



# ALTERNATIVE INTERNAL AIRPORTS SCENARIO

*Prepared for:*

**Regional Airport Planning Committee**



**ABAG**  
Association of  
Bay Area Governments



METROPOLITAN  
TRANSPORTATION  
COMMISSION



**Bay Conservation  
Development Commission**

# Critical Study Questions

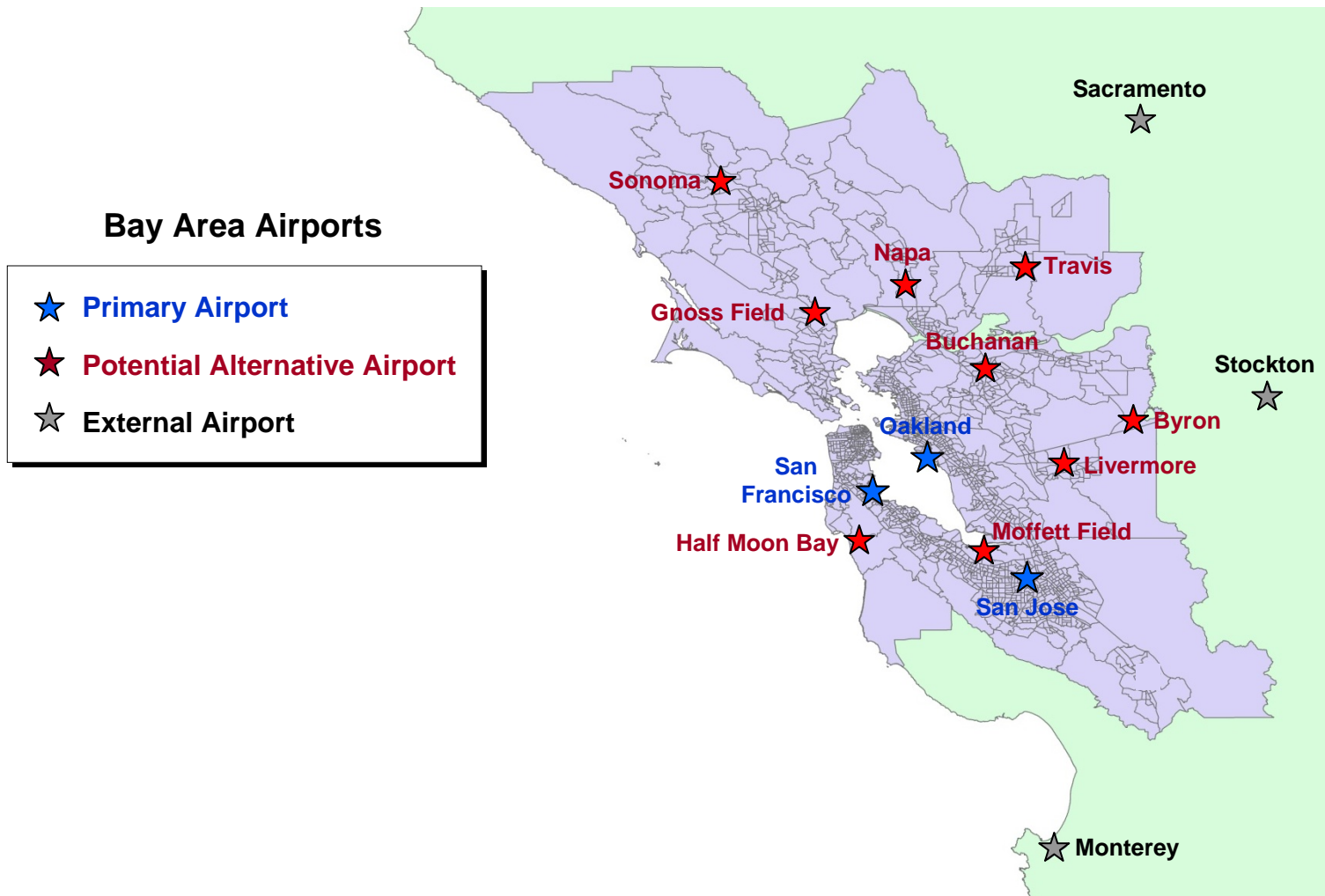
- ◆ **What Are the Capacity Limits of the Primary Bay Area Airports?**
- ◆ **When Are These Limits Likely to Be Reached?**
- ◆ **What Strategies Offer the Greatest Potential to Allow the Region to Efficiently Accommodate Future Aviation Demand?**
  - Redistribution of Traffic Between the Primary Airports
  - **Internal Airports**
  - External Airports
  - New ATC Technologies
  - Demand Management
  - High Speed Rail



## **The Alternative Airports Scenario Answers a Key Study Question**

***What is the Potential of Secondary Airports in the Bay Area to Support Air Passenger Services and Provide Relief to the Primary Airports?***

