Gensler

GSA

WORKPLACE STANDARDS BENCHMARKING

March 6, 2012
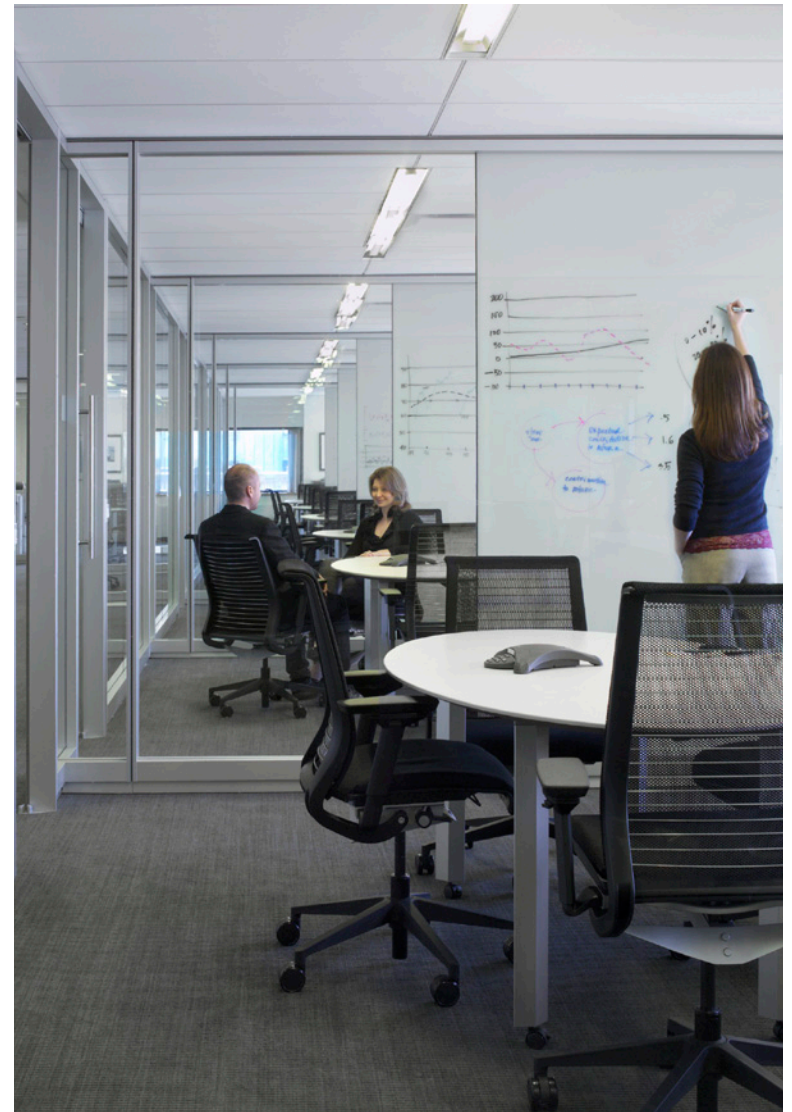
INTRODUCTION

Image (Above): *Confidential Client, Ryan Gobuty.* Small meeting room
Image (Cover): *Putnam Investments, Andrew Bordwin.* Team room

When the workplace revolution started 20 years ago, the office was still shaped by mid-century views of work. Today, the office is a reflection of contemporary trends, a mobile work style most of all.

- Fred Bernstein, "Work in Context"

The methods in which workplace standards are measured and benchmarked vary drastically across companies and industries. For example, the legal industry bases many of its benchmarking metrics on the number of attorneys rather than the overall personnel headcount at an office location. Similarly, biotechnology and science laboratories relate metrics to the number of scientists per office facility.

The purpose of this document is to bridge the gap across the various industry benchmarking metrics. By developing a consistent and uniform method for measuring workplace metrics, we are able to uncover the differences and similarities between industry benchmarks, understand how workplace standards and strategies affect space allocation and identify workplace trends.

In this study, we have collected the workplace standards, space programs, and sample floor plans from 38 different projects across eight different industry sectors: Architecture & Engineering (A/E), Biotechnology & Science, Call Centers, Finance, Law Enforcement, Legal, Social Services, and Technology.

The first portion of this report introduces the research methodology, assumptions, common terminology and summarizes the key takeaways. The second section analyzes workplace metrics across the different sectors to compare industry standards and highlight prevailing trends and insights. The final component of the report provides a brief overview of four common workplace trends accompanied with case study examples.

See the Appendix at the end of this document for more sector-specific information.

INDUSTRY SECTORS

ARCHITECTURE / ENGINEERING (A/E)
Includes all architecture, construction, engineering and related services.

BIOTECHNOLOGY & SCIENCE
Biotechnology, pharmaceutical, and related services. Case study samples represent both general administrative spaces and some laboratory functions.

CALL CENTERS
Contact, phone, or call centers focused on providing customer service.

FINANCE
Financial services related to investment banking and capital markets. Private wealth management and trading floors are not included.

LAW ENFORCEMENT
Public sector law enforcement agencies. Does not include spaces with detention facilities.

LEGAL
Public and private sector law firms.

SOCIAL SERVICES
Public sector agencies providing health and social services.

TECHNOLOGY
Technology development companies, both hardware and software oriented.

TERMINOLOGY

The following is a list of common terminology that will be referenced throughout this document.

CIRCULATION

All pathways connecting programmatic spaces, including offices, workstations, support spaces, entry and elevator lobbies, and egress locations.

DESK-SHARING

The practice of leveraging individual workspaces by reducing the total number of seats per assigned headcount. There are many different desk-sharing strategies, such as free-address, hoteling, and shared-owned settings.

FREE-ADDRESS

The practice of providing temporary seating to employees on a first-come, first-served basis. Free-address work settings do not need to be reserved through a formal reservation system.

HEADCOUNT (HC)

The total number of employees, including full-time, part-time, interns, and contractors, that work at a designated office location.

HOTELING

The practice of providing temporary seating to employees on an as-needed basis through a formal reservation system.

MOBILITY RATIO

The proportion of seats per headcount assigned to a specific facility location.

MOBILITY VS. TELEWORK

Mobility refers to an employee's ability to work freely inside and outside the office. Mobility also encompasses all remote work that is functionally required for a job. *Telework* is a sub-set of Mobility in which an employee works specifically at home or at a satellite work location near the employee's home.

NET SQUARE FEET (NSF)

The total area of workspaces (office and workstations), dedicated support (conference, supply, etc.) and shared support (entry lobby, shared floor support, break rooms, etc.). Does not include primary or secondary circulation, building core, and common building support spaces. The NSF measures the area contained within the outline of each identified program space. Example: the Net Area (NSF) of an 8' x 8' workstation is 64 NSF.

ENCLOSED VS. OPEN

An *Enclosed* workspace generally refers to an office or shared-office setting in which the workspace is fully surrounded by full-height partitions. *Open* refers to workstations in an open plan environment with minimal partitions between work settings.

SPACE ALLOCATION RATE

The total usable area of an organization divided by the total number of personnel (includes all full-time and part-time employees, interns, and any contractors that occupy space. Personnel excludes contractors that service the space, such as janitors and security guards).

SPACE ALLOCATION RATIO

Proportion of space, measured in Net Square Feet (NSF), dedicated to offices, workstations, collaboration space, general support, social support, and mission specific spaces.

SPACE TYPES

Offices - Includes all individual and shared workspaces that are fully enclosed.

Workstations - Includes all individual and shared workspaces that are not fully enclosed, such as cubicles, open workstations, and touchdown stations.

Collaboration - Incorporates all open and enclosed collaboration spaces, including training rooms, open meeting areas, focus rooms, huddle rooms/enclaves, and project rooms.

General Support - All common office support functions included in the Usable Square Feet (USF). Includes storage, supply, print and copy, receptions, mail rooms, libraries, lateral files and filing rooms, mother's/wellness rooms, and server/ADP rooms.

Social Support - Includes all break and recreation areas, such as break rooms, coffee bars, common areas, informal seating, and game rooms.

Mission Specific - Specialized rooms to support core business functions, such as laboratories and secure evidence storage.

Excluded - Building core, primary and secondary circulation, and all major amenities, such as fitness facilities and cafeterias.

USABLE SQUARE FEET (USF)*

Area of a floor occupiable by a tenant area which is where a tenant normally houses personnel and/or furniture.

UTILIZATION RATE

The average usage of a space, often measured as a percentage of the total period that the space is available for use, such as the organization's business hours. This term is often misconstrued as "Space Allocation Rate."

METHODOLOGY & ASSUMPTIONS

DATA SOURCE

1) The data source for all case study companies and organizations have been compiled from space programs, test-fits, existing plans, and workplace guidelines.

2) To ensure that the findings generated from this report represent the most recent trends and standards, we have only selected projects that were completed between 2007 to 2011.

3) The data of this report is based on the metrics from (5) sample case study organizations per industry sector, with the exception of the Social Services industry sector, which included only (3) sample case studies.

ASSUMPTIONS

1) To account for the disparate scales of the projects included within this study, we have discounted all amenity type spaces from this report. Amenity spaces, such as full-scale cafeterias and fitness centers, are generally a provision that is based on the scale of a project and the site location.

2) Our Usable Square Feet (USF) calculations include any shared spaces that would normally be included in a tenant's USF calculations at a pro-rata share. This includes such spaces as shared support areas, conference centers, training rooms, and other shared facilities that might not be directly within the immediate office area.

BENCHMARKING METRICS

The research within this report is based on the following list of benchmarking metrics. In the body of the report, the metrics are expressed as industry averages. For sector-specific information, refer to the Appendix at the end of this document.

Space Allocation Rate: USF per total personnel - Total Usable Square Feet (USF) of the office space divided by the amount of total personnel working in the office, including full-time, part-time, contractors, interns and other temporary staff. Personnel excludes support staff that service the building and do not have a primary workspace.

Space Allocation Ratio- Proportion of office space allocated for the following classifications: offices, workstations, collaboration, general support, social support, and mission specific spaces. The space allocation calculations, measured in Net Square Feet (NSF), also incorporate any shared spaces that qualify under the listed classifications at a pro-rata share. Building core, primary and secondary circulation, and any major amenity spaces are excluded from this metric.

Enclosed to Open Ratio - Proportion of individual work settings that are enclosed (i.e. offices) versus open (i.e. cubicles and workstations).

Office Sizes- Average office standard sizes measured in Net Square Feet (NSF). All companies that do not have offices are voided from this metric.

Workstation Sizes- Predominant workstation standard size measured in Net Square Feet (NSF). If there is not a prevailing workstation standard size, an average is calculated based on the different workstation standards.

KEY FINDINGS SUMMARY

The analysis of the standards and workplace allocation of eight industry sector case studies has revealed several universal and sector-specific insights.

The following key findings briefly summarize four prominent takeaways from the benchmarking exercise. For more sector-specific details, refer to the Appendix at the conclusion of this report.

Image 1: *Belkin, Nicholas Cope.* Informal Collaboration Hub
Image 2: *Belkin, Nicholas Cope.* Workstation
Image 3: *Deloitte, Timothy Soar.* Touch-down Station
Image 4: *Confidential Company.* Mobility Station

SUMMARY BENCHMARKING AVERAGES

	TOTAL	PUBLIC	PRIVATE
Space Allocation Rate	192	201	189
Mobility Ratio*	1 : 1.09	1 : 1.23	1 : 1.01
Enclosed to Open Ratio	1 : 4	1 : 4	1 : 4
Office Size	142	151	136
Workstation Size	53	61	49

* Ratio of total number of seats to total headcount assigned to a site.

KEY FINDING #1

Workstation sizes and the ratio of enclosed offices to open workstations have the strongest correlation to space allocation rate efficiency. We have consistently found that the companies with smaller workstation standards and lower ratios of offices to workstations have the lowest space allocation rates.
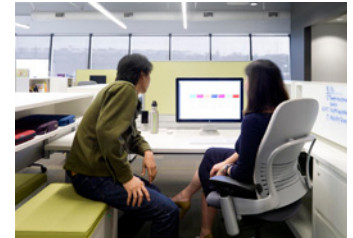
KEY FINDING #2

More "We" space and less "Me" space. There is a correlation between the proportion of space that is dedicated to individually assigned spaces and spaces for collaboration. Companies and organizations in the Technology, Law Enforcement, and A/E sectors are reducing the amount of spaces for individuals in exchange for more spaces that promote employee interaction and collaboration.

KEY FINDING #3

Of all the case studies included in this report, **Public Sector organizations have higher space standards than Private Sector companies** in terms of average space allocation rate, office size, and workstation size. However, **Public Sector organizations have explored higher levels of mobility.** Public Sector organizations average 1 seat per every 1.23 personnel compared to the Private Sector average of 1 seat per every 1.01 personnel.

KEY FINDING #4

The case studies with workplace mobility programs have an estimated average space allocation rate savings of 35 USF per person. The average space savings is estimated by dividing the total USF by number of seats versus headcount assigned to a site. Organizations are leveraging underutilized workstations and/or offices to increase workspace utilization, reduce real estate waste, and create more energetic office environments.

BENCHMARKING: INDUSTRY SECTORS

This chart illustrates the average space allocation rate for each industry sector based on USF per total personnel.

Legend

- ⭕ Mobility Program
- 🟡 Private Sector
- 🔴 Public Sector

###	Average
	Range

KEY TAKEAWAY #1

The Call Center sector has the lowest average space allocation rate at 101 USF per person. The Legal Sector has the highest average at 335 USF per person.

KEY TAKEAWAY #2

The Biotech & Science and Legal sectors display the greatest range in space allocation rates. The A/E, Technology, and Social Services sectors display the most consistent space allocation rates.

SPACE ALLOCATION RATE: USF PER TOTAL PERSONNEL

Industry Sector — 50, 100, 150, 200, 250, 300, 350, 400, 450, 500

- Call Center — 103.2
- Technology — 140.0
- Finance — 168.0
- Arch & Engineering — 168.4
- Law Enforcement — 199.6
- Social Services — 207.3
- Biotech & Science — 219.6
- Legal — 335.0
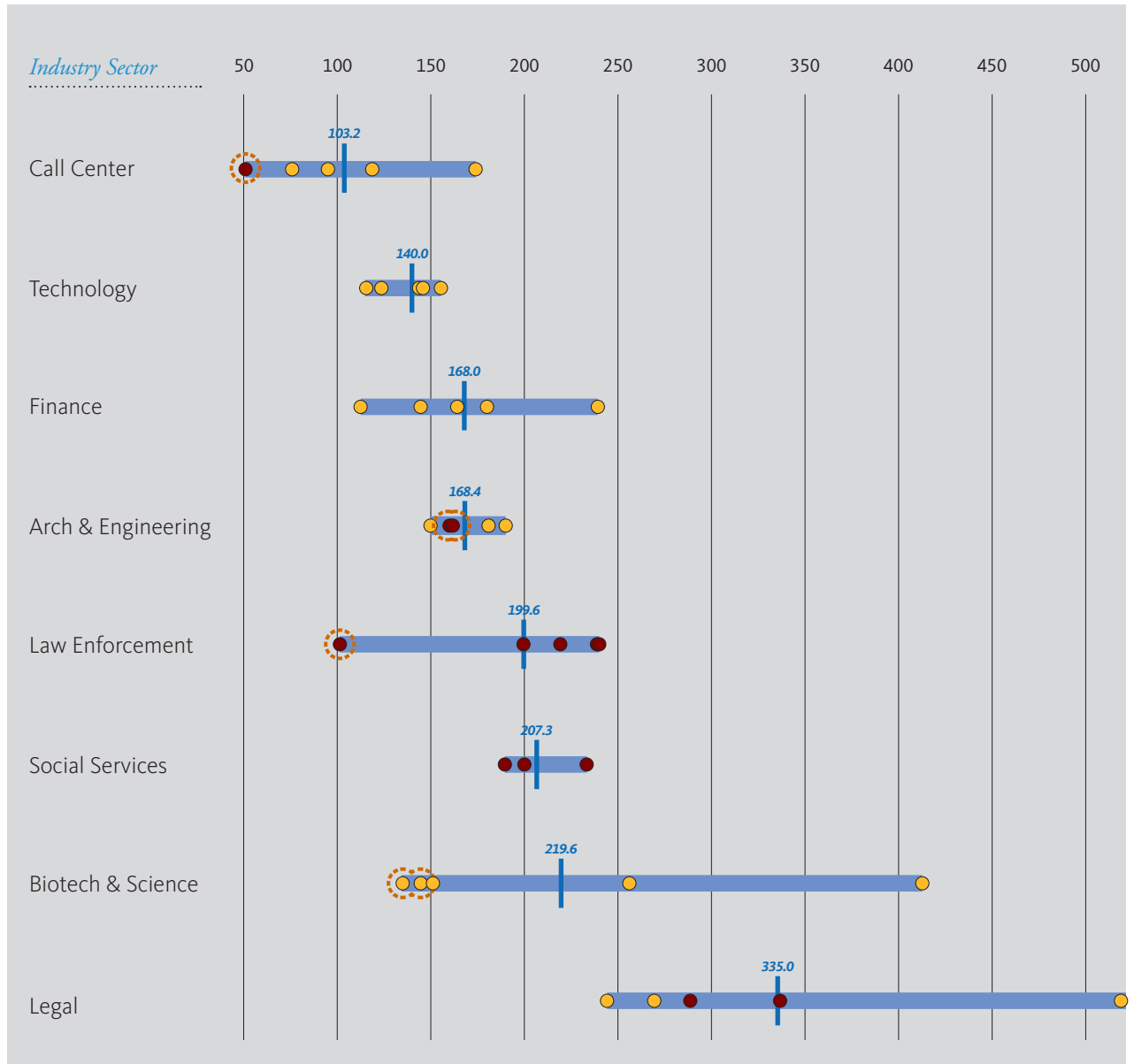
BENCHMARKING: INDUSTRY SECTORS

The bar graphs below demonstrate the average proportion of NSF that is allocated to each space type per industry sector. Industry sectors are ordered by proportion of space allocated to individual workspaces.

SPACE ALLOCATION RATIO CHARTS

Industry Sector

Law Enforcement
Space Allocation Rate: 199.6

| 14% | 32% | 23% | 16% | 4% | 11% |

Technology
Space Allocation Rate: 140.0

| 1% | 50% | 29% | 9% | 10% | 1% |

Biotech & Science
Space Allocation Rate: 219.6

| 25% | 28% | 16% | 11% | 4% | 17% |

Legal
Space Allocation Rate: 335.0

| 43% | 10% | 19% | 16% | 4% | 7% |

Arch & Engineering
Space Allocation Rate: 168.4

| 11% | 43% | 22% | 15% | 7% | 2% |

Call Centers
Space Allocation Rate: 103.2

| 6% | 51% | 27% | 11% | 5% |

Finance
Space Allocation Rate: 168.0

| 30% | 37% | 13% | 14% | 5% |
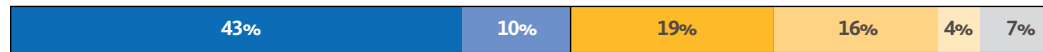
Social Services
Space Allocation Rate: 207.3

| 41% | 38% | 8% | 11% | 3% |
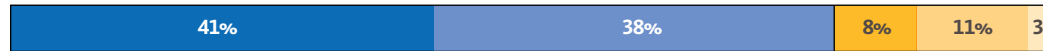
Space Types

- Office
- Workstation
- Collaboration
- General Support
- Social Support
- Mission Specific

KEY TAKEAWAY #1

With few exceptions, the industry sectors with the lowest proportion of space allocated for offices and workstations generally have a higher allocation of space to support collaboration. There is no direct correlation to general support, social support or mission specific space types.

KEY TAKEAWAY #2

Historically, the typical workplace was comprised of 50% individual workspace area and 50% support areas. The data suggests that recent workplaces are allocating less space for general support and reallocating that space to increase either group or individual workspace area.

BENCHMARKING: INDUSTRY SECTORS

The chart below displays the average ratio of enclosed offices to open workstations per industry sector.

ENCLOSED OFFICE TO OPEN WORKSTATION RATIO

Industry Sector

Technology
Space Allocation Rate: 140.0
- 1%
- 99%

Call Centers
Space Allocation Rate: 103.2
- 4%
- 96%

Arch & Engineering
Space Allocation Rate: 168.4
- 8%
- 92%

Law Enforcement
Space Allocation Rate: 199.6
- 14%
- 86%

Biotech & Science
Space Allocation Rate: 219.6
- 29%
- 71%

Finance
Space Allocation Rate: 168.0
- 29%
- 71%

Social Services
Space Allocation Rate: 207.3
- 42%
- 58%

Legal
Space Allocation Rate: 335.0
- 60%
- 40%

Space Types

- ■ Enclosed Office
- ■ Open Workstation

KEY TAKEAWAY #1

The ratio of enclosed offices to open workstations is lowest in the Technology, Call Centers, A/E, and Law Enforcement sectors. All four of these industry sectors also have the most amount of area allocated for collaborative spaces (22-29% of their total NSF).

KEY TAKEAWAY #2

Legal is the only industry sector with a higher proportion of enclosed offices to open workstations. The Legal sector also has the highest average space allocation rate at 335 USF per total personnel.

BENCHMARKING: INDUSTRY SECTORS

The following graph illustrates the average office size per industry sector where available. Most organizations within the Technology sector as well as a few others from other sectors do not have enclosed offices.

AVERAGE OFFICE SIZE & SPACE ALLOCATION RATE

	Biotech & Science	Technology	Call Centers	Finance	Social Services	Law Enforcement	Arch & Engineering	Legal
(Enclosed:Open)	29:71	1:99	4:96	29:71	42:58	14:86	8:92	60:40

Legend

— Avg. Office NSF
— USF per Person
⋮ Sample Range

KEY TAKEAWAY #1

There is no direct relationship between space allocation rates and average office size standards. Despite varying average office sizes, the Call Centers, Technology, and A/E sectors have among the lowest space allocation rates. While the Legal, Law Enforcement, and A/E sectors have comparable office size standards, their space allocation rates vary significantly. The efficiency of a workspace is more strongly influenced by the ratio of enclosed offices to open workstations.

BENCHMARKING: INDUSTRY SECTORS

The following graph records the average standard workstation size per industry sector. The metrics are a combination of prevailing workstation sizes as well as averages where no dominant workstation size was present.

AVERAGE WORKSTATION SIZE & SPACE ALLOCATION RATE

Legend
- Avg. Workstation NSF
- USF per Person
- Sample Range

Sector	Enclosed:Open
Call Center	4:96
Technology	1:99
Finance	29:71
Arch & Engineering	8:92
Biotech & Science	29:71
Law Enforcement	14:86
Legal	60:40
Social Services	42:58

KEY TAKEAWAY #1

The industry sectors with the lowest workstation standards and the lowest proportion of enclosed offices to open workstations have among the most efficient space allocation rates.

KEY TAKEAWAY #2

The Social Services and Legal sector averages have the highest proportion of enclosed offices to open workstations (42:58 and 60:40 respectively) and the largest workstation standard sizes. However, their space allocation rates vary by approximately 128 USF per person.

WORKPLACE TREND #1: HOTELING & FREE-ADDRESS

Across industry sectors, more employees are working in more locations outside the office, within the office, and from home. The purpose for coming into the office is becoming less focused on individual work and more about collaborating and interacting with others. As a result, companies are beginning to rethink both real estate and workplace strategies with four key objectives in mind: 1) increase employee performance by supporting mobile work patterns; 2) utilize space more efficiently and reduce real estate and occupancy costs; 3) reduce resource use and contribute to sustainability; 4) positively impact recruitment and retention by properly supporting diverse workstyles.

Facilities and workplace strategists have been exploring new methods of assigning space as a means to increase utilization and support the new ways in which employees are working. Rather than unilaterally assigning all employees to a dedicated workstation or office, many companies are adopting hoteling or free-address programs to repurpose previously assigned individual space to collaboration space, and, in some cases, significantly reducing overall real estate.

The **hoteling** concept is a system in which individual workspaces are shared among employees and reserved for use by an individual for a specific time period. Frequently, a corporate concierge is responsible for scheduling and equipping these spaces for use. However, the norm is transitioning to a virtual reservation system.

Similar to hoteling, the **free-address** workspaces are unassigned and can be used by any employee. Reservations are not required; spaces are available on a first-come, first-serve basis. Free-address is also commonly referred to as "just-in-time."

Prior to adopting a hoteling or free-address program, an organization should develop and carefully consider the feasibility of a mobility strategy. There are many other factors that must be addressed to effectively implement a hoteling or free-address system, such as employee work patterns, current and projected mobility adoption levels, and the mobility readiness criteria, which covers such considerations as organizational culture, technology, work function, processes, policies, and protocols.

Image 1: *Razorfish, David Joseph.* Mobility Workstation
Image 2: *Metlife, Chris Leonard.* Reservation Kiosk
Image 3: *Metlife, Chris Leonard.* Touch-down Cafe

STEPS TO DEVELOP A MOBILITY STRATEGY

| **WORK PATTERN** |
| Defining how people work |

+

| **MOBILITY ADOPTION** |
| Documenting the state of mobility |

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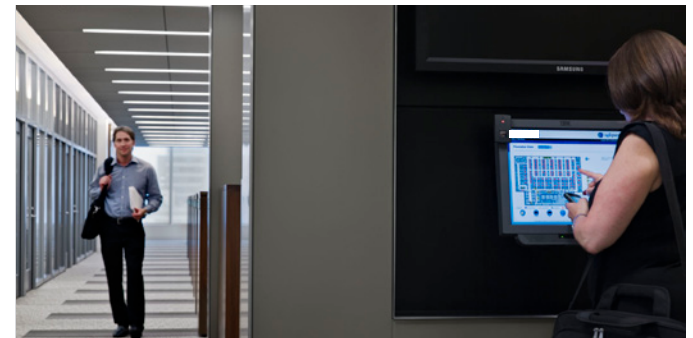| **MOBILITY READINESS CRITERIA** |
| Assessing the feasibility of mobility readiness |

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MOBILITY STRATEGY

Understand the implications of a mobility strategy through aligning space solutions with work patterns, processes, policies, and culture.

CASE STUDY #1: CONFIDENTIAL CONSULTING CLIENT

**CONFIDENTIAL CONSULTING CLIENT
WORKPLACE PILOT STUDY**
New York, NY
2010

Area: ~10,000 USF
Total Staff: 659
Mobile Staff: 56%
Mobile Sharing Ratio: 5:4 (HC : Seats)

16% higher satisfaction with
the overall work environment

Confidential Client, Chris Leonard. Mobility Workstation

In 2010, a confidential consulting client was rapidly outgrowing its New York office location. To respond to the considerable increase in staff and preserve the culture and connectedness of teams, the company launched a workplace transformation pilot study on a select floor of their New York office.

The pilot included three major workplace changes. Firstly, the company **reduced workplace standards** to more appropriately support the functional nature of the work. Senior consultants moved from large perimeter offices to more appropriately sized interior offices. The junior consultants moved from interior offices to a collaborative open office environment. The second component of the pilot study incorporated a **formal mobility strategy** to acknowledge the significant amount of time that consultants were out of the office traveling to client locations. As a result, the company adopted an overall mobility sharing ratio of 5 mobile staff per 4 hoteling workstations. Workstations are reserved through a reservations system. Mobile staff members store personal files and supplies in assigned lockers. The final component of the workplace transformation study was to increase and enhance the social, training, and meeting spaces to **preserve and promote the collaborative culture** of the consulting teams.

