

Economic and tax impacts of SDSU's Mission Valley Project

Prepared for the benefit of San Diego State University

July 2019



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Executive Summary

The purpose of this report is to estimate the potential economic and tax contributions of a proposed plan to develop the SDSU Mission Valley Campus Master Plan project at the SDCCU Stadium site (formerly known as Qualcomm Stadium) in San Diego, California. This report summarizes EY's analysis of the potential project's contributions to City of San Diego tax revenue, employment, labor income, and output in San Diego County using information provided by San Diego State University (SDSU), the 2016 IMPLAN economic model of San Diego County, and other publicly-available information and economic data sources. IMPLAN is used by more than 500 universities and government agencies. Unlike other economic models, IMPLAN includes the interaction of over 530 industry sectors, thus identifying the interaction of specific industries that relate to components of the SDSU Mission Valley Campus Master Plan project.

Key findings:

EY's analysis finds the following:

- ▶ Total economic contributions of the SDSU Mission Valley Camps Master Plan proposal during construction, which could take up to 15 years, include \$4.6 billion in total economic output, nearly 29,000 one-year jobs supported, and \$29.2 million in tax revenue for the City of San Diego.
- ▶ Once construction is complete, EY estimates that the SDSU Mission Valley Campus Master Plan proposed development will directly support a maximum annual total of approximately 7,800 jobs onsite, will indirectly result in approximately 4,320 jobs and will induce approximately 5,120 jobs for a total of approximately 17,240 jobs and will generate annual labor income of \$1.2 billion for California residents plus nearly \$1.9 billion annually of regional gross state product and \$3.1 billion of economic output. This includes the most conservative scenario of enrollment growth at the campus (6,000 new students by 2033).
- ▶ EY estimates that the additional tax revenue for the City of San Diego associated with annual operations would be \$21.9 million annually (2018 dollars), including property (on possessory interest), sales and transit occupancy taxes.
- ▶ Overall, the development would generate approximately \$26.1 million in local property taxes on possessory interest to benefit the City of San Diego, County of San Diego, San Diego Unified School District, County schools, San Diego Community College District and other education and public entities.
- ▶ While not quantified in this analysis, the SDSU proposal presents other benefits. The SDSU proposal includes approximately 84.5 acres of open space, including roughly 70 acres of community parks. SDSU's planned programming includes educational and research space with the potential to improve the region's human and intellectual capital with resulting impacts on productivity. While none of these benefits are quantified, they all present positive impacts that contribute value to the local region in excess of the economic and tax impacts presented in this analysis.

SDSU land development proposal at Mission Valley site

San Diego State University was founded in 1897 and today educates 36,000 students enrolled in its bachelor’s, master’s, and doctoral programs. In 2017, the university spent nearly \$700 million on its operations and another \$127 million on construction and capital expenditures. Many (61%) of SDSU’s graduates remain in the San Diego region with an estimated 240,000 current alumni in San Diego and Imperial Counties.¹ Land-locked in its current location, the University is looking for expansion opportunities. The “SDSU West Campus Research Center, Stadium and River Park Initiative” (SDSU West) was submitted to the City of San Diego by an independent group called “Friends of SDSU” and approved by voters in November 2018. The new municipal code directs the City of San Diego to negotiate a sale of 132 acres of real property at 9449 Friars Road, between Interstate 15 and Interstate 8 (formerly Qualcomm Stadium Site) to SDSU. SDSU has developed a land plan for the stadium site that will be released for environmental review in 2019 and referred to in this report as “SDSU Mission Valley.”

The SDSU Mission Valley Campus Master Plan would include development of housing, research and innovation space, hotel, stadium, and retail, along with parks and public space. The purpose of the SDSU Mission Valley Campus Master Plan is to support the university’s long-term expansion goals to grow its educational, research, entrepreneurial and technology transfer programs. SDSU has stated that the SDSU Mission Valley Campus Master Plan is crucial to the University’s future enrollment growth and would enhance the university’s economic impact in the region. As such, the proposed project would provide housing for upper-division and graduate-level students, faculty, and staff, as well as provide work-force and affordable and market rate housing. The research and innovation campus space would be designed for a research and innovation hub connecting industry partners and university academics and researchers. The space would create an incubator-type environment and provide modern facilities for researchers. The retail portion would be neighborhood retail next to public transit that includes a mix of restaurants, consumer-focused businesses, and a grocery store. The multiuse stadium in the SDSU plan would seat 35,000 spectators and would house the Aztec football games, and could accommodate professional soccer and other sporting and community events. The SDSU proposal calls for creating 84.5 acres of open space and more than four miles of hiking and bike trails, which includes 70 acres of community parks and a San Diego River park.²

Table ES.1 project components, SDSU proposal to develop Mission Valley Site

Component	SDSU
Stadium (seats)	35,000
Housing (units)	4,600
Retail (sq. footage)	95,000
Hotels (rooms)	400
Hotels (condos)	70
Research and innovation campus space (sq. footage)	1.6 million
Parkland/open space (acres)	84.5 acres

Source: SDSU Mission Valley public release

¹ ICF, “SDSU Economic Impact Analysis”, October 2017.

² See SDSU Mission Valley at <http://advancement.sdsu.edu/missionValley/www/index.html>.

Economic contributions of SDSU Mission Valley

The SDSU Mission Valley Campus Master Plan project would generate economic benefits for San Diego County. Table ES-2 shows the estimated contributions to the San Diego County economy due to the planned development. During the construction period, EY estimates total benefits during the construction period would be more than 28,700 one-year jobs, labor income (wages plus benefits) of nearly \$1.6 billion, contributions to GDP of \$2.5 billion, and economic output of nearly \$4.6 billion. EY estimates the City of San Diego would receive \$29.2 million in new tax revenue (2018 dollars) related to activity during the construction period.

