HANOVER RESEARCH

SAN MATEO COUNTY SUSTAINABILITY LABOR MARKET ASSESSMENT

Prepared for San Mateo Community College District

January 2025

In the following report, Hanover Research presents an industry scan focusing on employment and postsecondary education growth opportunities associated with environmental sustainability in San Mateo County, California.

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EXECUTIVE SUMMARY

RECOMMENDATIONS

Based on an analysis of demographics and industry and workforce demand trends in San Mateo County, Hanover recommends that San Mateo Community College District:

FOCUS ON INTERDISCIPLINARY BACHELOR'S TRANSFER OFFERINGS IN SUSTAINABILITY WITH A FINANCE, POLICY, TECHNOLOGY, OR MANAGEMENT EMPHASIS.

Sustainability-related careers remain a niche, but rapidly-growing, field in San Mateo County and in California and nationwide, where they are slightly more prevalent than they are locally in the past year's job postings samples. The San Mateo County sample of job ads requesting sustainability-related degree fields emphasizes management, policy, technology, and finance roles more heavily than the national sample, and there is less local interest in technical or field-based sustainability skills.

ADD SUSTAINABILITY CONCENTRATIONS OR TRACKS TO EXISTING FIELDS OF STUDY RATHER THAN INVESTING HEAVILY IN ALL-NEW, FREESTANDING PROGRAMS.

The volume of green job ads remains very low despite strong growth. With the emerging nature of the field in mind, pairing sustainability with other marketable skills in business, finance, technology, or policy by integrating it into those fields of study is likely to be more compelling to students and employers than a freestanding sustainability degree.

ANTICIPATE CONTINUED GROWTH AND DIVERSIFICATION IN SUSTAINABILITY-RELATED FIELDS.

The field is likely to continue to grow in importance and complexity in the coming years, with new applications and areas of emphasis that will need to be anticipated to develop and scale relevant programs. Rapid growth in AI data centers and electric vehicles are two recent examples.

KEY FINDINGS

Hanover's review of online job postings that request a degree in sustainability-related fields shows that employer interest in the topic is growing rapidly, but the share of jobs that call for these skills remains low for the time being. Nationwide, the share of job ads calling for sustainability skills rose from 0.13 percent of ads in January 2021 to 0.29 percent in December 2024, and in California the starting and ending shares were 0.17 percent and 0.34 percent. Recent data from LinkedIn suggests that global demand for green skills such as sustainable procurement grew twice as fast as supply in 2023 and 2024, and that the lack of workers trained in such skills will grow more acute by 2030.

San Mateo County employment prospects for graduates holding sustainability-related degrees remain limited, although they are growing and well-compensated, and most opportunities are concentrated in management, policy, tech, and finance. In San Mateo County the smaller sample size of ads caused higher weekly variability, but the growth trend was still evident. The minimum number of sustainability-related positions accepting applications in the county during any given week from 2021 to 2024 was 12, and the maximum was 44, which attests the relatively low numbers of directly-relevant roles. Skills requested by the local job ads tend to favor managerial, analytical, and data science capabilities more strongly than the California and national samples.

Nationwide, demand for green skills skews more toward applied technologies used in the utilities, mining and fossil fuels, construction, and agriculture sectors. Given that none of these industries are unusually prevalent in San Mateo County, the local focus on bachelor's-level graduates and knowledge industries is not surprising. For instance, leading local employers advertising sustainability-related positions include Meta, San Mateo County, information technology staffing firms, and environmental consulting businesses.

INTRODUCTION AND RESEARCH QUESTIONS

INTRODUCTION

San Mateo County Community College District (SMCCCD or the District) is located in Silicon Valley with three colleges serving San Mateo County. This geographic location presents a unique economic and labor market environment with highly localized considerations.

The three colleges of the District are comprehensive community colleges offering career education certificates, associate degrees, and transfer pathways. Given its location in the Bay Area and Silicon Valley, the colleges are organized around degree and transfer completion primarily, with a secondary focus on career education, and finally programming that is specific to serve the communities of San Mateo County.

SMCCCD is working on a District Strategic Plan 2025-2030. To support this process, SMCCCD has asked Hanover to conduct research around the labor market in sustainability that will inform the strategic direction of the District over the next five years as part of District Strategic Plan 2025-2030.

Hanover previously completed a study of other key sectors using an industry down approach. However, given that sustainability is a newer area that is not yet accurately distinguished at the industry level, a different approach was needed to better capture the labor market related to sustainability.

RESEARCH QUESTIONS

What do employment opportunities in sustainability look like in San Mateo County?

- Job outlook and overall availability of positions
- Salaries
- Required education
- Certificates
- Hard skills
- Top employers (San Mateo County

Who are some key San Mateo County employers in the focus area?

What is the economic presence in San Mateo County, the broader Bay area, and the state of California?

What are the top industries with sustainability-related positions at the three geographic levels?

REPORT CONTENTS AND STRUCTURE

This report includes and introduction and literature review followed by three sections examining sustainability-related job postings in California:

- **Section I – Industry Analysis – Sustainability Job Ads in San Mateo County**
- **Section II – Employer Needs – Sustainability Job Ads in San Mateo County**
- **Section III – Compensation – Sustainability Job Ads in San Mateo County**

REPORT SERIES HISTORY AND METHODOLOGY

ORIGINAL REQUEST – INDUSTRY CLUSTERS

In its initial conversations with Hanover, SMCCD requested an analysis of five "industries of opportunity" where college leaders are hoping to focus their program development and expansion efforts. These industries included:

- Technology and Innovation
- Sustainability
- Healthcare
- Education
- Global Innovation and Law

NAICS TAXONOMY

Hanover used the North American Industry Classification System (NAICS) taxonomy, which is a six-digit system used to identify, group, and describe industries, to approximate the industry clusters of interest to SMCCD. Within the NAICS taxonomy, the first two digits are broad families of industries (e.g., Construction), which are then divided into more detailed industries. The example shown below for the Retail Trade cluster is typical:

44-45 – Retail Trade

441 – Motor Vehicle and Parts Dealers

4411 – Automobile Dealers

44111 – New Car Dealers

441110 – New Car Dealers *(not sub-divided below the 5-digit code level)*

DEFINING THE SUSTAINABILITY CLUSTER

Using San Mateo County 2024 employment and wage data, as well as ten-year (2034) employment projections provided by Chmura Economics & Analytics' JobsEQ database, Hanover made custom clusters of 4-digit NAICS industries to represent each cluster. In consultation with SMCCD, we determined that the Sustainability focus area was poorly represented by both the existing NAICS taxonomy for industries and the Bureau of Labor Statistics Standard Occupational Classification (SOC) taxonomy for occupations. As a result, this report on the Sustainability cluster uses data from the past four years of local, state, and national job ads to evaluate demand for related academic programs.

The Federation of American Scientists noted in March of 2024 that "the federal government lacks reliable and comprehensive data on" the environmental sustainability sector. For instance, "many of the roles imagined by the American Climate Corps do not have classifications" and the lack of reliable data "poses a significant barrier for effective program and policy design related to green and tech jobs." An earlier federal effort to track "Green Jobs" ended in 2013 due to the budget sequestration and as a result "the BLS data may not capture the current and future trends and dynamics of the green and innovation economies, which are constantly evolving and growing."

The current industry and occupational classifications used by the BLS to define sustainability-related jobs "may not account for the variations and nuances of green jobs, such as their environmental impact, social value, and skill level." Even the 2013 attempt to classify these positions struggled to "reflect the cross-cutting and interdisciplinary nature of green jobs." For example, there is a construction classification for solar panel builders, "but nothing for community design, specialized finance, nor any complementary typographies needed for projects at scale," meaning that much of the work on such projects is not classified as sustainability-related.