Recognizing the magnitude of the changes, a **formal change management process** was incorporated to strategically introduce and implement the pilot study. The change management program involved a visual marketing campaign and series of engagements to involve staff in the transformation process and educate them about the benefits.

A post-occupancy survey was launched to all staff in the New York office in 2011 to assess the results of the workplace pilot study. The results were overwhelmingly positive. Overall, staff members were more satisfied with the work environment in the pilot study than any other floor. Residents rated their ability to collaborate, sense of community, and awareness and approachability of other colleagues highest. Despite the transition to the open work environment and hoteling system, there was no adverse result in how well the individual workspace supported their diverse workpatterns, including quiet, focused work.

WORKPLACE TREND #2: BENCHING

Companies are finding the demand for layout space and individual filing is rapidly decreasing as work becomes more digital. The need for more desk surface area is quickly being replaced by the need for more computer screen surface as employees move between multiple electronic documents and files simultaneously. As a result, the functional need for larger workstations are being reevaluated. Many companies are reducing workstation standards and transitioning to a benching system to enhance flexibility, promote overall awareness, and generate higher density, which results in increased utilization, employee satisfaction, and real estate cost reduction.

Benching is a workstation system that allows full lateral flexibility. Widely used in the financial industry, the workstations were traditionally designed around the frame of a trading desk. The system allows the ability to reconfigure the space to accommodate 1.5m (~5 ft) desks or 2m (~6.5 ft) desks simply by sliding along the work surface plan and adding or subtracting storage returns.

The benching systems are generally the most cost-efficient workplace solution. While panel-mounted systems are available for 10% less than the traditional cubicle, benching systems are available for nearly 50% less. In addition to the cost of furniture, the flexibility of the configuration can reduce costs associated with moves and maintenance.

Image 1: *Ares Management, Andrew Bordwin.* Benching with Return
Image 2: *Confidential Client, Ryan Gobuty.* Open Workspace
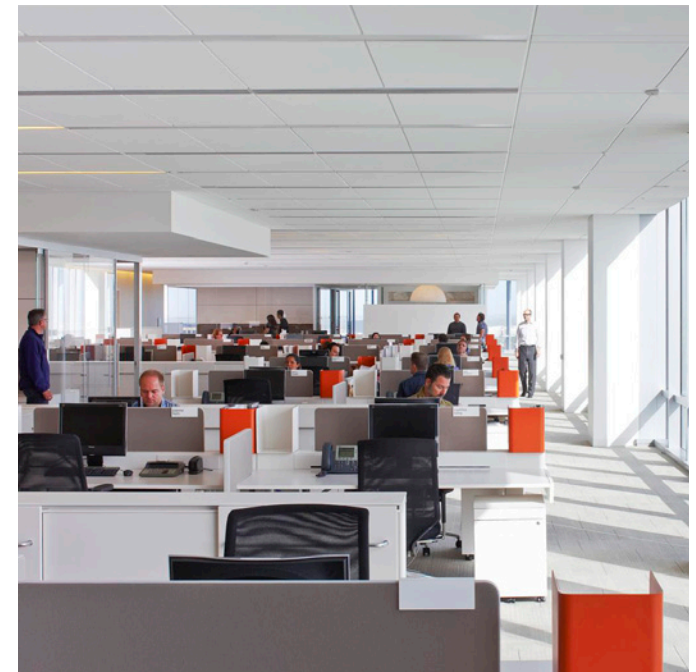
AVERAGE FURNITURE SYSTEM COSTS

*Averages include furniture samples from Steelcase, Herman Miller, and Haworth.

HIGH PANELS 7x7	LOW PANELS 7x7	BENCHING 6x8
Average Cost: $2,850 per workstation	Average Cost: $2,650 per workstation	Average Cost: $1,700 per workstation
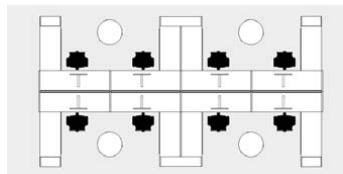
CASE STUDY #2: NOKIA

**NOKIA
R&D HEADQUARTERS**
Sunnyvale, CA
2010

Area: 156,000 USF
Total Staff: 800
195 USF per person (seat count)

100% 36sf open workstations (benching)

Faced with an increasingly competitive market, Nokia combined several of its scattered R&D sites into a single location in Sunnyvale, California. The real estate strategy was about more than just real estate cost-savings. By collocating their R&D employees into a single, collaborative environment, Nokia sought to re-position and re-invent their culture and image in the Silicon Valley.

Nokia's workplace strategy is centered on a fundamental workplace shift. By decreasing the focus on the traditional definition of individual workspace, they were able to increase the allocation of spaces that provide alternative individual work settings as well as an increase in spaces that are conducive for interaction, collaboration, and non-traditional ways of working.

Nokia implemented a simple 36sf benching system as the "home-base" for employees. The benching workstations provide employees with a dedicated workspace to functionally meet the majority of individual work task requirements. At the same time, the modularity of the system provides Nokia with maximum flexibility to quickly and efficiently adapt to workplace changes and team formations. The reduced standards open up the workspace to provide significantly more spaces to support different individual and collaborative tasks.

Nokia, Nic Lehoux. Open Benching system

Nokia, Nic Lehoux. Informal Collaboration Space

WORKPLACE TREND #3: THE HUB

More than ever before, companies are searching for the best way to foster innovation in an increasingly competitive business environment. The workplace can help by creating more opportunities for the exchange of concepts and ideas. Workplace design can articulate how people use and move throughout the office. Strategically locating spaces within an office increases the likelihood for employees that would not typically work together to cross paths and interact. The idea of the **Hub** is to intentionally design for these informal points of intersection. At the same time, the Hub results in efficient utilization of space and shared resources. It can also promote organizational community, which often relates to job satisfaction.

The break room or pantry is the most common form of a Hub setting in the effort to promote organizational and social community. By collocating the primary social areas with other support spaces, such as

open and enclosed meeting rooms, print and copy functions, and common filing or storage spaces, the Hub has the ability to bring a wider range of people together in one central location.

The circulation and paths that connect the different workplace components are just as important as the individual spaces themselves in a Hub environment. These interstitial spaces guide different people along common paths and foster the informal interactions that promote the exchange of ideas. Pivotal locations along major thoroughfares or intersections can be enhanced with small open breakout areas with seating and tools for impromptu collaboration.

Image 1: *Belkin, Ryan Gobuty.* Informal Collaboration Hub
Image 2: *Confidential Consulting Company, Chris Leonard.* Social Hub
Image 3: *OneWorld Lounge, Christopher Barrett.* Lounge Hub
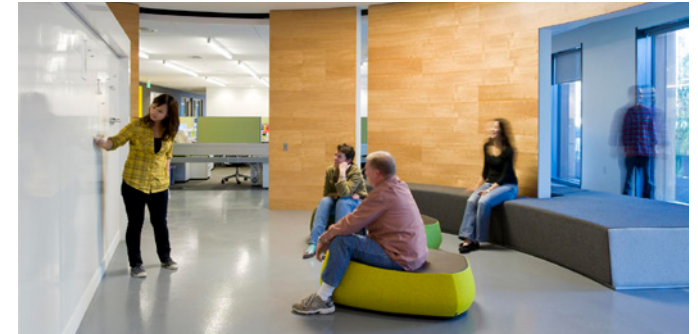
Image 1: *Confidential Client.* Centralized Support; Image 2: *Confidential Client, Sherman Takata.* Breakout Space off Circulation; Image 3: *Columbia College Chicago, Michelle Litvin.* Flexible Interactive Space

CREATING A "HUB" ENVIRONMENT

CENTRALIZE SUPPORT & SOCIAL SPACES
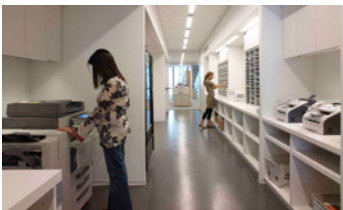
MAKE CIRCULATION INTENTIONAL
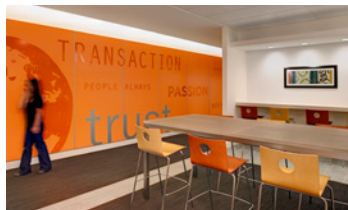
DESIGN FOR IMPROMPTU INTERACTIONS
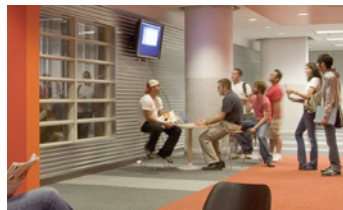
CASE STUDY #3: CONFIDENTIAL TECHNOLOGY CLIENT

**CONFIDENTIAL TECHNOLOGY CLIENT
PROTOTYPE WORKPLACE**
San Jose, CA
2007

Area: ~324,000 SF
Staff: Administrative Office
Total Headcount: 2,200
Total Seat Count: 1,800
Mobile Sharing Ratio: 3:2 (HC : Seats)

60% higher workplace occupancy per floor.

Confidential Technology Client, Sherman Takata. Activity Hub

A confidential technology company was interested in exploring how technology systems can support workplace mobility while maximizing staff collaboration and operational efficiencies. Gensler was asked to develop and implement a concept for a new workplace prototype that embraced these goals of increasing flexibility and team interaction.

The design concept is based on providing work environments that address user needs throughout the course of a day without dedicating individual workspaces that may remain vacant for significant durations due to meetings, team interaction, or travel requirements. A variety of spaces are provided for staff needing privacy, conferencing, informal team gatherings, or just a workstation for the afternoon. All workspaces are unassigned. "Audio privacy rooms" offer enclosed office environments where meetings or conference calls may occur without disrupting adjacent open office areas. "Community zones", or break areas, are strategically placed and designed to promote staff interaction and casual meetings.

The resulting design moves away from the "cubicle farms" often found in the technology sector. Rather, the focus of the workplace is to develop an interactive hub around the variety of spaces to support the different ways of working while in the office. By reducing the amount of space required for traditional workstations and offices, the company was able to transform the building into an energetic hub promoting spontaneous interaction and collaboration.

Most importantly, the space embraces the future of office technology, particularly through the advanced telecommunications systems, and promotes the efficiency and effectiveness of staff. The new workplace concept has allowed the company to increase occupancy within the same floor area by more than 60% and has been rapidly adopted as a standard for their organization.

WORKPLACE TREND #4: ACTIVITY-BASED WORKING

The Activity-based Working model, commonly referred to as ABW, represents a new approach to the design and organization of how and where work is done in the office. The traditional workplace organizes the workplace into three major categories: one place for individual work, commonly the office or workstation clustered by business units or departmental structures; spaces for groups to work collaboratively, such as conference rooms; and support spaces for common tasks that cannot be accommodated in the employee's primary workspace, such as a copy or print satellite. The Activity-based Working model recognizes that the one primary work setting for individual work cannot properly accommodate the multitude of different employee work styles and tasks. The type of work an employee is conducting can change on a daily, or even hourly, basis.

Rather than one primary office or workstation that must support a variety of work tasks and functions, the **Activity-based Working** model provides a palette of different individual and group work settings that are specifically designed for different user preferences and ways of working, such as more interactive, team-based settings or quiet, focused work settings for tasks requiring heavy concentration. Employees are empowered with the choice to seamlessly move between the most appropriate work settings available as the type of work tasks evolve throughout the day.

Image 1: *Belkin, Ryan Gobuty.* Interactive, team-based work zone
Image 2: *United Business Media, Nic Lehoux.* Enclosed collaboration and focus work settings
Image 3: *Squared, Michael Moran.* A "Hub" work environment to support a variety of different work tasks
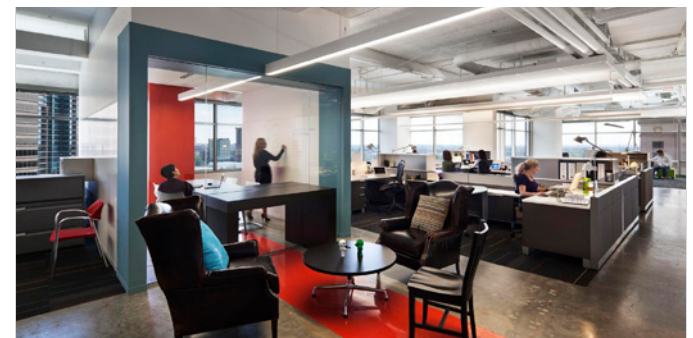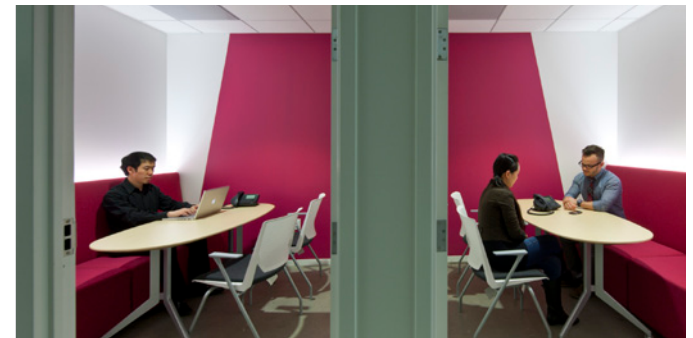
COMMON INDIVIDUAL WORKPLACE "ACTIVITY ZONES"

THE QUIET ZONE

The Quiet Zone is a work setting that is most appropriate for employees that spend the majority of their time in concentrative focused work. Work is primarily conducted individually without a significant amount of interaction among team members. Employees move to enclosed spaces or team areas away from the quiet zone when they need to interact with teammates. The work settings can be designed with higher panel heights or open office settings depending on user preferences. The effectiveness of the Quiet Zone relies most heavily on the protocols and policies.

THE TEAM ZONE

The Team Zone is a work setting that is most appropriate for employees that are constantly interacting with teammates in order to execute their primary work functions. The primary work settings can be interwoven with open collaborative spaces to allow employees to quickly move to larger settings to accommodate larger group discussions. Employees move to enclosed support spaces or other quiet areas when they need to do heads-down work or have a quiet conversation. The individual work settings are generally open with minimal separation between desks to promote interaction.

THE HUB

The Hub is an alternative work setting that is designed to support basic work tasks, generally, for temporary periods of time. It is best located at an interactive focus point, such the intersection of pantries and support functions, to provide constant movement and promote spontaneous interaction. The Hub can be outfitted with a variety of different work settings, such as open team tables, soft seating options, and touch-down or hotel stations. These settings accommodate employees that need to touch down between activities or prefer the atmosphere and flexibility of an energetic space.

CASE STUDY #4: GSA REGION 3

WORKPLACE DESIGN CONCEPT
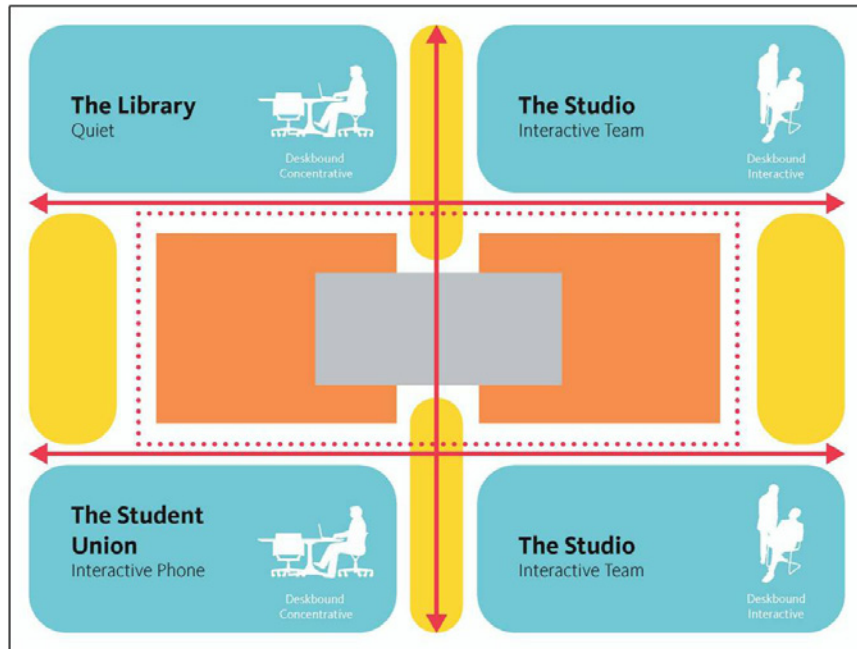
OPEN WORKPLACE
Permanent and short-term team settings for concentrative and interactive work. Each neighborhood is designed based on the predominant work mode.

ENCLOSED WORKSPACE
Position full height spaces on the interior to allow access to daylight and views. Includes such spaces as meeting rooms, focus rooms, and offices.

OPEN COLLABORATION
Centrally located, informal touch points for communication. Includes impromptu meeting areas and social hubs.

By the fall of 2011, the GSA Mid-Atlantic Regional Office Building's (ROB) lease termination was rapidly approaching. The local team consulted with GSA Center for Workplace Solutions and Gensler to project the future space needs to 2015, identify what (if any) increase in workforce mobility can be achieved by that time, and develop a series of recommendations for a new Region 3 workplace. Through a comprehensive study involving leadership questionnaires, employee surveys, site tours, a leadership visioning session, a week-long space utilization study, ten employee focus groups, and executive and leader interviews with each administrator and director, the team produced a detailed space program and Workplace Recommendations Report that outlined the foundation for a cutting-edge workplace design.

Given the diverse work patterns and high level of workplace mobility exhibited by employees in the Mid-Atlantic ROB, the team proposed an activity-based design. Rather than one dedicated workstation or office that must support a wide range of functions and work tasks, one standard workstation was recommended that would be augmented by a variety of shared spaces that are accessible to all employees and specifically tailored to support the work tasks of each group. The workstations would be organized into three main neighborhood typologies that are specifically designed to support the three prevailing work patterns.

The **"Library"** would provide reservable workstations for the employee conducting highly focused work that requires minimal acoustic distractions.

The **"Student Union"** is tailored to employees that spend large quantities of time on the phone and working independently. The workstations would be configured to provide maximum acoustical separation. Adjacent huddle rooms would be provided for those employees that need to collaborate face-to-face as to not distract others.

The **"Studio"** is designed to support an interactive and highly collaborative team setting. Open team tables are located adjacent to work settings to promote team interaction. Adjacent huddle and focus rooms would be provided for those employees that need to take a quiet phone call or conduct focus work.

APPENDIX: MASTER DATA

The following table is a snapshot of all the benchmarking metrics recorded per case study and industry sector.

GSA Benchmarking MASTER DATA
*Organizations are not listed listed in any particular order.

ORGANIZATION		SPACE ALLOCATION RATE		SPACE ALLOCATION RATIO						WORKSPACE STANDARDS		
Company & Sector	Public / Private	USF / Seat Count	USF / Personnel	Office	Open Workspace	Collaboration	General Support	Social	Mission Specific	Enclosed % : Open %	Office Size	Workstation Size	Mobility Sharing Ratios
Architecture & Engineering													
A/E Firm #1	Private	150	150	13.38%	40.71%	13.61%	20.91%	8.62%	2.77%	9:91	Large: 215sf Standard: 115sf **Average: 139sf**	42sf	n/a
A/E Firm #2	Public	218	160	3.05%	28.56%	49.48%	14.15%	4.44%	0.32%	3:97	Large: 240sf Standard: 120sf **Average: 137sf**	Large: 64sf **Standard: 48sf** Mobile: 36sf	1 seat to 1.36 HC
A/E Firm #3	Public	207	162	0.00%	49.04%	27.95%	19.75%	1.94%	1.32%	0:100	None	36sf	1 seat to 1.28 HC
A/E Firm #4	Private	189	189	5.92%	53.63%	12.36%	11.82%	16.27%	0.00%	4:96	Exec: 295sf Standard: 150sf **Average: 196sf**	48sf	n/a
A/E Firm #5	Private	181	181	32.16%	43.18%	7.68%	9.40%	3.78%	3.80%	26:74	Ranges 250-110sf **Average: 160sf**	67sf	n/a
A/E AVERAGE		189.0	168.4	10.90%	43.02%	22.22%	15.21%	7.01%	1.64%	8:92	158sf	48sf	
Biotechnology & Science													
Bio-Science Firm #1	Private	257	257	47.97%	16.87%	17.40%	9.88%	5.81%	2.07%	57:53	Large: 230sf Standard: 115sf **Average: 122sf**	68sf	n/a
Bio-Science Firm #2	Private	148	134	29.69%	39.77%	19.27%	7.33%	3.94%	0.00%	24:76	100sf	42sf	10% of work areas is dedicated for hoteling
Bio-Science Firm #3	Private	151	151	31.11%	37.32%	22.16%	4.67%	4.74%	0.00%	28:72	100sf	48sf	n/a
Bio-Science Firm #4	Private	144	144	13.62%	33.28%	15.11%	31.51%	2.59%	3.89%	20:80	99sf	**Standard: 64sf** Unassigned: 48sf	n/a
Bio-Science Firm #5	Private	412	412	4.66%	11.51%	4.64%	1.62%	0.64%	76.93%	14.5:84.5	139sf	40sf	n/a
Bio-Science AVERAGE		222.4	219.6	25.41%	27.75%	15.72%	11.00%	3.54%	16.58%	29:71	112sf	51sf	
Call Center													
Call Center #1	Private	174	174	13.25%	65.61%	14.35%	5.36%	1.43%	0.00%	11:89	117sf	31sf	n/a
Call Center #2	Public	121	51	4.50%	37.84%	38.94%	15.37%	3.35%	0.00%	4.5:95.5	120sf	48sf	20% Dedicated, 80% Free Address
Call Center #3	Private	95	76	0.00%	50.47%	36.90%	5.79%	6.84%	0.00%	0:100	n/a	24sf	70% Dedicated, 30% Free Address
Call Center #4	Private	119	119	5.75%	46.72%	23.42%	13.60%	10.51%	0.00%	3:97	124sf	36sf	n/a
Call Center #5	Private	96	96	4.04%	55.96%	21.29%	13.78%	4.69%	0.24%	1:99	Exec: 225sf Large: 170sf Standard: 150sf **Average: 171sf**	30sf	n/a
Call Center AVERAGE		121.0	103.2	5.51%	51.32%	26.98%	10.78%	5.36%	0.05%	4:96	133sf	34sf	

APPENDIX: MASTER DATA

The following table is a snapshot of all the benchmarking metrics recorded per case study and industry sector.

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ORGANIZATION		SPACE ALLOCATION RATE		SPACE ALLOCATION RATIO						WORKSPACE STANDARDS			
Company & Sector	Public / Private	USF / Seat Count	USF / Personnel	Office	Open Workspace	Collaboration	General Support	Social	Mission Specific	Enclosed % : Open %	Office Size	Workstation Size	Mobility Sharing Ratios
Finance													
Finance Firm #1	Private	164	164	32.60%	25.60%	14.60%	17.90%	9.30%	0.00%	30:70	Perimeter: 180sf Standard: 90sf **Average: 106sf**	40sf	n/a
Finance Firm #2	Private	239	239	42.49%	23.93%	14.14%	14.84%	4.01%	0.59%	43:57	Large: 170sf Standard: 115sf **Average: 139sf**	50sf	n/a
Finance Firm #3	Private	112	112	21.95%	49.93%	12.04%	11.18%	4.90%	0.00%	37:63	Exec: 225sf Large: 150sf Standard: 115sf **Average: 147sf**	42sf	n/a
Finance Firm #4	Private	180	180	10.02%	47.99%	20.94%	15.53%	5.52%	0.00%	8:92	140sf	Large: 90sf **Standard: 54sf**	n/a
Finance Firm #5	Private	145	145	44.84%	39.23%	5.72%	8.69%	1.52%	0.00%	27:73	Exec: 250sf Large: 200sf Standard: 125sf **Average: 162sf**	56sf	n/a
Finance AVERAGE		168.0	168.0	30.38%	37.34%	13.49%	13.63%	5.05%	0.12%	29:71	139sf	48sf	None
Law Enforcement													
Law Enforcement #1	Public	204	101	0.00%	30.56%	46.17%	18.26%	5.01%	0.00%	0:100	n/a	**Standard: 48sf** Roaming: 36sf	1 seat to 2 HC
Law Enforcement #2	Public	239	199	18.34%	22.97%	17.67%	18.84%	4.99%	17.19%	21:79	Exec: 225sf Standard: 100sf - 150sf **Average: 140sf**	Large: 80sf - 100sf Standard: 48-60sf **Average: 64sf**	n/a
Law Enforcement #3	Public	239	239	12.02%	29.22%	18.87%	16.41%	1.19%	22.29%	10:90	Large: 225sf-350sf Standard: 150sf **Average: 164sf**	Large: 64sf **Standard: 48sf**	n/a
Law Enforcement #4	Public	226	219	13.09%	40.54%	16.77%	14.31%	2.30%	12.99%	11:89	Exec: 400-300sf Large: 200sf - 150sf Standard: 100sf **Average: 173sf**	Supervisory: 90sf **Standard: 64sf**	n/a
Law Enforcement #5	Public	244	240	27.67%	38.54%	14.62%	13.14%	4.54%	1.49%	28:72	Exec: 300sf Large: 225sf Standard: 150sf **Average: 152sf**	64sf	n/a
Law Enforcement AVERAGE		230.4	199.6	14.22%	32.37%	22.82%	16.19%	3.61%	10.79%	14:86	157sf	58sf	
Legal													
Legal Firm #1	Public	288	288	47.34%	13.62%	14.06%	14.38%	2.22%	8.38%	43:57	Large: 200sf-225sf Medium: 180sf Standard:150sf **Average: 170sf**	Large: 100sf **Standard: 80sf**	n/a
Legal Firm #2	Public	336	336	30.91%	10.26%	37.89%	17.18%	3.76%	0.00%	43:57	Exec: 250sf Large: 200sf Standard: 120sf **Average: 171sf**	**Standard: 64sf** Intern: 36sf	n/a
Legal Firm #3	Private	539	539	39.72%	4.51%	13.13%	20.79%	5.44%	16.41%	83:17	Large: 225sf Perimeter: 150sf Standard: 100sf **Average: 168sf**	100sf	n/a
Legal Firm #4	Private	269	269	50.91%	11.01%	15.53%	13.37%	4.27%	4.91%	69:31	Exec: 215sf Perimeter: 135sf Standard: 100sf **Average: 145sf**	75sf	n/a
Legal Firm #5	Private	243	243	46.88%	12.26%	16.41%	12.81%	4.19%	7.45%	62:38	Perimeter: 200sf Standard: 130sf **Average: 135sf**	Large: 75sf Standard: 42sf **Average: 58sf**	n/a
Legal AVERAGE		335.0	335.0	43.15%	10.33%	19.40%	15.71%	3.98%	7.43%	60:40	158sf	75sf	n/a

APPENDIX: MASTER DATA

The following table is a snapshot of all the benchmarking metrics recorded per case study and industry sector.

GSA Benchmarking MASTER DATA
*Organizations are not listed listed in any particular order.

