a consumer price index yields a rate of growth of the real capital stock across the Great Depression, World War II, and the Korean War almost twice as great as is obtained if market price deflators are used: a lot was given up in this period by way of consumer goods to get only a small increment in the productive

power of the capital stock.

Next you ask: "What may we lose from our 'history' if we don't worry enough about what the GNP does not measure? That is, what have we learned about American standards of living over time?" This was an issue that I tried to deal with, at least in part, in my work on the national product in the 19th century. Specifically, I tried to incorporate measurements of the results of economic activity conducted beyond the reach of the market. Of course standard GNP measures include a lot of these items; for example, the GNP is supposed to cover all agricultural output, not just output entering markets, and it also includes imputations for the rental value of owner-occupied living quarters. In addition to these items, I added estimates of the principal home manufactures, the clearing and first breaking of agricultural land, and total firewood production. I think those GNP figures are quite comprehensive. But they do not include allowances for changes in the amount of leisure enjoyed by Americans, or for the opportunity costs of the time of school children; neither do they take into account positive and negative externalities. There may be other items missing, as well.

As to the standard of living, clearly it can be affected by matters other than the volume of goods and services produced. For example, the Chicago-BYU-Ohio State project on heights has generated evidence that shows that the heights of Americans declined after the cohort of 1830. (In fact, the changes are very slight, until we get past the cohort of 1840.) This was a period in which real income was rising and nutrition levels were persistently high. Why, then, the deterioration in heights? There are many possible answers, relating to the various impacts of immigration, internal migration, work patterns, negative externalities, and changes in the disease environment. These issues have not yet been sorted out. It is not clear what the lines of causation were and, therefore, the connections—if any—between economic development and declining height are as yet unknown. This is an important area for research.

There is also the question as to how aggregate

measures of material welfare, such as real national product per capita, may be adjusted to take into account the unfavorable events that resulted in stunting. The suggestions made by Dan Usher with respect to introducing changes in the death rate into real GNP measures need to be thought over in this context, although I think they are not problem-free.

Finally, you ask whether or not I have had second

thoughts with respect to my previously-expressed views (expressed in two papers with Lance) regarding the savings rate in the nineteenth century. Lance and I have a new paper on this subject which, with any luck, should appear in print in another year or two. I would not want to anticipate that publication, but I can at least say what will probably surprise no one: in this paper we find that we were pretty nearly right the first time around.

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## ANNOUNCEMENTS

The **Australian Economic Historians' Conference** will be held July 8-10 at the University of Western Australia in Perth. Abstracts were due February 28; additional requests to attend should be sent to Mel Davies, Head of Economic History, University of Western Australia, Nedlands, 6609; Phone: (09) 3802939. Topic areas are Asian Economic History, Business History, History of Population Growth and Change, and General.

The **ESRC Quantitative Economic History Workshop** will take place at St. Antony's College, Oxford, England, September 18-19th, 1992. Those wishing to present a paper should submit the paper or a detailed proposal by May 1st. Requests to attend should be submitted by July 1st. Send all submissions and requests to:

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The **18th Canadian Cliometrics Conference** has been rescheduled for October 2-3, 1992 in Vancouver, British Columbia. Although the program has been announced, it is possible some openings will develop because of the rescheduling. Members with papers they would like to have considered (should openings develop) can contact the program chair:

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## ASSA Conference (continued)

power. Using quantitative data and descriptive accounts, they found that in the period from 1894 until 1900 Southern Bell responded to competitive entry by lowering price. It also expanded investment in response to the threat of entry and priced below cost when entry actually occurred. These tactics were not entirely successful, however, because the firm had no real cost advantage over independent telephone companies in small states. After 1900, Southern Bell began to focus its attention toward investment on its toll lines in an attempt to isolate independents.

The formal discussant did not attend, so questions and comments were taken from the floor. John Nye (Washington U) wondered if predatory pricing that failed to deter entry was really predatory pricing. Other discussion followed on the definition of predatory pricing and on the link between earnings and prices. John Mayo (Tennessee) had questions about the marginal cost curve facing Southern Bell and whether congestion actually occurred within the observed range of output. Comments on attempts at public regulation came from Sam Williamson.

The third paper, "Vertical Integration and Collusion - The Role of Wholesalers in Facilitating Cartel Stability," was presented by Margaret Levenstein (Michigan). Her analysis of the role wholesalers played in the collusion that occurred in several 19th-century industries focused on three issues. First, how did the incentives and characteristics of the joint selling agencies compare with those of cartels which relied on independent wholesale distribution firms? Second, why were collusive pricing strategies unsuccessful for some firms? And third, what was the link between vertical and horizontal integration?

Once again, the lack of a formal discussant moved comments to the floor. Chris Hanes (Penn) had questions about the role wholesalers actually played in the vertical and horizontal linkages. Avner Greif (Stanford) expressed concern that the chemical industry might have been technology-driven, thereby causing vertical integration. In general, the discus-

sion revolved around whether these mergers truly sought vertical integration or whether they were simply managerial decisions reflecting changing technology.

The final paper of the session, "Cartel Contract Duration," was presented by Valerie Suslow (Michigan). Using empirical evidence on economic uncertainty and contract organization from international cartels, her paper tested for the importance of demand uncertainty and cartel organizational characteristics in determining the duration of a cartel contract. Results demonstrated that the more uncertain the environment within which the cartel operated, the shorter the expected cartel contract duration. Other variables in the model had a much weaker influence on cartel duration. In particular, the number of participants in the cartel had no strong influence on the durability of the contract.