UNDERSTANDING TRENDS IN SUSTAINABILITY DEMAND

CONTEXTUALIZING THE JOB AD DATA

In the absence of detailed, comprehensive data on the sustainability job market this report relies heavily on an analysis of online job ads to ascertain trends in employer demand and understand their implications for student demand. As shown in that analysis, the general trend is one of rapid growth, albeit with relatively low volumes of jobs that specifically request a certificate or degree in a sustainability-related field. The number of job ads with a sustainability component, but which do not explicitly request that candidates have a degree in the field, is likely to be higher. Given that the strongest key words for the topic—including "sustainability," "environment," and "conservation" and related terms—appear in job ad text unrelated to the topic, delineating a more broadly-defined sample than the one that focuses on degree fields is challenging. The resulting ad sample would likely capture too many false positive ads.

Research on green jobs suggests that the overall trends observed in the job ad analysis are accurate, with the share of LinkedIn job postings requesting sustainability-related skills rising from 7.3 percent in 2023 to 7.7 percent in 2024 (6). LinkedIn's 2024 *Global Green Skills Report* also suggests that workforce demand for sustainability-related skills is surging, and will likely continue to grow. Demand is forecast to be concentrated in the utilities industries, which accounted for 23.1 percent of job postings requiring green skills, followed by construction (20.6 percent of jobs), manufacturing (13.2 percent), and technology, information, and media, which has seen a 60 percent increase in requests for green skills as AI infrastructure build-outs intensify (6).

LinkedIn states that the fastest-growing green skills in the United States include building performance, responsible sourcing, environmental projects, environmental due diligence, and sustainable growth (9). However, younger workers continue to struggle with a lack of available job opportunities (cited by 63 percent of Gen Z survey respondents), lack of experience (45 percent), and lack of skills (40 percent) (12).

CORE STATISTICS – LINKEDIN GREEN JOBS

Infographic reproduces content from LinkedIn, 2024, 4.

11.6%	1 in 2	54.6%	15%
"Global demand for green talent grew twice as quickly as supply between 2023 and 2024—with demand increasing by 11.6% and supply by 5.6%."	"By 2030 — halfway to the deadline for fulfilling nationally determined contributions (NDCs) — one in five jobs will lack the green talent to fill it. By 2050, this gap will balloon to one in two jobs."	"Job seekers with green skills or titles see a 54.6% higher hiring rate than the workforce overall. In the US this rises to 80.3% higher, with Ireland 79.8% higher."	Globally, the fastest-growing green skill is Sustainable Procurement—which 15% more people added to their LinkedIn profiles in 2024 than 2023.

Data from the 2024 *U.S. Energy and Employment Report* supports the LinkedIn workforce observations and the growth trend identified by this report's analysis of job ad data. The USEER is "a comprehensive study designed to track and understand employment trends across the energy sector" and it found that:

> Spurred by the Biden-Harris Administration's record investments in climate, clean energy, and manufacturing, clean energy employment increased by 142,000 jobs in 2023, accounting for more than half of new energy sector jobs and growing at a rate more than twice as large as that for the rest of the energy sector and the U.S. economy overall.

The data indicate that California accounts for the second-highest number of energy-related jobs in the United States at 932,273, of which 545,207 (58.5 percent) are classified as clean energy jobs. Jobs in the energy sector include positions in electric power generation, energy efficiency, fuels, motor vehicles, and transmission, distribution, and usage.

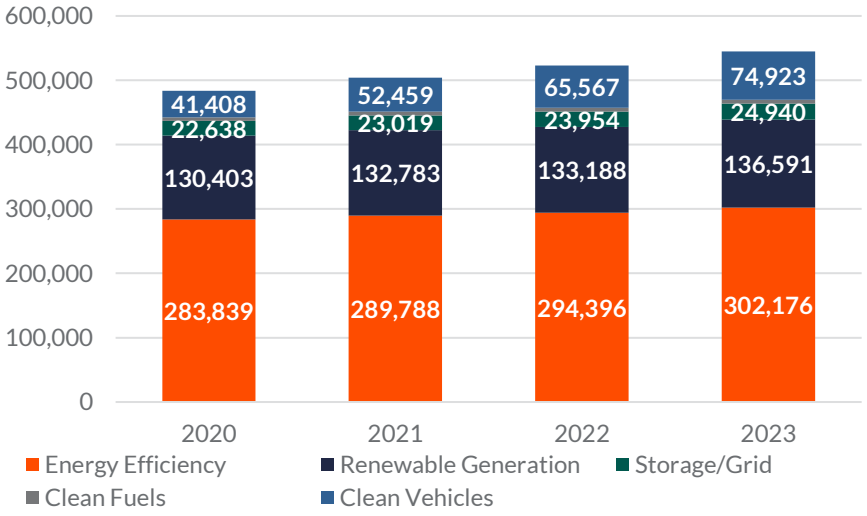
UNDERSTANDING TRENDS IN SUSTAINABILITY DEMAND

CALIFORNIA GREEN ENERGY JOBS

E2, which publishes annual reports on "Clean Jobs" in the United States and within specific states, writes in its 2024 California report that the state ranks first in the nation for clean energy jobs at 545,000, with 21,622 new jobs created in 2023 and a growth rate that is "over four times faster than the rest of California's economy." They divide clean energy jobs into five categories, as shown below. In 2023, San Mateo County accounted for 12,692 clean energy jobs, ranking 10th among California Counties. It had 8,451 energy efficiency, 2,316 renewable generation, 1,247 clean vehicles, 639 storage and grid modernization, and 39 clean fuels jobs. Its clean energy workforce grew by 2.10 percent, ranking below the state average rate, and 15.0 out of every 1,000 jobs were in the field, placing it at 12th among California counties.