ORGANIZATION		SPACE ALLOCATION RATE		SPACE ALLOCATION RATIO						WORKSPACE STANDARDS			
Company & Sector	Public / Private	USF / Seat Count	USF / Personnel	Office	Open Workspace	Collaboration	General Support	Social	Mission Specific	Enclosed % : Open %	Office Size	Workstation Size	Mobility Sharing Ratios
Social Services													
Social Services #1	Public	234	234	73.16%	4.63%	5.41%	14.73%	1.62%	0.45%	86:14	Exec: 250sf Perimeter: 150sf Standard: 120sf **Average: 142sf**	60sf	n/a
Social Services #2	Public	189	189	32.45%	51.03%	6.22%	7.70%	2.60%	0.00%	26:74	Exec: 275sf Standard: 120sf **Average: 150sf**	Large: 90sf Standard: 64sf **Average: 77sf**	n/a
Social Services #3	Public	199	199	16.01%	58.79%	11.99%	9.54%	3.67%	0.00%	14:86	Exec: 275sf Perimeter: 170sf Standard: 120sf **Average: 143sf**	90sf	n/a
Social Services AVERAGE		207.3	207.3	40.54%	38.15%	7.87%	10.66%	2.63%	0.15%	42:58	145sf	76sf	None
Technology													
Technology Firm #1	Private	156	156	0.00%	46.94%	28.25%	6.53%	18.28%	0.00%	0:100	n/a	48sf	n/a
Technology Firm #2	Private	144	144	0.00%	56.74%	21.35%	5.00%	13.02%	3.89%	0:100	n/a	**Standard: 48sf** Mobile: 27sf	n/a
Technology Firm #3	Private	132	132	0.00%	46.21%	45.74%	5.74%	2.31%	0.00%	0:100	n/a	30sf	n/a
Technology Firm #4	Private	125	125	0.00%	53.71%	21.17%	11.62%	13.50%	0.00%	0:100	n/a	36sf	Current HC is accommodated on site. Mobility will be adopted as a growth strategy
Technology Firm #5	Private	143	143	6.63%	46.30%	29.80%	14.38%	2.43%	0.46%	5:95	120sf	48	n/a
Technology AVERAGE		140.0	140.0	1.33%	49.98%	29.26%	8.65%	9.91%	0.87%	1:99	120	42sf	

APPENDIX: ARCHITECTURE & ENGINEERING

This chart illustrates space allocation rates for the Architecture &
Engineering sector based on USF per total personnel. Organizations
with mobility programs are identified.

SPACE ALLOCATION RATE: USF PER TOTAL PERSONNEL

USF /
Person

Legend

— USF per Person

◯ Mobility Program

● Private Sector

● Public Sector

230 —
220 —
210 —
200 —
190 —
180 —
170 —
160 —
150 —
140 —

150   160   162   181   189

A/E Firm   A/E Firm   A/E Firm   A/E Firm   A/E Firm
  #1   #2   #3   #5   #4

KEY TAKEAWAY #1

Of all A/E Firms included in this
sample, only Public Sector firms
have implemented a formal mobility
program that leverages seats across
mobile staff. They have among the
lowest space allocation rates.
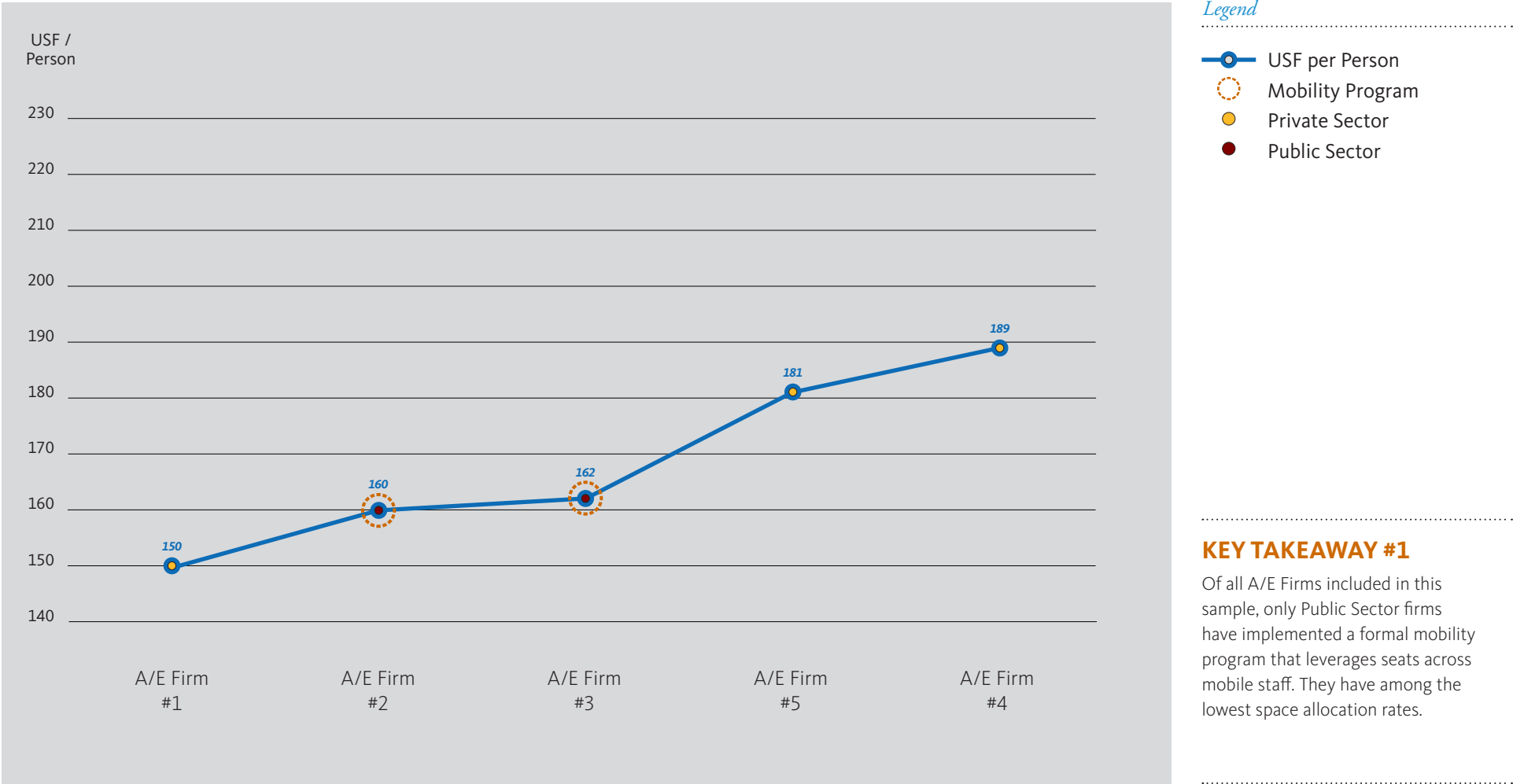
APPENDIX: ARCHITECTURE & ENGINEERING

The bar graphs below demonstrate the proportion of NSF that is
allocated to each space type per case study. Case studies are ordered
by proportion of space allocated to individual workspaces.

SPACE ALLOCATION RATIO CHARTS

Industry Sector

A/E Firm #2
Space Allocation Rate: 160

| 3% | 29% | 50% | 14% | 4% |

A/E Firm #3
Space Allocation Rate: 162

| 49% | 28% | 20% | 2% | 1% |

A/E Firm #1
Space Allocation Rate: 150

| 13% | 41% | 14% | 21% | 9% | 3% |

A/E Firm #4
Space Allocation Rate: 189

| 6% | 54% | 12% | 12% | 16% |

A/E Firm #5
Space Allocation Rate: 181

| 32% | 43% | 8% | 9% | 4% | 4% |

A/E Average
Space Allocation Rate: 168.4

| 11% | 43% | 22% | 15% | 7% | 2% |

Private Sector #
Public Sector #

Space Types

- ■ Office
- ■ Workstation
- ■ Collaboration
- ■ General Support
- ■ Social Support
- ■ Mission Specific

KEY TAKEAWAY #1

There is an inverse relationship
between space allocated for individual
workspaces and collaboration. The
A/E firms with the lowest allocation of
space dedicated for workstations and
offices have the highest proportion of
collaborative spaces.

KEY TAKEAWAY #2

The Public Sector A/E Firms have the
lowest allocation of space dedicated
to individual workspaces but,
overwhelmingly, the most amount of
space dedicated to collaboration.

APPENDIX: ARCHITECTURE & ENGINEERING

The chart below displays the average ratio of enclosed offices to open workstations for each Architecture & Engineering case study.

ENCLOSED OFFICE TO OPEN WORKSTATION RATIO

Industry Sector

A/E Firm #3
Space Allocation Rate: 162

A/E Firm #2
Space Allocation Rate: 160

A/E Firm #4
Space Allocation Rate: 189

A/E Firm #1
Space Allocation Rate: 150

A/E Firm #5
Space Allocation Rate: 181

A/E Average
Space Allocation Rate: 168.4

Private Sector **#**
Public Sector **#**

Firm	Enclosed Office	Open Workstation
A/E Firm #3		100%
A/E Firm #2	3%	97%
A/E Firm #4	4%	96%
A/E Firm #1	9%	91%
A/E Firm #5	26%	74%
A/E Average	8%	92%

Space Types

■ Enclosed Office
■ Open Workstation

KEY TAKEAWAY #1

A/E Firm #5 has almost three times the proportion of enclosed offices to open workstations as any other firm included in this sample.

KEY TAKEAWAY #2

A/E Firm #3 is the only sample within this industry sector to have no assigned offices and 100% open workstations.

APPENDIX: ARCHITECTURE & ENGINEERING

The following graph illustrates the average office size per each Architecture & Engineering case study.

AVERAGE OFFICE SIZE & SPACE ALLOCATION RATE

Legend

— Avg. Office NSF
— USF per Person
● Private Sector
● Public Sector
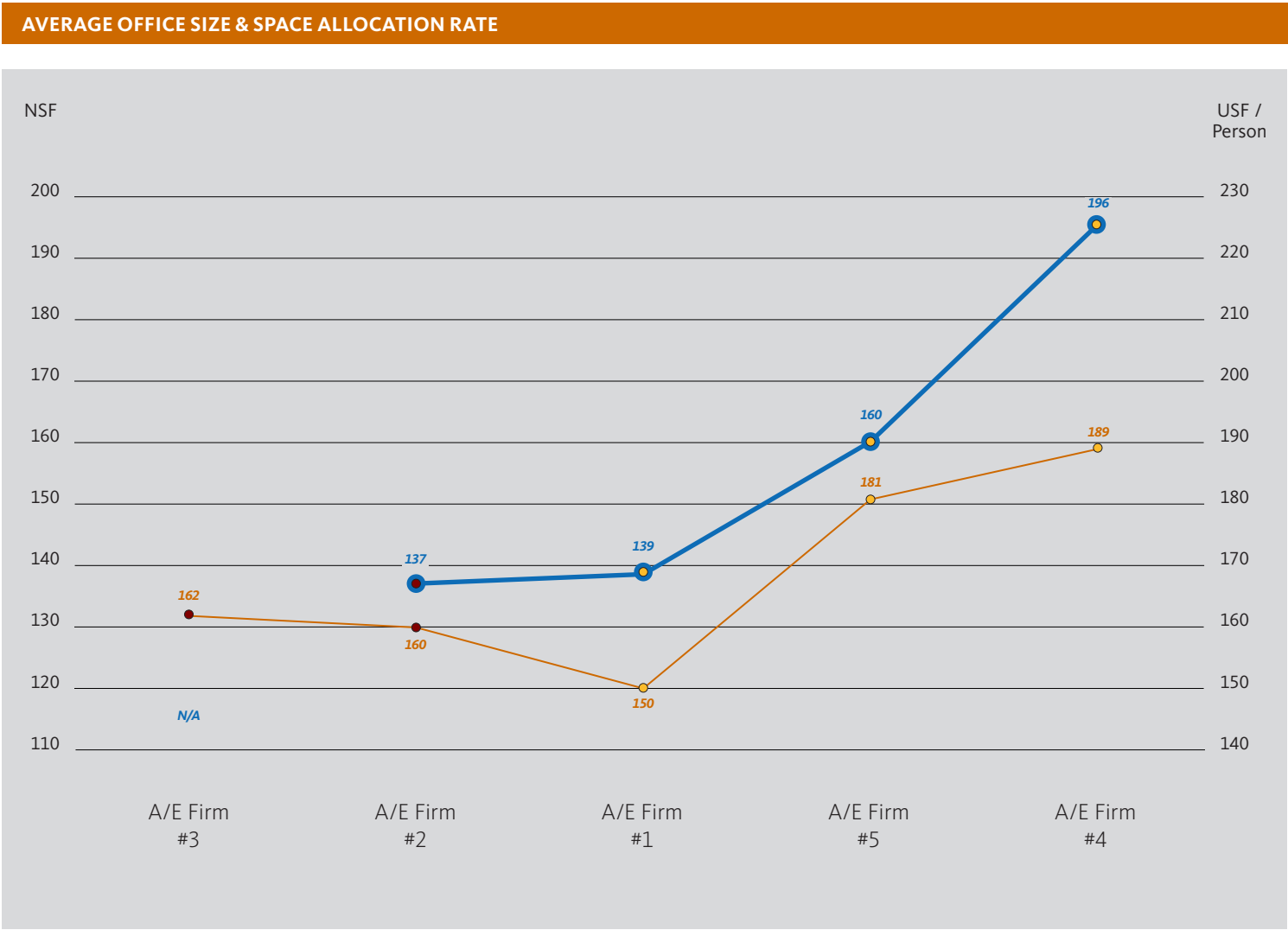
KEY TAKEAWAY #1

For Private Sector A/E firms, average office sizes have a slight correlation to space allocation rate. Private Sector firms with the largest average office sizes also have the highest space allocation rates.

APPENDIX: ARCHITECTURE & ENGINEERING

The following graph records the standard workstation size for each Architecture & Engineering Firm. The metrics are a combination of prevailing workstation sizes as well as averages where no dominant workstation size was present.

AVERAGE WORKSTATION SIZE & SPACE ALLOCATION RATE

Legend

— Avg. Workstation NSF
— USF per Person
● Private Sector
● Public Sector

KEY TAKEAWAY #1

There is no direct relationship between the space allocation rate and the average standard workstation size.
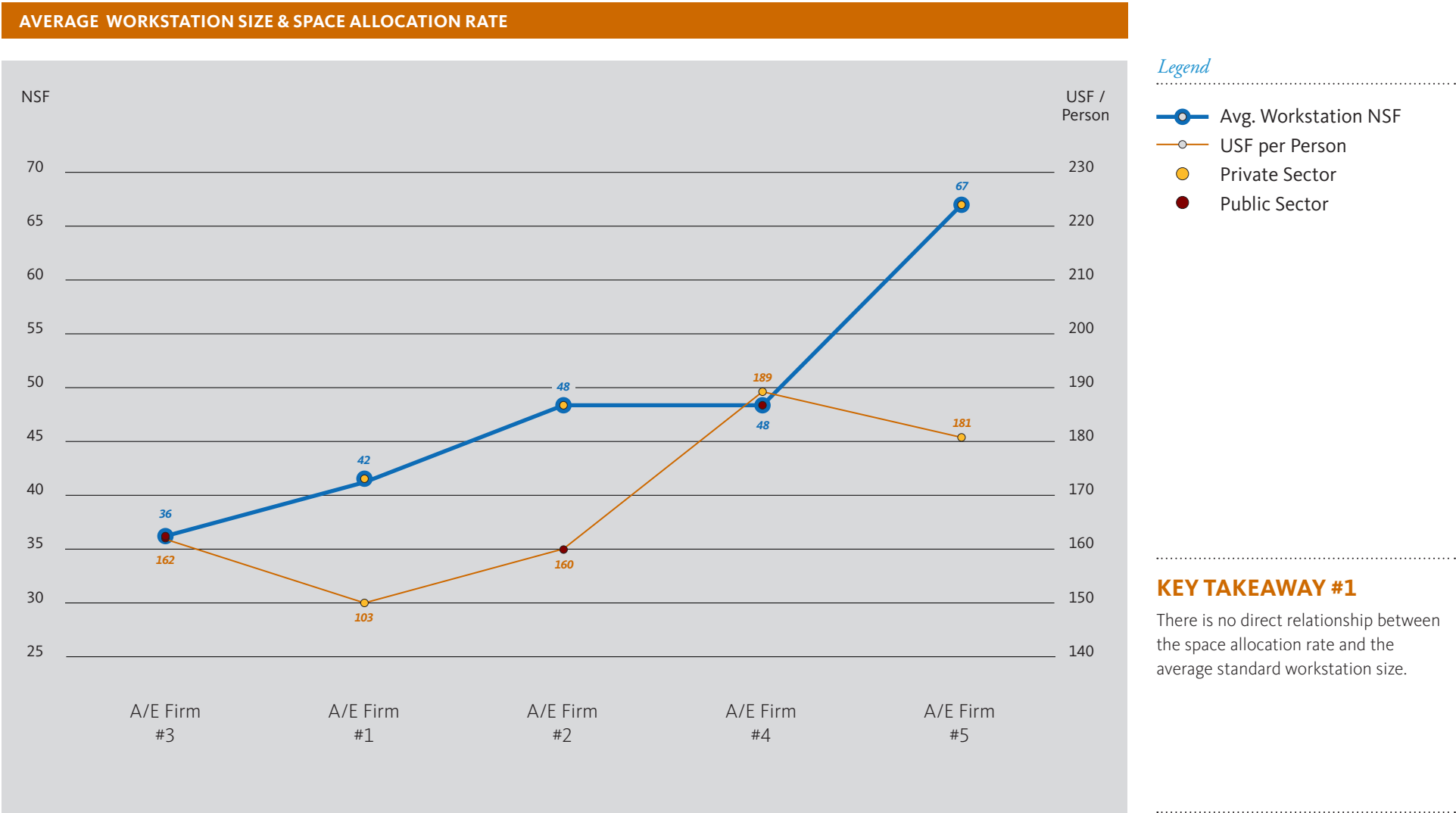
APPENDIX: BIOTECHNOLOGY & SCIENCE

This chart illustrates space allocation rates for the Biotechnology & Science sector based on USF per total personnel. Organizations with mobility programs are identified.

SPACE ALLOCATION RATE: USF PER TOTAL PERSONNEL
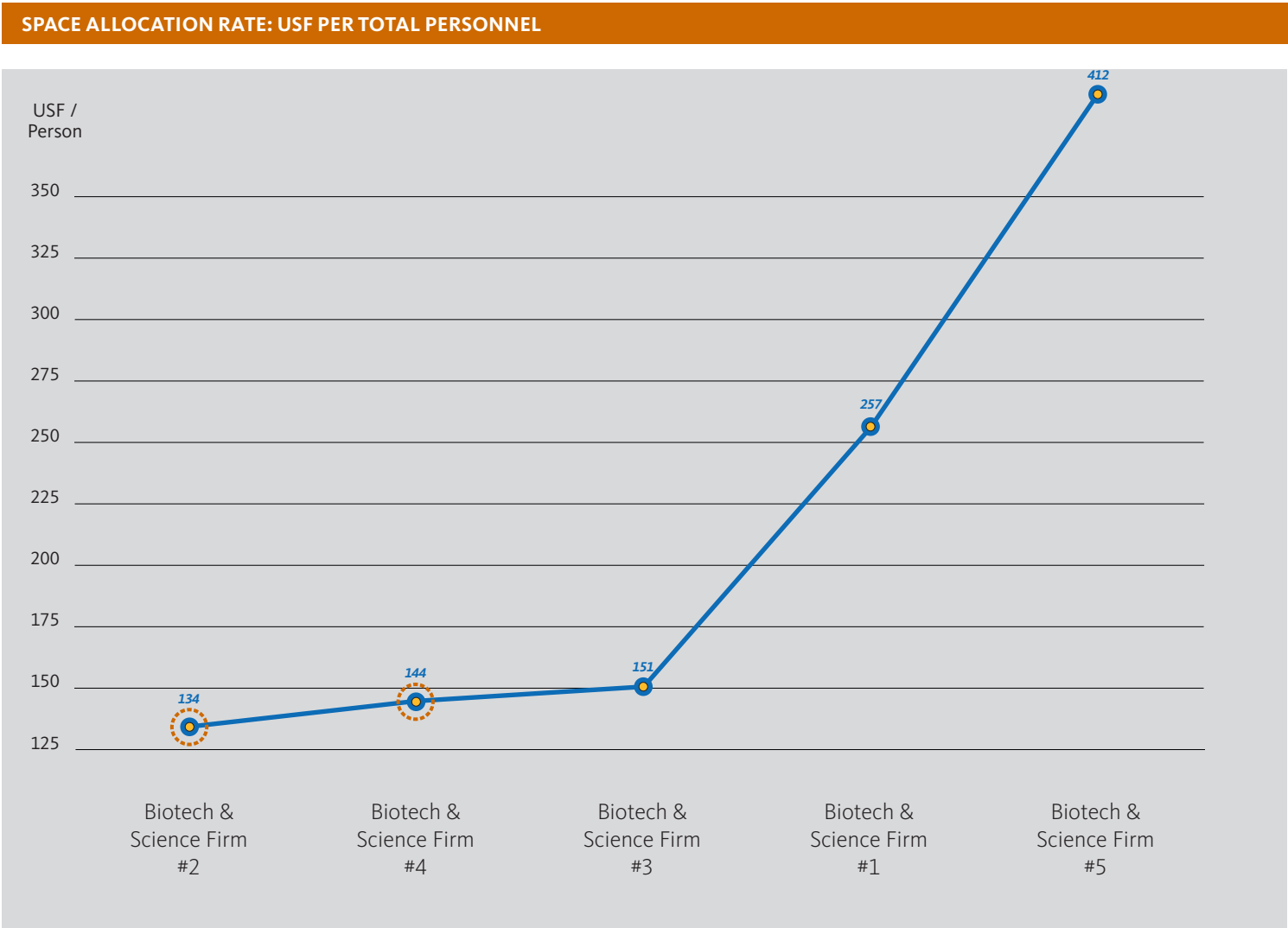
Legend

— USF per Person

⊙ Mobility Program

● Private Sector

● Public Sector

KEY TAKEAWAY #1

Biotech & Science Firm #5 has the highest space allocation rate by more than 150 USF per person. However, it is important to note that Biotech & Science Firm #5 is the only case study that houses a significant amount of laboratory facilities.

KEY TAKEAWAY #2

Biotech & Science Firms #2 and #4 are the only two case studies to implement a workplace mobility program. These two firms also have the two lowest space allocation rates.

APPENDIX: BIOTECHNOLOGY & SCIENCE

The bar graphs below demonstrate the proportion of NSF that is allocated to each space type per case study. Case studies are ordered by proportion of space allocated to individual workspaces.

SPACE ALLOCATION RATIO CHARTS

Industry Sector

Biotech & Science Firm #5
Space Allocation Rate: 412

| 5% | 12% | 5% | 2% | 1% | 77% |

Biotech & Science Firm #4
Space Allocation Rate: 144

| 14% | 33% | 15% | 32% | 3% | 4% |

Biotech & Science Firm #1
Space Allocation Rate: 257

| 48% | 17% | 17% | 10% | 6% | 2% |

Biotech & Science Firm #3
Space Allocation Rate: 151

| 31% | 37% | 22% | 5% | 5% |

Biotech & Science Firm #2
Space Allocation Rate: 134

| 30% | 40% | 19% | 7% | 4% |

Biotech & Science Average
Space Allocation Rate: 219.6

| 25% | 28% | 16% | 11% | 4% | 17% |

Private Sector #
Public Sector #

Space Types

- **Office**
- **Workstation**
- **Collaboration**
- **General Support**
- **Social Support**
- **Mission Specific**

KEY TAKEAWAY #1

Biotech & Science Firm #5 is the only case study that is primarily comprised of laboratory space. The large allocation of mission specific space reflects the laboratory functions. The other four case studies are predominantly general administrative facilities.

KEY TAKEAWAY #2

Biotech & Science Firms #4 and #5 have the lowest proportion of space dedicated to individual workspace (offices and workstations). In addition, these two firms have the lowest ratio of enclosed offices to open workstations.

APPENDIX: BIOTECHNOLOGY & SCIENCE

The chart below displays the average ratio of enclosed offices to open workstations for each Biotechnology & Science case study.

Industry Sector

Space Types

Biotech & Science Firm #5
Space Allocation Rate: 412

14.5%	84.5%

Biotech & Science Firm #4
Space Allocation Rate: 144

20%	80%

Biotech & Science Firm #2
Space Allocation Rate: 134

24%	76%

Biotech & Science Firm #3
Space Allocation Rate: 151

28%	31%

Biotech & Science Firm #1
Space Allocation Rate: 257

57%	53%

Biotech & Science Average
Space Allocation Rate: 219.6

29%	71%

Private Sector #
Public Sector #

- ■ Enclosed Office
- ■ Open Workstation

KEY TAKEAWAY #1

Biotech & Science Firm #1 is the only case study that allocates more enclosed offices than open workstations.

APPENDIX: BIOTECHNOLOGY & SCIENCE

The following graph illustrates the average office size per each
Biotechnology & Science case study.

AVERAGE OFFICE SIZE & SPACE ALLOCATION RATE
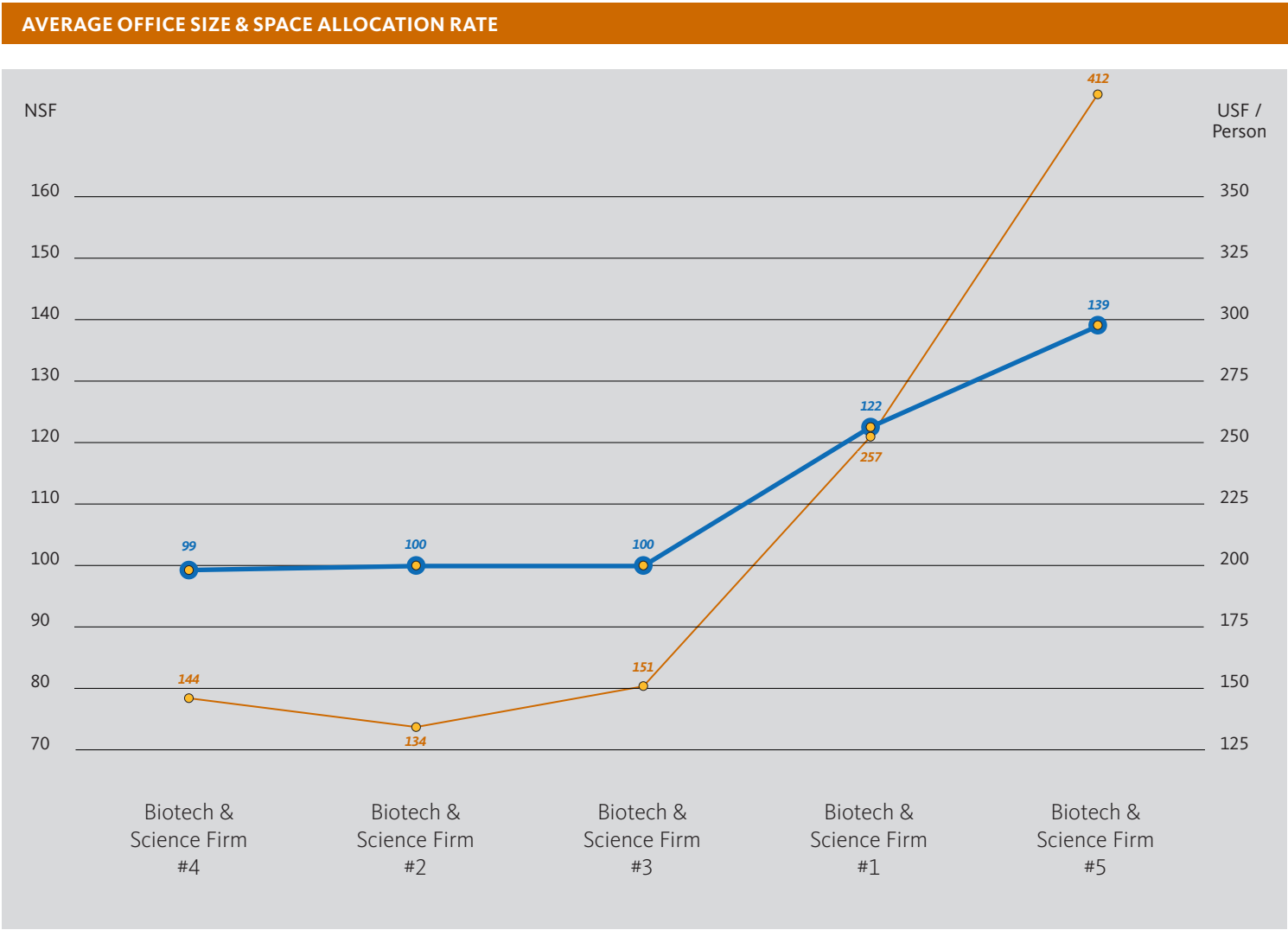
Legend

— Avg. Office NSF
— USF per Person
● Private Sector
● Public Sector

KEY TAKEAWAY #1

Office sizes in the Biotech & Science sector have a slight correlation to space allocation efficiency. The firms with the largest offices also have a much higher USF per person.

