

# Compiling and Coordinating Demographic and Travel Forecasts in the I-80/Capitol Corridor

DRAFT – 1/25/07

## INTRODUCTION

As California's population continues to expand and the state's economy is making adjacent regions ever more reliant on one another, the artificial boundaries that divide the San Francisco Bay Area from the Sacramento region are proving to be increasingly irrelevant. The "real world" of housing markets, employers, goods movement—and even environmental realities such as air pollution—pay little attention to where one region stops and another starts.

For example, Dixon—on the northern edge of Solano County—is no longer a rural outpost of the nine-county Bay Area, it is a growing community made all the more attractive by its close proximity to U.C. Davis and Sacramento. Yet while the economic relationship of the two regions has grown dramatically in the last two decades, the ability of governmental agencies in each region to understand, predict and coordinate planning efforts related to transportation, air quality and growth remains woefully inadequate. Planning agencies responsible for growth and transportation currently have very little ability to "see" beyond their boundaries.

Planners at the Sacramento Area Council of Governments (SACOG) understand that new housing built just across its border may significantly increase traffic on I-80, but current demographic and travel models provide only a rudimentary ability to forecast those impacts. Likewise, a significant increase in employment at U.C. Davis in the years ahead could heighten housing pressures in Dixon and Vacaville, yet Bay Area planners at both the Association of Bay Area Governments (ABAG) and the Metropolitan Transportation Commission (MTC) also have a limited ability to predict, understand, plan for and potentially mitigate the effects of these growth patterns.

One of the initial tasks of the "Smarter Growth Along the I-80/Capitol Corridor" study is to improve the coordination of future planning efforts between the two regions by compiling existing demographic and travel forecasts in the I-80/Capitol Corridor. This compilation provides a snapshot of future growth trends in the corridor for the project study area that includes Solano, Yolo, Sacramento and Placer counties – it also reveals that there are critical needs to improve coordination of both growth and travel forecasts in the future.

## Key Findings

The compilation and analysis of the demographic and travel forecasts for the I-80/Capitol Corridor reveal the following:

1. Smart growth efforts in both the Bay Area and the Sacramento region are emphasizing a shift in growth away from the edge of each region and more towards the core. City-centered growth policies and lower housing forecasts in both Solano and Yolo counties may be somewhat coincidental, but nevertheless bode well for dampening the increase in travel demand along I-80 between the two regions compared to previous base-case forecasts.
2. Despite new forecasts for a more limited residential housing supply for jurisdictions in Solano and Yolo counties, the increasing attractiveness of the Vacaville-Dixon-Davis area in the coming years may create unintended consequences in the form of “leapfrog growth” and higher housing prices. SACOG’s emphasis on shifting new employment growth to the suburbs east of downtown Sacramento may serve to dampen some of this future demand.
3. The fast growing counties of Solano and Placer in particular are placing a greater emphasis on jobs-housing balance. Unless more centralized employment patterns are possible focused in downtowns, transit centers and rail stations, this may lead to an overall lowering of overall vehicle-miles traveled per household (i.e. a greater number of shorter auto trips) but could also limit the ability of transit to serve shorter trips to more decentralized job locations.
4. Only one travel model – the Napa-Solano travel model currently being upgraded as part of this study – covers both regions. Not surprisingly, travel forecasts under this model so far predict significantly different future travel volumes at regional gateways and along key highway segments than either the MTC or SACOG model. The new statewide travel model will be run as a subsequent task in this study, and a more in-depth analysis of any discrepancies among all travel forecasts will be developed by staff.
5. There has historically been very little coordination of demographic or travel forecasts for the two regions. Improved coordination and integration of forecasts in the near future depends on upgrading and expanding modeling capabilities of each region in order to add ‘external zones.’ Agency staff are recommending that a technical working group be formed between the two regions in order to continue to improve modeling integration and coordination after the conclusion of this study.

## I. The Sacramento Region: Yolo, Sacramento & Placer Counties

In the Sacramento region, SACOG uses projections of population and employment to develop the region's Metropolitan Transportation Plan (MTP). The MTP is a 28-year plan for transportation improvements in the six-county region based on these projections for growth in population, housing and jobs.

As the Federally-designated Metropolitan Planning Organization, SACOG is responsible for developing the MTP every three years in coordination with the 22 cities and six counties in the greater Sacramento region. Under memoranda of understanding, long-range transportation plans in El Dorado and Placer Counties are also incorporated into the MTP. This analysis will focus on population and employment projections for Placer (excluding the portion within the Tahoe Basin), Sacramento and Yolo Counties. In 2002, SACOG adopted the MTP for 2025, which showed that even with \$22.5 billion to spend on the region's transportation needs over the next 23 years, traffic congestion would steadily continue to worsen. Jobs continued to spread out across the region, and it was projected that forty percent of job growth was going to occur in suburban areas. From a transportation perspective, it was the distribution of this growth that was of greatest concern. It was this set of outcomes in the MTP for 2025 that led to the development of SACOG's Blueprint project.

### The Blueprint Project

The region's anticipated growth would come with challenges and raise many questions. How should we grow? Where should we grow? How should we travel around the region? How will growth affect our environment? The Sacramento Region Blueprint Project provided an opportunity for stakeholders from around the region to work together to answer these questions.

The starting point for Blueprint is the "Base Case Study," a projection of how the area would grow if current local trends continue. One of the most startling figures to arise from the study is that there will be an estimated 1.7 million more people in the Sacramento Region in 2050 than there were in 2000. As we grow to more than 3.6 million residents, the total number of homes will more than double from 713,000 to over 1.5 million.

Is there enough land set aside to support new homes, jobs and development forecast for 2050? According to the Base Case Study, the answer is "no".

*Some Base Case findings:*

- *The number of jobs in the region will double from 921,000 in 2000 to 1.9 million in 2050. By comparison, in 1950 the region supported only about 100,000 jobs.*

- *Households with children under age 18 will drop about 20 percent, while families without children (including "empty nesters") will increase by about 10 percent. This trend will affect the type and preferred location of homes.*
- *Residents will drive more miles annually and spend more time in their cars, especially during commutes. The average household will spend about 30 additional minutes per day in the car.*
- *Growth at the current rate will have significant impact on natural land systems. An estimated 43 percent of vernal pools and wetlands and 21 percent of oak woodlands will be affected under the Base Case.*

### SACOG Projections change under the Blueprint

In contrast to the Base Case Scenario, the adopted Blueprint Preferred Alternative shows some considerable changes from the traditional approach to development. In general the region has seen some significant changes to projections for population and employment under Blueprint. Outlying communities that were anticipating faster growth before are now projecting somewhat slower rates of growth. Overall growth rates for both population and employment have also increased slightly since the MTP for 2025 (and its successor, the MTP for 2027) was adopted. Where there was previously a significant jobs/housing imbalance, there is now a much better balance in jurisdictions throughout the region. The projections for growth associated with the Blueprint Preferred alternative now being utilized show a significant shift of that growth from outlying areas to the central core and the eastern suburbs. The following examples help to illustrate these trends.

