REGIONAL LABOR-MARKET DATA: WHY BOTHER? HOW TO BOTHER

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Labor market data were originally regional. In the latter half of the 19th century, a movement arose to establish state labor bureaus which led eventually to the creation of today's U.S. Bureau of Labor Statistics (BLS). The 1930s and 1940s saw the rise of macroeconomic policy, with the federal government viewed as having responsibility for maintaining economic stability. As a result, the priority in data collection became production of macro indicators of inflation, employment and unemployment, and the national income accounts. In the future, federal budget pressures could easily result in data collection becoming almost entirely focused on such core macro statistics.

Unfortunately, there are significant state and local variations in economic performance that also need statistical illumination. I will concentrate on the California experience below to illustrate these concerns. There are certainly many bright spots in the production of regional labor-market data. For example, the COMP2000 initiative of BLS, which promises better integrated pay data at the local level, will be a plus for regional analysis. However, it is problems that are best addressed here so that remedies can be considered.

I. THE CALIFORNIA EXAMPLE

California is the largest state in the U.S.. If California were a country, it would have been the eighth largest economy in the world in 1994, based on nominal dollar GDP. Unlike the data available for most developed countries, however, statistics on the California economy, especially current time series, are quite limited. What California does have are data on the labor market: employment, unemployment, and wages. These data are really the byproducts of the provision of national aggregates. Nonetheless, it remains the best source of measurements of current economic activity and trends in the state.

This study focuses on the two major surveys that comprise the labor market data: the household survey, and the establishment survey. The former is based on a monthly survey of about 50,000 households, with 4,500 having been done in California. The latter is based on reports from about 390,000 nonagricultural establishments (with 37,700 in California), annually benchmarked (with a long lag) to ES-202 unemployment insurance (UI) reporting forms which most employers must file. Both produce job counts, a matter of great concern to local policy makers.

California has had a running series of problems with these surveys, including difficulties that became high profiled issues due to the state's extended recession in the 1990s. The recession directed the attention of economists and politicians to the need for information on precisely what was happening to the California economy. Sadly, the answers initially produced were plagued by inconsistency and error. Happily, attempts are now underway to improve the establishment survey. Unfortunately, problems with the household survey and its relation to the establishment

survey remain and a looming change in industrial classification will make interpretation of regional developments difficult for users.

II. ESTABLISHMENT DATA: CONFLICT, REVISIONS, DISCREPANCIES

Regional economic forecasters have regarded employment data from the establishment survey as key to developing a profile of local trends. Forecasters rely on the establishment series because so many business units are covered that even local area data are considered reasonably reliable. In the early part of the 1990 California recession, however, problems with this indicator arose. The administrative mishaps that led to these problems are outlined elsewhere and will not be recalled in detail in this analysis.[1]

In essence, because of the lag in benchmarking, the California Department of Finance had long produced an "interim series" of establishment data based on the raw UI reporting forms to which the official establishment series would eventually be linked. By late 1991, the establishment series was showing a gradual decline in employment while the interim series was showing employment in showing free fall. At the same time the household series suggested that the recession had passed and California employment was rising from the trough.

Subsequent revisions and re-revisions have largely reconciled the conflicts for the historical record. When originally published, however, the conflicting indicators caused consternation among California analysts. Even with the historical statistical fix, problems remain with the use of the establishment employment series as a current indicator.

Most importantly, during the California recovery, the interim employment series increased faster than the establishment series, necessitating after-the-fact upward adjustments in the latter. For 1996, the upward adjustment was an estimated 57,000 jobs. The standard explanation has been that the interim series was picking up formation of small firms that were missed in the official sample. This explanation, however, seems to mask other problems. In Los Angeles County, for example, the establishment series reportedly *overstated* actual jobs by 46,000 in 1996. Thus, in other areas of the state, the establishment series undercount was over 100,000 jobs.[2]

A BLS program is now underway to deal with the problem of infrequent and long-lagged benchmarking. In the meanwhile, however, the "solution" to the discrepancy between interim data and official establishment data is to avoid making the former widely available. State and BLS sources now issue just the official establishment series in press releases. The state makes the interim series, which may be more reliable, available only on request. Hiding the discrepancy problem or making it less visible, does not seem appropriate. One official is reported to have been "silenced" for referring (correctly) to preliminary results from the Los Angeles interim series suggesting an eventual downward revision of the official series.[3]

III. PROBLEMS WITH HOUSEHOLD EMPLOYMENT DATA

Even a repaired establishment series will still leave a potential discrepancy with the household series. What is often not realized about the household series is

[1] Daniel J.B. Mitchell, "Statistical Discrepancies in Our Federal Data Programs," *Challenge*, July/August 1995, pp. 38-45.

[2] Don Lee, "State's Job Growth for '96 Rosier than Thought," *Los Angeles Times*, March 1, 1997, pp. D1-D2.

