FM Research Updates

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IFMA Research Updates

Jake Smithwick, PhD, FMP, SFP UNC Charlotte

Today's Topics

- Space planning
- Workforce & Talent Development
- Return to Office
- Facility Operations & Benchmarking





Simplar Foundation

Simplar Foundation's mission is to share and promote research findings that allow organizations to implement best practices & train the work force

Encourage collaborative research and fosters cooperation between industry and academia.

Immediately applicable to the public and private sectors





Simplar Foundation

- Group of researchers and educators
- Integrated with all parties (owners & vendors)
- Developed tools & hands-on support:
 - Organizational Transformation
 - Procurement & Sourcing
 - Risk-based Partnering & Contracting
 - Project & Risk Management
 - Performance Measurements
- Become a Client (or Vendor) of Choice









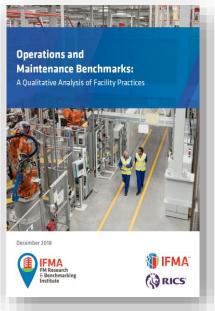






A long history of practical reports

















Space Planning





Project Background

- COVID-19 has dramatically affected how many organizations allocate space
- Work from Home is also having an impact
- Impact of building technology on space allocation determinations





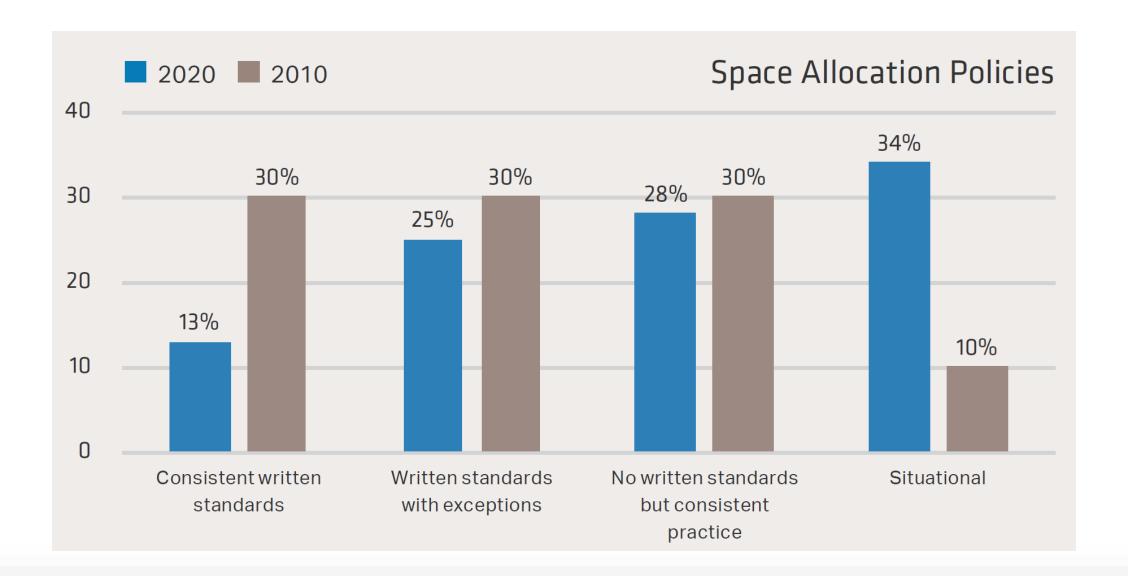
Example Data

Space Per Person by Industry Served

			Interior G	iross Area		Plannable Area				
SERVICES SECTOR	N	Me SF	an SM	Med SF	ian SM	Me SF	an SM	Med SF	lian SM	
Banking	24	289	27	217	20	356	33	183	17	
Health Care	8	358	33	169	16	71	7	42	4	
Hospitality	4	245	23	143	13	215	20	134	12	
Information Services	15	361	34	240	22	364	34	187	17	
Insurance	20	333	31	215	20	253	24	89	8	
Investment Services	11	436	40	521	48	383	36	467	43	