Table ES.2 Economic contributions of SDSU Mission Valley during construction and operational periods, San Diego County

Total (direct, indirect, and induced) impacts shown; Actual employment, dollar amounts in millions; 2018 dollars

	Construction period (2018-2033)	Annual operations (post construction)
Employment	28,783	17,241
Labor Income	\$1,586.6	\$1,232.0
Value Added	\$2,459.7	\$1,859.5
Output	\$4,614.1	\$3,092.8
City of San Diego tax revenue	\$29.2	\$21.9

Source: EY analysis using 2016 IMPLAN model of San Diego County

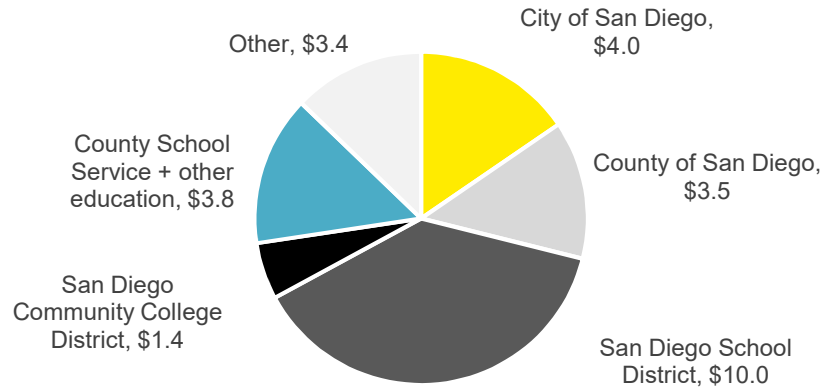
The on-going economic impacts associated with the SDSU Mission Valley Campus Master Plan development are shown in Table ES-2. As shown in the table, once fully operational, these components are projected to contribute annually 17,241 jobs throughout San Diego County, including approximately 7,800 jobs within the project site and 9,440 indirect and induced jobs offsite, \$1.2 billion in labor income, nearly \$1.9 billion in contributions to regional gross state product, and \$3.1 billion in economic output assuming a conservative scenario related to growth in student enrollment. EY estimates that the additional tax revenue for the City of San Diego associated with the annual operations would be \$21.9 million annually (2018 dollars). Additionally, the additional capacity of SDSU due to the campus expansion may result in additional local alumni and higher overall educational attainment in the local area, with corresponding increases in local wages and tax revenues. However, these impacts are not included in the current estimates.

Tax contributions of SDSU Mission Valley

The SDSU Mission Valley Campus Master Plan development would generate property tax revenue for the City of San Diego. The university would engage in long-term leases of the property to private developers to build and operate project components. Throughout the duration of the long-term lease, the site would generate property tax revenue for the City of San Diego on taxable possessory interest. Over time, SDSU would move into and occupy more of the research and innovation campus space as enrollment grows. Figure ES-1 shows the distribution of \$26.1 million in annual local property taxes assuming 80% taxable possessory interest which was assessed at

\$2.2 billion in 2018 dollars. The City of San Diego would receive \$4.0 million in annual property taxes during operations.

Figure ES-1. Composition of \$26.1 million of local property taxes due to SDSU Mission Valley
Amounts in millions; 2018 dollars; Assumes 80% taxable possessory interest



Source: EY analysis using D.F. Davis Real Estate Inc., "Appraisal Report: Qualcomm Stadium Property," Date of Valuation: March 2, 2017; San Diego county tax rate information reported in the City of San Diego *Comprehensive Annual Financial Report*. *Note: amounts do not sum due to rounding*

Once operational, several uses of the development would generate tax revenue for the City of San Diego in the form of retail sales taxes and hotel occupancy taxes. As shown in the table below, EY estimates the City of San Diego would receive \$2.3 million annually (in 2018 dollars) from the transient occupancy tax (10.5% tax rate on room revenue) and the tourism marketing district assessment (2.0% tax rate on room revenue). Taxable food and beverage sales at the hotels would generate an additional \$64,000 in annual sales tax revenue as the City of San Diego receives 1% of the taxable purchase. Retail sales, which include taxable food, beverage, and other purchases, would generate \$290,000 in annual sales taxes while stadium sales would generate an estimated \$156,000 in sales tax revenue for the City of San Diego.

Table ES.3 Estimates of hotel occupancy taxes and retail sales taxes generated annually by components of the SDSU Mission Valley project
Amounts in millions; 2018 dollars

	City of San Diego tax revenue
Hotel occupancy taxes	\$2.3
Hotel sales taxes	\$0.1
Neighborhood retail sales taxes	\$0.3
Stadium sales taxes on food, beverage, and merchandise	\$0.2
Total annual tax revenue – occupancy and sales taxes	\$2.8

Note: Hotel occupancy taxes includes the San Diego transient occupancy tax and the tourism marketing district assessment; amounts do not sum due to rounding
 Source: EY analysis using information provided by SDSU, 2016 HOST Report, D.F. Davis Appraisal Report, 2017

1. Mission Valley Project Components

The purpose of SDSU Mission Valley Campus Master Plan is to support the university's long-term expansion goals to grow the university's educational, research, entrepreneurial and technology transfer programs. As such, the proposed project would provide housing for upper-division and graduate-level students, faculty, and staff, as well as provide work-force, affordable and market rate housing. The research and innovation campus space would be designed for a research and innovation hub connecting industry partners and university academics and researchers. It would create an incubator-type environment and provide modern technology for researchers. The retail portion would be neighborhood retail of local color next to public transit that includes a mix of restaurants, consumer-focused businesses, and a grocery store. A multi-use stadium would seat 35,000 and house Aztec football games, but would also accommodate other sporting and community events. The SDSU Mission Valley land development plan calls for a significant amount of parks and green space, creating 84.5 acres of open space and more than four miles of hiking and bike trails. The plan would also develop 70 acres of community parks including a San Diego River park.³

Table 1 summarizes the project components of SDSU Mission Valley proposal.