KEY TAKEAWAY #2

Biotech & Science Firms #2, #3, and #4 have the same standard office size and similar space allocation rates (134 to 151 USF per person).

APPENDIX: BIOTECHNOLOGY & SCIENCE

The following graph records the standard workstation size for each Biotechnology & Science Firm. The metrics are a combination of prevailing workstation sizes as well as averages where no dominant workstation size was present.

AVERAGE WORKSTATION SIZE & SPACE ALLOCATION RATE
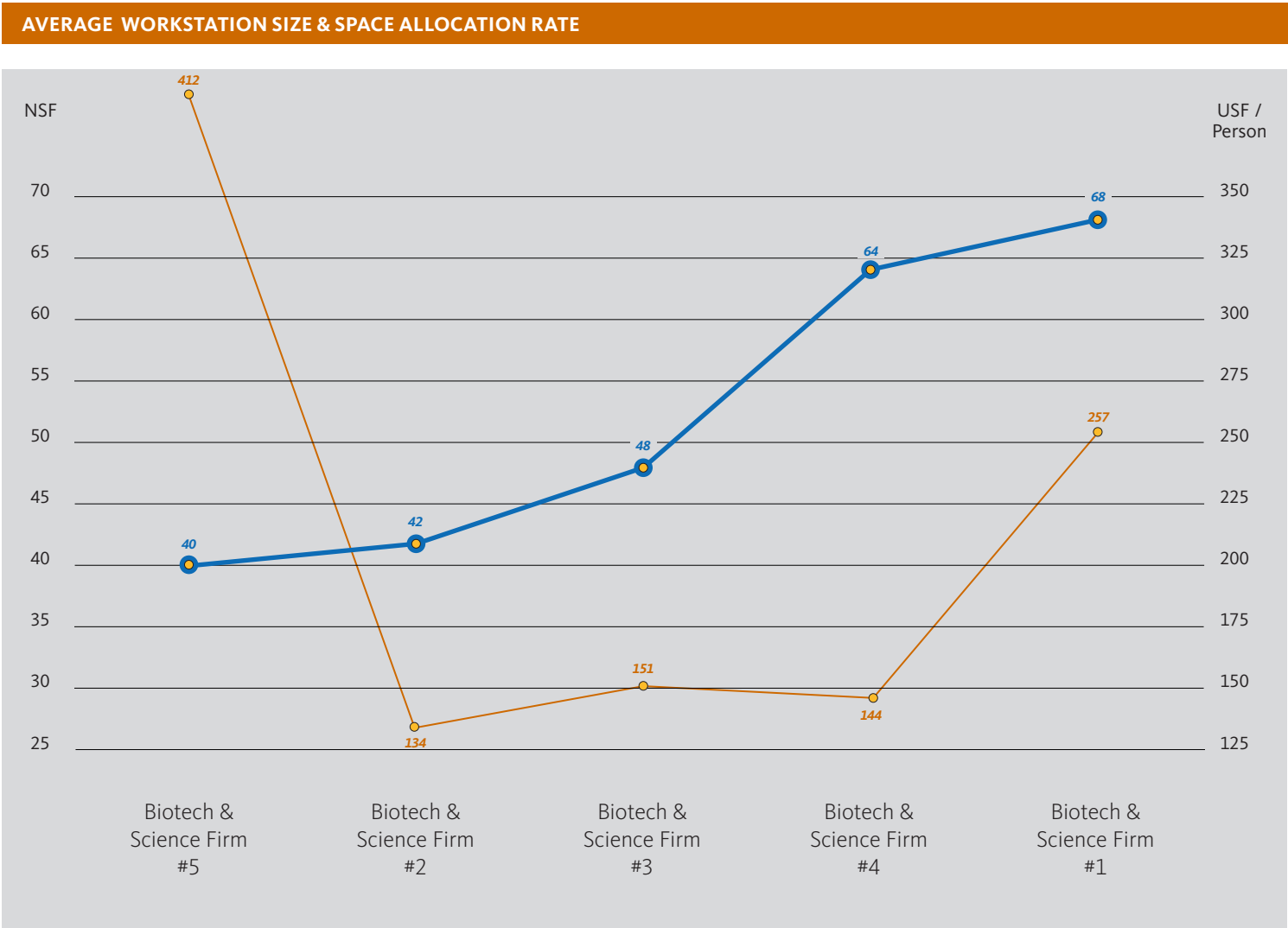
Legend

— Avg. Workstation NSF
— USF per Person
● Private Sector
● Public Sector

KEY TAKEAWAY #1

There is no direct relationship between the space allocation rate and the average workstation size in the Biotech & Science sector.

KEY TAKEAWAY #2

Biotech & Science Firm #5 has the smallest individual workstation standard size. However, the large space allocation rate is affected by the large allocation of space dedicated to laboratory functions (77%).

APPENDIX: CALL CENTERS

This chart illustrates space allocation rates for Call Centers based on USF per total personnel. Organizations with mobility programs are identified.

Legend

— USF per Person
○ Mobility Program
● Private Sector
● Public Sector

KEY TAKEAWAY #1

Call Center #2 and #3 are the only Call Centers to adopt workplace mobility programs. They also have the lowest space allocation rates of all sampled Call Centers.

KEY TAKEAWAY #2

Call Center #1 has the highest space allocation rate by more than 50 USF per person above any other Call Center case study. Call Center #2 has the lowest space allocation rate and is also the only Public Sector case study in this sample.

APPENDIX: CALL CENTERS

The bar graphs below demonstrate the proportion of NSF that is allocated to each space type per case study. Case studies are ordered by proportion of space allocated to individual workspaces.

ENCLOSED OFFICE TO OPEN WORKSTATION RATIO

Industry Sector

Call Center #2
Space Allocation Rate: 51

| 5% | 38% | 39% | 15% | 3% |

Call Center #3
Space Allocation Rate: 76

| 50% | 37% | 6% | 7% |

Call Center #4
Space Allocation Rate: 119

| 6% | 47% | 23% | 14% | 10% |

Call Center #5
Space Allocation Rate: 96

| 4% | 56% | 21% | 14% | 5% |

Call Center #1
Space Allocation Rate: 174

| 13% | 66% | 14% | 5% | 1% |

Call Center Average
Space Allocation Rate: 103.2

| 6% | 51% | 27% | 11% | 5% |

Private Sector #
Public Sector #

Space Types

- ■ Office
- ■ Workstation
- ■ Collaboration
- ■ General Support
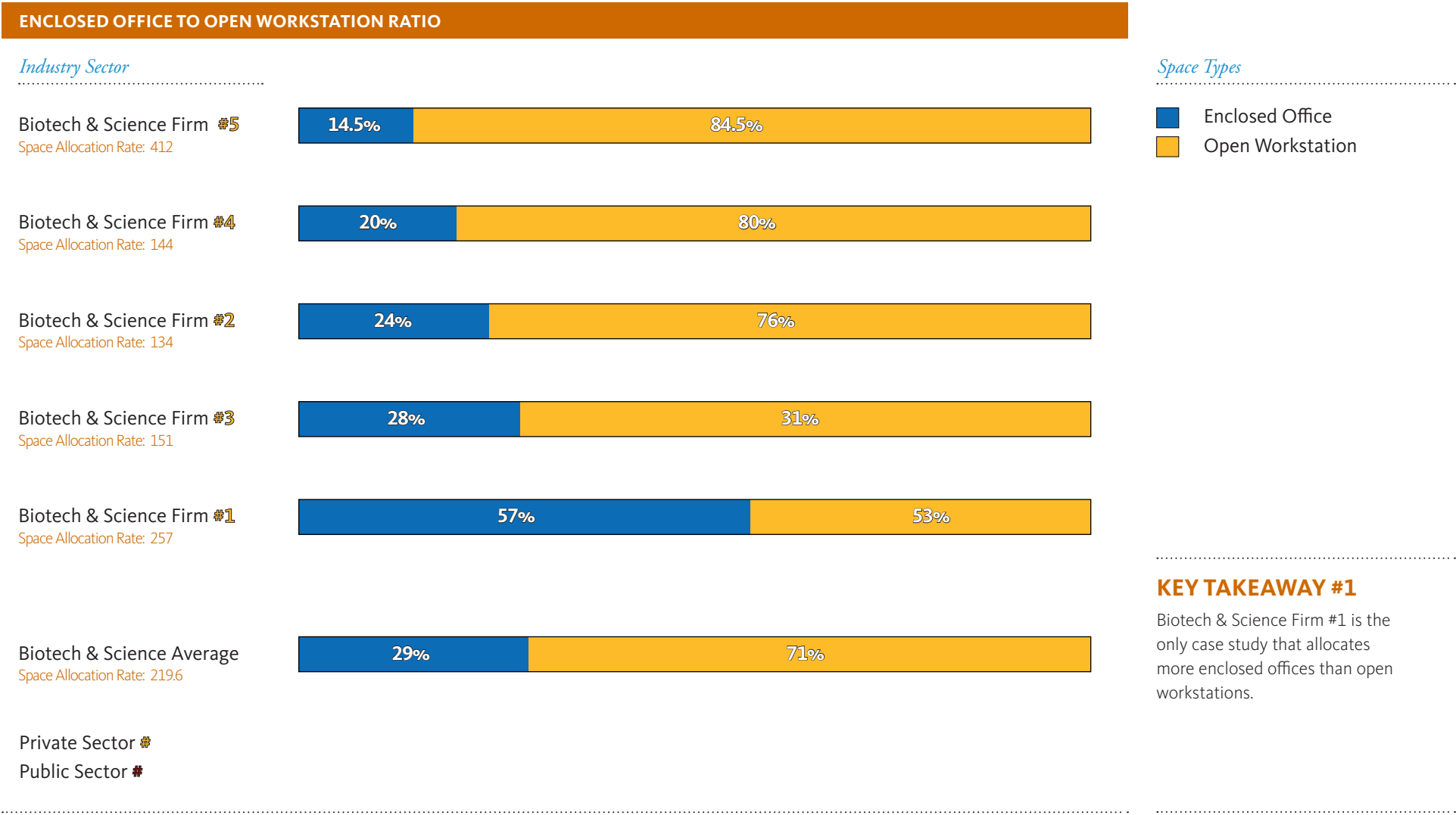- ■ Social Support
- □ Mission Specific

KEY TAKEAWAY #1

There is an inverse relationship between space allocated for individual workspaces and collaboration. The Call Centers with the lowest allocation of space dedicated for workstations and offices have the highest proportion of collaborative spaces.

KEY TAKEAWAY #2

The large proportion of space dedicated to collaboration across the Call Center sector is influenced by the strong emphasis on training facilities.

APPENDIX: CALL CENTERS

The chart below displays the average ratio of enclosed offices to open workstations for each Call Center case study.

OPEN WORKSTATION TO ENCLOSED OFFICE RATIO

Industry Sector

Space Types

- ■ Enclosed Office
- ■ Open Workstation

Call Center #3
Space Allocation Rate: 76

100%

Call Center #5
Space Allocation Rate: 96

1% | 99%

Call Center #4
Space Allocation Rate: 119

3% | 97%

KEY TAKEAWAY #1

Call Center #1, which has the highest ratio of enclosed offices to open workstations, also has the highest space allocation rate at 174 USF per total personnel.

Call Center #2
Space Allocation Rate: 51

4.5% | 95.5%

Call Center #1
Space Allocation Rate: 174

11% | 89%

KEY TAKEAWAY #2

Call Center #3 is the only case study to have no offices.

Call Center Average
Space Allocation Rate: 103.2

4% | 96%

Private Sector **#**
Public Sector **#**

APPENDIX: CALL CENTERS

The following graph illustrates the average office size per each Call Center case study.
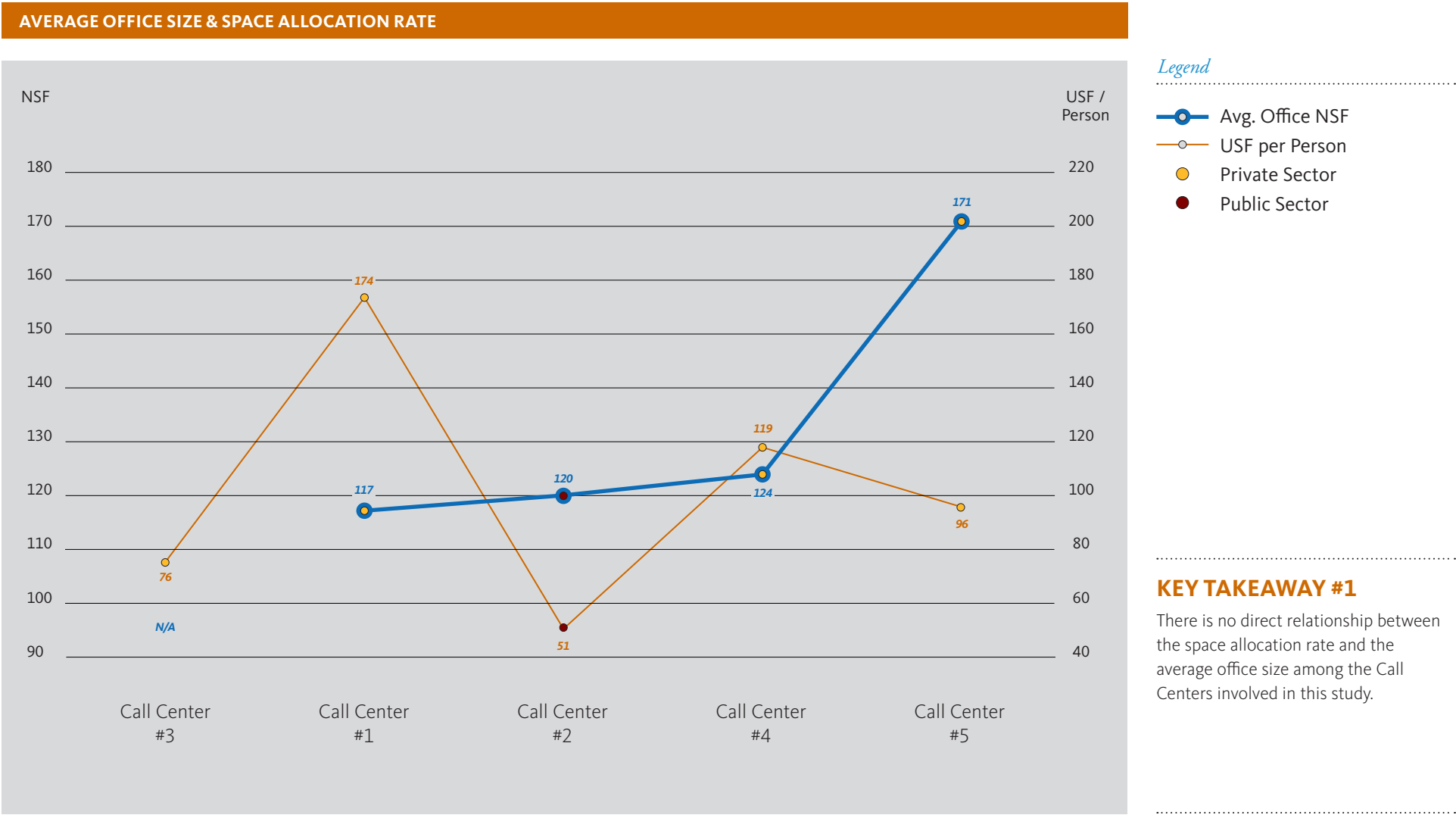
AVERAGE OFFICE SIZE & SPACE ALLOCATION RATE

Legend

— Avg. Office NSF
— USF per Person
● Private Sector
● Public Sector

KEY TAKEAWAY #1

There is no direct relationship between the space allocation rate and the average office size among the Call Centers involved in this study.

NSF values: 171, 117, 120, 124, N/A
USF/Person values: 174, 119, 96, 76, 51

Call Center #3, Call Center #1, Call Center #2, Call Center #4, Call Center #5

APPENDIX: CALL CENTERS

The following graph records the standard workstation size for each Call Center. The metrics are a combination of prevailing workstation sizes as well as averages where no dominant workstation size was present.

AVERAGE WORKSTATION SIZE & SPACE ALLOCATION RATE
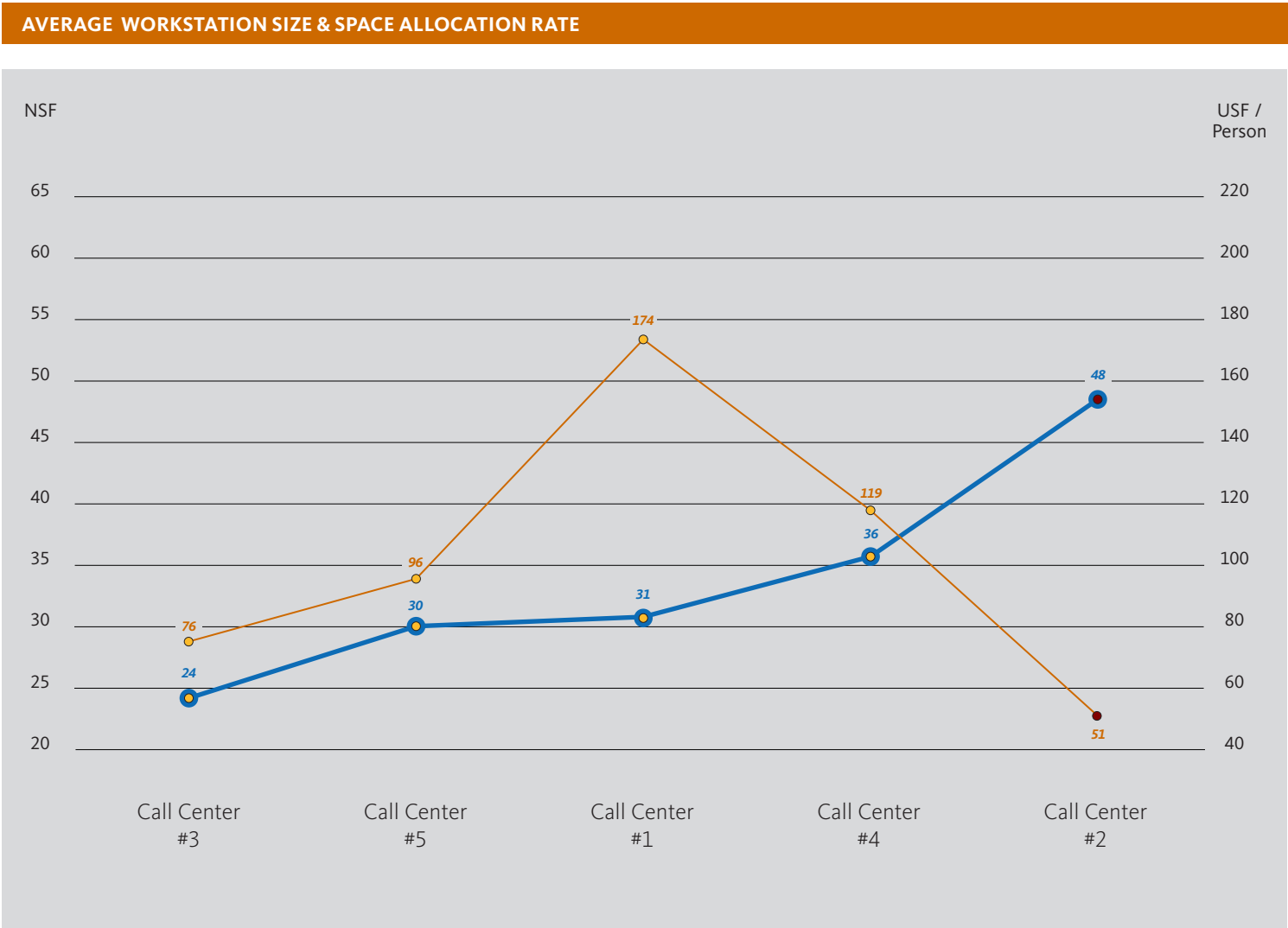
Legend

— Avg. Workstation NSF
— USF per Person
● Private Sector
● Public Sector

KEY TAKEAWAY #1

There is no direct relationship between the space allocation rate and the average workstation size among the Call Centers involved in this study.
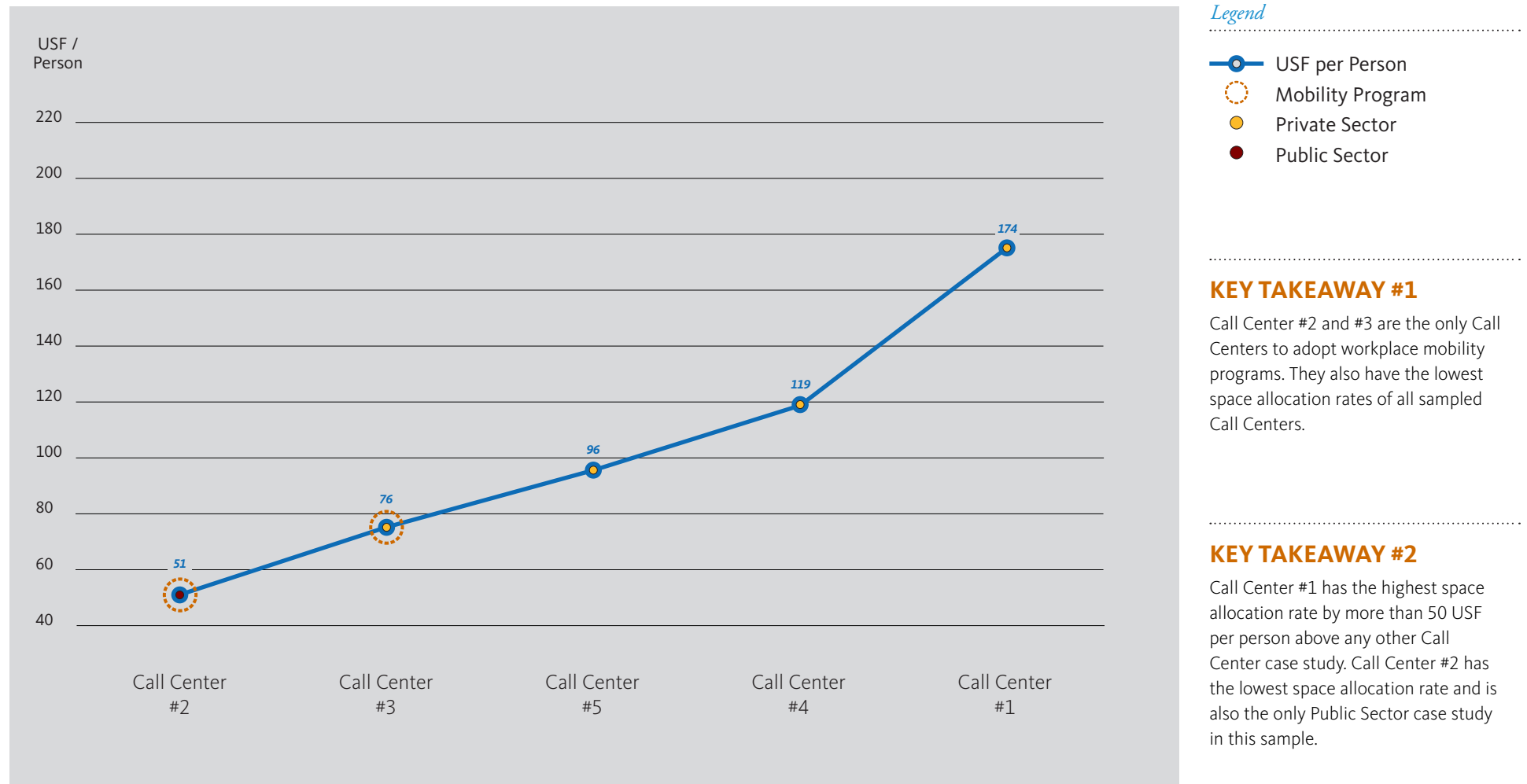
KEY TAKEAWAY #2

Call Center #2 has the largest workstation standard size at 48sf but the lowest space allocation rate of all Call Centers at 51 USF per person due to the adoption of a formal mobility program.

APPENDIX: FINANCE

This chart illustrates space allocation rates for the Finance sector based on USF per total personnel. Organizations with mobility programs are identified.