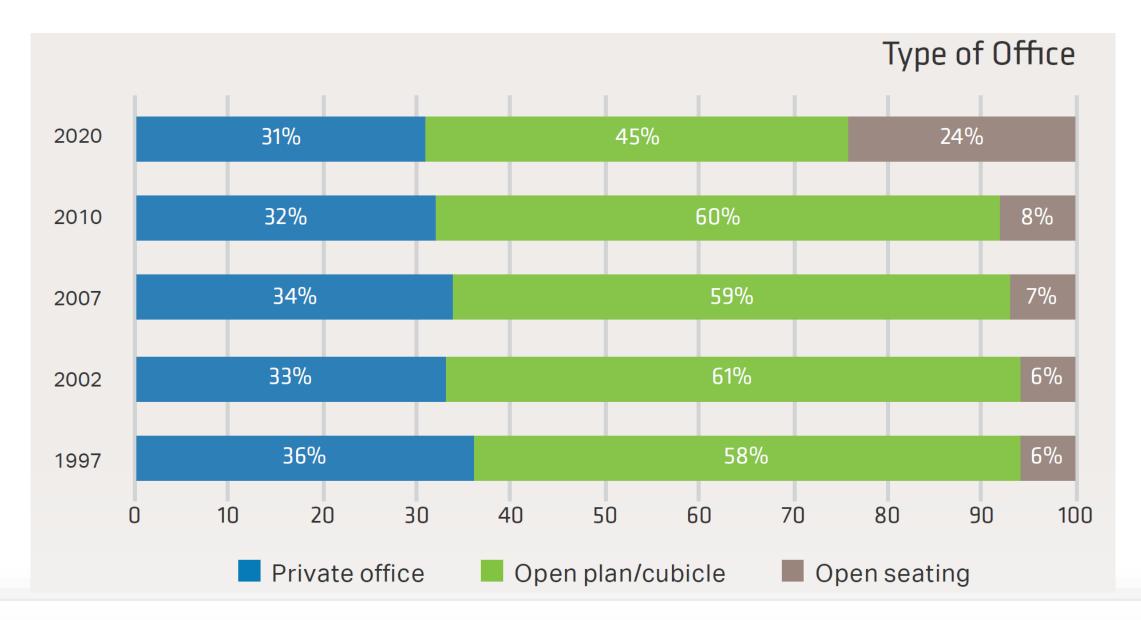






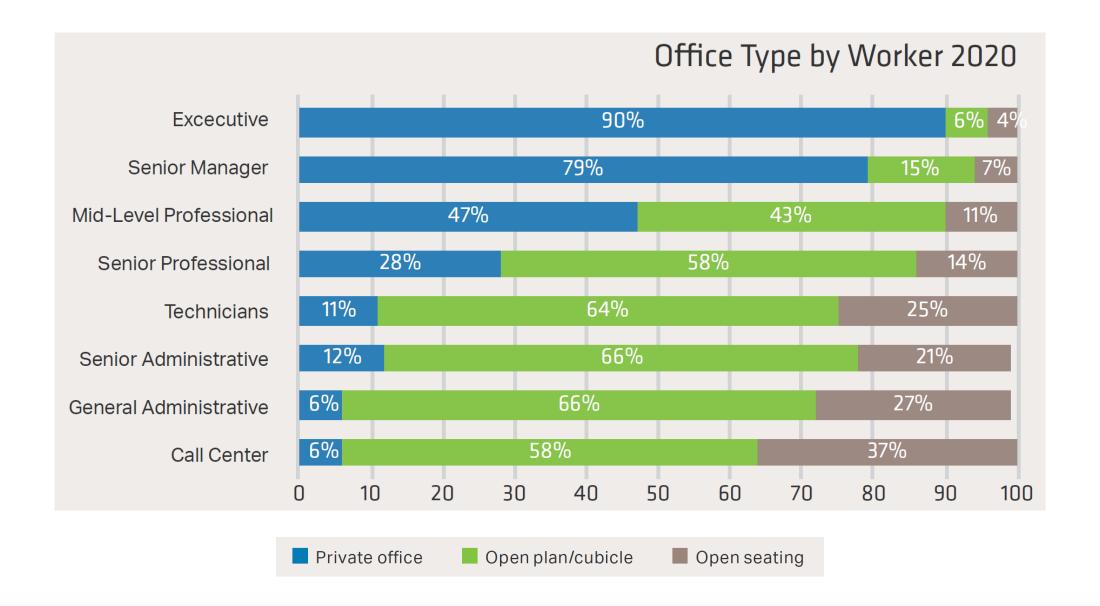
















Office Size by Type of Worker

Data from the past 26 years shows the downward trend in space for most position levels.

	Exec	utive		nior Jager		Level ssional		nior ssional	Techn	icians		nior strative		eral strative	Call C	Center
YEAR	SF	SM	SF	SM	SF	SM	SF	SM	SF	SM	SF	SM	SF	SM	SF	SM
2020	207	19.2	129	12.0	97	9.0	84	7.8	72	6.7	70	6.5	65	6.0	53	4.9
2010	246	22.9	169	15.7	120	11.1	95	8.8	75	7.0	81	7.5	69	6.4	52	4.8
2007	241	22.4	170	15.8	121	11.2	98	9.1	79	7.3	78	7.2	68	6.3	51	4.7
2002	239	22.2	169	15.7	126	11.7	97	9.0	79	7.3	77	7.2	66	6.1	39	3.6
1997	280	26.0	193	17.9	142	13.2	114	10.6	92	8.5	84	7.8	73	6.8	-	-
1994	289	26.8	200	18.6	151	14.0	115	10.7	90	8.4	81	7.5	69	6.4	-	-





Current Status

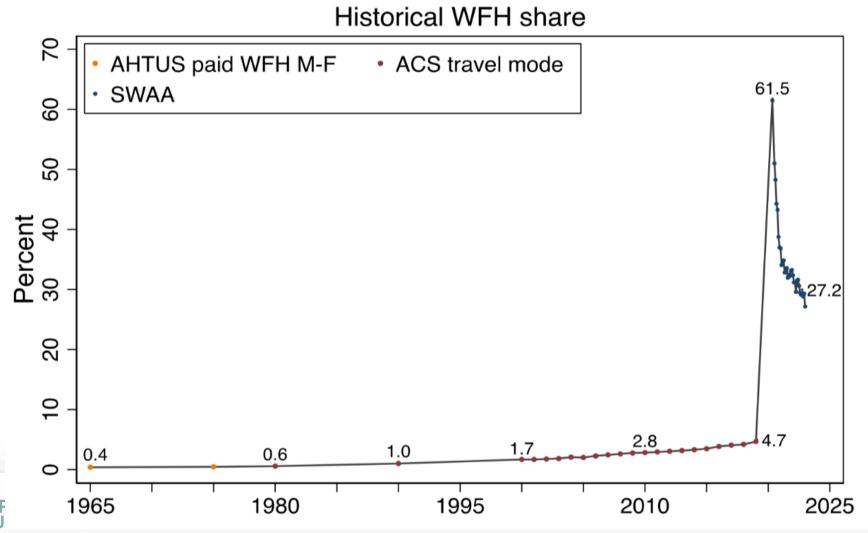
- Interviews w/ SMEs are completed + Draft Survey 95% ready
- Key changes we are seeing so far:
 - Space allocation definitions don't have the same meaning
 - Adoption of technology (AI) in space planning decision
 - Decarbonization impact





Return to the Office

Historical Perspective



WFH days doubling every 15 years prepandemic, so the 6fold pandemic increase is equal to 40 years of prepandemic growth.





