To what extent is business flight contributing to the harshness of the recession in Southern California? While job loss may be inevitable given national economic conditions and the industrial mix of the region, the loss of firms to other states must be linked to local conditions as well as to national trends. A comparison of plant relocation trends to overall employment trends in Southern California shows the degree to which business flight has contributed to the region’s recent job losses.

Tracking Firm Movement In Southern California

The Los Angeles Economic Development Corporation (EDC) has begun tracking firm movement out of Southern California. The organization has done so by communicating with local private industry councils and real estate firms, with firms specializing in corporate moves, and with economic development agencies in other states and cities outside of California, where companies have relocated. The resulting list of firms, while not a scientific sample, appears to be quite comprehensive, covering many locations and identifying firms from many different economic sectors.

CREUE has taken the EDC listing of firms and categorized firms by location of origin and of destination, by industrial type, by employment size and by year moved. The following discussion is based on an analysis of this listing and a comparison of this data to overall employment trends in Southern California.

Small Numbers of Firms, More Employees

As of September 1992, the EDC had identified a total of 248 firms that have relocated from Southern California since 1985, or have announced plans for relocations that will occur later in 1992 or in 1993. This is a very small number compared to the total number of firms in Southern California.

(Continued on page 2)
Relocations...

(Continued from page 1)

the region, but it represents almost 60,000 employees. Most of the firms are small or mid-sized, but a few moves have included 1,000 employees or more (see Figure 1). Most of the moves identified occurred during the 1990-1992 recession (Figure 2), a period during which Southern California lost over half a million jobs. Interestingly, the largest firms appear to have moved early in the recession (1990), while more recent moves involve, on average, smaller firms. (The very small numbers of firms identified for the pre-1989 period may in part reflect the EDC’s timing of data collection and data collection techniques.)

Moves Appear Significant for Some Sectors

While the moves overall represent a relatively small proportion of firms and employees, for some sectors these represent a significant share of total job loss. The largest number of firms has been lost in industrial machinery and equipment (SIC 35), as shown in Table 1. This includes a mixture of firms, from older manufacturing to high-tech computer-related operations. Second in number of firms, but leading the list in number of employees lost, is the transportation equipment sector (SIC 37), which includes both aerospace and automobile manufacturing. Employment losses from firm relocation also topped 3,000 jobs in health services, business services, and electronics.

The proportion of jobs lost through relocation is particularly high for high-tech sectors when compared with total job losses in the largest Los Angeles area counties (Los Angeles, Orange, Riverside and San Bernardino counties). For the 1990 to 1992 period, jobs lost to relocation were equivalent to 31.8% of jobs lost in industrial machinery and equipment, 23.1% of jobs lost in transportation equipment, and 13.2% of jobs lost in electronics (Figure 3).