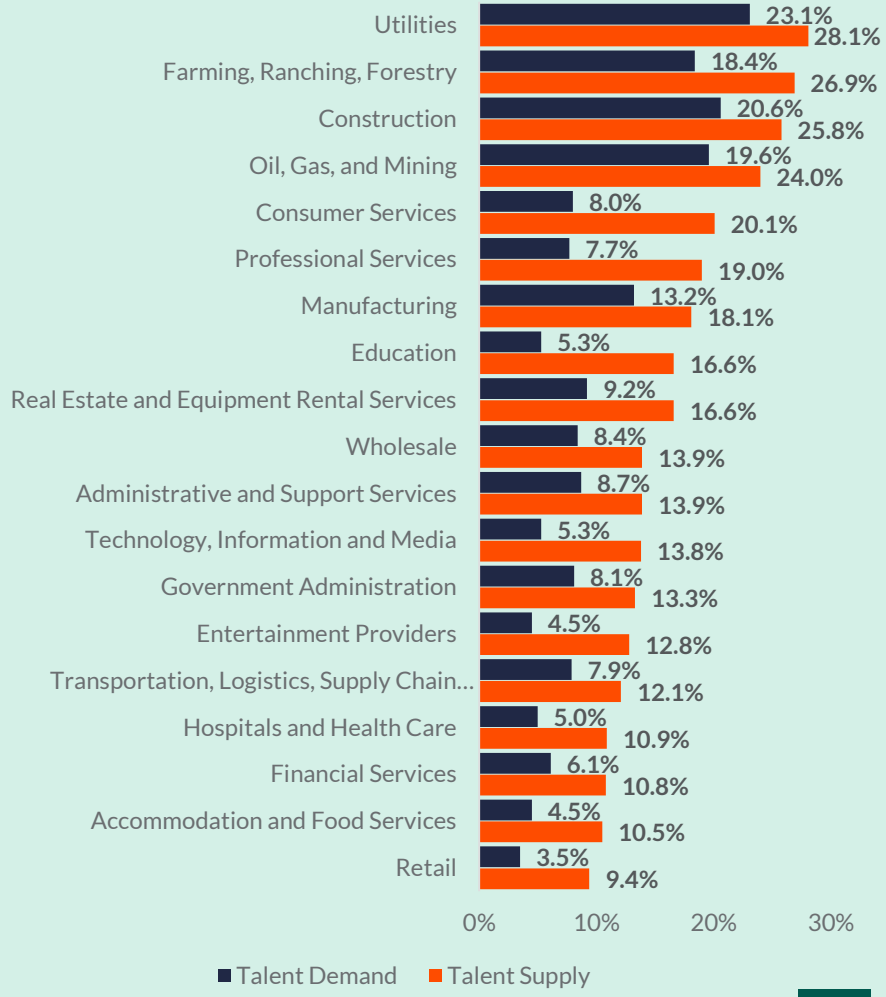
CALIFORNIA CLEAN ENERGY JOBS BY SECTOR

Table summarizes content from E2, 2024, 3.



WORKER SUPPLY AND DEMAND BY INDUSTRY – LINKEDIN GREEN JOBS

Infographic reproduces content from LinkedIn, 2024, 20-21.



I – INDUSTRY ANALYSIS – SUSTAINABILITY JOB ADS IN SAN MATEO COUNTY

This section presents an analysis focused on SMCCD's Sustainability priority area by comparing San Mateo County job ad trends in the field to California and national trends.

NATIONAL TRENDS IN SUSTAINABILITY-RELATED JOB ADS

METHODOLOGY AND DATA SOURCES

Chmura Economics & Analytics' JobsEQ database includes a tool called Real-Time Intelligence (RTI) that "provides live job posting data from over 45,000 sources…retrieved from a variety of sites, including job boards, job aggregators, and individual companies." The tool scrapes its source job boards daily and is designed to deduplicate ads so that ads for the same position that appear on different jobs boards appear only once in the sample. The graphs on the following page show these data as follows:

- The first graph displays the total number of job ads that are active, or accepting applications, each week from January 2021 to December 2024 in orange bars (top graph), as well as the four-year trend line in the number of weekly active job ads
- The second graph displays the number of weekly active job ads from the total sample in which the text of the ad requests one of the following sustainability-related degrees or credentials relating to the key words of "sustainability," "environmental," and "conservation":
    - Sustainability Management
    - Conservation Biology
    - Renewable Electrical Systems
    - Environmental Education
    - Environmental Engineering
    - Environmental Health
    - Environmental Interpretation
    - Environmental Management
    - Environmental Policy
    - Environmental Science

The graph shows the weekly job ad volumes as green bars, with a four-year trend line (green dashed) and the percent share of the total sample of job ads included in this subset of sustainability-related positions.

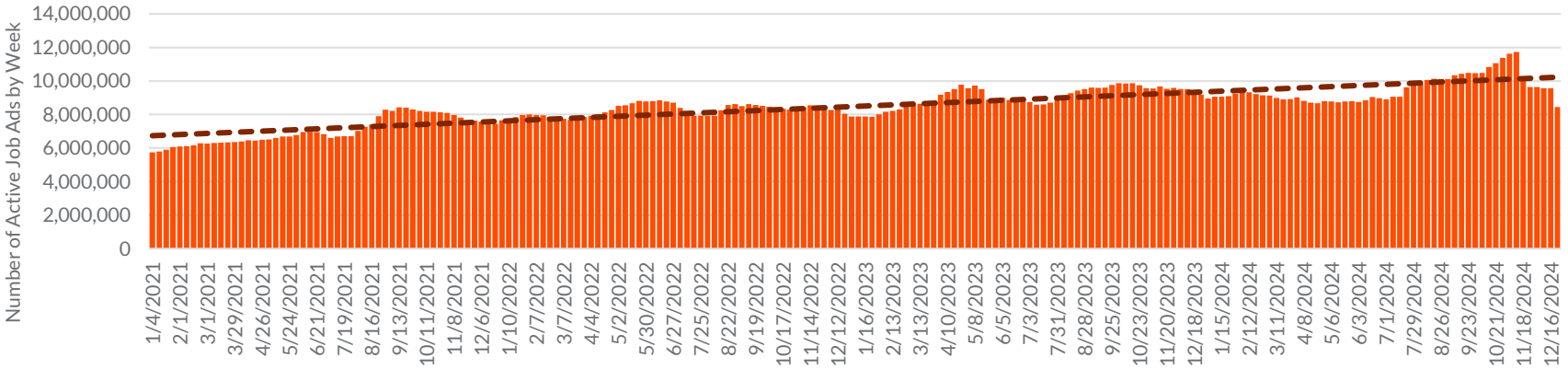
KEY FINDINGS – NATIONAL DEMAND FOR SUSTAINABILITY-RELATED CREDENTIALS

- **Sustainability-related employment demand has more than doubled as a share of the total national job ad sample, rising from 0.13 percent of all advertised positions in the week of 1/4/2021 to 0.29 percent in the week of 12/16/2024.** The increase has been steady and sustained and has also resulted in a rising number of positions. Between the first and last weeks of data, the number of de-duplicated job ads for sustainability positions rose from 7,252 to 24,569. It peaked at 30,174 the week of 11/4/2024, and the slight decline in ads since then has been mirrored in the size of the total job ad sample.
- **While still relatively small in terms of raw numbers and as a share of the national job ad sample, sustainability-related positions are a clear growth area within the economy.** The number of sustainability-related jobs advertised in the United States grew at an average weekly rate of 0.60 percent, which is slightly more than three times faster than the 0.19 percent weekly average growth of the job ad sample as a whole. If these trends continue, it is likely that sustainability-related roles will surpass one half of one percent of all job ads in the next few years.
- **Across the national job ad sample for 2024, 6,265 of 78,689 ads that specify a location were in California, which accounts for 8.0 percent of the annual sustainability jobs sample.** California employers are slightly underrepresented as posters of sustainability-related job ads. The state accounts for 8.7 percent of all job ads in 2024.
- **The job ads analyzed on the next page include only ads that explicitly referenced sustainability-related degree fields and should be viewed as an attempt to trace the growth trajectory of employers' interest in the target field, narrowly defined.** The actual size of the sustainability-related job market is likely to be larger, but by focusing on the most relevant subset of job postings this analysis seeks to measure core demand for these skills.

