

Will Work Pay?

JOB CREATION IN THE NEW CALIFORNIA ECONOMY

**A Publication of the California Budget Project
April 2000**



ACKNOWLEDGEMENTS

Jean Ross and Jesse Rothstein wrote this report. Jesse Rothstein analyzed the wage and employment data that serves as the basis of this report. The authors wish to thank a number of people for their assistance. Kim Wielinski of the California Budget Project prepared the final document for publication. Kate Breslin of the California Budget Project developed the framework for this analysis. Jared Bernstein and Chauna Brocht of the Economic Policy Institute provided thoughtful comments and data on hourly earnings. Bob Brownstein of Working Partnerships USA, Stephen Levy of the Center for the Continuing Study of the California Economy, Lee Ferraro of the San Luis Obispo Private Industry Council and Sharon Cornu of the California Labor Federation served as advisors to this project and offered thoughtful comments on earlier drafts of this report. Special thanks are due to Richard Holden and the staff of the Labor Market Information Division of the California Employment Development Department for reviewing the draft report, providing methodological assistance and for maintaining excellent Internet access to California wage and employment data.

This report draws on studies of a number of other states and regions. Most notably, we would like to acknowledge the work of the Midwest Job Gap Project and the Jobs Now Coalition of Minnesota. Our final product was greatly enriched by the efforts of those who went before us.

The California Budget Project (CBP) is grateful to the Rosenberg Foundation for its dedicated support of this project. We also wish to thank the Ford, James Irvine, Charles Stewart Mott, California Wellness, Streisand and Friedman Family Foundations and the California Endowment for their general support of the California Budget Project.

THE CALIFORNIA BUDGET PROJECT

The **California Budget Project** (CBP) was founded in 1994 to provide Californians with a source of timely, objective and accessible expertise on state fiscal and economic policy issues. The CBP is committed to improving public policies that influence the economic and social well-being of low- and middle-income Californians and their communities. The CBP pursues this goal through independent research, policy analysis and public education. Support for the CBP comes from foundation grants, publications and individual contributions.

California Budget Project
921 11th Street, Suite 502
Sacramento, CA 95814-2820
(916) 444-0500
(916) 444-0172 (fax)
cbp@cbp.org
www.cbp.org

Will Work Pay?
JOB CREATION IN THE NEW CALIFORNIA ECONOMY

TABLE OF CONTENTS

Executive Summary	5
Will Work Pay? Job Creation in the New California Economy	11
Endnotes	26
Appendix 1: Methodology	27
Appendix 2: Basic Family Wage Tables	31

EXECUTIVE SUMMARY

By many measures, California's economy is booming. Unemployment rates are the lowest they've been in a decade. The state has regained the million jobs lost during the recession and added a million more. Tight labor markets have reduced unemployment among minority workers to all-time lows and the number of millionaires is at an all-time high. However, not all Californians have shared in the benefits of economic prosperity:

- Average hourly wages were lower in 1998 than in 1979 for the bottom 70 percent of California earners, after adjusting for inflation.
- The purchasing power of the California household exactly at the middle of the income distribution was lower in 1998 than it was in 1989.
- The share of Californians living in poverty rose by 19 percent between 1989 and 1998, from 12.9 percent to 15.4 percent.
- While the income of the wealthiest fifth of California households rose by 28 percent between the late 1970s and the late 1990s, the incomes of the poorest fifth fell by 19 percent; making California's income distribution the fifth most unequal in the country.

There are a number of reasons why many Californians are falling behind. Frequently cited factors include changes in the structure of the state's economy, particularly the declining share of the workforce employed in manufacturing and the rising share of employment in the service sector; changing technology that favors high- over low-skilled workers; declining rates of unionization; global competition; and the relatively large number of immigrants in California's workforce. This report explores whether changing employment patterns are likely to reverse this trend for those who work or seek to work to support themselves and their families. Specifically, this report attempts to answer three questions:

- Will there be enough jobs for those who want to work and must work to support themselves and their families?
- Do the skills required for the jobs that are available match the skills of those seeking work?
- Is the state's economy creating jobs that provide sufficient income to support a family?

These questions are particularly timely in light of the recent changes to state and federal welfare laws. The new welfare laws were predicated on the implicit assumptions that there would be enough jobs available for those asking to work and that available jobs would provide sufficient income to support a family.

The findings presented in this report pose a critical challenge to policymakers and individuals concerned about the future of the state's economy and the well-being of California's families. This report concludes with policy recommendations offering a blueprint for programs and policies that will ensure that the jobs available in the future provide adequate wages for those who work to support themselves and their families. The strength and diversity of the California economy, combined with the resourcefulness of the state's populace, create an opportunity for progress on behalf of California's low-income working families.

California's Job Growth is Concentrated in Low-Wage Industries and Occupations

- By 1998, service industries accounted for more than 30 percent of California's employment, up from 26 percent in 1989. Projections indicate that the service sector will account for 35 percent of the state's employment in 2005. Manufacturing dropped from 21 percent of the state's employment in 1979 to 14 percent in 1998. Forecasts predict that only 13 percent of the state's workforce will be employed in manufacturing in 2005.
- Six of the 10 occupations expected to post the largest *percentage* growth between 1996 and 2002 are among the highest paid in our economy, with average hourly wages in excess of \$20 per hour. However, the 10 occupations expected to post the largest percentage increase account for just 5 percent of California's total projected job growth between 1996 and 2002.
- The 10 fastest growing jobs in *absolute* terms account for nearly four times as many jobs as those in the high-percentage growth category and 19 percent of total projected job growth during the forecast period. Fully seven out of the top 10 jobs pay, on average, less than \$11 an hour – equivalent to \$22,880 a year for a full-time worker.
- The six high-percentage growth occupations paying in excess of \$20 per hour require college degrees, while the seven low-wage, high absolute-growth occupations require minimal formal education and short on-the-job training.
- Overall, 39 percent of the state's projected employment growth between 1995 and 2002 is forecast to occur in occupations where the median 1997 hourly wage was less than \$10 per hour. An additional 12 percent of the growth is projected for occupations paying less than \$12.50 per hour. In contrast, only 28 percent of projected growth is forecast in occupations with a 1997 median wage of \$20 per hour or more, equivalent to an annual income of \$41,600 for a full-time worker.

The Gap Between Low- and High-Wage Workers is Growing

- Wage inequality in California – measured by the difference in hourly wages between the highest- and lowest-earning 10 percent of the wage distribution – has increased significantly over the past two decades. In 1979, workers at the 90th percentile (the point where 10 percent earned more and 90 percent earned less) earned 3.8 times more than workers at the 10th percentile. In 1998, workers at the 90th percentile earned 4.9 times more than those at the 10th percentile – a 29 percent increase in less than two decades.
- Inflation-adjusted hourly wages for workers at the 90th percentile rose 9 percent between 1979 and 1998. During the same period, inflation adjusted earnings for workers at the 10th percentile fell by 16 percent. Workers in the middle of the pack did not fare much better than those at the bottom: a worker exactly at the middle of the wage distribution earned 8 percent less in 1998 than in 1979.
- Hourly wages for men with less than a high school education averaged \$8.96 in 1998, down 16 percent from 1989 and 34 percent from 1979, after adjusting for inflation. Women with less than a high school degree fared only slightly better, with their average hourly wages falling by 21 percent between 1979 and 1998.
- Over the past two decades, the gap between workers with a college degree and those without one has grown substantially. In 1979, men with a college degree earned, on average, 1.34 times the hourly wage earned by high school graduates. In 1998, male college graduates earned 1.85 times the average wage of a male high school graduate. The trend for women workers is similar. In 1979, hourly earnings of women with a college degree were 1.28 times those of women with a high school degree. In 1998, women with a college degree earned, on average, 1.75 times the average hourly wage of women with no more than a high school degree.

What is an Adequate Wage?

- In a companion study, the California Budget Project (CBP) estimated the income needed to support a family at what is considered a basic standard of living. To meet that standard, each parent in a two-parent family with two children would need to work full-time for an hourly wage of \$10.79. If only one parent works outside the home, he or she needs a full-time hourly wage of \$15.08, while a single parent with two children needs to earn \$17.71.

Who are California's Job Seekers?

- California's job seekers include the currently unemployed, recipients of public assistance (CalWORKs and General Assistance), discouraged workers and the underemployed.
- Even with an unemployment rate below 6 percent, there are still nearly 1 million unemployed workers in California.
- Under the state's new welfare laws, an estimated 411,362 CalWORKs recipients who are not now in the labor force will also need to find jobs, along with 57,222 employable General Assistance recipients.
- Adding to the competition are underemployed persons – part-time workers who would prefer full-time jobs, “discouraged” workers, and persons who are constrained from seeking work due to lack of child care, transportation or other barriers to employment. In 1998, 908,641 Californians were underemployed.
- Nearly two-thirds (63 percent) of the job seekers identified in this report have at least a high school education. However, more than a third (37 percent) of potential job seekers, including approximately half of the state's welfare recipients, lack even a high school degree.

How Do the Jobs that are Available Match the Skills of Those Looking for Work?

- Nearly half (45 percent) of California's projected job growth will occur in occupations requiring only short or moderate on-the-job training. Twenty percent of the jobs will be available to new workers with vocational training, a community college degree or long-term on-the-job training; 16 percent will require a four-year degree; and 2 percent will require a graduate degree. The remaining 16 percent require significant work experience, and thus will not be available to persons entering the workforce for the first time.
- A similar analysis of job openings – new jobs plus openings due to separations – finds a similar distribution, but with a slightly heavier concentration of openings in occupations requiring relatively less experience or education.
- The most significant mismatch between jobs and job seekers is the shortage of seekers with at least a college degree. While nearly a quarter (23 percent) of projected openings will require at least a college degree; just 8 percent of the job seekers identified in this report possess a college degree.
- Overall, the number of job seekers exceeds the number of available jobs. California's “job gap” – the gap between the number of projected job openings and the number of job seekers – is 2.6-to-1. If job seekers are assumed to compete only for new jobs, there will be 5.4 job seekers for each available job.
- The number of job seekers lacking a college degree exceeds the number of job openings that do not require a degree by a ratio of more than 3-to-1.

Fewer than One Out of Ten Job Openings Pays the Basic Family Wage to Entry-Level Workers

- The good news is that half of the state's projected job openings pay at least the basic family wage needed by a family headed by two full-time working parents (\$10.79 per hour).
- However, only one out of 10 of the state's projected job openings paying enough to support a two-working-parent family is an entry-level job requiring short to moderate on-the-job training.
- In contrast, many (44 percent) of the job openings paying at least the basic family wage for a two-working-parent family – 23 percent of all job openings – require at least a college degree.
- The situation confronting single parent families is even tougher. Just one out of four (27 percent) of the state's projected job openings pay at least the basic family wage for a single parent family (\$17.71). Virtually none (1 percent) of the projected openings are entry-level jobs paying enough to support a single parent and her two children.
- Only 19 percent of job openings requiring only short or moderate on-the-job training pay at least CBP's basic family wage for a two-parent family.
- Occupations requiring more education are much more likely to pay at least the basic family wage: 81 percent of openings requiring long-term training or vocational education and 94 percent of openings requiring college degrees pay at least the basic family wage for a two-working-parent family.

Labor Market Prospects Vary Significantly Across California

- Despite the strength of the state's current economy, 13 of the state's 58 counties actually lost jobs between 1990 and 1998.
- More than 40 percent of projected employment growth will occur in occupations paying less than \$10 per hour in more than half the state's counties.
- While the number of job seekers exceeds projected job openings in all but three California counties, the overall job gap – the ratio of job seekers to job openings – ranges from a low of 0.8-to-1 in Marin County to a high of 13.3-to-1 in Imperial County.
- The disparities between job seekers and basic family wage jobs are even wider at the county level. The ratio of job seekers to jobs paying at least the basic family wage for a two-working-parent family ranged from a minimum of 1.7-to-1 in Santa Clara and San Mateo counties – where jobs are relatively plentiful but the cost of living is high – to 28.2-to-1 in Tulare County, where unemployment is high but the cost of living is low.
- The prospects for workers lacking a college degree are worse in every county. Job seekers lacking a college degree outnumber openings requiring short or moderate on-the-job training by 1.1-to-1 in Marin County and 26.2-to-1 in Imperial County.
- The gap for jobs paying at least the basic family wage is much larger. In Santa Clara County, where the low-skill family-wage gap is the least severe, there are still 9.6 job seekers without a college degree for every short or moderate training family-wage job. The worst gap for these workers is in Imperial County, where it is 154-to-1.

A Policy Agenda for California's Working Families

The findings presented in this report suggest the need for a four-pronged strategy to address California's job gap:

- Public policies should promote access to those high-skilled, high-wage jobs that do exist.
- Policies should strive to ensure that "work pays."

- Welfare policies should reflect the reality of the labor market and recognize that many families will be unable to find jobs that permit self-sufficiency.
- Policymakers should target economic development programs and policies to firms and industries that demonstrate the greatest potential to create jobs that pay enough to support a family.

1. Promote Access to High-Wage Jobs

Education remains the best guarantee of higher earnings and improved job prospects for individual job seekers. Public policies should strive to:

- *Improve access to higher education.* Public policies should be designed to equalize the opportunity for higher education through tools such as expanded student aid, community college transfer programs and early outreach aimed at ensuring that high school graduates are equipped to enter college should they desire to do so.
- *Use workforce investment policies to boost upward mobility.* Investing in training programs to help those already in the workforce achieve upward mobility and ease competition for entry-level jobs can help workers achieve higher earnings over the course of their careers.

