From Foundations to Frontiers: Chinese American Contributions to the Fabric of America

EXECUTIVE SUMMARY

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The Economist Intelligence Unit
Foreword
From Committee of 100

H. Roger Wang,
Chairman of Committee of 100

“This landmark study is dedicated to the countless millions of Chinese Americans who came in the past two centuries, adopted and made America their home, and gave their ingenuity, dedication, and lives to make this nation what it is today. Chinese American contributions in science, technology, healthcare, public service, and the arts have paved the way for the advancement of all Americans.”

Zhengyu Huang,
President of Committee of 100

“Like other immigrant communities, even after 175 years, Chinese Americans continue to face barriers to advancement in the form of systemic biases and entrenched stereotypes. America can only reach its full potential when all of its citizens are provided the means to reach their full potential. We hope this study will serve as the foundation for all Americans to come together to create a more just and equal society for all.”

About this project:
From Foundations to Frontiers: Chinese American Contributions to the Fabric of America is an Economist Intelligence Unit (EIU) report that has been commissioned by the Committee of 100. Built on unique data development, analysis and economic modeling, expert interviews and literature reviews conducted between May and September 2020, the report examines the multi-faceted Chinese American contributions to US society historically and presently. Alongside the synthesis report, The EIU has also developed a series of thematic reports, which are focused on seven domains where Chinese Americans have made outsized contributions. To explore the project’s insights in depth and learn more about the contributions of Chinese Americans, visit https://contributingacrossamerica.economist.com/
A fast growing, diverse community

With a history of immigration to the US stretching back over 170 years, Chinese migrants were among the first non-native people of color to arrive in the country. Since their first arrivals in the country, people of Chinese descent, alongside other immigrant groups, have played an important role in the building of the nation and the shaping of its economic, institutional and social fabric. Today there are approximately 3.9m American citizens of Chinese descent, and the population has grown by more than 30% since 2010 (Figure 1).

Chinese Americans form a diverse group, crossing every economic and social facet. They are present across all states in the US, ranging from first-generation immigrants to fifth- or sixth-generation descendants, and representing great socioeconomic diversity. While the majority of Chinese Americans aged older than 25 have a bachelor’s degree or above—compared with a third of general Americans in the same age cohort—20% of Chinese Americans aged five and older do not speak proficient English, double the share among Americans in general. Although the community overall has an income level above the national average, roughly one in ten households earns less than US$15,000 per year and 35% have incomes below the national median. They are also active across varied professional occupations and both the public and private sectors (Figure 2).

This diversity is a result of the community’s immigration and integration history, which has intertwined with legal and social evolution in American society as well as geopolitical shifts. The more welcoming the US has been to Chinese Americans, as with other immigrant groups, the more it has benefited from their presence.

**FIGURE 1** Population of Chinese Descent in the US, 1860-2018

Sources: The Economist Intelligence Unit analysis based on 1) U.S. Census Bureau, Historical Census Statistics on Population Totals by Race, 1790 to 1990, and by Hispanic Origin, 1970 to 1990, for the United States, Regions, Divisions, and States. 2) U.S. Census Bureau, The Asian Population: 2000. 3) U.S. Census Bureau, 2018 American Community Survey 2018 one-year estimates, public use microdata sample (PUMS). Note: 2000, 2010 and 2018 data include population who self-identified as ethnically Chinese, either exclusively or as part of a multi-ethnic identity. Prior to 2000, because the option to identify with more than one race/ethnicity was not provided in census questionnaires, the data might not fully capture those with multi-racial/ethnic descent.
Chinese Americans have diverse levels of educational attainment, although the majority of those aged older than 25 have a bachelor’s degree or above.

Most Chinese Americans aged five and older speak proficient English, but 20% regularly face language difficulties.

Although the community overall has an income level above the national average, one in 10 households earns less than US$15k per year and 35% have incomes below the national median.

Thanks to the diverse geographic origins of their ancestors and assimilation into American society, over one-fifth of Chinese Americans identify themselves with at least one ethnic descent other than Chinese.

Sources: US Census Bureau, 2018 American Community Survey 1-year estimates, public use microdata sample (PUMS); The Economist Intelligence Unit analysis. Due to rounding errors, some distribution percentages exceed 100.
Building an economic powerhouse

Chinese Americans have contributed extensively to the US economy, from building transport and agricultural infrastructure (Box 1) in the 19th century to helping the nation secure its leadership in the Space Race in the 20th century and the high-tech industries today. Their involvement in the US economy spans small businesses in essential services such as food and laundry, and in technical professions including medicine, education and engineering.

