



Demolishing Homes for Air Cargo

San Bernardino International Airport Gateway Specific Plan
June 2023



ECONOMIC
ROUNDTABLE

Knowledge for the Greater Good

Cover image:

San Bernardino International Airport is sometimes called an airplane graveyard because planes from a number of airlines are stored, repaired and sometimes disassembled at the airport.

NK Demolition was contracted to decommission and recycle two 727 Boeing aircraft at the airport.

Photo credit: [NK Demolition](#)

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San Bernardino International Airport Gateway Plan

June 2023

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Underwritten by the
Sierra Club

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1. Executive Summary

The central justification for the proposed Airport Gateway Project is that it will create “*a thriving jobs center*” with up to 5,097 jobs compared to the 487 jobs in what is now largely a residential neighborhood.

The Inland Valley Development Agency plans to convert a 678-acre residential and mixed-use area north of San Bernardino International Airport into 9.2 million-square feet of warehouse and industrial space.

However, this template for economic development has already been shown to create poverty-level jobs, economic hardship, and precariously housed workers.

Warehouse Jobs Near the Airport

Frontline warehouse workers employed near the airport earn an average of \$21,522 a year. Over half of these workers are in poverty or near poverty. Twenty-seven percent live in overcrowded housing and 41 percent are rent-burdened.

These earnings fall far short of a living wage and raise questions about the credibility of claimed economic benefits from increasing the number of these poverty-wage jobs.

Half of frontline warehouse workers near the airport depend on public social safety net benefits for food stamps, government-funded health care, or cash welfare.

Environmental Impacts

Cargo Airplanes

The proposed Gateway Project would increase the amount of warehouse and industrial development around the airport by 24 percent, with a corresponding increase in adverse environmental impacts.

An estimated 2,604 cargo aircraft from five corporate fleets are projected to land at San Bernardino International Airport in 2023. They will be airborne for 9,981 hours and burn 12,007,624 gallons of jet fuel.

Every gallon of jet fuel that is burned combines with air to create over 27 pounds of emissions, most of it in the form of greenhouse gases. This already creates 328,178,088 of annual emissions along the flight path of these planes.

The additional flights that will be expedited by the proposed new logistics facilities are projected to result in 78,385,188 additional pounds of emissions a year along the flight paths of cargo planes landing at the airport.

Diesel Trucks

For every 1,887 square feet of space in a warehouse, one truck enters or leaves every day that it is open. This means that if the Gateway Project is approved, the new facilities can be expected to create an additional 1,566,232 truck trips a year, travelling 41,899,841 additional miles a year.

Based on the public health costs of these emissions calculated by U.S. Environmental Protection Agency, criteria and hazardous emissions from additional diesel truck traffic created by the Gateway Project would cause \$15,528,570 in uncompensated public health costs each year.

Based on the costs of climate change calculated by U.S. Interagency Working Group on the Social Cost of Greenhouse Gases, greenhouse gas emissions from diesel truck traffic for the Gateway Project would cause \$5,651,964 in uncompensated environmental costs each year.

In addition, vehicle accidents, pavement damage, traffic congestion, and noise resulting from the additional truck traffic would result in over \$831 million in uncompensated public costs each year..

Gateway Neighborhood

The Gateway Area is a neighborhood of children and working-age adults, with roughly three-quarters of residents renting their homes.

The median annual earned income of employed residents is \$23,211. The median income for all of the households in the Gateway neighborhood is \$28,553 a year. Thirty-seven percent of Gateway residents have household incomes below the poverty threshold.

Most rent their homes and have meager incomes. Rent levels are very low – typically \$1,064 a month. But a majority of renters struggle to pay their rent. Preservation of this affordable housing is crucial for Gateway residents.

If residents of the Gateway neighborhood are displaced from their housing, their prospects for finding comparably affordable housing are bleak. There is a strong likelihood that many would become more severely rent burdened and that some would become homeless.

This report has identified significant additional costs from the proposed Gateway Project to residents who would be displaced, the environment and the public. These costs appear to outweigh claimed benefits from the Airport Gateway Project.



Photo credit:
San Bernardino
International Airport:
UPS Worldport

2. Overriding Considerations

Cost-Benefit Trade-offs

The Inland Valley Development Agency plans to convert a 678-acre residential and mixed-use area north of San Bernardino International Airport into 9.2 million-square feet of warehouse and industrial space. The neighborhood that is targeted for redevelopment is shown in *Figure 1*.

This neighborhood has 760 housing units that are the homes of 2,471 residents.¹ These homes are the primary land use in the neighborhood.

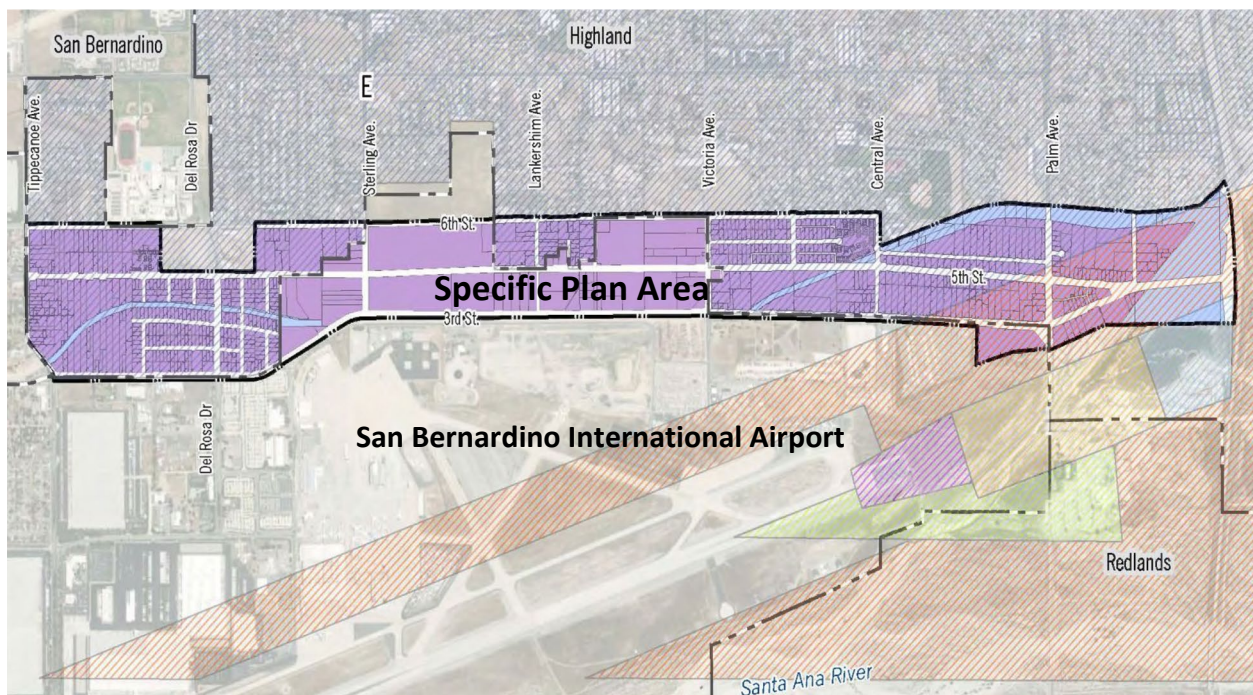
The Agency asserts that the human and environmental costs of the project are less important than the expected benefits of the project, which are:

*“A thriving concentration of commercial, industrial, and office-based businesses engaged in manufacturing, logistics, and technology, and more. The new area will potentially provide thousands of jobs to residents and introduce new food, entertainment, and hotel options to the community.”*²

The draft EIR does not discuss the human costs of displacing residents from their homes. Instead it asserts that “the existing land use category most affected . . . is ‘vacant’ land which comprises 35.8% of the total acreage in the planning area.”³

The environmental impact report for this project concludes that the new employers and their jobs are an over-riding benefit that justifies the costs of lost housing and environmental degradation. This study examines the credibility of the desired benefits, the environmental costs, and the quality of jobs in the proposed industries.

Figure 1: Airport Gateway Specific Plan Area



Source: Tom Dodson & Associates, Airport Gateway Specific Plan Draft Environmental Impact Report, Figure 3.2

From World War II until the end of the Cold War, Norton Air Force Base was a logistics depot and heavy-lift transport facility for military aircraft. After the base closed in 1994, the aviation facilities were converted into San Bernardino International Airport.

Commercial development at the former base is overseen by a city-county joint powers authority named Inland Valley Development Agency (IVDA). This agency has moved beyond the footprint of the former Air Force base to redevelop this nearby neighborhood.

The draft EIR says, “*After extensive discussions among the AGSP [Airport Gateway Specific Plan] participants, a decision was made to establish “Mixed Use Business Park” as the only future human-occupied land use within the planning area.*”⁴

The participants who made this decision are City of Highland; City of San Bernardino; the San Manuel Band of Mission Indians; and the East Valley Water District. They did not include the residents who will lose their homes or the adjoining neighborhoods to the north that will have warehouses as their new neighbors.⁵

This report assesses the previously undisclosed public costs from the proposed Gateway Project that discredit the claimed “overriding considerations” for proceeding with the project.



Photo credit:
Google Maps

3. Air Cargo Flights

Incoming Cargo Flights

An estimated 2,604 cargo aircraft from five corporate fleets are projected to land at San Bernardino International Airport in 2023, as shown in *Figure 1*.⁶

These flights have the following five impacts on the environmental and social ecologies, the first of which is discussed in this chapter.

First, the jet fuel that is burned to propel these flights releases emissions along the flight path.

Second, the cargo that is unloaded from the aircraft activates diesel trucks that bring the cargo to nearby warehouses.

Third, warehouse workers are employed to unload, sort and repack the cargo.

