

Sustainability Principles for the Bay Area

We support the following policies:

1. Sustainability requires that the Bay Area reduce its impacts on the environment by slowing its population growth, reforming its technologies, and changing its consumption.
2. Job housing balances can be improved primarily by restraining job growth and promoting affordable housing growth in job surplus areas, which still allows for growth in employment for all of the natural increase in population and substantial in-migration.
3. A few cities with severe job surpluses have caused unaffordable housing, long and congested commutes, air pollution, over-crowding of low-income workers, and fiscal stress to housing-surplus cities, and these cities should stop approving more jobs until housing catches up.
4. Given high housing costs and shortages, approvals of new major job increases should occur only when concurrent with corresponding increases in close-by, affordable housing.
5. Managing job locations to prevent external costs is economically beneficial and consistent with rising incomes.
6. Existing infrastructure should be maintained, and new investments should be made in land recycling of brownfields and closed military bases.
7. Social policies to help disadvantaged women, lower skill workers, and even middle class workers left behind by changing technologies are necessary to improve their incomes, help the regional economy, and reduce population growth.
8. The greenbelt must be protected from any further encroachment, and restoration of lost environmental assets should be pursued.
9. Smart growth should be promoted around transit, including reduced parking requirements and many other policies to support transit, bicycling, and walking, and to minimize displacement of existing residents and businesses.
10. Frequent transit service in dense corridors and transportation pricing reforms should be implemented, not more freeways.
11. General Plans, zoning, redevelopment, and other existing policy tools can achieve the lowered growth rates and smart growth needed for sustainability.
12. Economic analysis considering social and environmental costs, and ethical principles of city and individual responsibility, are important for achieving sustainability.

[signed]

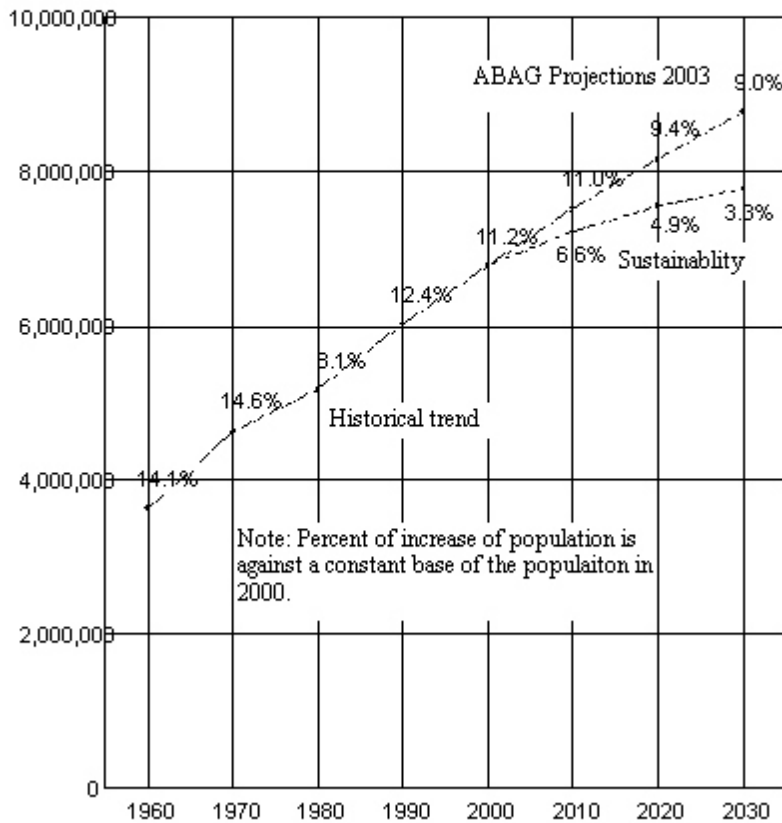
The Sustainability Projections

The Bay Area continues to grow unsustainably. The quality of life has already been systematically degraded, in some case perhaps permanently. Many people through ignorance of natural systems are no longer aware of what is missing, and the carrying capacity of the environment is shrinking.

Sustainability requires reducing human impacts on the environment, which in turn requires dealing with the three sources of impacts: stabilizing our numbers, changing our technologies, and adjusting our consumption.

The purpose of the Sustainability Projections is to help make more tangible a route to sustainability for the Bay Area in the 2000 to 2030 period. These projections have a radically different vision of the future from the ABAG Projections 2003.¹

Bay Region Population Growth ABAG 2003 vs. Sustainability



The Sustainability Projections assume half the population growth of ABAG. From 2000 to 2030 the region would grow from 6,784,000 people to 7,783,000 people, an increase of almost one million persons. The ABAG Projections 2003 show more growth, to 8,781,000 by 2030, an increase of almost two million persons.