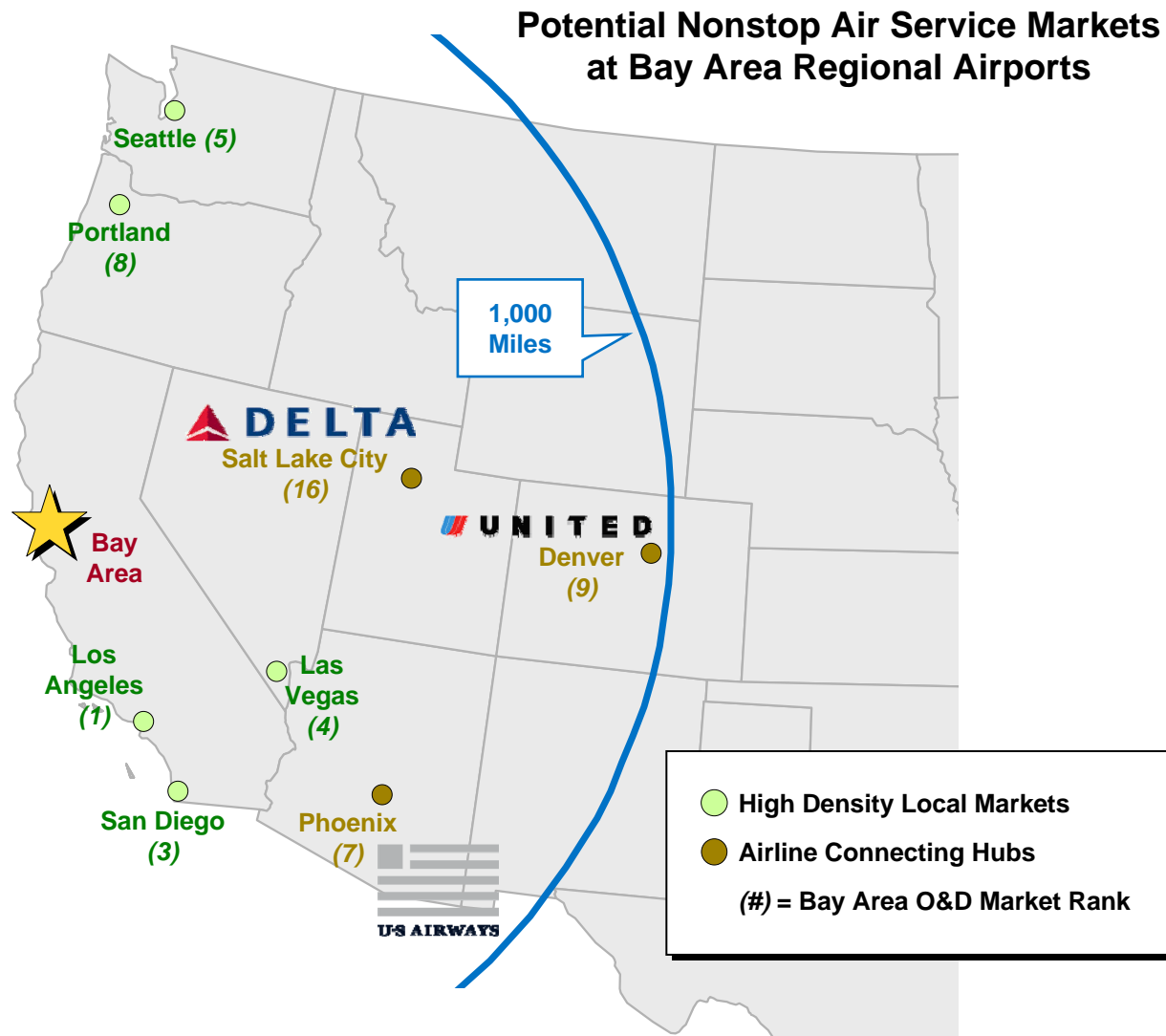
# A Series of Candidate Airports in the Bay Area Region Were Analyzed for Potential Air Passenger Services



# Objectives of the Alternative Airports Air Passenger Service Scenario

- 1. Identify the alternative airports that might support future scheduled air passenger services**
- 2. Quantify the level of future passengers that could be diverted from the primary airports**
- 3. Estimate the impact of passenger diversion on aircraft operations at the primary airports**
- 4. The potential reduction in aircraft demand at the primary airports will be used to assess the impact on capacity and delays, air quality emissions, green house gases and noise emissions**

# The Secondary Airports are Most Likely to Attract Service to High-Density, Short-Haul Markets and Airline Connecting Hubs



# Key Airline Considerations for Introducing Services at the Secondary Airports

- ◆ Inability to Grow or Serve Passenger Base from Primary Airports Because of Capacity Constraints
- ◆ Demand Potential – *ability to expand Bay Area market (incremental passengers rather than diversion)*
- ◆ Strategic Fit with Airline Business Model
- ◆ Fleet Availability
- ◆ Costs of Opening and Staffing a New Station

***Efforts to Regionalize Air Services in Major Metropolitan Markets Has Met With Mixed Results***

# Air Service Assumptions

- ◆ Aircraft Type ..... Large Turboprop  
Large Regional Jet
- ◆ Average Seat Capacity ..... 70
- ◆ Average Passenger Load Factor ..... 75%



# Key Considerations

- ◆ **Relief is Most Needed for SFO and OAK**
  - SJC has runway capacity to accommodate more than twice the 2035 activity level in the unconstrained forecast
  - As a result, secondary airports located in the Northern Bay Area region are the primary targets for this analysis
- ◆ **Location of the Secondary Airport is Critical**
  - Not too close to SFO/OAK that it would make the airport unable to compete
  - Not so far away that the airport market area generates too few trips at SFO/OAK
  - Must provide a meaningful access advantage over the primary airports
- ◆ **The Level of Trip Generation in the Secondary Airport Market Area is Essential to its Ability to Attract Airline Services and Provide Meaningful Relief to SFO/OAK**