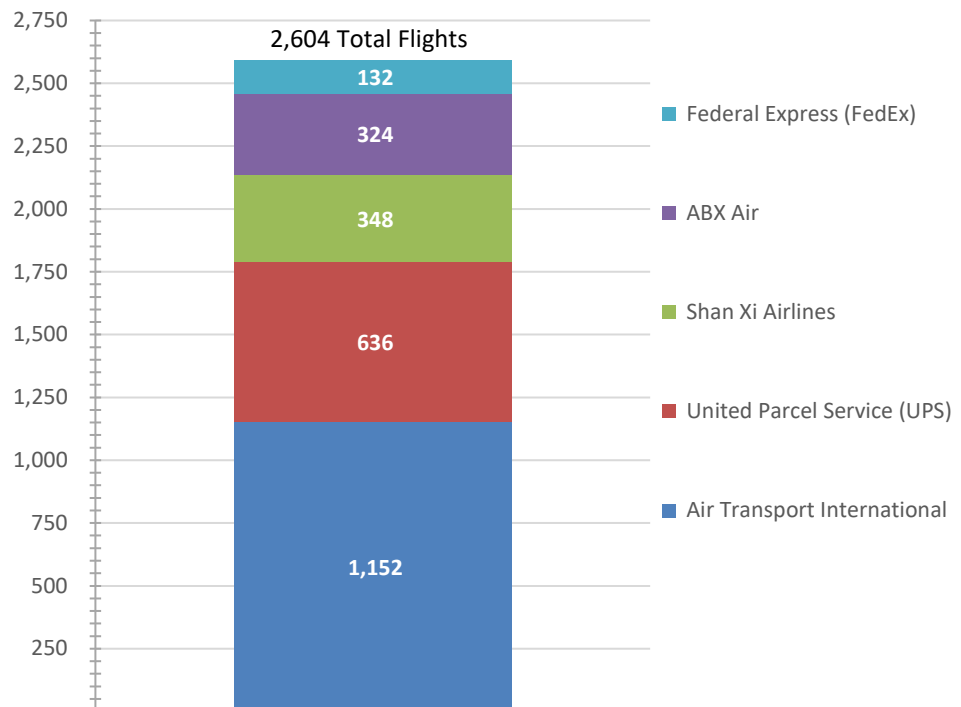
Fourth, warehouse operations have impacts on the neighborhoods where they are located.

Fifth, diesel trucks transport different types of cargo from the warehouses where it is unpacked to distribution centers throughout the region.

Duration of Flights

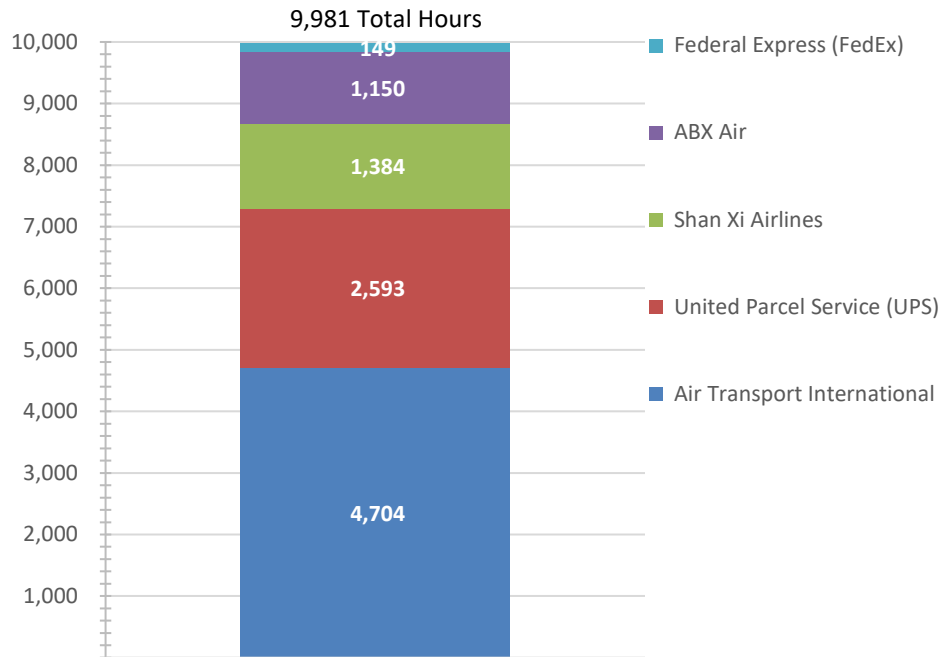
The average flight lasts 3.83 hours, which is the time it takes to fly from Chicago or Cincinnati to the San Bernardino airport.

Figure 1: Cargo Flights Landing at San Bernardino International Airport in 2023



Source: *Flightera.net*.

Figure 2: Hours Airborne by Cargo Flights Landing at San Bernardino International Airport in 2023



Source: *Flightera.net*.

Based on 2,604 flights that are projected to land at the airport in 2023, the five cargo fleets that deliver shipments are projected to be airborne for 9,981 hours in 2023, as shown in *Figure 2*.⁷

Gallons of Jet Fuel Burned

The incoming cargo aircraft burn an average of 1,203 gallons of fuel during each hour that they are airborne.⁸

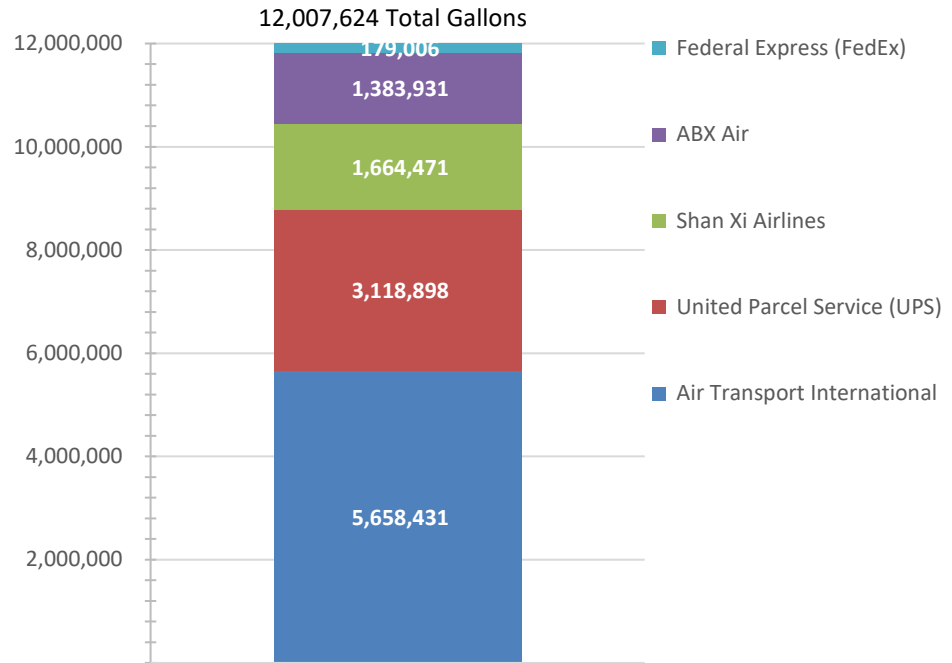
Based on 9,981 hours that the flights are projected to be airborne, 12,007,624 gallons of jet fuel will be burned to deliver cargo to San Bernardino International Airport in 2023, as shown in *Figure 3*.

Emissions Released Over Flight Paths

Every gallon of jet fuel that is burned combines with air to create over 27 pounds of emissions, most of it in the form of greenhouse gases.⁹ Based on the full emissions footprint of the fuel, from the well where it is exacted to the jet engine where it is burned, this includes:

- 0.004 pounds of particulate matter (PM)
- 0.004 pounds of sulfur oxide emissions (SO_x)
- 0.12 pounds of nitrogen oxide emissions (NO_x)
- 27.2 pounds of carbon dioxide equivalent greenhouse gas emissions from carbon dioxide, nitrous oxide and methane (CO₂e)

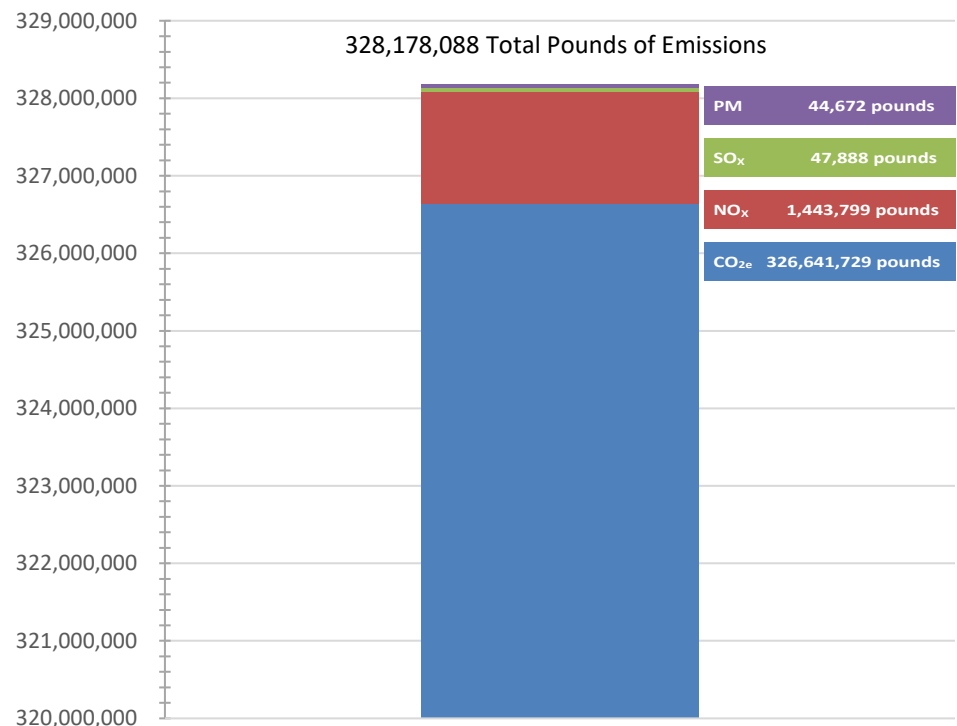
Figure 3: Gallons of Jet Fuel Burned by Cargo Flights Landing at San Bernardino International Airport in 2023



Source: Economic Roundtable analysis.

Based on 12,007,624 gallons of jet fuel projected to be burned by cargo flights into the airport in 2023, this will create 328,178,088 of emissions that will be released in the flight path of these planes, as shown in *Figure 4*.

Figure 4: Pounds of Emissions from Cargo Flights into San Bernardino International Airport in 2023



Source: Economic Roundtable analysis. Note: vertical axis is truncated.