Key Data

- ► 35% workers with jobs that can be done remotely are working from home all of the time (Parker 2023)
 - Down from 43% in January 2022 and 55% in October 2020 but up from only 7% before the pandemic.

34% of those who are currently working from home most of the time say they'd like to work from home all the time

Most U.S. workers overall (61%) do not have jobs that can be done from home





Advantages & Disadvantages (Parker 2023)

71% of those who work from home all, most or some of the time say doing so helps people balance work and personal lives

- Impacts on productivity / work load?
 - 77% of those who are at least sometimes working from home see no affect of receiving 'important assignments'
- Biggest challenge: 53% of those who partially work from home said their ability to connect with coworkers is limited





Most U.S. hybrid workers say their boss trusts them to get work done at home

Among employed adults with teleworkable jobs who work from home at least some of the time, % saying their manager or supervisor trusts them a great deal ...

To get their work done when working from home



To get their work done when NOT working from home



Note: Based on workers who are not self-employed. Adults with a teleworkable job are those who say, for the most part, the responsibilities of their job can be done from home. Hybrid workers are those with a teleworkable job who say they work from home most or some of the time.

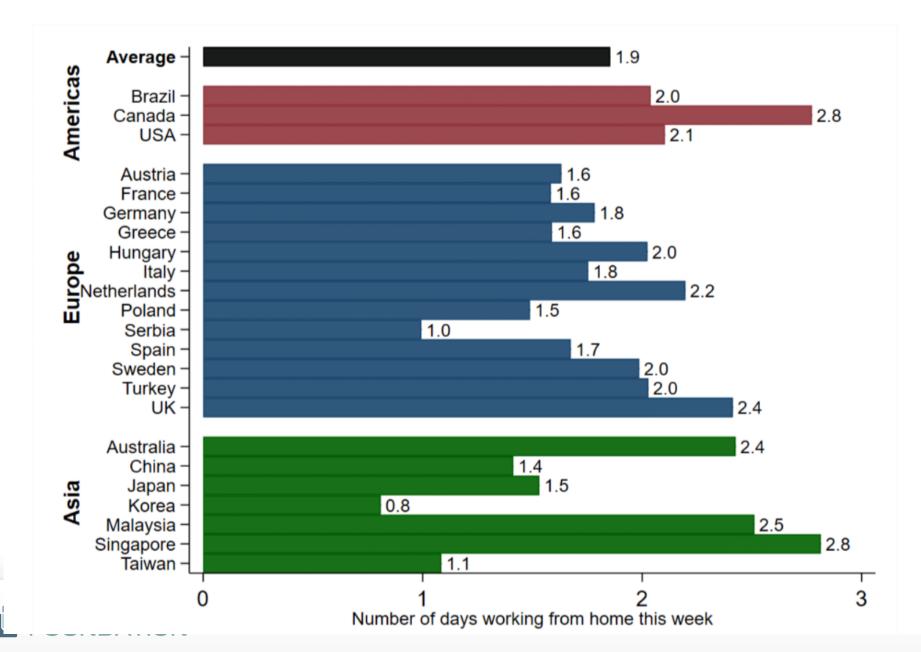
Source: Survey of U.S. workers conducted Feb. 6-12, 2023.

https://www.pewresearch.org/fact-tank/2023/03/30/about-a-third-of-us-workers-who-can-work-from-home-do-so-all-the-time/sr 23-03-30 hybridworker 04/





Globally similar: for graduates WFH typical 1 or 2 days per week

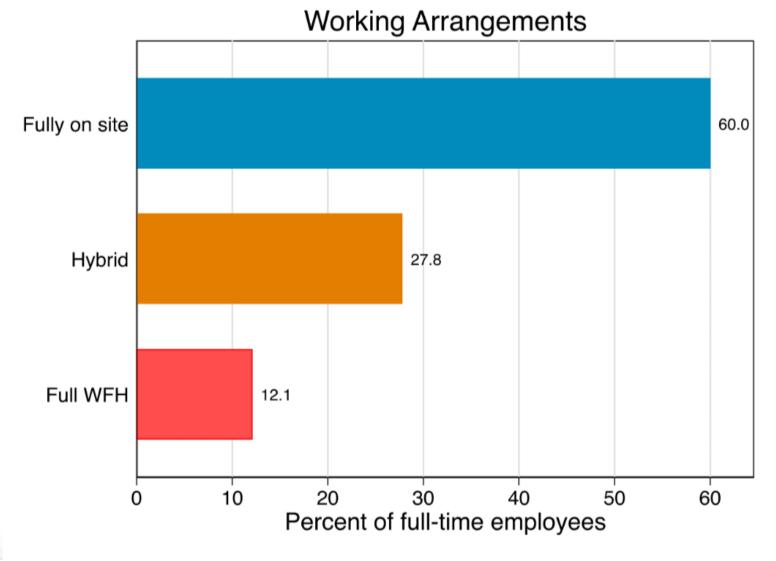


Source: Responses to the question "How many full paid days are you working from home this week?".

Only for university educated respondents that have worked for pay in the week of the interview.

Sample of N=30,169 Global WFH respondents, surveyed in August 2021 and February 2022. Source: "Working from home around the world" by Cevat Aksoy, Jose Barrero, Nick Bloom, Steve Davis, Mathias Dolls and Pablo Zarate. https://wfhresearch.com/gswadata/