#### Placer County

Placer County extends from the eastern edge of the Central Valley through the "Foothills" and up to the crest of the Sierra Nevada Mountains and Lake Tahoe. Interstate 80 stretches almost nearly the entire length of Placer County, serving not only the heavily urbanized southwest corner of the county, but many of the more populous foothill and mountain communities as well.

#### Lincoln

The City of Lincoln has on more than one occasion in recent years held the position of the fastest-growing city in the state. While early development was nearly all residential, Lincoln has moved to a much better balance of employment and housing growth. Nevertheless, growth is still expected to remain strong in Lincoln. Growth projections generated for the MTP for 2025 showed an increase of 1,230 jobs and 462 dwelling units. The current projections –associated with the Blueprint Preferred Alternative- are for an additional 30,105 jobs and 29,420 dwelling units.

## Roseville

The City of Roseville has grown from a small railroad town on the I-80 corridor (and on the Capitol Corridor rail line) to the largest City in the county, as well as one of the largest centers of both jobs and housing in the entire region. The prior projections for Roseville showed an increase of 48,409 jobs and 6,119 dwelling units. New projections under the Blueprint are for another 50,392 jobs and 33,155 dwelling units.

## Unincorporated Placer County

The Placer County Board of Supervisors has made something of a policy shift away from more rural residential in the areas north and east of Roseville to a more balanced and higher density type of development west of Roseville. This development is planned at around 12-15 units per acre and would connect to both the City of Roseville to the east and the North Watt Avenue corridor to the south. At least one private college has been planned as part of the development, and a branch of California State University Sacramento may be included as well. The shift in projections for unincorporated Placer County has been from another 5,816 jobs and 35,598 dwelling units to another 19,792 jobs and 38,287 dwelling units.

## Sacramento County

### Elk Grove

The City of Elk Grove incorporated in 2000. While virtually all development in Elk Grove had been residential, they are now projecting to capture a greater share of the region's employment. Some of this is likely shifting from the City of Rancho Cordova's jobs surplus. Projections for Elk Grove shift from a further 22,897 jobs and 35,587 dwelling units to 31,639 jobs and 31,077 dwelling units.

### Rancho Cordova

The City of Rancho Cordova incorporated in 2003. While historically a jobs center –and also home to the former Mather Field Air Force Base- Rancho Cordova is seeking to balance its role as a jobs center with significantly more housing growth. Projections for Rancho Cordova change from an additional 62,376 jobs and 39,960 dwelling units to 31,300 jobs and 46,623 dwelling units.

### Sacramento

The City of Sacramento has historically been the jobs center for much of the surrounding region, with little growth in housing in recent decades –particularly compared to employment. Under the Blueprint, however, Sacramento sees a change from 112,725 new jobs and 49,483 new dwelling units projected to 113,779 jobs and 96,360 dwelling units –an almost 100% increase for housing.

## Unincorporated Sacramento County

Even as the City of Sacramento grew, large suburban developments sprouted in the eastern stretches of the county, primarily following the I-80 corridor. In spite of nearly five decades of development, much of this area has remained outside of any city limits, part of unincorporated Sacramento County –sometimes also referred to as the “uncity.” While previously anticipating a drop in employment and an increase in housing, the unincorporated county is pursuing a more aggressive approach of redeveloping older commercial corridors and encouraging infill housing. These developments will be most heavily concentrated in the Arden-Arcade and Carmichael areas, as well as along North Watt Avenue –particularly around the former McClellan Air Base. Unincorporated Sacramento County was projected to lose 9,813 jobs and gain another 56,588 dwelling units. The new projections show 79,644 more jobs and 88,129 dwelling units.

## Yolo County

Yolo County has remained somewhat removed from the urbanized core of the Sacramento region for many years, continuing to maintain a primarily agricultural character.

### Davis

The City of Davis has served many of the needs of the University of California, Davis. Nevertheless, the University itself constitutes the largest piece of population and employment for unincorporated Yolo County. Davis continues to emphasize a slow growth approach to development. This combined with the highly desirable nature of the community has led to something of a shortage of affordable housing for those who work or go to school in Davis. As a result, much of the demand for housing is pushed to West Sacramento, Woodland, Winters, Dixon and Vacaville. Prior projections showed Davis set to gain 1,383 jobs and 5,268 dwelling units. New projections show another 4,972 jobs and 6,786 dwelling units for the city.

### West Sacramento

The City of West Sacramento saw little residential growth and a lot of employment growth prior to incorporation in 1987. After this point the City pursued a large amount of residential development, primarily in the Southport area –south of the Port of Sacramento. Revised projections show slower growth in housing and considerably less employment. West Sacramento is making efforts to re-invent itself as an extension of the urban core, with considerable re-investment and redevelopment of the City’s “main street”, West Capitol Avenue (part of historic Highway 40, I-80’s predecessor), including a potential streetcar line linking it to downtown Sacramento. West Sacramento anticipated another 49,746 jobs and 18,822 dwelling units and now expects 29,880 more jobs and 20,688 dwelling units.

## Woodland

The City of Woodland has adopted a growth line, after having annexed some land on the south side of the City. Much of the projected new residential development will be in this newly annexed area, with the remainder taking place around downtown. Projections for Woodland have changed from another 13,705 jobs and 10,855 dwelling units to 10,081 jobs and 10,301 dwelling units.

## Unincorporated Yolo County

Nearly all of the projected growth in housing and employment for unincorporated Yolo County is expected to occur at the University of California Davis. Prior projections showed a decline of 15,014 jobs and an increase of 4,558 dwelling units. Current projections for 2035 show an increase of 6,284 jobs and 4,661 dwelling units. Other Counties in the SACOG Region: El Dorado, Sutter and Yuba

Although outside of the purview of this study, El Dorado, Sutter and Yuba are the remaining three counties of the SACOG region. Growth patterns in El Dorado County have been similar to those in Placer County, albeit at a somewhat smaller scale. U.S. Highway 50 does not provide nearly the same capacity or connectivity as I-80 and the housing and employment growth, as a result, have not been anywhere nearly as robust as in Placer County. El Dorado Hills, the largely urbanized unincorporated area at the western edge of the County provides the closest thing to a jobs center for the County, although it is still quite small.

Both Sutter and Yuba Counties remain largely agricultural areas somewhat more removed from the Sacramento area. As a result, housing has remained considerably more affordable which has led to quite a few large residential developments designed to serve commuters to Sacramento and Roseville. Although the Cities of Marysville and Yuba City are promoting smart growth development, most development in the unincorporated counties consists of traditional single-family residential housing. Unincorporated Sutter County stands out with the largest growth in dwelling units, due to a proposed development along the Highway 99/70 corridor in South Sutter County. Originally conceived as a large jobs center, current plans for development show a better balance of jobs and housing.

## Other Trends

Under the Blueprint scenario, vehicle miles traveled (VMT) per household for the region overall will decline by 15% –a significant change from what was forecast in the MTP for 2025. This decline largely owes to the improved jobs/housing balance regionwide. Having jobs and housing in close proximity to one another means fewer trips, shorter trips and more trips potentially made by alternative modes. Transit mode share also sees an increase from approximately 1% of all trips to 3.6-3.7%, with even higher shares for commuter trips. Trips by walking and bicycling similarly rise from around 6% to 9-10%.