Firms Leaving Southern Cal for Other Sunbelt Sites

The great majority of firms identified by the EDC are leaving either...
<table>
<thead>
<tr>
<th>SIC Code-Sector Name</th>
<th>No. of Companies</th>
<th>Employees Affected</th>
</tr>
</thead>
<tbody>
<tr>
<td>37-Transportation Equipment</td>
<td>35</td>
<td>21,581</td>
</tr>
<tr>
<td>376-Guided missiles, space vehicles, parts</td>
<td>14</td>
<td>9,350</td>
</tr>
<tr>
<td>372-Aircraft &amp; parts</td>
<td>9</td>
<td>5,795</td>
</tr>
<tr>
<td>371-Motor vehicles &amp; equipment</td>
<td>7</td>
<td>3,196</td>
</tr>
<tr>
<td>379-Misc. transport. equip.</td>
<td>5</td>
<td>1,101</td>
</tr>
<tr>
<td>80-Health Services</td>
<td>1</td>
<td>1,155</td>
</tr>
<tr>
<td>73-Business Services</td>
<td>14</td>
<td>1,704</td>
</tr>
<tr>
<td>35-Industrial Machinery &amp; Equipment</td>
<td>36</td>
<td>4,559</td>
</tr>
<tr>
<td>36-Electronics</td>
<td>23</td>
<td>3,916</td>
</tr>
<tr>
<td>34-Fabricated Metal Products</td>
<td>15</td>
<td>1,740</td>
</tr>
<tr>
<td>39-Misc. Manufacturing</td>
<td>15</td>
<td>1,101</td>
</tr>
<tr>
<td>38-Instruments</td>
<td>11</td>
<td>1,155</td>
</tr>
<tr>
<td>25-Furniture &amp; Fixtures</td>
<td>11</td>
<td>496</td>
</tr>
<tr>
<td>20-Food Products</td>
<td>7</td>
<td>740</td>
</tr>
<tr>
<td>28-Chemicals &amp; Allied Products</td>
<td>7</td>
<td>234</td>
</tr>
<tr>
<td>23-Appliance</td>
<td>5</td>
<td>333</td>
</tr>
<tr>
<td>26-Paper Products</td>
<td>6</td>
<td>330</td>
</tr>
<tr>
<td>30-Rubber &amp; Misc. Plastics Products</td>
<td>9</td>
<td>281</td>
</tr>
<tr>
<td>50-Wholesale Trade, Durable Goods</td>
<td>7</td>
<td>234</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manufacturing</td>
<td>8</td>
<td>749</td>
</tr>
<tr>
<td>Nonmanufacturing</td>
<td>13</td>
<td>5,793</td>
</tr>
<tr>
<td>n/a</td>
<td></td>
<td>441</td>
</tr>
<tr>
<td>Total:</td>
<td>248</td>
<td>58,754</td>
</tr>
</tbody>
</table>

Source: CREUE from Econ. Dev. Corp. of LA County (9/3/92) and BLS data.

Los Angeles or Orange County, the two counties with the largest employment bases in Southern California (Figure 4). Los Angeles has felt a particularly high share of employment losses. More than half of all firms are moving to nearby Pacific or Mountain states, as shown in Figure 5. These states also account for more than one-third of employees lost (Figure 6). The South Central United States (especially Texas) account for more than one-fifth of firms moving and for more than one-third of employment loss through relocation. Only a small number of firms have moved beyond the U.S. borders (although this may in part reflect the EDC’s methodology). For some sectors, however, even these moves are significant, as with the loss of three furniture firms to Mexico.

**Relocations in a Larger Perspective**

While the figures quoted here are of interest, and should be of concern as well, it is important to note the limited context of this data. First, the EDC data, as reported, may overestimate the “outmigration” component of job loss by counting lay-offs that occur during a move as relocated jobs. For example, a division of several thousand employees may close in Southern California, with the function moving to a new location in another state. The new location, however, may hire only one-third the number of employees of the old location—the additional job losses would have occurred with or without the move. Second, while relocation impacts may be overestimated for some sectors, lack of reporting may result in underestimates of relocation impacts for some sectors and some counties. In addition, further job losses in nonbasic manufacturing sectors and services may be the indirect

(Continued on page 6)
The Baby Boom, Pent-up Demand, and Future House Prices

The coming of homebuying age of tens of millions of baby boomers over the past two decades is credited with having stimulated residential construction and raised house prices. Since even the youngest boomers are nearly 30 years old, however, some observers believe the demand from this group has peaked. Further, because a “baby bust” followed the baby boom, the population of young adults will now grow unusually slowly. Some have claimed that this slowing could depress real house prices substantially over the next two decades. Their credibility perhaps enhanced by the current weakness in housing markets, such forecasts have caused trepidation among mortgage borrowers, originators, lenders, and insurers.

Here we offer a different perspective on the baby boom’s effects on house prices. Certainly, the influx of boomers raised the aggregate demand for shelter over the past two decades. However, our research suggests that the baby boom’s role in raising the demand for, and prices of, owner-occupied houses in the past may have been overstated. Similarly, its contribution to increased demand and prices in the future may well have been underappreciated. Over the next 20 years, in fact, the baby boomers’ increasing demand for houses, when coupled with the still-growing population of young adults, may well keep pushing house prices up.

