How To Conduct Trade Area Analyses With Location Intelligence

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FOURSQUARE

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Overview

Are you considering opening up offices in a downtown area? Or evaluating whether to close existing retail or restaurant locations in a central business district? What data are you using to make these critical decisions?

The commercial real estate ecosystem is changing rapidly, making it more important than ever to utilize location intelligence to keep up with shifting market trends, make timely investments and maintain competitive differentiation.

In this report, we explore best practices for how businesses can leverage location technology to analyze trade areas and inform smarter business decisions.

We then conduct a sample analysis of **7 central business districts** across the United States, using foot traffic patterns from the past year to assess key trade areas.

Let's dive in.

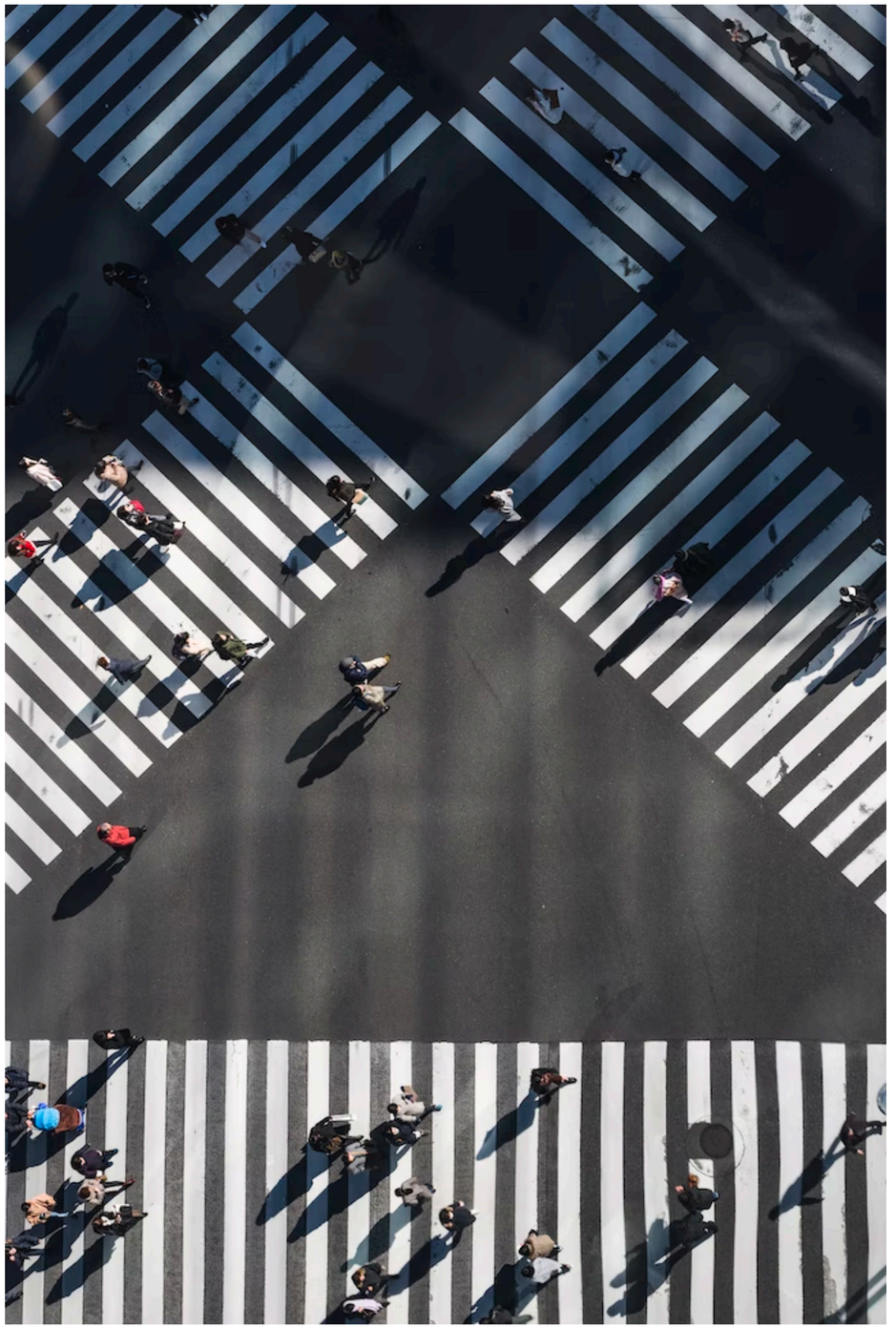
An overview of trade area analysis

What is trade area analysis?

Trade area analysis (TAA) is the process of studying and **understanding economic activity within a certain geographic area**.

This practice can address key questions such as:

- What types of businesses are in the area?
- How many businesses are in the area (concentration)?
- How many potential customers are in the area (residing or passing through)?
- Who are the potential customers (demographics & psychographics)
- Where are they coming from or going to?
- What are they buying?



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What are the benefits of trade area analysis?

Trade area analysis is a critical practice across a number of industries, including **retail**, **healthcare**, and in the **public sector** because it drives more informed decision-making when it comes to:

- **Site selection** - decide where to open (or close) stores, and where to invest in developing properties
- **Inventory and supply chain planning** - forecast demand and deliver the right products and services to consumers in the right places
- **Tailored marketing and advertising** - send the right messages to consumers in a trade area based on their patterns and preferences

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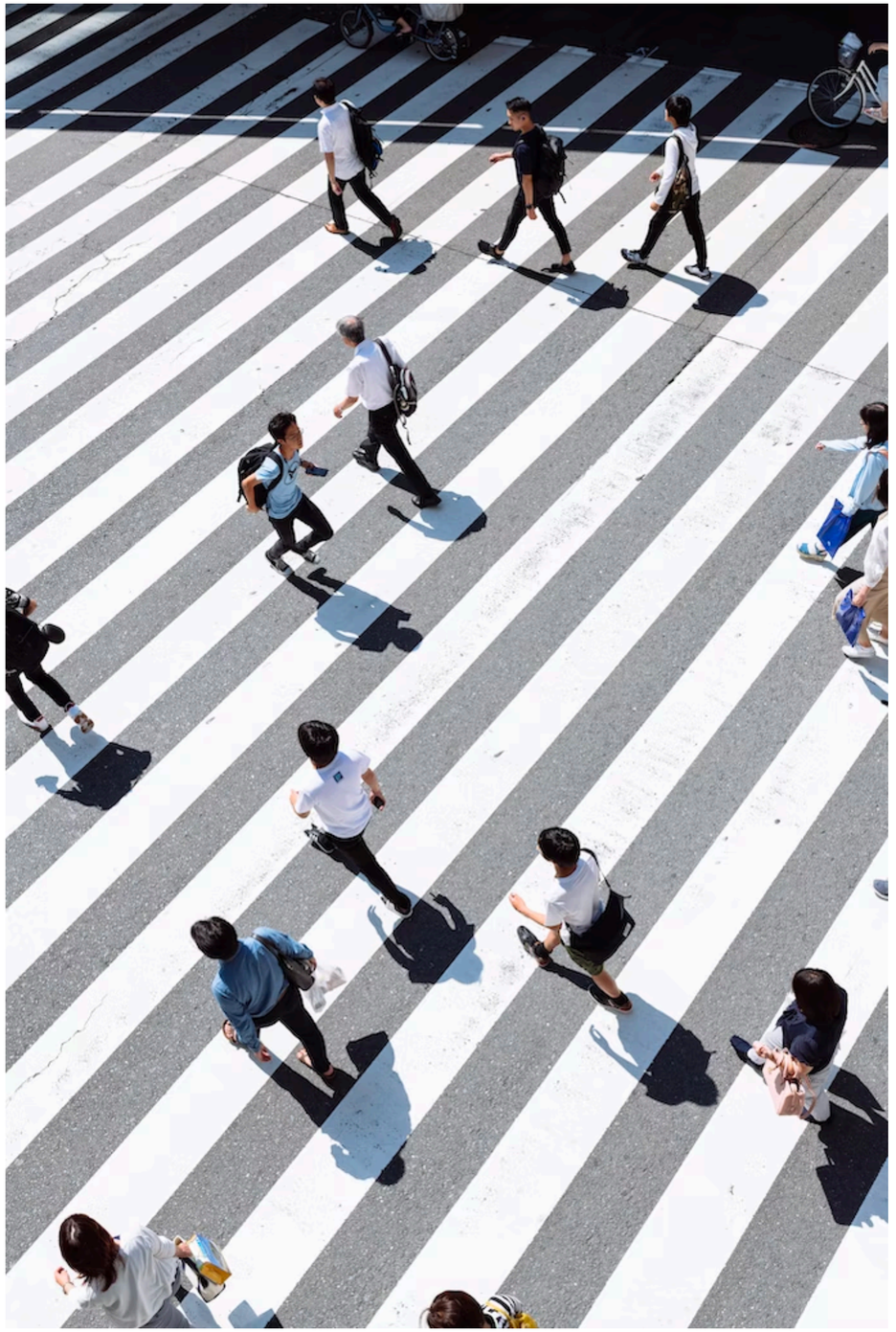
What datasets are used in trade area analysis?