The Sustainability Projections reduce the rate of growth. In the 1990s growth was 12.6 percent; sustainability would reduce that by decade to 6.6, 4.6 and 2.9 percent, almost flattening the curve. The ABAG projections also reduce rates but by much less: 11.0, 8.5, and 7.5 percent. The line keeps rising unsustainably.

The Sustainability Projections also show less job growth. From 2000 to 2030 the region would grow from

¹ABAG, the Association of Bay Area Governments, makes economic and demographic projections for the Bay Area.

3,754,000 to 4,502,000 jobs, or by 653,000 jobs. The ABAG Projections 2003 for 2030 show 5,230,000 by 2030, up by 1,476,000 jobs. With sustainability, the growth rate declines similarly to the population; with ABAG, the rate blips up a bit in the 2010 to 2020 decade but generally falls at a slow rate similar to ABAG population, so the line keeps rising.

The balance of jobs and housing

The Sustainability Projections reach a better balance of jobs and housing. In 2000 net in-commuting (the surplus of jobs over employed residents in the region) was 148,000 workers. The Sustainability Projections reduce that by 2030 to 94,000. Some regional imbalance is a natural result of the growth of the region, which has placed employment close to residential communities just outside the region, like Tracy and Santa Cruz.

The ABAG projections, by contrast, significantly aggravate the surplus of jobs over housing, with inevitable impacts on housing affordability, commute distance and congestion, and air quality. While ABAG's official policy is to eliminate net in-commuting, its projections show it increasing from 148,000 workers from outside the region in 2000 to 263,000 workers in 2030.

The Sustainability Projections reach a better job-housing balance for seven of nine counties. Marin County and Sonoma County do not achieve as much balance as ABAG because they assume a continuation of the existing flow of commuters from Sonoma to Marin to San Francisco. In Marin, in 1980 the balance was 40,700 surplus workers; in 1990 it was 20,200 workers, and in 2000, 18,000 workers. The Sustainability Projections continue the Marin surplus of 18,000 out to 2030. In Sonoma, the Sustainability Projections continue the downward trend since 1980. In 2000 there were 24,000 out-commuters, which falls to 18,000 in 2030, the same as Marin. There is, then, a symmetry of flow of 18,000 from Sonoma to Marin to San Francisco.

The Sustainability Projections have a great impact on the biggest, most out-of-balance counties. San Francisco and Santa Clara counties show large decreases in in-commuters, and Contra Costa and Solano have large decreases in out-commuters. Improved balances are achieved by having less job growth and more population growth in the big job surplus counties, and vice versa in the housing surplus counties.

While the Sustainability Projections continue existing commuting patterns, they dramatically reduce the amount of imbalance. Less in-commuting and improved housing supply close to big job surpluses would improve housing affordability relative to current conditions. Similarly, long and congested commutes would be significantly reduced, and air quality would improve. The ABAG Projections show things getting much worse than the existing pattern: Three counties were importing workers in 2000; by 2030 seven of the nine counties are to be importing workers.

Solano County, now a bedroom for the Bay Area and Sacramento, has a goal of increasing its jobs relative to housing, and this became part of the *Final Report* of the Smart Growth Strategy, October 2002. The Sustainability Projections reduce Solano's surplus workers from 56,300 in 2000 to 40,000 in 2030. The ABAG Projections, however, increase Solano's imbalance from 56,300 in 2000 to 100,800 in 2030.

The Sustainability Projections achieve these outcomes while still allowing for housing and jobs growth in all counties in all decades. The Sustainability goals, as they involve much less total growth than ABAG, will be much easier to achieve. Similar to ABAG, they will require more incentives and regulation from the state. The difference is that the ABAG projections are just to promote more housing to meet job projections without evaluating if that growth hurts or helps the economy, while the Sustainability Projections are based on ethics and economic analysis (discussed below).

I also have some doubt about whether the high growth projections of ABAG Projections 2003 are realistic. High housing goals were premised on workshop outcomes and a desire to match job levels. While physically possible, the rates are so much higher than current rates that they may not be politically realistic. Further, they depend on outside investment which is unlikely to occur, and the job increases are predicated on multipliers which will not occur if the investment is not forthcoming. ABAG projects growth in jobs in Santa Clara county of about 10 percent from 2000 to 2010. It is not clear if these numbers adequately consider the slump in the Santa Clara county economy, which wiped out nine percent of its total employment in 2001 and 2002, and from which there has not been any recovery.