Increased Aircraft Emissions Promoted by New Logistics Facilities Planned for the Airport Gateway Area

There are now 86 large warehouses, each with over 100,000 square feet of space, within a two-mile radius of San Bernardino International Airport, as shown in *Figure 5*.

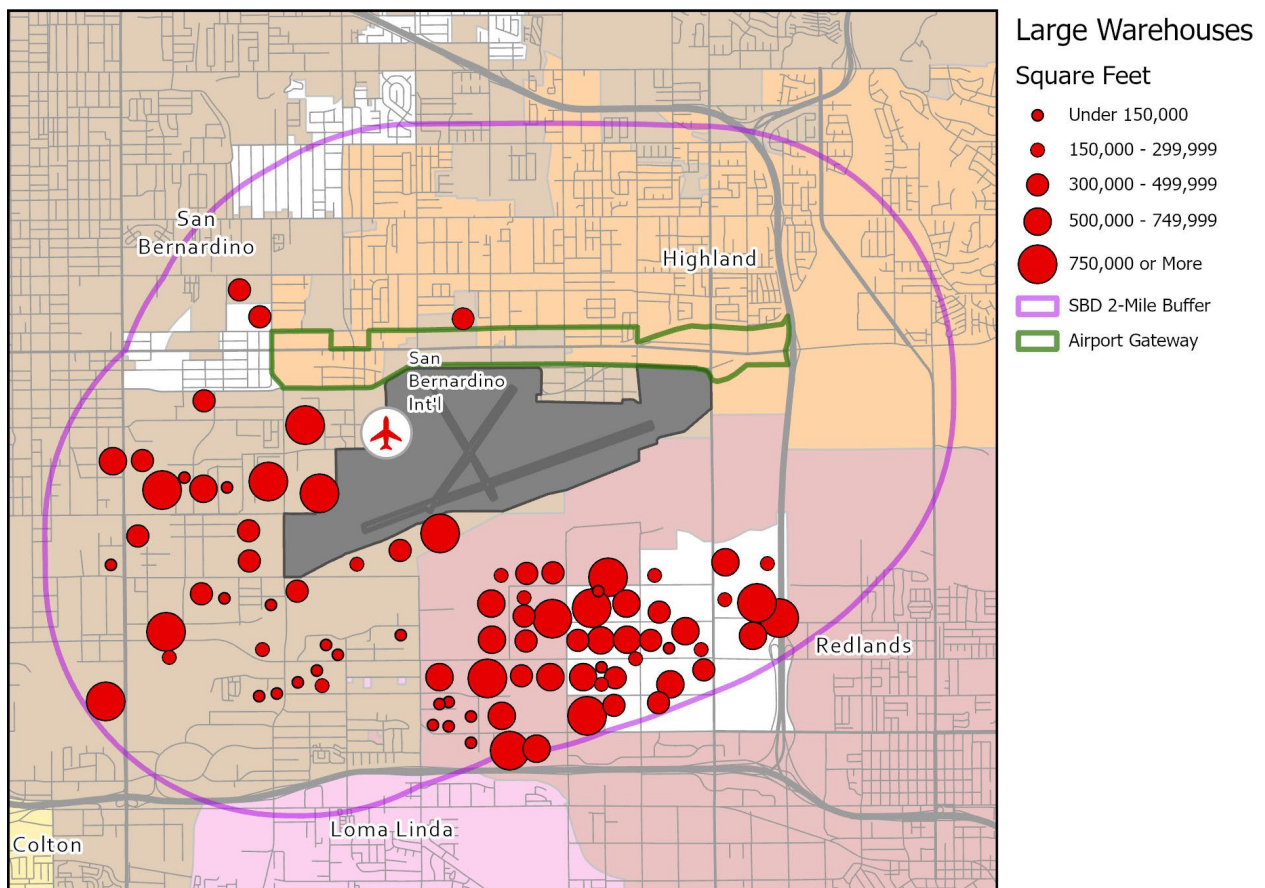
Because of their close proximity to the airport they can provide first-stage logistics services for storing and sorting air cargo from the 2,604 cargo flights that are projected to land in 2023.

The 9.2 million-square feet of new warehouse and industrial space planned for the Airport Gateway Area represents a 24 percent increase in logistics facilities adjacent to the airport.

If approved and built, this new logistics infrastructure will support a 24 percent increase in air cargo delivered to the airport.

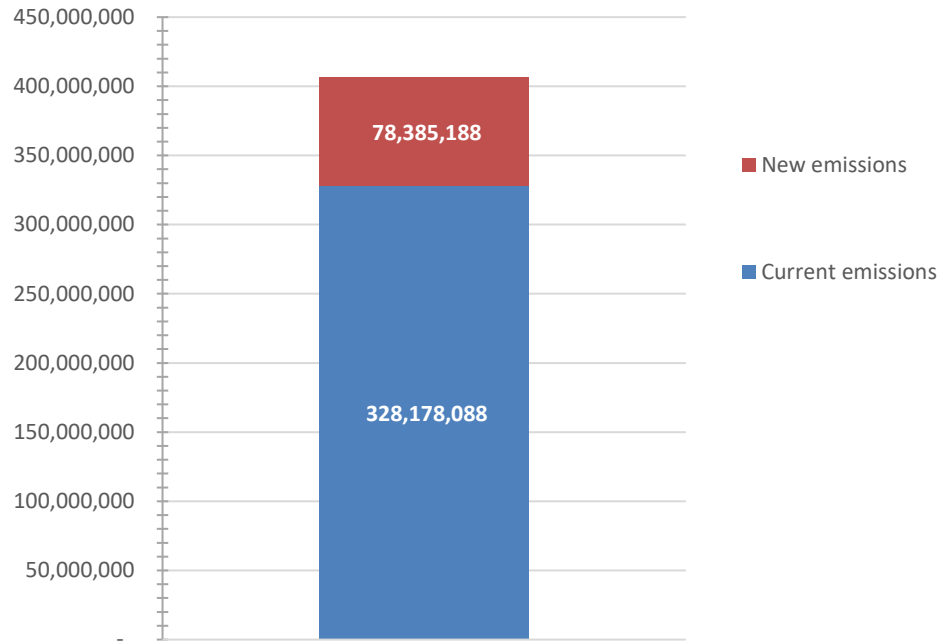
This increase in air cargo flights will result in increased aircraft emissions, as shown in *Figure 6*, as well as increased impacts in all of the linked downstream logistics activities.

Figure 5: Warehouses within a Two-Mile Radius of San Bernardino International Airport



Source: Economic Roundtable database of warehouses.

Figure 6: Additional Annual Pounds of Cargo Plane Emissions from Added Flights



Source: Economic Roundtable analysis.

The additional flights that will be expedited by the newly available logistics facilities are projected to result in 78,385,188 additional pounds of emissions a year along the flight paths of cargo planes landing at the airport.

The increase in air cargo flights from the Gateway Project would add significant jet fuel, related health, transportation, and environmental public costs across the region.



Photo credit:
U.S. Department
of Agriculture

4. Warehouse Jobs

Job Quality

The central justification for the proposed Airport Gateway Project is that it will create “a thriving jobs center”¹⁰ with up to 5,097 jobs compared to the 487 jobs now shown for what is now largely a residential area.¹¹

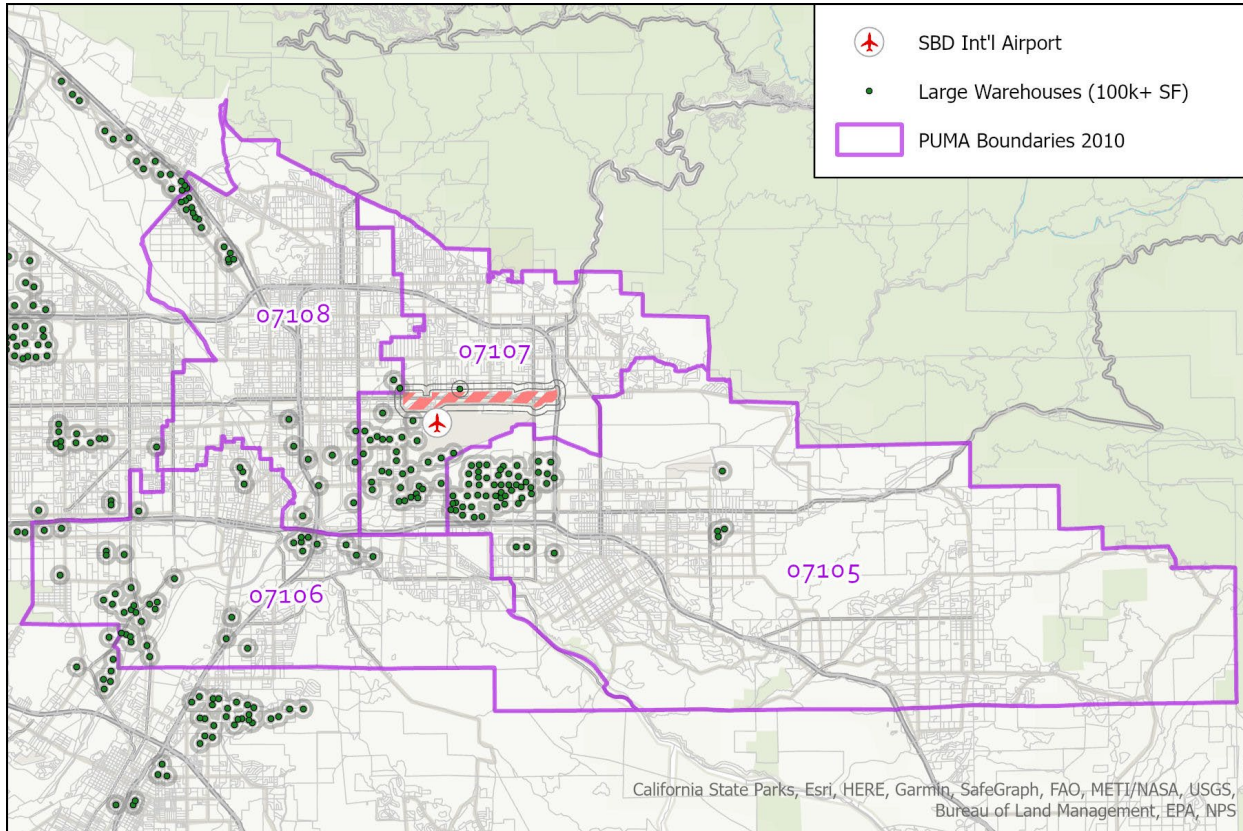
Information about existing jobs in warehouses serving the airport provides a framework for assessing whether increasing the number of these jobs will offset the adverse social and environmental impacts of the Gateway Project.