Thorough trade area analysis requires robust and precise data about both places and movement:

- **Competition** - the number and concentration of different types of businesses within a trade area, as well as the velocity of businesses opening and closing
- **Demographics** - the age, gender, income, occupation, education, population density and psychographics amongst both the consumers who live in a trade area, and the consumers who pass though the area, as well as changes in the population over time
- **Transportation** - the distance that customers travel to reach a trade area or specific point of interest within the trade area, as well as accessibility and how consumers will reach and move around the trade area



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What are common techniques for trade area analysis?

A catchment area refers to the space around a business that provides it with customers. Businesses determine expected catchment areas in different ways:

- **Buffer** - this simple technique draws a radius around a point of interest and assumes that all people within a certain distance are potential patrons. This can provide a good general understanding of the trade area, but lacks nuance and may therefore be inaccurate or misleading
- **Drive or walk time** - this method starts to factor in consumers' modes of transportation, popular routes, and traffic volumes at different times of the day, giving a better sense of a potential patrons based on convenience and accessibility
- **Mobility** - this approach utilizes visitation data from mobile devices to conduct more thorough analyses of consumer behavior in the trade area, considering factors like brand loyalty and revealing hidden insights that might otherwise be missed

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Transforming trade area analysis with Foursquare

Analyze Trade Areas With **Places** & **Visits**

Robust, accurate data about places and movement between them provides a deep understanding of the landscape, empowering businesses to:

Model & Forecast

Identify, predict and capitalize on market trends based on store openings & closures and foot traffic (e.g. Is office traffic on the rise in Los Angeles?)

Tailor Timing

Use intel on opening hours and Visits by time of the day or day of the week to optimize operations in key trade areas (e.g. Do consumers tend to visit an area more early in the week?)

Derive Consumer Insights

Deeply understand consumers based on their behavioral patterns & adapt accordingly (e.g. Is traffic being driven by commuters or tourists?)

Power Smarter Decisions

Use foot traffic & venue popularity to inform recommendations, considering behavioral trends amongst Gen Z, corporate professionals, etc.

Pro Tip: Analyze Based On Census Block Groups

Seamlessly join Census data with Foursquare Places and Visits to analyze trade areas based on Census Block Groups, yielding even deeper insights.

For example, you can:

Understand how far people have traveled to get to your business, or your competitors. Are you a neighborhood destination, or do you draw a broader audience?

Know where patrons live and work, how far they travel, and commuter patterns.

Gain competitive advantage by knowing who you're competing against for visits.

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Analyze Trade Areas With Geospatial Visualization & Analytics

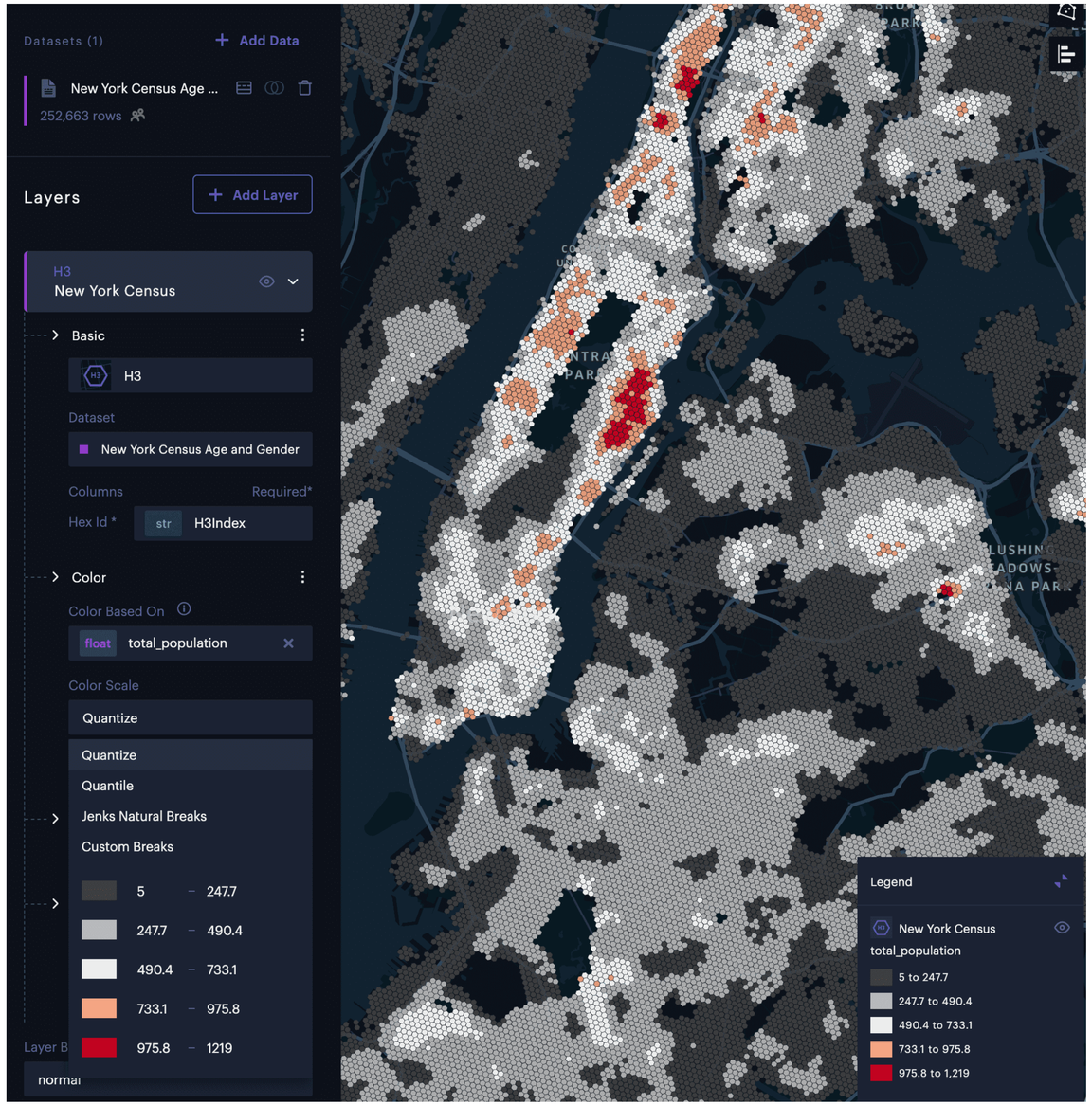
Foursquare enables you to visualize, unify, enrich and analyze spatial data on a planetary scale in one easy-to-use platform.

Join large-scale data of diverse shapes and sizes for analysis, create and share vibrant interactive maps with stakeholders, and explore data over space and time — all from within your browser or via SDK.

Create stunning visualizations and perform powerful analytics on a planetary scale.

Explore data over space and time to unlock new insights.

Easily integrate Unfolded into your system for a seamless workflow.