Employees are split into three groups – most firms have some of all



Front-line employees, mostly non-graduates, lower paid,

Professionals and managers, mostly graduates, higher paid

Specialized roles - IT support, payroll etc, often contractors

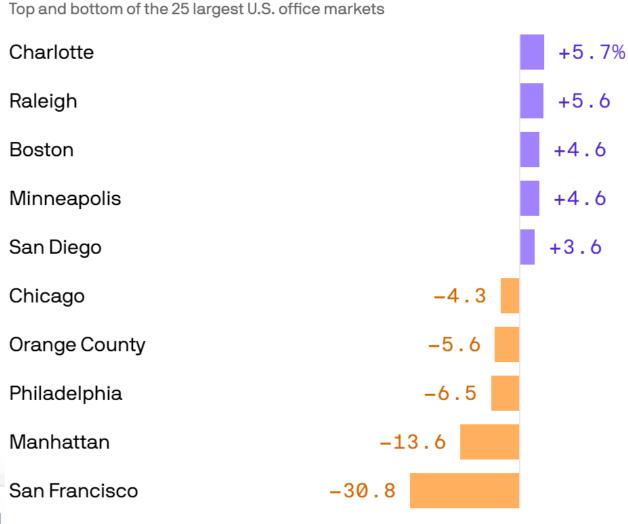
Source: US SWAA responses reweighted to US labor force using the CPS. Details on https://wfhresearch.com/

4) Start-up rates are surging - WFH provides a cheaper way to start a new company (no rent, do this on the side of your main WFH job....)



Source: US Census Bureau:
Business Applications with a
high-propensity of turning into
payroll businesses. 3-month
moving average (except from
2020/2-2020/9 due to the rapid
impact of the pandemic).
https://fred.stlouisfed.org/series/B
AHBATOTALSAUS

Impacts on office rents



- Places where commute time is long are seeing a significant hit
- FMs: 8.2 hours per week (during COVID)
 - Before: 10.9 hours per week

https://www.axios.com/2023/03/22/remote-work-wf-office-rents-decline





Purpose & Background

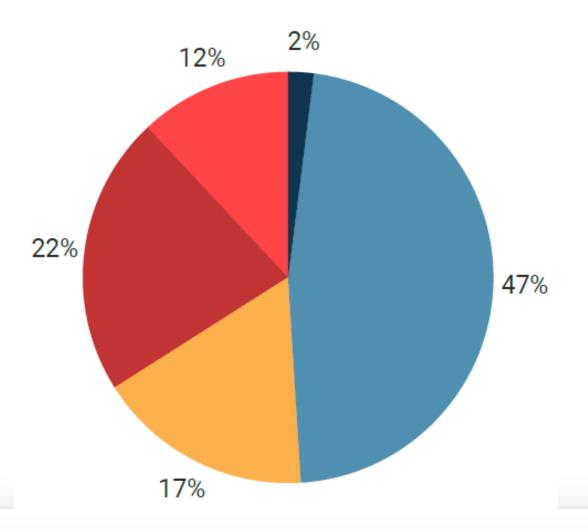
- ► In April 2020, IFMA conducted study of FM's and found:
 - 57% did not follow any formal shutdown process
 - 43% do not have any formal reopening plans available
- From the new O&M Benchmark

Percentage of Staff Allowed to Work Remotely

Demographic Factor	All Employees Allowed	Some Employees Allowed	All Employees Return to Site	
Industry Type				
Services	15%	74%	11%	
Manufacturing	10%	75%	15%	
Institutional	6%	74%	20%	



Changes to Building Footprint



- Increasig footprint due to COVID-19
- No change to footprint
- Reducing footprint due to COVID-19
- Footprint is changing, but not due to COVID-19
- Not sure





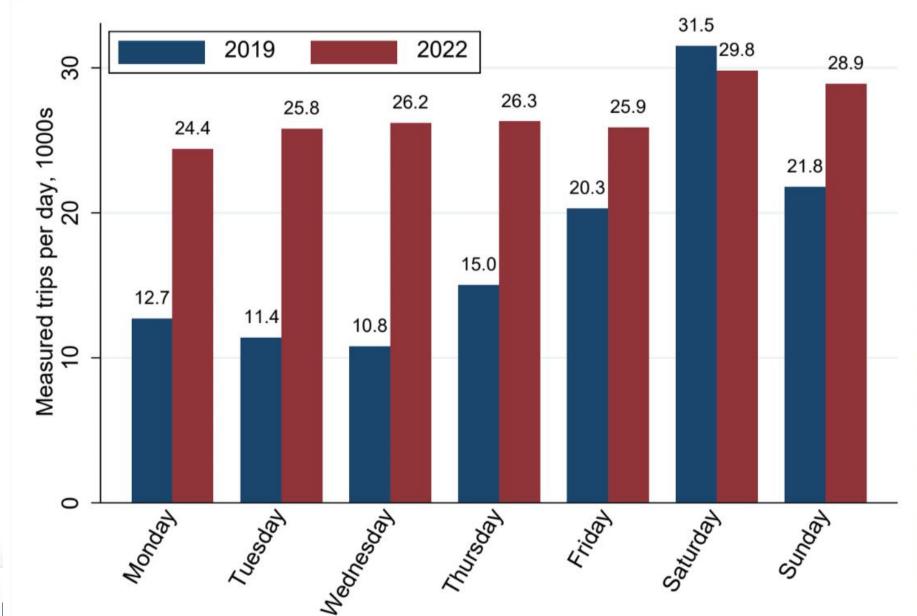
Key Considerations for Flexible Workspace

- Maintenance & cleaning standards [e.g., clean desk policy]
- Put the FM in difficult situation [e.g., having to police space]
- Needs continuous monitoring (& comparing to what the initial expectation)
- This is different. Typically focus on vacancy...
- Need to measure it different from traditional space





6) Golf has increased 52% since 2019, almost all on weekdays...



Note: Data for August 2019 and August 2022 for a sample of trips. Those included are trips in the INRIX database, which includes trips in vehicles with GPS and phones with location tracking turned-on. The trip needs to be to one of the 3,400 satellite identified gold courses and to have lasted more than two hours. We estimate we sample about 5% of total golf trips.