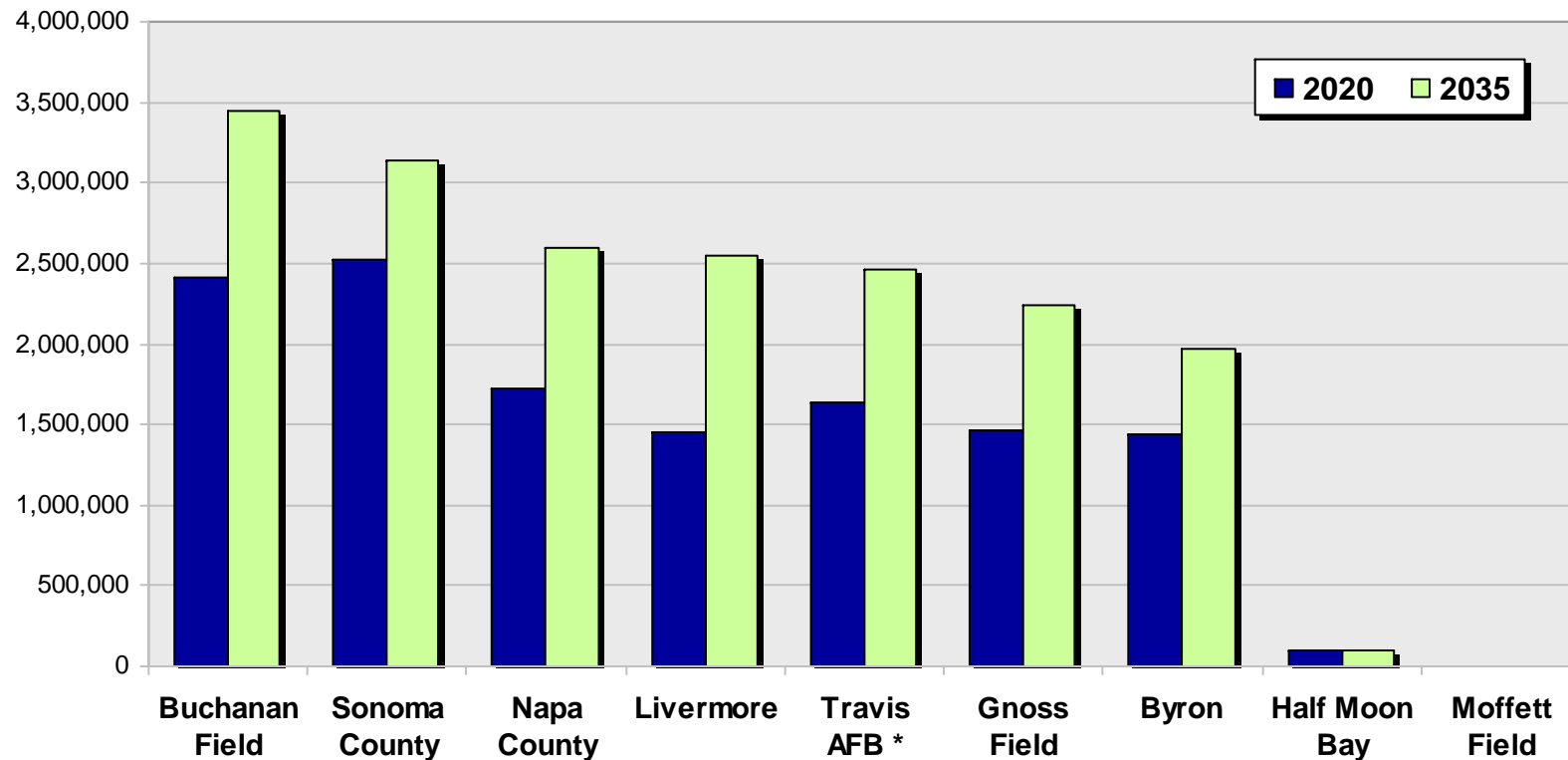
# **Secondary Airports Were Evaluated to Identify the Best Candidates for Future Air Service and Their Ability to Relieve the Primary Airports**

## ***Primary Secondary Airport Evaluation Criteria***

- ◆ **Catchment Area Passenger Demand**
- ◆ **Drive Time to the Closest Primary Airport (or Sacramento)**
- ◆ **Runway(s) Capable of Handling Commercial Aircraft**

# By 2035, Several Alternative Airports are Projected to Have Core Catchment Area Demand Exceeding 2M Domestic Air Passengers

Forecast Core Catchment Area Domestic Passengers  
2020 and 2035



Notes:

Includes forecast passengers that would use a primary Bay Area airport. Excludes passengers that may use Sacramento International Airport.

Includes catchment area overlap among the airports.

\* Demand in the Travis catchment area would be greater if passengers using SMF were included.

## Some Airports Were Dropped from Consideration After Further Screening

Airport	Reason
1. Gness Field	Insufficient runway length and room for expansion
2. Byron	Insufficient runway length and lower demand than nearby Buchanan; a possible alternative to Buchanan
3. Livermore	Too close to OAK to be competitive
4. Moffett	No “Core” Catchment Area demand
5. Half Moon Bay	No “Core” Catchment Area demand

# In Consultation with RAPC Staff, Three Airports Were Proposed for Consideration in the Air Passenger Service Analysis

## ◆ Sonoma County

- Currently has schedule airline service
- Catchment Area of 3.1M domestic passengers in 2035

## ◆ Buchanan

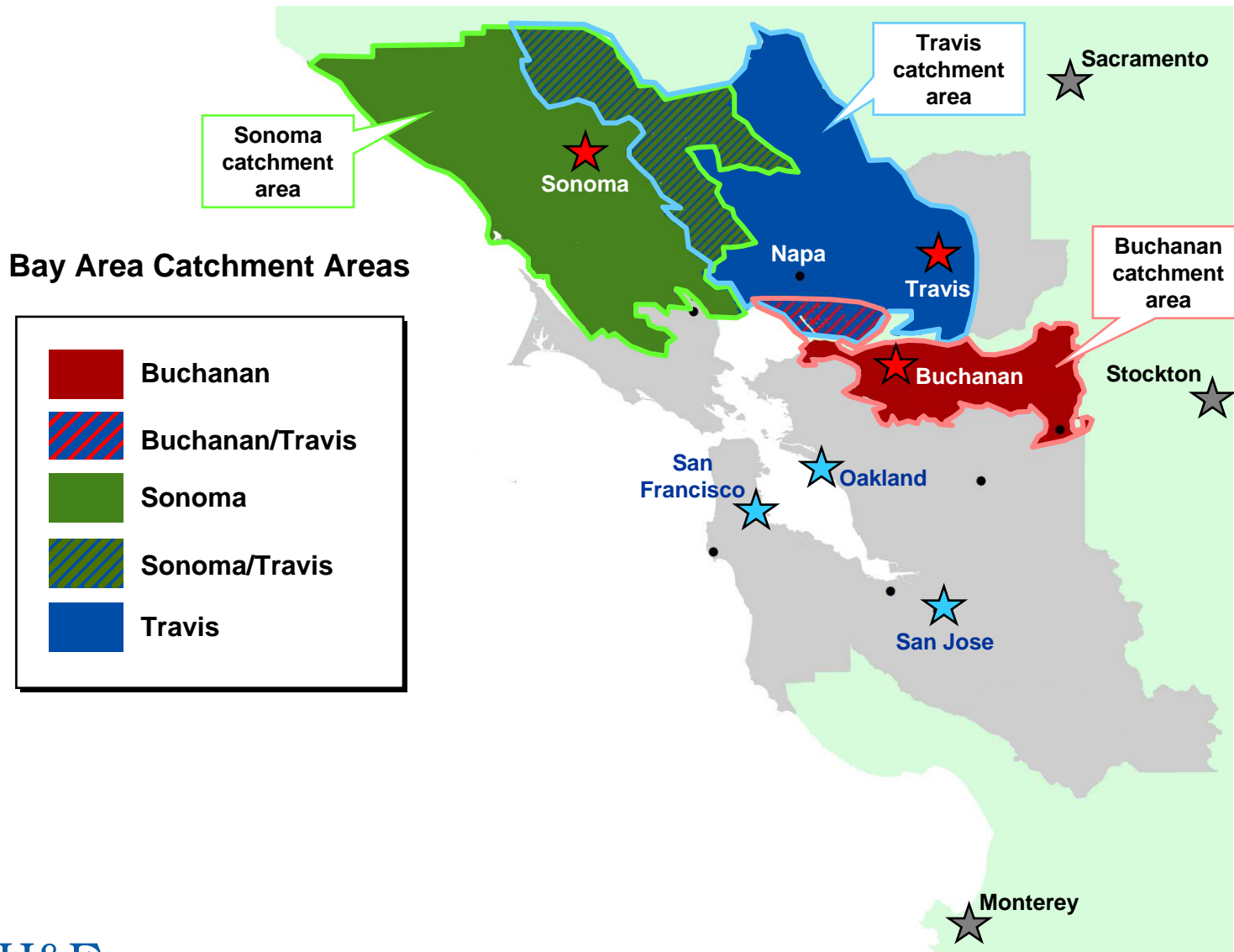
- Previously supported scheduled airline service
- Catchment Area of 3.4M domestic passengers in 2035
- Proximity to OAK (37 minutes) may limit its ability to attract airline services