## Conclusions for Sacramento Region

Through both the Blueprint Preferred Alternative and the proposed MTP for 2035, SACOG is projecting changes that pull much of the anticipated growth in housing and employment away from the edges of the region and back into the urbanized areas. Most new growth that does occur on the edges will likely consist of mixed use, providing some jobs/housing balance right from the start. Yolo County retains much of its rural character due to slow growth policies, adoption of growth boundaries, and exceptionally fertile farmland. Total growth projected for the county remains about the same, but is redistributed among the jurisdictions. There is some concern that these factors may encourage development to “leapfrog” Yolo County and land in Solano County.

Sacramento County will see more housing growth in the City of Sacramento and in the urbanized unincorporated area. Employment growth will be less concentrated in the downtown and Rancho Cordova jobs centers and more evenly distributed among the various jurisdictions. Placer County will see less housing growth on the periphery and more within jurisdictions. The unincorporated part of the County west of Roseville will see massive but balanced growth in both housing and employment with less reliance on the central Roseville jobs center. Trends in the three SACOG counties outside of the I-80 corridor are going in varying directions, but typically are following smart growth policies within the incorporated cities. The projections show the region moving from an anticipated increase of 378,053 jobs and 367,822 dwelling units to 535,439 jobs and 524,869 dwelling units in 2035. This growth represents 51% of the total growth anticipated by the year 2050 in jobs and 62% of the total anticipated increase in dwelling units.

## II. The San Francisco Bay Area & Solano County

In the Bay Area, land use planning and transportation responsibilities are split between two regional agencies. The Association of Bay Area Governments (ABAG) serves as the Council of Governments for the nine-county Bay Area and assumes responsibility for land use coordination, housing, demographic and economic forecasts among many other regional planning responsibilities. The Metropolitan Transportation Commission (MTC) serves as the Metropolitan Planning Organization for the nine-county Bay Area and assumes responsibility for transportation planning, financing and coordination.

ABAG has published biennial projections for the San Francisco Bay Area since the early 1970s. Prior to Projections 2003, ABAG’s projections were “base case” forecasts predicated in part on historic land use trends and existing local development policies contained in city and county general plans. Starting with Projections 2003, ABAG began publishing policy-based projections. The first policy-based Projections in 2003 weren’t as aggressive as the final “Network of Neighborhoods” growth scenario chosen in the Smart Growth Strategy/Regional Livability Footprint Project in 2002, but they



nevertheless assumed a significant shift in the region's growth patterns towards greater infill and transit-oriented development. Projections 2003 specifically assumed the following:

- *Local smart growth policies show results beginning in 2010*
- *More development to occur in central cities, older suburbs*
- *Greater support for public transit, walking and bicycling*
- *Increases in the assumed level of housing production from 2010 to 2030*

While Projections 2003 lowered the number of forecast jobs by 2030 and increased housing supply, the forecast still fell short of achieving a regional jobs-housing balance. The subsequent Regional Transportation Plan (RTP) prepared by MTC in 2005 forecast an increase of 220,000 incommuters to the Bay Area from surrounding counties by 2030.

#### Base-Case vs. Policy-Based Projections (P2002 v. P2007)

Projections 2003, Projections 2005, and the recent and most up-to-date forecast for the Bay Area, Projections 2007, continue to include smart growth policy assumptions but also projects a continued jobs-housing imbalance for the region. Since ABAG's Projections 2002 is the most recent base case forecast, it will be used as the basis in the following discussion on the potential impacts of smart growth policy implementation. By comparing Projections 2007 with Projections 2002, general assessments of the impact of those policy assumptions can be made.

As is shown in Table 5, by 2030 household growth in the Bay Area is projected to increase by 117,190 over and above the Projections 2002 forecast as a result of the implementation of smart growth policies throughout the nine county region. More housing also implies a higher residential population and number of employed residents, which in turn will have a significant potential impact on interregional commuting patterns.

Projections 2007 also projects 244,940 fewer jobs in the Bay Area for the 2030 horizon year than Projections 2002. This is the result of slower job growth recovery mainly in the early part of the 30-year period. This lackluster job recovery prompted a downward revision in long-term job growth projections for the region.

The increase of household growth, resident population and employed residents will also influence the type of jobs assumed in the forecast. Construction industries and industrial sectors serving households will have more jobs despite the overall slow down of total job growth.

It should also be noted that the latest cycle of the Regional Housing Needs Allocation (RHNA) that is currently being developed in the Bay Area for the 2007-2014 time horizon

currently uses a methodology that is even more aggressive than Projections in its assumptions that increased growth will occur in the Bay Area's urban core and around transit hubs. This methodology was approved by ABAG's Executive Board on January 18, 2007, and may well influence the future cycles of the regional Projections forecasts.

### Solano County

Table 5 shows the household and job growth for each of the nine Bay Area counties. Since the southern part of the Solano County is closer to the region's urban centers and has more access to regional transit connections, ABAG initially projected considerably more household growth in the county's southern cities under the policy-based Projections 2003 compared to Projections 2002. However, ABAG's most recent Projections 2007 has pulled back some of these more aggressive assumptions regarding future growth for Vallejo due to city staff concerns over where and how increases in development could be accommodated.

While the location of future growth within Solano County has trended away from the initial south county emphasis under Projections 2003, the more recent Projections forecasts have continued to improve the future jobs-housing balance for the county overall. In Projections 2007, Solano County is projected have 16,840 fewer households in 2030 than was forecast previously under Projections 2002 and an additional 11,940 jobs. Despite this trend, however, Solano County will likely continue to have an excess of employed residents vs. jobs through 2030—and will continue to have a significant portion of its jobs held by commuters from surrounding counties—thus continuing the current trend of requiring many of its employed residents to commute elsewhere for work.

### Vallejo

Vallejo is situated at the southern end of Solano County at the mouth of the Napa River. Given its ferry connection to San Francisco, significant efforts to revitalize its downtown and waterfront and the opportunity presented by the redevelopment of Mare Island, ABAG's policy-based projections have forecast significant increases in future growth. Starting from a 2005 estimate of 42,330 households and 35,720 jobs, Projections 2007 forecasts an additional 11,260 households and 15,280 jobs for Vallejo through 2030. The household growth forecast under Projections 2007 is significantly less than Projections 2005 (11,260 new households vs. 15,860 new households) based on staff feedback that though infill opportunities are significant, they cannot accommodate the higher end represented by the prior forecasts due to lack of land availability and market constraints that will likely limit achievable densities. Unlike Fairfield and Vacaville, Vallejo is also severely constrained for 'edge' growth opportunities, hemmed in by water to the west and south, American Canyon to the north and Benicia to the east.

## Benicia

Benicia is a small town on the Carquinez Strait consisting of 10,670 households and 15,530 jobs, Projections 2007 forecasts an additional 1,290 households and 4,440 jobs for Benicia through 2030. Residential forecasts have remained relatively constant throughout the policy-based projections series since 2003 and are similar to base case Projections 2002. Job forecasts for 2030 have remained similar since 2003, but have increased significantly compared to the previous 2002 base case projections. Planners are hoping for both a new ferry terminal and a Capitol Corridor station to improve transit options, though the location of the Amtrak line provides little opportunity for transit-oriented development due to environmental constraints.