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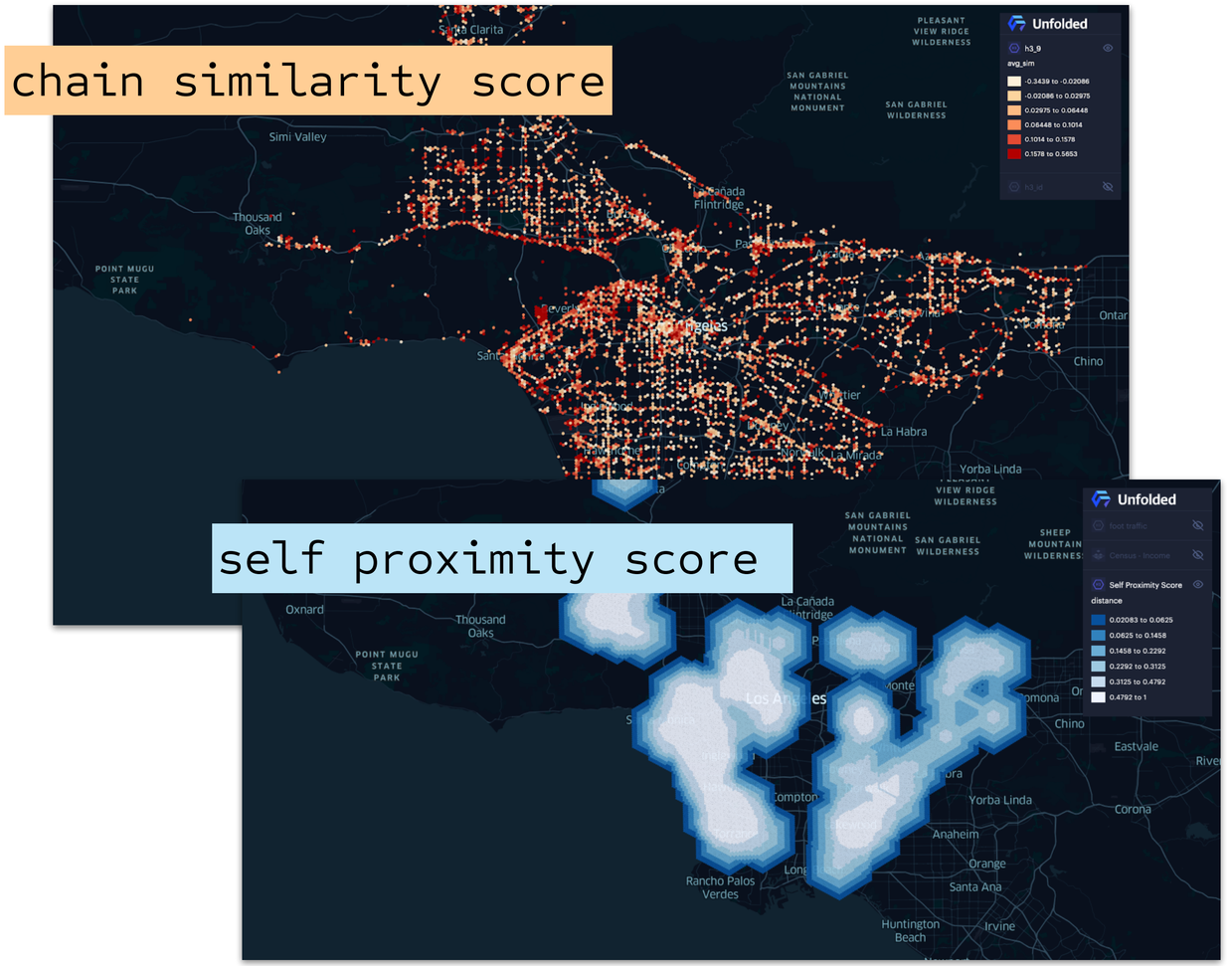
Pro Tip: Conduct Suitability & Similarity Analyses With Hex Tiles

Identify locations similar to current sites based on a range of criteria such as demographics, land cover, and more. With Foursquare's Python SDK and data on a current location, you can easily identify valuable attributes and build your own ML to create a heatmap in which each hexagonal cell has a similarity score to current locations.



Here's how it works:

- **Load the table with your current locations.**
- **Use Hex Tiles to load relevant datasets (demographics, etc.) from Foursquare's Marketplace.**
- **Analyzes the data and highlight other locations with similar characteristics.**

Let's conduct a sample analysis

A Sample Trade Area Analysis Methodology

Foursquare analyzed 7 trade areas based on foot traffic data (Visits) from millions of Americans that make up our always-on panel. For the purpose of this analysis, all data is aggregated and normalized against U.S. Census data to remove any age, gender and geographical bias.

Index Foot Traffic: We examined monthly foot traffic trends to various POI within downtown areas of U.S. cities to demonstrate the relative growth or decline in volume of visits that occurred between August 2021 to July 2022, where visits in August 2021 = 100.

Categorize POI: We analyzed behavioral trends in key trade areas based on foot traffic to venues in relevant categories:

Restaurants (includes independent restaurants, QSR chains & casual dining chains such as McDonald's and Olive Garden)

Coffee Shops (includes independent stores & chains such as Starbucks)

Nightlife Spots (includes various types of bars, nightclubs and other nightlife venues)

Offices

Arts & Entertainment Venues (includes theaters, movie theaters, event spaces, arcades, bowling alleys, concert venues & museums)

Gyms & Fitness Studios (includes independent locations & chains such as Planet Fitness)

Define trade areas: We utilized groups of zip codes to analyze central business districts in top markets:

Downtown San Francisco is defined to include 94103, 94104, 94105, 94107, 94109, 94111

Downtown Los Angeles is defined to include 90012, 90013, 90014, 90015, 90017, 90021, 90071, 90079

Downtown San Diego is defined to include 92101, 92102, 92134, 92104, 92113

Downtown Sacramento is defined to include 95811, 95814, 95816, 95817, 95818, 95819, 95820

Downtown Boston is defined to include 02111, 02110, 02210, 02108, 02109, 02114, 02113, 02116, 02199

Downtown Washington DC is defined to include 20036, 20005, 20008, 20004, 20009, 20002

Downtown New York City is defined to include 10004, 10005, 10006, 10280, 10007, 10013, 10282

In **downtown Los Angeles**, arts & entertainment venues are seeing the biggest boost in foot traffic

By the end of July 2022, downtown Los Angeles had seen a strong uptick in visitation to various places of interest compared to just 12 months prior. Most notably, arts & entertainment venues such as movie theaters, concert venues and museums had increased by +72% from last August (2021). Nightlife venues has also seen +50% growth in YoY visitation. And while many LA residents are still working remotely, office traffic increased by +21%.

Indexed Foot Traffic To Places In Downtown Los Angeles, California
(Benchmark: August 2021)

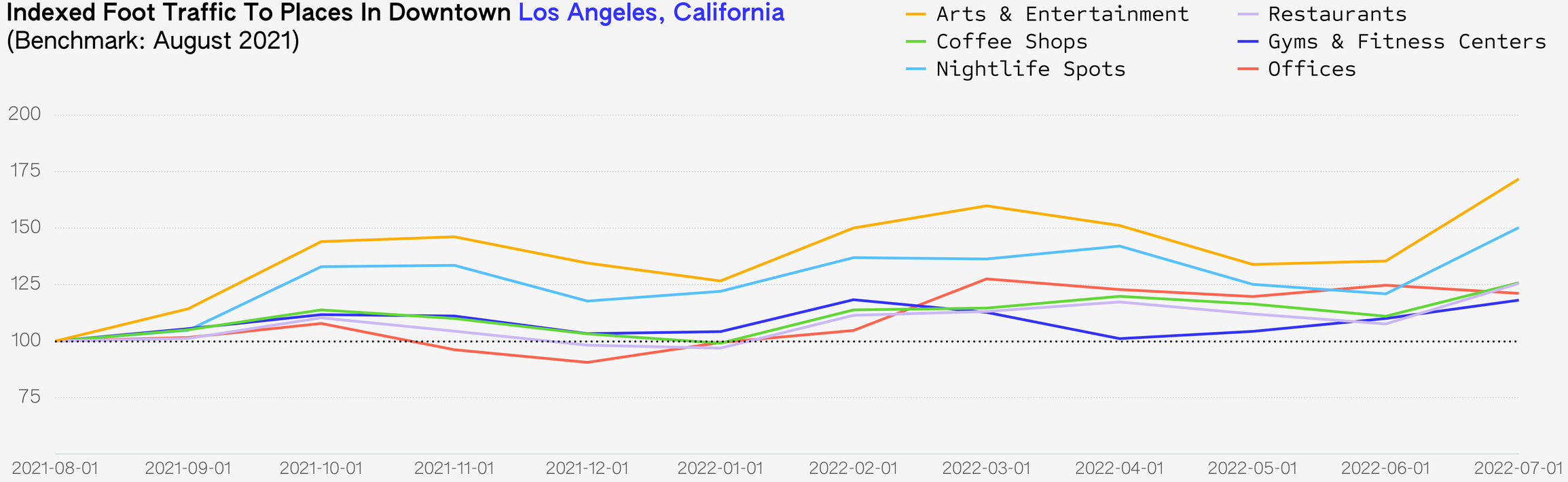


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Chart illustrates change in weekly foot traffic to various places of interest in downtown Los Angeles, CA between August 2021 through July 2022, where visitation is benchmarked to the first month, where visits in August 2021 = 100.

In **downtown San Francisco**, arts & entertainment venues have seen the biggest boost in traffic since last summer

In San Francisco's central business district, various places of interest across dining, entertainment and professional offices have all seen substantial growth in foot traffic over the past 12 months. Most notably, arts & entertainment are making a significant comeback. Foot traffic to places like movie theaters, concert venues and museums in downtown San Francisco had increased by +86% since last August (2021). Downtown offices had also seen +50% growth in YoY visitation, contributing to the rise in traffic to nearby coffee shops and gyms (+38-39%) in SF's central business district.