Resources / White Papers

- https://www.pewresearch.org/facttank/2023/03/30/about-a-third-of-us-workers-who-canwork-from-home-do-so-all-the-time/
- https://www.axios.com/2023/03/22/remote-work-wfoffice-rents-decline
- https://www.dropbox.com/s/zuktuv1j4hehrsr/Exec_March 2023.pdf?dl=0



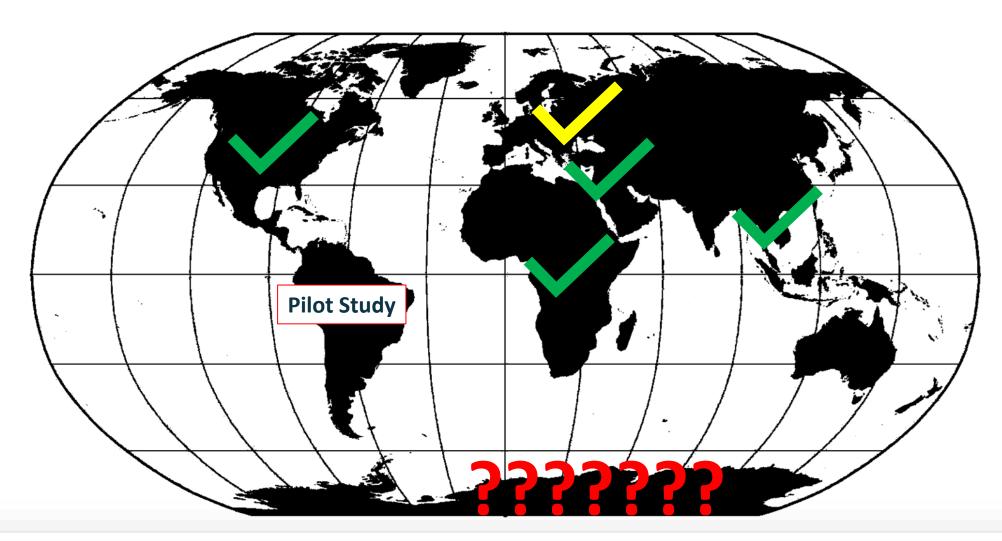


Global FM Benchmarking





Regional FM Benchmarking Data







Global 12 City Study

- √ Cairo, Egypt
- √ Chicago, USA
- ✓ Dallas, USA
- ✓ Delhi, India
- √ Lagos, Nigeria
- ✓ London, UK
- √ Los Angeles, USA
- ✓ Mexico City, Mexico
- ✓ New York, USA
- ✓ Sao Paulo, Brazil
- ✓ Shanghai, China
- √ Toronto, Canada

Facility O&M Benchmarks

➤ Real Estate Practices

>FM Compensation Profiles





Regional Data

Country	N
Algeria	4
Botswana	17
Cameroon	7
Côte d'Ivoire	2
Egypt	19
Ethiopia	4
Ghana	70
Kenya	6
Niger	2
Nigeria	157
Rwanda	2
Senegal	3
South Africa	40
Tanzania	7
Tunisia	2
Uganda	8
Zambia	2
Zimbabwe	3

Region	N	Percentage
Central Africa	8	2%
North Africa	27	7%
East Africa	39	11%
South Africa	59	16%
West Africa	238	64%





Square Meter per Occupant

Percentile	Interior GFA (SM)	Plannable Area (SM)
99%	3,203	3,164
95%	751	626
90%	224	194
75%	75	62
50%	27	24
25%	13	11
10%	6	4
5%	2	1
1%	0	0
Mean	220	131

The mean interior square meter per occupant is about 9% more than what is reported in IFMA's North America O&M Benchmarking Report

Full report also includes:

- by industry sector





Janitorial Costs and Green Certification

(Cost/RSM)

Green Certification Status	N	USD Dollars (\$)	Nigerian Naira (N)	Ghanian Cedi (GH¢)	South African Rand (R)	Egyptian Pound (E£, ج.٠)	Botswana Pula (P)
One or more buildings certified	20	1.43	659.63	16.60	25.64	44.06	18.69
Green elements, no certification	39	11.10	5,119.05	128.85	198.99	341.93	145.05
No green elements	37	9.58	4,418.04	111.20	171.74	295.10	125.19
Plans for certification in the next 12 months	20	21.61	9,969.01	250.92	387.51	665.88	282.48

A number of factors can affect janitorial costs including operating schedule, provision of labor, specialized cleaning requirements and the time of day that cleaning is performed. The report also includes Cost / SM for:

- ✓ In-house vs. contracted
- ✓ Operating days per week
- ✓ Primary cleaning hours
- ✓ Recycling programs
- ✓ Level of cleanliness





Maintenance Cost by Countries & Region

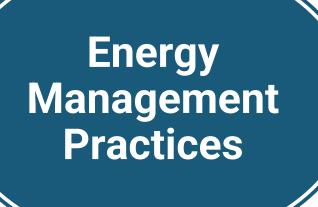
Region	N	USD Dollars (\$)	Nigerian Naira (N)	Ghanian Cedi (GH¢)	South African Rand (R)	Egyptian Pound (E£, ¿-;)	Botswana Pula (P)
Central Africa	3	6.81	3,141.12	79.06	122.10	209.81	89.00
East Africa	14	6.01	2,770.10	69.72	107.68	185.03	78.49
North Africa	7	6.31	2,912.29	73.30	113.21	194.53	82.52
South Africa	18	11.28	5,203.93	130.98	202.29	347.60	147.46
West Africa	95	14.34	6,613.72	166.47	257.09	441.77	187.40

(Cost/RSM)