Profile of Warehouse Workers

Roughly 12,000 warehouse workers live in the four communities around the airport shown in *Figure 7*.¹² Over 8,000 local residents are employed in six frontline occupations that do most of the heavy lifting in warehouses:¹³

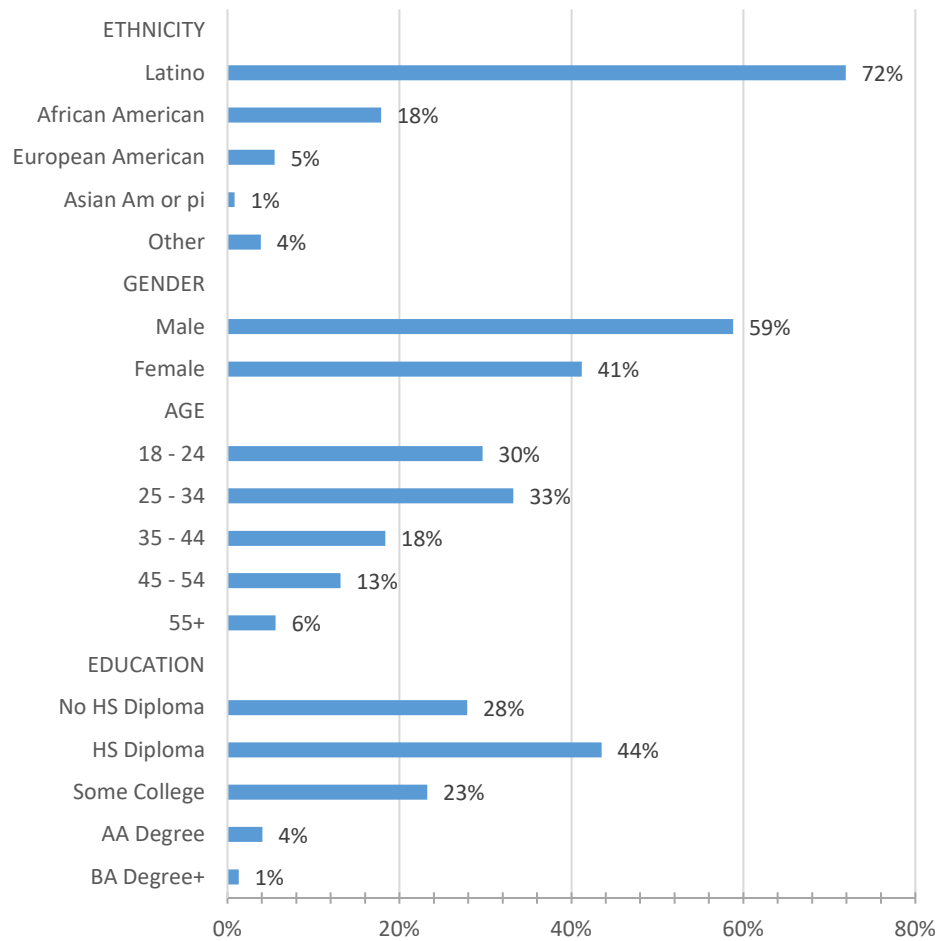
- Packers
- Forklift drivers
- Stock movers
- Truck drivers
- Order fillers
- Shipping clerks

Figure 7: Public Use Microdata Areas Adjoining San Bernardino International Airport



Source: U.S. Census Bureau and Public Use Microdata Areas (PUMAs) and Economic Roundtable database of warehouses.

Figure 8: Frontline Warehouse Workers Near San Bernardino International Airport



Source: U.S. Census Bureau PUMS 2016-2020 records for PUMAs 07105, 07106, 07107, and 07108.

A demographic profile of frontline warehouse workers is shown in *Figure 8*. Highlights include:

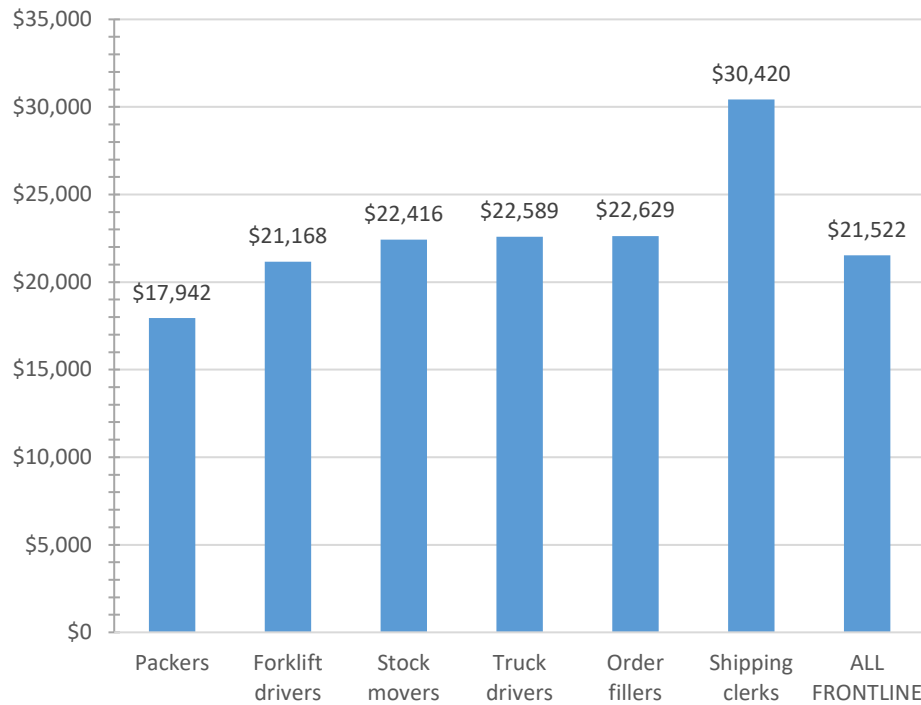
- Nearly three-quarters are Latino.
- Roughly two-fifths are women.
- Nearly two-thirds under 35 years of age.
- Nearly three-quarters have at least a high school diploma.

Earnings of Frontline Warehouse Workers

Frontline warehouse workers who were employed in the year when the Census Bureau collected their information earned an average of \$21,522 a year, as shown in *Figure 9*.

Packers, who make up 16 percent of the total warehouse labor force had the lowest average earnings of the six frontline occupations - \$17,942 a year. Shipping clerks had the highest average earnings - \$30,420.

Figure 9: Average Annual Earnings of Frontline Warehouse Workers Near San Bernardino International Airport



Source: U.S. Census Bureau PUMS 2016-2020 records for PUMAs 07105, 07106, 07107, and 07108. Earnings are in 2020 dollars. Data is for workers who were employed in the year when the Census Bureau collected their information.

These earnings fall far short of a living wage and undercut the credibility of claimed economic benefits from increasing the number of these poverty-wage jobs.

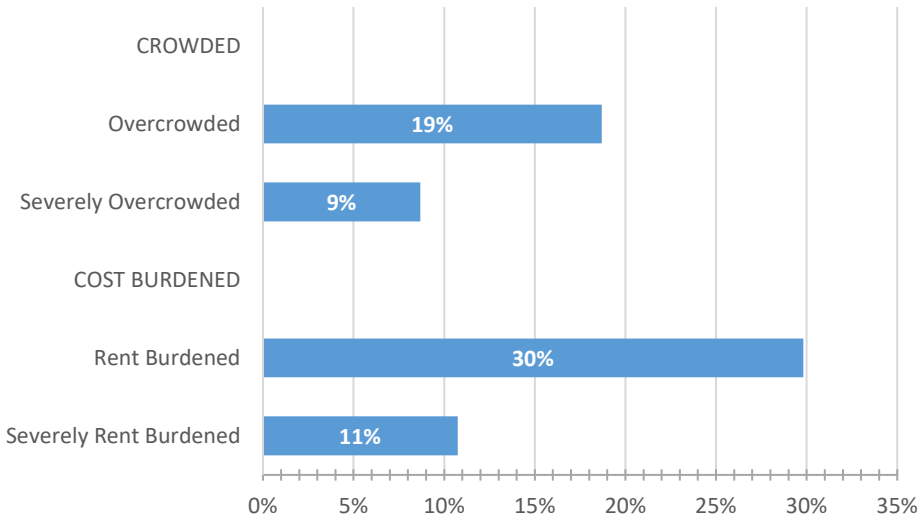
Housing Conditions of Frontline Warehouse Workers

Two strategies for obtaining housing when money is scarce are to rent a dwelling that is too small or to pay a disproportionately large share of household income for rent. The first strategy results in overcrowding. The second strategy results in being rent burdened.

Twenty-seven percent of frontline warehouse workers near the airport live in overcrowded housing, as shown in *Figure 10*. This means that there is more than one person per room. This includes nine percent who are severely overcrowded, meaning that there is more than 1.5 people per room in their housing unit.

Forty-one percent of frontline warehouse workers near the airport are rent burdened. This means that they pay more than 30 percent of their household income for housing. This includes 11 percent who are severely rent burdened, meaning that they pay more than half of their household income for housing.

Figure 11: Housing Conditions of Frontline Warehouse Workers Near San Bernardino International Airport



Source: U.S. Census Bureau PUMS 2016-2020 records for PUMAs 07105, 07106, 07107, and 07108. Data is for frontline warehouse workers who were employed in the year when the Census Bureau collected their information.