NATIONWIDE DEMAND FOR SUSTAINABILITY JOBS OVER TIME

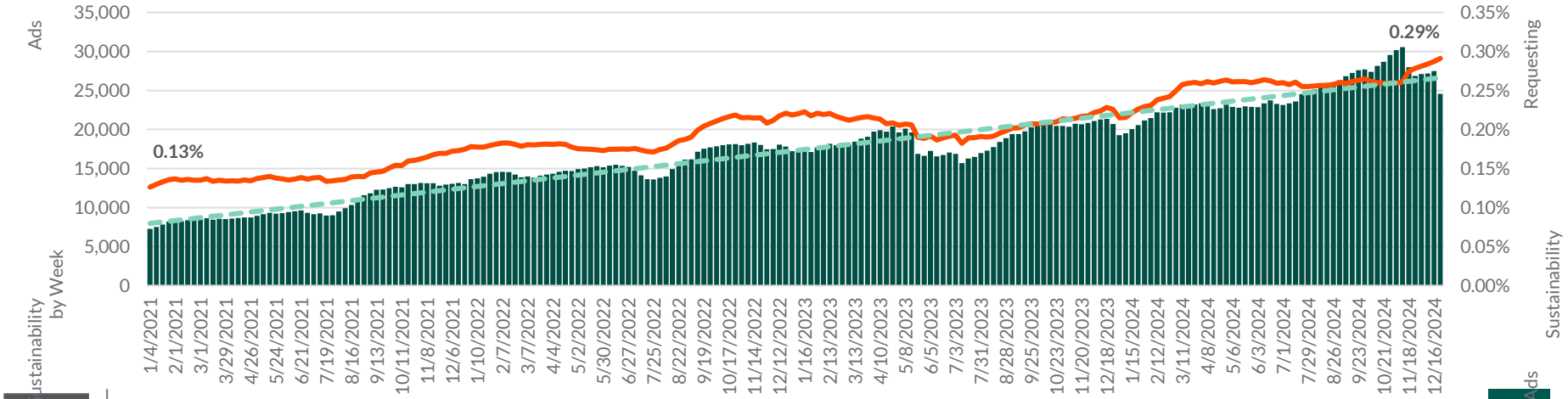
NUMBER OF ACTIVE JOB ADS BY WEEK – ALL ADS IN JOBSEQ SAMPLE, 2021 TO 2024

Data derives from the Chmura Economics & Analytics JobsEQ database's Real-Time Intelligence (RTI) database, which tracks the number of active job ads across tens of thousands of jobs boards nationwide. The dashed line shows the four-year trend.



NUMBER OF ACTIVE JOB ADS BY WEEK – ADS REQUESTING A SUSTAINABILITY DEGREE

Data derives from the Chmura Economics & Analytics JobsEQ database's Real-Time Intelligence (RTI) database, which tracks the number of active job ads across tens of thousands of jobs boards nationwide. The dashed line shows the four-year trend and the solid line shows the share of total job ads (above) that request sustainability-related majors.



STATE AND COUNTY TRENDS IN SUSTAINABILITY-RELATED JOB ADS

KEY FINDINGS – CALIFORNIA DEMAND FOR SUSTAINABILITY-RELATED CREDENTIALS

Hanover analyzed the sample of active job ads by week in California in total and for ads that request at least one of the sustainability-related degrees or certificates named above. Findings from that analysis include:

- **Sustainability-related job ads rose steadily from 0.17 percent of the total California sample in the first week of 2021 to 0.34 percent of the sample in the last week of 2024.** As at the national level, this increase was sustained and steady, and it suggests rising employer interest in sustainability-related postsecondary education offerings. The share of ads referencing sustainability degrees or certificates statewide is slightly higher than the 0.13 percent starting point and 0.29 percent end point for the national sample, which suggests that interest in sustainability is slightly higher in California than nationally.

- **The number of sustainability-related job ads in California rose at an average weekly rate of 0.51 percent, which aligns closely with the 0.60 percent increase nationwide.** This rate of growth substantially outperforms the growth in total ads within California. That number increased at an average weekly rate of 0.18 percent per week over the four years studied.

- **While the growth trends for sustainability-related job ads in California are impressive, the field remains a niche one with relatively low raw numbers of active job ads in any given week.** The total number of active (i.e., accepting applications) sustainability-related job ads in California ranged from 919 the week of 1/4/21 to 3,139 the week of 11/11/24. In comparison, the total numbers active job ads in the state during those weeks were 526,154 and 1,002,701, respectively.

KEY FINDINGS – SAN MATEO COUNTY DEMAND FOR SUSTAINABILITY-RELATED CREDENTIALS

As a final point of comparison, this report examined the sample of active job ads by week in San Mateo County in total and compared it to the sample of ads that request at least one of the sustainability-related degrees or certificates named above. Findings from that analysis include:

- **Sustainability-related job ads comprise a substantially smaller share of the San Mateo County job ad sample than the national and state prevalences examined above.** While there is an overall increase in the number of sustainability-related ads within the county and the smaller sample size of ads means the trend is subject to a higher degree of week-to-week variability, the prevailing impression is that degrees and certificates in sustainability fields are less commonly requested locally than would be expected based on the California and national numbers.

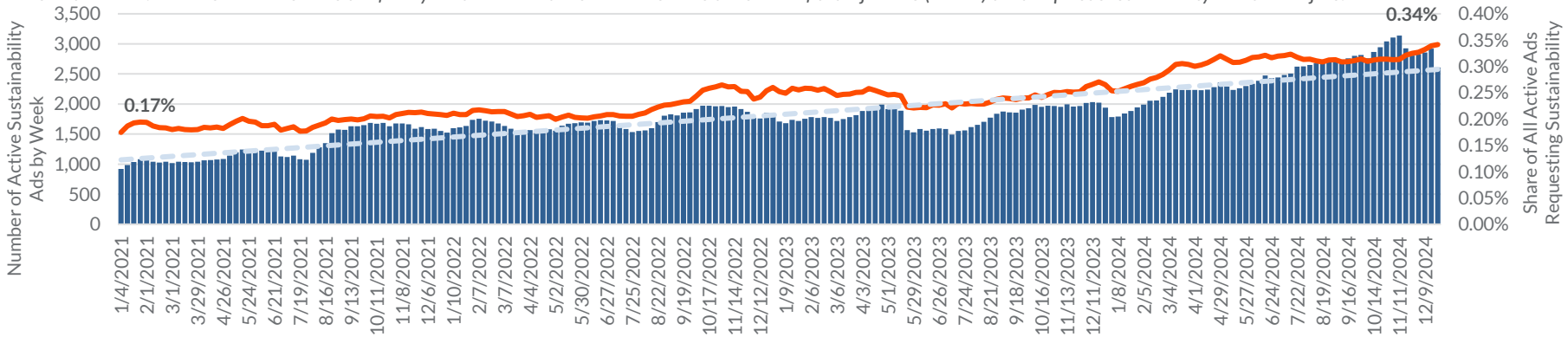
- **The share of all San Mateo County job ads that reference a sustainability-related credential ranges from 0.06 percent for several weeks in April of 2021 to 0.17 percent at various points in 2022, 2023, and 2024.** Note that the maximum share of sustainability ads achieved within the county's ad sample equals the statewide minimum for the same four-year period. The raw number of active job ads fluctuated from a low of 12 to a high of 44, and grew at an average weekly rate of 0.35 percent, which exceeds the 0.20 percent growth rate for all job ads.

- **As the national and San Mateo County job ad sample comparisons in the rest of this section demonstrate, the types of positions advertised within the county differ from the national mix of occupations and job titles.** In general, managerial, policy, and technology roles are more prominent locally, but field-based skills and occupations are less prevalent.