Overall, Chinese Americans make a significant economic contribution in terms of GDP generation, job creation and capital market growth (Figure 3):

- In 2019 they contributed over US$300bn to US GDP through consumer spending, supporting 3m jobs.
- There are over 160,000 Chinese American-owned businesses in the US, generating approximately US$240bn in revenue and supporting 1.3m jobs as of 2017.
- Fortune 500 companies founded by Chinese Americans have supported hundreds of thousands of jobs, and their market capitalization has reached as high as US$578bn, bringing significant value creation to public shareholders including retail investors and 401k pension accounts.

**BOX 1 Constructing critical infrastructure**

**Railway construction (1860s-1880s)**
From 1865 to 1869, as many as 20,000 Chinese workers were employed by the Central Pacific Railroad, making up 90% of the construction workforce. Building the western half of the project, Chinese workers held jobs including blacksmithing, carpentry, tunneling, leveling of roadbeds and laying tracks. Within just ten years of its completion, the railroad was shipping US$50m worth of freight from coast to coast every year (US$1.3bn in today’s dollars). After completing the first transcontinental railroad in 1869, Chinese workers fanned out across the country to work on at least 70 other rail lines. Today, freight railroads remain a mainstay of the US economy, moving nearly 40% of the nation’s goods each year and supporting 1.5m jobs.

**Agricultural development in California (1860s-1910s)**
When the first Chinese immigrants arrived during the Gold Rush, California relied on agriculture imports to meet the food demands of a fast-growing population. Drawing from their experience in controlling waterways and developing fertile farmland in inaccessible river valleys, Chinese immigrants were hired to reclaim swamplands in the Sacramento-San Joaquin Delta. By 1880, they had reclaimed 88,000 acres for agricultural use, a project that increased the land value from US$1-3 an acre to US$20-100 an acre. The work of Chinese immigrants is also credited with facilitating the establishment of the Californian wine industry. It is estimated that viticulture in California, which today produces 90% of all wine made in the US, would have been set back 30-50 years without the contribution of Chinese vineyard workers.
FIGURE 3  The economic contributions of Chinese Americans

CONSUMER SPENDING
Chinese Americans supported an estimated US$304bn of US GDP, 3m jobs, and US$175bn in labor income in 2019

$304bn contributed to US GDP  The size of Finland’s economy  3m jobs supported  The total labor force of Denmark

THE WORKFORCE
There are 2.3m Chinese Americans active in the workforce, accounting for 1.2% of total US employment—equivalent to their percentage in the total population. They are spread across various industries and occupations.

2.3m working Chinese Americans

ENTREPRENEURSHIP
There are over 160,000 Chinese American-owned businesses* in the US, which generate US$238bn in revenue and support 1.3m jobs, as of 2017.

~$240bn revenue  1.3m jobs supported

CAPITAL MARKET
Chinese Americans founded or served as a C-suite executive in 20 companies in the Fortune 500 in 2011-20, the total market cap of which amount to US$1.4tn as of June 2020.

~$1.4tn total market cap  10% Market cap of NASDAQ  20 Fortune 500 companies


*Not including non-employer businesses, i.e. businesses that have no paid employment and payroll, potentially including businesses established by non-American citizens.
Strengthening American institutions

Chinese Americans have come to play a greater role in public and institutional life. Under the Chinese Exclusion Act of 1882, Chinese immigrants were prohibited from becoming citizens and hence denied the right to vote, giving them no political power to contest unfair treatment. Instead, they turned to the legal system to fight discriminatory immigration and citizenship laws. Their pursuit of civil rights and judicial justice in the 1800s established many landmark legal precedents (Box 2) that would significantly shape American democracy.

As their political rights have strengthened, Chinese Americans have also played a more active role in civil service and political activities. Between 2009 and 2018, Chinese Americans’ employment in public administration grew by 68%, outpacing the growth of the Chinese American population and of the public administration workforce as a whole.2 Chinese Americans have also played an important and under-reported role in US national defense, from military enrollment to scientific and professional contributions to defense and security agencies. One out of every five Chinese American men served in the US Armed Forces in World War II, some earning decorations for bravery and service.3 As outer space becomes a geopolitical hotspot, one in 25 aerospace engineers in the US is Chinese American, and one in 20 aerospace engineers in the aerospace manufacturing industry is Chinese American.4

**BOX 2  The early generation seeking judicial justice**

**Yick Wo versus Hopkins (1886)**
Yick Wo was a laundry facility owned by Lee Yick, a Chinese immigrant in California. Mr Lee sued for a writ of habeas corpus after he was imprisoned for refusing to pay a fine for allegedly violating an ordinance that was discriminatory to Chinese-owned laundries. In 1886, the Supreme Court ruled in favor of Yick Wo, ruling that it was unconstitutional to discriminate against a group of people in the passage or enforcement of legislation. The case was the first in a long series of cases to use the “equal protection” clause of the Fourteenth Amendment, and the decision opened the doors for immigrant integration into US society and established an important precedent for subsequent related cases. By the 1950s, the Supreme Court had used the principle established in Yick Wo to strike down several attempts by states and municipalities in the Deep South to limit the political rights of Black Americans. To date, the Yick Wo case has been cited over 150 times in civil rights proceedings since the original decision.