[3] Stuart Silverstein, "Heard on the Beat," *Los Angeles Times*, December 27, 1996, p. D2.

that absolute estimates of labor force, employment, and unemployment are based on ratios within the sample. Once it is determined, for example, that a certain percent of the population is employed, the job count is determined by multiplying that fraction by an estimate of the underlying population.

The underlying population estimates are made by the Bureau of the Census and benchmarked to the decennial *Census of Population.* Some correction must be made, therefore, at the points at which new *Census* data become available. At the national level, the corrections are not likely to be large relative to the overall population. At the state level, however, the effect may be magnified by in-and-out migration. California has a disproportionate amount of foreign migration and historically has attracted a net inflow of U.S. migration from other states, except when the California labor market was relatively weak.

Changing Census Bureau estimates for California's population had an unfortunate effect during the recession of the 1990s. As Figure 1 shows, the household estimate of California employment as of late 1993 depicted an economy that had been through a short recession but was recovering. However, later data now paint a different picture; they suggest that the California economy suffered a deep and prolonged recession such that annual household employment remained below its previous peak as late as 1995. This change was apparently due to revised population estimates for the state.

If the establishment survey is improved so that its employment estimates more accurately reflect actual levels, then it would seem logical to benchmark the employment levels of the household survey to the establishment data on a continuous basis. The coverage differences could be taken into account in any benchmarking process. Indeed, for smaller states and areas, BLS has long used establishment data as inputs into labor force estimates. And since 1996, thanks to budget cuts, it became necessary to apply such techniques to larger states and areas such as California and Los Angeles.[4]

Linking household employment to a reliable count of payroll employment seems a better approach than linking it to population estimates. As noted, such estimates are revamped every ten years based on the *Census.* But they are subject to between-census adjustments and discontinuities due to uncertainties related to immigration (especially important to California), as evidenced most recently in January of 1997[5] (note that proportionate breakdowns by age, race, etc., would still have to rely on the Census and household survey). *In short, a complete reform of labor market data would 1) improve establishment benchmarking to UI-related information (thus eliminating the interim series/official establishment series discrepancy in California), and 2) benchmark the household employment series to the new and improved establishment series created by step #1 on a continuous basis for the U.S. as well as for states and areas.* At present, efforts seem directed only to the first of these improvements.

IV. INDUSTRIAL CLASSIFICATION CHANGES

For decades, the U.S. has relied on Standard Industrial Classification (SIC) to characterize the location of employment and economic activity. The SIC is well understood by users and reporting employers but like any classification system, it becomes dated as new industries are created.[6] Still, although the SIC has been

[4] The author thanks Sharon P. Brown of BLS for information on current methodology.

[5] Population over 16 years was raised by 470,000 in January 1997 due to immigration reestimates according to BLS press release USDL 97-32, February 7, 1997.

[6] The impact of change is not always what might be expected. In comments on the SIC, a representative of

revised periodically, it has been possible to convert from old to new, at least at the broader industrial sector level. Thus, time series analysis has remained possible at the regional (and national) level despite SIC revisions.

Unfortunately, this continuity is about to be interrupted. It is important to recognize that time series data are key inputs to regional analysis. The regional analyst wants to know what industries are important employers to be sure, *i.e.*, a snapshot of industrial employment. He or she then wants to know what has been happening to local industries, a time concept. Anything that prevents this question from being answered is not user-friendly.

A new concept is slated to replace the SIC which could prevent time series usage and which raises other questions. The new North American Industry Classification System (NAICS) is being touted as a modernized, activity- or supply-based system which will be used by all three NAFTA countries. As an activity-based concept, it will, for example, separate out the accounting department in the steel mill from the steel-making process. This notion has a certain theoretical appeal and would be a plus if it were simply a supplement to the current SIC. But as a replacement for the SIC (rather than a supplement), it poses a problem for users.

First, if the accounting department is actually located in the steel mill, there is probably some institutional link explaining the connection. That is, the "virtual" corporation, so popular in the business press, is not the dominant mode of production. It exists mainly in film-making and the computer/multimedia world. Elsewhere, there is a gradual shift toward outsourcing made easier by telecommunications advances. How far the shift will go, no one really knows. In the example above, the chances are that if the steel mill shut down, its internal accounting unit will also be closed. A regional analyst would want to take account of this linkage, which the current SIC approach allows (albeit imperfectly).

Second, and more importantly, if the SIC is just dropped and replaced by a different concept, it will not be possible to re-create a time series historically based on the new concept. All series below the broadest aggregates will be broken and for years to come analysts will not have time series records on which to base predictions. Macro policy makers will not be much bothered by this outcome since they worry only about the broad aggregates. Those with regional or micro orientations face major difficulties, however.