2. Make Work Pay

Since no policy can completely eliminate lower-skilled jobs in favor of higher-wage alternatives, public policies should strive to insure that no Californian who is willing and able to work should be forced to live in poverty. Fortunately, there are a range of policy options that address this goal:

- *Raise the minimum wage and index it to inflation.* “Trickle up” economics works. Raising the minimum wage boosts the earnings of workers at the bottom of the earnings distribution, as well as those earning slightly higher wages, as employers strive to maintain differentials between entry-level workers and those just above them.
- *Expand the Earned Income Tax Credit (EITC).* The federal EITC provides a supplement to low-income families with earnings from work. Expansion of the federal EITC, coupled with creation of a state EITC, would boost the incomes of working families most in need of assistance.
- *Increase access to services that working families need.* Policies that improve access to health coverage and quality, affordable child and after-school care can go a long way toward helping families make ends meet.
- *Adopt living wage policies.* Living wage ordinances are a good way for government to demonstrate its commitment to decent wages for all workers.

3. Make Welfare-to-Work Policies Reflect the Realities of the Labor Market

Welfare-to-Work policies should reflect the reality that competition for entry-level jobs is stiff and that few people who are required to work to support their families will earn enough to make ends meet.

- *Continue assistance without time limits for those with minimal earnings from work.* California should consider exempting those individuals who work, but earn so little as to remain eligible for public assistance, from the time limits imposed by welfare reform.
- *Create exceptions from time limits for recipients in areas where the entry-level job gap is greatest.* Unemployment remains high in many parts of California. In particular those recipients with the least education or work experiences may, through no fault of their own, fail to find employment within CalWORKs’ 18- to 24-month initial time limits.

- *Encourage welfare recipients to continue their education.* Encouraging welfare recipients to pursue an education will reduce competition at the low end of the labor market and increase the odds that individuals leaving assistance for employment will earn enough to become self-sufficient.

4. Target Public Subsidies to High-Wage Jobs

Economic development programs should target assistance to those firms and industries that show the greatest promise of creating high-wage jobs. Although this will not eliminate the job gap overnight, it will ensure that public resources are devoted to bringing and keeping high-wage jobs in California.

Will Work Pay?

JOB CREATION IN THE NEW CALIFORNIA ECONOMY

INTRODUCTION

By many measures, the economy is booming. Nationally, the unemployment rate is at its lowest point in nearly three decades. California's unemployment rates are at the lowest point in nearly a decade, and the state has regained the million jobs lost during the recession and added a million more.¹ The state's job growth has outpaced the nation since 1996, with employment increasing by 343,200 in 1999 alone.² However, even in these best of times, many workers are just beginning to share in the rewards of a strong economy. Hourly earnings for the median California worker – the worker exactly at the middle of the earnings distribution – were 8 percent lower in 1998 than in 1989, after adjusting for inflation.³ Tight labor markets have only recently begun to translate into real wage increases for the majority of California workers, with the median hourly wage up just 1.6 percent since 1996, after adjusting for inflation.

The pessimism that accompanied the wrenching restructuring of the early 1990s has been replaced with a sense of renewed optimism that is much more in line with the historically popular perception of California as a land of boundless opportunity. The symbols of the new California dream are the “dot-com” entrepreneurs of Silicon Valley and the wizards of the burgeoning multimedia entertainment industry. While software and electronic commerce may capture the headlines, most of the state's job growth will come in more mundane fields such as retail sales and private security services. Unemployment rates remain high in many parts of the state, particularly in the agriculture-dominated counties of the Central Valley. Many workers, especially those without college degrees, are unable to find jobs that pay well enough to support a family and end up settling for low-wage jobs, scraping by with the help of family, friends or public assistance.

An examination of the California labor market is particularly timely in light of welfare reform. The federal Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) of 1996 and its California counterpart, the California Work Opportunity and Responsibility to Kids (CalWORKs) program, ended welfare as we knew it through a set of time limits and work requirements designed to quickly move families from public assistance to employment. These changes were predicated on the implicit assumptions that there would be enough jobs available for those asking to work and that available jobs would provide sufficient income to support a family.

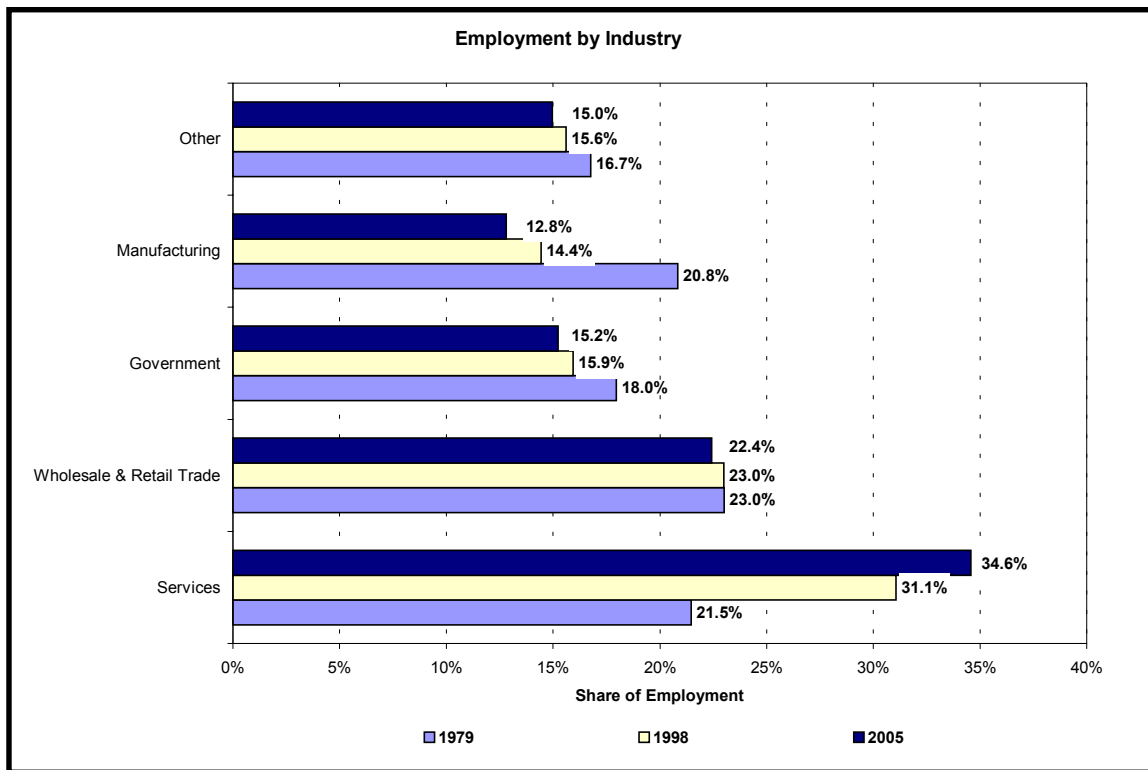
This report questions that assumption by examining the opportunities available to California's job seekers, particularly those lacking a college degree. Specifically, this report attempts to answer three questions:

- Will there be enough jobs for those who want to work and must work to support themselves and their families?
- Do the skills required by the jobs that are available match the skills of those seeking work?
- Is the state's economy creating jobs that provide sufficient income to support a family?

The answers to these questions are presented for the state as a whole and for individual counties. The report concludes with a set of policy recommendations designed to ensure that employment provides not only a job or a way off welfare, but also the means to secure a better life for working Californians and their families. Finally, appendices to this report provide detailed county-level findings and a description of the methodology used in this analysis.

JOB GROWTH CONCENTRATED IN LOW-WAGE INDUSTRIES AND OCCUPATIONS

While California's economic recovery has been broad-based, employment growth has been concentrated in the service sector, which added 865,000 jobs during the 1990s. By 1998, service industries accounted for more than 30 percent of California's employment, up from only 26 percent in 1989. Other sectors have also added jobs during the economic expansion, though none as many as the service sector. Employment in construction, which declined considerably in the early 1990s, has increased by over 250,000 jobs since 1993. Manufacturing, which lost 330,000 jobs during the recession of the early 1990s had regained approximately two-thirds of its losses by 1999. Wholesale and retail trade and government have also contributed to California's job growth, even as their shares of the state's employment declined. Forecasts indicate that these trends will continue, though perhaps at slightly slower rates, through 2005.⁴



The composition of California's job growth is significant. Nationally, hourly earnings in the service sector averaged \$12.84 in 1998, lower than manufacturing's \$13.49 and construction's \$16.56, but higher than retail trade's \$8.75.⁵ Service workers are less likely to be covered by job-based health coverage and are less likely to participate in a pension or other retirement plan. Less than half (49 percent) of service workers are covered by an employer-provided health plan, as compared to 58 percent of the total private sector workforce.

Fast Growth in High-Wage Jobs, Large Growth in Low-Wage Jobs

News media regularly report on the rapid growth and shortage of skilled workers in certain high-wage, high-tech occupations. In fact, the four occupations expected to post the fastest *percentage* growth between 1996 and 2002 form the backbone of California's technology sectors. Many of these occupations are among the highest paid in our economy, with average hourly wages in excess of \$20 per hour.

Occupation	Absolute Growth, 1996-2006	Percent Change	1997 Average Hourly Wage	Required Education and/or Training
Computer Engineers	33,250	108%	\$28.34	BA or higher
Computer Support Specialists	11,930	107%	\$21.84	BA or higher
Electronic Data Processing Systems Analysts	43,070	102%	\$26.44	BA or higher
Data Base Administrators	3,960	101%	\$24.82	BA or higher
Home Health Care Workers	17,780	93%	\$9.21	Short on-the-job training
Physical Therapy Assistants and Aides	7,590	92%	\$12.11	Moderate on-the-job training
Personal and Home Care Aides	7,360	81%	\$7.56	Short on-the-job training
Plasters and Home Care Aides	4,270	75%	\$16.13	Long on-the-job training
Occupational Therapists	3,240	74%	\$28.26	BA or higher
Special Education Teachers	23,450	72%	\$32.20	BA or higher

Source: Employment Development Department, CBP analysis of Bureau of Labor Statistics data

This list, however, can be misleading. The 10 fastest percentage growth occupations start from a very low base and account for just 5 percent of California's projected job growth during 1996-2006. Another list, that of the 10 fastest growing jobs in *absolute* terms, will be much more important to the employment prospects of job seekers. These 10 occupations account for nearly four times as many jobs as in the high percentage category and 19 percent of total projected job growth during the forecast period. These occupations come from the opposite end of the wage scale. Fully seven out of the 10 jobs pay, on average, less than \$11 an hour – equivalent to \$22,880 a year for a full-time worker.

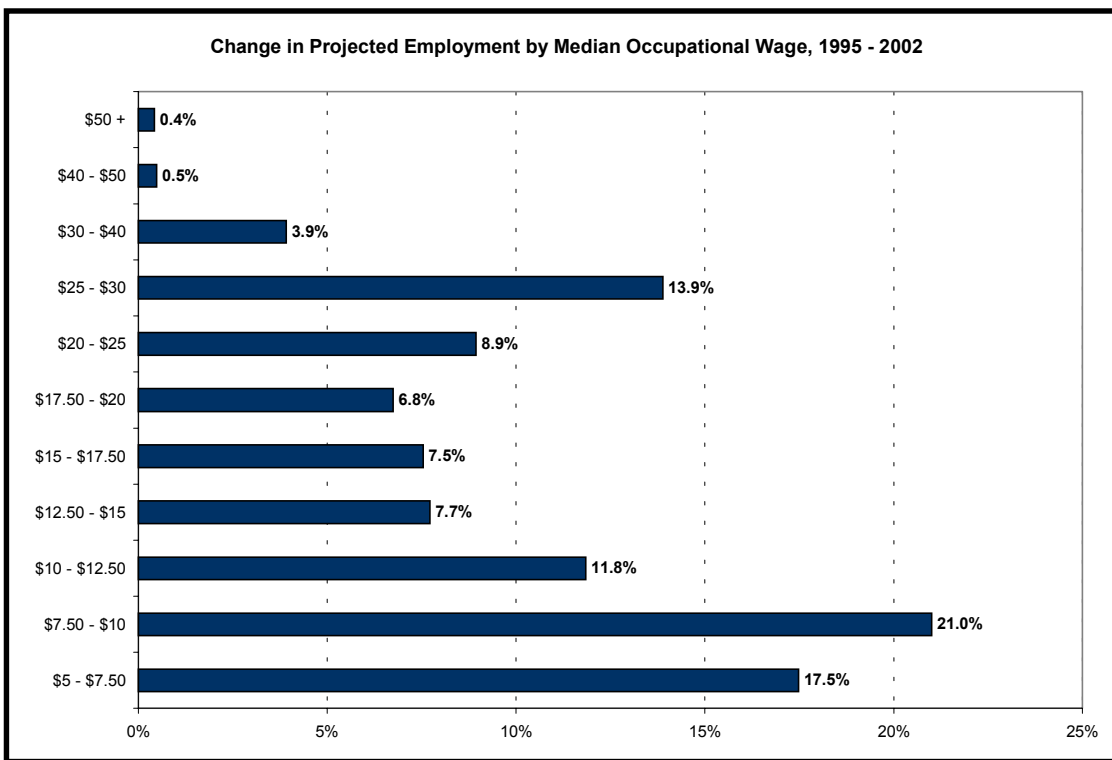
In short, the occupations posting the largest *percentage* growth are concentrated at the top of the wage distribution, while those posting the largest *absolute* growth are concentrated at the bottom. Six of the jobs expected to post the largest *percentage* growth pay wages in the top fifth of the

Occupation	Absolute Growth, 1996-2006	Percent Change	1997 Average Hourly Wage	Required Education and/or Training
Cashiers	88,020	29%	\$8.25	Short on-the-job training
General Managers, Top Executives	84,130	23%	\$34.93	BA + work experience
Salespersons, Retail	80,660	19%	\$9.12	Short on-the-job training
Guards And Watch Guards	66,370	53%	\$8.14	Short on-the-job training
Receptionists, Information Clerks	57,810	39%	\$9.79	Short on-the-job training
Teacher Aides, Paraprofessional	52,830	52%	\$9.18	Short on-the-job training
General Office Clerks	46,610	13%	\$10.58	Short on-the-job training
Electronic Data Processing Systems Analysts	43,070	102%	\$26.44	BA or higher
Truck Drivers, Light	40,280	34%	\$10.52	Short on-the-job training
Registered Nurses	39,470	22%	\$23.50	Associate's degree

Source: Employment Development Department, CBP analysis of Bureau of Labor Statistics data

California wage distribution. More telling is the fact that the large *absolute* growth occupations paying less than the median hourly wage account for one out of every seven jobs (14 percent) that forecasters predict will be added to the California economy. Moreover, the difference in the qualifications required to obtain these jobs is striking. All six high-wage, high-percentage growth occupations require college degrees, while all seven of the low-wage, high-absolute growth occupations require little formal education and only minimal on-the-job training.