Our study generated a forecast for house prices over the next two decades markedly different from the protracted decline foreseen by others. The forecast indicates that, adjusted for inflation, house prices may rise over the next two decades by about the same amount they rose over the past two decades.

The Usual Suspects

Casual observation and careful research indicate that the prices of houses are affected by several factors. In recent study, for example, we found that the overall unemployment rate, incomes, demographics, home-financing costs, and costs of homebuilding materials, were significant determinants of nation-wide, inflation-adjusted house prices. (Other factors, such as land-use regulations, may be relevant in specific times and places, but we did not include them in our study of the national housing market.)

Demographic shifts over the past four decades have been one of the most important factors affecting house prices. The baby boomers—the roughly 75 million people born in the United States between the mid-1940s and the mid-1960s—have affected both the size and the age distribution of the population. By sheer force of numbers, they could have been expected to raise the demand for housing, both rental and owner-occupied. The data confirm that aspect of conventional wisdom.

Although the baby boomers’ maturation into adulthood did raise both the number of households and aggregate real income, the boomers’ net effect on house prices in the past may have been smaller than is generally thought. The influx of the baby boomers into adulthood did coincide with the substantial increases in real house prices during the 1970s and 1980s. But, attributing those increases solely to the baby boom ignores the impact of two other factors that spurred the demand for, and prices of, houses at that time—the relatively robust economy, and very low inflation-adjusted, after-tax interest rates. In addition to demographic factors, the health of housing markets in the future will continue to depend importantly on these aspects of the macroeconomy.

The Dilemma Of “5/15/25”

The reverberations of the baby boom through labor markets tempered the demand for houses in the past and will stimulate it in the future. The number of young adults that flowed into working ages in the 1970s and 1980s appears to have reduced the per capita real income of the baby boomers. By raising the ratio of younger to older workers, the baby boom apparently depressed the real incomes of individual boomers. In the mid-1960s, for example, the income of young workers averaged about three-fifths that of workers 30 years older; by the mid-1980s, their income had fallen to about two-fifths that of their elders. The large size of their age cohort, along with other factors, apparently lowered the baby boomers’ incomes relative to the incomes of their elders, the incomes of the young workers that preceded them, and their own future incomes. This reduced income and the associated reduction in individual baby boomer’s demand for houses, in turn, at least partly offset the effects of a larger pool of potential customers.
The plight of young homeowners-to-be can be expressed by the numbers “5/15/25”: Over the past two decades, real incomes of young families rose 5%, real house prices rose 15%, and real incomes of older families rose 25%. Thus, while relatively faster-rising incomes made houses more affordable for older families, slower-rising incomes of young families fell progressively further behind house prices.

The decline in the relative incomes of the baby boomers may also have had social repercussions that reduced the demand for houses. Compared with their parents, for example, boomers, on average, were older when they formed households, married, began families, and therefore, purchased houses.

**“Pent-up” Demand**

Like youth itself, some of these effects may be temporary. As time passes and the economy better absorbs the huge number of similar-aged workers, the unusually low incomes of baby boomers may recover. To the extent the large-cohort effect on their incomes does dissipate, their incomes will rise faster later in their careers, and their demand for houses should rise concomitantly.

In the meantime, many baby boomers may have “pent-up” demand for homeownership in the sense that they cannot purchase homes commensurate with the incomes they can reasonably expect to earn in the future. One reason for this pent-up demand for houses is the common mortgage lending practice that bases borrowing limits principally on the downpayment available and on current income, rather than explicitly on expected future incomes. This ceiling on payment-to-income ratios may prevent baby boomers from borrowing as much as their relatively high, anticipated, future incomes might warrant. Homebuying may also be deferred to later ages because their relatively low current incomes hinder saving, making it more difficult for baby boomers to accumulate downpayments. These two borrowing constraints—both stemming from current income being atypically low relative to expected future income—may lead baby boomers to delay homeownership (or household formation or perhaps childbearing), but they are not likely to defer it indefinitely.