SPACE ALLOCATION RATE: USF PER TOTAL PERSONNEL

USF / Person

Legend

— USF per Person
○ Mobility Program
● Private Sector
● Public Sector

235
220
205
190
175
160
145
130
115
100

239
180
164
145
112

Finance Firm #3
Finance Firm #5
Finance Firm #1
Finance Firm #4
Finance Firm #2

KEY TAKEAWAY #1

Finance Firm #3 has the lowest space allocation rate at 112 USF per person. Finance Firm #2 has the highest allocation rate at 239 USF per person.
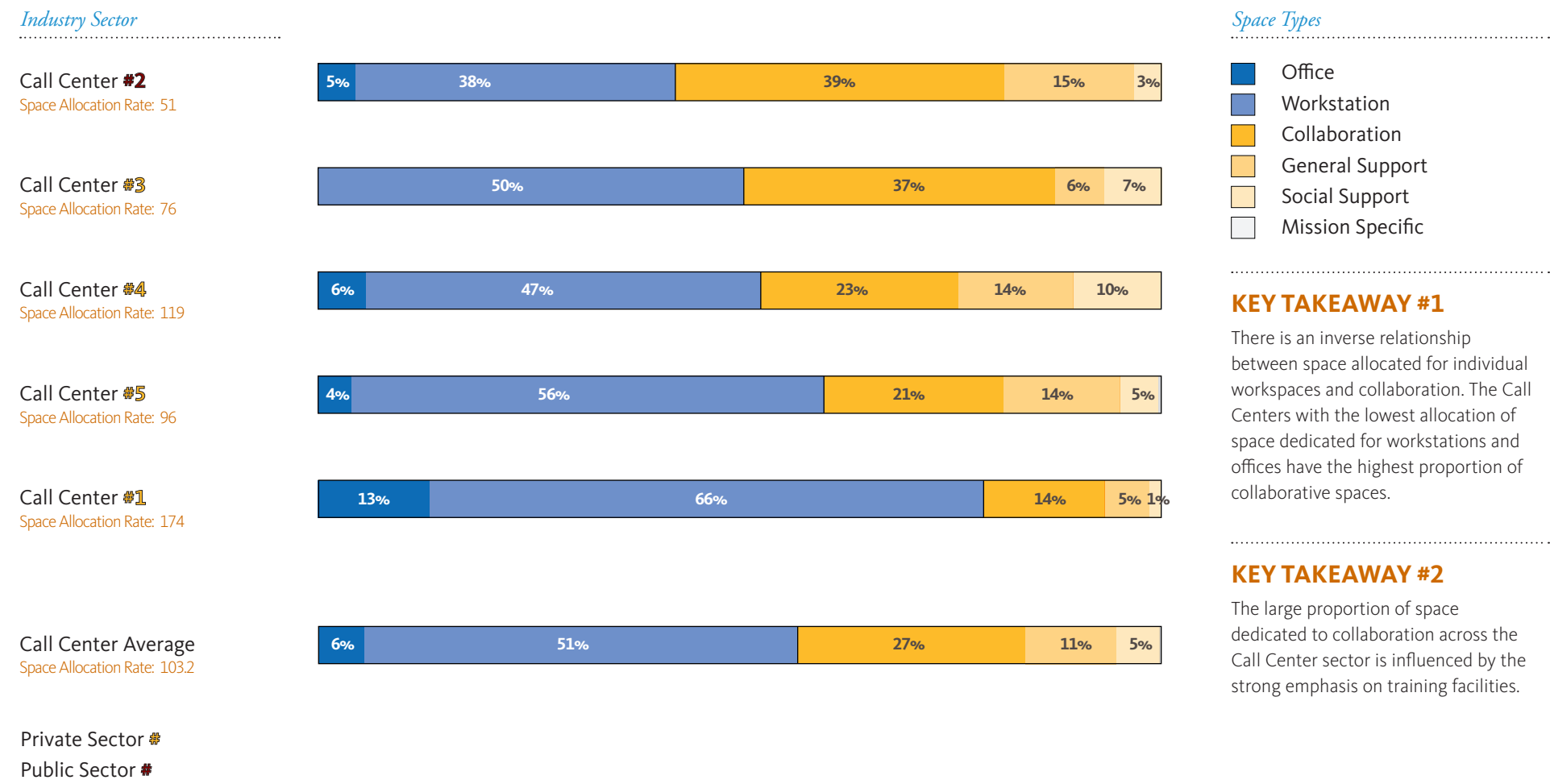
APPENDIX: FINANCE

The bar graphs below demonstrate the proportion of NSF that is allocated to each space type per case study. Case studies are ordered by proportion of space allocated to individual workspaces.

SPACE ALLOCATION RATIO CHARTS

Industry Sector

Finance Firm #4
Space Allocation Rate: 180

| 10% | 50% | 21% | 16% | 6% |

Finance Firm #1
Space Allocation Rate: 164

| 33% | 26% | 15% | 18% | 9% |

Finance Firm #2
Space Allocation Rate: 239

| 42% | 24% | 14% | 15% | 4% |

Finance Firm #3
Space Allocation Rate: 112

| 22% | 50% | 12% | 11% | 5% |

Finance Firm #5
Space Allocation Rate: 145

| 45% | 39% | 6% | 9% | 2% |

Finance Firm Average
Space Allocation Rate: 168.0

| 30% | 37% | 13% | 14% | 5% |

Private Sector #
Public Sector #

Space Types

- ■ Office
- ■ Workstation
- ■ Collaboration
- ■ General Support
- □ Social Support
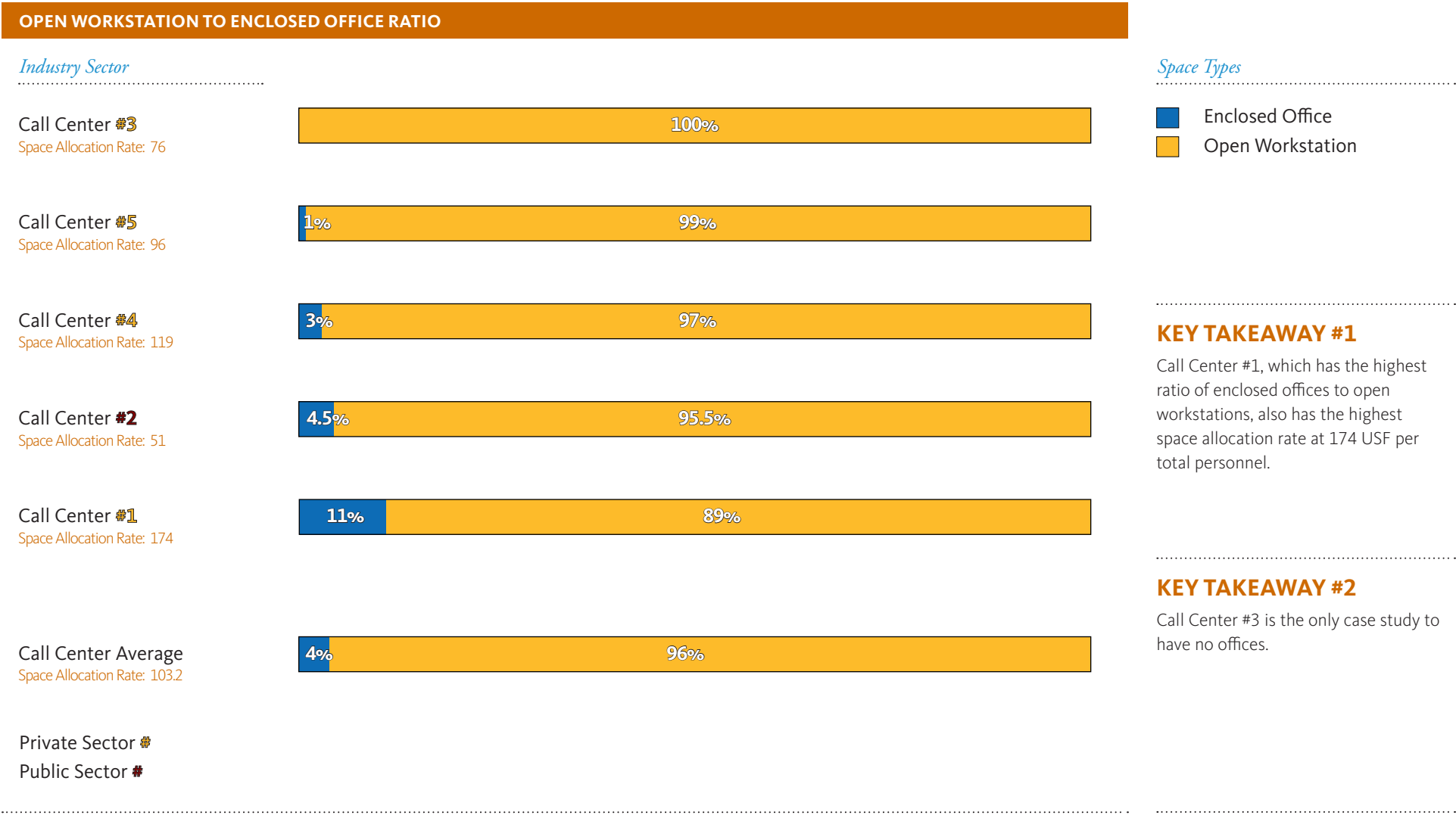- □ Mission Specific
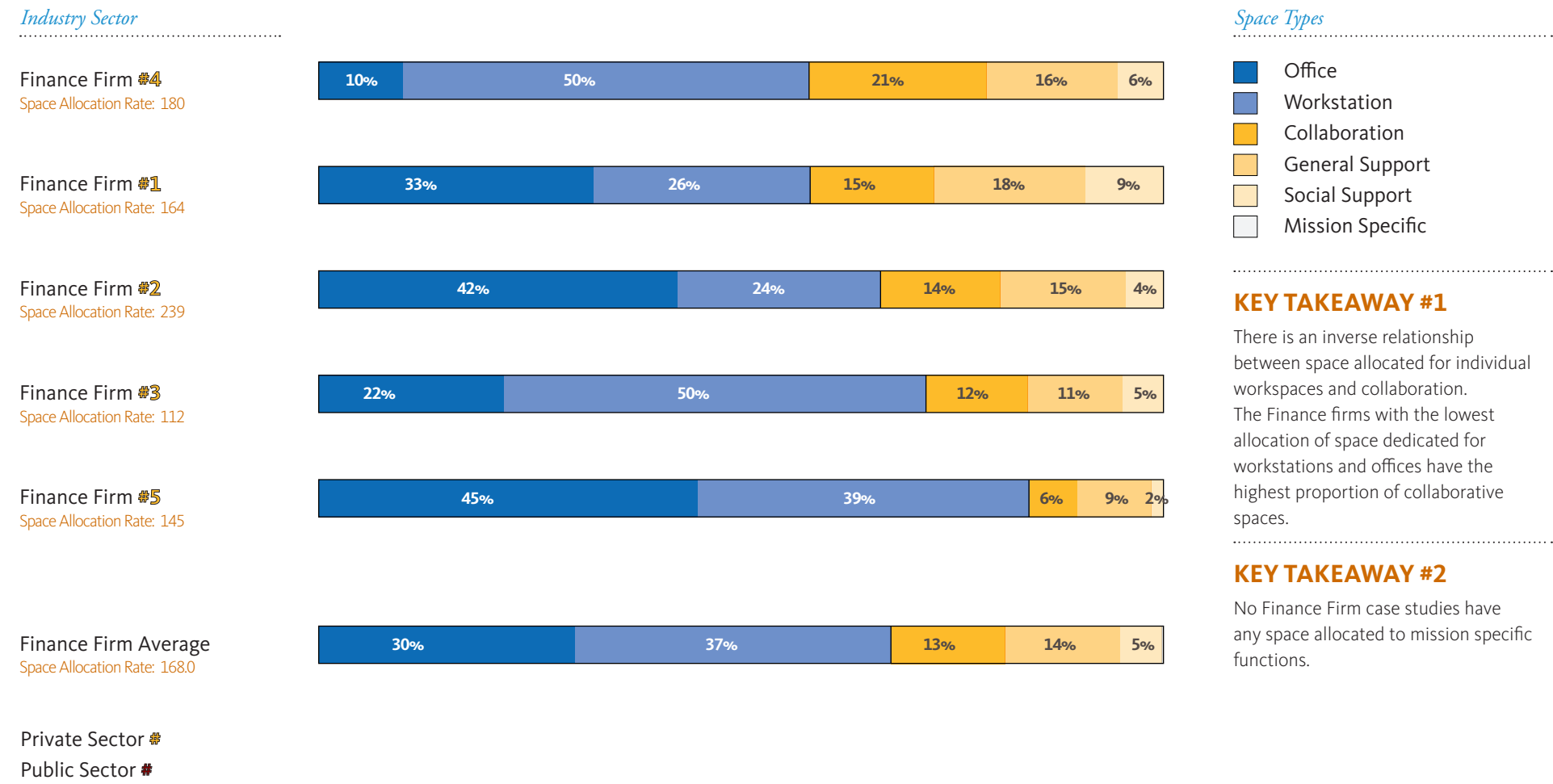
KEY TAKEAWAY #1

There is an inverse relationship between space allocated for individual workspaces and collaboration.
The Finance firms with the lowest allocation of space dedicated for workstations and offices have the highest proportion of collaborative spaces.

KEY TAKEAWAY #2

No Finance Firm case studies have any space allocated to mission specific functions.

APPENDIX: FINANCE

The chart below displays the average ratio of enclosed offices to open workstations for each Finance case study.

## ENCLOSED OFFICE TO OPEN WORKSTATION RATIO

Industry Sector

Space Types

Finance Firm #4
Space Allocation Rate: 180
- 8% | 92%

Finance Firm #5
Space Allocation Rate: 145
- 27% | 73%

Finance Firm #1
Space Allocation Rate: 164
- 30% | 70%

Finance Firm #3
Space Allocation Rate: 112
- 37% | 63%

Finance Firm #2
Space Allocation Rate: 239
- 43% | 57%

Finance Firm Average
Space Allocation Rate: 168.0
- 29% | 71%

Private Sector #
Public Sector #

- ■ Enclosed Office
- ■ Open Workstation

KEY TAKEAWAY #1

Finance Firm #4 has the lowest ratio of enclosed offices to open workstations. Finance Firm #2 has the highest.

APPENDIX: FINANCE

The following graph illustrates the average office size per each Finance case study.
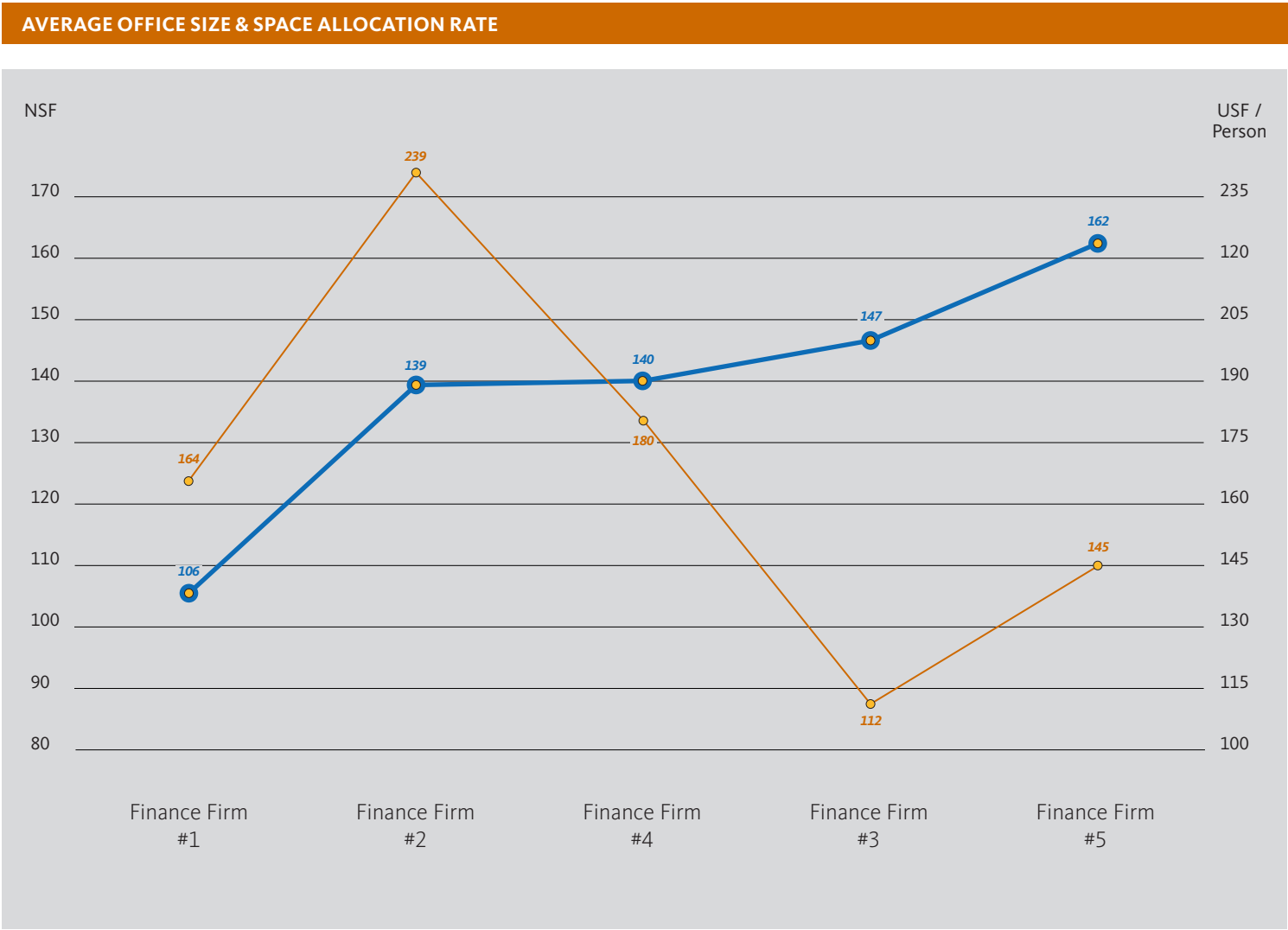
AVERAGE OFFICE SIZE & SPACE ALLOCATION RATE

Legend

— **Avg. Office NSF**
— USF per Person
● Private Sector
● Public Sector

NSF

USF / Person

	239			162
			147	
	139	140		
164				145
		180		
106				
			112	

Finance Firm #1 — Finance Firm #2 — Finance Firm #4 — Finance Firm #3 — Finance Firm #5
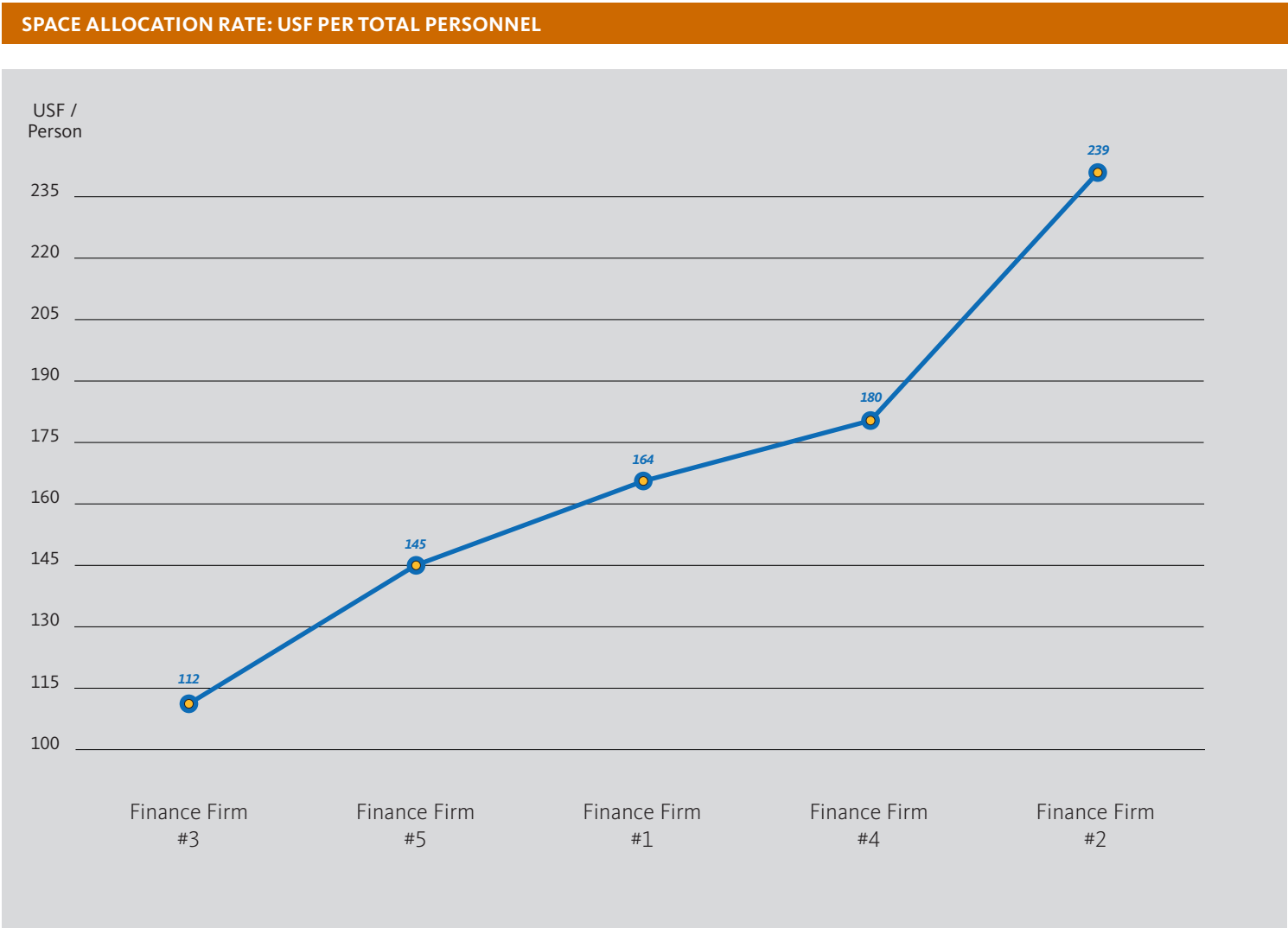
KEY TAKEAWAY #1

There is no direct relationship between the space allocation rate and the average office size among the Finance Firms involved in this study.

APPENDIX: FINANCE

The following graph records the standard workstation size for each Finance Firm. The metrics are a combination of prevailing workstation sizes as well as averages where no dominant workstation size was present.

AVERAGE WORKSTATION SIZE & SPACE ALLOCATION RATE

Legend

— Avg. Workstation NSF
— USF per Person
● Private Sector
● Public Sector

NSF / USF per Person chart:

- Finance Firm #1: NSF 40, USF/Person 164
- Finance Firm #3: NSF 42, USF/Person 112
- Finance Firm #2: NSF 50, USF/Person 239
- Finance Firm #4: NSF 42, USF/Person 180
- Finance Firm #5: NSF 56, USF/Person 145
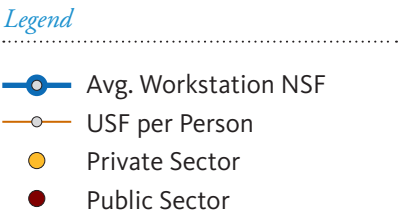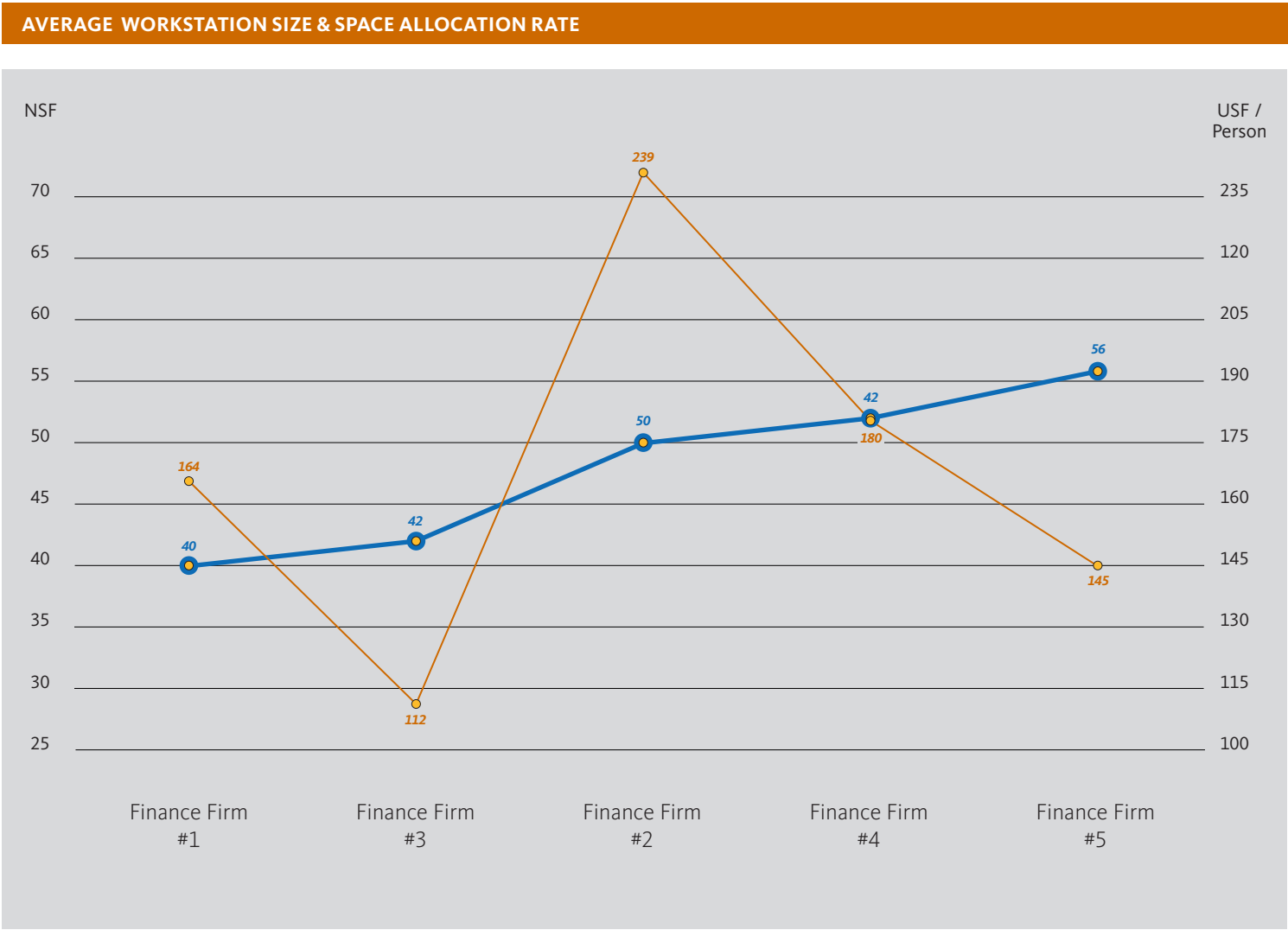
KEY TAKEAWAY #1

There is no direct relationship between the space allocation rate and the average workstation size among the Finance Firms involved in this study.

APPENDIX: LAW ENFORCEMENT

This chart illustrates space allocation rates for the Law Enforcement sector based on USF per total personnel. Organizations with mobility programs are identified.

SPACE ALLOCATION RATE: USF PER TOTAL PERSONNEL

USF / Person

280	
260	
240	239 / 240
220	219
200	199
180	
160	
140	
120	
100	101

Law Enforcement #1 | Law Enforcement #2 | Law Enforcement #4 | Law Enforcement #3 | Law Enforcement #5
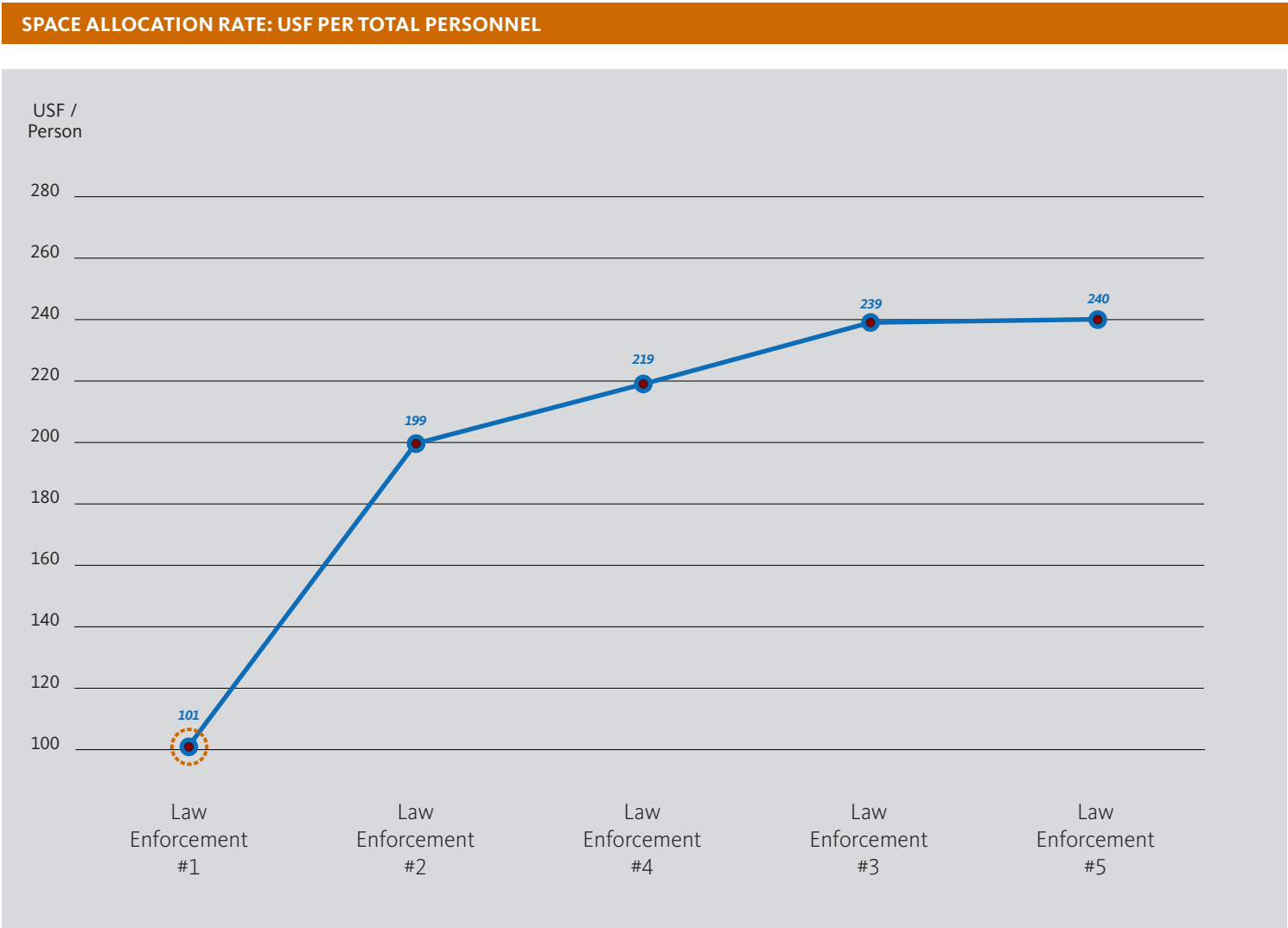
Legend

— USF per Person
○ Mobility Program
● Private Sector
● Public Sector

KEY TAKEAWAY #1

Law Enforcement #1 has the lowest space allocation rate at 101 USF per total personnel. It is also the only Law Enforcement case study to implement a mobility workplace strategy that allocates 1 seat per every 2 personnel.