Country	N	USD Dollars (\$)	Nigerian Naira (₦)	Ghanian Cedi (GH¢)	South African Rand (R)	Egyptian Pound (E£, ह.१)	Botswana Pula (P)
Botswana	2	11.77	5,427.41	136.61	210.97	362.53	153.79
Cameroon	3	6.42	2,961.75	74.55	115.13	197.83	83.92
Egypt	8	7.06	3,256.75	81.97	126.60	217.54	92.28
Ethiopia	2	7.63	3,519.60	88.59	136.81	235.09	99.73
Kenya	20	8.72	4,021.32	101.22	156.32	268.61	113.95
Mozambique	5	9.10	4,196.92	105.64	163.14	280.33	118.92
Nigeria	65	7.38	3,404.35	85.69	132.33	227.39	96.46
Rwanda	2	15.40	7,104.56	178.82	276.17	474.55	201.31
South Africa	15	10.13	4,672.91	117.62	181.64	312.13	132.41
Tanzania	2	6.73	3,106.07	78.18	120.74	207.47	88.01
Uganda	4	9.39	4,330.11	108.99	168.32	289.23	122.70
Zimbabwe	128	8.19	3,776.27	95.05	146.79	252.24	107.00







Energy Management Practice	Africa 2023	North America 2021	Δ
Equipment and Controls			
Adjusted operating hours of HVAC	62%	72%	7 -10%
Installed variable speed drives for pumps and motors	22%	67%	↓ -45%
Installed energy-efficient motors	35%	56%	7 -21%
Set back thermostat	16%	46%	₹ -30%
Installed energy-efficient ventilation equipment	36%	45%	↑ -9%
Installed energy-efficient heating equipment	19%	41%	₹ -22%

Water			
Installed low flow water fixtures	57%	87%	7 -30%
Installed computerized irrigation controllers	13%	43%	7 -30%
Planted native/drought tolerant plants	10%	47%	7 -37%
Reduced or eliminated irrigation	29%	42%	7 -13%

Lighting			
Replaced existing light fixtures with new light fixtures	63%	65%	↑ -2%
Installed occupancy sensors	45%	62%	₹ -17%
Retrofitted existing light fixtures	31%	59%	7 −28%
Adjusted operating hours of lighting	42%	38%	↑ 4%
Implemented daylight harvesting	31%	22%	↑ 9%





FM Talent Development





WARNING Do Not Get "Down"

I am VERY Optimistic for the Future

(but we may have to go through a rough patch first)

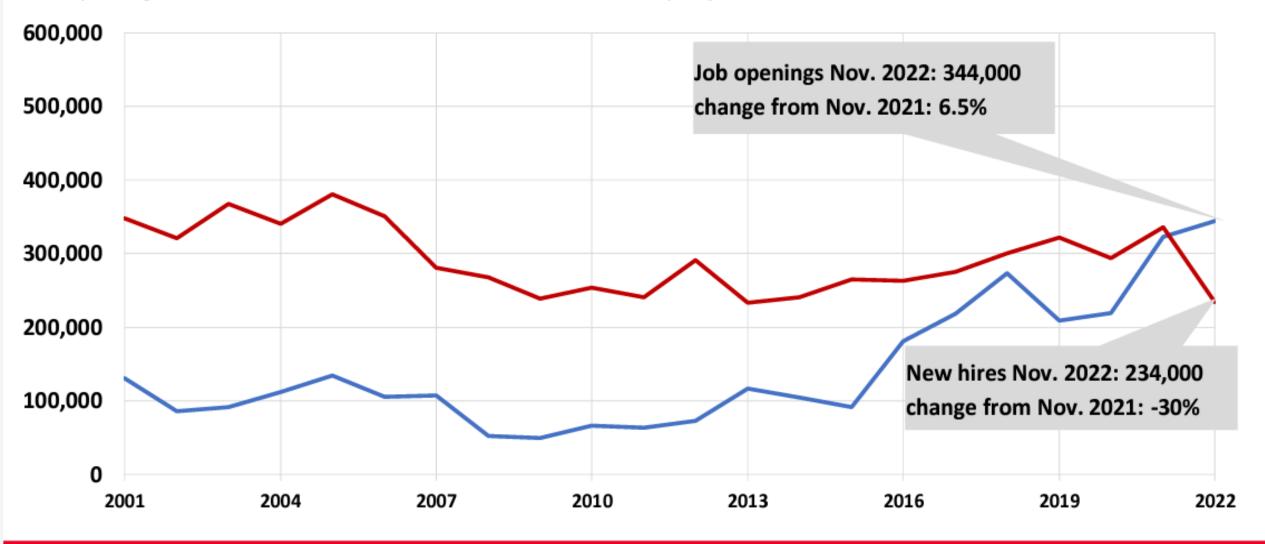




Construction job openings & new hires



Job openings and hires, Nov. 2001-Nov. 2022, not seasonally adjusted



Job Openings in Construction

- There is strong evidence that the construction industry would have added many more workers if workers had been available.
- Job openings in construction at the end of May totaled 466,000 (not seasonally adjusted), a jump of 130,000 or 39% from a year earlier and by far the largest May total in the 22-year history of the data, as shown in Figure 3.
- Job openings exceeded the 437,000 workers hired in May, implying that construction firms would have hired twice as many workers that month as they were able to, if there had been enough qualified applicants.
- It is likely that contractors will pay more overtime to make up for the workers they
 don't have

• Since the year 2000, the US Population has gotten:

-Older or Younger?



• Since the year 2000, the US Population has gotten:

-Older by 3.4 years



• Since the year 2000, the US Population has gotten:

-Older by 3.4 years

This trend is:

–Accelerating or Decelerating?