- ▶ 1.6 million square feet of research and innovation campus space to accommodate campus growth, research, and entrepreneurial activities. The space will be shared between private companies and SDSU academics, researchers, and students to collaborate and innovate.
- ▶ 95,000 square foot retail space for neighborhood-focused retail uses, restaurants and a grocery store.
- ▶ 4,600 housing units, a portion of which would be occupied by upper division and graduate students, faculty and staff.
- ▶ Plans for a conference hotel to accommodate campus visitors and to provide academic and internship opportunities to students in its Hospitality and Tourism Management program.
- ▶ A 35,000-seat, multiuse stadium to house its NCAA Division I football team, a professional soccer team and other events.
- ▶ 84.5 acres of park and open space including a community river park, open space and hiking trails.

³ See SDSU Mission Valley at <http://advancement.sdsu.edu/missionValley/www/index.html>.

Table 1. SDSU Mission Valley Project Components

Component	SDSU Mission Valley
Type of development	University-focused mixed use
Stadium (seats)	35,000
Housing (units)	4,600
Retail (sq. footage)	95,000
Hotels (rooms)	400
Hotels (condos)	70
Research and innovation campus space (sq. footage)	1.6 million
Parkland/open space (acres)	84.5 acres

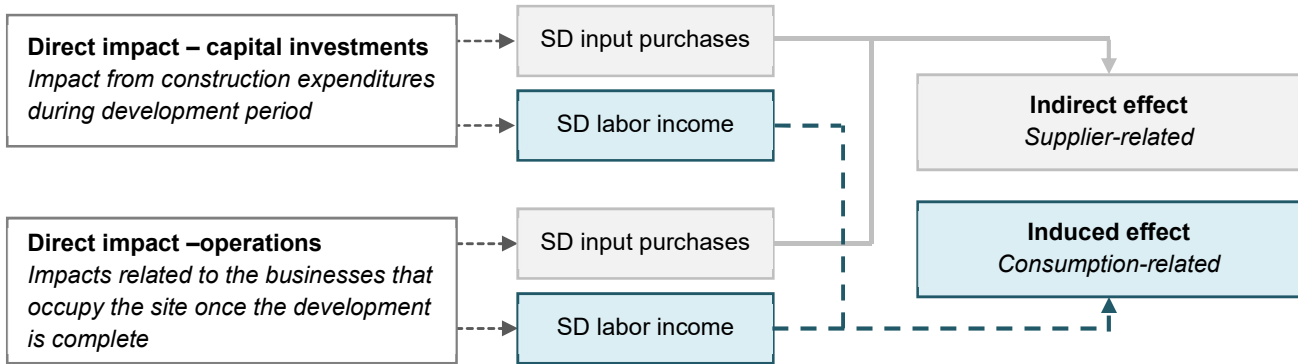
2. Economic impact estimation methodology

This analysis examines the economic and tax revenue impacts of the proposed SDSU Mission Valley Campus Master Plan, but does not include estimates of the public sector costs that would be incurred by state and local governments as a result of increased population and business activity related to the development. These impacts were omitted because they are often site-specific and imprecise to estimate. Additionally, an assumption of future increases of SDSU alumni and their associated impacts, including career earnings and giving levels is not estimated by EY but has instead been analyzed by ICF using the IMPLAN model.

The economic contribution of SDSU’s Mission Valley project has three components, which are described below and shown in Figure 1.

- ▶ **Direct contribution.** The direct contribution includes the total full-time and part-time employees, labor income (including the value of benefits), economic output, and value-added associated with the construction expenditures to build the project and subsequent operation of businesses on the site.
- ▶ **Indirect contribution.** The indirect economic contribution is attributable to purchases from suppliers within San Diego County. The indirect contribution also captures the additional input purchases from local suppliers by the suppliers. These additional purchases create subsequent rounds of indirect effects.
- ▶ **Induced contribution.** The induced contribution includes the spending by construction employees or employees that work at businesses at the Mission Valley site, and the employees of suppliers at local businesses, including grocery stores, restaurants, and service providers.

Figure 1. Overview of the components of economic contributions for the SDSU Mission Valley development



This analysis uses an input-output model to estimate the economic contributions of the SDSU Mission Valley Campus Master Plan project’s planned capital investments and subsequent operations in San Diego County. The regional economic multipliers in this study were estimated using the 2016 IMPLAN input-output model of San Diego County. IMPLAN is used by more than 500 universities and government agencies. Unlike other economic models, IMPLAN includes the interaction of over 530 industry sectors, thus identifying the interaction of specific industries related to the SDSU Mission Valley Master Plan project, including construction industries for commercial spaces and the operations of retail, restaurants, office space, and campus/research space.

Total contributions presented in this report include direct, indirect, and induced effects. Direct effects include employment and spending directly related to development of the site or the businesses that occupy space once complete. Indirect effects are attributable to input purchases from San Diego County suppliers. Induced effects are attributable to spending by employees, based on regional household spending patterns for different levels of income.

Indirect and induced effects are driven by (1) input purchases; (2) the percentage of each type of commodity that is purchased from within San Diego County; and (3) household consumption profiles for employees. The implied multipliers for the indirect and induced activity are shown in Table 2.

Table 2. Estimated total multipliers for San Diego County during construction period

	Residential property	Commercial property
Employment	1.86	1.48
Labor income	1.73	1.42
Value added	1.88	1.56
Output	1.72	1.54

Source: EY analysis using the 2016 IMPLAN model of San Diego County.