As their incomes rise and they accumulate sufficient savings, the boomers’ previously pent-up demand for houses will be unleashed. Demand will then be greater than the demand indicated by forecasts that ignore the “catch-up” of baby boomer incomes, savings, and demand for houses. Thus, the boomers’ effective demand for homeownership may start lower, but rise faster, than history would suggest. Our forecast for house prices builds on these patterns of income growth.

**House Prices, 1990-2010**

Our forecast for national-average, inflation-adjusted house prices over the next twenty years rests on several assumptions about unemployment, interest rates, and demographics. Undoubtedly, the economy and house prices will be subject to short-run vagaries. The major reasons for our forecasted increase in house prices during the 1990s, however, are demographic. During this decade, an enormous number of baby boomers will be more inclined, and able, to purchase homes as they marry, have children, and age. Coupled with the relatively smaller generation that is following them into the market for houses, whose incomes early in their careers may be atypically high because of their relatively few numbers, demand may continue to rise at rates faster than would otherwise be expected. Thus, in spite of the current weakness in housing markets, real house prices are forecasted to rise during the 1990s by about as they did over the prior two decades, about 10%.

**Making More Housing More Affordable**

These aspects of borrowers’ incomes point the way toward innovations in lending policies and mortgage products that might expand the demand for houses. In particular, potential homebuyers’ pent-up demand might be tapped by offering mortgages with payments that more closely track borrowers’ longer-term incomes. Some existing practices and products do make partial allowance for borrowers’ expected future ability to pay. “Teaser” ARMs, for example, allow borrowers to start with lower payments, though the graduated payment feature disappears relatively quickly. (“Teaser” fixed-rate mortgages and graduated payment mortgages, on the other hand, have been less prevalent.) While these products may raise borrowing limits, there is little reason to believe, or evidence to suggest, that their payments closely track borrowers’ incomes.

Mortgages with payments designed to more closely correspond to renters’ current and likely future ability to pay might open doors to homeownership for young families, a group for whom affordability and homeownership rates have fallen sharply since the 1970s. Such mortgages might also provide lenders with profitable ways to make homeownership affordable for lower-income borrowers, while simultaneously meeting their community reinvestment responsibilities.

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FIGURE 5
Destination of Firms Leaving Southern California
Percent of Total Firms

Source: CREUE from Los Angeles EDC data.
Note: Other includes Mid Atlantic/North East, Mexico, Canada, and 6% with no destination noted.

Relocation...
(Continued from page 4)

result of firm relocations, due to reduced input and service requirements from local firms.

Third, the loss of firms through relocation outside of an area is not necessarily a reflection of poor business climate. It is natural for some firms to leave mature urban areas, especially as their production process become more routine and less innovative. This movement becomes a problem only when movement of other firms into the area and growth of local firms also slows. A full assessment of how serious a problem firm relocation is to the Southern California region would need to identify new firm development, the growth of local firms, and the extent to which new firms move into the area.

Despite these caveats, the role that business relocations appear to play in

job losses in major high-tech sectors is troubling. To some extent these moves may reflect the high costs and congestion of the Southern California region (the concentration of job losses in Orange and Los Angeles Counties would support this hypothesis). These considerations may be somewhat relieved by the impacts of the recession on Southern California. Other economic factors leading firms in these sectors to move may be more difficult to change. These would include, for example, concerns with the quality of education, and the structural characteristics of the defense related firms, which make them less dependent on local networks than other high tech firms, and more sensitive to land and labor costs. If these factors are contributing to business relocations in key employment sectors, then the recovery of the U.S. economy will not necessarily generate a parallel growth spurt for some Southern California employment sectors.

Cynthia Kroll
Ayse Pamuk

FIGURE 6
Destination of Jobs in Relocated Companies
Percent of Total Jobs Moved

Source: CREUE from Los Angeles EDC data.