## Fairfield

Fairfield is the county seat of Solano County. After several decades of outward growth and annexations in the 1970s and 80s, the city now strongly supports city-centered growth policies. Starting from a 2005 estimate of 35,000 households and 50,740 jobs, Projections 2007 forecasts an additional 11,190 households and 22,550 jobs for Fairfield through 2030. ABAG's new 2007 Projections reflect a slight downward revision for 2030 households and an increase for 2030 jobs based on city staff feedback from prior Projections forecasts. Fairfield – limited in its ability by Measure L to direct any future residential growth eastward towards Travis Air Force Base – must instead focus on the redevelopment of new areas within its city limits, such as north and west Texas streets, downtown and the area around the newly planned Fairfield/Vacaville train station at Peabody Road.

## Suisun City

Suisun City is a small town located immediately south of Fairfield along Highway 12. Suisun has taken significant steps to reinvent itself over the last 15 years, capitalizing on its waterfront, historic downtown and Capitol Corridor train station. Starting from a 2005 estimate of 8,770 households and 4,080 jobs, Projections 2007 forecasts an additional 2,400 households and 2,630 jobs for Suisun City through 2030. These forecasts have remained relatively stable since Projections 2003. Beyond its current efforts to promote mixed use infill in and around its downtown, the City has few directions to expand given Fairfield to its north, the Suisun Marsh and wetlands to the west and Suisun Slough to the south. City planners are currently contemplating development proposals for only remaining 90 acres of developable land to the west of downtown.

## Vacaville

Vacaville will likely continue to be one of the fastest growing cities in Solano County on the I-80 corridor despite the fact that housing growth has slowed somewhat over the

last five years. Starting from a 2005 estimate of 31,590 households and 30,710 jobs, Projections 2007 forecasts an additional 10,660 households and 13,490 jobs for Vacaville through 2030. ABAG staff recently revised Vacaville growth estimates upwards from previous forecasts as a result of feedback from city staff.

The location of this new growth may be partly directed from a legal settlement that would for the first time establish an "Urban Planning Area" boundary around the city, restricting growth along the west side of Vacaville and concentrating instead on infill development and an area to the east and northeast of the existing city limits along Leisure Town Road and I-80. Vacaville's success at attracting major retailers and employers in the last decade – such as Genentech's expansion and the new Kaiser facility in the area north of the Interstate 80/505 interchange – suggests the city will become even more of a travel hub in the years ahead -- both as an origin for dual-income households working in both the Bay Area and Sacramento, and as a destination for workers or shoppers.

### Dixon

Dixon lies at the edge of the Bay Area but in many ways is fast becoming a close-in suburb of the Sacramento area in general and UC Davis in particular, located just 30 miles from downtown Sacramento and 10 miles from the U.C. Davis campus. Despite its ideal location for commuters and hopes for new commuter rail service that could boost its attractiveness even further, Projections 2007 forecasts a only a modest increase of 3,560 households and 2,720 jobs by 2030 for Dixon. Residential growth in Dixon is limited to an annual increase of just 3 percent under Measure B and is even more severely constrained in the short term by limited sewer capacity.

### Unincorporated Solano County

Unincorporated Solano County is extremely rich in agricultural lands and other natural resources. According to the state Farmland Mapping and Monitoring Program, the county contains almost 50 percent of the nine-county Bay Area's important farmland and more than half of the Bay Area's wetlands. The county considers itself a leader when it comes to growth management. In 1984, Solano County voters adopted Proposition A, which directs future growth to the unincorporated areas of the county. Ten years later, Proposition A was extended to 2010 as the "Orderly Growth Initiative." Most recently, a ballot measure to extend the Orderly Growth Initiative to 2030 failed at the polls in November 2006.

Solano County is currently updating the countywide General Plan covering the unincorporated parts of Solano County. It is expected that the county will continue to pursue a city-centered growth policy through the development of its general plan.

## Conclusions for Solano County

Solano County is a rural county that has a long tradition of city-centered growth policies while at the same time it has experienced rapid suburban expansion through annexation. While residential growth has boomed in the county over the last two decades due to Bay Area workers seeking cheaper housing, job growth has been much slower. This has led to a significant jobs-housing imbalance and the predominance of commuters congesting the I-80/680 corridors in southern Solano County on their way to employment in the inner Bay Area.

Under ABAG's policy-based projections, household growth through 2030 is forecast at a slower rate and job growth through 2030 at a faster rate than under previous trend-based Projections. While previous policy-based Projections (P2003 & P2005) had assumed a more aggressive shift of growth towards the southern part of the county that had better transit access to the inner core of the Bay Area, the more recent Projections 2007 forecast pulls back slightly from the emphasis on growth in the southern part of the county. The shift is in part due to a recognition of the constraints such residential land availability.

In general, the trend towards a better jobs-housing balance in the county over the next two and half decades will likely reduce the length of auto trips and thus vehicle-miles traveled per household, though it will likely reduce transit usage for within-county commuting since many employment locations will not be as transit-accessible within Solano County as they are in Contra Costa County, Alameda County and San Francisco. This is one of the trade-offs of seeking a better jobs-housing balance.

The emphasis on higher growth rates in the southern part of Solano County will likely continue to provide opportunities for enhanced transit service to the inner core of the Bay Area through the Capitol Corridor, express buses, carpools and water transit. The challenge, however, will be to increase transit ridership to the extent that it can mitigate the even more significant increase in single occupancy auto commuting due to the expected growth in Solano County's population.

At the northern end of Solano County, market demand will likely fuel growth pressures on Vacaville and Dixon as commuter suburbs for the new job centers projected in the nearby Sacramento region. SACOG's blueprint efforts to guide a significant portion of that growth to Sacramento's eastern suburbs may, however, succeed in dampening some of the demand for new bedroom suburbs in northern Solano County. Providing access to the Capitol Corridor service for residents of Vacaville and Dixon who work in the Sacramento area may become even more important as a result of this interregional growth pattern. Further details on the interregional transportation demand implications of these demographic projections will be developed through subsequent tasks as part of this study.

Given the fact that three-quarters of all trips are now non-work trips, the potential for better suburban design and the ongoing efforts of many local jurisdictions and the

Solano Transportation Authority to develop land uses in a way that maximizes walking and bicycling opportunities for short-distance errand travel will be a particularly important strategy for Solano County's cities as they continue to grow, expand and redevelop.

### III. Coordination of Interregional Travel Forecasts

Both MTC and SACOG currently use travel models that end at the jurisdictional boundaries of each region. Rough demographic estimates are used to assume growth patterns in the other region—even for jurisdictions just across the Yolo/Solano border—and thus may not accurately reflect interregional travel demand in future years, particularly in light of each regions' new smart growth forecasts.