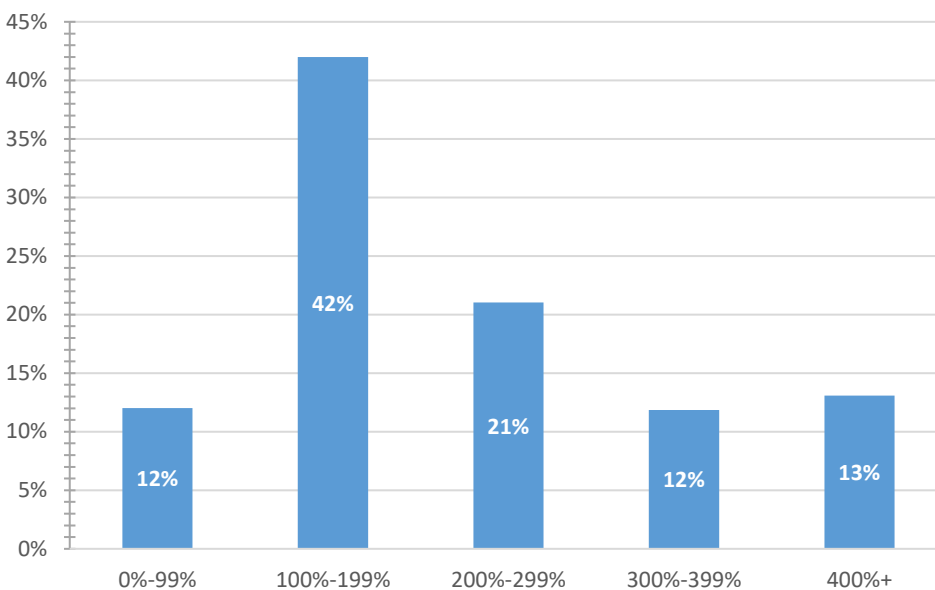
Poverty

Over half of frontline warehouse workers near the airport are in poverty or near poverty, as shown in *Figure 12*.

Twelve percent of frontline workers have household incomes below the poverty threshold.

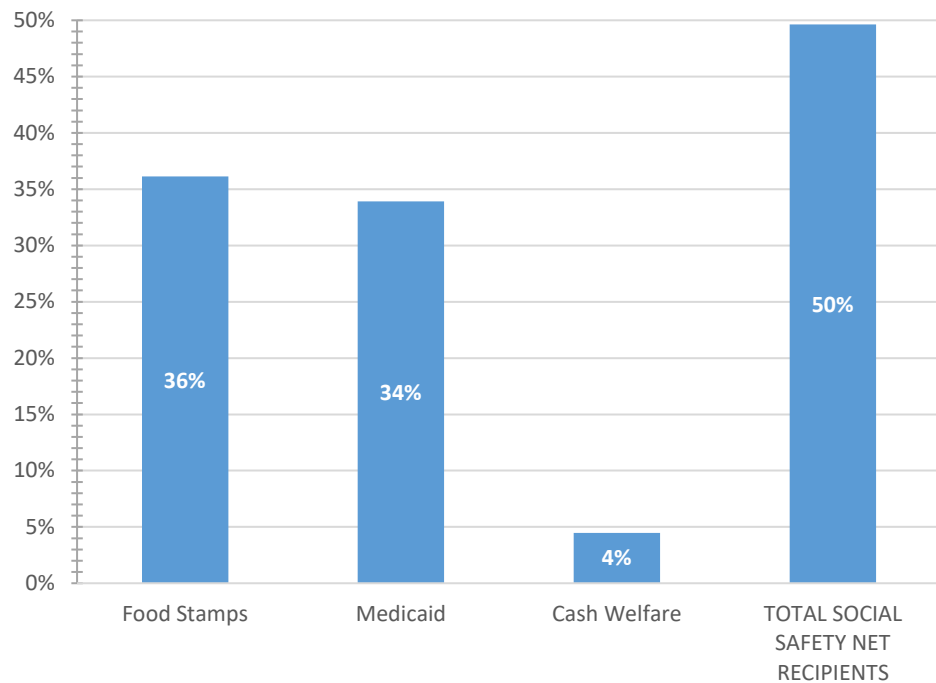
Another 42 percent of frontline workers are close to poverty, with incomes that are below 200 percent of the poverty threshold.

Figure 12: Household Income of Frontline Warehouse Workers Near the Airport at a Percent of the Poverty Threshold



Source: U.S. Census Bureau PUMS 2016-2020 records for PUMAs 07105, 07106, 07107, and 07108. Data is for frontline warehouse workers who were employed in the year when the Census Bureau collected their information.

Figure 13: Use of Public Social Safety Net by Frontline Warehouse Workers Near San Bernardino International Airport



Source: U.S. Census Bureau PUMS 2016-2020 records for PUMAs 07105, 07106, 07107, and 07108. Data is for frontline warehouse workers who were employed in the year when the Census Bureau collected their information.

Public Social Safety Net

Half of frontline warehouse workers near the airport are dependent on public social safety net benefits, as shown in *Figure 13*.

Food Stamps

Food Stamps, now called CalFresh in California, is a federal program that helps people with low incomes, or no income, buy food. The purpose is to reduce hunger and diet-related diseases. Recipients receive an EBT card that works like a debit card for buying groceries. The income limit for eligibility is 200 percent of the federal poverty level.¹⁴

Thirty-six percent of frontline warehouse workers near the airport receive food stamps.

Government Health Insurance

Low-income individuals who cannot afford private health insurance can seek to have their health care paid for through Medicaid, or Medi-Cal as it is called in California, which is tax payer-funded health coverage.

Over one-third of frontline warehouse workers who live near the airport receive health care through Medi-Cal.

Cash Welfare

Four percent of frontline warehouse workers receive cash welfare benefits from the government.

The warehouse industry increases corporate profits by transferring the nutritional and health care needs of its workforce onto the public. Facilitating the growth of this industry without changing its employment practices will result in increased public costs to pay for the survival needs of its workforce.



Photo credit:
Jay Calderon
The Desert Sun

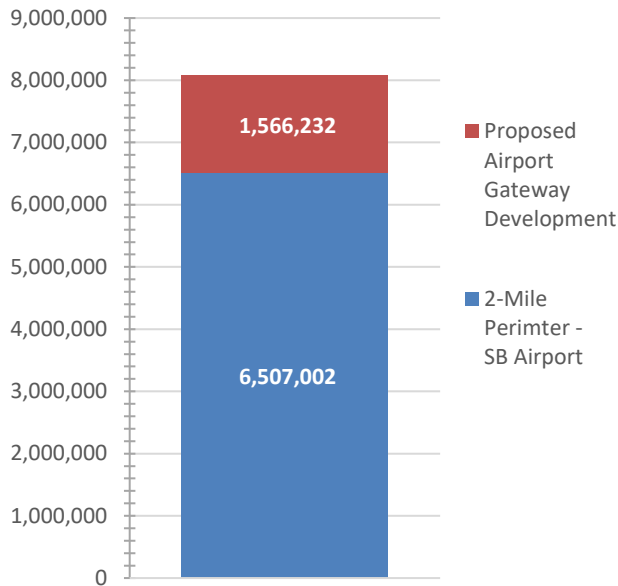
5. Warehouse Impacts

Diesel Truck Mileage

For every 1,887 square feet of space in a warehouse, one truck enters or leaves every day that it is open.¹⁵ Entering counts as one trip and leaving counts as another trip. Warehouses operate an average of 319 days a year.¹⁶

This means that if the Gateway Project is approved and warehouses are the primary activity, the addition of 9,271,256 square feet of new buildings will result in an estimated 1,566,232 truck trips a year, as shown in *Figure 14*.

Figure 14: Annual Truck Trips Moving Air Cargo from San Bernardino International Airport

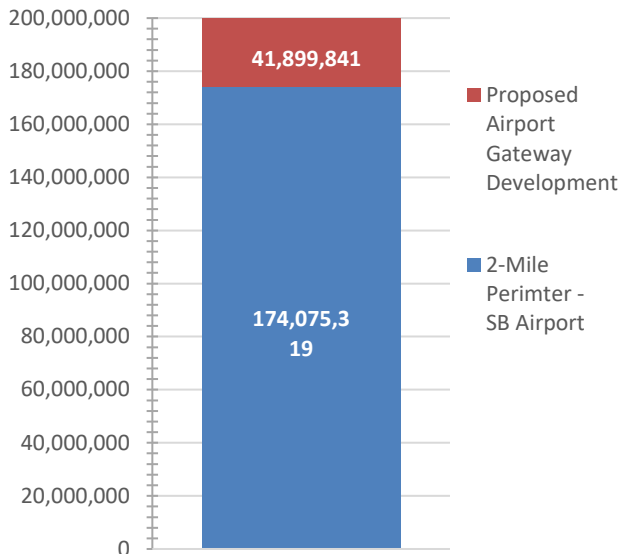


Source: Economic Roundtable analysis. Entering and leaving are each one trip.

Our scenario for visualizing the increase in truck mileage assumes that the airport will be the source of all incoming cargo delivered to the new warehouses. This proposed growth is compared to existing activity within a two-mile perimeter of the airport shown in *Figure 14*. In this scenario:

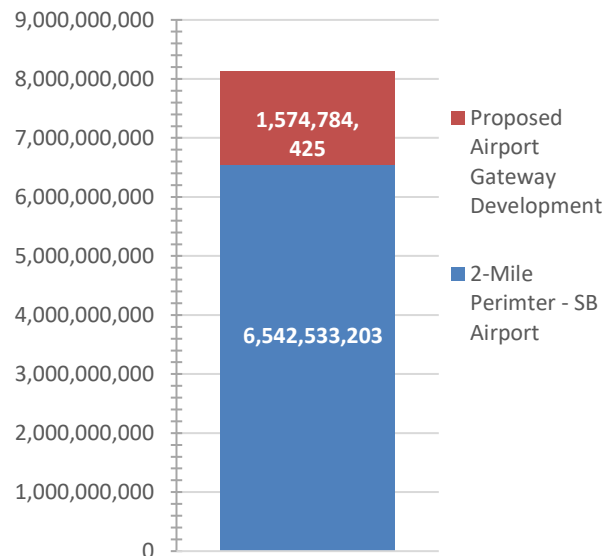
- 50 percent of all truck trips will be an average of 3.6 miles long, bringing airport cargo to a warehouse in the project area.
- 31 percent of truck trips will be an average of 38.2 miles long, removing cargo from the warehouse and taking it to other warehouses in the four-county region.
- 19 percent of truck trips will be an average of 69 miles long, removing cargo from the warehouse and taking it to retail stores in the four-county region.

Figure 15: Annual Truck Miles Moving Air Cargo from San Bernardino International Airport



Source: Economic Roundtable analysis.