3. Property Tax Contributions

The SDSU proposal would generate property tax revenue for the City of San Diego, the County, and Schools. It is our understanding that SDSU, a public entity, would purchase the land at the SDCCU Stadium site and enter into long-term leasing agreements with private developers to build each project component, exclusive of the stadium. Private use of the property would generate property taxes on the taxable possessory interest.⁴ Table 3 shows an estimate of potential annual local property taxes in 2018 dollars using reasonable assumptions for assessed value of land and improvements for the taxable possessory interest. Development of the site is assumed to require a 15-year period.

SDSU Mission Valley Campus property taxes

Table 3 shows the potential annual property taxes generated by SDSU Mission Valley under the following conditions:

- ▶ **Assessed value of land** is based on an appraisal report prepared by D.F. Davis Real Estate, Inc. (“Davis Report”).⁵ The third-party appraisal was prepared for the City of San Diego on behalf of the Real Estate Assets and Public Utilities Departments for internal purposes. It is noted that the purpose of the appraisal was to provide an estimate of “as-is” market value only; although the appraisal includes finished and entitled land value estimates, these estimates were developed as part of the “as-is” market valuation. EY neither performed a review of the appraisal under the Uniform Standards of Professional Appraisal Practice (USPAP), nor assessed the reasonableness of the appraisal. According to the Davis Report, the estimated fair market value (the price at which the property, if exposed for sale in the open market, would transfer to a purchaser) of the fee simple interest of the SDCCU site in its current state, assuming a reasonable highest and best use of the property is nearly \$83 million (which includes a main portion appraised at \$73.8 million and a mitigation portion appraised at \$9 million).⁶ We have used the fair market value of the main portion as the base year of the assessed value (2017) and then increased the assessed value by 2% (the maximum allowable rate for property value reassessment under California’s Proposition 13) to 2018.
- ▶ **Assessed value of improvements (buildings, structures, fixtures and fences erected on the land)** was estimated using planned construction costs to build the new buildings. SDSU provided an estimate of planned construction expenditures to develop the buildings, parks, and infrastructure of the Mission Valley development. Assessed value for newly constructed property is assessed at its current market value as of the date of its completion.⁷ A common method of valuation for new property is the cost approach,

⁴ See California Board of Equalization at: <http://www.boe.ca.gov/proptaxes/pdf/ah510.pdf>.

⁵ D.F. Davis Real Estate Inc., “Appraisal Report of Qualcomm Property Stadium Property,” Appraised for City of San Diego, Date of valuation: March 2, 2017.

⁶ See California Board of Equalization, Title 18, Chapter 1, Subchapter 1, Rule 2. This rule states that when valuing real property as the result of a change in ownership the full cash value of the property is what is paid. See: <http://www.boe.ca.gov/lawguides/property/archive/2012/rule/2.html>.

⁷ See California Board of Equalization, Revenue and Taxation Code, Chapter 3. New Construction, Section 71.

although there are certain types of improvements to the property, such as certain off-site infrastructure improvements or demolition of existing structures that should not be counted when valuing the property under the cost approach.⁸ EY excluded certain costs based on information provided by SDSU. EY did not perform an independent assessment of the reasonableness of the construction costs.

The property taxes associated with an estimate of assessed value in 2018 of the SDSU Mission Valley property is shown in Table 3. The tax estimate assumes that land is valued at the initial purchase price (market value of the Davis Report appraisal in 2017 and increased by 2%), and site improvements of \$183 million that become part of the land assessed value when ownership changes due to the long-term leases of developers and the valuation that occurs as taxable possessory interest is determined.

Estimated property taxes in 2018 dollars are shown in Table 3 assuming 20% of the total market value is for stadium and other uses not treated as possessory interests (and hence exempt from property taxation) and 80% of the value is subject to tax on the private possessory interest. The assessed value of land for the SDSU Mission Valley Campus Master Plan project is estimated to be \$258.4 million in 2018, with improvements adding nearly \$2.6 billion in assessed value for the SDSU proposal. The current local property tax rate, which includes county, city, school, and other components, is 1.17% for San Diego residents. Under these conditions, and if the site were 100% private use, the site would generate \$33.1 million in local property tax revenue under the SDSU proposal, of which the City of San Diego would receive \$5.1 million. It is anticipated that the share of the residential and research and innovation campus space used by SDSU will grow over time as enrollment grows, with tax impacts that vary with the share of SDSU use. The amounts shown in Table 3 assume taxable possessory interest at 80% of the development, which generates \$26.1 million in local property taxes, of which \$4.0 million annually would go to the City of San Diego.

Table 3. Projected property taxes on finished property, SDSU Mission Valley
2018 dollars in millions; once development is complete,
assuming taxable possessory interest for SDSU Mission Valley at 80%

	Amount
Purchase price and site development	\$203.7
Increase in assessed value due to development	\$2,025.5
Total assessed value, 2018	\$2,229.2
Total local tax rate (applicable to San Diego)	1.17%
City of San Diego tax rate	0.18%
Total local property taxes - all taxing districts	\$26.1
Total local property taxes - City of San Diego only	\$4.0