## ◆ Travis AFB

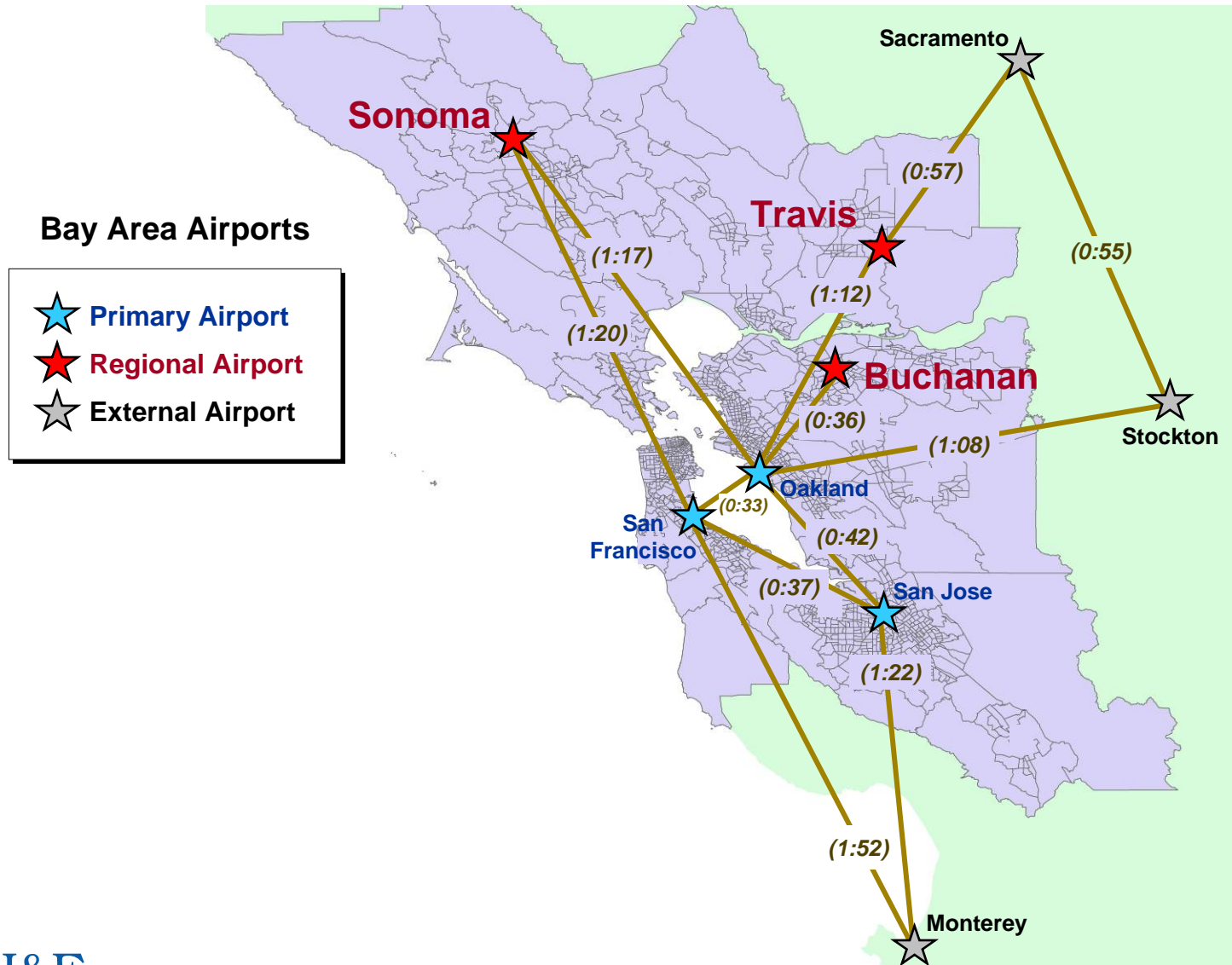
- Previously supported airline service in the early 70's under a joint use arrangement between the County and Air Force
- Catchment Area of 2.5M domestic passengers in 2035
- Has ample runway capacity (11,000 ft long runways)
- Can conveniently serve passengers in the Napa County area

***Passengers in the Napa County Airport Catchment Area Can Be Conveniently Served from the Travis or Sonoma County Airports***