Pascal St. Amour provided the formal discussion. He was particularly impressed by the efforts made in constructing the data set, though he had a number of technical questions. He encouraged a closer look at the GNP variable and more information on prices, a concern echoed in the general discussion by Chris Hanes. The general discussion also included questions about the data set with particular concern being voiced about the truncation caused by World War II. John Nye asked whether the examples used were actually cartels or "second-best" mergers, while Jon Pritchett (Tulane) was curious about the impact of business cycles on prices within the model.

Session Two, "Property Rights to Land and Resources", was presided over by John Nye. The first paper, "Sheep, Squatters, and the Evolution of Land Rights in Australia," was presented by Sumner LaCroix (Hawaii). This paper focused on colonial land policies in Australia between 1788 and 1847 and traced the changes in government incentives and land policies as sheep farmers became the dominant constituency in the 1840s. The models of Wakefield, Coase, and Field were explored as appropriate explanations for changing land rights. Actions taken by the New South Wales government appeared to sup-

port Field's thesis which questions the application of Coase's Theorem to situations where changes in the initial assignment of property rights generate significantly different flows of income and expenditure.

David Surdam (Chicago), providing formal discussion, noted that the paper was a good illustration of a trade-off between restricting land and lowering the cost of tax collection. He wondered what exactly were the objectives of the British government and whether they were changing over time. Did the actual land policy minimize the cost of government compared with the possible benefits of an expanded land policy? During the general discussion that followed, Lee Alston noted that insecure property rights may have been cost effective with respect to either public or private enforcement. Charles Miles (Northwestern) remarked that conflict over property rights occurred during the gold rush when the government asserted its rights, thereby paralleling the experience of America. Other comments centered on the collection of quitrents and the low marginal cost of sheep farming.

The second paper, "Institutions and American Indian Farmers," was presented by Leonard Carlson (Emory). The paper examined two questions: (1) what was the nature of Indian agricultural traditions and household division of labor; and (2) were Indian institutions sufficiently flexible to allow tribes that were not already agricultural to succeed in the late 19th century as subsistence farmers? Using evidence from a number of different tribes, Carlson determined that land tenure arrangements found among native peoples in the Southwest prior to being confined to reservations were consistent with the relative scarcity of resources and the costs of enforcing property rights. Once confined, Indians made progress in becoming subsistence farmers. His findings appeared to cast doubt on the theory that Indian institutions were too inflexible for farming.

David Surdam also served as formal discussant for this paper. He found the study intriguing, particularly the differences in response by the various tribes. He questioned the quality of land given to the reserva-

tions and the significance of property rights constraints. He asked whether women were given incentives to keep them from engaging in farming. Clark Nardinelli (Clemson) was concerned about whether the returns to farming were high enough to provide real encouragement to the Indians. Lee Alston suggested a cross-section analysis to explore point-in-time variations between institutional changes and relative prices. Bob Higgs (Seattle) urged comparisons between Indian and non-Indian farmers in the same area which might isolate cultural factors. Other comments focused on the constraints imposed by the Bureau of Indian Affairs.

The third paper in the second session was "Depletion in the Lands of the Hudson's Bay Company," by Ann Carlos (Colorado) and Frank Lewis (Queen's). Carlos presented the paper which asks three questions about the interaction between traders and Indians. The questions revolved around the depletion of the beaver population, the period when this might have occurred, and under what economic circumstances this might have occurred. Using a simple model of resource extraction, they determined that in some areas the beaver population and beaver fur prices remained stable throughout the period from 1700 to 1763, while in other areas there was a negative relation between beaver population and fur prices during part of this period. Their analysis highlighted the role played by competition in the over-exploitation of the beaver population.

The formal discussant, Charles Kolstad (Illinois), applauded the treatment of the beaver as a renewable resource. He noted, however, that the behavior of the French was also important to this analysis and suggested that one needed to determine the economically sustainable yield rather than the biologically sustainable yield. He was also skeptical of the price equation, suggesting that simultaneous equations might yield better results. During the general discussion Ken Snowden (UNC-Greensboro) asked what kind of competition existed in the hinterlands and how this might have affected the extraction of beavers. He was also concerned about the objective of the companies which bought the beaver pelts. Lee

Alston had questions about the number of players in the game and the prevention of entry into the market. Charles Miles asked whether demand was changing over the period.

The topic of the third session was "Contracts and Institutions," presided over by Trevor Dick (Lethbridge). "The Merchant Guild as a Nexus of Contracts," by Avner Greif, Paul Milgrom, and Barry Weingast (Stanford), was the first paper given. They were concerned with the institutional arrangements that surmounted the commitment problem associated with the relations between a ruler and alien merchants. To address this issue, they developed a theory to explain how the attributes of the institutions mitigating the ruler's commitment problem affected the possibility of trade expansion. Simple bilateral and multi-lateral reputation mechanisms proved insufficient to surmount the commitment problem. An additional institution having the ability to enforce its decisions regarding the relations between the merchants and the rulers was needed. Such an institution would provide a mechanism that coordinated the responses to the abuse of rights by rulers and would make an efficient equilibrium possible. The Merchant Guild of the late medieval period functioned as the necessary institution to solve the commitment problem.