Indexed Foot Traffic To Places In Downtown San Francisco, California
(Benchmark: August 2021)

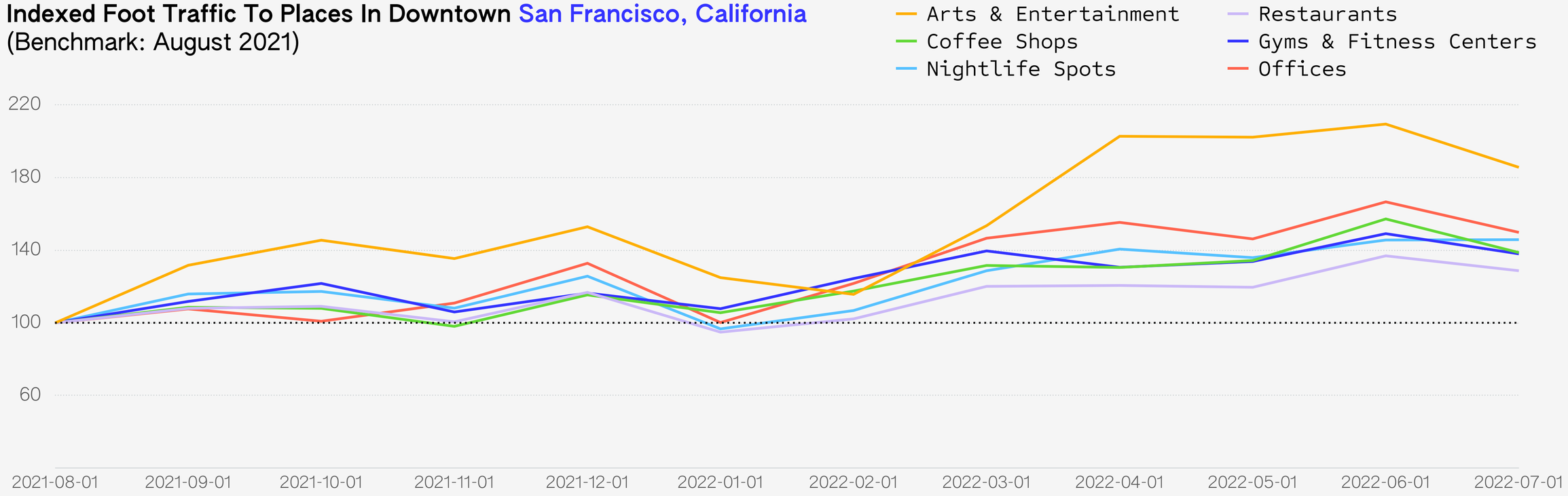

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Chart illustrates change in weekly foot traffic to various places of interest in downtown San Francisco, CA between August 2021 through July 2022, where visitation is benchmarked to the first month, where visits in August 2021 = 100.

In **downtown San Diego**, arts & entertainment venues are seeing the biggest boost in visits

By July 2022, arts & entertainment venues in downtown San Diego had seen +100% growth in visitation from just 12 months prior, with the most notable uptick occurring between June to July this year. Gyms and fitness studios in downtown San Diego have also see a more notable rise in visitation starting in May this year, resulting in +51% YoY growth as of July 2022.

Indexed Foot Traffic To Places In Downtown San Diego, California
(Benchmark: August 2021)

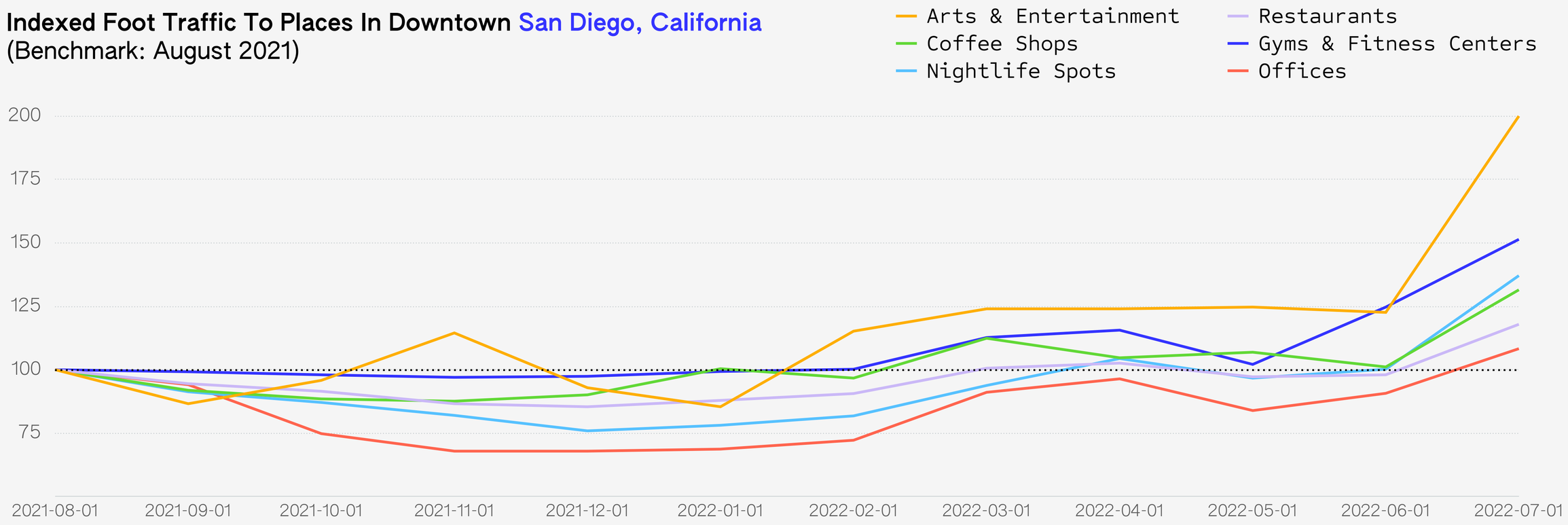

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Chart illustrates change in weekly foot traffic to various places of interest in San Diego, CA between August 2021 - July 2022, where visitation is benchmarked to the first month, where visits in August 2021 = 100.

In **downtown New York City**, offices have seen the strongest uptick in traffic of any category since last summer

In downtown NYC (FiDi), foot traffic to corporate offices had increased by +53% in the 12-month period ending July 2022. Restaurants, coffee shops and nightlife venues have all benefited from this rise in return to offices, resulting in +10-24% growth in visitation to dining & nightlife venues.

Indexed Foot Traffic To Places In Downtown New York City
(Benchmark: August 2021)

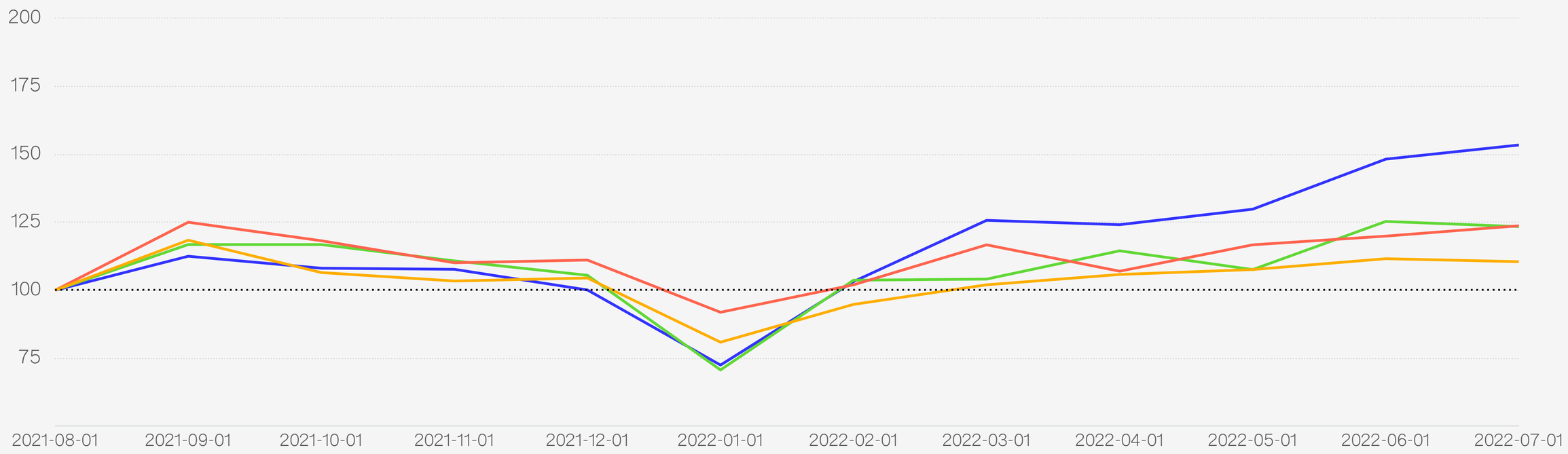

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Chart illustrates change in weekly foot traffic to various places of interest in downtown NYC between August 2021 - July 2022, where visitation is benchmarked to the first month, where visits in August 2021 = 100.