# The Sonoma, Travis and Buchanan Core Catchment Areas

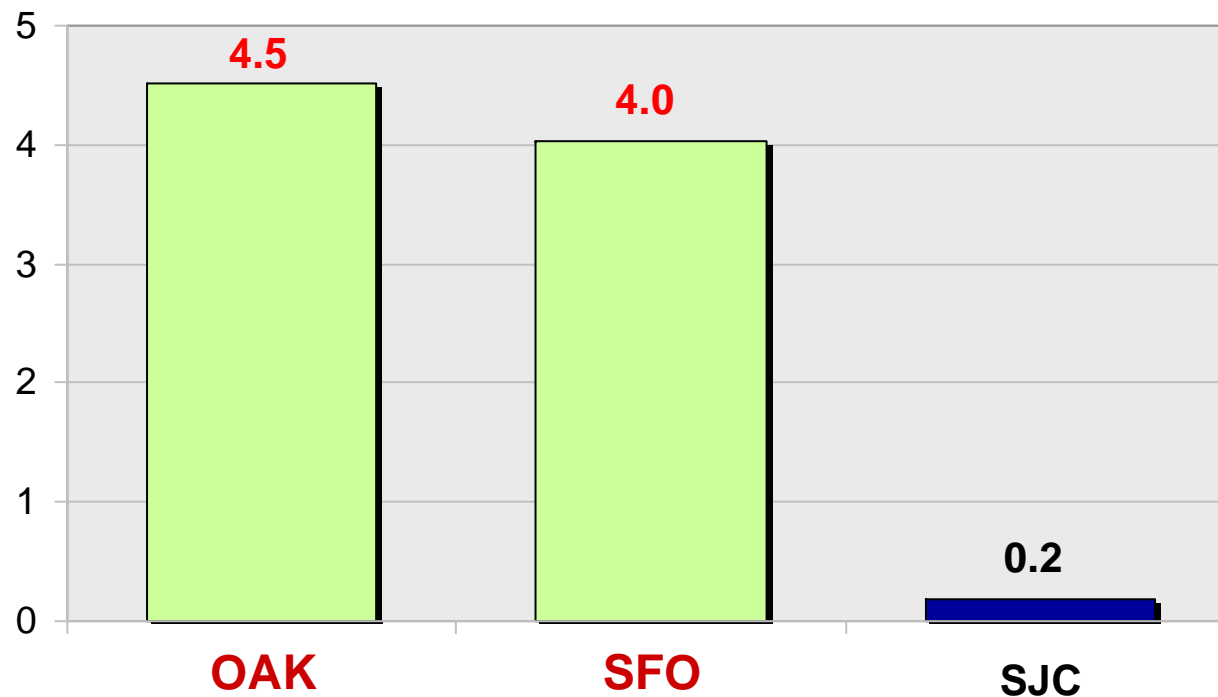


# Driving Times Between Potential Alternative Airports and the Primary Bay Area Airports



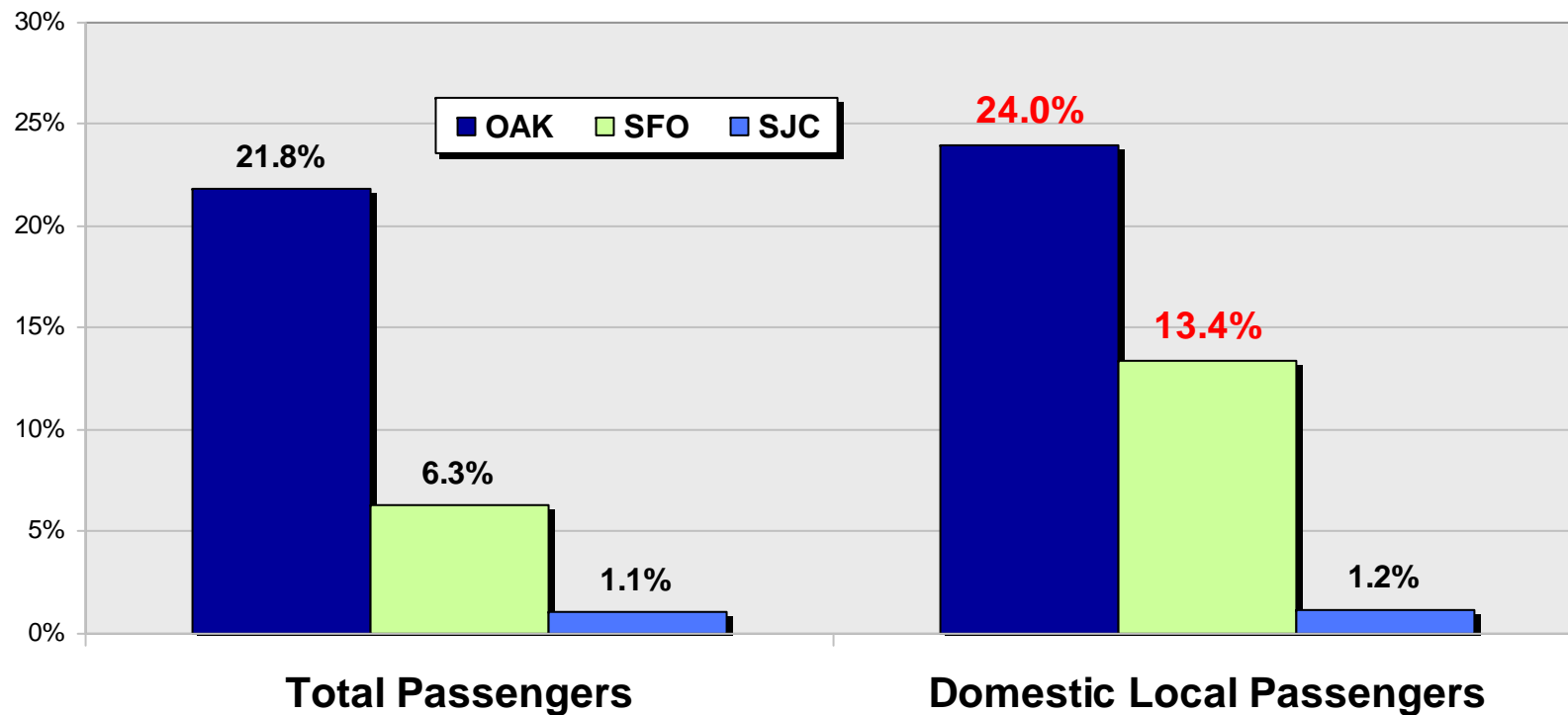
# In 2035, Without Secondary Airport Service Development, the Sonoma, Buchanan and Travis Core Catchment Areas Will Generate 8.5M Passengers at OAK and SFO

Forecast Passengers from Regional Airport Core Catchment Area Using a Primary Bay Area Airport  
2035



# The Passengers Generated in the Sonoma/Buchanan/Travis Catchment Areas Account for 24% of OAK's Domestic Local Passengers and 13% of SFO's

Core Catchment Area Passengers Using a Primary Bay Area Airport as a Percent of Primary Airport Passengers in 2035