Economics and Ethics

The Sustainability Projections are based on economic analysis and ethical principals.

Economic analysis requires all costs and benefits to be studied. In the conventional approach, only obvious market costs and benefits are considered, so that jobs are always a good thing. A comprehensive analysis, however, also looks at external and non-market costs relating to the location of jobs, called "job location externalities." In a severe job surplus area, adding more jobs means that housing prices go up, commutes get longer and more congested, and air quality suffers. Lower income workers are especially hard hit, often having to live in very crowded conditions. Middle class families suffer, as long commutes take from family time. Housing surplus localities have the fiscal stress of less revenue and more service costs, reducing service quality. The same job in a better location avoids these external costs.

It is ethical to require, at a minimum, that cities with severe job surpluses restrain job growth until the housing supply catches up. If they choose not to increase housing enough, at least the imbalance problem would not get worse and less growth would help sustainability.

Similarly, a meaningful "concurrency" requirement linking job increases to housing is ethical. Large increases in basic job in areas of job surplus and job-housing balance should be conditioned on adequate new housing supply for the workers. Adequacy means affordable for the income of the workers and within a reasonable transit commute distance. If the adequacy requirement cannot be met, again, the imbalance problem would not get worse and less growth would help sustainability. The concurrency requirement is not as needed in a housing surplus area, where it may make sense for jobs to catch up with housing, so long as the jobs can be accessed by transit.

Economic analysis requires that we be concerned about the impacts of restrictions on economic growth. Would lower job growth harm the economy? Research by Gottlieb² shows no correlation between population growth and increasing per capita income in American metropolitan areas. Similarly, the experience of the Bay Area is that high housing costs have forced many companies to leave or expand outside the area, but with no adverse impact on increasing per capita income. Newman and Kenworthy found that many European cities have stable populations and higher per capita incomes than fast-growing American cities. Places as diverse as Thailand, Mexico, and Singapore have lowered their population growth dramatically at the same time they have grown their economies.

The Sustainability Projections are not based on some kind of “industrial policy,” whereby government picks winners and losers. Quite the opposite; the Sustainability Projections are based on reforming markets so that prices reflect real costs and avoid externalities. They are based on counteracting perverse incentives that cause anarchic decisions hurting the region as a whole. Making people pay their own way is also just common sense.

Economic analysis suggests that investment in human capital, the productivity of workers, and a shortage of labor are important correlates of technological innovation, increased productivity, and higher incomes. Higher income has nothing to do with more jobs as such: they can come together, there can be one without the other, and one can go up while the other goes down.

Certain social policies are important in reaching the Sustainability Projections. It is ethical to provide opportunity for women; women who have little education, low income, and little English-speaking ability are at a distinct disadvantage. Similarly, low-skill and even middle class workers can lose employment or be underemployed because they lack the new skills needed by the new economy.

Economic analysis indicates that programs in these areas have uneven records, but spending on them is low and, to the extent they succeed, people gain higher and more stable incomes for themselves, contribute more to the economy, have fewer children, and educate their children more. The programs include adult education, job training, general health services, and family planning services. While we need to figure out how to do these programs better, our continuing failure to invest has high costs in crime, lost productivity, and wasted lives. These social policies are, unfortunately, usually ignored by physical planners .

It is ethical to protect local habitat for endangered species and agricultural land for food security. Many square miles of the region have already been covered with car-dependent sprawl. The Sustainability Projections put no growth onto greenfields; all development takes place within the urbanized, sewered area. The greenbelt is increasingly protected and too much energy is being wasted on fights over development. Rural landowners cannot be stopped from seeking a

²Paul D. Gottlieb, February 2002, *Growth Without Growth: An Alternative Economic Development Goal for Metropolitan Areas*, A Discussion Paper Prepared for The Brookings Institution Center on Urban and Metropolitan Policy. Gottlieb is at the Center for Regional Economic Issues, Weatherhead School of Management, Case Western Reserve University.

windfall from housing demand created by the city, but it would be helpful if other interests became fully committed to development within the urbanized areas.

ABAG is at this time unwilling to analyze how much greenfield develop is contained in its projections.

Land Use and Transportation

Many aspects that are part of a Sustainability Plan expand on the framework of the projections. Land use, transportation, and transportation pricing are especially important.