In **downtown Boston**, offices have seen the strongest uptick in traffic of any category since last summer

In downtown Boston, foot traffic to corporate offices had increased by +58% in the 12-month period ending July 2022. Restaurants, coffee shops, nightlife venues & gyms have all benefited from this rise in return to offices, resulting in +13-23% growth in visitation across these categories.

Indexed Foot Traffic To Places In Downtown Boston, MA
(Benchmark: August 2021)

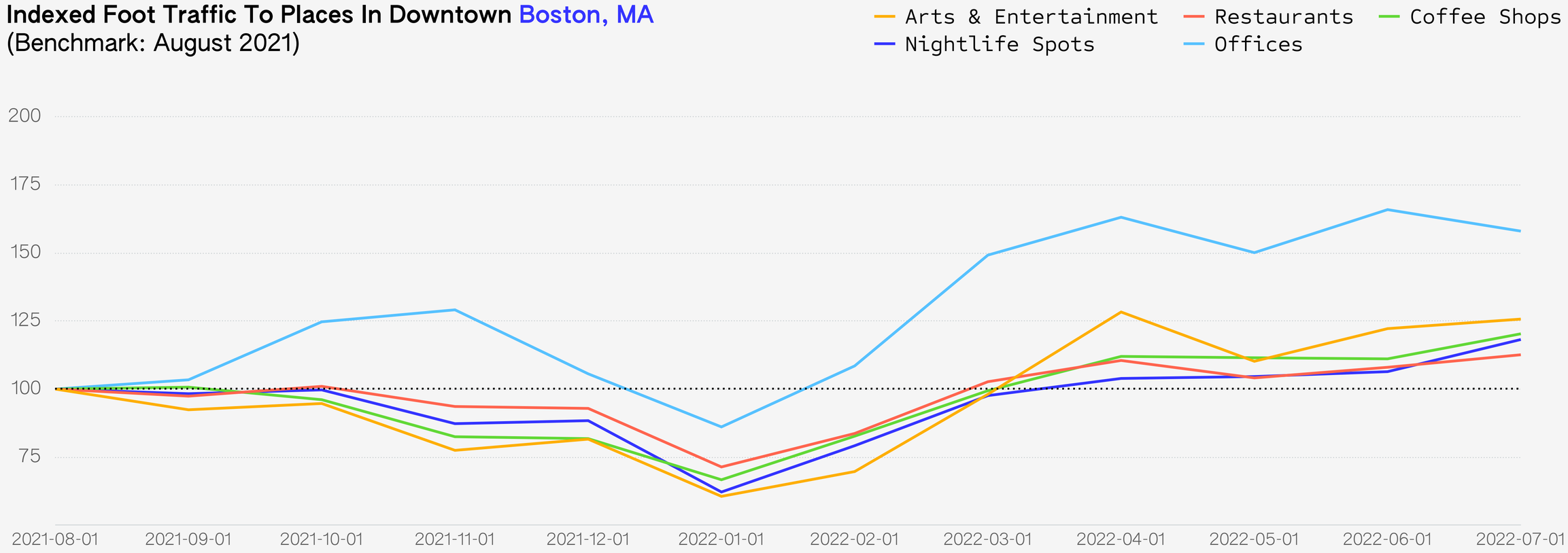

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Chart illustrates change in weekly foot traffic to various places of interest in downtown Boston, MA between August 2021 - July 2022, where visitation is benchmarked to the first month, where visits in August 2021 = 100.

In **downtown Washington DC**, arts & entertainment venues have seen the biggest boost in traffic since last summer

In downtown Washington DC, various places of interest across dining, entertainment and corporate offices have all seen substantial growth in foot traffic over the past 12 months. Most notably, arts & entertainment are making a significant comeback in the Nation's capital. As of July 2022, foot traffic to places like movie theaters, concert venues and museums had increased by +146% since last August (2021). Downtown offices had also seen +68% growth in YoY visitation, contributing to the rise in traffic to nearby coffee shops and restaurants (+19-22%) in DC's central business district.

Indexed Foot Traffic To Places In Downtown Washington DC
(Benchmark: August 2021)