**United States versus Wong Kim Ark (1898)**
Wong Kim Ark, a San Francisco-born Chinese American, was barred from entering the US upon returning from China in 1894, on the grounds that he was not a US citizen under the Chinese Exclusion Act. Eventually, the Supreme Court ruled in favor of Mr Wong, stating that children born in the US to non-citizen parents are automatically granted citizenship under the Fourteenth Amendment to the Constitution. The decision established birthright citizenship—one of the cornerstones of American identity—having an untold impact on immigrant families of all backgrounds and ethnicities, including the many generations of Americans descended from English, Scotch, Irish, German and other European immigrants.
Enriching the social and cultural fabric

Chinese Americans are an influential force within US society and culture. Alongside Americans of every race, gender and background, Chinese American artists and creatives have utilized their talents and influence to enrich American culture in many ways, from helping to shape a common national identity in times of war and crisis to cultivating social and political change. Their contributions range from popular dishes in the national cuisine to creative works in architecture, photography, cinema and fashion, gathering more mainstream prominence in recent decades. One in 25 chefs and head cooks in the US is Chinese American. By 2016, there were 45,000 Chinese restaurants in operation in the US, greater than the combined number of McDonald’s, KFC, Pizza Hut, Taco Bell and Wendy’s branches. In addition, one in 20 fashion designers and 1 in 30 architects in the US are Chinese American.

Chinese Americans have also helped to forge social support structures through active involvement in non-profits, volunteering and philanthropy, as well as making important contributions to public health and social well-being. Since March 2020 more than 690 Chinese American grassroots organizations have raised over US$18m and delivered millions of items of personal protective equipment (PPE) and meals to hospitals, nursing homes, police departments and other agencies in the fight against the COVID-19 pandemic. A major workforce for healthcare and medical research, Chinese Americans have played a significant role in strengthening the US health system, including during the COVID-19 pandemic. Today, one-tenth of working Chinese Americans are employed in healthcare and health-support occupations. The majority are healthcare practitioners, with outsized contributions as physicians, surgeons, optometrists, pharmacists and dentists (Figure 4). Roughly one in 20 of people working across these occupations is Chinese American.

**FIGURE 4** Chinese Americans working in healthcare, 2018

<table>
<thead>
<tr>
<th>Breakdown of healthcare practitioners</th>
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<tbody>
<tr>
<td>Physicians (31.8%)</td>
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<tr>
<td>Registered nurses (26.0%)</td>
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<tr>
<td>Therapists (6.9%)</td>
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<tr>
<td>Dentists (6.3%)</td>
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<tr>
<td>Other (16.3%)</td>
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<tr>
<td>Pharmacists (12.4%)</td>
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</tbody>
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Sources: US Census Bureau, American Community Survey 2018 1-year estimates, PUMS; The Economist Intelligence Unit analysis.
To unleash untapped potential

Continuing—and evolving—barriers restrict Chinese American participation in US society, resulting in lost opportunities for the country as a whole. Decades of anti-racist jurisprudence, including the efforts of Chinese immigrants, has countered and, to some extent, neutralized, systemic discrimination in the form of legislation and bureaucratic oppression. However, considerable challenges remain, including anti-Chinese sentiment linked to US-China geopolitical tensions and the COVID-19 pandemic, under-representation in executive corporate positions, below-average voter turnout despite a fast-growing population of eligible voters, and lasting poverty and limited economic advancement among many Chinese Americans. Tackling these barriers—through productive dialogue and engagement on these issues, identifying shared interests, challenging assumptions with data and evidence, and designing and implementing solutions—would unleash untapped economic, political and creative potential among Chinese Americans, which, in turn, would benefit the nation as a whole.

1 As of 2018, approximately 5.3m people in the US self-identify as ethnically Chinese, either exclusively or as part of a multi-ethnic identity; 75% (3.9m) are American citizens. Unless otherwise indicated, the designation 'Chinese American' throughout this report refers to the latter group: American citizens of ethnically Chinese descent.

2 US Census Bureau, 2018 American Community Survey 1-year estimates, PUMS; The Economist Intelligence Unit analysis.


4 US Census Bureau, 2018 American Community Survey 1-year and 5-year estimates, PUMS; The Economist Intelligence Unit analysis.


7 US Census Bureau, 2018 American Community Survey 1-year estimates, PUMS; The Economist Intelligence Unit analysis.


9 US Census Bureau, 2018 American Community Survey 1-year estimates, PUMS; The Economist Intelligence Unit analysis.