Low-wage jobs constitute the largest share of the state’s projected job growth. Overall, 38.5 percent of the state’s projected employment growth between 1995 and 2002 is forecast to occur in occupations where the 1997 median hourly wage was less than \$10 per hour.⁶ An additional 11.8 percent of the growth is projected for occupations paying less than \$12.50 per hour. In contrast, only 27.6 percent of projected growth is forecast in occupations with a 1997 median wage of \$20 per hour or more, equivalent to an annual income of \$41,600 a year for a full-time worker.



Wages are Unequal and Often Inadequate Despite Overall Economic Growth

The disparity between high-skill, high-wage occupations and low-wage occupations with minimal skill requirements illustrates an important point: inequality is a serious problem in the California labor market, one that has gotten much worse in recent decades.

Wage inequality in California – measured by the difference in hourly wages between the highest and lowest earning 10 percent of the wage distribution – has increased significantly over the past two decades. In 1979, workers at the 90th percentile earned 3.8 times more than workers at the 10th percentile.⁷ In 1998, workers at the 90th percentile earned 4.9 times more than those at the 10th percentile – a 29 percent increase in less than two decades.

Much of the growth in wage inequality is attributable to the declining purchasing power of California’s lowest paid workers. If one divides wage earners into 10 equal groups, the inflation-

adjusted wages for the highest-wage group, workers at the 90th percentile, rose 9 percent between 1979 and 1998. During the same period, inflation adjusted earnings for workers at the 10th percentile fell by 16 percent. Workers in the middle of the pack did not fare much better than those at the bottom: a worker exactly at the middle of the wage distribution earned 8 percent less in 1998 than he or she did in 1979, after adjusting for inflation.

An analysis of wage trends by gender and education adds another dimension to California's wage inequality. While average hourly wages for women still lag behind those of men, male earnings fell between 1979 and 1998, after adjusting for inflation. More precisely, wages stagnated for men with less than a high school degree and for women who have not attended at least some college. The largest growth accrued to both men and women with advanced degrees.

Men	1979	1989	1998	1979-89	1989-98	1979-98
All	\$17.84	\$17.23	\$16.82	-4%	-2%	-6%
Less than High School	\$13.54	\$10.61	\$8.96	-22%	-16%	-34%
High School	\$16.72	\$14.94	\$13.11	-11%	-12%	-22%
Some College	\$17.12	\$16.72	\$15.75	-2%	-6%	-8%
College	\$22.46	\$22.74	\$20.56	1%	7%	8%
Advanced Degree	\$24.64	\$27.91	\$31.30	13%	12%	27%
Women						
All	\$11.86	\$13.24	\$13.76	12%	4%	16%
Less than High School	\$8.95	\$7.73	\$7.12	-14%	-8%	-21%
High School	\$11.16	\$11.20	\$10.71	0%	-4%	-4%
Some College	\$11.69	\$12.88	\$12.79	10%	-1%	9%
College	\$14.24	\$16.88	\$18.74	19%	11%	32%
Advanced Degree	\$17.88	\$21.36	\$24.84	19%	16%	39%

Source: Economic Policy Institute analysis of Current Population Survey data

WHAT IS AN ADEQUATE WAGE?

The declining purchasing power of hourly earnings at the bottom of the wage distribution means that wages are not just unequal, but also inadequate for many workers. The question of adequacy is a subjective one and one that depends on a number of factors. In a companion study, the California Budget Project (CBP) estimated the income needed to support a family at a basic standard of living.⁸ The standard of living assumed in CBP's basic family budget is a modest one: a two-bedroom apartment for a family of four with nothing for extras such as vacations or college savings. The basic family budget translates into an hourly wage of \$10.79 for each parent in a two-parent family where both work full time.⁹ In high-cost areas of the state, such as the Bay Area, they must earn more, while in lower-cost areas, such as the Inland Empire or the rural north, basic necessities cost less.

The companion report also estimated the amount needed by a single-parent family and a two-parent family where one parent is not in the paid labor force, both with two children. A single-parent family needs to earn almost as much as a two-parent family on an annual basis due to the high cost of child care. A family where one parent stays home needs significantly less, since the

presence of a non-working parent eliminates the need for full-time child care.

CBP's statewide average basic family wage for a family with two working parents and two children is only slightly less than the 1998 median hourly wage of \$11.96. A family in which one or more parents works part time must earn a higher hourly wage to purchase the same market basket of goods and services. This is significant because part-time work is the norm rather than the exception in the state's fastest growing industries. For example, retail trade workers averaged 30 hours of work per week and construction workers averaged 37.4 hours of work per week.¹⁰

	Hourly Wage Based on Full-Time Work
Single-Parent Family	\$17.71
Two-Parent Family - One Employed	\$15.08
Two-Working-Parent Family*	\$10.79

* In the two-working parent family, the hourly wage is the amount each parent must earn based on full-time employment.

WHO ARE CALIFORNIA'S JOB SEEKERS?

This report examines the prospects of two groups of job seekers: the currently unemployed and recipients of public assistance. The estimate of potential job seekers is driven by available data and does not include many who hope to find employment in California. Specifically, the estimate of job seekers does not fully reflect the number of immigrants from other states or countries, so-called discouraged workers who formerly sought but did not find work, and underemployed workers. Already employed individuals seeking a better job are also not included due to the lack of reliable data on their numbers and because when these individuals find jobs, they leave behind a job opening that can be filled by another job seeker.

The largest group of job seekers is the currently unemployed. Even with unemployment below 6 percent, there were still nearly 1 million unemployed workers in California. Job seekers also include two groups of public assistance recipients. Under the state's new welfare laws, an estimated 411,362 CalWORKs recipients who are not now in the labor force will also need to find jobs, along with 57,222 employable General Assistance recipients.¹¹

Unemployed Persons	968,430
CalWORKs Recipients	411,362
General Assistance Recipients	57,222
Total	1,437,014

What Qualifications Do These Workers Bring to the Market?

Job seekers enter the labor force with differing work histories, education and skills. Nearly two thirds (63 percent) of the job seekers identified in this report have at least a high school education. More than a third (37 percent) of potential job seekers, including approximately half of the state's welfare recipients, lack even a high school degree. In contrast, only 16 percent of those with jobs lack a high school degree. Moreover, the percentage of the employed who are college graduates (29 percent) is more than triple the percentage of job-seekers with college degrees (8 percent).¹²

This report uses education as a rough proxy of job seekers' qualifications for employment. Although education is an inadequate measure of real job skills, it is the most accurate measure for which adequate data is available. The actual skill level of many welfare recipients is probably

lower than would be expected from their educational attainment. A recent analysis of job skills of welfare recipients examined scores on a test designed to measure such basic skills as filling out a job application, writing a simple letter and totaling a bank deposit.¹³ Researchers found that California’s welfare recipients scored much lower than the state’s general population and lower than welfare recipients in other states. Furthermore, most of the gap remained even after controlling for differences in educational attainment. Researchers found that 76 percent of California welfare recipients had low or very low basic skills. This dwarfs the 34 percent of employed California adults with low or very low skills and is significantly higher than the 57 percent of welfare recipients in the rest of the nation found to have low or very low skills.

The Currently Underemployed Will Add to the Competition for Jobs

The underemployed will add to the competition for jobs, particularly full-time and higher paid jobs. The underemployed includes those part-time workers who would prefer full-time jobs; “discouraged” workers (unemployed persons who are not currently seeking work, but who sought employment at some point during the prior year); and persons who are constrained from seeking work due to lack of child care, transportation or other barriers to employment. In 1998, 908,641 Californians were underemployed.

California’s underemployed look quite similar to the state’s unemployed population, and quite different from those with jobs. More than a third of the underemployed lack a high school degree and only 13 percent have at least a college education.

Table 6: Educational Distribution of Job Seekers					
	Percent of Job Seekers	Number of Job Seekers	Less Than High School	High School Degree	At Least a College Degree
Unemployed	67%	968,430	31%	59%	8%
Welfare Recipients	33%	468,584	47%	50%	2%
Total: Job Seekers	100%	1,437,014	37%	56%	8%
Underemployed		908,641	34%	53%	13%
Comparison: Employed Californians		15,407,717	16%	55%	29%

Source: Economic Policy Institute analysis of the Current Population Survey

HOW MANY JOBS WILL BE AVAILABLE?

In order to assess the “fit” between job growth and those seeking to work, this report compares projected employment growth to the number of individuals seeking to work. Additional analysis examines whether the characteristics of job seekers matches those required by the job opportunities that are likely to become available. A third comparison assesses whether the jobs that are likely to become available provide sufficient income to support a family.

Despite the current strength of the state’s economy, the number of job seekers exceeds available jobs.¹⁴ While some level of unemployment is to be expected, there is a significant gap between the number of available jobs and the number of Californians who want and need to work.¹⁵ The official occupational employment projections estimate that 264,698 new jobs will be created per

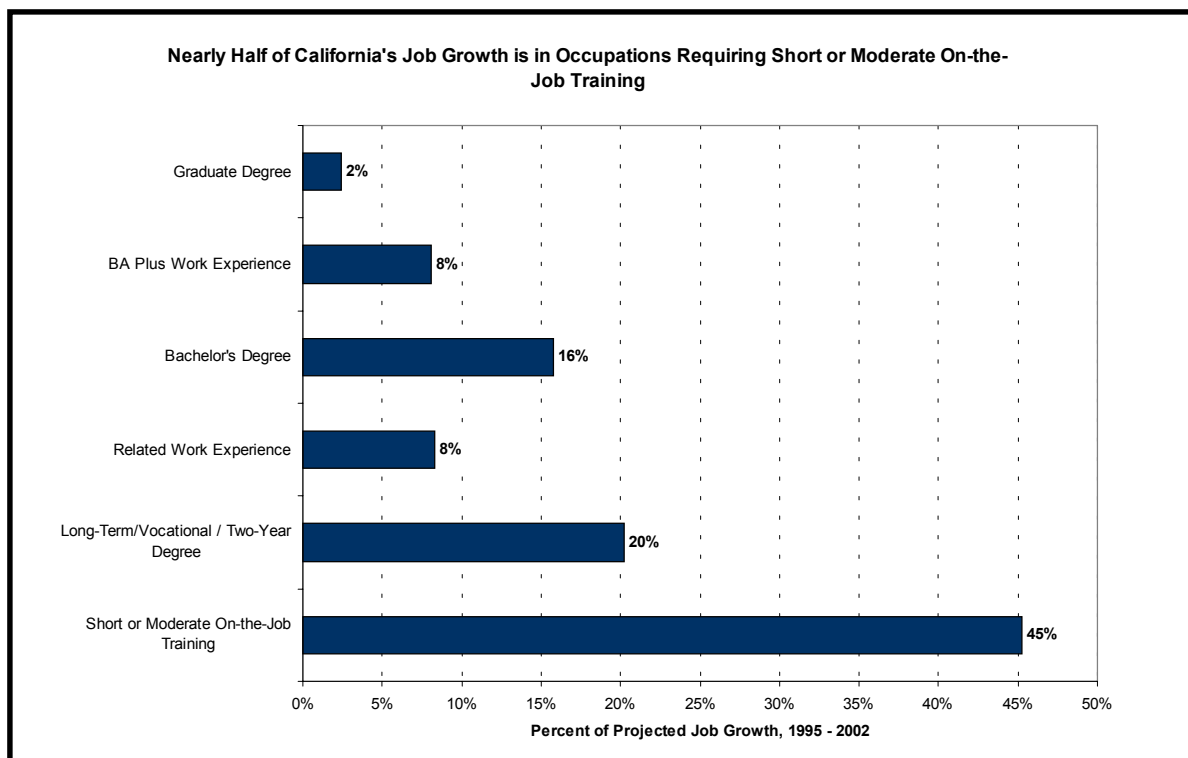
year between 1995 and 2002.¹⁶ In addition to these newly created jobs, 290,193 positions will become available when current jobholders retire, move to other occupations or otherwise leave their occupations. If both sorts of openings will be available to job seekers, 554,891 jobs will be available to the 1,437,014 seekers. This suggests that jobs will be available for less than half of those seeking work. Put another way, the California “job gap” is 2.6-to-1, approximately three job seekers will be competing for each job opening. If the 1.4 million job seekers are assumed to compete only for new jobs, there will be 5.4 job seekers for each available job.