Consider Figure 2 which shows two alternative wage series in California in ratio to their equivalents for the U.S. as a whole. One series is average hourly earnings of manufacturing production workers. This series begins to drop toward the national average in recent years, probably as high-paid aerospace jobs declined and were replaced by low-paid jobs in industries such as apparel. The second series, annual earnings per employee in all sectors, shows a much milder drop and possibly no significant trend at all. High-paying motion picture jobs, which have been increasing in California, may be counteracting the aerospace drop. Also on Figure 2 is per capita income which shows a pronounced decline. Some of the movement may reflect aggregate job decline in the early 1990s as population continue to increase. But job trends differed by industry and might be apportioned differently across sectors as contributors to the relative decline in per capita income.

(Footnote Continued)

computer manufacturers indicated that the SIC was "reasonably accurate" for his industry. But a representative of Armstrong complained about the out-of-date linoleum code. *See* footnotes 49 and 50 in U.S. Department of Commerce, "Summary of Public Comments to ECPC Issues Papers Nos. 1 and 2," October 1993 (available on internet).

What is causing the movements in these series and what accounts for their different trends? Presumably, the changing industry mix of employment, along the lines suggested, is a key factor to be analyzed. Existing employment-by-industry data would allow such analysis. But suppose half way through the period shown on Figure 2, we had switched to a completely different industry classification system. It would then be impossible to verify or refute the explanations proffered above for important labor-market phenomena in California.

All indications are that the statistical establishment is committed to a switch to the NAICS. Halting this move would be as difficult as stopping a runaway train. To the extent that there are user protests, however, some braking might be possible. *Users should demand that the two concepts, SIC and NAICS, be provided in parallel for an extended period. Alternatively, historical data for NAICS should be produced prior to conversion.*

V. TWO FINAL PROPOSALS FOR AN ERA OF LIMITED RESOURCES

The long-run structural problem of financing statistical provision is likely to remain, notwithstanding President Clinton's recent statistical budget proposals. Regional data, therefore, are potentially imperiled. Two final suggestions, one dealing with frequency and the other with public/private partnerships, may help remedy this problem. Both are intended to economize on scarce statistical resources.

Frequency

Many of our major data series are produced on a monthly basis: consumer and producer prices, employment, and unemployment. Yet we have long gotten by with quarterly production of GDP. So the issue arises as to whether monthly frequency is more than we need. Would policy makers (or stock traders) suffer if they had only quarterly inflation or unemployment rates to consider? Would not quarterly data in fact smooth out many of the blips that monthly series entail? *Could we trade off detail in frequency, which has a cost, for better detail and accuracy at the state and local level? It is worth considering.*

Public/Private Partnerships

Private organizations and firms produce potentially useful data, sometimes to sell or sometimes for public relations. However, they often do not have the technical expertise of agencies such as BLS with regard to sampling and similar matters. One example of useful data is Manpower's series on employer hiring intentions.[7] Another is the Conference Board's series on help-wanted advertising, often used as a proxy for vacancies.[8] A third is the union settlement data of the Bureau of National Affairs, Inc., including listings by state. Similar union data were abandoned by BLS in 1995. *With limited dollars available, BLS might consider partnering with private data-gathering organizations to expand and improve the private surveys so as to provide more regional detail and to help with technical issues.* Such an approach would save on scarce statistical dollars and provide regional analysts with an improved look at labor-market developments. In the future, regional analysts will need good data from all available sources, public and private.

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[7] Daniel J.B. Mitchell and David Hensley, "Employment Forecasting and Employer Hiring Survey Data: Evaluation of the Manpower, Inc. Index," *UCLA Business Forecast for the Nation and California*, June 1993, pp. Nation 17 - Nation 30.

[8] Katharine G. Abraham, "Help-Wanted Advertising, Job Vacancies, and Unemployment," *Brookings Papers on Economic Activity* (1:1987), pp. 207-243.