Concerning land use, the Sustainability Projections support smart growth: new Urbanist and Transit-Oriented Design principles, increased housing and job densities near transit; two to five story construction; mixed uses; allowing more “granny units” in single family areas; reduced parking requirements; traffic calming on neighborhood and shopping streets; rental or sale of parking separate from direct uses. The Sustainability Projections support redevelopment of excess parking areas for direct uses, and rehabilitation of military bases and brownfield industrial sites when they are not part of the greenbelt. They support affordable housing, protections against excessive dislocation due to rising rents, and business developments that help current residents. The primary locations to pursue smart growth are in and next to dense downtowns, at BART, Caltrain, and VTA transit stations, and along bus rapid transit corridors.

The Sustainability Projections do not support growth in built-out neighborhoods not near transit. They Sustainability Projections do not support high rise construction (over 7 stories) outside of areas that already have high rise. They oppose all parking requirements (developers can supply parking if they wish) and parking underneath multiple unit structures.

The Sustainability Projections would be reinforced by a number of transportation and transportation pricing policies.³ The smart growth and transportation policies combine to significantly reduce drive-alone auto traffic as density increases.

Smart growth requires relatively little land, and so can accommodate many more people on a lot less land than sprawl. Lower projections and density combine to eliminate the need to build in most existing neighborhoods. The ABAG projections, by contrast, require so much extra growth that it will difficult to avoid impinging on existing neighborhoods and promoting unacceptably high densities, provoking NIMBY backlash and political unwillingness to implement smart

³Transportation reforms: *Support* frequent transit if ridership is high enough and there is strong fare box recovery of operating costs; frequent transit on main arterials; reduced auto-traffic on transit-served arterials; pedestrian and bicycling amenities. *Oppose* any significant freeway expansion; HOV lanes that expand freeway capacity rather than provide ramp-metering of drive-alone with strong time advantages for HOV; transit in low density areas, on zig-zag routes, at infrequent intervals.

Transportation pricing reforms: shopping area parking charges (similar to paying for parking at an airport or parking structure); neighborhood parking management; cash-out of employer-paid employee parking; market-based parking charges for transit parking; market-based congestion pricing; gradual increase of gas tax to cover externalities of car use (pollution; atmospheric carbon) offset by a corresponding reduction of taxes on labor; shift from sales and property taxes to gas taxes to pay for transportation.

growth policies.

Natural Increase and Migration

Do the Sustainability Projections allow enough growth to accommodate natural increase in population? Do they allow much net in-migration? The first step is to look at the existing situation: How much growth is due to natural increase? Using ABAG Projections 2000, 43 percent of the increase from 2000 to 2020 was due to natural increase and 57 percent to migration. According to one DOF study, 61 percent was due to natural increase. Another DOF study for 1990 to 1999 found 67 percent was due to natural increase.

The second step is to split natural increase between the base population and migrants. In the case of ABAG, I calculated the share of natural increase from migrants based on their share of total population, with separate estimates for each five year period, then increased by 10 percent to adjust for the younger age profile of migrants. About 2.6 percent of total growth over the twenty years was natural increase to net in-migrants after 2000. Natural increase to 2000 population was about 41 percent of total growth.

Similarly, in the case of the second DOF study covering nine years, I estimated that migrants per year would be one ninth of total migration and would have a share of natural increase proportionate to their share in the total population. I did not adjust for age. In this case, about eight percent of total growth was natural increase to net in-migrants after 1990. Natural increase to 1990 population was about 58 percent of total growth.

The first estimate produces a lower rate of natural increase to base year population; the second, a higher rate, so a reasonable estimate would be that between 41 percent and 58 percent of growth in the Bay Area is due to natural increase to the base population.

These estimates can now be applied to the Sustainability Projections. If natural increase to base population applied to the 2000 base year projected more population than the Sustainability Projections allows, it would require net out-migration of population—a difficult proposition.

The Sustainability Projections start from the Bay Area 2000 census population total of 6,784,000 and increase by 775,000 by 2020. Using ABAG figures, the natural increase of the base population raised the 2000 population by about 6.4 percent. Applying that to 6,784,000 yields 445,400 more population. There is, then, about 338,800 available for net in-migration and its natural increase. Net in-migration and its natural increase would be about 44% of total growth.

Using the second DOF study, natural increase to base population raised the 1990 population by about 6.6 percent, yielding about 446,400 needed to accommodate natural increase to base population, allowing 328,400 for net in-migration and its natural increase.

The policies needed to achieve the Sustainability Projections, discussed below, will reduce net in migration by reducing the increase in jobs and by giving more of the jobs to the existing labor force. Net in-migration and its natural increase would still be about 42% of total growth,

comparable to the 1990 to 1999 experience.