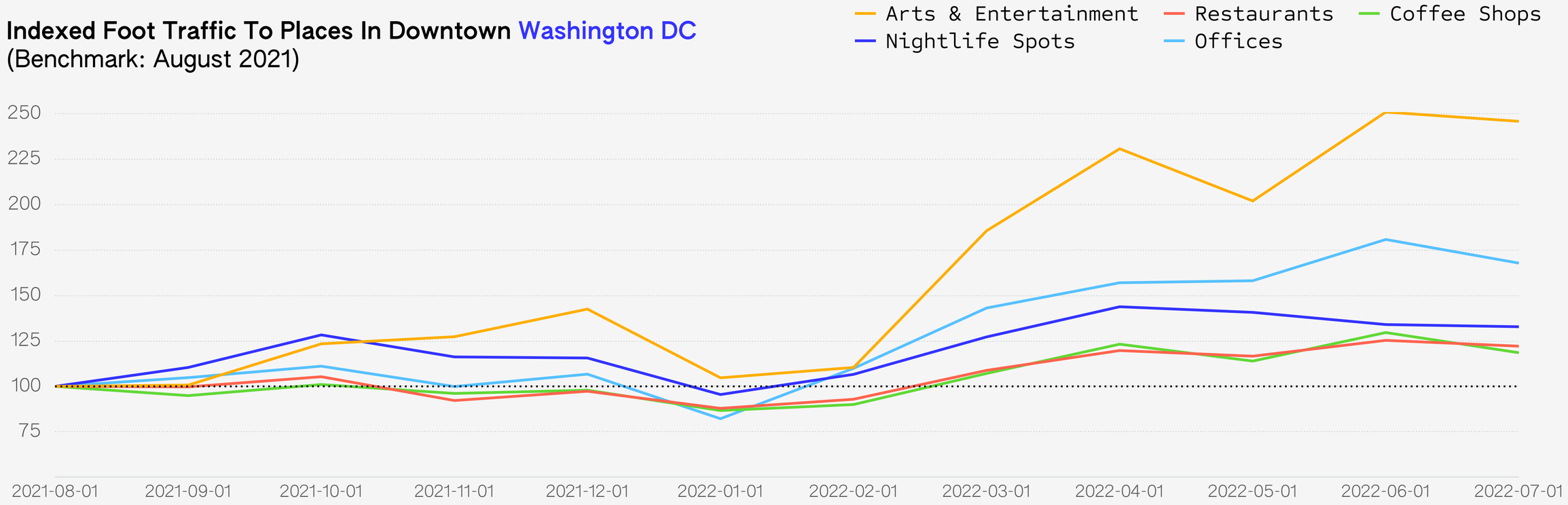

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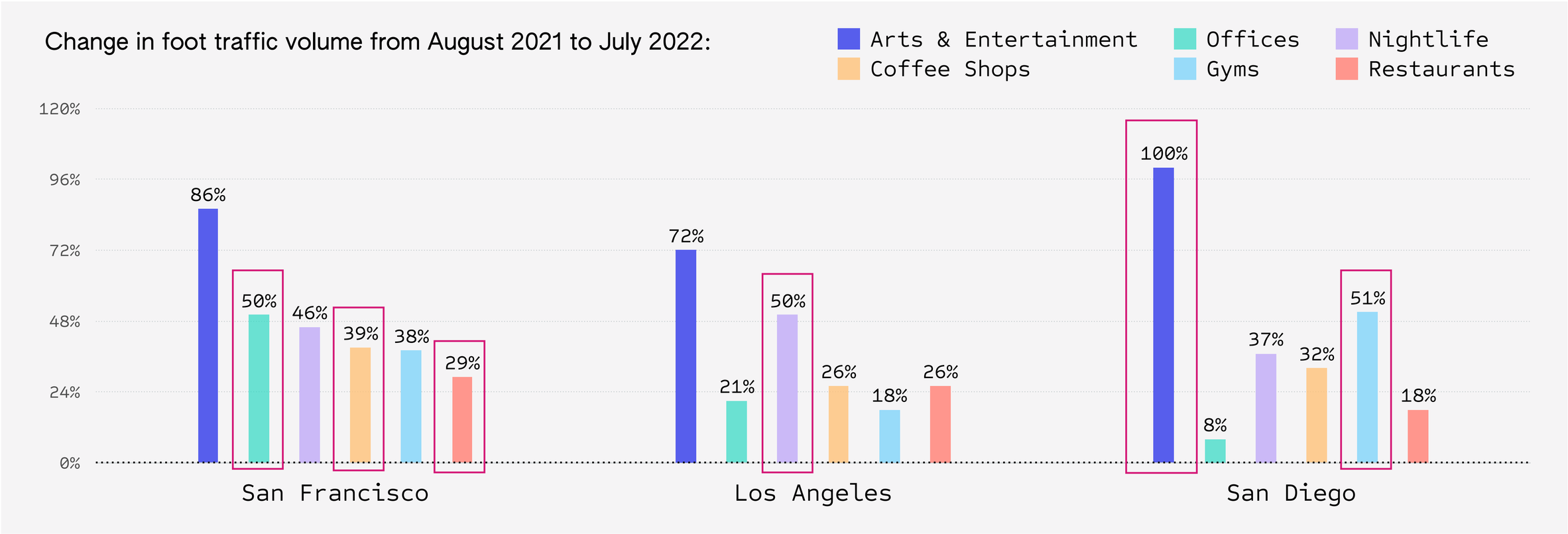
Chart illustrates change in weekly foot traffic to various places of interest in downtown Washington DC between August 2021 - July 2022, where visitation is benchmarked to the first month, where visits in August 2021 = 100.

Now, let’s compare trade areas side by side

In **California**, foot traffic recovery in downtown areas varies by city



Of the three cities we looked at, **San Francisco** experienced the most growth in foot traffic to downtown **offices, coffee shops & restaurants** this past year. The rise in downtown office visitation has likely contributed to increased traffic for nearby coffee shops & restaurants.

Downtown **Los Angeles** experienced the most notable uptick in **nightlife** visitation, up +50% from last August.

Traffic to arts & entertainment venues in downtown **San Diego** increased by +100% YoY — suggesting a big boost for travel & tourism. Gym & fitness studio traffic also increased by over +50% in downtown San Diego this past year, likely reflective of changes in residents' comfort levels.

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Chart illustrates change in monthly foot traffic to various places of interest in California between August 2021 - July 2022, where visitation is benchmarked to the first month (August 2021 = 100). Cities defined by downtown areas only.

The rise in foot traffic to downtown NYC offices has continued to outpace growth in office visitation in downtown SF & LA this past year

While downtown San Francisco has seen a significant rise in visitation to various places of interest this past year, our data shows that downtown Los Angeles has seen a slightly more substantial uptick in nightlife visitation by comparison. Furthermore, growth in office visitation in downtown NYC has continued to outpace YoY growth in foot traffic to offices in both downtown SF & LA this past year.

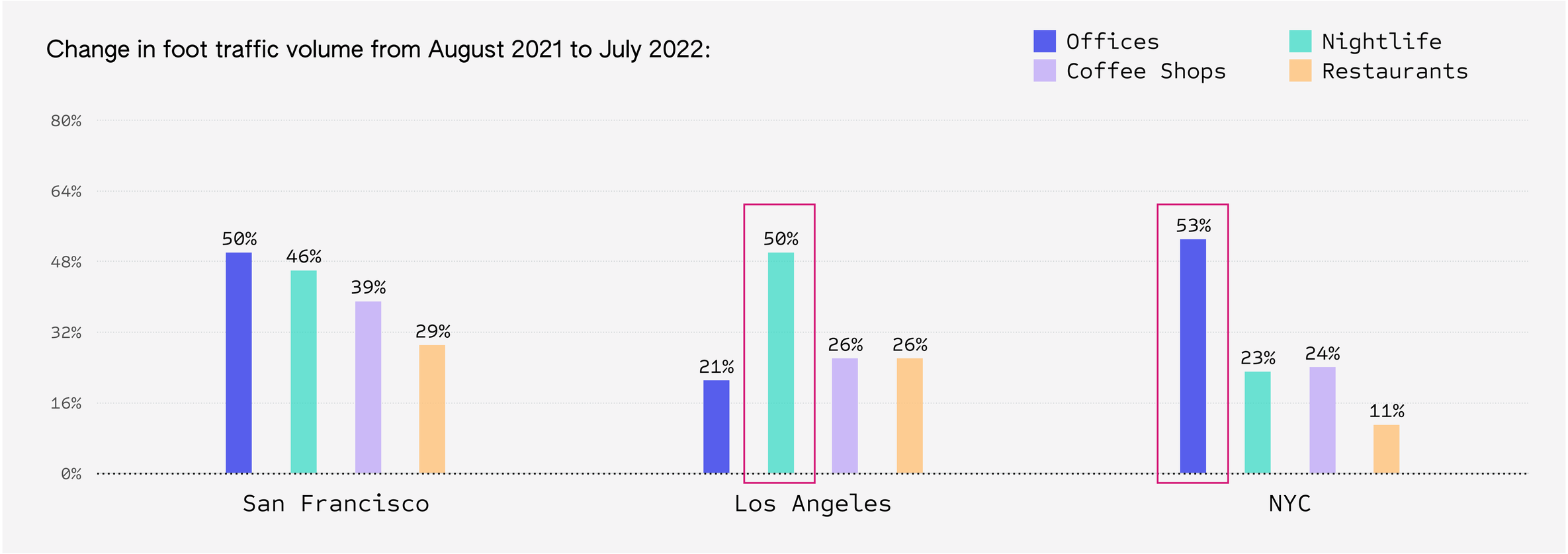

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Chart illustrates change in monthly foot traffic to various places of interest by city between August 2021 - July 2022, where visitation is benchmarked to the first month (August 2021 = 100). Cities defined by downtown areas only.

East coast cities have generally seen the strongest lift in downtown **office** traffic, while central business districts throughout California have experienced a more significant uptick in **nightlife** & **restaurant** visitation this past year

While downtown areas of east coast cities like Washington DC, Boston and NYC have experienced the biggest uptick in office visitation this past year (+53-68% growth since August 2021), location data also reveals that central business districts of California — San Francisco, Los Angeles and San Diego have all experienced the strongest foot traffic lift when it comes to nightlife (+37-50% YoY growth).

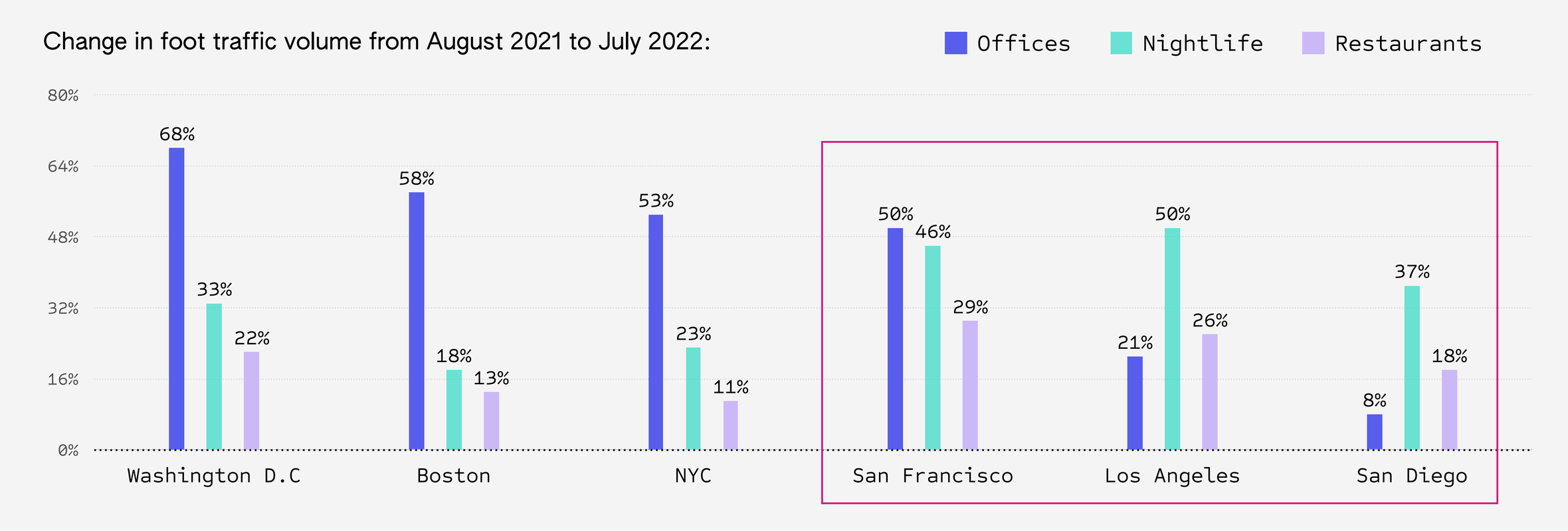

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Chart illustrates change in monthly foot traffic to various places of interest by city between August 2021 - July 2022, where visitation is benchmarked to the first month (August 2021 = 100). Cities defined by downtown areas only.