Alex Field (Santa Clara) served as formal discussant, commending the game theory approach to explain the presence of guilds with mutually advantageous outcomes. He also complimented the judicious use of history to support the empirical work. He disagreed, however, with the premise that trade was the primary reason for growth during this period. In addition, he felt that more elaboration was needed on the links between the mobs and the ruler. In the general discussion, Joe Reid (George Mason) was curious about the distinction between those guilds which formed cartels and those which simply gained efficiency and/or protection against unscrupulous rulers. Charles Miles expressed concern about the benefits of the guilds to consumers, while Chris Hanes wondered why the incentives for the ruler to loot foreign merchants were different from the incen-

tives to loot local merchants. Other comments focused on supporting institutions, the termination of the guild system, and the free rider problem inherent in such a system.

Ruth Dupré presented the second paper, "If It's Yellow, it Must Be Butter." This paper examined the history of margarine regulation in Quebec. Government policy appeared to have three objectives: (1) to protect consumers from a product that might be injurious to their health; (2) to prevent the fraudulent sale of margarine as butter; and (3) to protect dairy farmers. To explain Canadian regulation, a public choice argument was put forward. Regulation was most successful where benefits were concentrated and costs were diffused. In areas where interested parties had no political clout, legislation tended to be less restrictive.

Alex Field again provided formal discussion, commenting on the use of political economy as an analytical tool. He noted the need to make the foreign ties of Canadian margarine manufacturers clearer. This appeared to be an important factor in America as well. He encouraged a more narrow focus for the paper, perhaps a chronicle of margarine regulation or a study of a nation's response to political clout. The general discussion echoed the need for a more narrow focus. Joe Reid argued for a closer look at political input across states in order to capture the dynamics of political change. Lee Alston favored a comparative study to highlight the supply side of the story; different governments could have different outcomes. Sam Williamson questioned the elasticity of substitution between butter and margarine, while Jon Pritchett had questions about the effect of these regulations on input suppliers.

The third paper of the session, "Governments as Firms: Occam's Explanation of the Fall of Federal Patronage, 1880-1940," was presented by Joe Reid. The paper, co-authored by Michael Kurth (Arizona State), applied the maximization of expected present value to the evolution of patronage and local government. Early in American history, a diverse population and the low cost of patronage gave local

government power. As new technology decreased the cost of communicating with people, and as population became increasingly homogeneous, patronage and local government power decreased while civil servants and the power of the federal government increased. In the antebellum period, neighborhood politics dominated diverse manufacturing cities, while homogeneous farm cities followed the federal government into the professional bureaucratic system. The model, then, suggests that patronage was best suited to direct personal services whereas the civil service was better at providing more general services.

Pablo Spiller (Illinois) provided formal discussion, arguing that the theory was not well specified. He objected to the assumption that either patronage or the civil service were efficient in general. He wondered why professional civil service employees could not cater to special neighborhood needs. In his comments, he urged the use of three major building blocks: (1) organizations as instruments of control in agency problems, (2) major principals (i.e. Congress vs. President, mayor vs. city-hall), and (3) different horizons. During the general discussion, Bob Higgs noted that history provided numerous examples of local government which rebelled against a patronage type of government and urged the explanation of these counter currents to the status quo.

Werner Troesken (Washington U) presented the fourth paper, "Regulation as a Contract: The Origins of the Illinois Public Utilities Commission." This paper traced the growth of state public utility regulation, arguing that it was never a historical necessity. Despite this, more than forty states created public utility commissions between 1902 and 1922. To explain this institutional change, the paper uses the emergence of the Illinois Public Utilities Commission as a case study. Evidence on the Chicago gas industry was given to explore state regulation as a self-enforcing contract protecting consumers from monopolistic rates and producers from having their property taken away by consumers.

Formal discussion was again by Pablo Spiller. He

urged further information on exactly why regulatory acts were passed and on the politics involved in their passage. He also argued that mergers could protect investment and encourage maintenance and that competition would also work unless the sector was mature. The role of technology in determining regulatory structures was also noted. In the general discussion, Bob Higgs remarked on the link between technology, the Supreme Court, and public utility pricing. Chris Hanes asked about the difference between confiscatory pricing and marginal cost pricing in this process. Other discussion centered on the effect of electric power on the story.

The final session, "Historical Issues in Labor Economics," was presided over by Sam Williamson. Joe Ferrie (Northwestern) presented the first paper, "A Longitudinal Analysis of the Settlement Patterns, Occupational Mobility and Wealth Accumulation of European Immigrants to the U.S., 1840-1860." This paper used a sample of 500 immigrants who appeared in ship arrival records and the 1850 and 1860 censuses to address the following questions: (1) how extensive were the changes in location and occupation made by the immigrants; (2) how likely were immigrants to make changes as their time in the US increased; and (3) what was the impact of those changes as measured by their effect on wealth accumulation? Evidence suggests that immigrants moved to their final destinations relatively quickly and that they changed occupations at least once. Immigrants were more concentrated in white- and skilled blue-collar occupations than the total US population, and those immigrants residing in the the Northwest and North Central states accumulated higher wealth.

Tom Kane (Harvard) provided formal discussion. Though he was impressed with the data set constructed for the study, he argued that the analysis needed to account for differences in skill levels. He also called for more comparison with long-term residents of such factors as mobility and savings rates. In the general discussion, Lee Alston wanted to know how wealth changed with non-immigrants, again urging comparison. Jon Pritchett wondered

about possible biases in the linking of data sets, while Joe Reid expressed surprise at the lack of ethnicity effects. The lack of any impact of literacy was remarked upon by Bob Margo (Vanderbilt). He also pointed out that the lack of real wealth for some of the immigrants could pose problems. Len Kloft (Miami U) was curious about how decisions were made to change occupations. Josh Rosenblum (Kansas) stated that this study illuminated some of the hypotheses brought forth by Thernstrom's work. Other comments concerned the role of the government in providing information.