The Napa-Solano Travel Model, used by the Solano Transportation Authority and currently being upgraded as a part of this study, is one of the few "interregional" travel models that covers 16 counties in both the Bay Area and Sacramento regions and reflects the smart growth demographic forecasts for each area. Table 6 and Charts X-Y compare morning 2-hour peak period travel forecasts at several locations from all three travel models. The comparison highlights the following discrepancies among the models:

- Gateway traffic volumes at the 80/505 interchange near the Yolo/Solano border are forecast to be higher by 2030 under the SACOG model than either the Napa-Solano model or the MTC model;
- The Napa-Solano Travel Model forecasts a 55% increase in southbound traffic volumes on the Benicia Bridge (I-680) to over 16,000 peak period vehicles while the MTC model forecasts 10% growth to 13,000.
- The Napa-Solano Travel Model forecasts 66% growth in westbound Carquinez (I-80) Bridges to almost 20,000 peak period vehicles while the MTC model forecast 9% growth to 10,500.
- Even more significant increases in northbound/eastbound commutes by 2030 across both bridges. MTC's travel model forecasts little to no increase in traffic volumes on both bridges for either direction while Napa-Solano model forecasts 180% growth for I-80 and over 200% increases on I-680.
- By 2030, the Napa-Solano model forecasts a significant increase in the incommute from the SACOG region into Solano County along Highway 12 at the Rio Vista Bridge, while the MTC travel model shows a slight increase in the outcommute from Solano County into the SACOG region.

- The MTC model forecasts 40% growth in traffic at the Yolo-Solano county line on I-505, however the STA model shows no change.

The possible underlying reasons for the above discrepancies will be discussed among staff as a later task in this study, and the existing model outputs described above will be compared to model runs produced by the new statewide travel model developed under task 5.

#### IV. Recommendations for Interregional Coordination of Future Forecasts

Recommendations from both ABAG and SACOG staff for improving coordination of future forecasts are provided in the table on the following page.

#### V. Next Steps in the I-80 Smart Growth Study

Now that existing demographic and travel forecasts for the I-80/Capitol Corridor have been compiled and contrasted, a set of three alternative land use scenarios are being developed to model the transportation and air quality implications of different growth scenarios for the corridor. These three land use scenarios will be modeled in the spring of 2007 through both the new statewide travel model (also known as the statewide high speed rail model) and the newly upgraded Napa-Solano Travel Model. Staff will continue to compare and analyze the outputs of these different models relative to the existing results from the MTC and SACOG travel model shown above. In addition, staff will summarize key findings from the three different land use scenario tests and share them with key stakeholders and elected officials through the summer of 2007.

A final report summarizing these findings, feedback from stakeholders, and additional information from the ongoing I-80/Capitol Corridor market demand and goods movement analyses will be completed by the end of 2007.

ABAG recommendations	SACOG recommendations
<p>Incorporate interregional issues and concerns into each region's projections and planning tasks in the future.</p> <p>Set up a communication and coordination committee between ABAG, SACOG and STA to convene and exchange projections and planning information.</p> <p>Exchange projection assumptions at the beginning of future projection process.</p> <p>Revamp ABAG's regional allocation models and consider adoption and implementation of an integrated model. ABAG should look into new promising models and investigate the potential of implementing an integrated model such as PECAS.</p> <p>Identify funding for the addition of 'external zones' for ABAG's modeling system.</p>	<p>SACOG will add more external zones related to Solano County in the development of the new SACSIM model.</p> <p>SACOG, ABAG and STA should develop parcel-level data for Solano County in order to be able to better incorporate Solano County data into existing SACOG models that use parcel-level information.</p> <p>Outputs developed using the new statewide High Speed Rail model as part of this I-80 smart growth study should be compared to data outputs from the existing travel models.</p> <p>Determine the impact of Dixon commuters on Davis.</p> <p>Determine if MTC's household travel survey includes a sufficient sample from Solano County and if it includes geocoded locations for destinations within the SACOG region.</p> <p>Discuss with Yolo County—particularly with the City of Davis—impacts of ABAG's employment and housing projections on I-80 and Yolo County.</p> <p>Coordinate both ABAG's and SACOG's GIS databases.</p> <p>Form an interregional technical working group to meet on an ad hoc basis.</p> <p>Set up a data sharing protocol and process for updating information among SACOG, STA, ABAG, Caltrans and MTC.</p>



