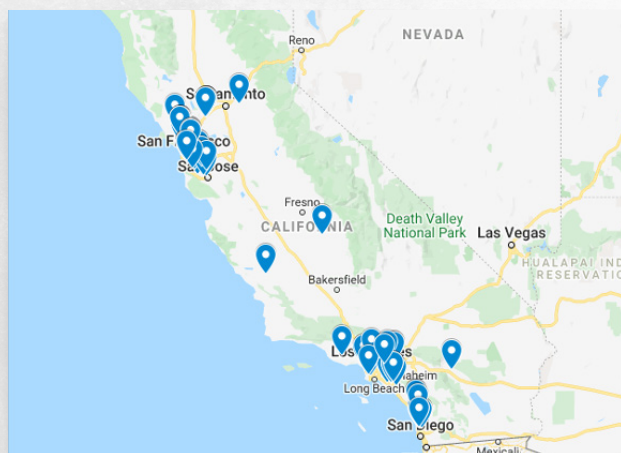


CONSTRUCTION PROJECTS CALIFORNIA

Major Projects (5M+) 2015-20



California Fact Sheet, 2015-20 Pharmaceutical & Biotech Mfg and R&D

Number of Major Projects
(\$5+ million)

107

Major Project Valuation
(Any major project active
between 2015 and 2020)

**\$5.68
billion**

Total Construction Spending
(Capital and maintenance
expenditure, 2015-20)

**\$7.38
billion**

Largest Construction Projects, Pharmaceutical and Biotech Manufacturing and R&D, 2015-20

Project Owner	City	State	Years	Project Value
Gilead Sciences Incorporated La Verne Grassroot Sterile Intravenous Therapeutics Plant	La Verne	CA	2015-17	\$500 million
Gilead Sciences Incorporated Foster City Ranolazine Phase 3 & Other Cardiovascular NB 324 R&D Bldg Addition	Foster City	CA	2016-20	\$300 million
Verily Life Sciences LLC South San Francisco Life Science Research Phase IV Building 3 Addition	South San Francisco	CA	2018-19	\$250 million
Boehringer Ingelheim BioXcellence CMO Fremont Mammalian Cell Culture Antibodies & Biosimilars CMO Reno/Equip Upgrade	Fremont	CA	2017-18	\$217 million
Gilead Sciences Incorporated Foster City Biopharmaceutical R&D Laboratory and Pilot Lab/Plant Addition	Foster City	CA	2013-15	\$200 million
Cytokinetics Incorporated South San Francisco Grassroot Cardiovascular & Neuromuscular R&D-With Fit-Out	South San Francisco	CA	2019-21	\$200 million
Genentech (Roche USA) Incorporated Oceanside Biopharmaceuticals P2 Downstream (Purification Suite) Upfit	Oceanside	CA	2015-17	\$180 million
Gilead Sciences Incorporated Foster City Biopharmaceutical R&D Campus Expansion Program	Foster City	CA	2018-20	\$170 million
Healthpeak Properties Incorporated San Diego Torrey Brownfield The Boardwalk Life Science Campus Addition	San Diego	CA	2020-22	\$164 million
Genentech (Roche USA) Incorporated Vacaville Cell Culture Plant CCP2 Debottlenecking, Validation & Commissioning	Vacaville	CA	2013-16	\$153 million

CONSTRUCTION EMPLOYMENT CALIFORNIA

Construction Labor Overview, 2015-20 Pharmaceutical & Biotech Mfg and R&D

14,928,082

Total Labor Hours

(14 trades; installation and maintenance)

5,655,387

Union Labor Hours (est.)

(State union % in non-residential = 37.9%)

\$198,843,393

Union Earnings (est.)

Industry Analysis: California

Pharmaceutical Manufacturing (2019) (NAICS = 325400)

Firms:
715

Employees:
46,457

Annual Wages:
\$7.25 billion

Data Sources

Pharmaceutical and biotech industry data (projects, spending, labor hours demanded) from Industrial Information Resources (IIR). State industry employment data from the Bureau of Labor Statistics (QCEW) using the North American Industry Classification System (NAICS). State union percent in non-residential construction calculated by dividing union members in construction (unionstats.com) by QCEW employment in non-residential construction firms in 2019 (assumes union density equals zero in residential construction). Note: Pharmaceutical manufacturing industry statistics (above) do not represent the entirety of the pharmaceutical and biotech industry featured in this study. Most significantly, in addition to NAICS 325400 ("Pharmaceutical Manufacturing"), other industry jobs comprise a subset of NAICS 541700 ("Scientific R&D Services"). Photo Credit: Google Earth.

California Construction Labor Hours by Trade, Pharmaceutical & Biotech Mfg and R&D, 2015-20

	Installation	Maintenance	Total
Boilermaker	130,990	52,646	183,637
Carpenter	557,629	428,812	986,442
Electrician	3,266,867	1,439,280	4,706,147
HVAC Installers	321,606	25,696	347,302
Instrumentation Tech	1,973,272	522,429	2,495,701
Insulator	290,914	126,309	417,223
Ironworker	284,075	413,952	698,028
Laborer	619,758	161,123	780,881
Millwright	452,416	475,514	927,931
Operator	713,871	121,214	835,085
Painting	103,109	119,515	222,624
Pipefitter	1,362,510	152,844	1,515,354
Scaffolding	236,203	83,215	319,418
Welder	201,483	290,828	492,311
Total	10,514,703	4,413,378	14,928,082