The second paper, "The Economic Rationale of Apprenticeship," was presented by Bernard Elbaum (UC-Santa Cruz). In this paper, coauthored by Nirvikar Singh (UC-Santa Cruz), an explanation was sought for the failure in America of the British system of apprenticeship. The model used considered three different assumptions about quit rates, wage policy, and need for skill certification. The evidence indicated that collective regulation of indenture agreements was relatively ineffective in engineering and building. This suggests that the adoption and enforcement of apprenticeships and indenture contracts depended on the demand by individual employers for certain skill levels. The British example was then used to provide an explanation for the decline of apprenticeships in America.

William Phillips (South Carolina) served as formal discussant and noted the similarities of some of the arguments presented with Galenson's indentured servants contracts. The key issue centered on the need for skill certification. He noted that America had less of a division of labor so it might have had a higher demand for skilled labor. Apprenticeships, however, were not necessary since American laborers had more casual access to skills than their British counterparts. Phillips also argued the timing of the breakdown implied that mobility and decreasing demand for skilled labor were contributing factors. In the general discussion, Lee Alston was concerned about the fact that the subsistence assumption in the early training period could affect the analysis and urged a comparison with Australian

apprenticeships. Ken Snowden expressed concern over the number of models available and asked about the presence of an information problem in Britain. Other discussion mentioned the need for discussing quasi-rents in apprenticeships.

Bob Margo and Al Finegan (Vanderbilt) wrote the third paper of the session, "The Decline in Black Teenage Labor Force Participation in the South, 1900-1970." They argued that the quantitative importance of demand-side shocks in accounting for the post-1950 decline in black teen labor force participation had been overstated. Using a pooled time-series cross-section fixed-effects regression to evaluate the impact of tractorization and minimum wage, they determined that these effects could account for about 10% of the 1930-50 decline in labor participation. Thus, the usual explanations failed to account for much of the decline that occurred. They offered, instead, the hypothesis that an upward trend in black school enrollment was a much more likely explanation.

Formal discussion by Tom Kane pointed out that a link between trends in school enrollments in the 1950s and the 1980s would be interesting. He also argued that the paper needed more explanation as to why there was an increase in demand for schooling and whether or not variations existed between states. The educational attainment of earlier generations, entered into the equation with a 30-year lag, might provide helpful information. He urged a comparison with poor rural whites as well. Cynthia Bynon-Wilson and Joe Reid were concerned about the effect of black migration on the analysis. Jon Pritchett sought additional clarification on the definition of school enrollment and how it changed over time.

The final paper, "Hedonic Wages and Labor Market Integration: The US 1890-1903," was presented by Josh Rosenblum. This paper, coauthored by William Sundstrom (Santa Clara), extended previous studies of geographic integration in late 19th-century labor markets by explicitly considering inter-city variations in both wages and hours of work. Using occupation-specific wage and hours data for 10 occupa-

tions in 38 cities, they found no evidence that geographic variations in wages could be explained as a compensating variation for differences in hours of work. Instead, tests of market integration suggested that a unified national labor market did not exist in 1890 and that this pattern continued until 1903.

Sam Williamson provided formal discussion, commending the authors for providing a simple measure of labor market integration. However, he was concerned about the definition of a broader model incorporating wages and hours and wondered whether demand issues or supply issues were more important. He also felt more information on the impact of unions, age, training, and complementarity might be helpful in explaining wage differences. John Olson (St. Benedict) opened the general discussion by asking about whether an adjustment was made for seasonal labor. Joe Ferrie mentioned that supply shocks in the form of immigration might have played a role in the analysis. Ken Snowden felt that labor market fluidity could be important. Other discussion focused on the composition mix between areas and on questions about the construction of the income, wages, and hours of the data set.

## **Oh Where, Oh Where Can My Data Go? On Net, On Net It Can Go.** by Len Kloft (Miami)

You are revising your section of a joint paper and now you need to send it and several suggestions to your co-author who lives 2000 miles away. Compounding this problem, the time is 4:30 Monday afternoon and this paper has to meet a Friday deadline. How do you send the paper to your co-author, how do you look over your co-author's work, and how do you make any last minute revisions in the remaining days before the deadline? The choices are the postal service, Next Day Delivery which will not arrive until Wednesday, Fax, or telephone. These are the choices if you want to minimize the amount of time you can spend editing your paper. There is an alternative, **THE NETS**.

"**THE NETS?**" you ask. The telecommunications network systems which connect your campus computer system to other campus computer systems worldwide. No longer does your paper need to languish in a truck parked in front of a doughnut shop, but rather your co-author can examine your ideas within 5 minutes of your transmission, place comments in the document, and resend to you within an hour. Your paper spends more time under review than on the road.

Now that your curiosity is piqued, let's discuss **THE NETS**. Telecommunications networks support a multitude of services, but these can be divided into four basic categories: interactive messaging, electronic mail, file transfer, and interactive remote computer access. Not all networks support all of these categories and some features may be limited on one network and not on another.

### **Interactive Messaging:**

Interactive messages are short messages, usually one to two lines in length, sent by you to someone on the network. Since these messages are short, they are transmitted immediately to the destination and appear on the recipient's terminal. This is the fastest form of communication, but your intended recipient must be currently logged on; otherwise the message



is never delivered. These messages are normally limited to less than 255 characters. Owing to the message's small size, messages possess the highest transmission priority on many networks and this explains their speed of delivery. Interactive messages can be sent to only one user at a time. Not all networks support this feature.