CALIFORNIA AND SAN MATEO COUNTY DEMAND OVER TIME

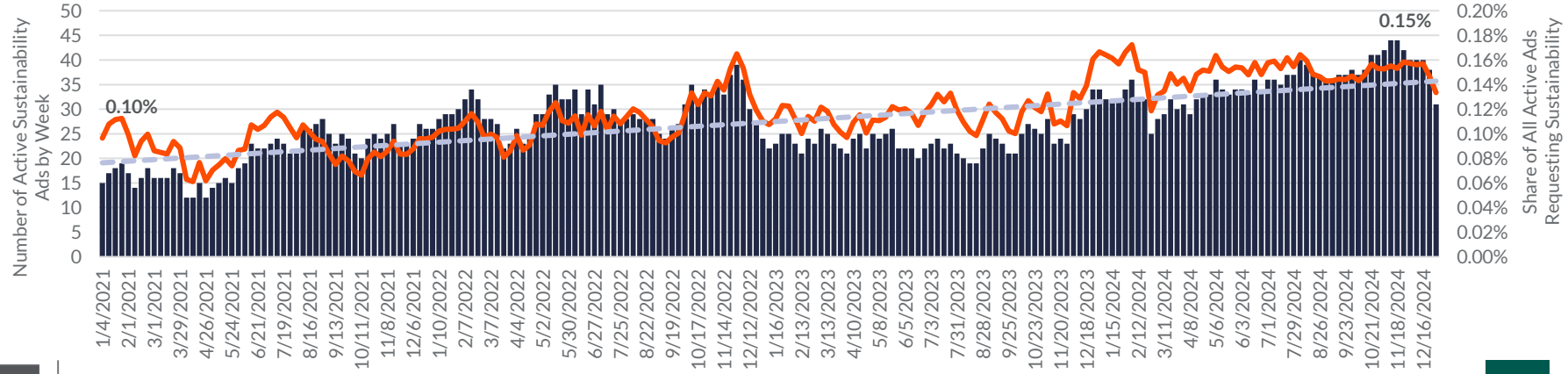
CALIFORNIA NUMBER OF ACTIVE JOB ADS BY WEEK – ADS REQUESTING A SUSTAINABILITY DEGREE

Data derives from the Chmura Economics & Analytics JobsEQ database's Real-Time Intelligence (RTI) database, which tracks the number of active job ads across tens of thousands of jobs boards nationwide. The dashed line shows the four-year trend and the solid line shows the share of total job ads (above) that request sustainability-related majors.



SAN MATEO COUNTY NUMBER OF ACTIVE JOB ADS BY WEEK – ADS REQUESTING A SUSTAINABILITY DEGREE

Data derives from the Chmura Economics & Analytics JobsEQ database's Real-Time Intelligence (RTI) database, which tracks the number of active job ads across tens of thousands of jobs boards nationwide. The dashed line shows the four-year trend and the solid line shows the share of total job ads (above) that request sustainability-related majors.



II – EMPLOYER NEEDS – SUSTAINABILITY JOB ADS IN SAN MATEO COUNTY

This section presents an analysis focused on SMCCD's Sustainability priority area with a focus on employer needs and workforce trends in San Mateo County job ads.

TOP OCCUPATIONS – SUSTAINABILITY-RELATED JOB ADS

TOP BLS-DESIGNATED OCCUPATIONS NATIONWIDE AND IN SAN MATEO COUNTY

Comparing the national distribution of occupations related to sustainability (left) with the top-25 occupations for San Mateo County (right) reveals that 15 of them overlap, and eight of the top-nine occupations in the county are also among the top-25 fields nationwide. San Mateo County job ads requesting a degree in a sustainability-related field tend to be more technology, policy, and business/operations-focused than the national sample, which has a higher share of ads requesting civil and environmental engineers, geoscientists, and environmental technician roles.

NATIONAL JOB AD OCCUPATIONS

Graph displays the top-25 BLS designated-occupations by job ad volume. Occupations are color coded in groups of five, with outlined bars denoting occupations that are in the top-25 nationally but not in San Mateo County.

SAN MATEO COUNTY JOB AD OCCUPATIONS

Graph displays the top-25 BLS designated-occupations by job ad volume. Occupations are color coded to match their rankings in the national graph. Bars outlined in light green denote locally-prominent occupations not in the top-25 by ad volume nationally.

Source: Data derive from the JobsEQ RTI tool and reflect all job postings requesting sustainability-related degrees in each geography in 2024. JobsEQ links job ads to BLS-designated occupations.

TOP JOB TITLES – SUSTAINABILITY-RELATED JOB ADS

TOP SUSTAINABILITY-RELATED JOB TITLES NATIONWIDE AND IN SAN MATEO COUNTY

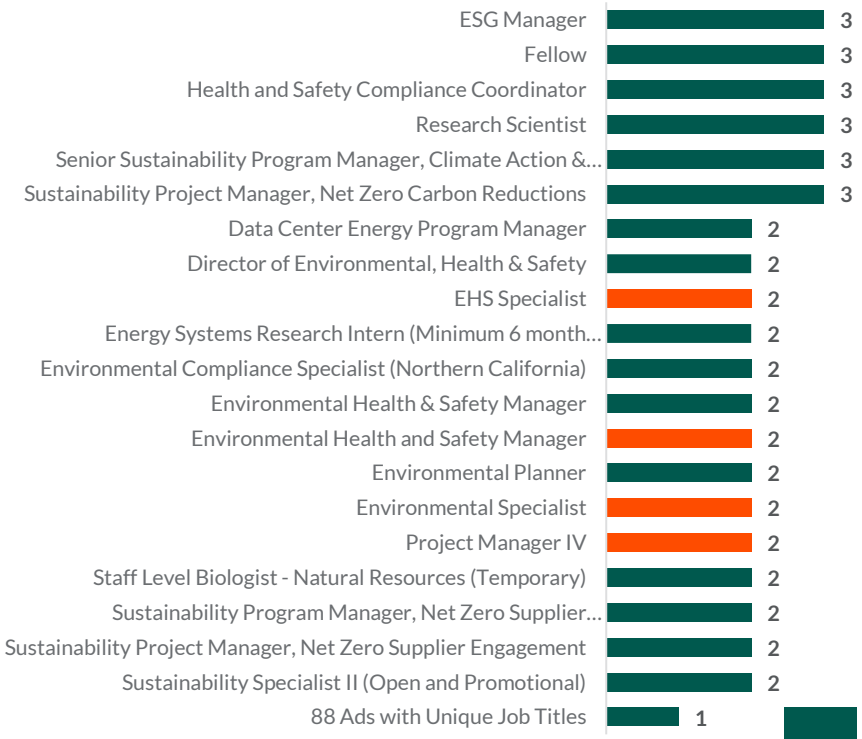
In keeping with the business and technology focus from the San Mateo County and national job ad occupation sample (above), the actual job titles also suggest that the San Mateo County sample emphasizes managerial roles, including investing (ESG) and sustainability program management positions. Technician roles, which are prominent nationally, are less common within the county, which is not surprising given the San Mateo County job market's focus on tech and managerial positions.

NATIONAL JOB AD JOB TITLES

Graph displays the top-20 job titles by job ad volume, each of which has more than 150 national examples in the 2024 sample. Titles are compiled verbatim by JobsEQ.

SAN MATEO COUNTY JOB AD JOB TITLES

Graph displays the top-20 job titles by job ad volume. Titles are compiled verbatim by JobsEQ. Titles that precisely match top-20 national job titles (shown at left) are shaded in orange.



Source: Data derive from the JobsEQ RTI tool and reflect all job postings requesting sustainability-related degrees in each geography in 2024.

