Where is everyone going and why? Earnings, Education, Occupations & Skill

Commuting has become an increasingly important component of the San Joaquin County economy over the past three decades. In 1980, fewer than 10,000 San Joaquin County residents commuted outside the County for work and more workers were commuting into the County than out. In the ensuing three decades the number of out-commuters has increased to more than 65,000 and the total daily inflow and outflow of workers has grown in excess of 100,000.

As the Northern California economy becomes more integrated, commuting is a critical issue for planning and economic development. Increasing numbers of commuters creates challenges for the county’s transportation infrastructure, but it also creates opportunities to leverage regional advantage and create new employment opportunities in the county.

This edition of Regional Analyst begins with a review of commuting patterns today and the rise of regional commuting, especially to the San Francisco Bay Area, over the past three decades. Discussion then turns to where inter-regional commuters reside in the County. An overview of commuters’ skills, based on income and occupational information, concludes the analysis along with some initial evidence about the geography of employment opportunities and their influence on commuting.
San Joaquin County’s Regional Commute Patterns

San Joaquin County is located geographically near the center of the growing and increasingly integrated northern California megaregion. This location, the county’s extensive transporation infrastructure, and many other factors support a range of regional commute flows. The figure to the right details these regional commute patterns. The flows illustrate the distinct nature of the County’s regional commutes as well as the relative significance of commuting.

Highlights of the overall commute profile for San Joaquin County are presented at right. Due to its increasing significance to San Joaquin County, a focus on the Bay Area commute is featured on the facing page. In 1980, the number of workers traveling into and out of San Joaquin County every day was relatively balanced at 10,067 and 9,860 respectively. This is no longer the case.

On the out-commute side, even a quick glance at the map reveals the prominence of the Bay Area Commute. This commute represents over 67% of all workers leaving the county daily and drives the now large differential of in-commuters (39,336) to out-commuters (68,320).

While San Joaquin County attracts workers from all areas, by far the largest number of in-commuters travel from Stanislaus County. The concurrent increase in the workforce (jobs) in the County was 133,185 to 233,056, while the increase in the number of employed residents was 132,978 to 262,040.

Source: Center for Business and Policy Research based on U.S. Census Bureau, 2010 CTPP (5-year)
Focus: Greater San Francisco Bay Area

Changes in regional commuting flows between San Joaquin County and the Bay Area over the past 30 years are reported in the figure below. It illustrates a dramatic growth in the daily Bay Area commute. This upward trend in those commuting primarily over the Altamont Pass along I-205 and I-580 rose most dramatically in the decade between 1980 and 1990, a time of rapid employment growth in the area. With a number exceeding 45,000, San Joaquin County residents commuting to the Bay Area account for 74% of all daily commuters into the Greater Bay Area. As a result of the exchange of workers between San Joaquin County and the Bay Area, San Joaquin County was added to the San Jose-San Francisco-Oakland, CA Combined Statistical Area (CSA) in the latest (2012) delineations by the U.S. Office of Management and Budget, denoting the close economic ties between the regions.

The reasons for the rapid rise in workers willing to make the long commute from San Joaquin County to Bay Area jobs are myriad and often complex; however, readily identifiable indicators from Census data over this time period help explain the phenomenon. Several of these, travel time to work, educational attainment, and earnings of workers are presented here to help tell the story. These are explored on the pages to follow. The commute is, of course, affected by both workers living in the Bay Area (and other counties for that matter) that choose to live in San Joaquin County and commute for the more affordable housing prices; however, in some cases, existing San Joaquin County residents are attracted to better Bay Area employment opportunities. Of particular note is that even during the recession when population migration from other California counties and other States into San Joaquin County was overall negative (fewer people moving in than leaving), the number of people moving from the Bay Area counties was still positive - likely both a function of severely depressed home prices locally and a faster economic recovery in the Bay Area.
Resident Commuters & The Geography of Employment

It’s About Time

The map to the right shows the average commute time for employed residents by census tract. The darker colors illustrate that employed residents in the southwestern portion of the county tend to have higher average commute times than most other portions of the County. While the increase in average commute times over the last several decades are attributable to both longer distances traveled and increased congestion along the travel routes, given these commuting times relative to other areas of the county and the area’s proximity to the Bay Area, the map provides an indication of where the County’s out-commuters to the Bay Area reside. Countywide, the average time a worker spent traveling to work increased from 21.7 minutes in 1990 to over 29 minutes in the more recent Census data - surpassing state and national averages over the same time period.

A Balancing Act

Another useful indictor on the structure of local commuting is the ratio of employed residents to jobs. If there are more jobs in a place than employed residents this ratio is greater than one. Conversely, when the number of employed residents exceeds the number of local jobs the ratio is less than one. County-wide, this jobs-to-employed residents ratio has declined from 0.98 in 2000 to 0.89 in 2010, suggesting that the County’s employed residents are increasingly dependent on out-of-county employment opportunities. According to this ratio, reported at a local level in the table at left, French Camp and Lathrop were the only two cities in the County with significant commuter inflows. These cities’ relatively large industrial boundaries are obviously important in this regard. Despite its size the City of Stockton is not, by this measure, a significant employment destination. However, Stockton had the largest share of residents who work in the same community, 43%, and it was followed by Lodi with 26% of its residents working in the same community. In contrast, the cities of Manteca, Tracy, Ripon and Escalon all have large employed resident populations relative to their local employment indicating large commuter populations.