Figure 16: Annual Truck Ton Miles Moving Air Cargo from San Bernardino International Airport



Source: Economic Roundtable analysis.

This scenario is based on average distances from warehouse-to-warehouse and warehouse-to-store in the four-county region as well the types of trips¹⁷ that trucks make.

This combination of trip frequency and distance means that the average truck trip generated by the proposed project area development would be 26.75 miles long. Based on the number of trips that are projected, this would result in 41,899,841 miles of diesel truck travel a year, as shown in *Figure 15*.

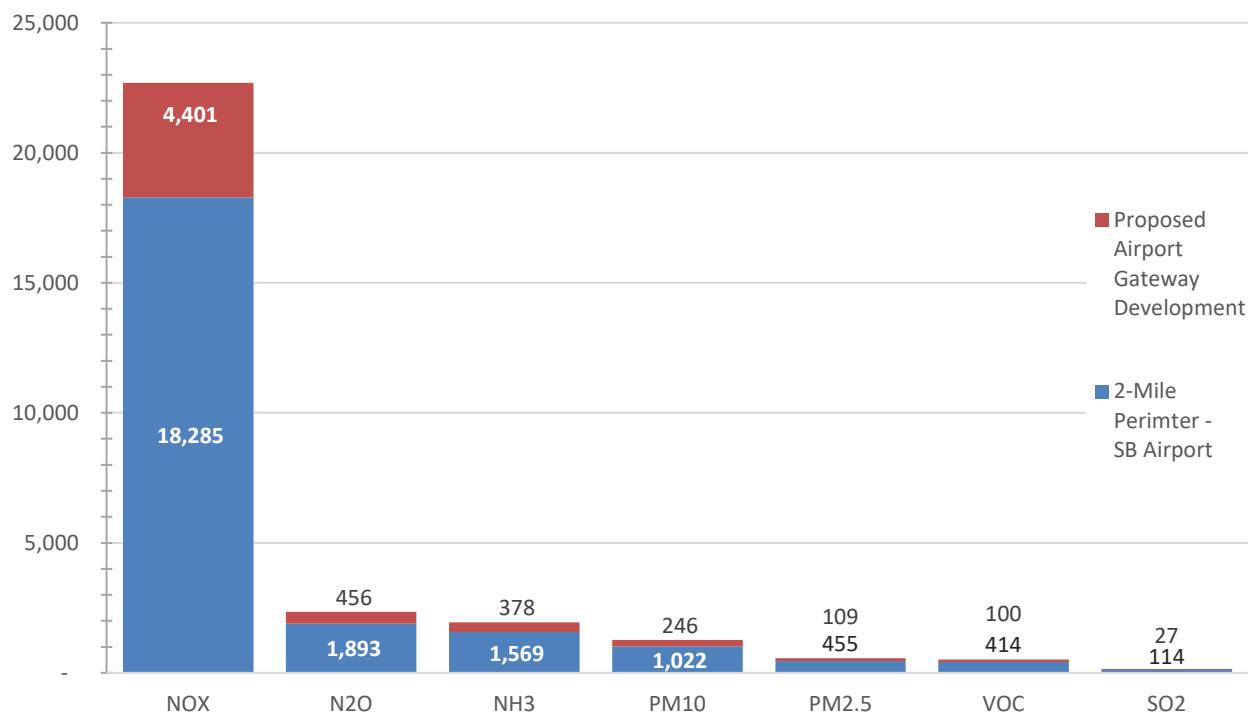
The total weight of a loaded diesel truck is estimated to be 37.6 tons. This includes 17 tons for the truck, 3.3 tons for the trailer chassis, 4.1 tons for the cargo container, and 13.2 tons for the cargo.¹⁸

The energy output of trucks, and resulting emissions, as well as their impact on roads, is estimated based on the number of ton-miles traveled. Given their average weight, each mile traveled represents 37.6 tons-miles. This means that the truck mileage generated by new development in the project area would result in over 1.5 billion ton-miles of truck travel a year, as shown in *Figure 16*.

Diesel Truck Emissions

The additional truck trips moving air cargo to and from the proposed Gateway project would create an estimated 5,717 tons of additional diesel

Figure 17: Annual Tons of Diesel Truck Emissions Moving Air Cargo from San Bernardino International Airport



Source: California Air Resources Board emission factors and Economic Roundtable analysis. Greenhouse gas emissions not shown.

truck emissions each year, not counting greenhouse gases, as shown in *Figure 17*.

Criteria and Hazardous Air Pollutants

Diesel truck traffic generated by the Gateway Project would release the following types and quantities of unhealthful emissions.

Nitrogen oxides (NO_x) can irritate people's eyes, nose, throat, and lungs, possibly causing people to cough and experience shortness of breath, tiredness, and nausea.¹⁹ An estimated *4,401 tons* would be released annually.

Nitrous oxide (N₂O) can cause dizziness, unconsciousness, and even death. Long-term exposure can lead to infertility.²⁰ An estimated *378 tons* would be released annually.

Ammonia (NH₃) is the third largest component of emissions and can irritate and burn the skin, mouth, throat, lungs, and eyes.²¹ An estimated *456 tons* would be released annually.

Particulate matter 10 microns or less (PM₁₀) is inhalable into the lungs and can cause cardiovascular effects such as cardiac arrhythmias and heart attacks, and respiratory effects such as asthma attacks and bronchitis.²² An estimated *246 tons* would be released annually.

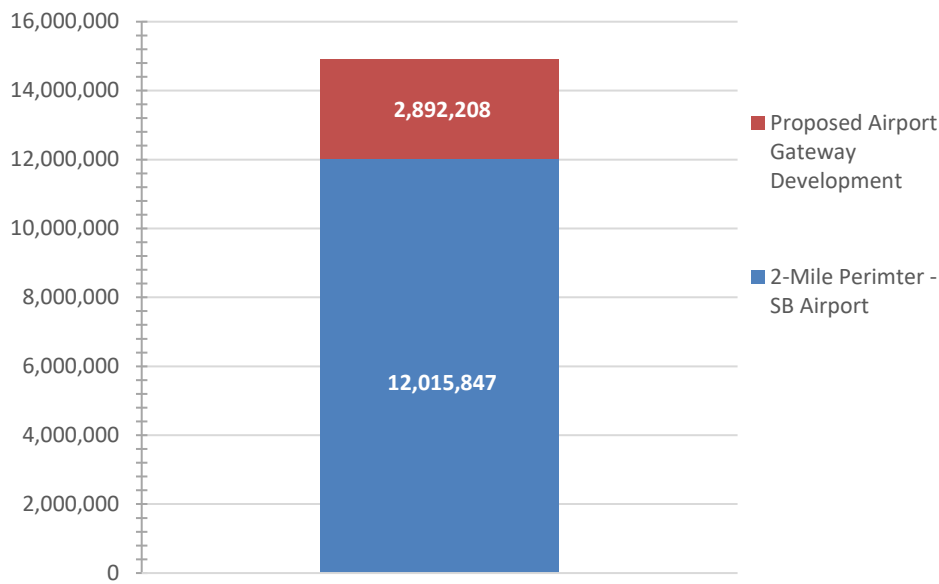
Particulate matter 2.5 microns or less (PM_{2.5}) is very small and has greater potential for causing health problems. Short-term exposures (up to 24-hours duration) of PM_{2.5} have been associated with premature mortality, increased hospital admissions for heart or lung causes, acute and chronic bronchitis, asthma attacks, emergency room visits, respiratory symptoms, and restricted activity days.²³ An estimated *109 tons* would be released annually.

Volatile organic compounds (VOC) can cause eye, nose and throat irritation, headaches, loss of coordination, nausea, and damage to liver, kidney and central nervous system. An estimated *100 tons* would be released annually.

Sulfur dioxide (SO₂) can cause irritation to the eyes, nose, and throat. An estimated *27 tons* would be released annually.

Based on the public health costs of these emissions calculated by U.S. Environmental Protection Agency, criteria and hazardous emissions from **diesel truck traffic for the Gateway Project would cause \$15,528,570 in uncompensated public health costs each year.**²⁴

Figure 18: Annual Tons of Greenhouse Gas Emissions from Diesel Trucks Moving Air Cargo from San Bernardino International Airport



Source: California Air Resources Board emission factors and Economic Roundtable analysis.

Greenhouse Gas Emissions

The weight of greenhouse gases produced by a diesel engine is 3.2 times greater than the weight of the diesel fuel that is consumed.²⁵ Diesel truck traffic generated by the Gateway project would release almost three million tons of greenhouse gases a year, as shown in *Figure 18*.

The quantity of greenhouse gas emissions released by the combustion of diesel fuel as a result of the Gateway Project would be many orders of magnitude greater than the quantity of criteria and hazardous air pollutants.