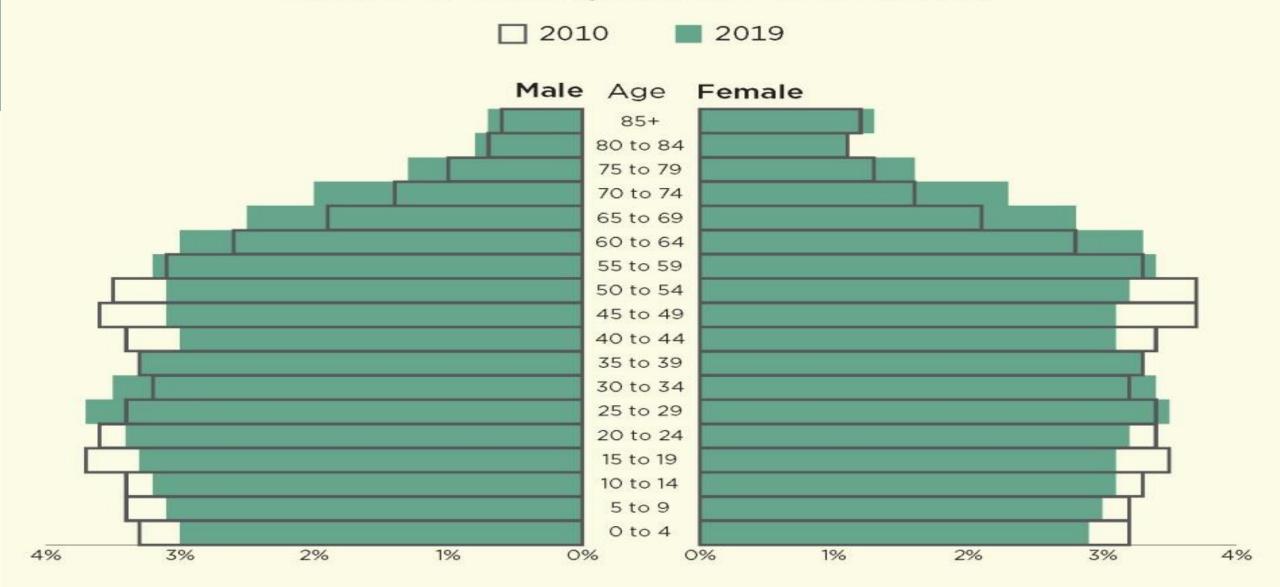
• Since the year 2000, the US Population has gotten:

-Older by 3.4 years

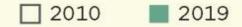
This trend is:

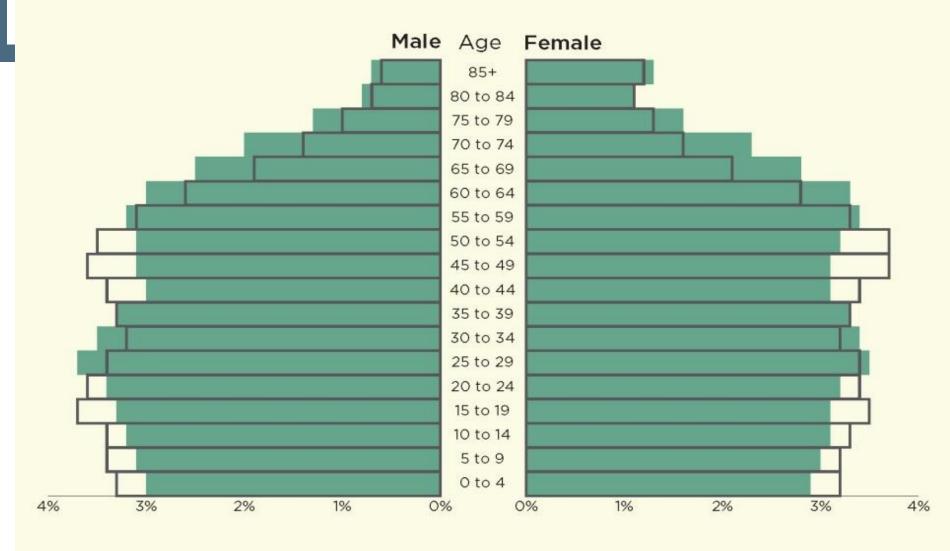
-Accelerating (2021 was most rapid increase across the 21yr range)