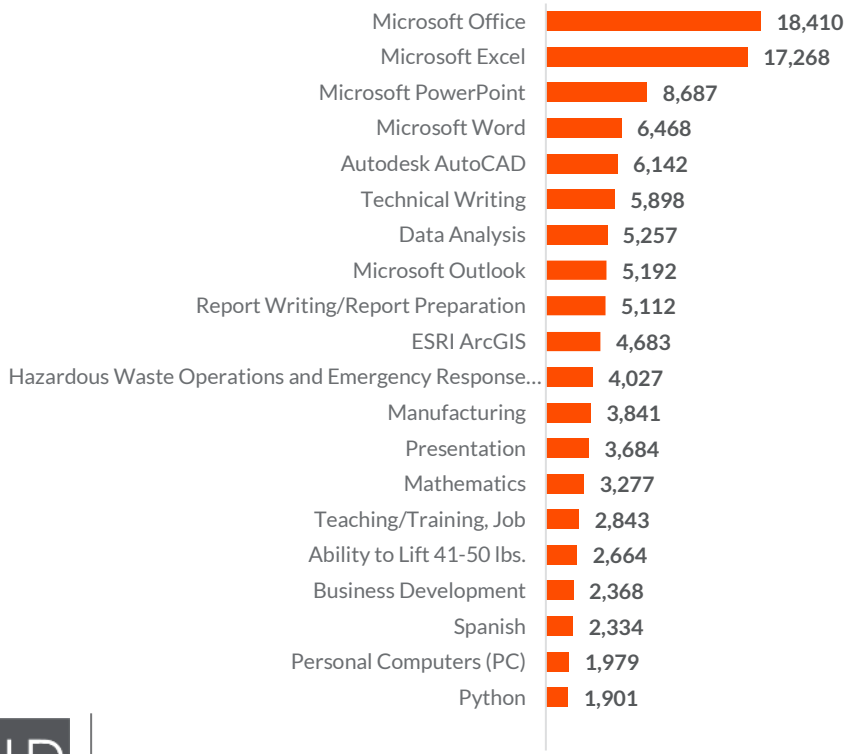
TOP HARD SKILLS – SUSTAINABILITY-RELATED JOB ADS

TOP SUSTAINABILITY-RELATED HARD SKILLS NATIONWIDE AND IN SAN MATEO COUNTY

Microsoft Office suite, data analysis skills, Spanish language facility, presentation skills, Python, manufacturing, and report writing are among the top-20 hard skills in San Mateo County and nationwide, but the San Mateo County sustainability job ad sample includes a stronger focus on data science skills such as Tableau, Microsoft Power BI, SQL, and Statistics. The San Mateo County job ad sample is less likely to include technical skills associated with applied sustainability-related roles such as AutoCAD, ArcGIS, and Hazardous Waste Operations and Emergency Response. Again, the sample shows substantial overlap with the national trends, but skews more heavily toward technology and management while de-emphasizing more niche technical skills.

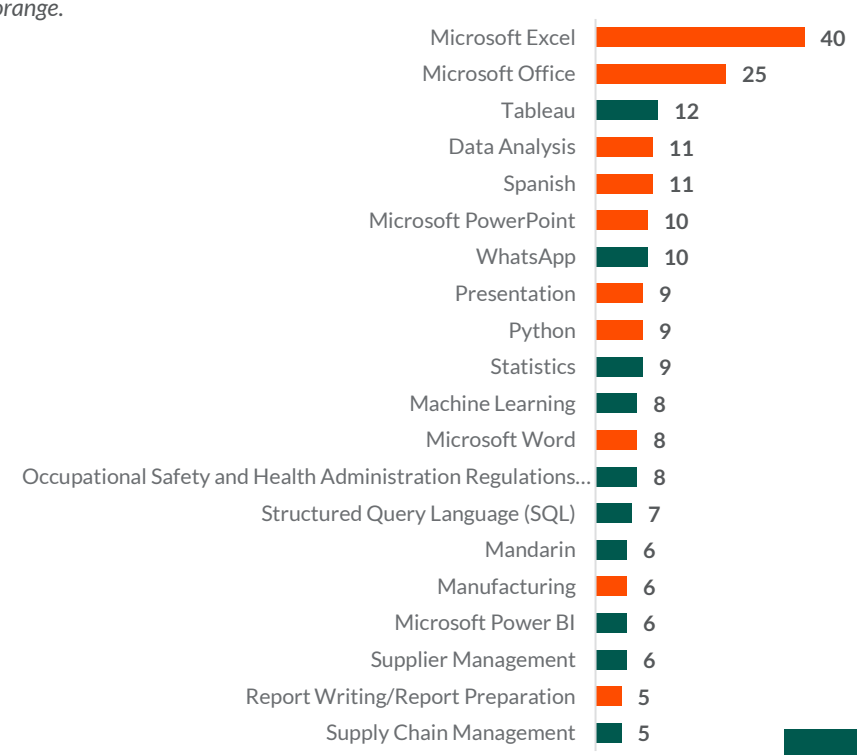
NATIONAL JOB AD HARD SKILLS

Graph displays the top-20 hard skills by job ad volume, each of which has more than 1,900 national examples in the 2024 sample. Skills are coded by JobsEQ.



SAN MATEO COUNTY JOB AD HARD SKILLS

Graph displays the top-20 hard skills by job ad volume. Skills are coded by JobsEQ. Hard skills that precisely match top-20 national hard skills (shown at left) are shaded in orange.



Source: Data derive from the JobsEQ RTI tool and reflect all job postings requesting sustainability-related degrees in each geography in 2024.

TOP SOFT SKILLS – SUSTAINABILITY-RELATED JOB ADS

TOP SUSTAINABILITY-RELATED SOFT SKILLS NATIONWIDE AND IN SAN MATEO COUNTY

Soft skills are much more widely-requested by both the national and San Mateo County job ad samples than hard skills, with clear overlaps across the two geographies, though it should be noted that the margin by which soft skills are requested over hard skills is smaller in San Mateo County, which suggests that hard and technical skills are slightly overrepresented in the local sustainability job market. Communication, teamwork, project management, and ability to work independently appear among the top-five skills in both case. Only five skills listed in the top-21 for San Mateo County are not among the top-21 nationally.

NATIONAL JOB AD SOFT SKILLS

Graph displays the top-21 soft skills by job ad volume, each of which has more than 5,000 national examples in the 2024 sample. Skills are coded by JobsEQ.

SAN MATEO COUNTY JOB AD SOFT SKILLS

Graph displays the top-21 soft skills by job ad volume. Skills are coded by JobsEQ. Soft skills that precisely match top-21 national soft skills (shown at left) are shaded in orange.

Source: Data derive from the JobsEQ RTI tool and reflect all job postings requesting sustainability-related degrees in each geography in 2024.

TOP CERTIFICATIONS – SUSTAINABILITY-RELATED JOB ADS

TOP SUSTAINABILITY-RELATED CERTIFICATIONS NATIONWIDE AND IN SAN MATEO COUNTY

Relatively few ads nationwide and in San Mateo County call for professional certifications, and many of the ones that are commonly-requested are specific to certain occupations such as Licensed Professional Engineer, Certified Professional Accountant, or Commercial Driver's License. Only 11 certifications are mentioned by the San Mateo County job ad sample once generic entries like a driver's license or CPR certification are removed. Among these, only two (shaded in green) do not appear among the top-

NATIONAL JOB AD CERTIFICATIONS

Graph displays the top-21 professional certifications by job ad volume, each of which has more than 200 national examples in the 2024 sample. Certifications are coded by JobsEQ.

SAN MATEO COUNTY JOB AD CERTIFICATIONS

Graph displays the entire sample of relevant certifications from San Mateo County job ads. Certifications are coded by JobsEQ. Certifications that precisely match top-21 national certifications (shown at left) are shaded in orange.

Source: Data derive from the JobsEQ RTI tool and reflect all job postings requesting sustainability-related degrees in each geography in 2024.