#### **Electronic Mail:**

Electronic mail also delivers messages but is not an interactive system. Mail is slower but more reliable than messaging, since the recipient does not have to be logged onto the computer system. Since mail can be any length, mail is given lower priority than messaging on some networks and therefore travels on these networks only after higher priority information packets are sent. As the size of a mail file increases, the transmission priority decreases on those networks which assign priorities. Other networks do not rank mail on the basis of file size. Unlike interactive messaging, mail is held for a user if the user is not currently logged onto the system. Furthermore, mail can be sent to multiple users at one time.

#### **File Transfer:**

File transfer sends large data files, text files, or non-text format files from one user to another user. Transfer speed may be affected by the size of the file. On some networks, the larger the file, the lower the priority for transmission over the network. Some networks limit the size of files that can be transmitted and if your file is larger than the limit, you either have to break the file into smaller files or you send the file as is and hope that a network administrator does not purge your submitted file before it reaches its destination. Other networks do not limit file size.

#### **Interactive Remote Computer Access:**

Remote computer access permits you to use a computer account at another site. You then have access to the same computer resources and privileges that a user at the remote site possesses. For example if you are located at UC-Riverside, you could logon to an account at Miami University (Ohio) by some of the available networks. If you have a valid username and

password, you can perform any function that a local Miami user can.

For United States' researchers, the primary networks are BITNET and INTERNET. Researchers in Europe, Africa, Asia, South America, and Australia have access to INTERNET and their own national network systems. Institutions on BITNET or INTERNET are connected by heavy-duty telephone lines or, in the case of trans-oceanic connections, by satellite link.

**B(ecause)I(t's)T(he)NET(work)** refers to a computer network based in the United States and connecting several thousand universities, colleges, and research institutions world-wide. Many countries have systems similar to BITNET, but with their own appellations. For example, the United Kingdom has JANET. Nevertheless BITNET is the generic term to refer to the global system. BITNET was developed solely to promote the exchange of educational and research information, but also provides recreational services. BITNET does not permit commercial activity.

BITNET is a limited capacity network because it can transmit only a limited amount of information at a time. File transfer size is limited to 300,000 bytes or 3,750 80-character lines. To send larger files you must break your file into smaller files. Furthermore, BITNET is a "store and forward" network that uses an electronic chain. When information is sent from your site to the destination site, the information must pass through any site located on the electronic chain between your site and the destination site. The information is sent to each site on the chain and is stored at that site until the communication link to the next site is clear for transmission. This can result in delays if the electronic traffic is heavy or if a link in the chain you are using is down.

Using BITNET capabilities, you can send interactive messages and electronic mail and transfer small files between sites. As the file size increases, whether it is data, text, or mail, the transmission priority decreases. Therefore the larger your file, the longer it

will wait to be transmitted between nodes. BITNET does not support interactive remote computer access.

INTERNET began originally as the ARPANET, an experimental wide area network connecting hosts and terminal servers together. As local area networks developed, many hosts became gateways to local networks. A network connecting these gateway hosts was created to permit communication between these local networks and this interconnecting network is called the Internet Protocol. The collection of all these inter-operating networks is the INTERNET. INTERNET now includes ARPANET, NSFNET, and many regional networks. Currently, there are approximately 1000 networks on six continents comprising the INTERNET.

Unlike BITNET, INTERNET permits direct connection between your site and the destination site or, if a direct connection is not possible, then an adaptive linking mechanism is used. The adaptive linking mechanism lets INTERNET choose alternative connections to your destination. If one link is busy or down, INTERNET will find an alternative connection. Your electronic mail or data file is not stored at any sites along the network, but is sent directly to the destination. Using INTERNET capabilities, you can exchange electronic mail, transfer files, and interactively remote access another computer. Internet does not support interactive messaging, but does not limit file size as BITNET does.

To understand the above features and networks, I have included below sample commands to illustrate those features and their implementation on either BITNET or INTERNET. If your mainframe and operating system is listed below, just enter the commands as typed below or simply check with your computer center support staff.

#### *Interactive Messaging:*

**BITNET using IBM VM/CMS system:**

TELL LKLOFT@MIAMIU Hello I  
read the article.

**INTERNET** - this feature is not available.

#### *Electronic Mail, just enter the commands and :*

**BITNET using IBM VM/CMS system:**

MAIL LKLOFT@MIAMIU

**INTERNET using IBM VM/CMS system:**

MAIL LKLOFT@MIAMIU.ACS.  
MUOHIO.EDU

**INTERNET using VAX/VMS system:**

MAIL IN%"LKLOFT @MIAMIU.  
ACS.MUOHIO.EDU"

#### *Transferring Files:*

**BITNET using IBM VM/CMS:**

SENDFILE filename filetype TO  
LKLOFT@MIAMIU

**INTERNET using IBM VM/CMS:**

Supports file transfers, as a general rule, *via* direct access to the recipient's account on her computer. To use this facility, you will normally need to use the following procedure, *e.g.*:

FTP MIAMIU.ACS.MUOHIO.EDU  
USERID  
PASSWORD  
PUT filename filetype (to send a file)  
GET filename filetype (to receive a file)  
QUIT

*Remote Computer Access:*

**BITNET** - does not support this feature.

**INTERNET** once again requires several commands. The **TELNET** command followed by the remote computer's site identification code is your key to interactive remote computer access. After entering this statement, you must have a valid user account and the password.