KEY TAKEAWAY #2

With the exception of Law Enforcement #1, the Law Enforcement industry sector is among the most consistent in terms of space allocation rate, only ranging between 199 to 240 USF per total personnel.

APPENDIX: LAW ENFORCEMENT

The bar graphs below demonstrate the proportion of NSF that is allocated to each space type per case study. Case studies are ordered by proportion of space allocated to individual workspaces.

SPACE ALLOCATION RATIO CHARTS

Industry Sector
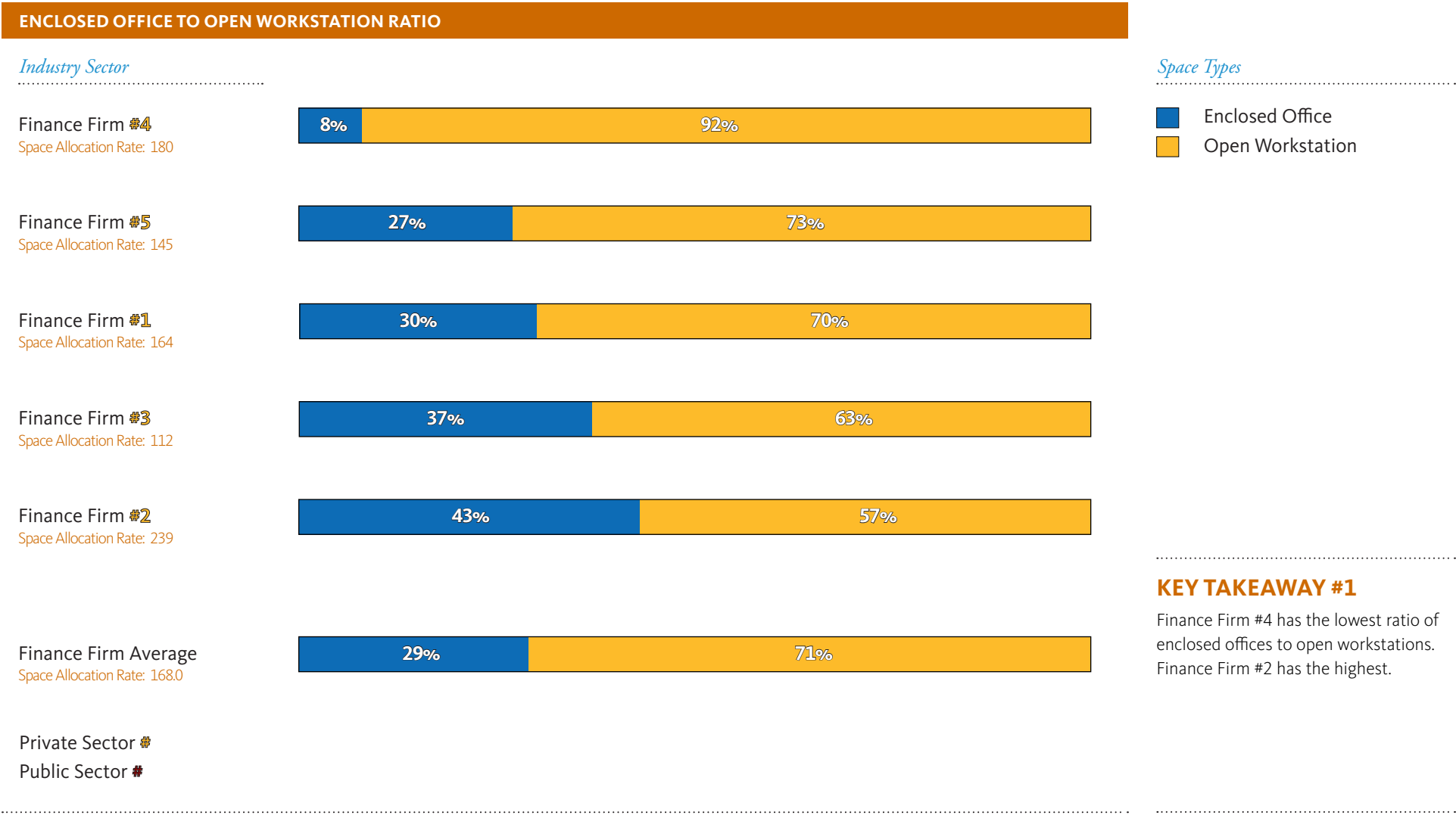
Law Enforcement #1
Space Allocation Rate: 101

| 31% | 46% | 18% | 5% |

Law Enforcement #3
Space Allocation Rate: 239

| 12% | 29% | 19% | 16% | 1% | 17% |

Law Enforcement #2
Space Allocation Rate: 199

| 18% | 23% | 18% | 19% | 5% | 22% |

Law Enforcement #4
Space Allocation Rate: 219

| 13% | 41% | 17% | 14% | 2% | 13% |

Law Enforcement #5
Space Allocation Rate: 240

| 28% | 39% | 15% | 13% | 5% | 1% |

Law Enforcement Average
Space Allocation Rate: 199.6

| 14% | 32% | 23% | 16% | 4% | 11% |

Private Sector **#**
Public Sector **#**

Space Types

- ■ Office
- ■ Workstation
- ■ Collaboration
- ■ General Support
- ■ Social Support
- ■ Mission Specific

KEY TAKEAWAY #1

There is an inverse relationship between space allocated for individual workspaces and collaboration. The case studies with the lowest allocation of space dedicated for workstations and offices have the highest proportion of collaborative spaces.

KEY TAKEAWAY #2

Law Enforcement #1 has no mission specific functions because, unlike the other case studies, it primarily houses the general administrative function for a law enforcement organization.

APPENDIX: LAW ENFORCEMENT

The chart below displays the average ratio of enclosed offices to open workstations for each Law Enforcement case study.

ENCLOSED OFFICE TO OPEN WORKSTATION RATIO

Industry Sector

Space Types

■ Enclosed Office
■ Open Workstation

Law Enforcement #1
Space Allocation Rate: 101

| | 100% |

Law Enforcement #3
Space Allocation Rate: 239

| 10% | 90% |

Law Enforcement #4
Space Allocation Rate: 219

| 11% | 89% |

Law Enforcement #2
Space Allocation Rate: 199

| 21% | 79% |

Law Enforcement #5
Space Allocation Rate: 240

| 28% | 72% |

Law Enforcement Average
Space Allocation Rate: 199.6

| 14% | 86% |

Private Sector ▓
Public Sector #

KEY TAKEAWAY #1

Law Enforcement #1 is the only case study to have no offices. It also has the lowest space allocation rate of all case studies at 101 USF per person.

APPENDIX: LAW ENFORCEMENT

The following graph illustrates the average office size per each Law Enforcement case study.

AVERAGE OFFICE SIZE & SPACE ALLOCATION RATE

Legend

- Avg. Office NSF
- USF per Person
- Private Sector
- Public Sector
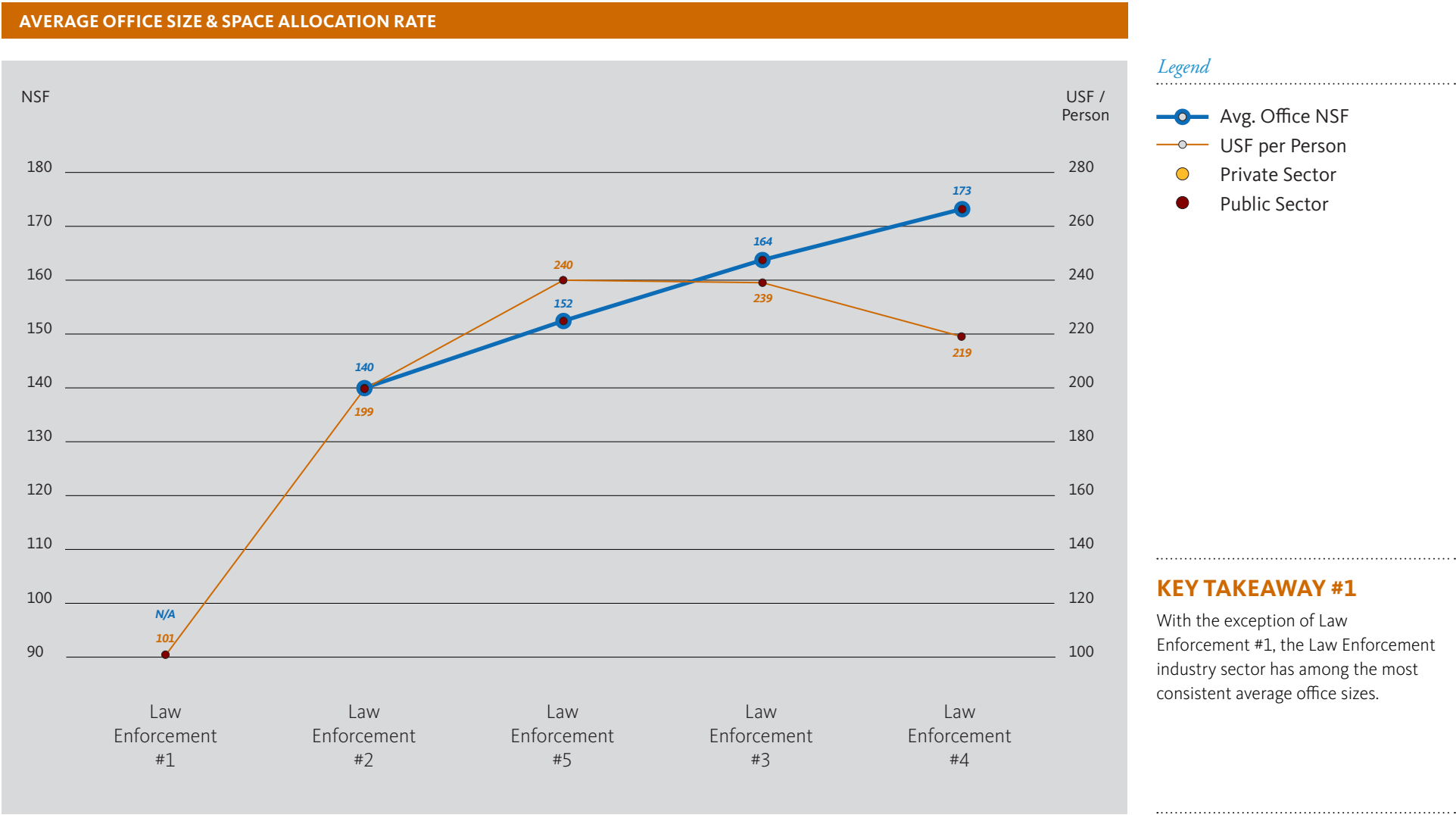
KEY TAKEAWAY #1

With the exception of Law Enforcement #1, the Law Enforcement industry sector has among the most consistent average office sizes.

APPENDIX: LAW ENFORCEMENT

The following graph records the standard workstation size for each Law Enforcement organization. The metrics are a combination of prevailing workstation sizes as well as averages where no dominant workstation size was present.

AVERAGE WORKSTATION SIZE & SPACE ALLOCATION RATE

Legend

— Avg. Workstation NSF
— USF per Person
● Private Sector
● Public Sector
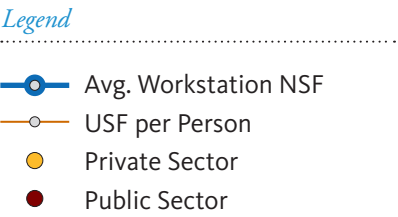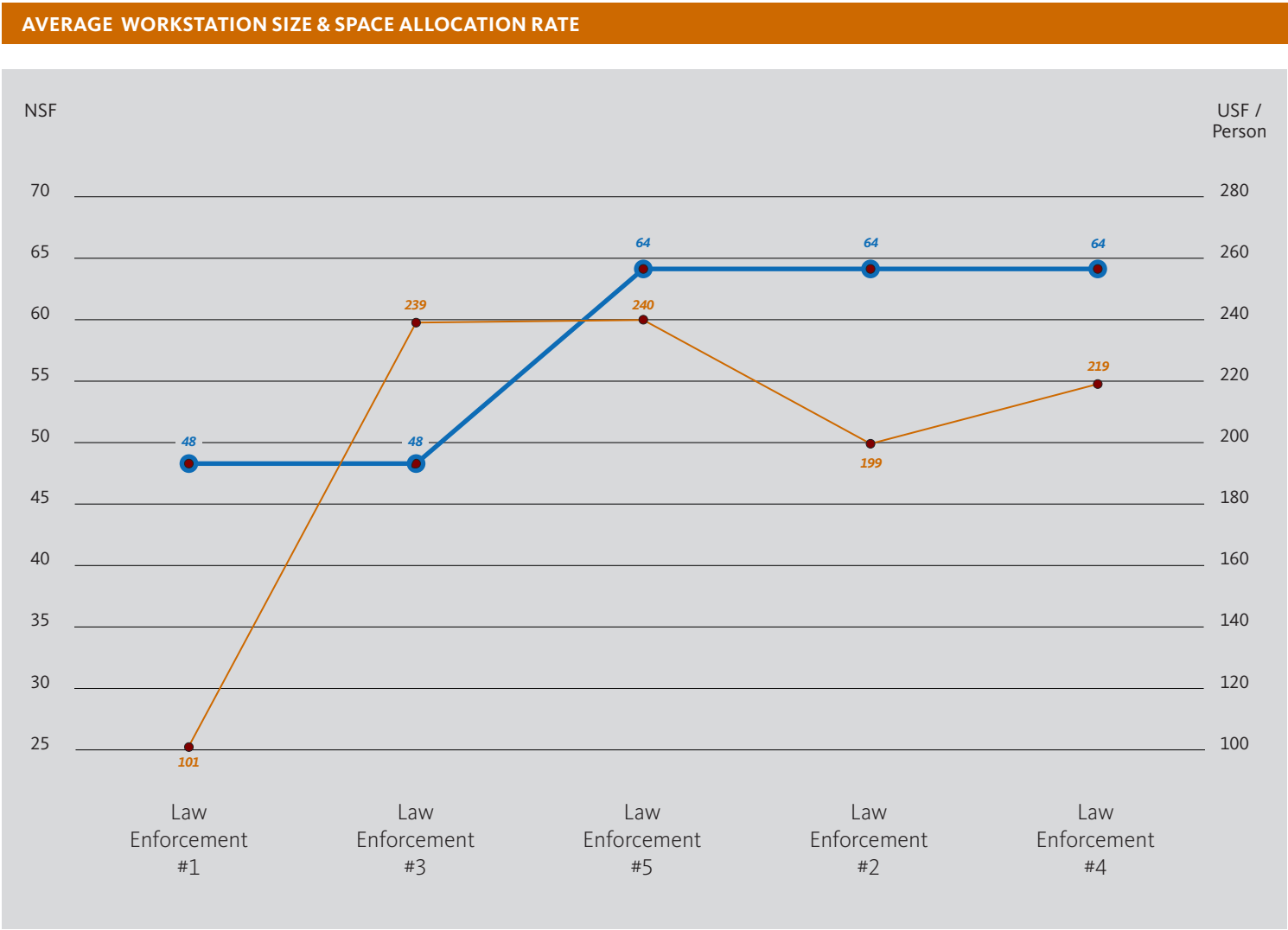
KEY TAKEAWAY #1

The Law Enforcement industry sector has among the most consistent workstation standard sizes with only two variations included in this sample: 48 NSF and 64 NSF.

APPENDIX: LEGAL SECTOR

This chart illustrates space allocation rates for the Legal sector based on USF per total personnel. Organizations with mobility programs are identified.

SPACE ALLOCATION RATE: USF PER TOTAL PERSONNEL

USF / Person

510
480
450
420
390
360
330
300
270
240

243 — Legal Firm #5
269 — Legal Firm #4
288 — Legal Firm #1
336 — Legal Firm #2
539 — Legal Firm #3
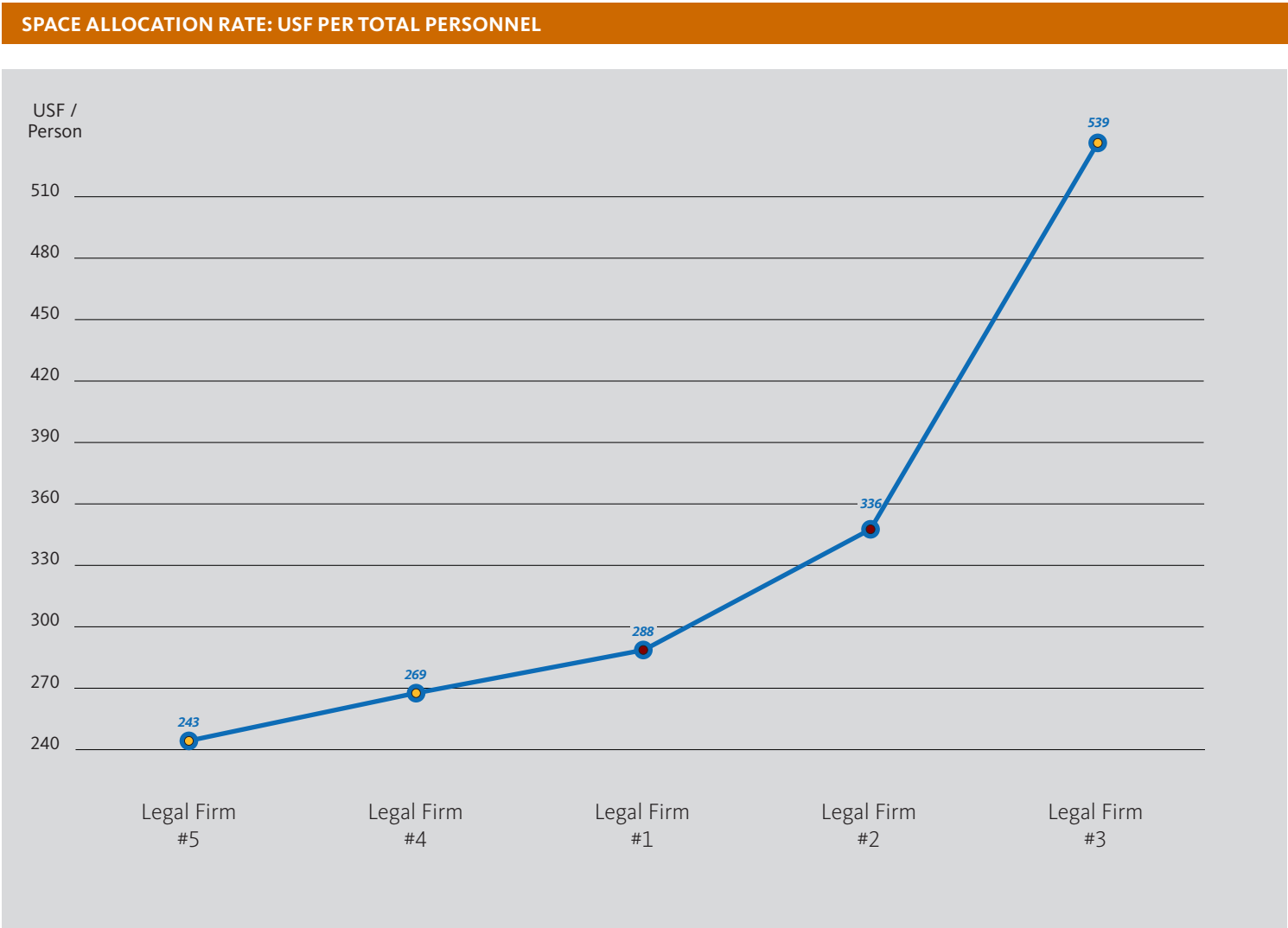
Legend

— USF per Person
○ Mobility Program
● Private Sector
● Public Sector

KEY TAKEAWAY #1

Legal Firm #3 has the highest space allocation rate of all legal firms by more than 200 USF per person.

APPENDIX: LEGAL SECTOR

The bar graphs below demonstrate the proportion of NSF that is allocated to each space type per case study. Case studies are ordered by proportion of space allocated to individual workspaces.

Industry Sector

Legal Firm #2
Space Allocation Rate: 336

| 31% | 10% | 38% | 17% | 4% |

Legal Firm #3
Space Allocation Rate: 539

| 40% | 5% | 13% | 21% | 5% | 16% |

Legal Firm #5
Space Allocation Rate: 243

| 47% | 12% | 16% | 13% | 4% | 7% |

Legal Firm #1
Space Allocation Rate: 288

| 47% | 14% | 14% | 14% | 2% | 8% |

Legal Firm #4
Space Allocation Rate: 269

| 51% | 11% | 16% | 13% | 4% | 7% |

Legal Firm Average
Space Allocation Rate: 335.0

| 43% | 10% | 13% | 16% | 4% | 7% |

Private Sector #
Public Sector #

Space Types

- ■ Office
- ■ Workstation
- ■ Collaboration
- ■ General Support
- ■ Social Support
- ■ Mission Specific
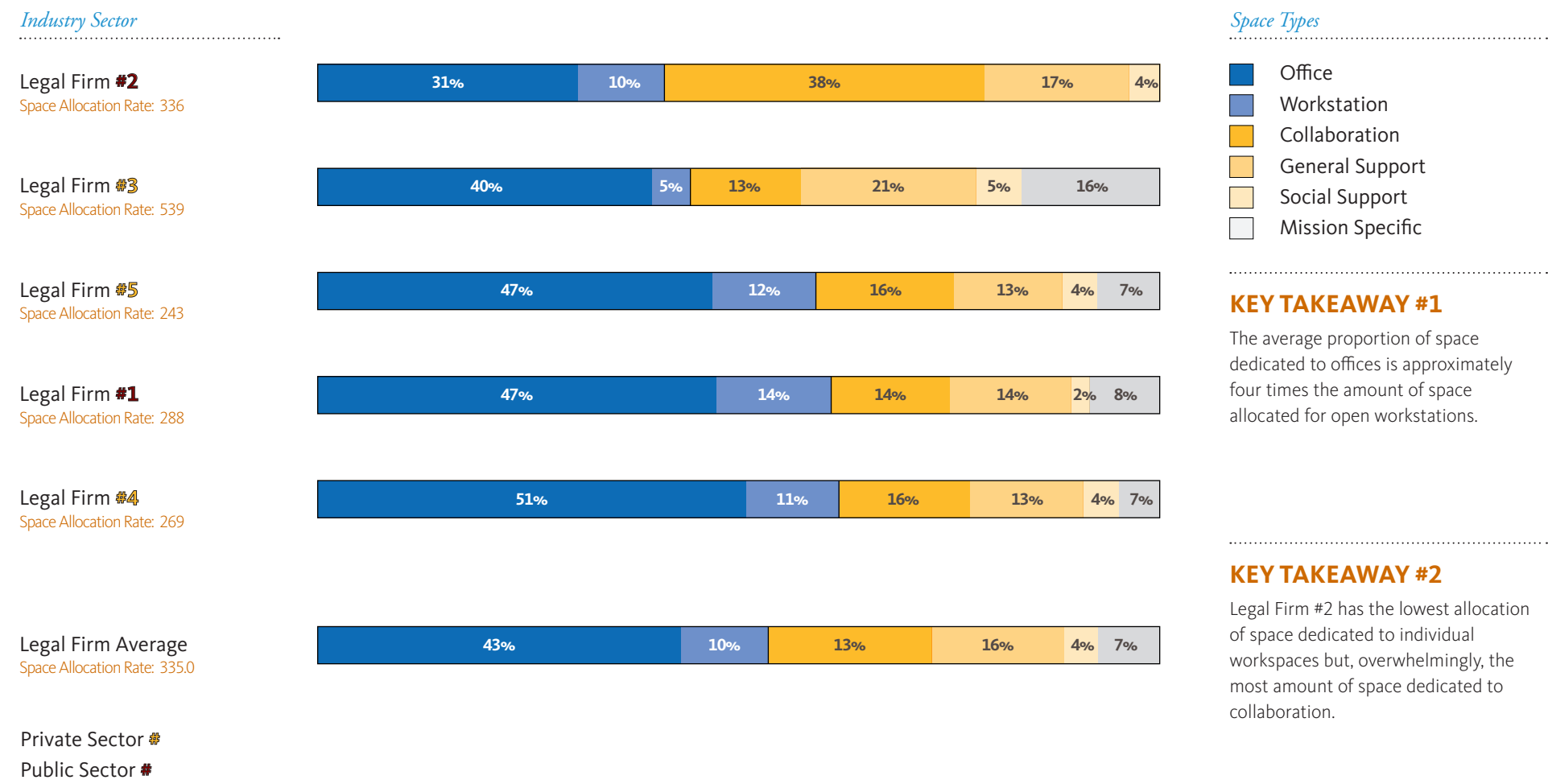
KEY TAKEAWAY #1

The average proportion of space dedicated to offices is approximately four times the amount of space allocated for open workstations.

KEY TAKEAWAY #2

Legal Firm #2 has the lowest allocation of space dedicated to individual workspaces but, overwhelmingly, the most amount of space dedicated to collaboration.

APPENDIX: LEGAL SECTOR

The chart below displays the average ratio of enclosed offices to open workstations for each Legal Firm case study.