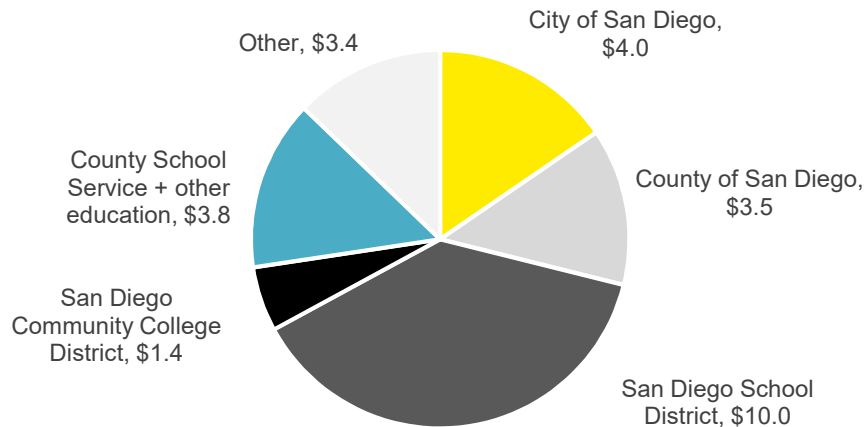
*Fair Market Value is based on third-party appraisal from D.F. Davis Real Estate Inc.
 Note: construction costs are assumed to be inflated.
 Source: EY analysis using information provided by SDSU and D.F. Davis Real Estate Inc.,
 "Appraisal Report: Qualcomm Stadium Property," Date of Valuation: March 2, 2017.

⁸ See California State Board of Equalization, Assessor's Handbook Section 410.

The distribution of local property taxes, based on the assessed valuation shown in Table 3, is shown in the figure below assuming an 80% taxable possessory interest of the SDSU proposal. The City of San Diego would receive an estimated \$4.0 million if the taxable possessory interest in 2018 were assessed at \$2.2 billion. The largest share of local property taxes, 38%, would go to the San Diego School District. The County would receive 13%, or \$3.5 million, in tax revenue.

Figure 1. Composition of \$26.1 million annual local property taxes from SDSU’s planned Mission Valley development

Amounts in millions; 2018 dollars; Assumes 80% taxable possessory interest



Source: EY analysis using San Diego county tax rate information reported in the City of San Diego *Comprehensive Annual Financial Report*

4. Sales and Occupancy Taxes

Components of the SDSU Mission Valley development would generate additional tax revenue annually for local and state governments. This section discusses occupancy and retail sales taxes generated by the proposed development.

Hotel sales and occupancy taxes

Hotel occupancy taxes were estimated using data from several sources:

- ▶ Hotel data presented in the Appraisal Report on average daily rate (ADR) and occupancy rate for hotels in the San Diego area in 2018 was used to calculate the room revenue based on the number of rooms in the SDSU Mission Valley Campus Master Plan. Transient occupancy taxes (TOT) and tourism marketing district (TMD) assessments were then calculated from the estimated room revenue.
- ▶ The 2016 HOST Almanac report on the share of revenues provided by room and food and beverage sales by different types of hotels was used to estimate food and beverage sales for the two hotels included in the SDSU plan. An assumption around the taxability of these

sales was selected using a California Board of Equalization report.⁹ Finally, state and local sales tax rates were applied to estimated taxable sales.

The results of EY's analysis are shown in Table 4. TOT and TMD on more than \$18.7 million of annual room revenue would generate \$2.3 million for the City of San Diego annually. Food and beverage sales would generate more than half a million dollars in retail state and local sales taxes. The City of San Diego would realize approximately \$65,000 in additional sales tax revenue due to food and beverage sales at the hotels.

Table 4. Estimated annual occupancy and sales taxes due to hotels included in the SDSU Mission Valley development proposal
2018 dollars

	Hotel 1: Full Service	Hotel 2: Limited Service	Total
Revenues			
Number of rooms	250	150	400
Occupancy rate - 2018 forecast	77.3%	73.7%	
Average Daily Rate (ADR) - 2018 forecast	\$202.80	\$109.13	
<i>Subtotal: Room revenue</i>	\$14,304,752	\$4,403,477	\$18,708,229
Tax rate (TOT and TMD)	12.50%	12.50%	12.5%
Total: Occupancy taxes (2018 dollars)	\$1,788,094	\$550,435	\$2,338,529
Food and Beverage Sales			
Food	\$3,943,833	\$18,177	\$3,962,011
Other Food & Beverage	\$1,314,611	\$9,089	\$1,323,700
Beverage	\$1,203,203	\$4,544	\$1,207,748
Taxable food and beverage	95%	95%	
Sales tax rate - state and local	8.00%	8.00%	
Sales taxes – all	\$516,932	\$2,418	\$519,349
Sales tax rate - City of San Diego	1.0%	1.0%	1.0%
Sales taxes - City of San Diego	\$64,616	\$302	\$64,919
Total occupancy and sales taxes, City of San Diego	\$1,852,710	\$550,737	\$2,403,447

Note: Hotel rooms only (no condos included) as the assumption is that the rental period for condos will be longer than one month. 2018 forecasts for ADR and occupancy rates provided in 2017 report.

Source: EY Analysis using D.F. Davis Real Estate Inc, "Appraisal Report: Qualcomm Stadium Property" March 2, 2017; 2016 HOST report; STR, 2016 HOST Almanac report

Sales taxes from retail portion

The retail portion of the SDSU Mission Valley Campus Master Plan project would provide annual sales tax revenue for the City of San Diego. In order to estimate potential sales tax revenue, EY assumed a certain retail mix and then used sales per square foot from the 2012 US Economic

⁹ See California Board of Equalization, Dining and Beverage Industry, Publication 22, June 2017.

Census data to estimate sales. Finally, a taxable percentage assumption and sales tax rates were applied to estimate the \$2.3 million in annual state and local sales tax revenue shown in Table 5.