Ratio of Job Seekers to New Jobs	5.4-to-1
Ratio of Job Seekers to Job Openings	2.6-to-1

Do the Skills of Those Looking for Work Match Those of the Available Jobs?

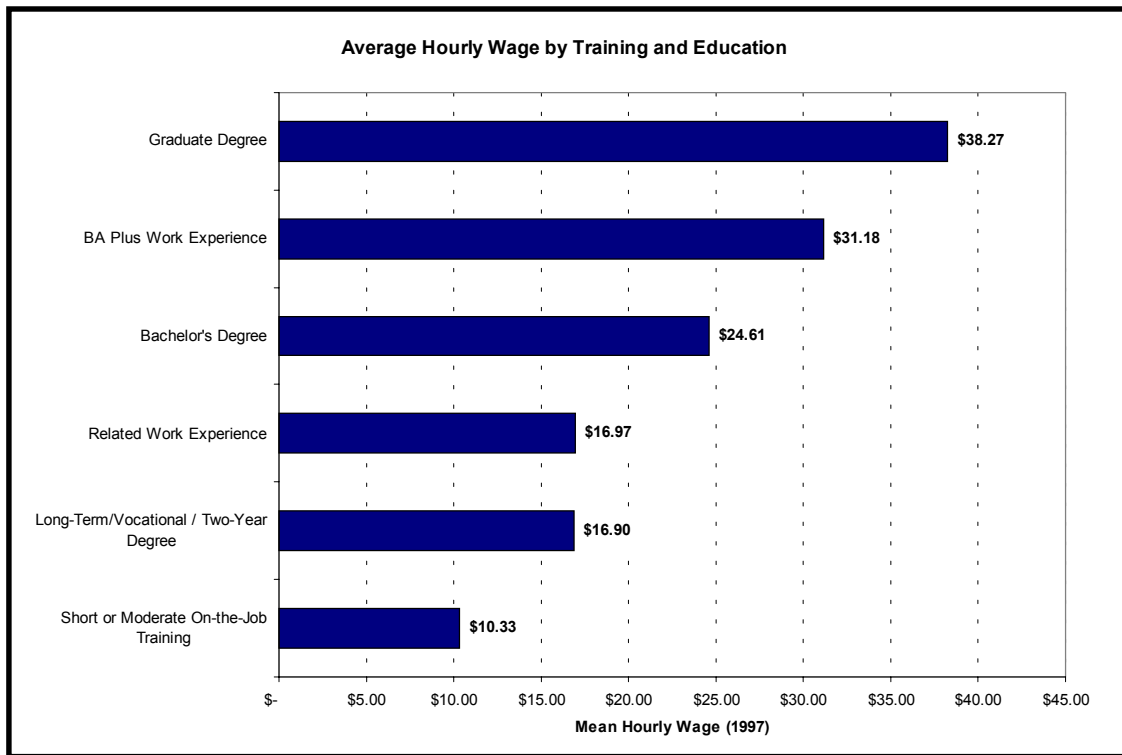
Labor market analysts categorize occupations by the type of education and training generally required to obtain employment. The requirements for some occupations are easily defined. Physicians, for example, must have a medical degree and are assigned to the “professional degree” category. Requirements for other occupations are less precise. While employers may not always require that office clerks have a high school degree, applicants will typically need reading, writing and arithmetic skills that meet or exceed those of a typical high school graduate. Moreover, the qualifications may vary depending on the scarcity or availability of skilled labor. When unemployment is high, employers may use a high school or college degree as a screening tool, while in a tight labor market, they may be more willing to substitute on-the-job training for formal qualifications. Thus, while our categorization is somewhat imprecise, it provides a good guideline about the skills and education needed for each occupation.

Nearly half (45 percent) of California’s projected job growth will occur in occupations requiring only short or moderate on-the-job training. Twenty percent will be available to new workers with



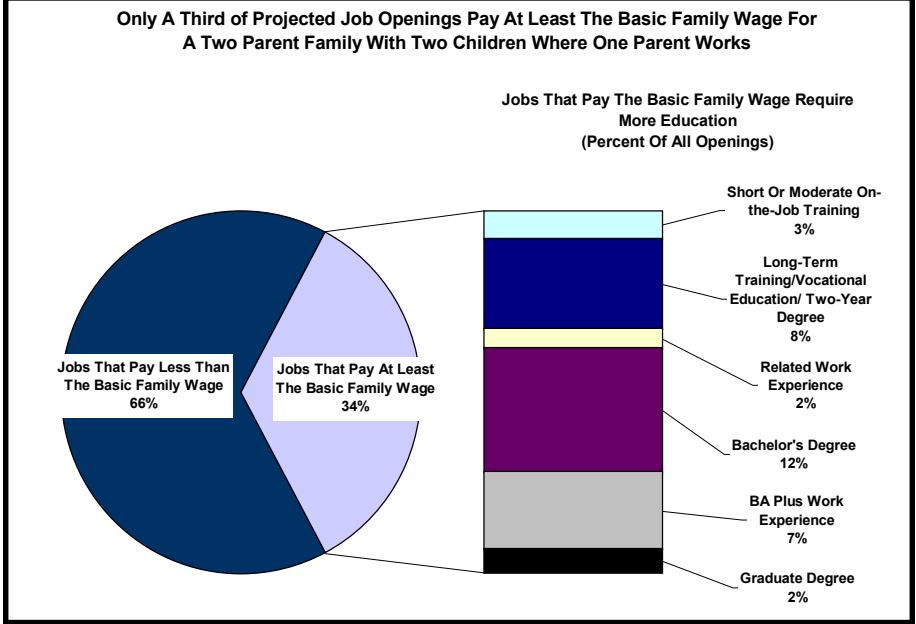
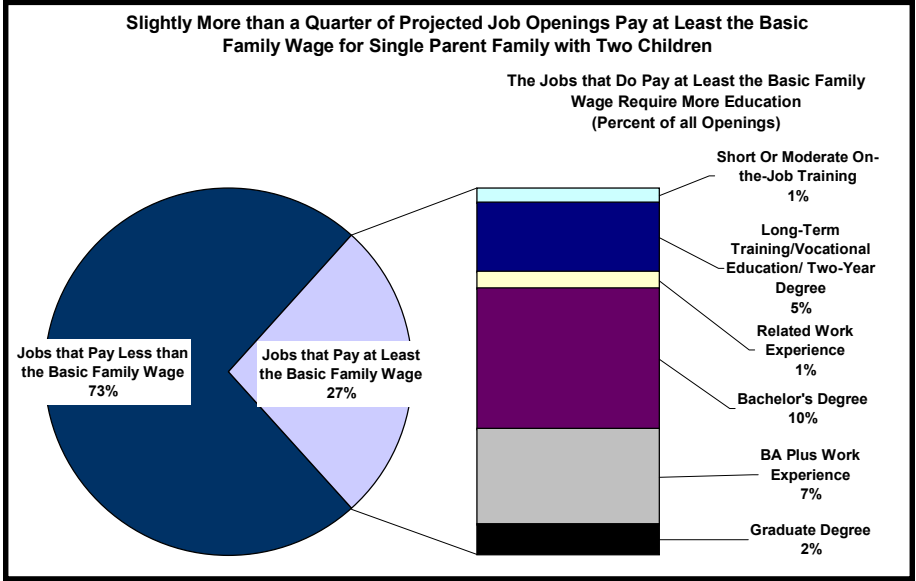
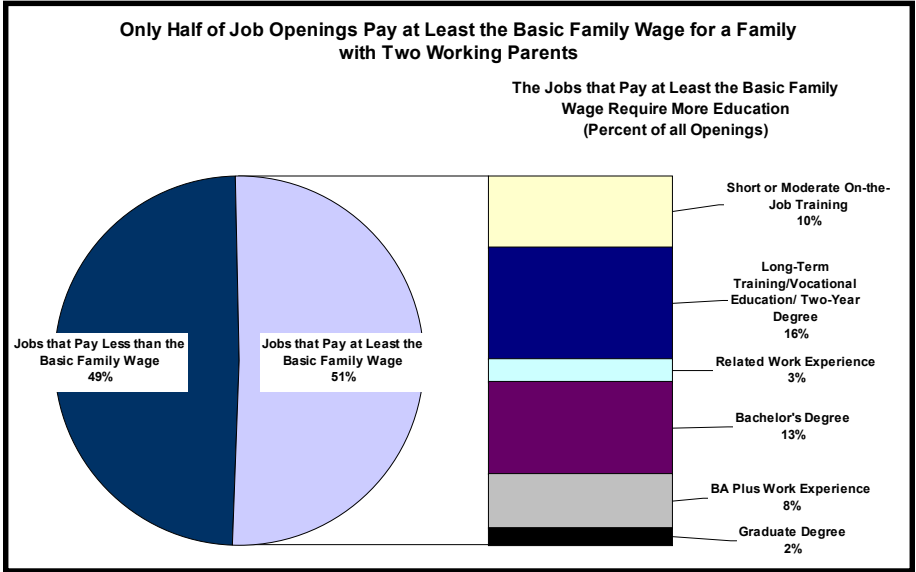
vocational training, a community college degree or long-term on-the-job training; 16 percent will require a four-year degree, and 2 percent will require a graduate degree. The remaining 16 percent require significant work experience, and thus will not be available to persons entering the workforce for the first time. A similar analysis of job openings – new jobs plus openings due to separations – finds a similar distribution, but with a slightly heavier concentration of openings in occupations requiring relatively less experience or education.

Moreover, despite the concentration of job growth in lower skilled occupations, the supply of workers with relatively low levels of education exceeds the number of available jobs. The number of job seekers lacking a college degree exceeds the number of job openings that do not require a degree by more than 3-to-1.



Some analysts argue that a shortage of well-educated workers threatens the future vitality of the state's economy. While the number of openings for college educated workers modestly exceeds the supply of job seekers with a college degree, the data suggests that a more significant problem is a deficit of specific skills, rather than a shortage of college educated job seekers per se. In other words, there may be too many liberal arts majors and not enough engineers.

Required Qualifications	Job Seekers	Share of Seekers	Job Openings	Share of Entry-level Openings	Job Gap
Less than High School, High School, Vocational Education, or Some College	1,328,629	92%	429,709	77%	3.1
College Degree or Higher	108,385	8%	125,181	23%	0.9
Total	1,437,014	100%	554,890	100%	2.6



Fewer than One Out of Ten Job Openings Pays the Basic Family Wage to Entry-Level Workers

A comparison of occupational projections with the basic family wage discussed above paints a sobering picture of the California labor market. The good news is that half of the state's projected job openings pay at least the basic family wage needed by a family headed by two full-time working parents. However, fewer than one out of five (19 percent) of these jobs – 9 percent of all projected job growth – are entry-level jobs requiring short or moderate on-the-job training. More than half (51 percent) of the job openings paying at least the basic family wage – 25 percent of all jobs – require at least a college degree. The situation confronting single-parent families is even tougher. Only 27 percent of projected job openings in California pay at least the basic family wage for single parent family. Just 1 percent of projected openings pays at least the basic family wage for a single parent and require only short or moderate on-the-job training.

An analysis of job growth looks similar. Only 56 percent of California's projected new jobs pay the basic family wage needed by a family with two working parents. Nearly half (47 percent) require a college or graduate degree, and just 16 percent require only short or moderate training.

Not surprisingly, occupations that require a college degree pay, on average, substantially more than those that do not. The average 1997 wage for occupations requiring only short or moderate on-the-job training was \$10.33 per hour, as compared to \$31.18 for occupations requiring a bachelor's degree plus work experience. Fully 81 percent of job openings requiring only short or moderate on-the-job training pay below the basic family wage for a two-working-parent family. Occupations requiring more education are much more likely to pay at least the basic family wage. Eighty-one percent of openings requiring long-term training or vocational education job and 94 percent of openings requiring college degrees pay at least the basic family wage.

JOB SEEKERS' PROSPECTS VARY SIGNIFICANTLY BETWEEN COUNTIES

This analysis has thus far focused on conditions for job seekers in the state as a whole. Most job seekers, however, are concerned with the opportunities in the communities where they live. A closer look shows tremendous variation among the state's labor markets. While employment growth is strong in the Bay Area, many of California's rural counties are struggling, with 13 counties actually losing jobs between 1990 and 1998.¹⁷ In many counties, low-wage jobs account for an even greater share of employment opportunities. More than 40 percent of projected employment growth is anticipated in occupations paying less than \$10 per hour in more than half the state's counties.

While the number of job seekers exceeds projected job openings in all but three California counties (Appendix 2), the overall job gap – the ratio of job seekers to job openings – ranges from a low of 0.8-to-1 in Marin County to a high of 13.3-to-1 in Imperial County. The disparities between job seekers and basic family wage jobs are even greater at the county level.¹⁸ The ratio of job seekers to jobs paying at least the basic family wage for a two-working-parent family ranged from a minimum of 1.7-to-1 in Santa Clara and San Mateo counties – where jobs are relatively plentiful but the cost of living is high – to 28.2-to-1 in Tulare County, where unemployment is high but the cost of living is low.