Throughout this article I have referred to recipients, destinations, and remote computers. To access another user on the networks, you need to know the user's id and the network name for the computer system to which they are connected. My address on **BITNET** is **LKLOFT@MIAMIU**, where **LKLOFT** is my userid and **MIAMIU** represents the Miami University IBM mainframe. On **INTERNET**, my address is **LKLOFT@MIAMIU.ACS.MUOHIO.EDU**, where **LKLOFT** is my userid and **MIAMIU.ACS.MUOHIO.EDU** represents the Miami University IBM mainframe. **INTERNET** computer site addresses normally have 3 or 4 names joined by periods. **MIAMIU** is the IBM machine at Miami University, **ACS** is the abbreviation for Miami University's computer services, **MUOHIO** identifies that this is **MIAMI UNIVERSITY OF OHIO**, and **EDU** signifies that this computer node is in the United States.

Both **BITNET** and **INTERNET** use similar addresses, but the **INTERNET**'s addresses contain more information, thus enhancing the adaptive linking mechanism. All other networks use similar addressing techniques. Sometimes the computer node is represented by a series of numbers separated by periods. **INTERNET** can use either letter or numeric addressing.

At this stage, I need to insert a note on **JANET**. **JANET** is the network system in the United Kingdom and we have experienced some problems connecting to **JANET** from Miami University's computers. To access a user at the London School of Economics, the **INTERNET** address should be **userid@**

**LSE.AC.UK**. This past fall until February 23, 1992, this address, as well as any other United Kingdom addresses, generated host name errors. The workaround was to invert the computer node address, **userid@UK.AC.LSE**. As of February 23, 1992, this workaround generates errors and the address should again be written as **userid@LSE.AC.UK**. Any updates to solving these problems with **JANET** will be noted in future Newsletters.

Given the preceding information, the user can employ either **BITNET** or **INTERNET** as a viable alternative to post offices and fax machines. **BITNET** is easier to use but limits the amount of information that you can send at one time. This ease of use arises from the limited options. Furthermore, **BITNET** can develop rather serious electronic traffic jams. **INTERNET** requires the user to know more commands but is more flexible and powerful and does not limit file sizes. With the adaptive linking mechanism, congestion or electronic traffic jams rarely occur on **INTERNET**. Furthermore, **INTERNET** permits you not only to receive files, but to send files to accounts at other computer sites. Moreover, **INTERNET** possesses the remote computer account access.

No matter which network you choose, each can provide you with a service superior to the postal service. How do you ensure that you and your co-author have 4 days to revise your paper? Use **THE NETS**.

## CALL FOR PAPERS 1993 ASSA MEETINGS

Any member interested in presenting a paper at The Cliometric Society Sessions at the ASSA meetings in Anaheim, CA, January 5-7, please note the following deadlines. Please pass this announcement on to colleagues and students who may want to submit their work.

Deadlines that must be met:

**May 22:** Two copies of a two-five page proposal of your paper is received by:

Eugene N. White  
Department of Economics  
New Jersey Hall  
Hamilton Street  
Rutgers University  
New Brunswick, NJ 08903-5065

Gene and his co-chair will notify presenters of acceptance by June 22.

**August 31:** A 2,000 word summary of your paper is received at The Cliometric Society office; Department of Economics, Miami University, Oxford, OH 45056 (tel. 513-529-2850). Summaries will be published in the October Newsletter. Please do not submit a proposal if this deadline cannot be met.

**December 7:** The final version of your paper is received from you by the discussants and other presenters in your assigned session.

**Session presiders and discussants are needed.** If you will be attending the ASSA meetings and would like to be involved in the Clio sessions, we would appreciate hearing from you by June 22.

**"Cotton Spinning Lists in Lancashire: A Case Study of Efficiency Wages" Michael Huberman (Trent University)**

By the end of the 19th century piece rate lists regulated the wages of more than ninety percent of spinners in Lancashire. The lists were rigid and difficult to adjust, governing industrial relations as the 'force of laws.' Contemporaries claimed that the lists made British industry uncompetitive, but William Lazornick has recently argued that the lists raised productivity in the industry. Despite these contributions the origins of the lists and their makeup remain unclear. I use a two-sector efficiency wage model in which there is imperfect monitoring to explain the origins of the lists. One sector was composed of large firms, the other of small firms. Monitoring costs were greater at large firms and to reduce costs they paid stable and high piece rates which were codified in wage lists.

**"Wealth Redistribution, Race, and Southern Public Schools, 1880-1910" Kenneth Ng (California State University, Northridge)**

This paper measures the wealth redistribution effected by southern public schools and the taxes which supported them. It extends and contributes to the existing literature on this subject in three ways. First, the measurement is based on a larger sample of southern states and over more years than previous efforts. Second, the paper establishes that from 1880-1910 throughout the South the public schools were a conduit for a consistent and significant flow of resources from whites to blacks. Blacks did not pay enough taxes fully to finance black public schools even at the lower levels dictated by white controlled school boards. Third, the establishment of segregated schools and the disenfranchisement of southern blacks did not eliminate this transfer but only moderately reduced it, i.e. the effect of "separate but equal" schools was not as large as previously thought.