Table 5. Estimated annual sales from retail portion of SDSU Mission Valley project
2018 dollars

	Value
Retail Mix	
Grocery	12,000
Personal care services (e.g. bank, dry cleaning)	23,750
Convenience stores	950
Restaurants/bars	58,300
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<i>Retail square footage</i>	<i>95,000</i>
Estimates sales per sq. foot	
Grocery	\$623
Personal care services	\$369
Convenience stores	\$455
Restaurants/bars	\$298
Total Sales	
Grocery	\$7,477,678
Personal care services	\$8,771,642
Convenience stores	\$432,297
Restaurants/bars	\$17,354,094
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<i>Total Sales</i>	<i>\$34,035,710</i>
Taxable sales	85%
Sales tax rate	
Sales tax rate - state and local	8.00%
<i>City of San Diego only</i>	<i>1.00%</i>
Estimates of annual sales taxes	
All state and local	\$2,314,428
City of San Diego only	\$289,304

Source: EY Analysis using information on retail component from SDSU; 2012 Economic Census data for California

A few notes on the assumptions used in this analysis:

- ▶ The retail mix shown above can be changed based on what type of tenants are planned for the space. SDSU has stated that it envisions a 12,000 square foot grocery store as part of the plan, as well as a mix of restaurants, bars and other community amenities.

- ▶ Certain items sold by retailers would not be subject to tax. The analysis assumes that 85% of sales will be taxable.¹⁰

Stadium retail taxes from food sales

The City of San Diego portion of retail sales taxes due to the sales of food, beverages, and other merchandise at SDSU home football games and other community events is estimated to be \$156,000 annually, based on \$15.7 million in projected taxable sales at football games and other events. Taxable expenditures were nearly \$10 per person at last year's SDSU football games. Based on other event data, we have assumed \$20 per person expenditures at other events. Stadium attendance was provided by SDSU.¹¹

5. SDSU Mission Valley economic impacts during construction

SDSU provided a schedule and estimated expenditures to develop the buildings, infrastructure, and parks in the SDSU Mission Valley proposal. These expenditures would occur over a period of time, up to 15 years, which we have labeled the "construction period". The economic benefits of capital expenditures are estimated after subtracting land and financing costs, which do not generate local economic impacts.

Expenditures for development of the project site support employment, income, economic output, and new tax revenue in San Diego County. EY estimated three types of economic contributions during the construction period in San Diego County:

- (1) **Direct economic contributions** of employment, labor income, output, and taxes by construction-related businesses and workers.
- (2) **Indirect economic contributions** of employment, labor income, output, and taxes resulting from purchases from local suppliers in the County for the construction.
- (3) **Induced economic contributions** of employment, labor income, output, and taxes resulting from spending by employees at the construction and supplier companies.

As explained in Section 2, indirect and induced economic contributions were estimated using the 2016 IMPLAN economic model for San Diego County. The magnitude of the economic contributions of the construction expenditures are determined by several factors, including supplier relationships with businesses in the region. This impact can be expressed as an "economic multiplier," which is equal to the total economic impact per unit of direct impact.

Table 6 shows the estimated employment, income, contributions to regional GDP (value-added) and economic output contributions of the projected spending on the SDSU Mission Valley project in San Diego County. Projected expenditures by project component were run through the 2016 IMPLAN model of San Diego County to estimate the direct, indirect, and induced economic

¹⁰ See California Department of Tax and Fee Administration, *Sales and Use Taxes: Exemptions and Exclusions*, available at: <http://www.cdtfa.ca.gov/formspubs/pub61.pdf>. Sales of most grocery items (food for home consumption), candy, bottled water, and snack foods are exempt from sales taxes while restaurant and bar sales (the largest category) are taxable.

¹¹ Data on football game attendance and sales were provided by SDSU. The number of other (non-university) annual events was based on stadium usage in 2017.

impacts in the county. The model excludes expenditures that go to businesses outside the county. For example, if construction materials or services are purchased from a vendor located outside the county, the model does not count the jobs, income, and output supported by that expenditure in the results shown below. It is important to note that EY has not customized the model to account for any unique types of expenditures or to match exact purchases that would be required for specific contracting rules that developers might be subject to. Rather, the results are indicative of the order of magnitude EY would expect from a construction project that includes these residential and commercial components in San Diego County. Using the IMPLAN model, EY estimates that the total benefits during the construction period would be more than 28,700 one-year jobs, labor income (wages plus benefits) of nearly \$1.6 billion, contributions to GDP of \$2.5 billion, and economic output of nearly \$4.6 billion. The City of San Diego would receive an estimated \$29.2 million in new tax revenue related to activity during the construction period.

Table 6. Total economic impacts in San Diego County due to planned construction spending on the SDSU Mission Valley development plan
Actual employment, millions of 2018 dollars; Total impacts during construction period

	Employment*	Labor income	Value-added	Economic output	City of San Diego tax revenue
Direct (construction)	16,703	\$968.7	\$1,387.3	\$2,830.8	\$17.8
Indirect (suppliers)	5,499	\$303.4	\$495.3	\$849.2	\$5.6
Induced (consumption-related)	6,580	\$314.5	\$577.1	\$934.1	\$5.8
Total	28,783	\$1,586.6	\$2,459.7	\$4,614.1	\$29.2

* Note that employment is shown as “one-year” jobs.
 Source: EY analysis using data provided by SDSU and 2016 IMPLAN model of San Diego County

Table 7 shows the average employment and labor income supported by construction expenditures of the SDSU Mission Valley project during a construction period of 15 years. On average, expenditures would support more than 1,900 jobs annually and average employee compensation of \$55,121. The contributions by each project component are also shown. The largest expenditures are for residential and research and innovation campus components, which have the largest economic contributions. The commercial construction impacts are modeled in the same manner in IMPLAN, which is why they have the same average labor income of \$57,800.