Downtown Washington DC has seen the strongest uptick in traffic to arts & entertainment venues of all 5 cities, followed by San Diego

In addition to seeing the most notable uptick in office visitation of all 5 central business districts, downtown Washington DC had also experienced the most growth in traffic to arts & entertainment venues (+146% in the 12-month period ending July 2022). San Diego experienced the 2nd most notable uptick in traffic to this category (+100% growth YoY). The rise in traffic to places like museums, concert venues and other popular entertainment attractions is a strong indication of increased willingness to spend on experiences such as travel, tourism and entertainment.

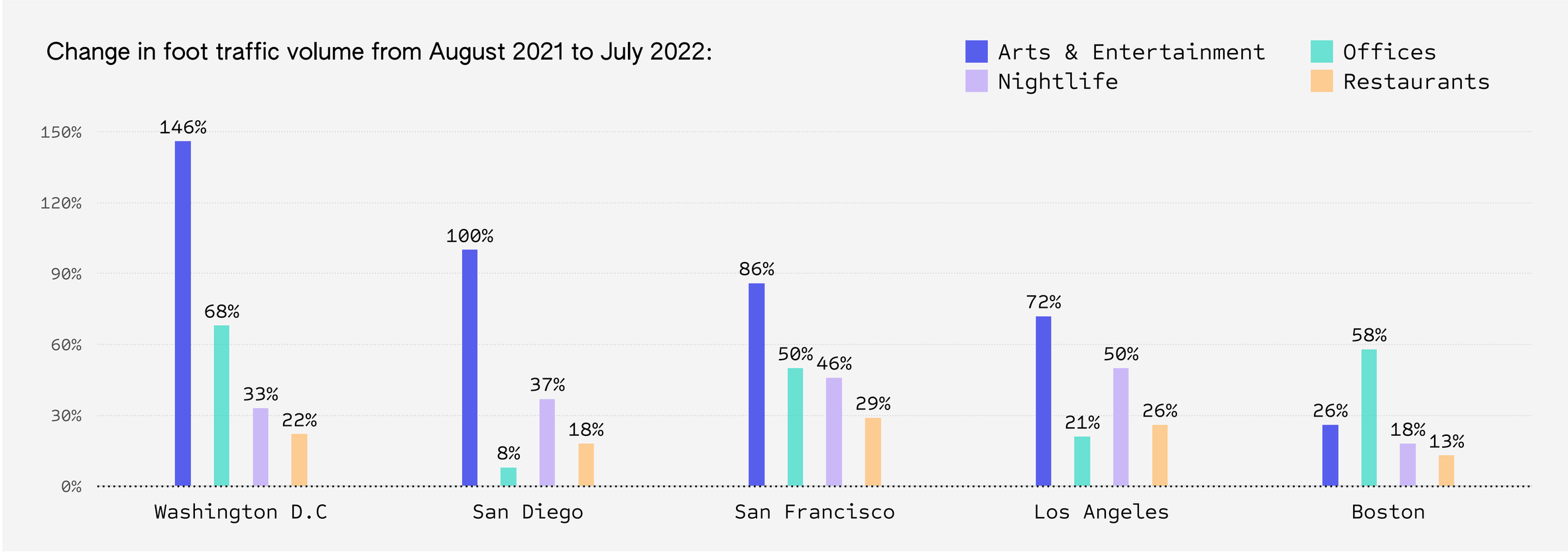

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Chart illustrates change in weekly foot traffic to various places of interest in Los Angeles, CA between August 1 2021 - June 30 2022, where visitation is benchmarked to the first week of August 2021, where visits on August 1 2021 = 100. Note: insufficient data sample for arts & entertainment venues in downtown NYC.

Downtown LA & SF have seen the biggest rise in nightlife traffic this year

Across tall 6 central business districts, nightlife spots in downtown Los Angeles and downtown San Francisco had seen the biggest increase in YoY visitation (+46-50% growth between August 2021 to July 2022). July 2022 was a particularly big month of foot traffic growth for nightlife spots in downtown Los Angeles and downtown San Diego. However, not all central business districts areas seeing the same trend. Foot traffic to nightlife spots in downtown Sacramento had actually declined by -10% in that same 12-month period ending July 2022.

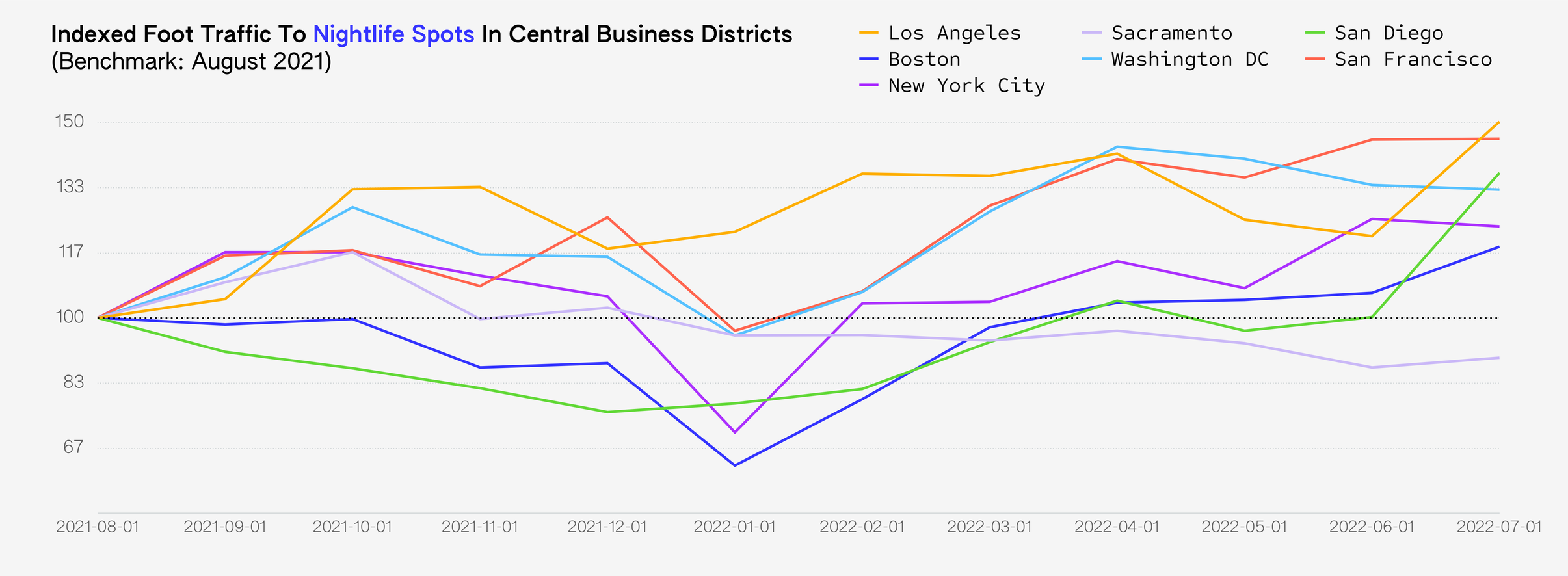

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Chart illustrates change in weekly foot traffic to nightlife spots in downtown areas of U.S. cities between August 2021 through July 2022, where visitation is benchmarked to the first month, where visits in August 2021 = 100.

Downtown SF has seen the biggest boost in restaurant visitation this past year

Restaurants across all 7 downtown business districts have since a rise in visitation since late last summer. Restaurants in downtown San Francisco, for example, had experienced the most YoY growth (up +29% as of July 2022). Downtown restaurants in downtown Washington DC started to see an influx of traffic earlier this year, boasting +22% growth in the same 12-month period.