**"Economic Change in Later Imperial and Modern China: Adam Smith and Beyond" R. Bin Wong (UC Irvine)**

This paper argues that the Chinese economy experienced Smithian dynamics of growth before the late nineteenth-century growth of foreign trade. Foreign contact did not have the transformative impact some have expected because its major features represented extensions of previous economic dynamics. Though China benefited from Smithian growth, it failed to experience the kinds of technological and organizational changes associated with Europe's industrial revolution. The Chinese case supports E.A. Wrigley's distinction between growth in the classical economist's world and the possibilities of a mineral-based economy.

**"State Policy and China's First Joint-Stock Company in the Mid-Nineteenth Century" Chi-kong Lal (UC Davis)**

During the mid-nineteenth century, the internal expansion of trade and commerce and the penetration of Western trading operations combined to produce dramatic changes that led to the state encouraging the development of modern Chinese industrial enterprise. The Qing government played an active role in many new business ventures, particularly those with security implications. Drawing on rich documentary sources and archival holdings, this study analyzes the impact of Qing state policy on the development and operation of China's first joint-stock company the China Merchants Steam Navigation Company from 1872 to 1902. I focus on the practice of "government supervision merchant enterprise" in this early modern joint-stock company. The state had a positive impact on China's industrialization when it pursued an appropriate policy. The initial success of China's modern enterprises, such as the China Merchants Steam Navigation Company, was due to a balance between government financial support (which ensured profits) and enterprise autonomy (which guaranteed sound management). With state support, merchants were willing to commit their resources to these undertakings. Government support led later to direct bureaucratic control of the company's affairs, and undermined managerial autonomy, upsetting the balance. Especially after the 1883 financial crisis, government changed its policies in ways that severely impaired the quality of management, and heavily taxed these companies, which discouraged subsequent investment. The industrialization process of the late Qing period provides valuable background for

understanding contemporary China, where leaders again are searching for an appropriate mixture of state guidance and encouragement on the one hand, and private investment and initiative on the other. Contemporary China may be encountering some of the same structural problems as late Qing China.

**"Agricultural Productivity Growth in France: Regional Variations, 1450-1789" Philip T. Hoffman (Caltech)**

Using evidence from leases and price series, this paper examines the total factor productivity of farming in various regions of France from the end of the Middle Ages to the early nineteenth century. Existing evidence about productivity is unreliable, the paper argues, and the leases and prices provide historians with a new and valuable source for the study of productivity and economic growth. The paper defends the use of the leases and prices by examining growth in the Paris Basin in great detail; the paper then turns to other regions of France. Although productivity growth in particular regions could rival that achieved in England for brief periods, over the long run it was slow, particularly in the eighteenth century, and often set back during times of war and increased taxation. The Paris Basin provided the only exception to these generalizations.

**"Agriculture during the Industrial Revolution, 1700-1850" Robert C. Allen (University of British Columbia)**

The paper surveys the development of British agriculture from 1700 to 1850. An index of the growth in English farm output is developed using Chartres' and Holderness' estimates of the outputs of the main commodities. This index is compared to those of Deane and Cole and Crafts. The indices agree on the magnitude of the output growth from 1700 to 1850 but disagree about timing. Estimates of the growth of land, labour, and capital are developed and total factor productivity growth is computed. The impact of enclosure, farm amalgamation, and changes in methods on the growth in output and efficiency is assessed. The contribution of agrarian change to economic development is analyzed.

**"In Search of the Agricultural Revolution: Southern England, 1611-1850" Gregory Clark (University of California, Davis)**

The productivity of British agriculture was among the highest in Europe by 1850. Estimates of required food output in Britain in the years 1770 to 1850 suggest that total output more than doubled in this period. Thus it appears that an agricultural revolution must have accompanied the Industrial Revolution. This paper, using new information on input costs in agriculture, examines whether and when the expected agricultural revolution occurred. Surprisingly the cost information shows little productivity growth between 1770 and 1850, and a modest decline in productivity from circa 1700 to 1770. From 1611 to 1700 there was a reasonable but un spectacular productivity growth. Thus the agricultural revolution occurred before 1700, and much of it must have taken place before the seventeenth century. The latter sections of the paper consider how we can reconcile this information with the consumption evidence.

**"Rural Credit and Agricultural Production in Jiangnan during the Ming-Qing Era" Ming-te Pan (University of California, Irvine)**

The traditional notion on rural credit has long been associated with "usury." It is believed that through the practice of "usury" rural surplus was siphoned out from the rural sector; therefore resulting in rural poverty. The conventional wisdom also asserts that rural credit was predominantly used for consumption purposes, and had very little to do with boosting agricultural production. Contrary to these observations this paper aims to offer another approach in interpreting the role of rural credit and its relation to agricultural production in 17th and 18th century China. The paper argues that Chinese peasants in the Ming-Qing era did actively use rural credit for production purposes. Rural credit in Jiangnan during the Ming-Qing era was closely associated with semiculture production, fertilizer application and irrigation improvement. Furthermore, rural credit is a crucial factor in shaping the unique development pattern, with handicraft subsidizing agriculture, of 17th and 18th century Jiangnan.