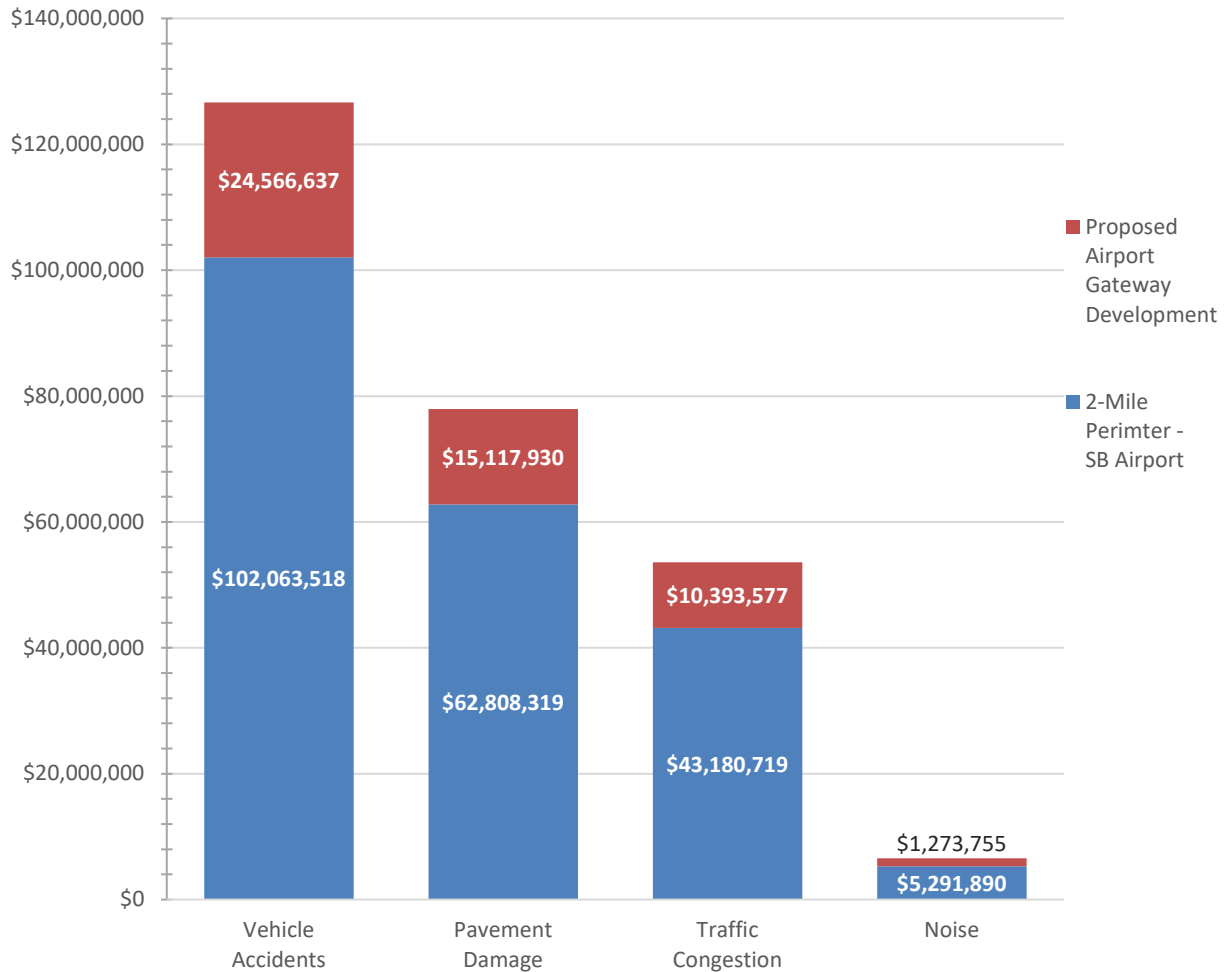
Carbon dioxide (CO₂) is the primary greenhouse gas. Greenhouse gases are often quantified as CO₂e, meaning carbon dioxide equivalent. Greenhouse gases trap heat in the earth’s atmosphere, leading to global warming and climate change.

Based on the costs of climate change calculated by U.S. Interagency Working Group on the Social Cost of Greenhouse Gases, greenhouse gas emissions from **diesel truck traffic for the Gateway Project would cause \$5,651,964 in uncompensated environmental costs each year.**²⁶

Truck Traffic Costs

Truck traffic causes multiple types of unfunded infrastructure and community costs from accidents, road damage, congestion, and noise.²⁷ This included the following uncompensated costs from the Gateway Project:

Figure 19: Annual Traffic Costs from Diesel Trucks Moving Air Cargo from San Bernardino International Airport



Source: Congressional Budget Office and Economic Roundtable analysis. Costs shown in 2022 dollars.

- \$40,077,565 in injuries, fatalities and property damage from traffic accidents
- \$24,663,117 from wear and tear on roads and bridges
- \$16,955,893 in delays caused by traffic congestion
- \$2,077,981 in loss of value caused by truck-related noise for adjacent properties.

Based on cost factors released by the U.S. Congressional Budget Office and Transportation Department, the additional truck traffic generated by the proposed Gateway Project would result in over \$831 million in uncompensated public costs each year, as shown in *Figure 19*.

In summary, conservative estimates of diesel truck costs from the Gateway Project identify hundreds of millions of dollars of uncompensated public costs from health, transportation, and environmental impacts from increased diesel truck traffic.



Photo credit:
Google Maps

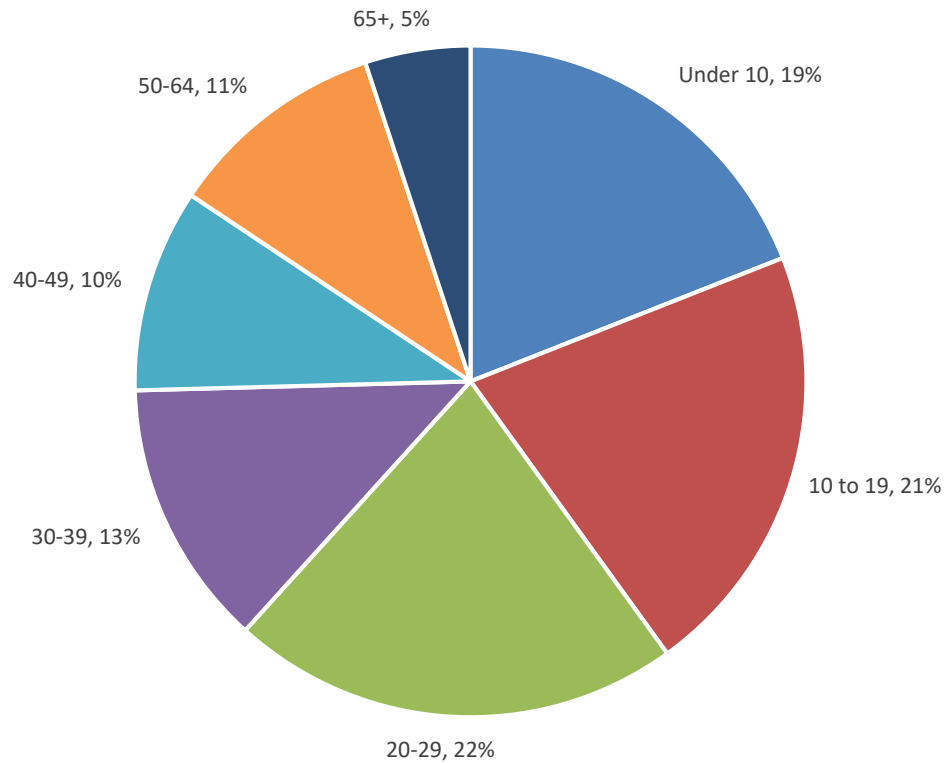
6. Residents Who Will Be Displaced

The Gateway Area is a neighborhood of working-age adults and their children, as shown in *Figure 20*. Most rent their homes and earn meager incomes. Displacement by the Gateway Project will likely result in their becoming even more rent burdened or homeless.

Forty percent of residents are under 20 years of age, and 55 percent are 20 to 64 years old.

Only five percent of residents are retirement age – 65 or older. This is a neighborhood of people raising children and working.²⁸

Figure 20: Age Distribution of Gateway Area Residents



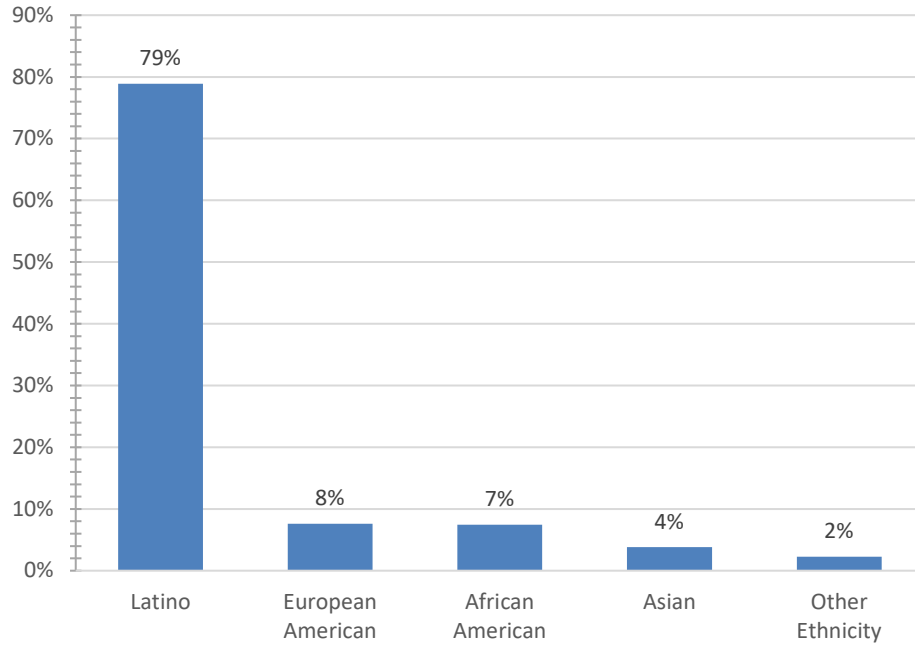
Source: U.S. Census Bureau, American Community Survey 2021, Table S0101, data for census tract 65.02.

Ethnicity

More than three-quarters of the residents are Latinos, as shown in *Figure 21*. Every other ethnicity makes up only a single-digit share of residents.

- Latino 79 percent
- European American 8 percent
- African American 7 percent
- Asian 4 percent
- Other Ethnicity 2 percent

Figure 21: Ethnic Distribution of Gateway Area Residents

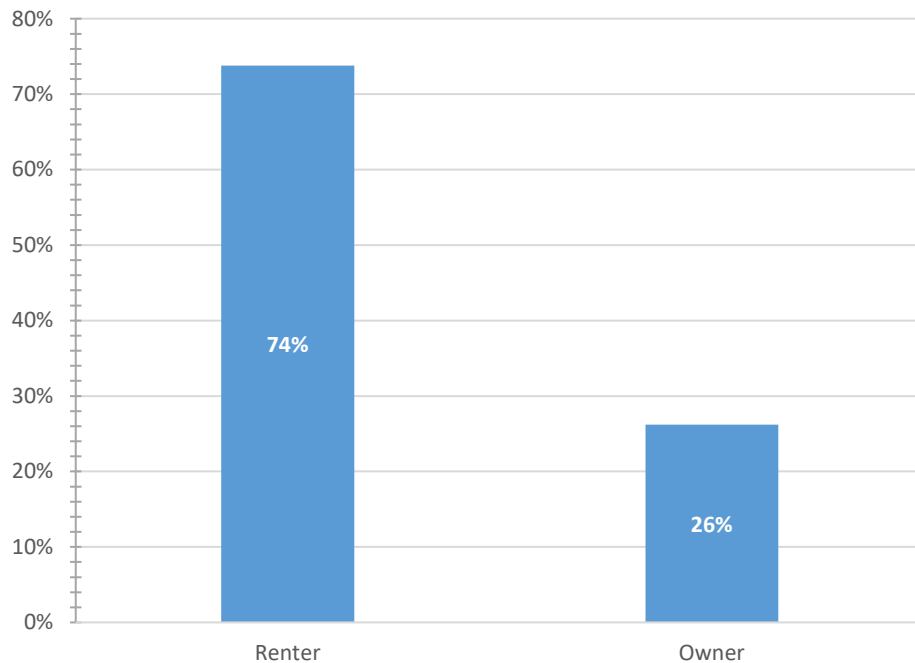


Source: U.S. Census Bureau, American Community Survey 2020, Table P2, data for census tract 65.02.