# The Secondary Airports were Assumed to Support Nonstop Services to Five Local Markets and Two Airline Hubs by 2035

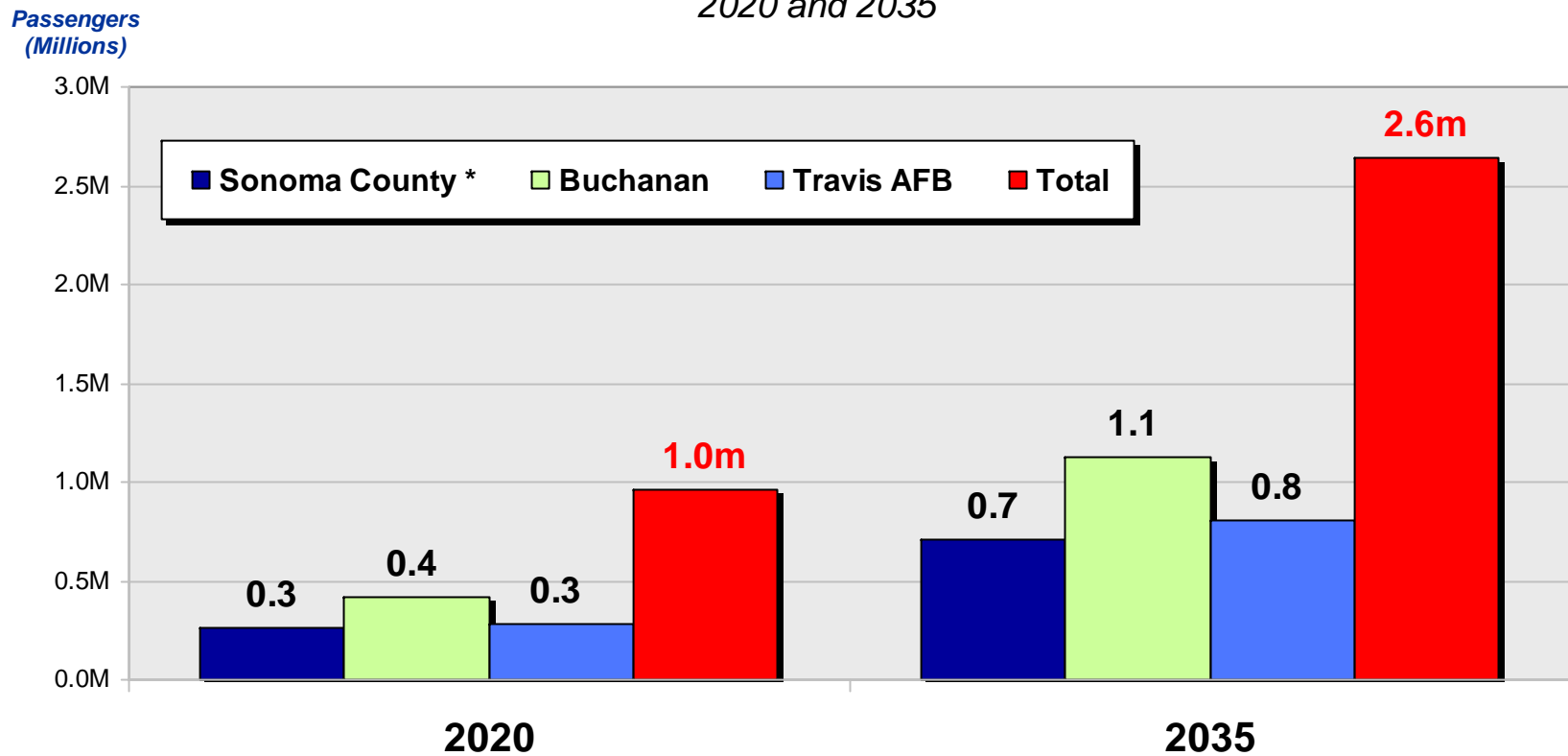
## Air Service Market and Capture Rate Assumptions

Year	Airport	No. of Local Markets	No. of Hubs	Capture Rate
2020	Sonoma County	5	1	50%
	Buchanan and Travis	4	1	50%
2035	All	5	2	60%

***Capture Rates were Based on an Analysis of Sonoma County Airport's Capture Rates in Existing Nonstop Air Service Markets***

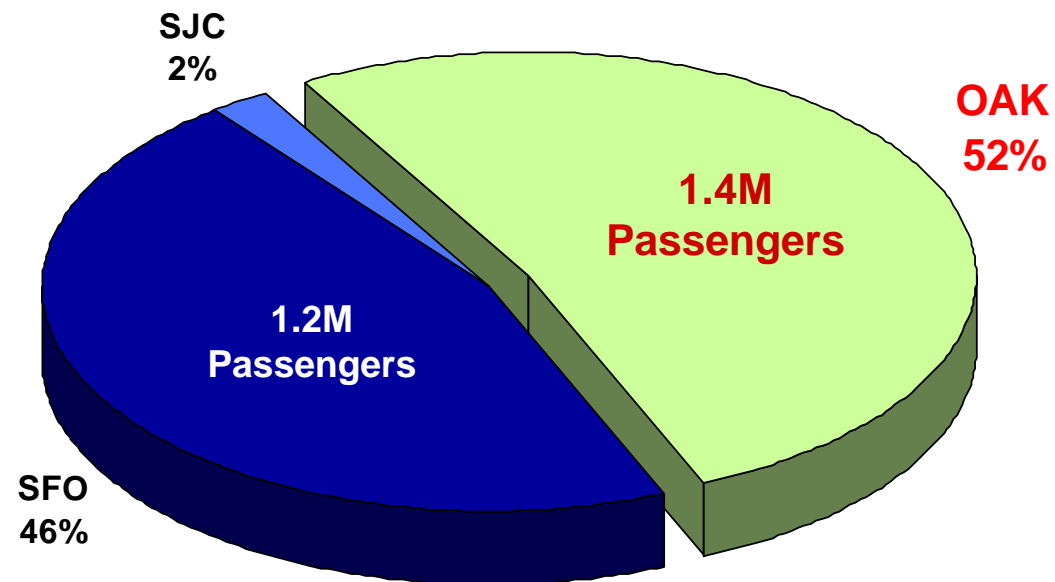
# In 2035, the Secondary Airports Could Potentially Divert 2.6M Passengers from the Primary Bay Area Airports