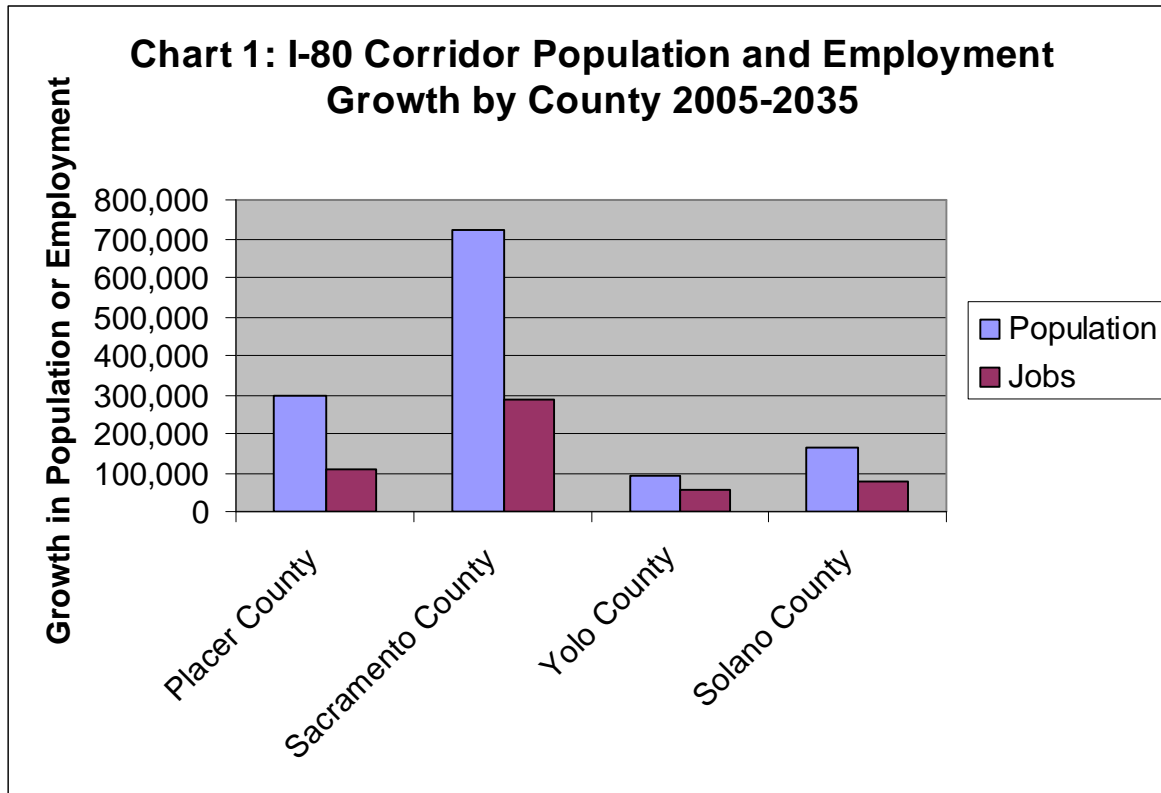
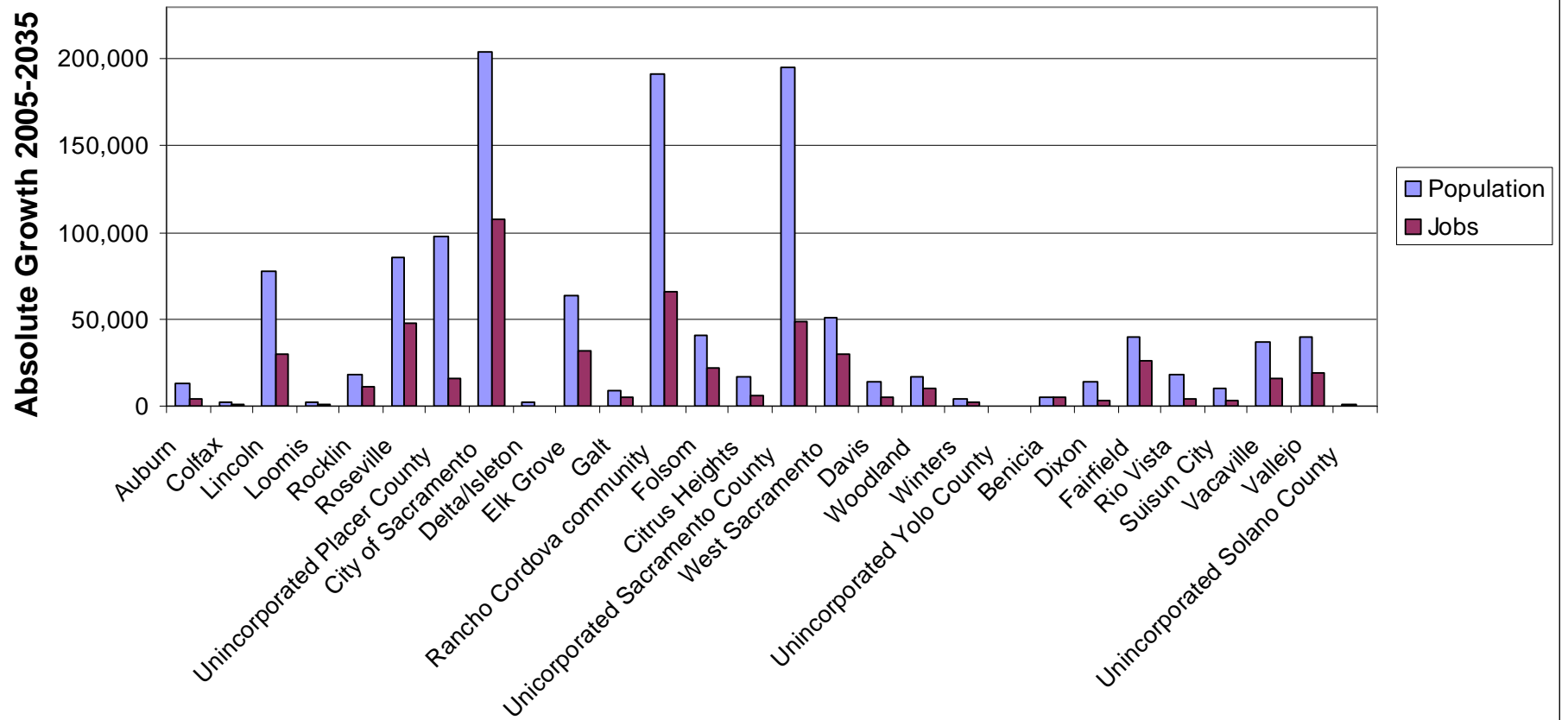


TABLE 1

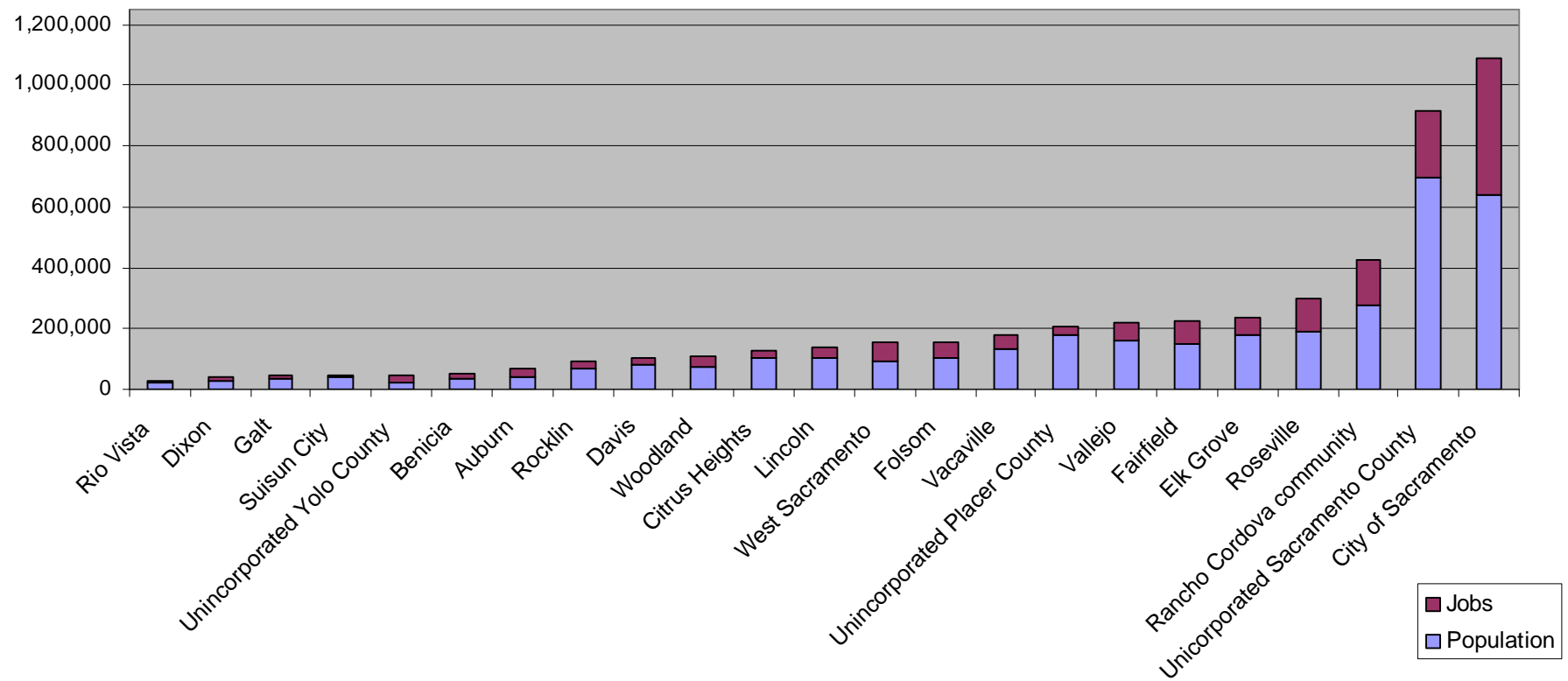
	2005		2035		Change		Change	
	Population	Jobs	Population	Jobs	Population	Jobs	Population	Jobs
Placer County	293,517	131,650	589,009	241,485	295,492	109,835	101%	83%
Sacramento County	1,313,614	678,502	2,035,174	964,975	721,560	286,473	55%	42%
Yolo County	187,361	92,047	280,979	146,814	93,618	54,767	50%	59%
Solano County	421,600	150,520	585,800	227,870	164,200	77,350	39%	51%