Table 7. Average employment and compensation impacts by project component modeled, SDSU Mission Valley project

*2018 dollars; average employment shown during a 15 year period;
Total impacts include direct, indirect, and induced impacts*

	Total construction-related employment	If 15-year dev period - Avg. annual employment	Total labor income (in millions)	Avg. annual labor income per worker
Residential	15,192	1,013	\$821.6	\$54,084
Office/research/innovation	6,609	441	\$360.7	\$54,581
Retail	155	10	\$9.0	\$57,800
Hotel	1,706	114	\$98.6	\$57,800
Stadium	2,719	181	\$157.2	\$57,800
Site planning/demolition	2,402	160	\$139.5	\$58,058
Total during construction	28,783	1,919	\$1,586.6	\$55,121

Source: EY analysis using data provided by SDSU and 2016 IMPLAN model of San Diego County

6. SDSU Mission Valley economic and tax impacts during operation (post construction)

Once the site has been developed (land and buildings) and tenants move in, there will be an ongoing economic and tax impact of the project. The proposed project will have residential, retail, and research and innovation campus components. Tax impacts are shown assuming taxable possessory interest at 80% of the project. A stadium would house the SDSU Aztec football team, but also host other NCAA or professional sporting events, as well as concerts and other events. Two hotels would serve campus, stadium and area visitors.

To estimate the operational impact of the project, EY estimated the direct employment impact for each component of the project using the following assumptions or data sources:

- ▶ **Retail:** 2012 Economic Census data for California retail establishments was used to calculate employees per square foot of under-roof floor space for different types of retail (e.g. grocery store, other retail). These ratios were used to estimate direct employment for the retail components.
- ▶ **Restaurants:** Information on labor as a share of restaurant sales and average hourly wages of restaurant workers in San Diego was used to estimate the direct number of employees at restaurants based on projected sales (see Table 5).
- ▶ **Research and innovation campus:** The ratio of one research and innovation campus (office) employee to 200 square feet was used to estimate the number of direct workers associated with the research and innovation campus space at full occupancy.¹² One-third of the space was modeled as traditional office space while the remaining two-thirds were modeled as research and innovation.

¹² See Cushman & Wakefield, "Space Matters: Key office trends and metrics of U.S. occupiers", 2018.

- ▶ **Campus:** University employment was also modeled, assuming 1% annual student enrollment growth with the SDSU Mission Valley development starting in 2019. This would translate into nearly 6,000 additional SDSU students by 2033 (end of the 15-year development period). Using data from the *SDSU Economic Impact Analysis* report conducted by ICF in 2017, each student results in \$58,140 total economic impact in the San Diego and Imperial County region (2018 dollars), of which 69% of this total is related to university operational expenditures. Assuming that students continue to contribute this operational impact in the region would result in nearly \$223.5 million of total new economic output associated with operations benefiting 6,000 new students in 2033 as a result of the SDSU Mission Valley Campus development.
- ▶ **Hotel:** Data on hotel operations were used to estimate labor costs that are equal to 35% of revenue. Dividing labor costs by average annual wages of hotel workers produced an estimate of the number of workers at the planned hotels.
- ▶ **Stadium:** SDSU provided information on ticket sale revenue from seven football games. EY used data on concession sales at Aztec games in 2017 to model food and merchandise purchases. EY then modeled the revenue associated with other (non-university) events. This included an assumption that 23 other events would occur (the number of stadium events in the last year at Qualcomm) with an average ticket price of \$50, and average merchandise and concession sales of \$20 per person. Attendance at these other events was assumed to be at 85% capacity, or 29,750 attendees.
- ▶ **Residential/parking:** Residential and parking properties have minimal employment impacts, and have not been included here.

The on-going economic impacts associated with the SDSU Mission Valley development are shown in Table 8 below. As shown in the table, once fully operational, these components are projected to contribute 17,241 total jobs, \$1.2 billion in labor income, nearly \$1.9 billion in contributions to regional gross state product, and \$3.1 billion in economic output annually.

EY estimates that the additional tax revenue for the City of San Diego associated with the annual operations would be \$21.9 million annually (2018 dollars). This includes property taxes on 80% taxable possessory interest (see Table 3) of the SDSU Mission Valley proposal, plus other city taxes that include sales taxes, occupancy taxes, and licenses and permits. The tax estimate includes direct taxes related to the taxable activity of the businesses and employees at the SDSU Mission Valley site, as well as taxes due to indirect and induced activity. This includes suppliers in San Diego supported by the activity of SDSU and consumer-related businesses supported by SDSU and supplier employee expenditures.

Table 8. Total annual operational economic contributions in San Diego County of the SDSU Campus at Mission Valley site

Total (direct, indirect, and induced) annual impacts shown, 2018 millions of dollars

	Employment				Total labor income	Total value added	Total output	City of San Diego Tax Revenue
	Direct	Indirect	Induced	Total				
Office (traditional and research)	5,324	3,292	4,345	12,961	\$1,045.4	\$1,554.9	\$2,445.4	
Campus (scenario 1)	1,374	235	393	2,002	\$94.4	\$137.8	\$223.5	
Stadium	570	469	189	1,228	\$46.2	\$71.4	\$148.7	
Retail and supermarket	75	7	13	96	\$3.2	\$4.9	\$7.4	
Restaurants	238	33	40	311	\$9.7	\$21.4	\$34.6	
Hotels	228	278	137	643	\$33.1	\$69.2	\$233.3	
Total annual operational contributions	7,809	4,314	5,117	17,241	\$1,232.0	\$1,859.5	\$3,092.8	\$21.9

Source: EY analysis using data provided by SDSU; 2012 Economic Census data; 2016 IMPLAN model of San Diego County

Discussion of possible university impacts

Table 8 shows the university’s annual economic impact on San Diego County assuming SDSU’s annual enrollment increases by nearly 6,000 students by 2033 due to the Mission Valley Campus (Scenario 1 in Table 9 below). SDSU plans to occupy much of the research and innovation campus space over time.