Housing

Most Gateway Area residents rent their homes. Nearly three-quarters are renters, as shown in *Figure 22*.

Figure 22: Housing Tenure of Gateway Area Residents



Source: U.S. Census Bureau, American Community Survey 2020, Table B25106, data for census tract 65.02.

The median gross rent in the Gateway Area is \$1,064 a month.²⁹ However, even with this comparatively modest level of rent, 55 percent of renters are rent-burdened – they pay over 30 percent of their income for rent.³⁰

Income

Well over half (58 percent) of renter households in the Gateway neighborhood have total incomes for everyone in the household that are under \$35,000 a year, as shown in *Figure 23*.

The median annual earned income of employed residents is \$23,211.³¹

The median income for all of the households in the Gateway neighborhood is \$28,553 a year.³²

Thirty-seven percent of Gateway residents have household incomes below the poverty threshold.³³

Conclusion

The Gateway Area is a neighborhood of working-age adults and their children. Most rent their homes and earn meager incomes. Rent levels are very low, but a majority of renters struggle to pay their rent.

Preservation of this affordable housing is crucial for Gateway residents.

Figure 23: Income Distribution of Renters in the Gateway Area Neighborhood



Source: U.S. Census Bureau, American Community Survey 2020, Table B25106, data for census tract 65.02.

If residents of the Gateway neighborhood are displaced from their housing, their prospects for finding comparably affordable housing are bleak. There is a strong likelihood that many would become more severely rent burdened and that some would become homeless.



Endnotes

¹ Airport Gateway Specific Plan Draft Environmental Impact Report, Table 3-2 (June 16, 2022), <https://ceqanet.opr.ca.gov/2022060349>.

² Inland Valley Development Agency, Airport Gateway Specific Plan Environmental Impact Report, Frequently Asked Questions – Internal, (March 14, 2023), <https://www.ivdajpa.org/wp-content/uploads/2023/03/IVDA-AGSP-FAQs-3.14.23-FINAL.pdf>

³ Airport Gateway Specific Plan Draft Environmental Impact Report, page 3-4 (June 16, 2022), <https://ceqanet.opr.ca.gov/2022060349>.

⁴ *Ibid.*

⁵ Airport Gateway Specific Plan Draft Environmental Impact Report, page 3-1 (June 16, 2022), <https://ceqanet.opr.ca.gov/2022060349>.

⁶ The projected number of flights in 2023 is based on annualizing the 217 cargo flights that landed at the airport in May of 2023. Aircraft arrival data is from Flightera.net, <https://www.flightera.net/en/airport/San%20Bernardino/KSBD/arrival/>.

⁷ The projected duration of flights in 2023 is based on annualizing the duration of the 217 cargo flights that landed at the airport in May of 2023. Aircraft flight data is from Flightera.net, <https://www.flightera.net/en/airport/San%20Bernardino/KSBD/arrival/>.

⁸ Incoming cargo aircraft are estimated to be evenly divided between Boeing 737s and Boeing 767s based on reporting by the San Bernardino Sun (February 17, 2019), <https://www.sbsun.com/2019/02/17/massive-air-cargo-logistics-center-coming-to-san-bernardino-international-airport/#:~:text=By%202024%2C%2026%20take%2Doffs,San%20Bernardino%20enviro%20consulting%20firm.>

Boeing 737s burn an average of 750 gallons of jet fuel an hour, based on statistics provided by Engaging Data, <https://engaging-data.com/airplane-emissions/>. Boeing 767s burn an average of 1,655 gallons of fuel an hour, based on data provided by Maldives Flight Support, <https://fsmaldives.com/aviation-fuel-jet-a-1-conversion-chart/>.

⁹ Emissions intensity of jet fuel, U.S. Department of Energy Office of Energy Efficiency and Renewable Energy, https://atb.nrel.gov/transportation/2020/jet_fuel

¹⁰ Inland Valley Development Agency, Draft Airport Gateway Specific Plan (June 2022), https://www.ivdajpa.org/wp-content/uploads/2022/07/DRAFT_AGSP_JUN2022.pdf.

¹¹ Airport Gateway Specific Plan Draft Environmental Impact Report, Tablews 3-1 and 3-3, pages 3-5 to 3-6, (June 16, 2022), <https://ceqanet.opr.ca.gov/2022060349>.

¹² These four communities are U.S. Census Bureau Public Use Microdata Areas (PUMAs). The Census Bureau provides detailed information about residents of these areas in the form of Public Use Microdata PUMs) records. These are anonymized records that contain all of the census long-form information for each household, including information about demography, occupations, industries, wages, and housing conditions.

¹³ The Standard Occupational Classification (SOC) codes and titles for the six frontline warehouse occupations are:

537064 Packers and packagers, hand
537051 Industrial truck and tractor operators
537062 Laborers and freight, stock, and material movers, hand
533030 Driver/sales workers and truck drivers
537065 Stockers and order fillers
435071 Shipping, receiving, and inventory clerks

¹⁴ California Department of Social Services, Eligibility and Issuance Requirements, (accessed March 13, 2023), <https://www.cdss.ca.gov/inforesources/cdss-programs/calfresh/eligibility-and-issuance-requirements#income>.

¹⁵ A trip is defined as a truck crossing the threshold of a warehouse facility. A truck entering a warehouse, then later exiting the warehouse counts as two trips. "SCAQMD High Cube Warehouse Truck Trip Study; White Paper Summary of Business Survey Results" (June, 2014), <http://www.aqmd.gov/home/regulations/ceqa/airMqualityManalysisMhandbook/highMcu beMwarehouse>

¹⁶ South Coast Air Quality Management District, "SCAQMD High Cube Warehouse Truck Trip Study; White Paper Summary of Business Survey Results," (June 2014), <http://www.aqmd.gov/home/regulations/ceqa/airMqualityManalysisMhandbook/highMcu beMwarehouse>.

¹⁷ *Ibid.*

¹⁸ The total weight of loaded trucks is based on weight data from truck and chassis manufacturers, the weight of forty-foot containers and their contents from the U.S. Department of Transportation, data.marad@dot.gov.

¹⁹ Center for Disease Control, "How can nitrogen oxides affect my health?" <https://wwwn.cdc.gov/TSP/ToxFAQs/ToxFAQsDetails.aspx?faqid=396&toxid=69#:~:text=Breathing%20high%20levels%20of%20nitrogen,in%20your%20lungs%2C%20and%20death>.

²⁰ Center for Disease Control, "Nitrous Oxide," <https://www.cdc.gov/niosh/topics/nitrousoxide/>.

- ²¹ Center for Disease Control, “Ammonia,” <https://www.cdc.gov/niosh/topics/ammonia/>.
- ²² U.S. Environmental Protection Agency, “How Does PM Affect Human Health?” <https://www3.epa.gov/region1/airquality/pm-human-health.html>.
- ²³ California Air Resources Board, “What Kinds of Harmful Effects Can Particulate Matter Cause?” <https://ww2.arb.ca.gov/resources/inhalable-particulate-matter-and-health#:~:text=For%20PM2.5%2C%20short%2D,symptoms%2C%20and%20restricted%20activity%20days>.
- ²⁴ U.S. EPA CO-Benefits Risk Assessment Health Impacts Screening and Mapping Tool (COBRA), <https://cobra.epa.gov/>.
- ²⁵ Natural Resources Canada, “Learn the facts: Emissions from your vehicle,” https://natural-resources.canada.ca/sites/www.nrcan.gc.ca/files/occe/pdf/transportation/fuel-efficient-technologies/autosmart_factsheet_9_e.pdf.
- ²⁶ Interagency Working Group on Social Cost of Greenhouse Gases, United States Government (August 2016), Technical Support Document: Technical Update of the Social Cost of Carbon for Regulatory Impact Analysis Under Executive Order 12866, page 4, https://www.whitehouse.gov/wp-content/uploads/2021/02/TechnicalSupportDocument_SocialCostofCarbonMethaneNitrousOxide.pdf
- ²⁷ David Austin, “Pricing Freight Transportation to Account for External Costs, Working Paper 2015-03,” Congressional Budget Office, (March 2015), <https://www.cbo.gov/publication/50049>.
Public costs from truck noise is from U.S. Department of Transportation, Federal Highway Administration, “Addendum to the 1997 Federal Highway Cost Allocation Study Final Report,” (May 2000), <https://www.fhwa.dot.gov/policy/hcas/addendum.cfm>
The estimated uncompensated public costs per ton-mile in 2022 dollars are:
- Pavement Damage \$0.0157
 - Traffic Congestion \$0.0108
 - Accident Risk \$0.0254
 - PM & NOx Emissions \$0.0113
 - CO2 Emissions \$0.0036
 - Noise (cost per mile) \$0.0496
- ²⁸ Census data is for tract 65.02, which encompasses most of the residents living within the proposed Gateway Project Area.
- ²⁹ U.S. Census Bureau, American Community Survey 2021, Table B25031, tract 65.02
- ³⁰ U.S. Census Bureau, American Community Survey 2021, Table B25106, tract 65.02.
- ³¹ U.S. Census Bureau, American Community Survey 2021, Table S2001, tract 65.02.
- ³² U.S. Census Bureau, American Community Survey 2021, Table S1901, tract 65.02.
- ³³ U.S. Census Bureau, American Community Survey 2021, Table S1701, tract 65.02.