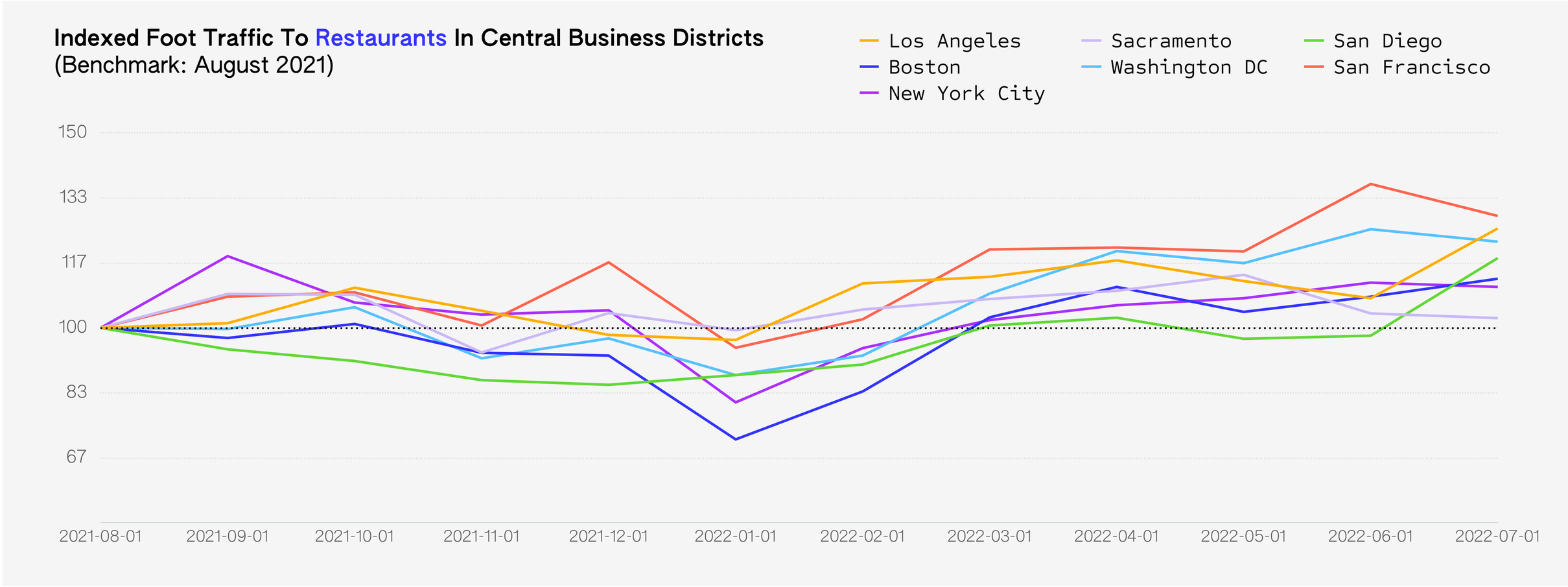

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Chart illustrates change in weekly foot traffic to restaurants in downtown areas of U.S. cities between August 2021 through July 2022, where visitation is benchmarked to the first month, where visits in August 2021 = 100.

Downtown DC has seen the biggest boost in office visitation this past year

Of all cities we looked at, Washington DC had seen the biggest boost in downtown office visitation over the past 12 months (+68% growth between August 2021 to July 2022), followed by Boston and New York City. Offices in southern California's central business districts have experienced relatively smaller upticks in traffic this past year (+8% in San Diego and +21% in Los Aneles).

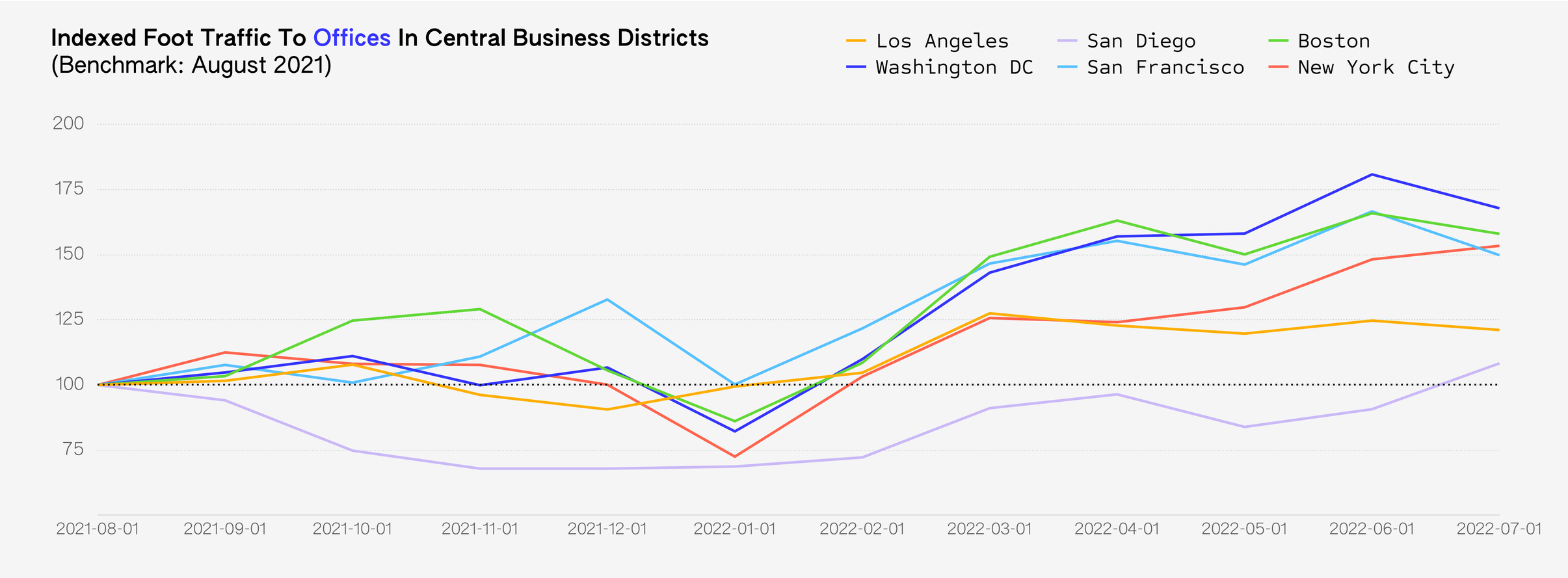

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Chart illustrates change in weekly foot traffic to offices in downtown areas of U.S. cities between August 2021 through July 2022, where visitation is benchmarked to the first month, where visits in August 2021 = 100.

Key findings from a sample trade area analysis of top central business districts

Upticks in foot traffic to arts, entertainment & nightlife venues can signal an increase in tourism to certain central business districts

Arts & entertainment venues — including theaters, concert venues and museums (typically popular with locals & tourists alike) — have experienced the most foot traffic growth of any category in downtown areas of west coast cities like SF, LA and San Diego, in addition to Washington DC this past year.

This uptick suggests a big boost in travel & tourism recovery for these cities. And compared to all 3 east coast cities, SF, LA and San Diego also happened to experience the biggest uptick in traffic to downtown nightlife venues this past year. Within the past 12 months, foot traffic to nightlife venues in downtown Los Angeles increased by +50%, while foot traffic to nightlife spots in downtown Boston increased by only +18%.

East coast professionals are returning to downtown offices, driving an increase in traffic to nearby businesses

DC, Boston and NYC have experienced the biggest increases in traffic to downtown offices this past year. For instance, traffic to offices in downtown Manhattan increased by +53% over the 12-month period ending July 2022, while offices in downtown Los Angeles had only seen +21% growth in visitation in that time. Perhaps this disparity is reflective of geographical nuances in corporate policies regarding return to office flexibility.

Across all cities, an increase in downtown office visitation has contributed to a boost in foot traffic to nearby coffee shops, gyms and other businesses in these areas.

A big boost in downtown visitation for the nation's capital

Of all the cities we looked at, Washington DC saw the biggest increase in traffic to downtown offices (+68% growth in the 12-month period ending July 2022).

DC also saw the biggest increase in traffic to downtown arts & entertainment venues by far — places like museums, event spaces and theaters in downtown Washington DC had experienced +146% growth in the past year.

These upticks indicate that the central business district of America's capital is once again bustling with local professionals, business travelers and tourists.

Conclusion

Whether you're a commercial real estate executive or an operations stakeholder for a major coffee chain, location intelligence is crucial to identifying emerging opportunities and markets trends, and ultimately informing data-driven decisions to improve performance, profitability and growth.

Furthermore, location intelligence can be used alongside other data sets such as market, demographic or financial data to power big decisions. From assessing the competitive landscape for expansion opportunities, to evaluating closures in a certain central business district, location intelligence is a key ingredient to complement and supplement existing market research.

And with central business districts rapidly evolving in real time, visit data also helps tackle challenges related to discovering, engaging and activating customers at the right time and place.

In addition to looking at indexed foot traffic, visit data can also be leveraged for other analyses such as identifying distance traveled to various points of interest, top home zip codes of frequent visitors and various demographic cuts for a rich and robust trade area analysis.

Learn more about how you can leverage location intelligence to power smarter business decisions today.

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Thank You

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