ENCLOSED OFFICE TO OPEN WORKSTATION RATIO

Industry Sector

Space Types

■ Enclosed Office
■ Open Workstation

Legal Firm #1
Space Allocation Rate: 288

| 43% | 67% |

Legal Firm #2
Space Allocation Rate: 336

| 43% | 67% |

Legal Firm #5
Space Allocation Rate: 243

| 62% | 38% |
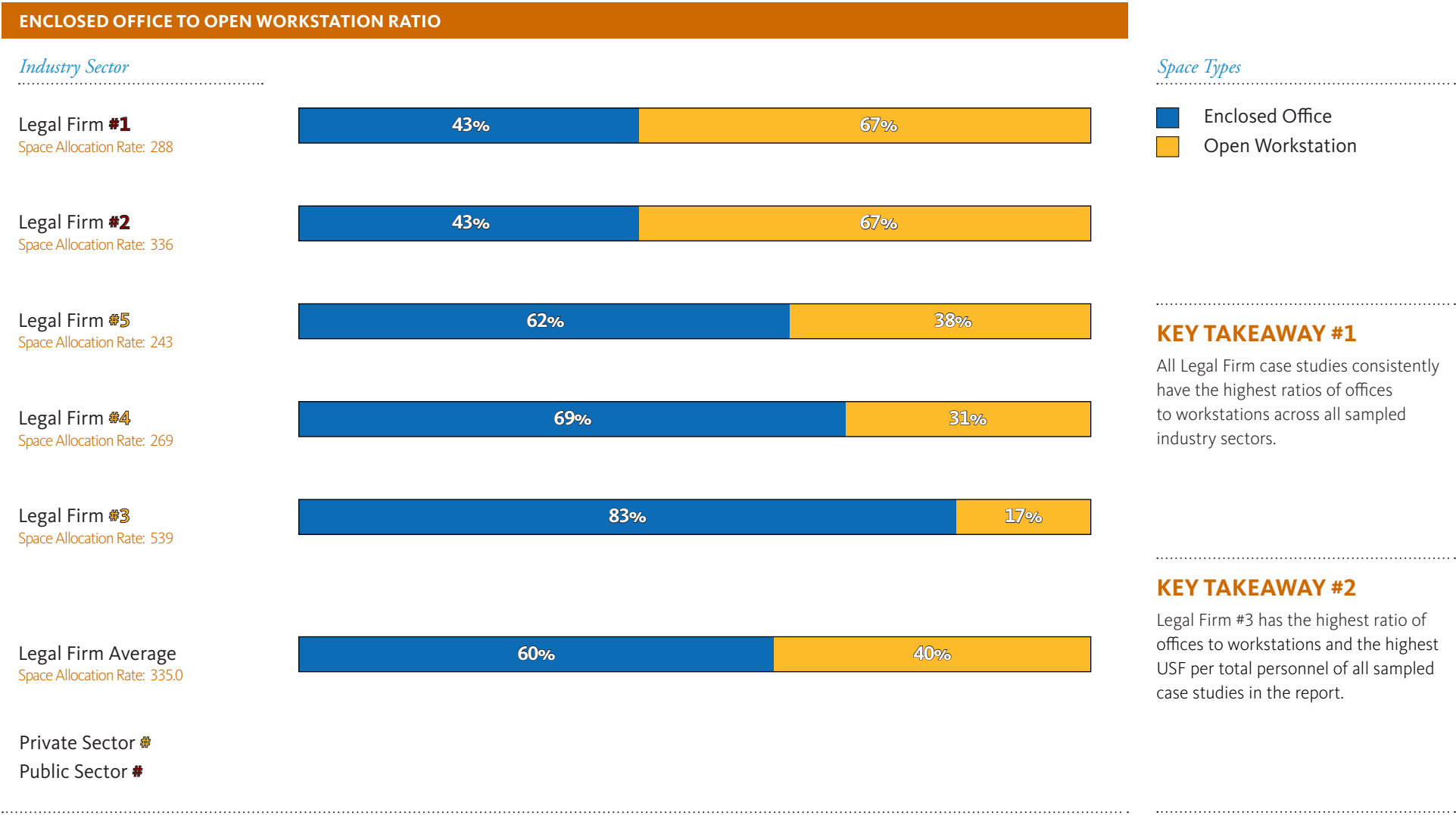
KEY TAKEAWAY #1

All Legal Firm case studies consistently have the highest ratios of offices to workstations across all sampled industry sectors.

Legal Firm #4
Space Allocation Rate: 269

| 69% | 31% |

Legal Firm #3
Space Allocation Rate: 539

| 83% | 17% |

KEY TAKEAWAY #2

Legal Firm #3 has the highest ratio of offices to workstations and the highest USF per total personnel of all sampled case studies in the report.

Legal Firm Average
Space Allocation Rate: 335.0

| 60% | 40% |

Private Sector #

Public Sector #

APPENDIX: LEGAL SECTOR

The following graph illustrates the average office size per each Legal case study.

AVERAGE OFFICE SIZE & SPACE ALLOCATION RATE

Legend

— Avg. Office NSF
— USF per Person
● Private Sector
● Public Sector

KEY TAKEAWAY #1

There is no direct relationship between the space allocation rate and the average office size among the Legal Firms involved in this study.

KEY TAKEAWAY #2

The predominant average office sizes range between 135 NSF to 171 NSF. This metric is among the most consistent standards for the Legal sector case studies.

APPENDIX: LEGAL SECTOR

The following graph records the standard workstation size for each Legal Firm. The metrics are a combination of prevailing workstation sizes as well as averages where no dominant workstation size was present.

AVERAGE WORKSTATION SIZE & SPACE ALLOCATION RATE
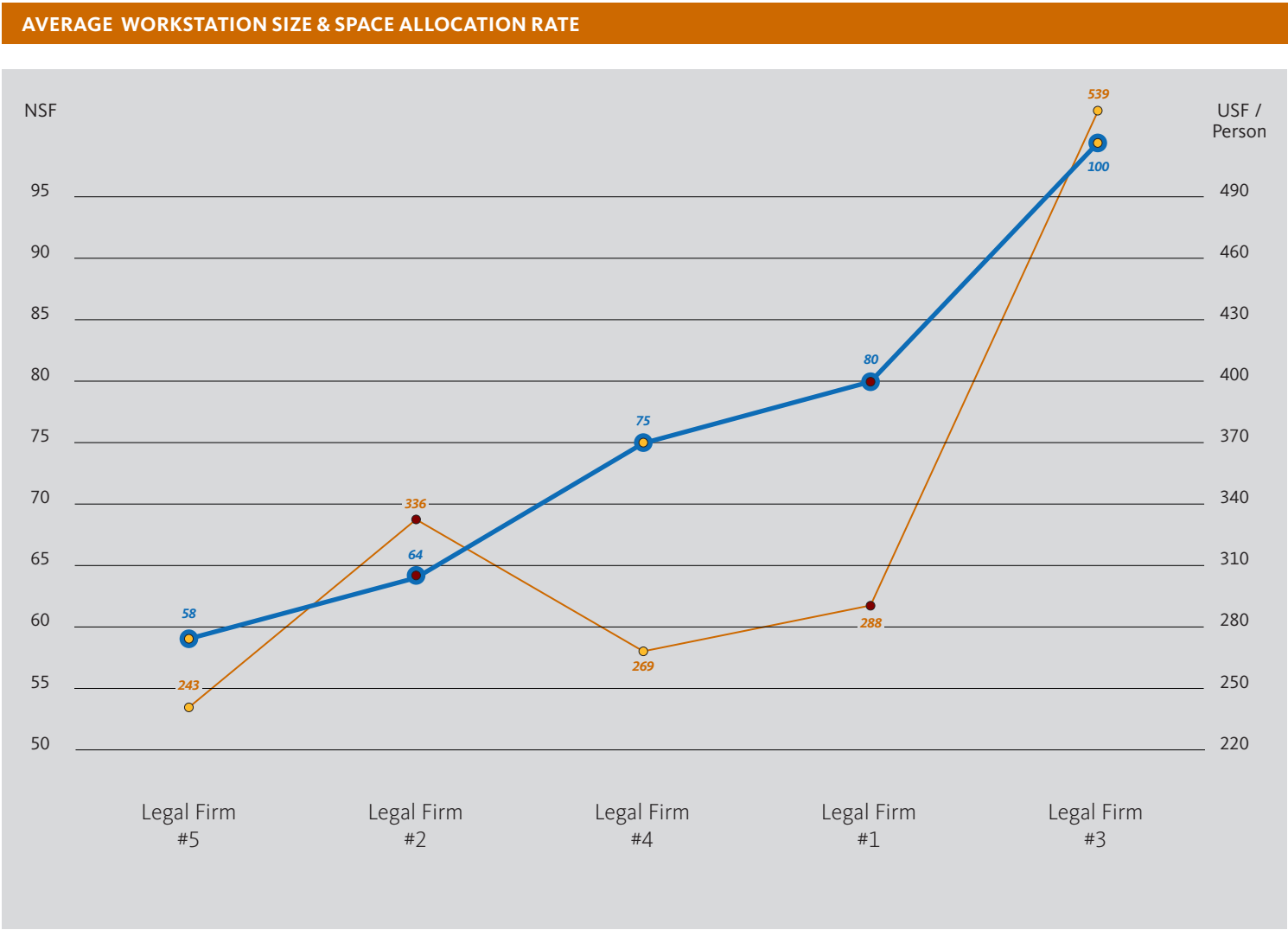
Legend

— Avg. Workstation NSF
— USF per Person
● Private Sector
● Public Sector

KEY TAKEAWAY #1

The average workstation sizes have a slight correlation to space allocation rate for the Legal Firms involved in this study.

APPENDIX: SOCIAL SERVICES

This chart illustrates space allocation rates for the Social Services sector based on USF per total personnel. Organizations with mobility programs are identified.

SPACE ALLOCATION RATE: USF PER TOTAL PERSONNEL

USF / Person

234

199

189

230

220

210

200

190

180

170

160

150

140

Social
Services #2

Social
Services #3
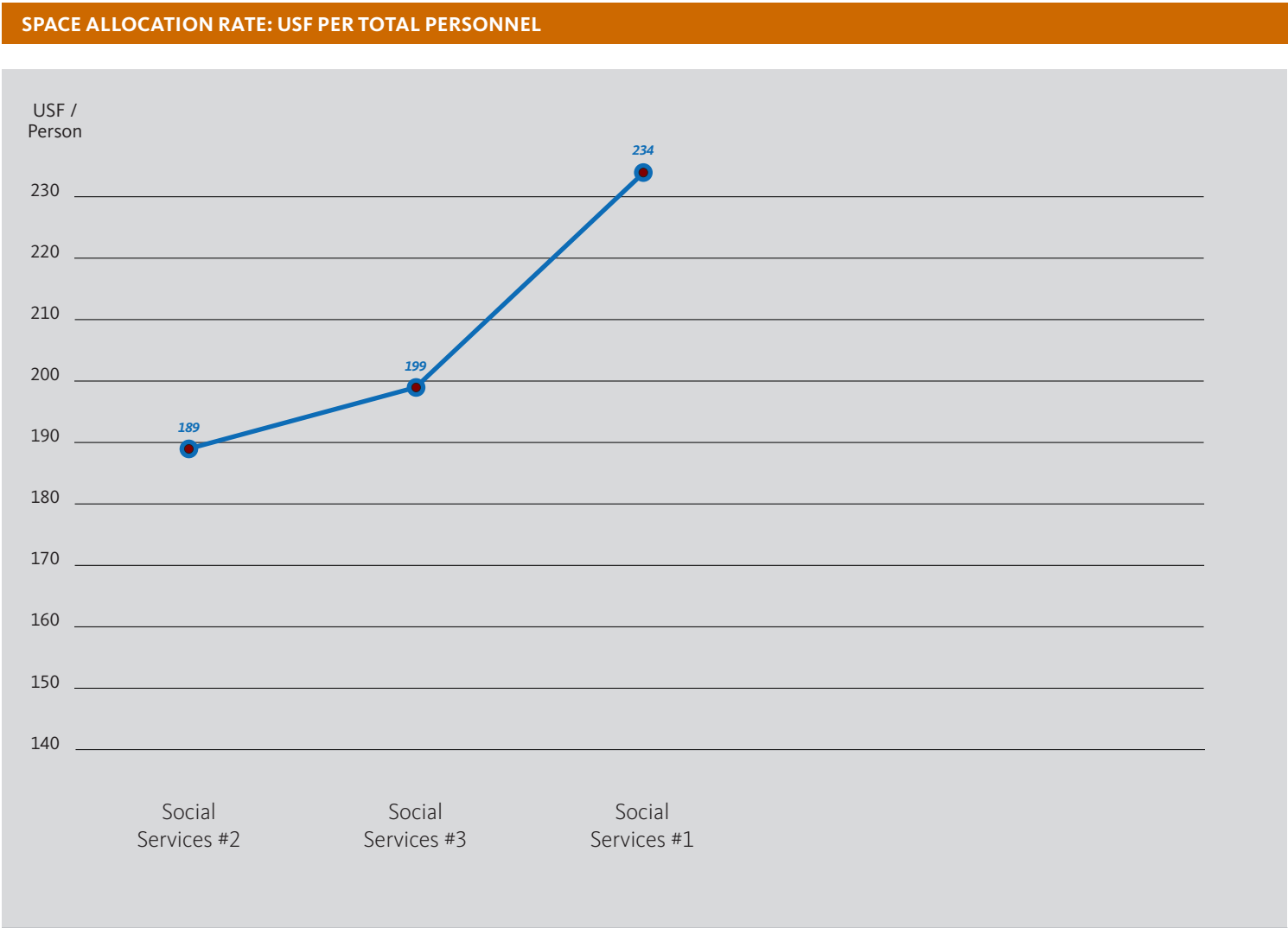
Social
Services #1

Legend

- USF per Person
- Mobility Program
- Private Sector
- Public Sector

KEY TAKEAWAY #1

Social Services #1 has the highest space allocation rate at 234 USF per person, while Social Services #2 has the lowest space allocation rate at 189 USF per person.

KEY TAKEAWAY #1

No Social Services case study organizations have implemented a workplace mobility strategy.

APPENDIX: SOCIAL SERVICES

The bar graphs below demonstrate the proportion of NSF that is
allocated to each space type per case study. Case studies are ordered
by proportion of space allocated to individual workspaces.

Industry Sector

Space Types

Social Services #3
Space Allocation Rate: 199

| 16% | 59% | 12% | 10% | 4% |

- ■ Office
- ■ Workstation
- ■ Collaboration
- ■ General Support
- ☐ Social Support
- ☐ Mission Specific

Social Services #1
Space Allocation Rate: 234

| 73% | 5% | 5% | 15% | 2% |

Social Services #2
Space Allocation Rate: 189

| 32% | 51% | 6% | 8% | 3% |
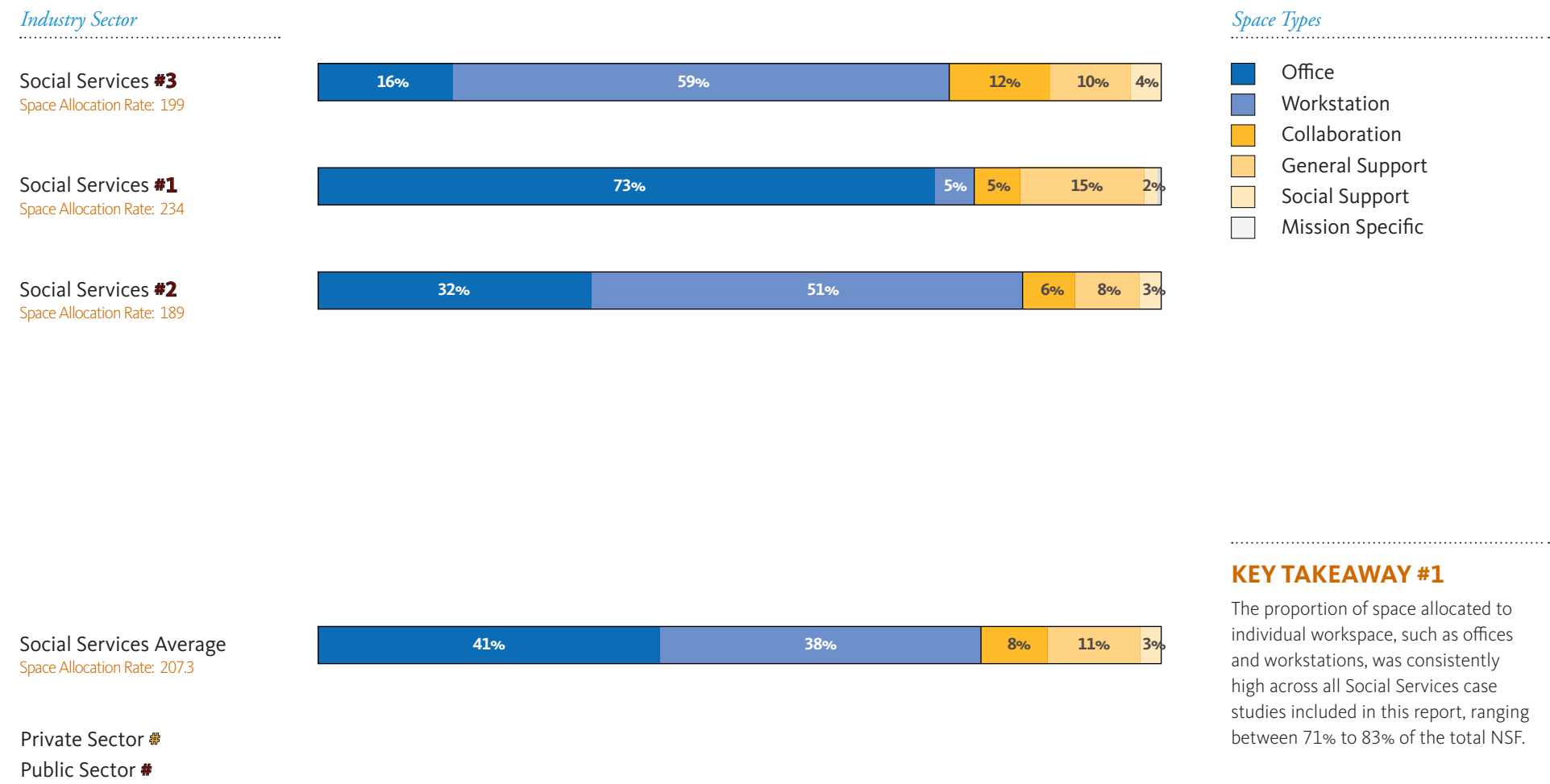
KEY TAKEAWAY #1

The proportion of space allocated to
individual workspace, such as offices
and workstations, was consistently
high across all Social Services case
studies included in this report, ranging
between 71% to 83% of the total NSF.

Social Services Average
Space Allocation Rate: 207.3

| 41% | 38% | 8% | 11% | 3% |

Private Sector ✤

Public Sector ✤

APPENDIX: SOCIAL SERVICES

The chart below displays the average ratio of enclosed offices to open workstations for each Social Services case study.

ENCLOSED OFFICE TO OPEN WORKSTATION RATIO

Industry Sector

Space Types

■ Enclosed Office
■ Open Workstation

Social Services **#3**
Space Allocation Rate: 199

| 14% | 86% |

Social Services **#2**
Space Allocation Rate: 189

| 26% | 74% |

Social Services **#1**
Space Allocation Rate: 234

| 86% | 14% |

Social Services Average
Space Allocation Rate: 207.3

| 42% | 58% |

Private Sector ⬡
Public Sector #
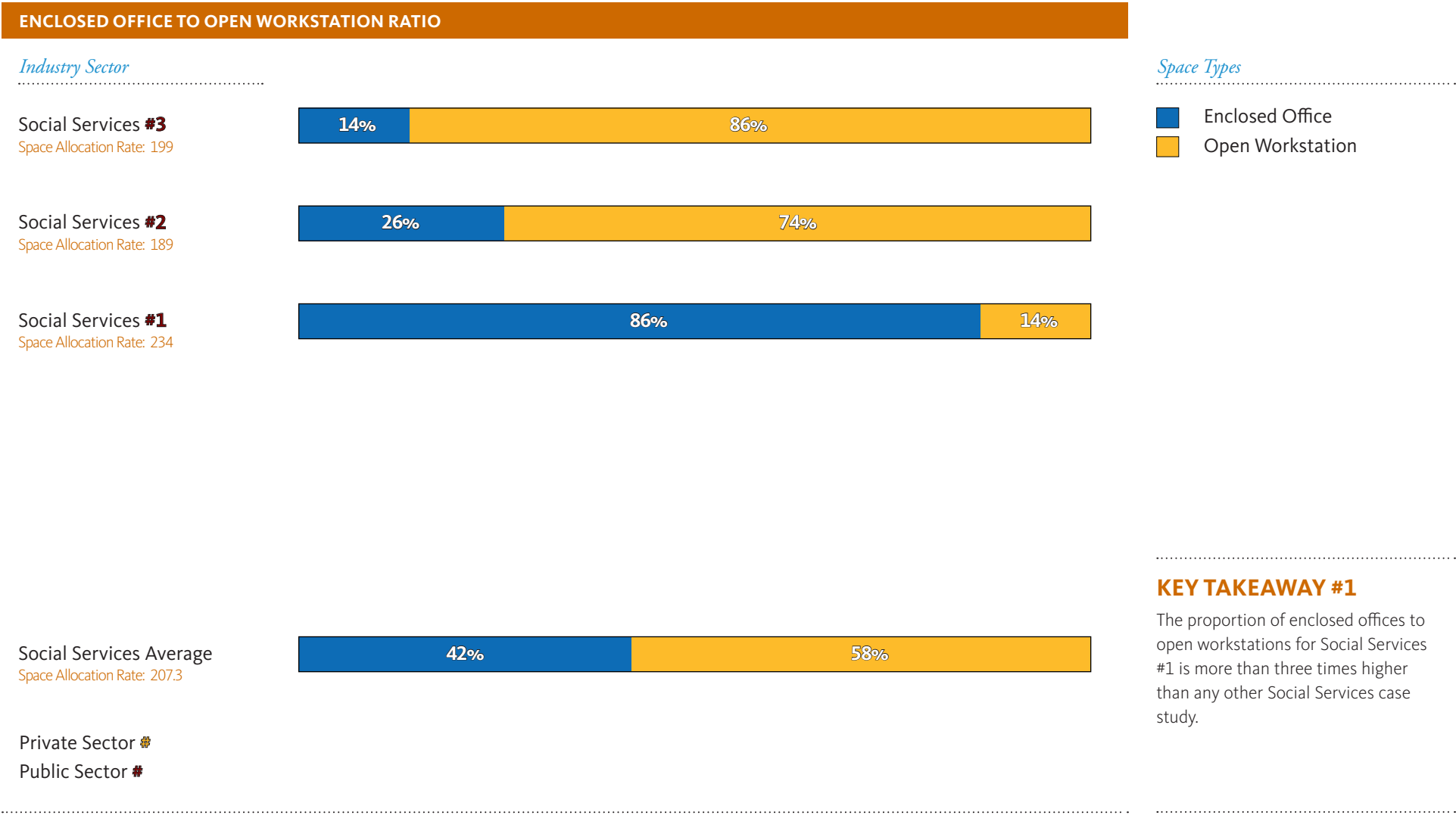
KEY TAKEAWAY #1

The proportion of enclosed offices to open workstations for Social Services #1 is more than three times higher than any other Social Services case study.

APPENDIX: SOCIAL SERVICES

The following graph illustrates the average office size per each Social Services case study.
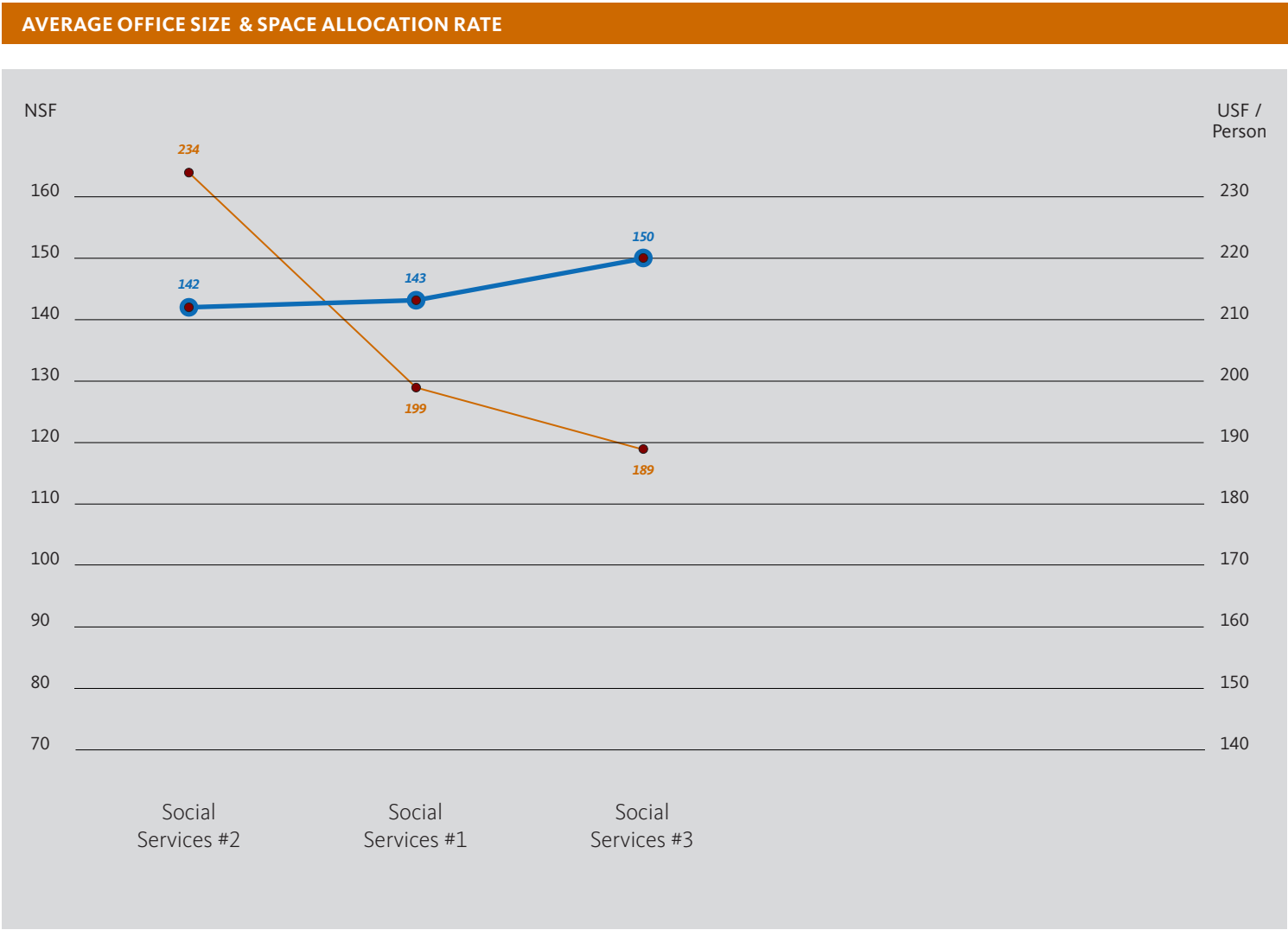
AVERAGE OFFICE SIZE & SPACE ALLOCATION RATE

NSF

USF / Person

234		
160		230
		150
150		220
142	143	
140		210
130	199	200
120		190
	189	
110		180
100		170
90		160
80		150
70		140

Social Services #2   Social Services #1   Social Services #3

Legend

— Avg. Office NSF
— USF per Person
● Private Sector
● Public Sector

KEY TAKEAWAY #1

There is no direct relationship between the space allocation rate and the average office size in the Social Services sector.