**Chart 2: Growth in Population & Employment by Jurisdiction 2005-2035**



	2005			2035		
	Population	Households/D.U.*	Jobs	Population	Households/D.U.*	Jobs
Auburn	26,670	12,170	23,663	39,776	15,566	27,422
Colfax	3,118	1,371	1,081	4,630	1,812	1,925
Lincoln	24,081	10,496	7,994	101,998	39,916	38,099
Loomis	6,163	2,311	3,756	8,259	3,232	4,780
Rocklin	50,384	19,636	13,843	68,153	26,671	24,359
Roseville	102,955	42,538	64,874	188,607	73,810	112,474
Unincorporated Placer County	80,146	31,227	16,439	177,586	69,497	32,426
Placer County Total	293,517	119,749	131,650	589,009	230,504	241,485
City of Sacramento	434,058	173,242	344,956	638,378	249,824	452,611
Delta/Isleton	6,674	2,580	3,224	8,223	3,218	3,367
Elk Grove	113,749	38,274	25,077	177,316	69,391	56,721
Galt	25,008	7,905	4,690	33,766	13,214	9,877
Rancho Cordova community	85,637	33,628	81,442	276,998	108,401	146,728
Folsom	63,798	22,478	29,379	104,627	40,945	51,011
Citrus Heights	84,771	34,376	18,204	101,282	39,636	24,651
Unincorporated Sacramento County	499,918	193,246	171,530	694,584	271,820	220,009
Sacramento County Total	1,313,614	505,729	678,502	2,035,174	796,449	964,975
West Sacramento	41,208	15,448	30,655	92,339	36,136	60,535
Davis	66,402	24,832	16,326	80,794	31,618	21,298
Woodland	55,205	17,961	25,417	72,218	28,262	35,498
Winters	7,858	2,509	1,895	12,189	4,770	4,193
Unincorporated Yolo County	16,688	5,799	17,754	23,440	9,173	25,290
Yolo County Total	187,361	66,549	92,047	280,979	109,959	146,814
Benicia	27,200	10,670	15,530	32,000	12,290	20,870
Dixon	17,500	5,640	5,840	31,300	9,940	9,110
Fairfield	106,900	35,000	50,740	146,900	47,820	77,030
Rio Vista	7,500	3,120	2,450	25,000	9,890	6,560
Suisun City	28,200	8,770	4,080	38,100	11,630	7,080
Vacaville	97,200	31,590	30,710	134,300	44,040	47,110
Vallejo	122,900	42,330	35,720	163,100	55,560	54,600
Unincorporated Solano County	14,200	4,920	5,450	15,100	5,050	5,510
Solano County Total	421,600	142,040	150,520	585,800	196,220	227,870