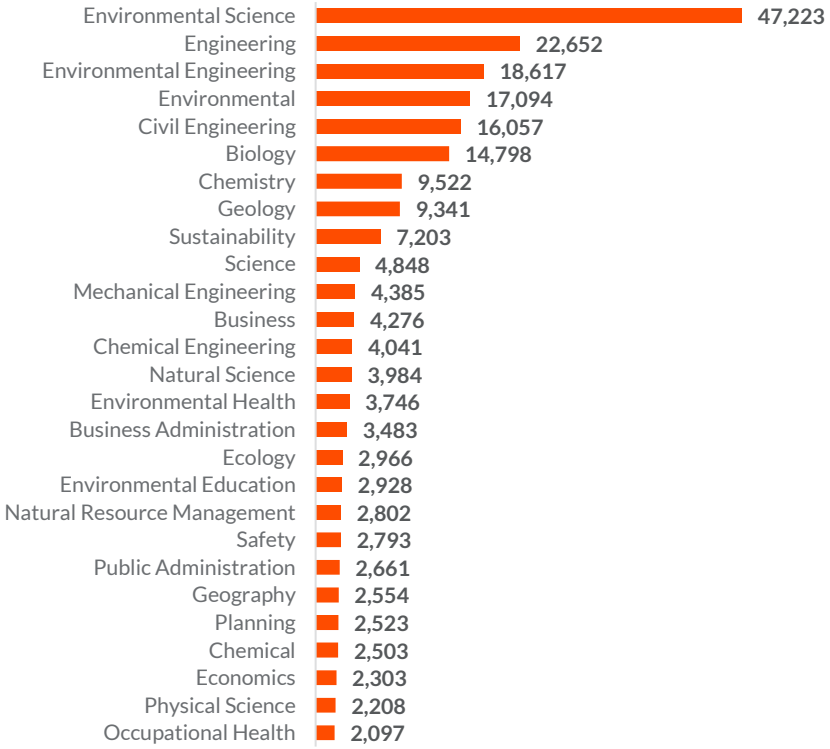
TOP DEGREE FIELDS – SUSTAINABILITY-RELATED JOB ADS

TOP SUSTAINABILITY-RELATED DEGREE FIELDS NATIONWIDE AND IN SAN MATEO COUNTY

The degree fields requested by the national and San Mateo County largely overlap, though some of the less-requested fields in the top San Mateo County list show a stronger emphasis on sustainability-related policy, management, and finance. In both cases the top degree fields by requested volume include environmental science and engineering.

NATIONAL JOB AD DEGREE FIELDS

Graph displays the top-27 degree fields by job ad volume, each of which has more than 2,000 national examples in the 2024 sample. Degree fields are coded by JobsEQ.



SAN MATEO COUNTY JOB AD DEGREE FIELDS

Graph displays the top-28 degree fields by job ad volume. Degree fields coded by JobsEQ. Programs of study that precisely match top-27 national degree fields (shown at left) are shaded in orange.

Source: Data derive from the JobsEQ RTI tool and reflect all job postings requesting sustainability-related degrees in each geography in 2024.

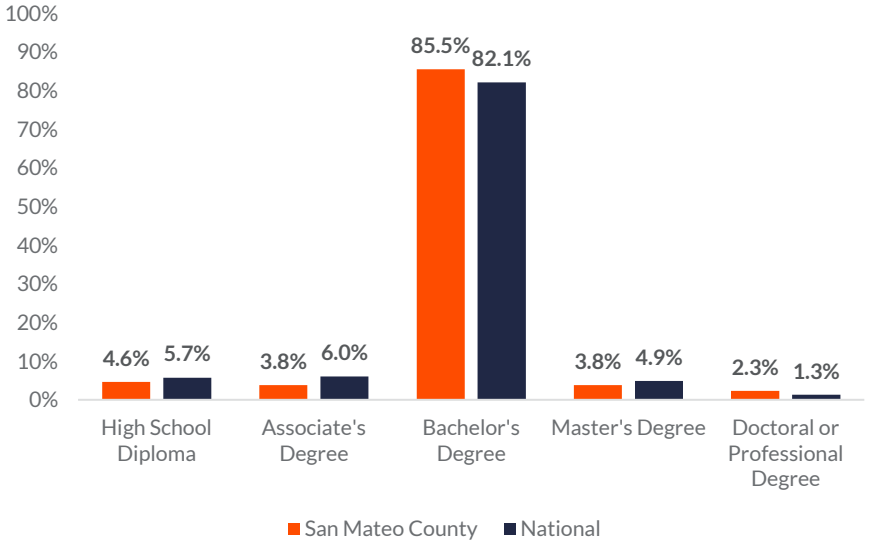
REQUESTED DEGREE LEVELS – SUSTAINABILITY-RELATED JOB ADS

COMPARISON OF NATIONAL AND SAN MATEO COUNTY JOB ADS BY DEGREE LEVEL(S) REQUESTED

The job ad samples were identified via the degrees that they requested, so it is not surprising that they overwhelmingly reference some level of postsecondary education; it is, however, notable that the bachelor's degree is overwhelmingly the requested credential. Demand for master's degrees and doctoral or professional degrees is very low, and associate's-level postings are also rare. This trend is consistent across geographies.

JOB AD DEGREE LEVEL COMPARISON

Graph displays the degree level(s) most-commonly-requested by the national and San Mateo County 2024 sustainability-related job ad samples. The subset of ads in each geographic sample that did not specify a degree level are excluded.

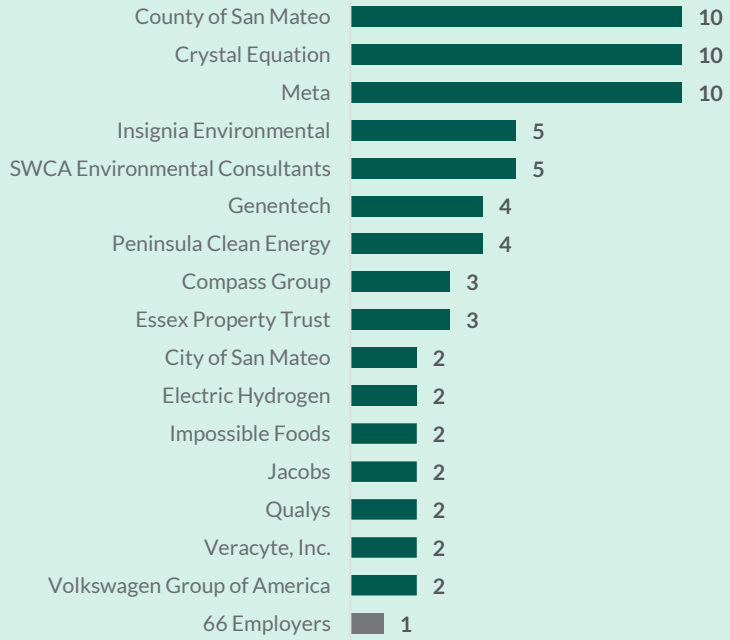


TOP SAN MATEO COUNTY EMPLOYERS

The San Mateo County employers with the highest volume of unique job ads requesting a postsecondary credential in a sustainability-related discipline are the County of San Mateo, Crystal Equation (an IT contract staffing and recruiting firm), and Meta. Palo Alto-based Insignia Environmental and international firm SWCA, both environmental consulting groups, commonly advertise positions within the county as well.

TOP EMPLOYERS BY JOB AD VOLUME

Graph displays every San Mateo County employer with more than one unique job ad calling for a sustainability-related degree in 2024.



III – COMPENSATION – SUSTAINABILITY JOB ADS IN SAN MATEO COUNTY

This section presents an analysis focused on SMCCD's Sustainability priority area with a focus on advertised compensation across San Mateo County, California, and national job postings requesting postsecondary education in sustainability-related fields.