Potential Passenger Diversion from the Bay Area Airports  
2020 and 2035



# More than Half of the Forecast Passenger Diversion is from OAK

Forecast Passenger Diversion by Primary Bay Area Airport  
2035

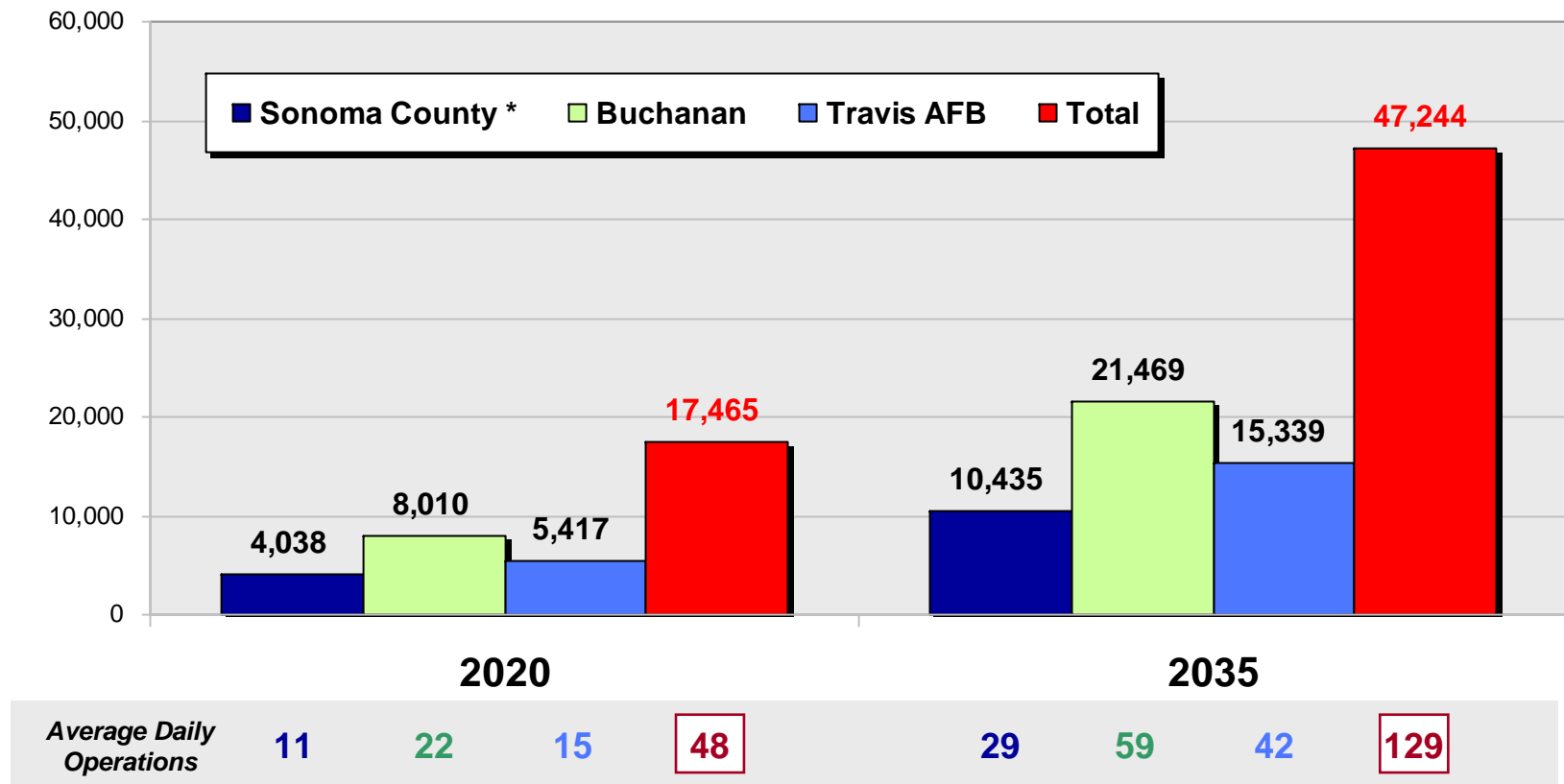


Note: Diversion by primary airport is based on airport usage patterns by ground origins from the 2006 and 2001 Airport Passenger Surveys, adjusted for forecast 2020 and 2035 primary airport shares of domestic O&D passengers.