While it seems like there is a big difference between 41 percent and 58 percent of growth attributable to natural increase to base population, when these rates are applied to a much larger base year, the numerical differences turn out to be small. In both cases, the Sustainability Projections allow a substantial amount of net in-migration, in fact, over 40 percent of growth. If it were a goal to minimize net in-migration, the cuts in projected population growth rates would need to be higher.

ABAG Projections 2003, by contrast, accommodate a lot more net in-migration and its increase. About 68 percent of growth to 2020, using either method, is due to net in-migration.

Policies to Achieve Sustainability

The Sustainability Projections can be accomplished six ways.

1. The requirement that **severe surplus locations not make matters worse**, as discussed above, will slow job creation in those areas. These cities, primarily Palo Alto, Sunnyvale, Mountain View, Santa Clara, and San Francisco, are unlikely to be willing to approve enough housing growth to reach a fair share, let alone enough to house their workers. Even if they were to catch up, they would then have to build even more housing if they wished to approve substantial job increases due to the concurrency requirement. These cities are winners, successful in avoiding housing and collecting revenues, with no self-interest in job growth if they had to do it right. I support preventing them from externalizing more costs. The problem for the region is to prevent them from making matters worse.

2. The **concurrency requirement** will also slow job creation, discussed above.

3. One of the most powerful tools for sustainability could be general plans and zoning. Where there are job surpluses, cities can **redesignate land** from industry and commerce to neighborhood uses, thus foreclosing excess job growth while at the same time allowing housing to catch up.

Marin County has already achieved sustainability using General Plans and zoning. Most of its open space is protected against development, and most of its cities do not want much growth. Only Novato and San Rafael have much potential, and are the source of most growth. Marin achieves sustainability without imposing housing costs or population growth on others. However, its high housing costs do cause social exclusion even of the middle class.

4. **Increased productivity of the existing labor force** will allow it to qualify for more jobs, helping sustainability by reducing the need for migration. This policy requires increased and careful investment in a range of social, health, and education programs.

5. Longer term, more education and better employment **reduce the rate of natural population increase**, another reason for investment in this area.

6. The Sustainability Projections require **smart growth and transportation reforms**, which will provide incentives and regulatory requirements to build needed housing in a sustainable manner. More legislative mandate on cities is required where the issues line up and reinforce each other: building smart growth near transit in job surplus locations, and building on surplus parking.

Of these methods, only plans and zoning have much popular and political recognition as tools for shaping growth, and even then much of the concern is negative. Plans and zoning can be used to externalize fiscal costs and to reinforce social discrimination. The value for environmental sustainability is great, but requires implementation that avoids these problems. Therefore, the Sustainability Projections both stop growth in open space and promote smart growth around transit.

More work can be done on these ideas. The projections can be allocated to superdistricts and cities. Smaller, more specific sites can be studied for their development potential. It would not be difficult to develop a more detailed plan. The more important problems are the lack of public understanding and the lack of political will. The interested public and media need to be educated on these issues as a basis for developing political will.

We cannot yet define exactly what is required for sustainability, but these sustainability policies and projections would clearly make the region more sustainable than current trends.

- 1) Environmentally, sustainability policies would reduce global warming gases, other air pollution, water pollution, urbanization of rural and wild land, energy use, and consumption of water and other resources.
- 2) Socially, the risk of gentrification has to be countered more effectively, and education, training, and comprehensive health care will improve incomes of the disadvantaged. Meanwhile, job location management and increased housing supply will improve housing affordability.
- 3) Economically, three major improvements occur: a) the more productive incorporation of the disadvantaged, continuing the gradual historical trend, improves general prosperity; b) the combination of regulatory and pricing reform policies will improve market efficiency of the transportation sector, now characterized by massive subsidies which cause low productivity in both land use and transportation; and c) shorter linear service distances (utilities, deliveries, public safety) will reduce infrastructure capital costs and operating costs.
- 4) In terms of national security, U.S. carism and resulting auto dependency and sprawl create severe dependency on foreign oil and are destabilizing the global climate, both of which are major threats to our economy and security. The oil wars have already started. Sustainability principles help move to a path of greater security. Trend need not be destiny; we can decide.

More details on the web:

<http://isis.csuhayward.edu/ALSS/POLSCI/slewis/FromSmart/index.htm>

<http://isis.csuhayward.edu/ALSS/POLSCI/slewis/sps/sps.htm>

Let me know if these URLs are not working: slewis@csuhayward.edu