The prospects for workers lacking a college degree are worse in every county. Job seekers lacking a college degree outnumber short- or moderate-training job openings by 1.1-to-1 in Marin County

and 26.2-to-1 in Imperial County. The gap for jobs paying at least the basic family wage is much larger. In Santa Clara County, where the low-skill family-wage gap is the least severe, there are still 9.6 workers without college degrees for every short- or moderate-training family-wage job. The worst gap for these workers is in Imperial County, where there are 154.2 job seekers without college degrees for each entry-level family-wage job.

These findings suggest that job opportunities are more limited in certain parts of the state than for California as a whole. The overall shortage of jobs providing sufficient income to support a family is compounded by a substantial geographical mismatch between the projected job openings and the people looking for work.

CONCLUSION: A POLICY AGENDA FOR CALIFORNIA’S WORKING FAMILIES

California’s low-skilled job seekers face an economy that offers limited opportunities to earn enough to support a family. Throughout the state, there are gaps between the number of persons in search of employment and the number of available jobs. These gaps widen significantly for Californians who lack a college degree or who live in parts of the state where unemployment remains high despite the overall strength of the state’s economy.

The findings presented in this report suggest the need for a four-pronged strategy to address California’s job gap:

- Public policies should promote access to those high-skilled, high-wage jobs that do exist.
- Policies should strive to ensure that “work pays.”
- Welfare policies should reflect the reality of the labor market and recognize that many families will be unable to find jobs that permit self-sufficiency.
- Policymakers should target economic development programs and policies to firms and industries that demonstrate the greatest potential to create jobs that pay enough to support a family.

A comprehensive and effective response to the state’s shortage of high-wage jobs demands attention to all four strategies. A singular focus on education and training will not – at least in the near term – change the fact that the majority of new jobs require minimal education and training and pay relatively low wages. As a long-term strategy, workforce development policies can help attract high-wage jobs. In the meantime, policies are needed to support workers in the growing number of low-wage, low-skill jobs.

Counties with the Largest Share of Growth in Jobs Paying Less than \$10/Hour (Percent of Job Growth)	
Mendocino	59%
Humboldt	55%
Butte	49%
Fresno	49%
Tulare	49%
Merced	48%
Riverside	48%
San Joaquin	48%
Napa	46%
San Bernardino	46%
Counties with the Largest Share of Growth in Jobs Paying at Least \$20/Hour (Percent of Job Growth)	
Santa Clara	41%
San Mateo	41%
San Francisco	37%
Alameda	35%
Sacramento	32%
Marin	31%
Contra Costa	30%
North Central***	29%
Santa Barbara	28%
Los Angeles	28%
Counties with the Largest Ratio of High- to Low-Wage Job Growth (Ratio of Jobs Paying \$20 or More Per Hour to Those Paying Less than \$10 Per Hour)	
San Mateo	2.0
Santa Clara	1.7
San Francisco	1.3
Marin	1.2
Contra Costa	1.2
Alameda	1.1
Sacramento	0.9
Yolo	0.8
North Central***	0.8
Santa Barbara	0.7
Counties with the Lowest Ratio of High- to Low-Wage Job Growth (Ratio of Jobs Paying \$20 or More Per Hour to Those Paying Less than \$10 Per Hour)	
Mendocino	0.2
Humboldt	0.2
Inyo-Mono***	0.3
Butte	0.3
Napa	0.4
San Joaquin	0.4
Imperial	0.4
San Benito	0.4
Sonoma	0.4
Riverside	0.4

Counties with the Smallest Employment Growth, 1990-1998	
Mother Lode***	-3.00%
NORTEC***	-1.80%
North Central***	-0.90%
Merced	2.10%
Los Angeles	2.20%
Santa Barbara	2.20%
Tulare	2.80%
San Francisco	2.90%
Santa Cruz	3.50%
Alameda	3.80%
Counties with the Largest Employment Growth, 1990-1998	
Madera	27.50%
San Benito	24.30%
Sonoma	21.40%
Golden Sierra***	20.60%
Riverside	19.70%
Yolo	16.20%
Santa Clara	15.50%
Imperial	14.10%
San Luis Obispo	13.60%
Mendocino	13.10%
***See Appendix 1 for a listing of counties in each consortium.	

1. Promote Access to High-Wage Jobs

Education remains the best guarantee of higher earnings and improved job prospects for individual job seekers. Increasing the number of Californians who graduate from college will help alleviate the mismatch between the number of entry-level jobs and job seekers by increasing the number of persons who are qualified for jobs requiring at least a college degree.

- **Improve access to higher education.** Public policies should be designed to equalize opportunity for higher education through tools such as expanded student aid, community college transfer programs, and early outreach aimed at ensuring that high school graduates are equipped to enter college if they desire to do so. Policymakers must develop creative strategies to ensure that the state's historically under-represented racial and ethnic groups have equal access to higher education and the employment opportunities available to those with additional education.
- **Use workforce investment policies to boost upward mobility.** Investing in training programs to help those already in the workforce achieve upward mobility can ease competition for entry-level jobs and help workers achieve higher earnings over the course of their careers. A "move-up" strategy can help address skill shortages, while freeing up positions for those not yet ready for more highly skilled occupations. Targeting training to the existing workforce can also help avert competition between the already working but poor and those leaving welfare

for work by increasing wages for the former group while improving opportunity for the latter.

2. Make Work Pay

Over the long term, increasing the number of college graduates and technically skilled workers may encourage an expansion of the number of high-skilled jobs. In the short term, however, a substantial number of job openings will be in low-skill and currently low-paying jobs. These are the jobs that those leaving welfare for work are most likely to obtain and the jobs that will support a large fraction of California's families. Since no policy can wholly eliminate lower-skilled jobs in favor of higher-wage alternatives, public policies should strive to ensure that no Californian who is willing and able to work should be forced to live in poverty. Fortunately, there are a range of policy options that address this goal:

- **Raise the minimum wage, and index it to inflation.** "Trickle up" economics works. Raising the minimum wage boosts the earnings of workers at the bottom of the earnings distribution, as well as those earning slightly higher as employers strive to maintain differentials between entry-level workers and those just above them. The value of the minimum wage has been eroded by inflation over the years. Even after the recent increases, the purchasing power of the minimum wage has dropped by 31 percent since 1968. An increase would raise wages for millions of the lowest-earning California workers. Indexing it would protect their earning power from future erosion.
- **Expand the Earned Income Tax Credit (EITC).** The federal EITC provides a supplement to low-

income families with earnings from work. The EITC is an exceptionally well-targeted, effective way to channel assistance to poor families and is one of the most potent anti-poverty tools in policymakers' arsenal. However, many workers earn so little that even with the EITC, they are unable to support a family. Also, the EITC phases out as incomes rise (families with two or more children are eligible only if their income is less than \$30,580 per year). Given the high cost of living in many parts of California, families may earn well above the cutoff for the federal EITC and still not be able to make ends meet. Expansion of the federal EITC, coupled with the introduction of a state EITC, would boost the incomes of those working families most in need of assistance.

- ***Increase access to services that working families need.*** After housing, child care is the largest component of many families' budgets. Working parents want and need the security of knowing that their children are safe and well-cared for during the work day. Health coverage is another area where public policies can support working families. Low-income workers and their families are the Californians most likely to lack health coverage. While the state's Healthy Families program provides subsidized coverage for children in families with incomes up to 250 percent of federal poverty guidelines, no such option is available for adults. Policies that improve access to health coverage and quality affordable child and after-school care can go a long way toward helping families make ends meet.
- ***Adopt living wage policies.*** A growing number of cities, including Los Angeles, Oakland and San Jose, have adopted ordinances that require businesses that receive public contracts to pay a "living wage" to their employees. In every case, the required wage is well below our basic family wage, and it is doubtful that many workers earning the living wage can truly support their families without additional assistance. Still, these ordinances provide a real increase for many workers who would otherwise earn far less. Although their impact is limited to public contractors, living wage ordinances are a good way for government to demonstrate its commitment to decent wages for all workers.

3. Make Welfare-to-Work Policies Reflect the Realities of the Labor Market

Welfare-to-Work policies should reflect the reality that competition for entry level jobs is stiff and that few who are required to work to support their families will earn enough to make ends meet. Jobs may be especially hard to find in areas with persistently high unemployment. Encouraging families to move to areas where there are more opportunities may work for some, but housing and child care are more costly in areas where jobs are more plentiful. State policies should strive to promote work, while ensuring that families are able to provide for basic necessities. Specifically, policymakers should consider:

- ***Continued assistance without time limits for those with minimal earnings from work.*** California should consider exempting those individuals who work, but earn so little as to remain eligible for public assistance, from the time limits imposed by welfare reform. While welfare reform imposes time limits on basic cash assistance, federal law gives states the flexibility to provide continued assistance in the form of child care, help with commute costs, or cash assistance in the form of enhanced earnings disregards for families who find employment but whose earnings are so low as to require continued assistance.
- ***Create exceptions from time limits for recipients in areas where the entry-level job gap is greatest.*** Unemployment remains high in many parts of California. In particular those recipients with the least education or work experiences may, through no fault of their own, fail to find employment within CalWORKS' 18- to 24-month initial time limits. Without a job, many risk loss of the basic means to support their families. Welfare's time limits should take account of job shortages in many local labor markets.

- *Encourage welfare recipients to continue their education.* As former welfare recipients enter the workforce, competition for entry-level jobs will increase. Wages in these jobs are already low, and the addition of hundreds of thousands of new competitors for low-skill jobs has the potential to drive them lower. Encouraging welfare recipients to pursue an education will reduce competition at the low end of the labor market and increase the odds that individuals leaving assistance for employment will earn enough to become self-sufficient.

4. Target Public Subsidies to High-Wage Jobs

State and local governments expend considerable resources in efforts to create, attract and keep jobs. These efforts can take the form of training programs, tax credits and deductions, and preferential regulatory consideration. Many of these programs are, by design, poorly targeted and fail to direct scarce resources to the promotion of high-wage jobs and industries. Economic development programs should target assistance to those firms and industries that show the greatest promise of creating high-wage jobs. Although this will not eliminate the job gap overnight, it will insure that public resources are devoted to bringing and keeping high-wage jobs in California.

CONCLUSION

Economic growth alone will not close the growing gap between California's rich and poor. As this analysis demonstrates, most of the state's new jobs require relatively little education and training and pay relatively low wages. Addressing the shortages in high-skill, high-wage jobs *is* critical to the state's future. However, millions of Californians face a much more immediate problem figuring how to support themselves and their families on the wages paid by the state's fastest growing jobs. Alternatives are possible. There is strong public support for policies that "make work pay" and provide families with necessary supports, such as child care and health care.

ENDNOTES

- ¹ Employment Development Department, Civilian Labor Force, Employment, and Unemployment – (Updated January 14, 2000) downloaded from [www.calmis.cahwnet.gov/file/lfhist/cal\\$hlf.txt](http://www.calmis.cahwnet.gov/file/lfhist/cal$hlf.txt).
- ² Employment Development Department, Civilian Labor Force, Employment, and Unemployment – (Updated January 14, 2000) downloaded from [www.calmis.cahwnet.gov/file/lfhist/cal\\$hlf.txt](http://www.calmis.cahwnet.gov/file/lfhist/cal$hlf.txt).
- ³ Unpublished analysis of the Current Population Survey by the Economic Policy Institute. Workers aged 18-64 in 1998 dollars.
- ⁴ Economic Development Department, www.calmis.cahwnet.gov/htmlfile/county/califhtm.htm. 2005 projections from the Center for the Continuing Study of the California Economy, *California Economic Growth* (1999 Edition).
- ⁵ U.S. Department of Labor, Bureau of Labor Statistics, *Monthly Labor Review* (June 1999), p. 63.
- ⁶ CBP calculations. Median occupational wages are available for 94 percent of projected employment growth during the forecast period.
- ⁷ Economic Policy Institute analysis of Current Population Survey data. Measured in 1998 dollars.
- ⁸ California Budget Project, *Making Ends Meet: How Much Does It Cost To Raise A Family In California?* (October 1999).
- ⁹ CBP's "basic family wage" is similar to what others have called a "living wage." The term "basic family wage" is used to avoid confusion with the living wage ordinances that many California cities and counties have enacted, which typically mandate a wage considerably lower than the basic family wage discussed here. However, the idea is the same: A living wage, like the basic family wage, should provide sufficient income to guarantee a family a basic standard of living.
- ¹⁰ Employment Development Department, Labor Market Information, 1998 Average Weekly Hours for California and Major Metropolitan Statistical Areas (downloaded from www.calmis.cahwnet.gov/htmlfile/county/califhtm.htm on December 1, 1999).
- ¹¹ Appendix 1 provides a detailed description of the methodology used to arrive at this estimate.
- ¹² Economic Policy Institute analysis of the Current Population Survey and California Budget Project analysis of Employment Development Department, California Department of Social Services, and Current Population Survey data.
- ¹³ Hans P. Johnson and Sonya M. Tafoya, *The Basic Skills of Welfare Recipients: Implications for Welfare Reform* (Public Policy Institute of California: April 1999) p. 23.
- ¹⁴ The number of job seekers and available jobs can be compared in two ways. The first compares the net increase in the labor force ("new" job seekers who are not currently employed or seeking employment) to the net increase in the number of jobs (job growth). The second compares the number of job seekers from all sources (both "new" and those seeking to move from one occupation to another) with the number of job openings created by persons leaving an occupation ("separations") plus job growth. The first method provides a better picture of the match between the number of persons seeking work and the number of available jobs. The second provides a better picture of the opportunities available to an individual job seeker, since it does not matter to that person whether a job opening is a new job or an opening created when its prior occupant retired or received a promotion. This report uses both approaches to provide a more complete picture of the California labor market. Appendix 1 contains a more detailed description of the methodology used in this analysis.
- ¹⁵ The national unemployment rate is below the level that for many years was considered to constitute "full employment." Nevertheless, the sizeable wage increases and rising inflation that many economists predicted would accompany a prolonged period of low unemployment have not materialized. Consequently, many analysts are now rethinking the concept of full employment in light of the relatively modest wage gains experienced by workers in the face of today's sustained low unemployment.
- ¹⁶ Net job growth is the number of jobs in the final year of the forecast minus the number of jobs in the base year. It does not reflect vacancies that become available due to workers retiring, obtaining other jobs or other factors that do not increase the number of persons employed in a particular occupation. The category "job openings" includes both net growth and vacancies created when workers change occupations. A detailed discussion of the methodology used in this analysis is provided in Appendix 1.
- ¹⁷ California Employment Development Department, Labor Market Information Division, Information Services Group, *Labor Force Data For Counties* (downloaded November 1, 1999).
- ¹⁸ California Budget Project, *Making Ends Meet: How Much Does It Cost To Raise A Family In California?* (October 1999). Since the cost of living also varies significantly across the state, CBP's *Making Ends Meet* calculated basic family wages for nine separate regions.