# The Forecast Secondary Airport Passengers Would Result in 47,000 Aircraft Operations at the Secondary Airports in 2035

Forecast Aircraft Operations at the Secondary Airports  
2020 and 2035

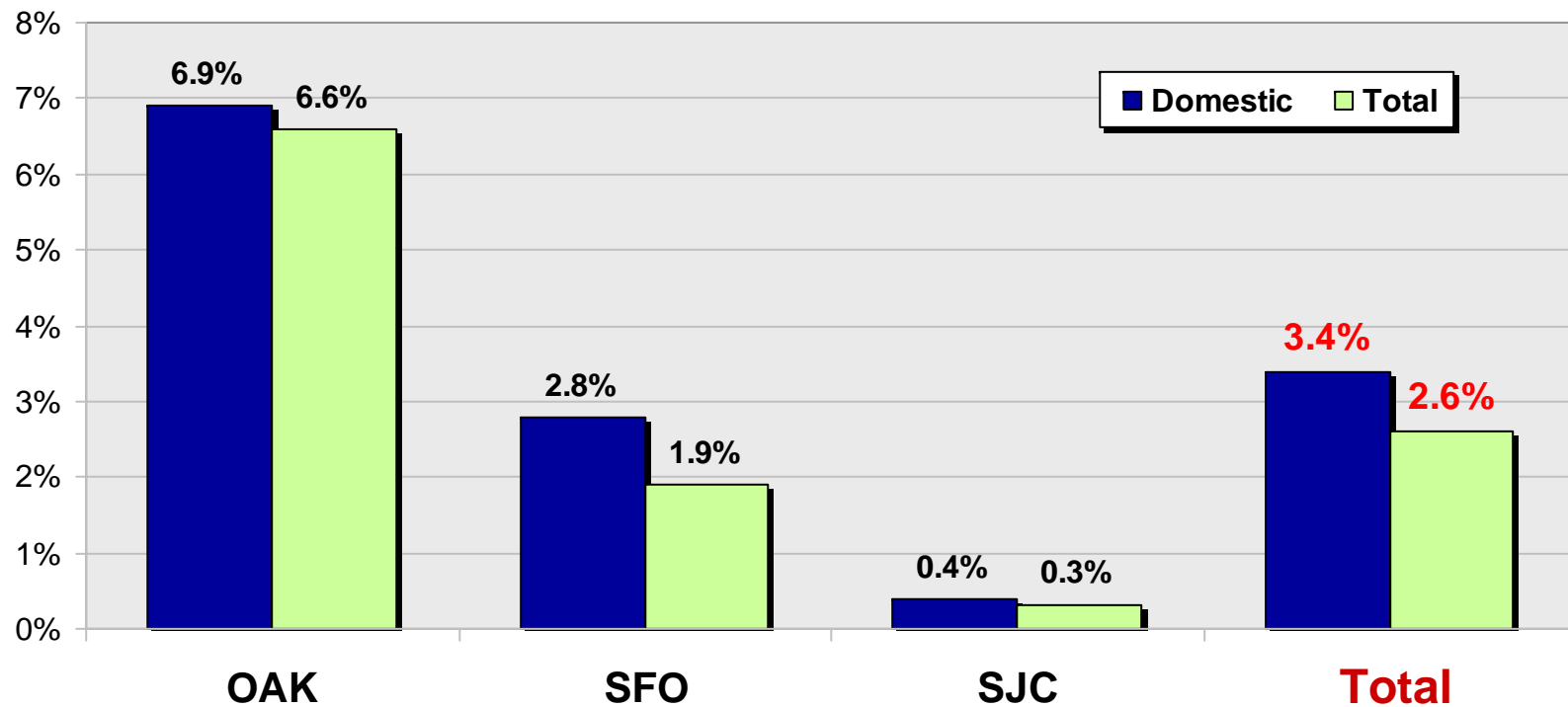
Annual Aircraft Operations



\* Forecast aircraft operations for Sonoma County Airport includes new nonstop markets only and excludes aircraft operations in markets currently served.

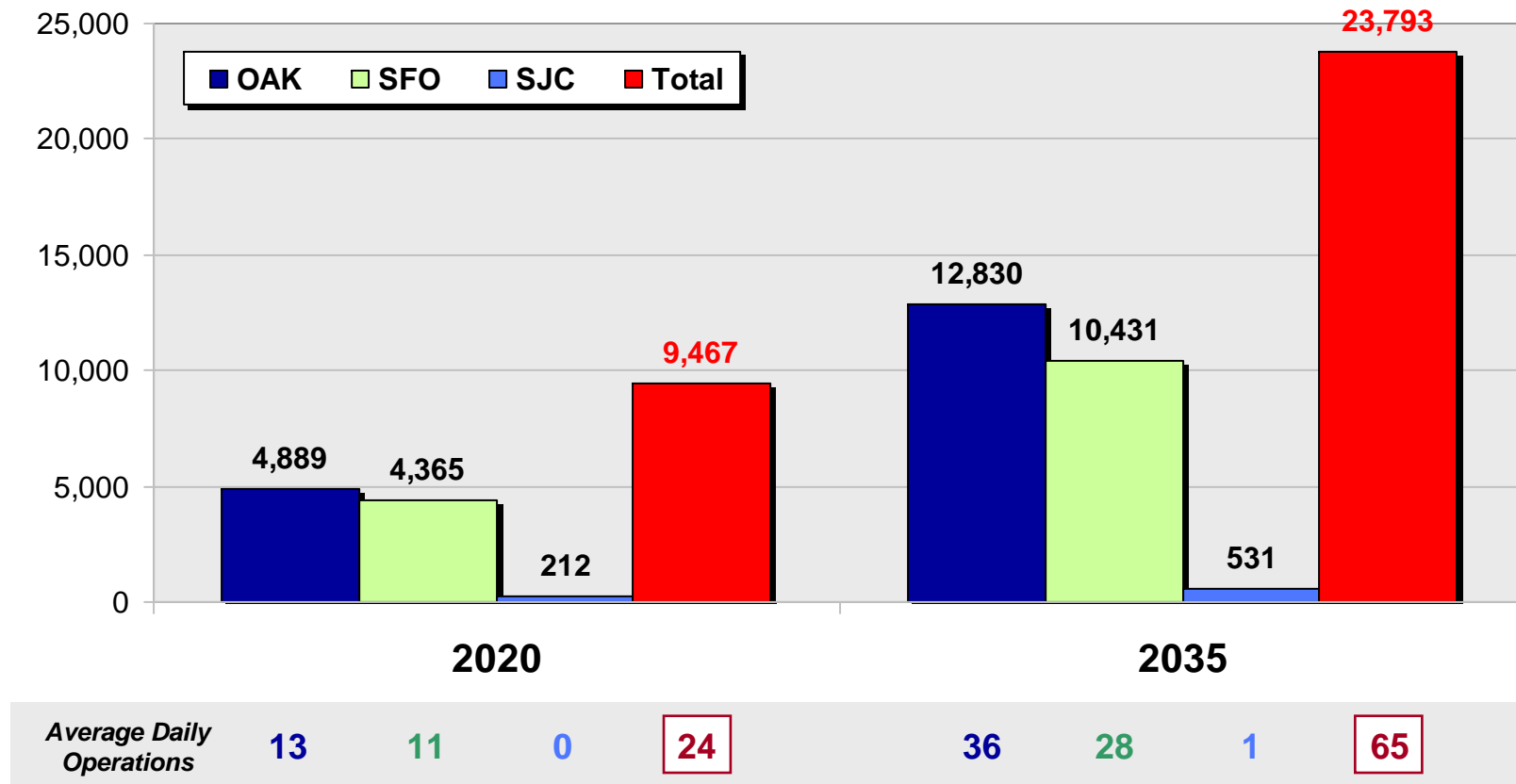
# Estimated Passenger Diversion in 2035 Represents Approximately 3% of Forecast Passengers at the Primary Airports

Secondary Airport Passengers as a Percent of Baseline Forecast Passengers at the Primary Airports  
2035



# In 2035, the Secondary Airports Could Reduce Aircraft Demand at the Primary Airports by 24,000 Annual Flights, or 65 per Day

Forecast Reduction in Aircraft Operations at the Primary Bay Area Airports  
2020 and 2035



# Overall, the Secondary Airports Have the Potential to Reduce Aircraft Activity at the Primary Airports by 2% in 2035

Percent Reduction in Annual Operations at the Primary Airports  
2035