SALARY ESTIMATES – SUSTAINABILITY-RELATED JOB ADS

REGIONAL SALARY COMPARISONS ACROSS SUSTAINABILITY OCCUPATIONS

Salaries for San Mateo County sustainability-related job ads almost universally outperform California and national values, which is to be expected given the high cost of living in the county. The median salary for the subset of sustainability job ads advertised by San Mateo County employers in 2024 was $112,800, compared to $82,800 in California and $65,500 nationwide. Salaries are highest relative to the statewide average for the Computer and Information Research Scientist roles (295 percent of the state median for the occupation) and lowest for Medical and Health Services Managers (77 percent of the state median). Note that the subset of ads listing a salary or salary range is often relatedly low, as shown in the Median Wage "n" column.

SAN MATEO COUNTY, CALIFORNIA, AND UNITED STATES AD VOLUMES AND ADVERTISED SALARIES

Graph displays all BLS designated-occupations by job ad volume, sorted from greatest to least by the San Mateo County values. Median wage data across all three geographies are heat mapped green (highest) to red (lowest). Job ad volumes are heat mapped dark blue (highest) to white (lowest) for each geography.

Occupation	San Mateo County			California			United States		
	Median Wage	Median Wage "n"	Active Job Ads	Median Wage	Median Wage "n"	Active Job Ads	Median Wage	Median Wage "n"	Active Job Ads
Occupational Health and Safety Specialists	$102,400	7	17	$82,800	160	511	$72,600	1,531	5,684
Management Analysts	$151,800	6	15	$87,000	74	272	$85,100	467	2,272
Business Operations Specialists, All Other	$115,800	6	9	$84,500	158	460	$71,700	1,218	3,635
Computer and Information Systems Managers	$161,700	3	7	$114,800	44	171	$110,600	226	1,361
Medical and Health Services Managers	$93,100	1	7	$120,500	114	258	$91,200	941	2,567
Architectural and Engineering Managers	$166,400	3	6	$119,700	187	602	$94,300	1,231	6,215
Medical Scientists, Except Epidemiologists	n/a	0	6	$69,700	16	68	$68,200	236	1,071
Social and Human Service Assistants	$80,000	1	6	$63,900	92	179	$50,700	1,043	2,093
Environmental Compliance Inspectors	$77,700	3	5	$83,400	22	61	$65,500	214	728
Zoologists and Wildlife Biologists	$56,800	4	5	$56,200	126	245	$56,200	498	1,190
Computer and Information Research Scientists	$213,300	4	4	$72,200	10	15	$52,000	33	191
Environmental Restoration Planners	$97,000	3	4	$82,700	136	383	$68,500	547	1,663
Sustainability Specialists	$116,000	1	3	$89,200	60	130	$70,000	299	1,150
Operations Research Analysts	$150,800	2	3	$85,300	20	61	$63,500	184	412

Source: Data derive from the JobsEQ RTI tool and reflect all job postings requesting sustainability-related degrees in each geography in 2024. JobsEQ links job ads to BLS-designated occupations.

SALARY ESTIMATES – SUSTAINABILITY-RELATED JOB ADS, CONT'D

REGIONAL SALARY COMPARISONS ACROSS SUSTAINABILITY OCCUPATIONS

The BLS-designated occupations shown below accounted for between one and three active job ads in San Mateo County in 2024, and except for Environmental Scientists and Specialists and Compliance Managers, the advertised wages for local positions exceeded the California median. Environmental Scientist roles appear to be less common in San Mateo County than they are in California or nationwide.

SAN MATEO COUNTY, CALIFORNIA, AND UNITED STATES AD VOLUMES AND ADVERTISED SALARIES

Graph displays all BLS designated-occupations by job ad volume, sorted from greatest to least by the San Mateo County values. Median wage data across all three geographies are heat mapped green (highest) to red (lowest). Job ad volumes are heat mapped dark blue (highest) to white (lowest) for each geography.

Occupation	San Mateo County			California			United States		
	Median Wage	Median Wage "n"	Active Job Ads	Median Wage	Median Wage "n"	Active Job Ads	Median Wage	Median Wage "n"	Active Job Ads
Environmental Scientists and Specialists, Including Health	$58,200	1	3	$71,500	176	490	$57,400	1,995	7,063
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	$116,500	1	3	$64,100	54	104	$53,900	192	472
Chief Sustainability Officers	$122,800	2	2	$121,000	16	47	$91,600	110	575
Compliance Managers	$82,000	1	2	$102,100	40	95	$85,600	205	1,059
Human Resources Specialists	$82,800	2	2	$80,600	100	208	$58,500	567	1,609
Health and Safety Engineers, Except Mining Safety Engineers and Inspectors	n/a	0	2	$93,600	41	112	$93,100	285	1,272
Range Managers	$131,800	1	2	$72,800	6	13	$51,400	47	108
Urban and Regional Planners	$113,200	2	2	$88,300	83	128	$67,800	386	648
Forest and Conservation Technicians	$71,200	2	2	$49,900	13	24	$42,800	263	437
Public Relations Specialists	$96,100	2	2	$82,100	25	47	$62,400	131	321
Water and Wastewater Treatment Plant and System Operators	$114,400	2	2	$86,800	36	64	$64,400	358	754
Public Relations Managers	n/a	0	1	n/a	0	5	$97,000	13	42
Quality Control Systems Managers	$112,800	1	1	$109,300	6	7	$87,900	24	75
Compliance Officers	n/a	0	1	$76,100	8	40	$63,500	77	563

Source: Data derive from the JobsEQ RTI tool and reflect all job postings requesting sustainability-related degrees in each geography in 2024. JobsEQ links job ads to BLS-designated occupations.

TOP BLS-DESIGNATED OCCUPATIONS NATIONWIDE AND IN SAN MATEO COUNTY

Environmental Engineer positions and Environmental Science and Protection Technician roles are relatively widely advertised in California and nationwide, but there was only one ad associated with each occupation in San Mateo County in 2024. As noted above, these trends suggest that managerial, policy, and technology-related roles in sustainability-related applications are disproportionately prevalent in San Mateo County, but that applied roles focusing on physical infrastructure or ecosystems are less common.

NATIONAL JOB AD OCCUPATIONS

Graph displays the top-25 BLS designated-occupations by job ad volume. Occupations are color coded in groups of five, with outlined bars denoting occupations that are in the top-25 nationally but not in San Mateo County.

Occupation	San Mateo County			California			United States		
	Median Wage	Median Wage "n"	Active Job Ads	Median Wage	Median Wage "n"	Active Job Ads	Median Wage	Median Wage "n"	Active Job Ads
Data Scientists	$123,000	1	1	$123,000	1	1	$123,000	9	29
Chemical Engineers	$88,500	1	1	$83,800	2	4	$80,900	6	31
Environmental Engineers	n/a	0	1	$94,900	102	345	$76,200	842	4,297
Conservation Scientists	n/a	0	1	$64,700	7	16	$54,600	125	213
Environmental Science and Protection Technicians, Including Health	n/a	0	1	$65,500	147	255	$52,000	1,271	2,951
Middle School Teachers, Except Special and Career/Technical Education	n/a	0	1	n/a	0	1	$56,400	17	29
Landscaping and Groundskeeping Workers	n/a	0	1	$66,100	6	11	$47,400	100	194
Recreation Workers	$45,800	1	1	$41,100	24	30	$38,200	206	368
Office Clerks, General	n/a	0	1	$41,600	15	24	$36,000	82	112

Source: Data derive from the JobsEQ RTI tool and reflect all job postings requesting sustainability-related degrees in each geography in 2024. JobsEQ links job ads to BLS-designated occupations.

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