APPENDIX 1

Methodology

This study uses four basic types of data:

- 1) Employment projections by occupation
- 2) Occupational wages
- 3) Occupational training and educational requirements
- 4) Estimates of the number of individuals seeking work

All the basic data used in this report comes from public agencies, primarily from the Bureau of Labor Statistics (BLS) at the U.S. Department of Labor and the California Employment Development Department (EDD). The California Department of Social Services provided information on the number of welfare recipients, in both the CalWORKs and General Assistance programs. Specific assumptions and estimates made as part of this analysis are described below.

Occupational Employment

The EDD publishes occupational employment projections for 35 individual counties and five multiple-county consortia. The basic findings of this study are reported by county where individual county employment projections were available and by consortia for remaining counties.

Occupational employment projections come from the Occupational Employment Statistics (OES) program, a joint program of the EDD and U.S. Bureau of Labor Statistics. The OES program surveys over 700 occupations through a mail-in survey of employers. The recent county forecasts available for this research cover the years 1995 to 2002. The base year for comparing percentage and absolute job growth is 1995. EDD's projections include estimates of "absolute change," or net job growth, and "openings due to separations," vacancies created when workers leave the occupation due to retirement or career change. This report uses absolute change as the estimate of new jobs. The estimate for the total number of openings adds openings due to separations to absolute change. This report's estimate of the annual job growth assumes that growth is spread evenly across the seven-year forecast period.

Actual employment growth has exceeded projections during the first half of the forecast period. Thus, the estimate of available jobs understates the number of jobs that are actually available (Appendix 2). The differences between actual and projected employment growth vary tremendously between counties. In some counties, growth was overestimated, in most counties it was underestimated. One factor contributing to the disparity is the fact that the occupational growth estimates do not reflect self-employed individuals, while estimates of total employment do. The occupational growth projections used as the estimate of projected job growth and job openings in this report understates growth in occupations that are largely made up of self-employed individuals, such as real estate sales, hair salons and bookkeepers.

The most recent projections available at the statewide level cover the years 1996-2006. These projections are used for the tables of the 10 fastest growing occupations (tables 1 and 2). Estimates for individual counties and all other statewide data reported in this analysis are based on the aggregated county-level 1995-2002 projections.

Educational Requirements

Estimates of the level of education and training typically required for employment in each occupation are derived from the BLS' *Occupational Projections and Training Data* and *Occupational Outlook*

Handbook, both produced by the Employment Projections section and categorized according to OES occupations. This analysis used supplemental information, such as the Bureau of Labor Statistics' *Dictionary of Occupational Titles*, or substituted the requirement of a closely related occupation in certain instances where no information was available in the *Occupational Projections* or *Occupational Outlook Handbook*. No estimate of the level of education or training required is available for 13 occupations representing 289 annual openings. These occupations are excluded from educational tabulations.

Basic Family Wages

In a companion report, *Making Ends Meet: How Much Does It Cost To Raise A Family In California?*, the California Budget Project estimated the hourly wage needed to support a modest standard of living for the state as a whole and for nine regions within the state. The California Budget Project estimated basic family wages for three family types: a single-parent family with two children; a two-working-parent family with two children; and a two-parent family with two children and one parent in the paid labor force. This report uses the budget for a four-person family, with two parents working full-time and two young children, as the basis for our calculations. For county level estimates, this report assumes that the basic family wage does not vary within a given region. In a few cases, the multiple-county consortia used by the EDD for occupational projections did not line up perfectly with the regions used for family wages. In these situations, we used the family wage that applied to most of the counties in a consortium. *Making Ends Meet: How Much Does It Cost To Raise A Family In California?* includes a detailed description of the methodology used to calculate the basic family wage.

Occupational Wages

Wages for each occupation are derived from EDD's 1997-1998 OES wage survey, representing wages for the fourth quarter of 1997. These wages are calculated for each Metropolitan Statistical Area (or, where applicable, Primary Metropolitan Statistical Area) in the state, as well as for five non-metropolitan regions. Metropolitan area wage levels are used for each of California's 34 metropolitan counties. Non-metropolitan counties and consortia are assigned to the region in which they are contained. In the few cases where a multiple-county consortium is not wholly contained within a single OES region, the consortium is assigned wages from the region that contains most of the consortium.

The 1997 survey does not include employers with one to four employees. To the extent small employers typically pay lower wages, this may result in a slight upward bias in reported wages. Reported wages include straight-time gross pay, hazardous duty pay and incentive pay, such as commissions and production bonuses. Reported wages exclude tips, overtime pay, shift differentials and non-production bonuses. Thus actual earnings may be higher in occupations where tipping and overtime pay is customary.

For each occupation in each region, the OES survey provides a mean wage, as well as 25th, 50th (median), and 75th percentile wages. As wages can vary considerably within each occupation, these four measures are not enough to precisely measure the number of jobs in an occupation that pay the basic family wage. This report assumes that in any occupation where the 25th percentile wage is above the basic family wage, all job openings pay the basic family wage. If the basic family wage lies between the 25th percentile and the median wage for an occupation, this report assumes that 75 percent of openings in that occupation pay the basic family-wage. Where the median occupational wage is below the basic family wage, this report assumes that none of the openings in the occupation pay the basic family wage.

Since this report focuses on entry-level job seekers, when these individuals find jobs, they are likely to earn wages that are low relative to other workers in the same occupation. Therefore, this report's assumptions about wage distributions are probably conservative, and we expect that they somewhat overstate the wages that will be available to job seekers.

Job Seekers

There is considerably less information characterizing job seekers than job openings. This report examines two major categories of job seekers and uses different data sources for each. For job seekers, this analysis considers three educational categories (less than a high school degree, high school graduate or some college, and college graduate).

The number of unemployed persons in each county comes from the Employment Development Department's 1998 annual averages. Unemployment statistics are derived from the Current Population Survey (CPS), a survey conducted by the U.S. Department of Commerce, Bureau of the Census. The EDD makes certain adjustments to the CPS designed to improve its accuracy for use at the state level. Unemployed persons include those individuals with no employment during the week of the survey, who were available for work, and who made specific efforts to find work during the prior four-week period. The education distribution of the unemployed in each county is based on 1997 data provided to the authors by the EDD.

The number of CalWORKs recipients in each county is based on 1998 caseload data from the California Department of Social Services. The California Budget Project (CBP) adjusted the caseload data to eliminate child-only cases based on statewide percentage of child-only cases to arrive at an estimate of the number of CalWORKs cases with at least one adult in the household. The number of General Assistance recipients comes from caseload data for the 1997-98 fiscal year provided by the California Department of Social Services. The number of employable General Assistance recipients comes from an estimate for Los Angeles County reported in the Legislative Analyst's Office, *A Look at General Assistance in the Context of Welfare Reform* (October 1996). This report assumes that there is one adult per household in family cases.

The number of welfare recipient job seekers was adjusted in order to avoid double counting individuals who were actively seeking work (and thus counted as unemployed). This report uses data from the March 1998 Current Population Survey indicating that 21 percent of California's welfare recipients were already participating in the labor force. The number of welfare recipients in each county is reduced by 21 percent to avoid duplication. This adjustment assumes that an equal percentage of welfare recipients were actively seeking work in each county. The educational attainment of welfare recipients is also based on a CBP analysis of the March 1998 CPS.

Job Training Consortia

Occupational employment data for some low-population counties are aggregated into consortia. The Golden Sierra consortium includes El Dorado, Nevada, Placer and Sierra counties. Inyo-Mono is the combined area of Inyo and Mono counties. The Mother Lode consortium includes Amador, Calaveras, Mariposa and Tuolumne. The NORTEC consortium is Del Norte, Lassen, Modoc, Plumas, Siskiyou, Tehama and Trinity counties. The North Central consortium is Colusa, Glenn, Lake, Sutter and Yuba counties.

APPENDIX 2

Comparison of Actual versus Projected Employment Growth

County	Projected Employment Growth	Actual Average Employment Growth 1995-1998	Difference Between Projected and Average Actual	Percentage Difference
Alameda	8,579	12,733	4,155	48%
Butte	1,567	1,533	-34	-2%
Contra Costa	8,496	11,167	2,671	31%
Fresno	4,067	633	-3,434	-84%
Golden Sierra***	5,004	7,277	2,272	45%
Humboldt	966	567	-399	-41%
Imperial	524	267	-258	-49%
Inyo-Mono***	199	163	-35	-18%
Kern	3,907	3,333	-574	-15%
Kings	337	667	330	98%
Los Angeles	66,519	110,000	43,481	65%
Madera	691	737	45	7%
Marin	2,440	3,100	660	27%
Mendocino	776	590	-186	-24%
Merced	1,084	1,133	49	5%
Monterey	2,251	3,600	1,349	60%
Mother Lode***	670	237	-433	-65%
Napa	1,476	1,567	91	6%
North Central***	1,479	430	-1,049	-71%
NORTEC***	574	744	169	29%
Orange	23,323	43,567	20,244	87%
Riverside	10,990	19,833	8,843	80%
Sacramento	11,216	11,867	651	6%
San Benito	334	1,290	956	286%
San Bernardino	12,890	19,067	6,177	48%
San Diego	24,569	39,233	14,665	60%
San Francisco	6,919	9,100	2,181	32%
San Joaquin	4,129	3,967	-162	-4%
San Luis Obispo	1,719	3,100	1,381	80%
San Mateo	6,630	10,967	4,337	65%
Santa Barbara	2,171	2,300	129	6%
Santa Clara	26,679	35,833	9,155	34%
Santa Cruz	1,546	1,533	-12	-1%
Shasta	1,486	367	-1,120	-75%
Solano	2,423	4,167	1,744	72%
Sonoma	5,209	8,933	3,725	72%
Stanislaus	3,090	4,600	1,510	49%
Tulare	593	1,400	807	136%
Ventura	5,291	4,067	-1,225	-23%
Yolo	1,887	400	-1,487	-79%
Statewide	264,698	386,069	121,369	46%

* Job openings are the sum of newly-created jobs and net job openings - vacancies created by retirement or promotion. This is the best measure of the number of jobs that will be available to new workers.

** Job gap is the ratio of job seekers to available jobs.

*** The occupational employment data for some low-population counties are aggregated into consortia. The Golden Sierra consortium includes El Dorado, Nevada, Placer and Sierra counties. Inyo-Mono is the combined area of Inyo and Mono counties. The Mother Lode consortium includes Amador, Calaveras, Mariposa and Tuolumne. The NORTEC consortium is Del Norte, Lassen, Modoc, Plumas, Siskiyou, Tehama and Trinity counties. The North Central consortium is Colusa, Glenn, Lake, Sutter and Yuba counties.