Figure 1: Household Employment in California

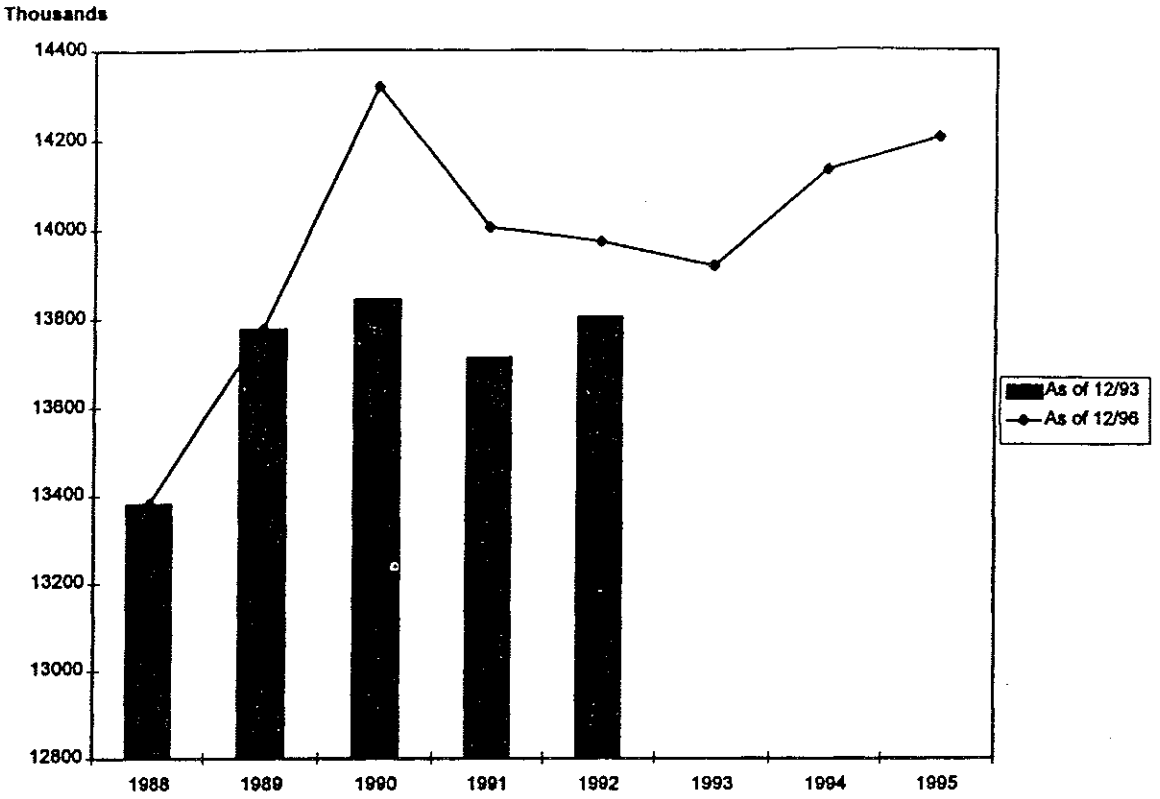
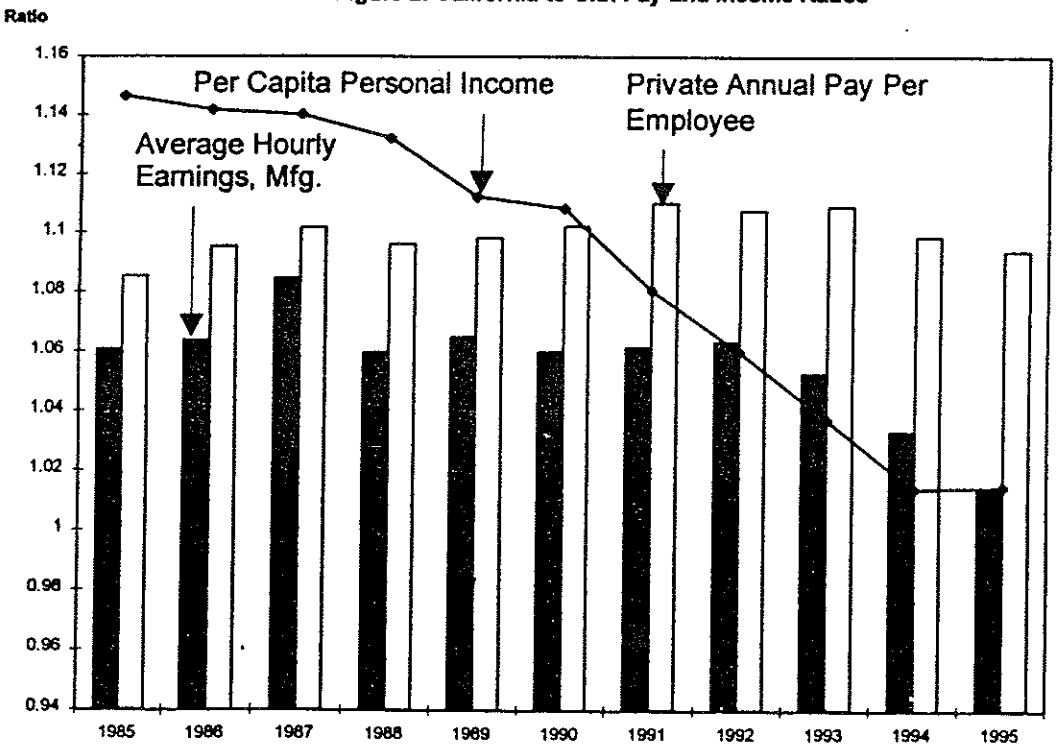


Figure 2: California-to-U.S. Pay and Income Ratios



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