

**A COMPARATIVE INFORMATION
TECHNOLOGY INDUSTRY
OPERATING COST ANALYSIS:**

***CALIFORNIA, WESTERN AND
CENTRAL U.S. CITIES***

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**COMPARATIVE OPERATING
COST ANALYSIS**

**INFORMATION TECHNOLOGY
SITE SELECTION**

**COMPARATIVE OPERATING COST ANALYSIS:
EXECUTIVE SUMMARY AND NOTES**

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Introduction

In the following analysis, major operating costs scaled to a representative operations center within the information technology industry are projected by Boyd for a series of 18 California metropolitan areas and 12 Western and Central U.S. regional alternatives. Economic findings are summarized in Exhibit I and show total annual operating costs ranging from a high of \$12.1 million in San Francisco, CA, to a low of \$9.3 million in Sioux Falls, SD.

Annual operating costs were projected by Boyd solely for comparative purposes, with only major geographically-variable factors being considered. Those costs not varying significantly with geography, including start-up and relocation expenses, were not considered. The Boyd Company's authoritative, third-party analysis focuses on those key elements considered fundamental to the information technology industry site selection process. These costs include such pivotal factors as skilled labor, office occupancy, utilities, corporate travel, and others.

Overall operating costs were scaled by Boyd to a hypothetical 35,000 sq. ft. research and product development facility employing 125 workers. The Boyd Company's cost simulations are designed to provide an independent point of reference for the corporate facilities planner's assessment of relative operating cost levels in each of the candidate locations. While Boyd's cost analysis is tailored to the information sciences sector, geographic cost differentials are considered to be representative of other software and communications-intensive high technology industries in such fields as

electronics, telecommunications, e-commerce, electronic publishing, and related internet hardware applications.

Comparative Locations

For purposes of comparative economic analysis, major geographically-variable operating costs have been projected by Boyd for a series of 18 California and 12 Western and Central U.S. metropolitan areas. Surveyed locations include both current and emerging, smaller-market centers of new U.S. information technology industry investment.

Listed below are the 30 comparative locations by region.

COMPARATIVE U.S. HIGH TECHNOLOGY CENTERS

Northern California:

- Santa Rosa, California
- Vallejo/Fairfield/Napa, California
- San Francisco, California
- Oakland, California
- San Jose, California
- Salinas, California

Central California:

- Sacramento, California
- Stockton/Lodi, California
- Modesto, California
- Fresno, California
- Visalia/Tulare/Porterville, California
- Bakersfield, California

Southern California:

- Santa Barbara/Santa Maria/Lompoc, California
- Ventura, California
- Los Angeles/Long Beach, California
- Orange County, California
- Riverside/San Bernardino, California
- San Diego, California

Western U.S. Region:

- Portland, Oregon
- Phoenix, Arizona
- Tucson, Arizona
- Las Vegas, Nevada
- Denver, Colorado
- Salt Lake City, Utah

Central U.S. Region:

- Omaha, Nebraska
- Kansas City, Missouri/Kansas
- Wichita, Kansas
- Des Moines/Ames, Iowa
- Oklahoma City, Oklahoma
- Sioux Falls, South Dakota

Labor Costs

Annual costs for labor, including software engineers, programmers, technicians, and administrative support workers, are presented in Exhibit II. Costs are based on a representative mix of job descriptions for a model 125 worker information technology center. Labor costs for executive management staff were not included as these costs would tend not to vary as significantly by geography, but rather by individual company compensation practices.

Total annual labor costs, including fringe benefits, range from a high of \$9.9 million in San Francisco, CA, to a low of \$ 7.7 million in Sioux Falls, SD. Fringe benefits are included as a percent of total annual base payroll costs and include all statutory and company-sponsored benefits. Boyd projects high technology industry fringe benefit costs in the U.S. at 32 percent of base payroll costs.

Electric Power

Comparative annual electric power costs are presented in Exhibit III. Annual costs reflect commercial rate schedules of respective local electric utilities serving each surveyed area. Annual electric power costs vary greatly, ranging

from a high in excess of \$86,000 in the surveyed California sites, to a low of \$22,581 in Omaha, Nebraska.

Facility Lease Costs

Annual costs for the leasing of Class-A research and office space in each of the surveyed locations are detailed in Exhibit IV. For purposes of comparative analysis, annual costs are keyed to effective asking rates and reflect the leasing of 35,000 square feet of total space.

Other Occupancy Costs

Boyd projections of other occupancy costs, including project amortization and heating and air conditioning, are presented in Exhibits IV and V. Differentials in heating and air conditioning costs reflect both varying climatic conditions and differences in power costs.

Corporate Travel Costs

Comparative annual on-site corporate travel costs in each of the surveyed locations are presented in Exhibit VI. Costs include corporate traveler lodging, meals, local transportation, and other business travel incidentals. Figures are indicative of local travel cost structures expected to be incurred by employee visitations (management, technical, trainee, e.g.) to each of the 30 surveyed sites. Annual travel costs range from a high of \$244,826 in San Francisco to a low of \$139,425 in Omaha.

Total Annual Operating Cost Rankings

Taken from summary Exhibit I is a cost ranking of all the 30 surveyed U.S. information technology locations.

Total Geographically-Variable Operating
Cost Rankings

I.T. Facility Location	Total Annual Operating Costs
San Francisco, CA	\$12,126,308
San Jose, CA	\$12,094,386
Oakland, CA	\$11,827,267
Orange County, CA	\$11,423,972
Los Angeles/Long Beach, CA	\$11,276,531
Vallejo/Fairfield/Napa, CA	\$11,270,363
Ventura, CA	\$11,201,744
Santa Barbara/Santa Maria/Lompoc, CA	\$11,117,270
Santa Rosa, CA	\$11,112,919
San Diego, CA	\$11,068,811
Sacramento, CA	\$11,044,286
Riverside/San Bernardino, CA	\$10,870,982
Bakersfield, CA	\$10,739,975
Portland, OR	\$10,730,661
Stockton/Lodi, CA	\$10,726,472
Visalia/Tulare/Porterville, CA	\$10,607,924
Salinas, CA	\$10,600,217
Modesto, CA	\$10,562,972
Fresno, CA	\$10,521,103
Kansas City, MO/KS	\$10,514,429
Denver, CO	\$10,509,607
Phoenix, AZ	\$10,304,682
Las Vegas, NV	\$10,206,722
Wichita, KS	\$10,206,620

Total Geographically-Variable Operating
Cost Rankings, Continued

I.T. Facility Location	Total Annual Operating Costs
Des Moines/Ames, IA	\$10,172,479
Salt Lake City, UT	\$10,053,629
Tucson, AZ	\$ 9,819,266
Omaha, NE	\$ 9,780,476
Oklahoma City, OK	\$ 9,747,008
Sioux Falls, SD	\$ 9,380,610

About Boyd

Founded in 1975, The Boyd Company, Inc., of Princeton, NJ, provides independent location counsel to leading U.S. and overseas corporations. The firm works throughout North America and Europe and serves such clients as: Hewlett-Packard; United Technologies; Time, Inc.; TD Canada Trust; Pitney Bowes; Philips; J.P. Morgan Chase; JDS Uniphase; PepsiCo; and many others.