Two-Working-Parent Family

County	Two-Working-Parent Basic Family Wage	Job Seekers	Projected Employment Growth	Net Openings*	Basic Family Wage Employment Growth	Basic Family Wage Openings*	Job Gap**	Basic Family Wage Job Gap**
Alameda	\$12.92	48,079	8,579	22,587	4,571	10,719	2.1	4.5
Butte	\$9.35	10,848	1,567	3,094	811	1,489	3.5	7.3
Contra Costa	\$12.92	25,622	8,496	15,620	4,312	7,334	1.6	3.5
Fresno	\$9.73	70,939	4,067	9,803	1,971	4,336	7.2	16.4
Golden Sierra***	\$9.35	13,965	5,004	8,521	2,994	4,641	1.6	3.0
Humboldt	\$9.49	6,602	966	2,094	440	915	3.2	7.2
Imperial	\$9.73	17,838	524	1,344	291	692	13.3	25.8
Inyo-Mono***	\$9.35	1,319	199	509	103	213	2.6	6.2
Kern	\$9.73	46,218	3,907	8,044	2,067	4,030	5.7	11.5
Kings	\$9.35	7,768	337	917	206	483	8.5	16.1
Los Angeles	\$10.75	489,301	66,519	152,623	33,804	71,978	3.2	6.8
Madera	\$9.73	8,917	691	1,239	424	658	7.2	13.6
Marin	\$12.92	3,896	2,440	4,917	1,205	2,164	0.8	1.8
Mendocino	\$9.49	4,771	776	1,477	311	563	3.2	8.5
Merced	\$9.73	17,646	1,084	2,173	546	990	8.1	17.8
Monterey	\$10.94	23,639	2,251	4,984	1,139	2,252	4.7	10.5
Mother Lode***	\$9.35	5,483	670	1,534	371	776	3.6	7.1
Napa	\$9.73	2,952	1,476	2,639	689	1,220	1.1	2.4
North Central***	\$9.35	13,794	1,479	2,834	856	1,470	4.9	9.4
NORTEC***	\$9.35	11,998	574	1,894	326	978	6.3	12.3
Orange	\$11.46	57,099	23,323	50,721	10,816	21,424	1.1	2.7
Riverside	\$9.31	60,861	10,990	19,639	5,806	9,734	3.1	6.3
Sacramento	\$9.73	54,559	11,216	22,567	7,189	13,406	2.4	4.1
San Benito	\$10.94	3,163	334	563	155	235	5.6	13.5
San Bernardino	\$9.31	69,133	12,890	23,729	7,477	12,745	2.9	5.4
San Diego	\$10.53	74,438	24,569	48,563	12,754	22,655	1.5	3.3
San Francisco	\$12.92	26,236	6,919	18,666	3,673	8,531	1.4	3.1
San Joaquin	\$9.73	37,461	4,129	7,960	1,936	3,710	4.7	10.1
San Luis Obispo	\$10.94	6,053	1,719	3,643	864	1,555	1.7	3.9
San Mateo	\$12.92	11,840	6,630	13,756	3,761	6,802	0.9	1.7
Santa Barbara	\$10.94	11,758	2,171	5,689	1,158	2,596	2.1	4.5
Santa Clara	\$12.92	42,396	26,679	46,707	15,628	25,249	0.9	1.7
Santa Cruz	\$10.94	11,930	1,546	3,689	838	1,731	3.2	6.9
Shasta	\$9.35	9,787	1,486	2,815	849	1,482	3.5	6.6
Solano	\$9.73	14,601	2,423	4,893	1,321	2,558	3.0	5.7
Sonoma	\$9.73	10,856	5,209	9,013	2,743	4,611	1.2	2.4
Stanislaus	\$9.73	32,067	3,090	6,119	1,676	3,022	5.2	10.6
Tulare	\$9.35	34,085	593	2,601	310	1,209	13.1	28.2
Ventura	\$11.46	26,032	5,291	10,919	2,366	4,628	2.4	5.6
Yolo	\$9.35	6,756	1,887	3,793	1,250	2,363	1.8	2.9
Statewide		1,437,014	264,698	554,891	140,004	268,144	2.6	5.4

* Job openings are the sum of newly-created jobs and net job openings - vacancies created by retirement or promotion. This is the best measure of the number of jobs that will be available to new worker.

** Job gap is the ratio of job seekers to available job.

*** The occupational employment data for some low-population counties are aggregated into consortia. The Golden Sierra consortium includes El Dorado, Nevada, Placer and Sierra counties. Inyo-Mono is the combined area of Inyo and Mono counties. The Mother Lode consortium includes Amador, Calaveras, Mariposa and Tuolumne. The NORTEC consortium is Del Norte, Lassen, Modoc, Plumas, Siskiyou, Tehama and Trinity counties. The North Central consortium is Colusa, Glenn, Lake, Sutter and Yuba counties.

Two-Working-Parent Family with Low Education

County	Two-Working-Parent Basic Family Wage	Job Seekers w/out College Degrees	Projected Short- or Moderate-Training Employment Growth	Short- or Moderate-Training Net Openings*	Basic Family Wage Short- or Moderate-Training Employment Growth	Basic Family Wage Short- or Moderate-Training Openings*	Short- or Moderate-Training Job Gap**	Basic Family Wage Short- or Moderate-Training Job Gap**
Alameda	\$12.92	43,004	3,414	11,213	423	1,695	3.8	25.4
Butte	\$9.35	10,178	774	1,681	182	380	6.1	26.8
Contra Costa	\$12.92	22,945	3,854	7,861	577	1,126	2.9	20.4
Fresno	\$9.73	68,757	1,849	5,250	201	761	13.1	90.4
Golden Sierra***	\$9.35	12,671	2,233	4,330	649	1,109	2.9	11.4
Humboldt	\$9.49	6,117	463	1,130	77	214	5.4	28.6
Imperial	\$9.73	17,626	217	673	28	114	26.2	154.2
Inyo-Mono***	\$9.35	1,194	90	293	16	43	4.1	27.6
Kern	\$9.73	45,149	1,781	4,070	299	726	11.1	62.2
Kings	\$9.35	7,637	119	439	13	73	17.4	105.3
Los Angeles	\$10.75	442,526	30,959	80,741	4,194	12,474	5.5	35.5
Madera	\$9.73	8,707	233	547	37	84	15.9	103.7
Marin	\$12.92	2,806	1,049	2,469	136	318	1.1	8.8
Mendocino	\$9.49	4,543	406	860	40	113	5.3	40.4
Merced	\$9.73	17,277	467	1,127	85	197	15.3	87.6
Monterey	\$10.94	22,872	1,057	2,686	147	392	8.5	58.4
Mother Lode***	\$9.35	5,164	296	801	47	150	6.4	34.4
Napa	\$9.73	2,792	836	1,553	187	359	1.8	7.8
North Central***	\$9.35	13,415	627	1,426	186	373	9.4	36.0
NORTEC***	\$9.35	11,509	197	956	4	188	12.0	61.4
Orange	\$11.46	50,407	11,287	27,763	1,771	4,329	1.8	11.6
Riverside	\$9.31	58,165	5,619	10,951	1,406	2,665	5.3	21.8
Sacramento	\$9.73	51,574	4,314	10,304	1,130	2,729	5.0	18.9
San Benito	\$10.94	3,090	171	313	28	44	9.9	70.9
San Bernardino	\$9.31	66,269	6,679	13,263	2,428	4,229	5.0	15.7
San Diego	\$10.53	67,878	10,887	24,640	1,930	4,048	2.8	16.8
San Francisco	\$12.92	21,980	2,379	8,811	54	829	2.5	26.5
San Joaquin	\$9.73	36,139	2,133	4,453	398	963	8.1	37.5
San Luis Obispo	\$10.94	5,616	751	1,903	127	257	3.0	21.8
San Mateo	\$12.92	9,992	2,536	6,429	377	947	1.6	10.6
Santa Barbara	\$10.94	10,951	896	2,881	147	411	3.8	26.6
Santa Clara	\$12.92	37,196	10,680	20,797	2,215	3,869	1.8	9.6
Santa Cruz	\$10.94	10,254	656	1,920	141	358	5.3	28.6
Shasta	\$9.35	9,383	630	1,420	168	378	6.6	24.8
Solano	\$9.73	13,682	1,266	2,746	396	814	5.0	16.8
Sonoma	\$9.73	9,853	2,809	5,103	891	1,573	1.9	6.3
Stanislaus	\$9.73	31,224	1,507	3,376	389	813	9.2	38.4
Tulare	\$9.35	33,546	274	1,501	50	311	22.3	108.0
Ventura	\$11.46	23,992	2,531	5,750	285	711	4.2	33.7
Yolo	\$9.35	6,355	770	1,760	314	667	3.6	9.5
Statewide		1,328,629	119,694	286,190	22,172	51,830	4.6	25.6

* Job openings are the sum of newly-created jobs and net job openings - vacancies created by retirement or promotion. This is the best measure of the number of jobs that will be available to new workers.

** Job gap is the ratio of job seekers to available jobs.

*** The occupational employment data for some low-population counties are aggregated into consortia. The Golden Sierra consortium includes El Dorado, Nevada, Placer and Sierra counties. Inyo-Mono is the combined area of Inyo and Mono counties. The Mother Lode consortium includes Amador, Calaveras, Mariposa and Tuolumne. The NORTEC consortium is Del Norte, Lassen, Modoc, Plumas, Siskiyou, Tehama and Trinity counties. The North Central consortium is Colusa, Glenn, Lake, Sutter and Yuba counties.

Two-Parent (One Working) Family

County	Two-Parent (One Working) Family Basic Family Wage	Job Seekers	Projected Employment Growth	Net Openings*	Basic Family Wage Employment Growth	Basic Family Wage Openings*	Job Gap**	Basic Family Wage Job Gap**
Alameda	\$17.56	48,079	8,579	22,587	3,541	7,609	2.1	6.3
Butte	\$13.78	10,848	1,567	3,094	462	833	3.5	13.0
Contra Costa	\$17.56	25,622	8,496	15,620	3,038	5,113	1.6	5.0
Fresno	\$13.86	70,939	4,067	9,803	1,371	2,789	7.2	25.4
Golden Sierra***	\$13.78	13,965	5,004	8,521	2,053	3,081	1.6	4.5
Humboldt	\$14.50	6,602	966	2,094	228	479	3.2	13.8
Imperial	\$13.86	17,838	524	1,344	211	479	13.3	37.2
Inyo-Mono***	\$13.78	1,319	199	509	58	116	2.6	11.4
Kern	\$13.86	46,218	3,907	8,044	1,491	2,780	5.7	16.6
Kings	\$13.78	7,768	337	917	153	331	8.5	23.5
Los Angeles	\$14.72	489,301	66,519	152,623	24,591	49,690	3.2	9.8
Madera	\$13.86	8,917	691	1,239	275	410	7.2	21.7
Marin	\$17.56	3,896	2,440	4,917	880	1,518	0.8	2.6
Mendocino	\$14.50	4,771	776	1,477	166	288	3.2	16.6
Merced	\$13.86	17,646	1,084	2,173	339	584	8.1	30.2
Monterey	\$15.87	23,639	2,251	4,984	697	1,306	4.7	18.1
Mother Lode***	\$13.78	5,483	670	1,534	244	488	3.6	11.2
Napa	\$13.86	2,952	1,476	2,639	428	740	1.1	4.0
North Central***	\$13.78	13,794	1,479	2,834	522	873	4.9	15.8
NORTEC***	\$13.78	11,998	574	1,894	281	659	6.3	18.2
Orange	\$15.51	57,099	23,323	50,721	7,499	14,491	1.1	3.9
Riverside	\$13.26	60,861	10,990	19,639	3,755	6,085	3.1	10.0
Sacramento	\$13.86	54,559	11,216	22,567	5,503	9,594	2.4	5.7
San Benito	\$15.87	3,163	334	563	93	141	5.6	22.4
San Bernardino	\$13.26	69,133	12,890	23,729	4,576	7,629	2.9	9.1
San Diego	\$14.57	74,438	24,569	48,563	9,179	15,754	1.5	4.7
San Francisco	\$17.56	26,236	6,919	18,666	3,009	6,340	1.4	4.1
San Joaquin	\$13.86	37,461	4,129	7,960	1,120	2,065	4.7	18.1
San Luis Obispo	\$15.87	6,053	1,719	3,643	570	984	1.7	6.1
San Mateo	\$17.56	11,840	6,630	13,756	2,957	4,939	0.9	2.4
Santa Barbara	\$15.87	11,758	2,171	5,689	838	1,804	2.1	6.5
Santa Clara	\$17.56	42,396	26,679	46,707	11,120	17,640	0.9	2.4
Santa Cruz	\$15.87	11,930	1,546	3,689	566	1,105	3.2	10.8
Shasta	\$13.78	9,787	1,486	2,815	481	816	3.5	12.0
Solano	\$13.86	14,601	2,423	4,893	834	1,606	3.0	9.1
Sonoma	\$13.86	10,856	5,209	9,013	1,569	2,610	1.2	4.2
Stanislaus	\$13.86	32,067	3,090	6,119	1,075	1,867	5.2	17.2
Tulare	\$13.78	34,085	593	2,601	233	760	13.1	44.8
Ventura	\$15.51	26,032	5,291	10,919	1,736	3,275	2.4	7.9
Yolo	\$13.78	6,756	1,887	3,793	771	1,471	1.8	4.6
Statewide		1,437,014	264,698	554,891	98,509	181,141	2.6	7.9

* Job openings are the sum of newly-created jobs and net job openings - vacancies created by retirement or promotion. This is the best measure of the number of jobs that will be available to new workers.

** Job gap is the ratio of job seekers to available jobs.

*** The occupational employment data for some low-population counties are aggregated into consortia. The Golden Sierra consortium includes El Dorado, Nevada, Placer and Sierra counties. Inyo-Mono is the combined area of Inyo and Mono counties. The Mother Lode consortium includes Amador, Calaveras, Mariposa and Tuolumne. The NORTEC consortium is Del Norte, Lassen, Modoc, Plumas, Siskiyou, Tehama and Trinity counties. The North Central consortium is Colusa, Glenn, Lake, Sutter and Yuba counties.