"Economy, Community and Law: The Turnpike Movement in New York, 1797-1845"  
Daniel B. Klein (UC Irvine) and John Majewski (UCCLA)

Turnpike companies were the exemplary type of early American business corporation: they were the most prevalent, they were the most community laden, and they were unprofitable. The turnpike experience enhances our understanding of the evolution of the law of private and public corporations. We explain that the state turned to the private sector for highway management because of our intense commercial and regional rivalries and the failure of public alternatives. Private management and toll-taking were startling innovations to some members of the community, however, and they protested the introduction of turnpikes. The *betre noires* of "private corporation" and "aristocracy" were often used to denounce turnpikes. The legislature both expressed and responded to these suspicions by writing laws favorable to local users and damaging to the financial viability of the companies. Partly in consequence of the unfavorable laws, turnpikes were unprofitable. Merchants, farmers, and landowners struggled to finance turnpikes, not in hopes of company dividends, but in hopes of improved transportation, stimulated commerce, and higher land values. Many turnpike projects were stillborn while those that were constructed hobbled along in a precarious financial state.

"The Great (or Not-So-Great?) Depression of the 1890s: New Suggestive Estimates of the Unemployment Rate, 1890-1905" Susan B. Carter (UC Riverside) and Richard Sutch (UC Berkeley)

According to the standard annual employment estimates developed by Stanley Lebergott [1964] the United States experienced sustained, double-digit unemployment rates throughout the 1890s. According to Lebergott's estimates, the unemployment rate soared from 3 to 11.7 percent between 1892 and 1893, then climbed to 18.4 percent in the year that followed. It remained above ten percent for the next four years. The average unemployment rate for the eleven years spanning 1890 to 1900 was 9.9 percent. Recent critiques of Lebergott's estimation techniques put forward by Christina Romer and David Weir raise doubts about the severity of the depression of the 1890s. Romer's suggested adjustments lower the average unemployment rate over the decade to 8.5 percent. Weir suggests that the correct figure is only 6.8 percent.

This report suggests that the depression of the 1890s should be restored to its former infamy. We highlight and measure two aspects of unemployment that have been overlooked in previous estimates: (1) unemployment created by industrial suspensions of operation in which the entire firm closed for several months throwing all employees out of work, and (2) unemployment created by the exit of firms. We develop rough estimates of the magnitudes of the flows into and out of employment created by these processes. We show that the flows were very large relative to the flows of workers onto and off of payrolls of firms remaining in continuous operation. Building on the insights of Romer and Weir but taking account of the employment flows we have identified raises the measured unemployment rate for the decade of the 1890s to more than ten percent.

"Did Gilbert's Act Raise Relief Expenditures or Reduce Wages? Some New Evidence from the Eighteenth Century Expenditures Records" Ane M. Quade (California State University, Sacramento)

English relief expenditure records from the late eighteenth century are analysed for the first time in conjunction with the better-known early nineteenth century records. Results support the revisionist hypothesis that the Gilbert-Speelmanland reforms had little or no impact on either relief expenses or labor markets during their first twenty years of operation.

"Agricultural Seasonality and the Organization of Manufacturing during Early Industrialization: The Contrast between Britain and the U.S." Kenneth L. Sokoloff (UCCLA) and David Dollar (The World Bank)

The United States differed dramatically from Britain in the way manufacturing was organized during early industrialization. Even before widespread mechanization, American production was almost exclusively from centralized plants, whereas the British and other European economies were characterized by extensive cottage manufacture. This paper argues that this contrast was rooted in a salient disparity between the land-to-labor ratios of the two countries. Together with its later settlement, the relative abundance of land in the U.S. led its agricultural sector to be much less concentrated in grain than was British agriculture. Since the labor requirements of grain production were much more seasonal than were those of the other major agricultural products of the era (dairy products, livestock, wool, and cleared land), and agriculture was the dominant sector in both economies, there were more seasonal fluctuations in British labor markets than in the American. We argue that this difference in the extent of seasonality is crucial because cottage manufacture had a relative advantage in the use of off-peak or part-time labor. Quantitative evidence and a general equilibrium model are employed to present the analysis and subject it to tests of consistency with the empirical record.

"What Ended the Great Depression?" Christina D. Romer (UC Berkeley)

This paper examines the role of aggregate demand stimulus in ending the Great Depression. A simple calculation indicates that nearly all of the observed recovery of the U.S. economy prior to 1942 was due to monetary expansion. Huge gold inflows in the mid- and late-1930s swelled the U.S. money stock and appear to have stimulated the economy by lowering real interest rates and encouraging investment spending and purchases of durable goods. The finding that monetary developments were crucial to the recovery implies that self-correction played little role in the growth of real output between 1933 and 1942.

"Structural Change in the Farm Labor Force: Contract Labor in Massachusetts Agriculture, 1750-1865" Winifred B. Rothenberg (Tufts University)

Massachusetts farm account books document the appearance of monthly labor contracts by the mid-eighteenth century and their erratic, but generally increasing, frequency after 1800. The theory-of-contracts literature identifies the following as motivating their use: they insure workers against seasonal unemployment, they enable employing farmers to hoard peak-season labor at off-season wages, they facilitate access to interlinked land and capital markets, and they minimize search costs for both sides. But the finding that contracts did not in fact lengthen over time, nor did long-term contracts become more frequent, suggests that the sharp seasonality of New England agriculture overcame the advantages of "lock-in." A comparison of monthly and daily wage rates exposes a complex structure of wage differentials in agriculture, consisting of seasonal, harvest, and spot-market premia the persistence of which speaks to the existence of a dual labor market segmented between young, unmarried, transient males working on contract by the month, and older, married, and more rooted men working by the day. While contract labor remains to this day the dominant mode of organizing agricultural labor throughout the developing world, the freedom Massachusetts workers had to quit opportunistically, and be paid without penalty on a quantum meruit, made Massachusetts farm labor one of the freest labor markets in the world, and bids fair to make free labor markets America's genuinely "peculiar institution."