If SDSU were to continue to grow at more than 1% per year due to the additional space at the Mission Valley site, by 2048 an additional 15,000 students would be enrolled at the university, as contemplated by the SDSU Campus Master Plan and Design Guidelines (Dudek 2019). Economic impacts associated with this level of university operations is shown as Scenario 3 in Table 8, below. Scenarios 1-3 show employment, income, output, and contributions to regional GDP under normal university operations (i.e. assuming a mix of university expenditures on instruction, research, student programming, etc.).

If the space at the SDSU Mission Valley site is utilized as research and laboratory space, the expenditures associated with the space and the students would be more per student than the normal university operational mix. These increased expenditures were evaluated using the IMPLAN model and the results are shown as scenarios 4-6 for various levels of additional students respectively.

Table 9. Total annual operational economic contributions of the SDSU Mission Valley Campus

Total (direct, indirect, and induced) annual impacts shown, 2018 millions of dollars

Campus scenarios	Employment	Labor Income	Value Added	Output
Scenario 1: University operations, 6,000 students	2,002	\$94.4	\$137.8	\$223.5
Scenario 2: University operations, 13,000 students	4,337	\$204.5	\$298.5	\$484.2
Scenario 3: University operations, 15,000 students	5,004	\$236.0	\$344.4	\$558.6
Scenario 4: Research expenditures, 6,000 students	4,022	\$354.6	\$542.6	\$854.2
Scenario 5: Research expenditures, 13,000 students	8,715	\$768.3	\$1,175.6	\$1,850.8
Scenario 6: Research expenditures, 15,000 students	10,056	\$886.5	\$1,356.4	\$2,135.6

Source: EY analysis using information provided by SDSU and 2016 IMPLAN Model of San Diego County

The economic contributions associated with research and laboratory space are nearly 4 times greater than those of normal university operations due to higher worker wages, purchases from regional suppliers, and other activities supported in the region associated with employee expenditure of wage income at regional businesses.

The economic contributions shown in Table 9 are only related to the university’s increased employment and operational expenditures in the region due to the additional enrollment and use of the Mission Valley space. It does not include alumni impacts from higher enrollment. A majority (61%) of SDSU alumni remain in the San Diego region, contributing to the local economy in the form of employment and higher wages due to the degree they earned at SDSU.¹³

¹³ SDSU commissioned ICF to conduct an economic impact study of the university’s operations. They estimated that through the higher earning power of SDSU graduates, alumni working in San Diego and Imperial Counties supported

7. Economic impact estimation methodology

This analysis examines the economic and tax revenue impacts of the proposed SDSU Mission Valley Campus Master Plan, but does not include estimates of the public sector costs that would be incurred by state and local governments as a result of increased population and business activity related to the development. These impacts were omitted because they are often site-specific and imprecise to estimate. Additionally, an assumption of future increases of SDSU alumni and their associated impacts, including career earnings and giving levels is not estimated by EY but has instead been analyzed by ICF using the IMPLAN model.

The economic contribution of SDSU's Mission Valley project has three components, which are described below:

- ▶ **Direct contribution.** The direct contribution includes the total full-time and part-time employees, labor income (including the value of benefits), economic output, and value-added associated with the construction expenditures to build the project and subsequent operation of businesses on the site.
- ▶ **Indirect contribution.** The indirect economic contribution is attributable to purchases from suppliers within San Diego County. The indirect contribution also captures the additional input purchases from local suppliers by the suppliers. These additional purchases create subsequent rounds of indirect effects.
- ▶ **Induced contribution.** The induced contribution includes the spending by construction employees or employees that work at businesses at the Mission Valley site, and the employees of suppliers at local businesses, including grocery stores, restaurants, and service providers.

This analysis uses an input-output model to estimate the economic contributions of the SDSU Mission Valley Campus Master Plan project's planned capital investments and subsequent operations in San Diego County. The regional economic multipliers in this study were estimated using the 2016 IMPLAN input-output model of San Diego County. IMPLAN is used by more than 500 universities and government agencies. Unlike other economic models, IMPLAN includes the interaction of over 530 industry sectors, thus identifying the interaction of specific industries related to the SDSU Mission Valley Campus Master Plan. IMPLAN industries for construction include 3060 (residential multi-family structures) and 3057 (for commercial spaces including office, retail, hotel, and stadium). Operational industries include traditional office space (using IMPLAN industry 465), research labs (IMPLAN 456), higher education operations (IMPLAN 473), hotels (IMPLAN 499), retail (IMPLAN 406), supermarket (IMPLAN 400), restaurants (IMPLAN 502), and stadiums (IMPLAN 491).

Total contributions presented in this report include direct, indirect, and induced effects. Direct effects include employment and spending directly related to development of the site or the businesses that occupy space once complete. Indirect effects are attributable to input purchases

an additional 23,700 jobs and \$1.26 billion in income in 2017. See ¹³ ICF, "SDSU Economic Impact Analysis", October 2017.

from San Diego County suppliers. Induced effects are attributable to spending by employees, based on regional household spending patterns for different levels of income.

Indirect and induced effects are driven by (1) input purchases; (2) the percentage of each type of commodity that is purchased from within San Diego County; and (3) household consumption profiles for employees. The implied multipliers for the indirect and induced activity are shown in the table below.

Table 10. Estimated total multipliers for San Diego County during construction period

	Residential property	Commercial property
Employment	1.86	1.48
Labor income	1.73	1.42
Value added	1.88	1.56
Output	1.72	1.54

Source: EY analysis using the 2016 IMPLAN model of San Diego County.