Two-Parent (One Working) Family with Low Education

County	Two-Parent (One Working) Family Basic Family Wage	Job Seekers w/out College Degrees	Projected Short- or Moderate- Training Employment Growth	Short- or Moderate- Training Net Openings*	Family Wage Short- or Moderate- Training Employment Growth	Family Wage Short- or Moderate- Training Openings*	Short- or Moderate- Training Job Gap**	Basic Family Wage Short- or Moderate- Training Job Gap**
Alameda	\$17.56	43,004	3,414	11,213	236	570	3.8	75.4
Butte	\$13.78	10,178	774	1,681	38	79	6.1	129.5
Contra Costa	\$17.56	22,945	3,854	7,861	188	351	2.9	65.4
Fresno	\$13.86	68,757	1,849	5,250	45	163	13.1	422.2
Golden Sierra***	\$13.78	12,671	2,233	4,330	179	290	2.9	43.7
Humboldt	\$14.50	6,117	463	1,130	9	29	5.4	214.1
Imperial	\$13.86	17,626	217	673	12	36	26.2	493.5
Inyo-Mono***	\$13.78	1,194	90	293	-	5	4.1	257.2
Kern	\$13.86	45,149	1,781	4,070	91	199	11.1	227.4
Kings	\$13.78	7,637	119	439	1	11	17.4	668.2
Los Angeles	\$14.72	442,526	30,959	80,741	1,420	3,805	5.5	116.3
Madera	\$13.86	8,707	233	547	11	22	15.9	399.7
Marin	\$17.56	2,806	1,049	2,469	63	117	1.1	24.0
Mendocino	\$14.50	4,543	406	860	11	23	5.3	195.7
Merced	\$13.86	17,277	467	1,127	18	41	15.3	417.0
Monterey	\$15.87	22,872	1,057	2,686	19	54	8.5	426.9
Mother Lode***	\$13.78	5,164	296	801	8	31	6.4	166.2
Napa	\$13.86	2,792	836	1,553	57	96	1.8	29.2
North Central***	\$13.78	13,415	627	1,426	31	74	9.4	180.6
NORTEC***	\$13.78	11,509	197	956	8	36	12.0	322.2
Orange	\$15.51	50,407	11,287	27,763	529	1,269	1.8	39.7
Riverside	\$13.26	58,165	5,619	10,951	421	743	5.3	78.3
Sacramento	\$13.86	51,574	4,314	10,304	329	620	5.0	83.2
San Benito	\$15.87	3,090	171	313	8	11	9.9	270.3
San Bernardino	\$13.26	66,269	6,679	13,263	766	1,182	5.0	56.1
San Diego	\$14.57	67,878	10,887	24,640	565	1,137	2.8	59.7
San Francisco	\$17.56	21,980	2,379	8,811	91	247	2.5	88.9
San Joaquin	\$13.86	36,139	2,133	4,453	79	203	8.1	178.5
San Luis Obispo	\$15.87	5,616	751	1,903	18	43	3.0	131.0
San Mateo	\$17.56	9,992	2,536	6,429	146	322	1.6	31.0
Santa Barbara	\$15.87	10,951	896	2,881	49	119	3.8	92.4
Santa Clara	\$17.56	37,196	10,680	20,797	698	1,192	1.8	31.2
Santa Cruz	\$15.87	10,254	656	1,920	25	66	5.3	155.2
Shasta	\$13.78	9,383	630	1,420	29	76	6.6	123.9
Solano	\$13.86	13,682	1,266	2,746	125	251	5.0	54.5
Sonoma	\$13.86	9,853	2,809	5,103	142	275	1.9	35.8
Stanislaus	\$13.86	31,224	1,507	3,376	89	193	9.2	161.9
Tulare	\$13.78	33,546	274	1,501	19	74	22.3	451.6
Ventura	\$15.51	23,992	2,531	5,750	109	235	4.2	102.2
Yolo	\$13.78	6,355	770	1,760	86	179	3.6	35.5
Statewide		1,328,629	119,694	286,190	6,770	14,466	4.6	91.8

* Job openings are the sum of newly-created jobs and net job openings - vacancies created by retirement or promotion. This is the best measure of the number of jobs that will be available to new workers.

** Job gap is the ratio of job seekers to available jobs.

*** The occupational employment data for some low-population counties are aggregated into consortia. The Golden Sierra consortium includes El Dorado, Nevada, Placer and Sierra counties. Inyo-Mono is the combined area of Inyo and Mono counties. The Mother Lode consortium includes Amador, Calaveras, Mariposa and Tuolumne. The NORTEC consortium is Del Norte, Lassen, Modoc, Plumas, Siskiyou, Tehama and Trinity counties. The North Central consortium is Colusa, Glenn, Lake, Sutter and Yuba counties.

Single-Parent Family

County	Single-Parent Family Basic Wage	Job Seekers	Projected Employment Growth	Net Openings*	Basic Family Wage Employment Growth	Basic Family Wage Openings*	Job Gap**	Basic Family Wage Job Gap**
Alameda	\$21.24	48,079	8,579	22,587	2,456	5,080	2.1	9.5
Butte	\$15.14	10,848	1,567	3,094	394	698	3.5	15.5
Contra Costa	\$21.24	25,622	8,496	15,620	2,063	3,438	1.6	7.5
Fresno	\$15.95	70,939	4,067	9,803	1,238	2,475	7.2	28.7
Golden Sierra***	\$15.14	13,965	5,004	8,521	1,834	2,733	1.6	5.1
Humboldt	\$15.32	6,602	966	2,094	199	423	3.2	15.6
Imperial	\$15.95	17,838	524	1,344	186	415	13.3	42.9
Inyo-Mono***	\$15.14	1,319	199	509	56	111	2.6	11.9
Kern	\$15.95	46,218	3,907	8,044	1,321	2,436	5.7	19.0
Kings	\$15.14	7,768	337	917	144	306	8.5	25.4
Los Angeles	\$17.68	489,301	66,519	152,623	19,516	38,831	3.2	12.6
Madera	\$15.95	8,917	691	1,239	241	358	7.2	24.9
Marin	\$21.24	3,896	2,440	4,917	623	1,051	0.8	3.7
Mendocino	\$15.32	4,771	776	1,477	153	264	3.2	18.1
Merced	\$15.95	17,646	1,084	2,173	276	480	8.1	36.8
Monterey	\$17.69	23,639	2,251	4,984	588	1,072	4.7	22.0
Mother Lode***	\$15.14	5,483	670	1,534	222	442	3.6	12.4
Napa	\$15.95	2,952	1,476	2,639	324	564	1.1	5.2
North Central***	\$15.14	13,794	1,479	2,834	461	759	4.9	18.2
NORTEC***	\$15.14	11,998	574	1,894	240	554	6.3	21.7
Orange	\$19.02	57,099	23,323	50,721	5,406	9,965	1.1	5.7
Riverside	\$15.29	60,861	10,990	19,639	3,215	5,206	3.1	11.7
Sacramento	\$15.95	54,559	11,216	22,567	4,713	8,040	2.4	6.8
San Benito	\$17.69	3,163	334	563	83	130	5.6	24.4
San Bernardino	\$15.29	69,133	12,890	23,729	3,687	6,194	2.9	11.2
San Diego	\$17.38	74,438	24,569	48,563	6,853	11,696	1.5	6.4
San Francisco	\$21.24	26,236	6,919	18,666	2,112	4,259	1.4	6.2
San Joaquin	\$15.95	37,461	4,129	7,960	998	1,799	4.7	20.8
San Luis Obispo	\$17.69	6,053	1,719	3,643	515	874	1.7	6.9
San Mateo	\$21.24	11,840	6,630	13,756	2,200	3,524	0.9	3.4
Santa Barbara	\$17.69	11,758	2,171	5,689	724	1,535	2.1	7.7
Santa Clara	\$21.24	42,396	26,679	46,707	9,264	14,532	0.9	2.9
Santa Cruz	\$17.69	11,930	1,546	3,689	448	876	3.2	13.6
Shasta	\$15.14	9,787	1,486	2,815	435	721	3.5	13.6
Solano	\$15.95	14,601	2,423	4,893	661	1,269	3.0	11.5
Sonoma	\$15.95	10,856	5,209	9,013	1,365	2,250	1.2	4.8
Stanislaus	\$15.95	32,067	3,090	6,119	858	1,440	5.2	22.3
Tulare	\$15.14	34,085	593	2,601	210	666	13.1	51.1
Ventura	\$19.02	26,032	5,291	10,919	1,244	2,320	2.4	11.2
Yolo	\$15.14	6,756	1,887	3,793	713	1,352	1.8	5.0
Statewide		1,437,014	264,698	554,891	78,234	141,138	2.6	10.2

* Job openings are the sum of newly-created jobs and net job openings - vacancies created by retirement or promotion. This is the best measure of the number of jobs that will be available to new workers.

** Job gap is the ratio of job seekers to available jobs.

*** The occupational employment data for some low-population counties are aggregated into consortia. The Golden Sierra consortium includes El Dorado, Nevada, Placer and Sierra counties. Inyo-Mono is the combined area of Inyo and Mono counties. The Mother Lode consortium includes Amador, Calaveras, Mariposa and Tuolumne. The NORTEC consortium is Del Norte, Lassen, Modoc, Plumas, Siskiyou, Tehama and Trinity counties. The North Central consortium is Colusa, Glenn, Lake, Sutter and Yuba counties.

Single-Parent Family with Low Education

County	Single-Parent Family Basic Family Wage	Job Seekers w/out College Degrees	Projected Short- or Moderate-Training Employment Growth	Short- or Moderate-Training Net Openings*	Basic Family Wage Short- or Moderate-Training Employment Growth	Basic Family Wage Short- or Moderate-Training Openings*	Short- or Moderate-Training Job Gap**	Basic Family Wage Short- or Moderate-Training Job Gap**
Alameda	\$21.24	43,004	3,414	11,213	81	188	3.8	228.5
Butte	\$15.14	10,178	774	1,681	14	27	6.1	375.0
Contra Costa	\$21.24	22,945	3,854	7,861	65	123	2.9	186.8
Fresno	\$15.95	68,757	1,849	5,250	34	113	13.1	607.3
Golden Sierra***	\$15.14	12,671	2,233	4,330	139	230	2.9	55.1
Humboldt	\$15.32	6,117	463	1,130	9	28	5.4	222.4
Imperial	\$15.95	17,626	217	673	5	18	26.2	1,007.2
Inyo-Mono***	\$15.14	1,194	90	293	-	4	4.1	334.4
Kern	\$15.95	45,149	1,781	4,070	62	136	11.1	332.7
Kings	\$15.14	7,637	119	439	0	9	17.4	822.4
Los Angeles	\$17.68	442,526	30,959	80,741	433	1,140	5.5	388.2
Madera	\$15.95	8,707	233	547	6	13	15.9	677.2
Marin	\$21.24	2,806	1,049	2,469	25	41	1.1	68.3
Mendocino	\$15.32	4,543	406	860	12	23	5.3	195.7
Merced	\$15.95	17,277	467	1,127	11	26	15.3	671.9
Monterey	\$17.69	22,872	1,057	2,686	6	19	8.5	1,208.3
Mother Lode***	\$15.14	5,164	296	801	4	18	6.4	295.1
Napa	\$15.95	2,792	836	1,553	37	61	1.8	46.0
North Central***	\$15.14	13,415	627	1,426	9	26	9.4	514.6
NORTEC***	\$15.14	11,509	197	956	1	13	12.0	895.1
Orange	\$19.02	50,407	11,287	27,763	207	418	1.8	120.7
Riverside	\$15.29	58,165	5,619	10,951	253	466	5.3	124.8
Sacramento	\$15.95	51,574	4,314	10,304	160	293	5.0	176.3
San Benito	\$17.69	3,090	171	313	5	8	9.9	412.0
San Bernardino	\$15.29	66,269	6,679	13,263	369	599	5.0	110.6
San Diego	\$17.38	67,878	10,887	24,640	173	354	2.8	192.0
San Francisco	\$21.24	21,980	2,379	8,811	24	55	2.5	397.1
San Joaquin	\$15.95	36,139	2,133	4,453	49	119	8.1	304.8
San Luis Obispo	\$17.69	5,616	751	1,903	7	12	3.0	462.5
San Mateo	\$21.24	9,992	2,536	6,429	62	133	1.6	75.0
Santa Barbara	\$17.69	10,951	896	2,881	18	41	3.8	269.0
Santa Clara	\$21.24	37,196	10,680	20,797	341	571	1.8	65.2
Santa Cruz	\$17.69	10,254	656	1,920	9	21	5.3	486.6
Shasta	\$15.14	9,383	630	1,420	23	51	6.6	185.0
Solano	\$15.95	13,682	1,266	2,746	58	120	5.0	114.4
Sonoma	\$15.95	9,853	2,809	5,103	96	172	1.9	57.2
Stanislaus	\$15.95	31,224	1,507	3,376	45	95	9.2	329.9
Tulare	\$15.14	33,546	274	1,501	15	55	22.3	609.9
Ventura	\$19.02	23,992	2,531	5,750	43	78	4.2	306.7
Yolo	\$15.14	6,355	770	1,760	57	116	3.6	54.8
Statewide		1,328,629	119,694	286,190	2,968	6,029	4.6	220.4

* Job openings are the sum of newly-created jobs and net job openings - vacancies created by retirement or promotion. This is the best measure of the number of jobs that will be available to new workers.

** Job gap is the ratio of job seekers to available jobs.

*** The occupational employment data for some low-population counties are aggregated into consortia. The Golden Sierra consortium includes El Dorado, Nevada, Placer and Sierra counties. Inyo-Mono is the combined area of Inyo and Mono counties. The Mother Lode consortium includes Amador, Calaveras, Mariposa and Tuolumne. The NORTEC consortium is Del Norte, Lassen, Modoc, Plumas, Siskiyou, Tehama and Trinity counties. The North Central consortium is Colusa, Glenn, Lake, Sutter and Yuba counties.