### Chart 3: Total Population and Jobs in 2035 -- I-80 Corridor by Jurisdiction



**Chart 4: Population and Employment Changes 2005-2035 by Incorporated vs. Unincorporated Areas**

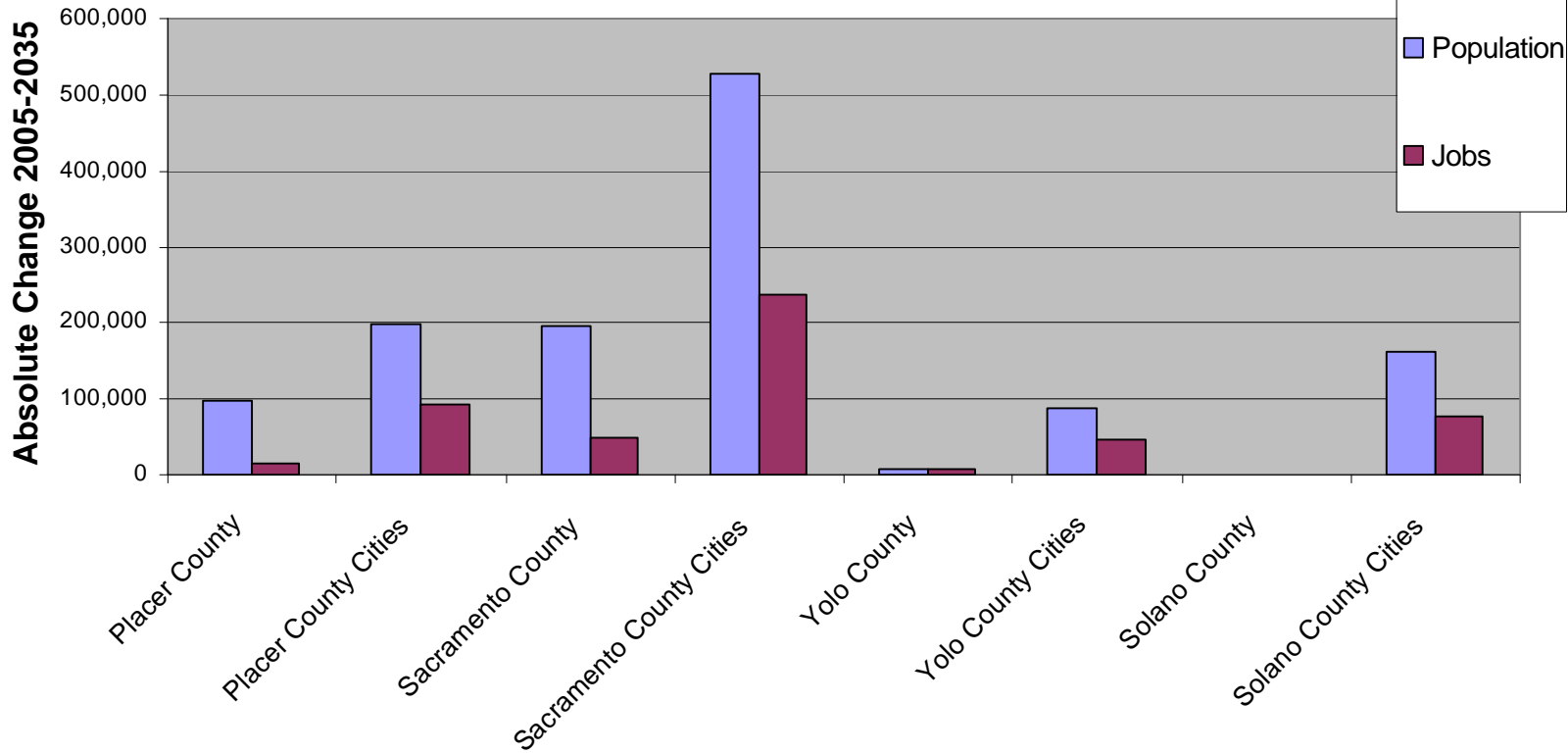


TABLE 5: BAY AREA PROJECTIONS: COMPARING TRENDS-BASED & POLICY-BASED FORECASTS							
	P2002 (2000-30)	P2005 (2000-30)	P2007 (2000-30)	CHANGE	Share of Growth	Share of Growth	Change in Share
	Household Growth	Household Growth	Household Growth	P02-P07	P2002	P2007	P02 - P07
Santa Clara	148,220	196,860	203,887	55,667	24.9%	28.7%	3.7
Alameda	103,600	154,030	148,334	44,734	17.4%	20.9%	3.4
Contra Costa	113,570	112,990	122,301	8,731	19.1%	17.2%	(1.9)
Solano	70,910	63,440	57,887	(13,023)	11.9%	8.1%	(3.8)
San Francisco	21,040	68,580	56,980	35,940	3.5%	8.0%	4.5
San Mateo	41,510	51,290	50,556	9,046	7.0%	7.1%	0.1
Sonoma	60,260	41,440	43,917	(16,343)	10.1%	6.2%	(4.0)
Marin	16,740	15,550	14,320	(2,420)	2.8%	2.0%	(0.8)
Napa	18,380	12,030	13,238	(5,142)	3.1%	1.9%	(1.2)
TOTAL	594,230	716,210	711,420	117,190	100.0%	100.0%	
	P2002 (2000-30)	P2005 (2000-30)	P2007 (2000-30)	CHANGE	Share of Growth	Share of Growth	Change in Share
	Job Growth	Job Growth	Job Growth	P02-P07	P2002	P2007	P02 - P07
Santa Clara	360,160	295,840	228,820	(131,340)	25.5%	19.6%	(5.9)
Alameda	314,540	338,710	287,570	(26,970)	22.3%	24.6%	2.4
Contra Costa	160,690	172,550	180,220	19,530	11.4%	15.4%	4.1
Solano	78,370	81,170	78,260	(110)	5.5%	6.7%	1.2
San Francisco	161,810	186,590	140,060	(21,750)	11.5%	12.0%	0.5
San Mateo	128,060	120,500	100,830	(27,230)	9.1%	8.6%	(0.4)
Sonoma	129,300	106,820	98,580	(30,720)	9.1%	8.4%	(0.7)
Marin	48,860	39,400	25,930	(22,930)	3.5%	2.2%	(1.2)
Napa	31,370	25,560	27,950	(3,420)	2.2%	2.4%	0.2
TOTAL	1,413,160	1,367,140	1,168,220	(244,940)	100.0%	100.0%	

**TABLE 6: SOLANO COUNTY PROJECTIONS (2005-2030 ONLY)**

**HOUSEHOLDS**

SUBREGIONAL STUDY AREA	2005	P2002 2030	P2003 2030	P2005 2030	P2007 2030
BENICIA**	10,670	11,960	11,980	11,920	11,960
DIXON**	5,640	10,120	10,860	8,590	9,200
FAIRFIELD**	35,000	51,550	47,180	47,850	46,190
RIO VISTA**	3,120	11,180	7,560	9,070	8,890
SUISUN CITY**	8,770	11,080	11,060	11,770	11,170
VACAVILLE**	31,590	46,700	43,600	41,350	42,250
VALLEJO**	42,330	52,700	55,500	58,190	53,590
REMAINDER	4,920	9,840	5,630	5,100	5,040
<b>SOLANO COUNTY</b>	<b>142,040</b>	<b>205,130</b>	<b>193,370</b>	<b>193,840</b>	<b>188,290</b>

\*CITY    \*\*CITY SPHERE OF INFLUENCE    \*\*\*OTHER SUBREGIONAL AREA

**TOTAL JOBS**

SUBREGIONAL STUDY AREA	2005	P2002 2030	P2003 2030	P2005 2030	P2007 2030
BENICIA**	15,530	15,400	19,460	19,340	19,970
DIXON**	5,840	9,220	7,370	7,380	8,560
FAIRFIELD**	50,740	71,750	67,170	74,120	73,290
RIO VISTA**	2,450	3,950	5,970	5,650	5,760
SUISUN CITY**	4,080	9,430	7,260	6,890	6,710
VACAVILLE**	30,710	39,710	44,430	45,920	44,200
VALLEJO**	35,720	52,340	52,000	53,500	51,000
REMAINDER	5,450	1,260	1,020	5,110	5,510
<b>SOLANO COUNTY</b>	<b>150,520</b>	<b>203,060</b>	<b>204,680</b>	<b>217,910</b>	<b>215,000</b>

\*CITY    \*\*CITY SPHERE OF INFLUENCE    \*\*\*OTHER SUBREGIONAL AREA

TABLE 6: I-80 Corridor Smart Growth Planning Study

Route	Location		Agency	2005 SOV	2005 HOV Total	2005 Commercl	2005 TOTAL	2030 SOV	2030 HOV Total	2030 Commercl	2030 TOTAL	2005-2030 Change
I-80	Solano/Yolo County Line	EB	STA				6860				10106	47%
			MTC	6367	540		6907	9087	770		9857	43%
		WB	STA				6620				9446	43%
			MTC	5361	658		6019	7652	940		8592	43%
I-505	Solano/Yolo County Line	SB	STA				1424				1266	-11%
			MTC	1528	168		1696	2181	238		2419	43%
		NB	STA				1232				1210	-2%
			MTC	1465	74		1539	2092	98		2190	42%
<b>80 / 505</b>	<b>on 80, west of 505</b>	EB	STA				<b>8092</b>				<b>11316</b>	<b>40%</b>
<b>Combo</b>		EB	MTC	<b>7895</b>	<b>708</b>		<b>8446</b>	<b>11268</b>	<b>1008</b>		<b>12047</b>	<b>43%</b>
	<i>Kfactor for Sacog ADT</i>	EB	SACOG				<b>11901</b>	<b>0</b>	<b>0</b>		<b>15428</b>	<b>30%</b>
		WB	STA				<b>8044</b>	<b>0</b>	<b>0</b>		<b>10712</b>	<b>33%</b>
		WB	MTC	<b>6826</b>	<b>732</b>		<b>7715</b>	<b>9744</b>	<b>1038</b>		<b>11011</b>	<b>43%</b>
	<i>Kfactor for Sacog ADT</i>	WB	SACOG	<b>0</b>	<b>0</b>		<b>12740</b>	<b>0</b>	<b>0</b>		<b>17911</b>	<b>41%</b>
I-80	Carquinez Bridge	WB	STA				12016				19910	66%
			MTC	8236	1350	86	9672	9676	699	120	10495	9%
		EB	STA				5262				14658	179%
			MTC	6006	889	144	7039	5907	516	201	6624	-6%
I-680	Benicia Bridge	SB	STA				10378				16038	55%
			MTC	10197	1610	49	11856	11105	1815	80	13000	10%
		NB	STA				4972				16476	231%
			MTC	7968	1413	65	9446	8055	1076	114	9245	-2%
SR-12	Rio Vista/Solano Co. line	WB	STA				1494				2666	78%
			MTC	1198	165	5	1368	1219	161	12	1392	2%
		EB	STA				1198				1118	-7%
			MTC	1304	121	3	1428	1699	192	6	1897	33%