APPENDIX: SOCIAL SERVICES

The following graph records the standard workstation size for each Social Services organization. The metrics are a combination of prevailing workstation sizes as well as averages where no dominant workstation size was present.

AVERAGE WORKSTATION SIZE & SPACE ALLOCATION RATE

NSF

USF / Person

Legend
- ● Avg. Workstation NSF
- ○ USF per Person
- ● Private Sector
- ● Public Sector

234

95 · · · · 230

90 · · 220
90

85 · · 210

80 · · 200
199

77
75 · · 190
189

70 · · 180

65 · · 170

60 · · 160
60

55 · · 150

50 · · 140
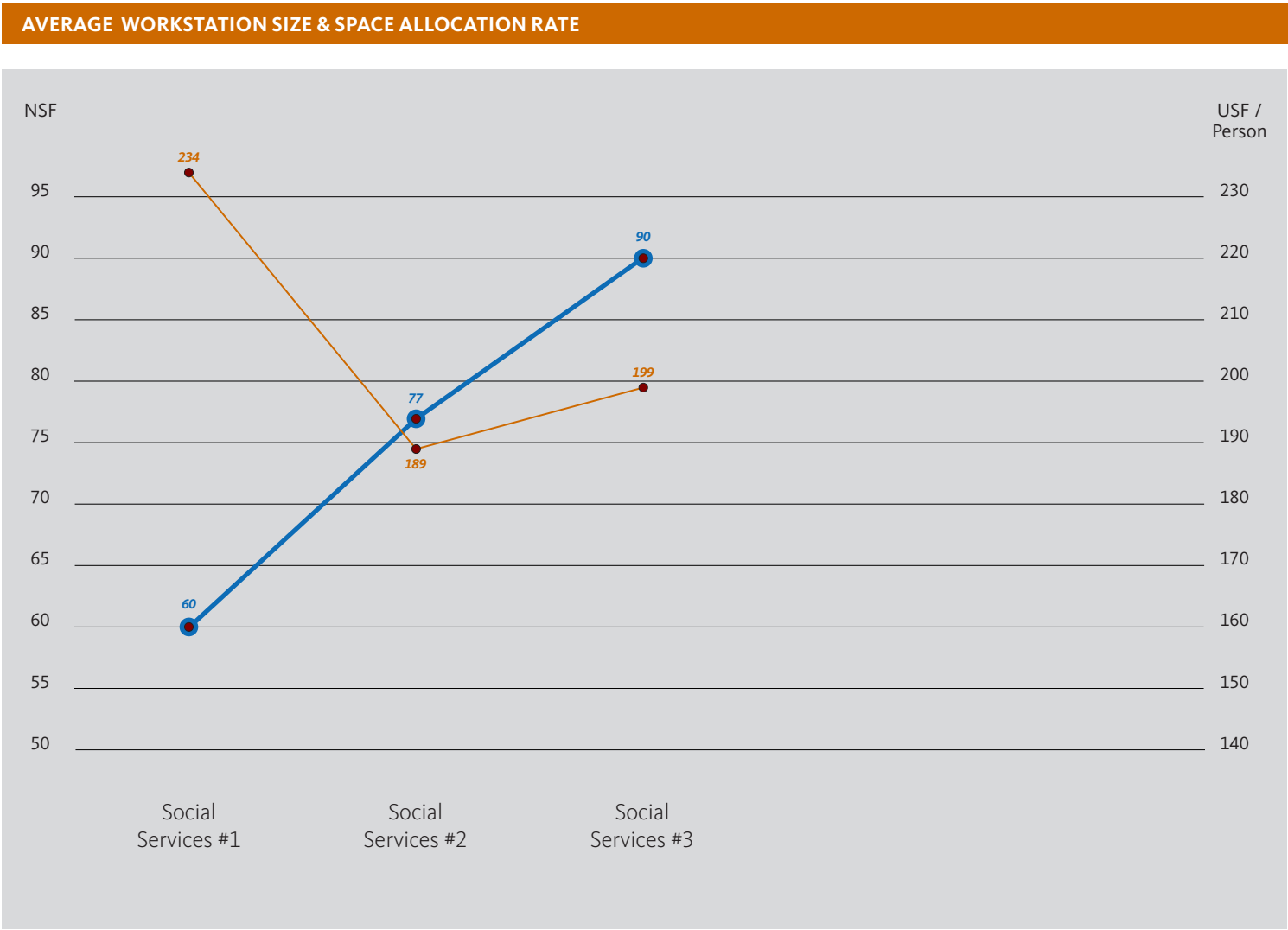
Social Services #1   Social Services #2   Social Services #3

KEY TAKEAWAY #1

Social Services #1 has the smallest average workstation size but the highest USF per person of all Social Services case studies.

APPENDIX: TECHNOLOGY

This chart illustrates space allocation rates for the Technology sector based on USF per total personnel. Organizations with mobility programs are identified.

SPACE ALLOCATION RATE: USF PER TOTAL PERSONNEL

USF /
Person

200	
190	
180	
170	
160	156
150	
144	
143	
140	
132	
130	
125	
120	
110	

Technology Firm #4 — Technology Firm #3 — Technology Firm #5 — Technology Firm #2 — Technology Firm #1

Legend

— USF per Person

○ Mobility Program

● Private Sector

● Public Sector
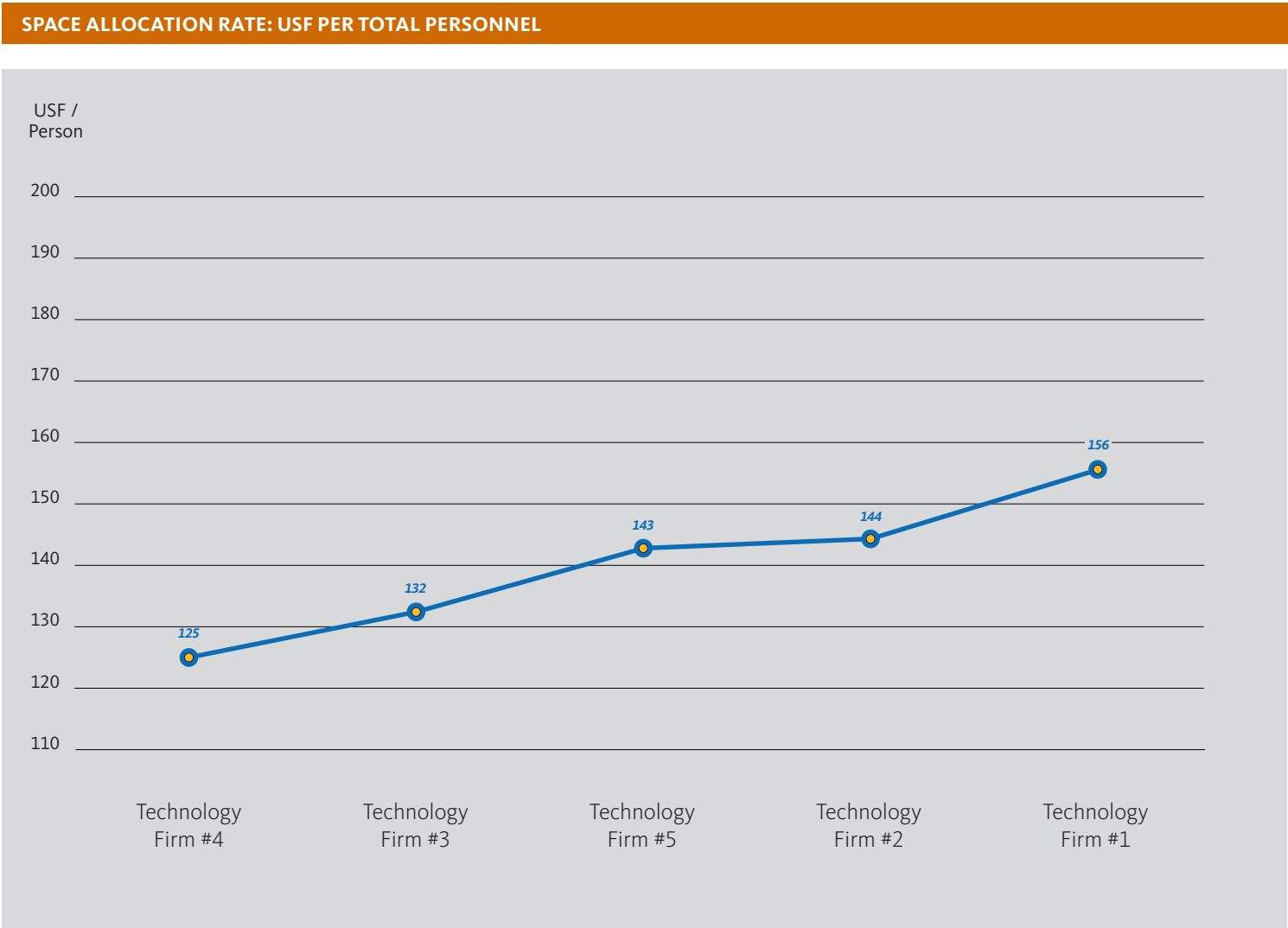
KEY TAKEAWAY #1

The Technology industry is among the most consistent in terms of space allocation rate, only ranging between 125 to 156 USF per total personnel.

APPENDIX: TECHNOLOGY

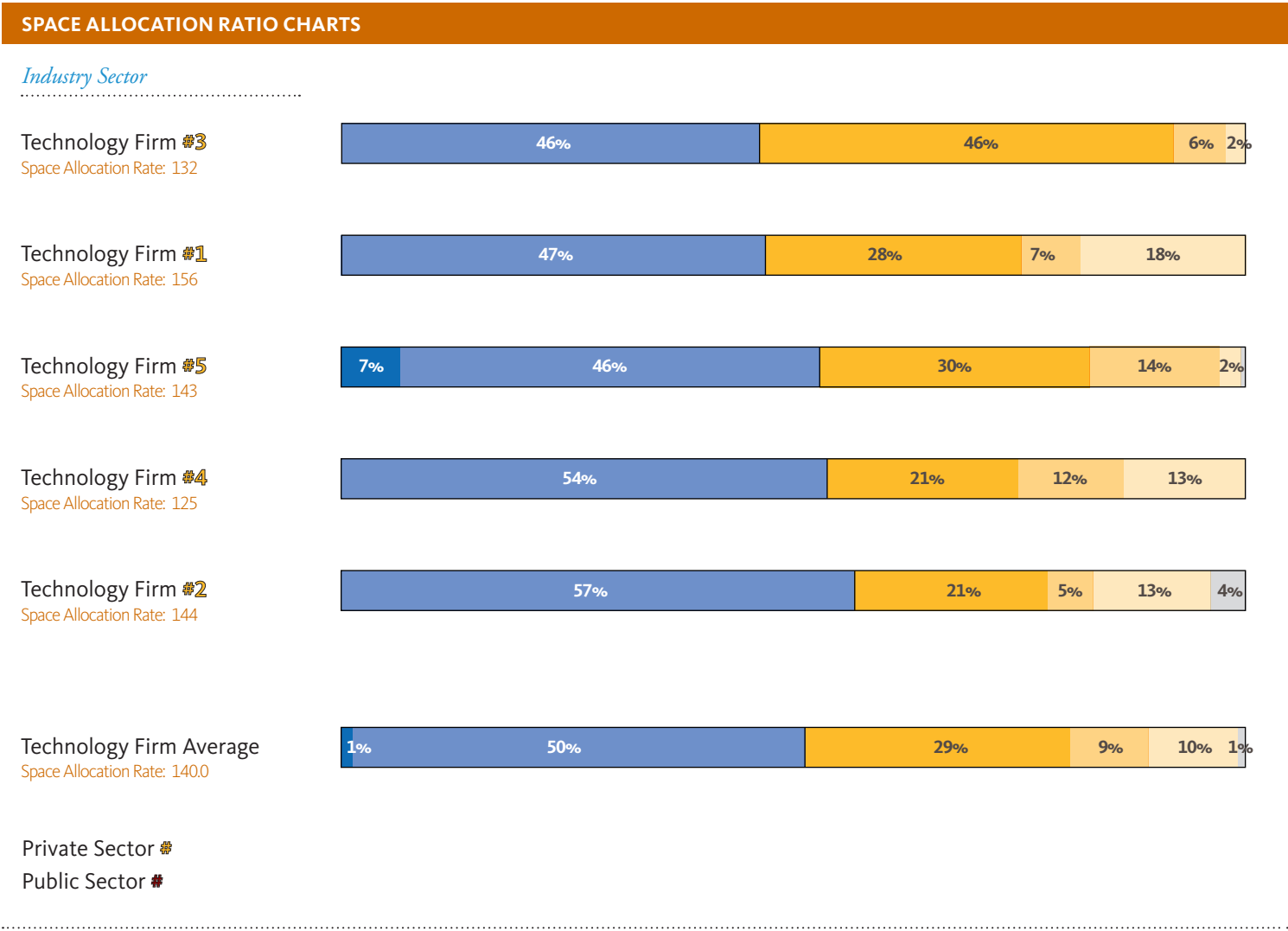The bar graphs below demonstrate the proportion of NSF that is allocated to each space type per case study. Case studies are ordered by proportion of space allocated to individual workspaces.

SPACE ALLOCATION RATIO CHARTS

Industry Sector

Technology Firm #3
Space Allocation Rate: 132

| 46% | 46% | 6% | 2% |

Technology Firm #1
Space Allocation Rate: 156

| 47% | 28% | 7% | 18% |

Technology Firm #5
Space Allocation Rate: 143

| 7% | 46% | 30% | 14% | 2% |

Technology Firm #4
Space Allocation Rate: 125

| 54% | 21% | 12% | 13% |

Technology Firm #2
Space Allocation Rate: 144

| 57% | 21% | 5% | 13% | 4% |

Technology Firm Average
Space Allocation Rate: 140.0

| 1% | 50% | 29% | 9% | 10% | 1% |

Private Sector **#**
Public Sector **#**

Space Types

- ■ Office
- ■ Workstation
- ■ Collaboration
- ■ General Support
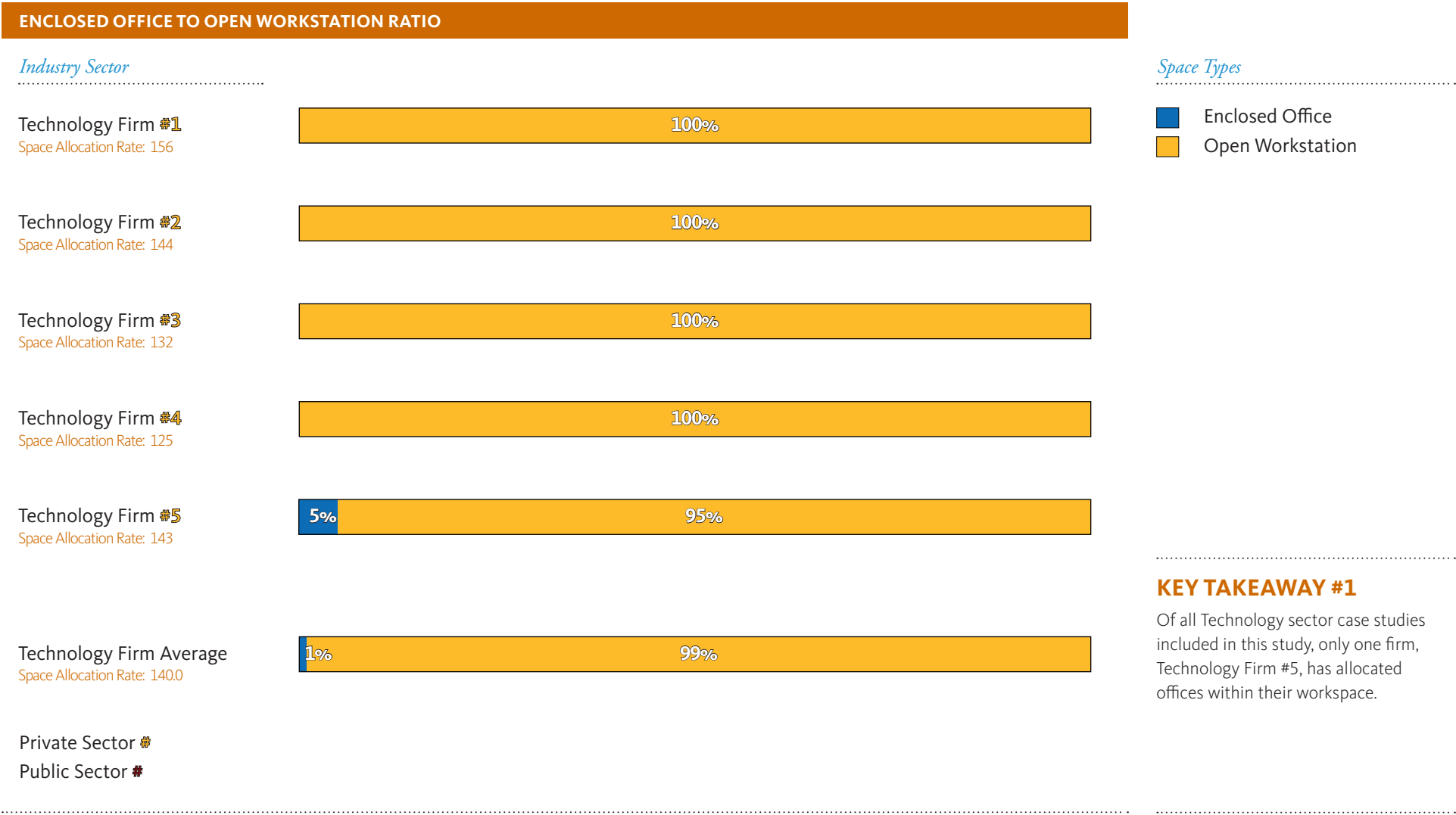- ■ Social Support
- ■ Mission Specific

KEY TAKEAWAY #1

There is an inverse relationship between space allocated for individual workspaces and collaboration. The Technology firms with the lowest allocation of space dedicated for workstations and offices have the highest proportion of collaborative spaces.
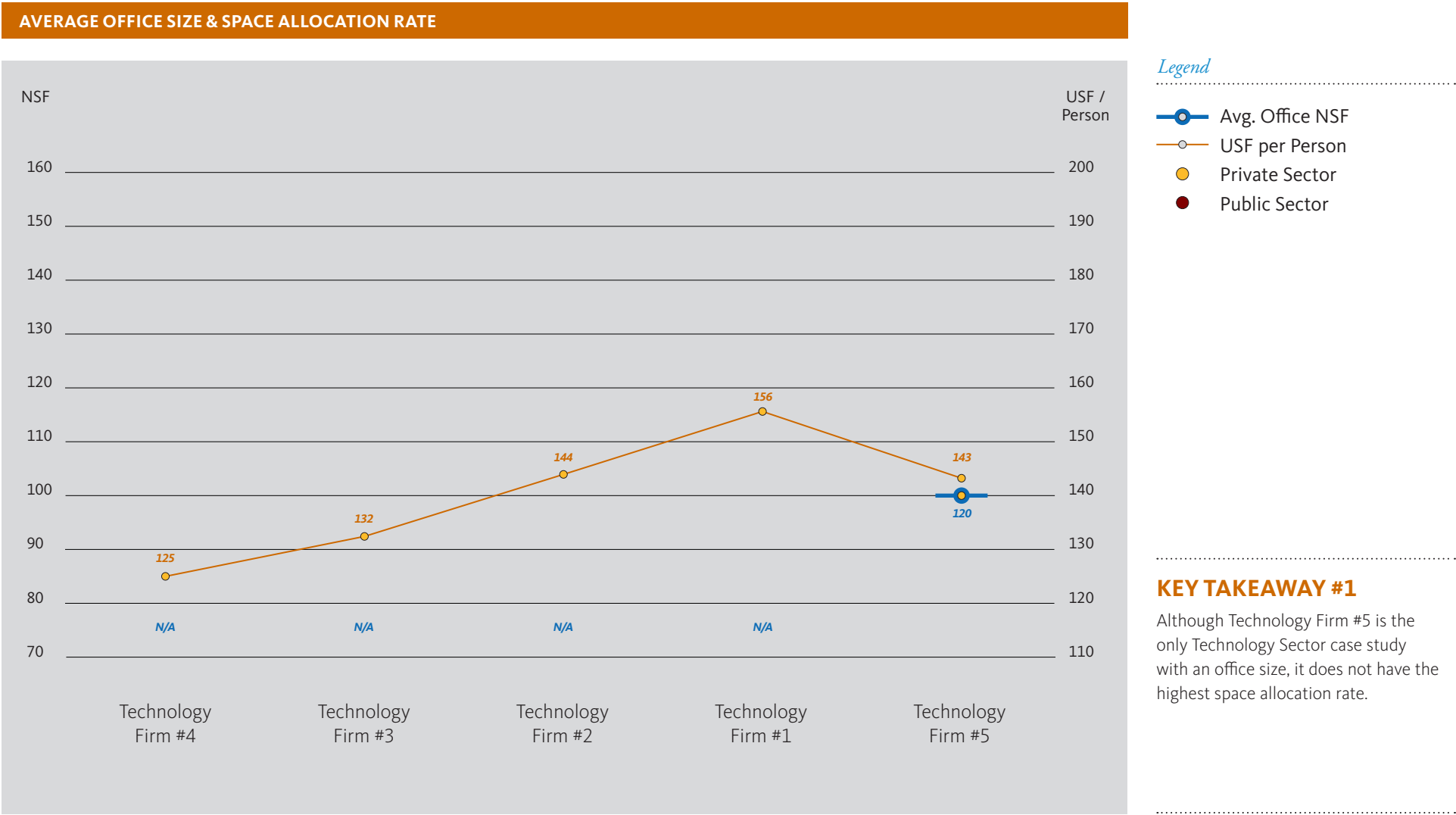
APPENDIX: TECHNOLOGY

The chart below displays the average ratio of enclosed offices to open workstations for each Technology case study.

ENCLOSED OFFICE TO OPEN WORKSTATION RATIO

Industry Sector

Space Types

■ Enclosed Office
■ Open Workstation

Technology Firm #1
Space Allocation Rate: 156
— 100%

Technology Firm #2
Space Allocation Rate: 144
— 100%

Technology Firm #3
Space Allocation Rate: 132
— 100%

Technology Firm #4
Space Allocation Rate: 125
— 100%

Technology Firm #5
Space Allocation Rate: 143
— 5% | 95%

Technology Firm Average
Space Allocation Rate: 140.0
— 1% | 99%

Private Sector #
Public Sector #

KEY TAKEAWAY #1

Of all Technology sector case studies included in this study, only one firm, Technology Firm #5, has allocated offices within their workspace.

APPENDIX: TECHNOLOGY

The following graph illustrates the average office size per each Technology case study.

AVERAGE OFFICE SIZE & SPACE ALLOCATION RATE

Legend

- ●—● Avg. Office NSF
- ○—○ USF per Person
- ● Private Sector
- ● Public Sector

	Technology Firm #4	Technology Firm #3	Technology Firm #2	Technology Firm #1	Technology Firm #5
USF per Person	125	132	144	156	143
Avg. Office NSF	N/A	N/A	N/A	N/A	120

KEY TAKEAWAY #1

Although Technology Firm #5 is the only Technology Sector case study with an office size, it does not have the highest space allocation rate.

APPENDIX: TECHNOLOGY

The following graph records the standard workstation size for each Technology Firm. The metrics are a combination of prevailing workstation sizes as well as averages where no dominant workstation size was present.

AVERAGE WORKSTATION SIZE & SPACE ALLOCATION RATE
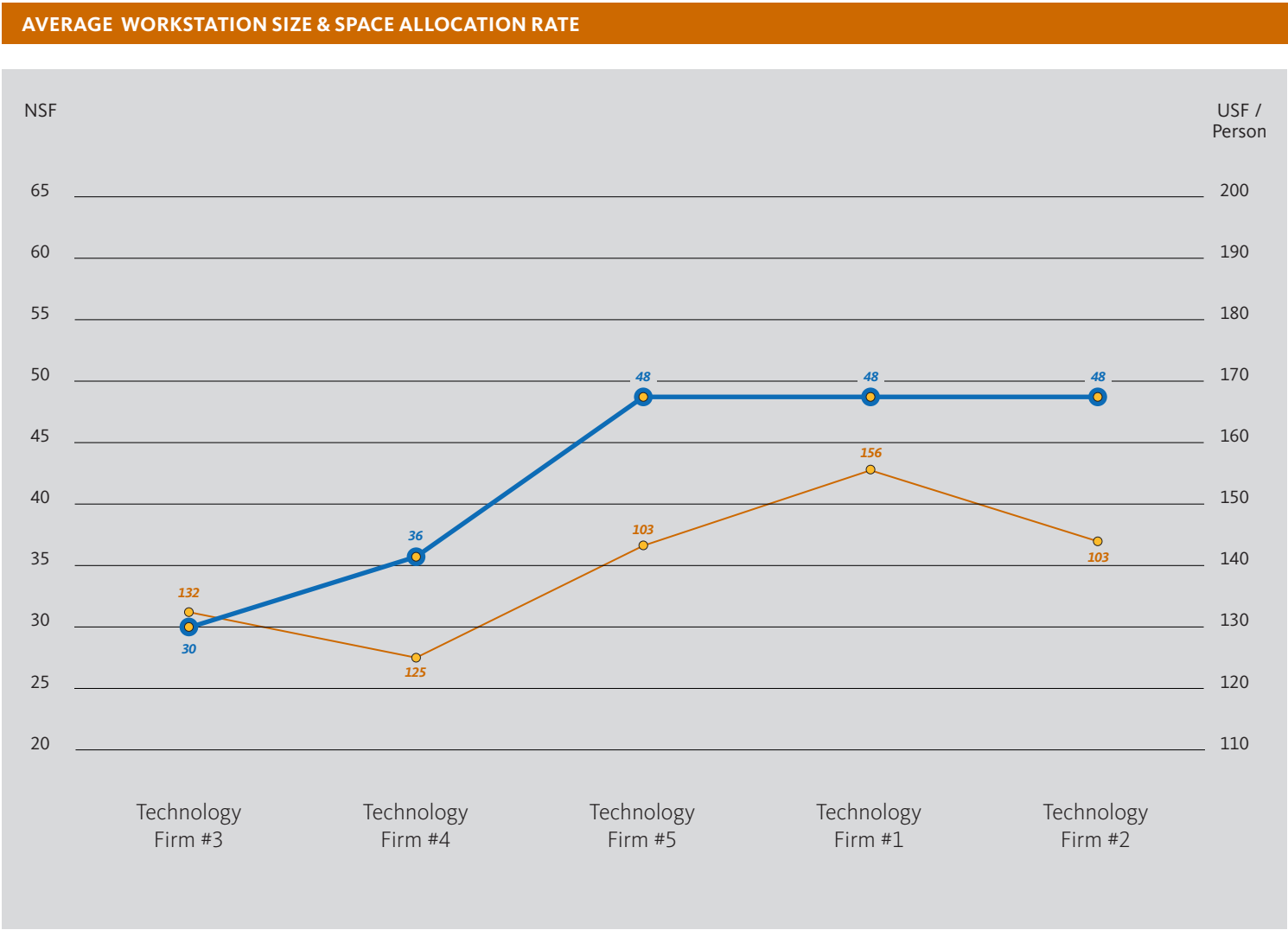
Legend

— Avg. Workstation NSF
— USF per Person
● Private Sector
● Public Sector

KEY TAKEAWAY #1

There is no direct relationship between the space allocation rate and the average workstation size among the Technology Firms involved in this study.

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