The next sections discuss the income, education, and skill profile of these commuters, and, finally, the implications of the data on transportation policy and funding and economic development considerations are explored.
Regional Earnings

It is clear from the data that many people are willing to travel long distances for employment; however, financial costs and time, combined with the general hassle associated with travel, limit the commuting distance that a worker will endure for a particular job. The financial costs of commuting alone tends to discourage a worker from looking too far for part-time or low wage jobs. Similarly, the time costs of commuting will reduce the distance that higher earners find acceptable for their place of employment. The figure below reports the earnings of San Joaquin County’s employed residents for both workers travelling outside the county and the locally employed. It shows that both in- and out-commuters have higher earnings profiles than San Joaquin County residents that both live and work within the county.

Given that earnings tend to be strongly related to productivity and skills, the earnings differentials may also be taken as an indicator of these commuter populations’ skills. This would imply that out-commuters to the Bay Area are more skilled than out-commuters to the Stanislaus-Merced County area and that those commuters are relatively more skilled than out-commuters to the Sacramento Area.

However, these higher earnings may also reflect the economies of the workers’ place of employment. Thus, higher earnings can reflect the higher overall productivity and cost of living of the Bay Area economy in addition to differences in the skills profile of workers.
Educational Attainment & Occupations

Educational attainment of the County’s employed residents compared to those employed in the local economy is another indicator of the net flow of skills in the County’s commute: while 26.6% of those employed in the County had a bachelor’s degree or higher qualification, 29.4% of employed County residents had a bachelor’s degree or higher qualification, indicating relatively higher educational attainment for those commuting outside the county for their jobs.

Occupational employment is another important indicator of skills in the resident population and the skills needed for the jobs located in the County. The graphic below compares the occupational profile of the County’s employed residents to those working in the County.

The County has a net outflow of skills in most occupations, meaning that more San Joaquin County residents hold a job in that industry than there are jobs available in the County. Transportation and material moving occupations are the only occupation with substantial net inflows.

The skill profile of commuters is more evident when occupations are compared in terms of the ratio of employed residents to jobs. This shows that the occupations with the lowest ratios, i.e. those occupations that are most export (out-commuter) intensive, are relatively skilled occupations: 1) Computer and mathematical (0.50), 2) Architecture and engineering (0.64), 3) Life, physical, & social sciences (0.74), 4) Business & financial (0.79).

Besides just having fewer employment opportunities in the County than employed residents, there appears to be a skills gap. While the net outflow of relatively skilled commuters creates a basis to attract relatively skilled employment opportunities to the county, this will require employers that find the work environment similarly attractive.

Net Inflow/Outflow of Workers by Occupation

Source: Business Forecasting Center based on U.S. Census Bureau, 2010 CTPP (5 Year)
Conclusions & Policy Implications

The increasing daily circulation of workers or “human capital” described in this Regional Analyst is evidence of deepening and growing economic linkages within the County, as well as growing interdependence across the northern California mega-region. Numerous indicators suggest that out-of-county employment has become an increasingly significant feature in recent decades. The increasing number of commuters from San Joaquin County to the S.F. Bay Area is an important feature of these patterns. While commuting facilitates the flow of skilled labor, evidence indicates that overall there is an outflow of skills from the County in its daily commute. While this creates some opportunities for the County’s economic development, it also creates a challenge for the County to avoid economic suburbanization. The expansion of economic development activities are important and necessary in all parts of the county; however, the southwestern portion of the County may be best positioned to attract employers interested in utilizing the County’s large out-commuter population.

The implications of the data presented here are multi-faceted. On one hand, investments in the transportation system need to be responsive to the needs of commuters traveling to jobs outside the county, particularly over the congested Altamont Pass into the Greater Bay Area. This requires investment in increasing capacity, combined with operational improvements, and travel demand management - making alternative modes such as the Altamont Corridor Express (ACE) train service more convenient and attractive, encouraging ride-sharing and tele-commuting, and staggered work schedules to reduce the number of drivers competing for finite space.

On the other hand, investments that aid economic development activities could reduce travel by increasing local jobs. It is also important to consider investments in local transportation, transit, and active transportation systems that provide needed alternatives for local workers (the majority of residents work in the county) that also act as compliments to commuter oriented improvements - sometimes referred to as “last mile” investments. Improvements such as these can increase the attractiveness of the area for business investment as well.

It will be important to regularly monitor and evaluate further indicators of this commuter dynamic to ensure that the opportunities and challenges of this rapid integration are being addressed. A future Regional Analyst will examine the equally important and related migration of businesses and associated skills.
FOR QUESTIONS OR COMMENTS

The San Joaquin Council of Government serves as the federally-designated Metropolitan Planning Organization for San Joaquin County. Under that umbrella, SJCOG also serves as the Census Data Center for the county and partners with the University of the Pacific’s Center for Business and Policy Research to provide data and analysis of a variety of socio-economic issues relevant to the San Joaquin region.

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