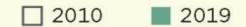


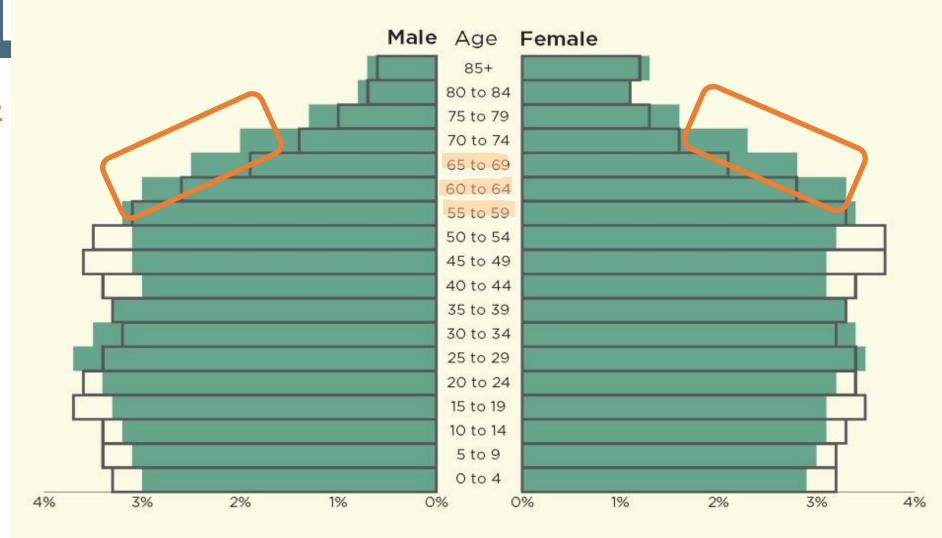




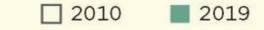


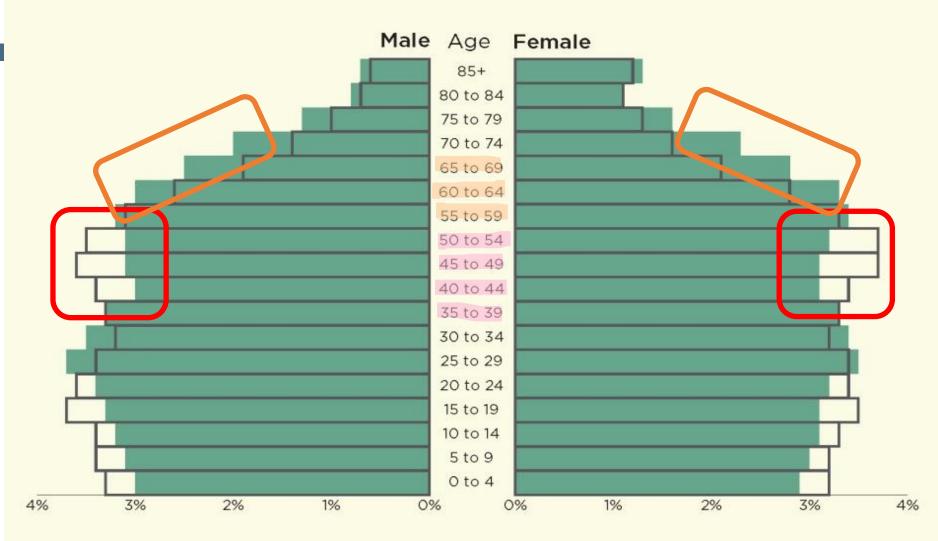
• Senior Leaders leaving the workforce





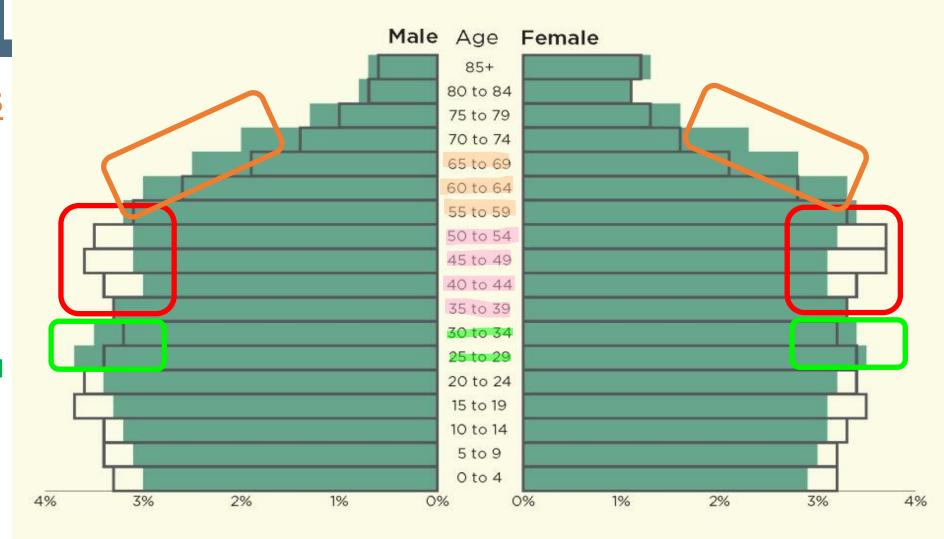
- Senior Leaders leaving the workforce
- Next Leaders large gap coming





- Senior Leaders leaving the workforce
- Next Leaders large gap coming
- Millennial "Bump" (brief) return to normal





- Senior Leaders leaving the workforce
- Next Leaders large gap coming
- Millennial "Bump" (brief) return to normal
- Future Reinforcements







Mid- and Long-Term Outlook

this is the

BEST

it will ever be

(for the remainder of our careers)





Reality of the Situation

Performance in facility management (construction, design, FM work) has been proven to NOT correlate to contract types, delivery methods, software, design quality, etc.

 Performance in facility management HAS BEEN PROVEN to highly correlate to the capability, skill, and experience of the people doing the work – the critical personnel on a project – FM, technicians, workspace designer, contractor PM, key personnel



Importance of People

Only **PEOPLE** can deliver:

- Innovation
- Risk Minimization
- Creativity
- Value Creation
- Cost Reduction







Limited Pool of Expertise

- There is a limited pool of FM experts
 - High-performing, experienced, skilled, capability

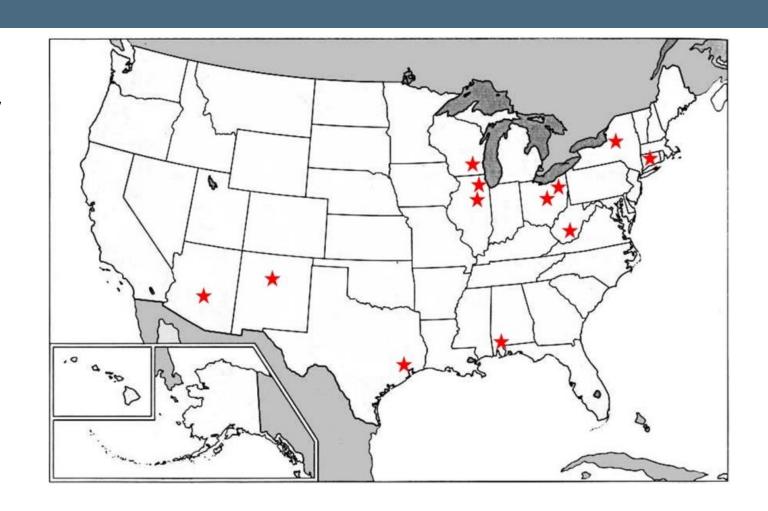
- The pool varies by:
 - Moment in time (when the project / need is)
 - Location (geography)
 - Market Sector (type of solicitation)

 Organizations commonly underestimate the cost of working with average and low-performing suppliers



Some research in the area

- ➤ Interviewed twelve contractors who recently experienced leadership transition.
- > Analyzed data for trends, insights, and bright spots.
- Review existing books, papers, etc.

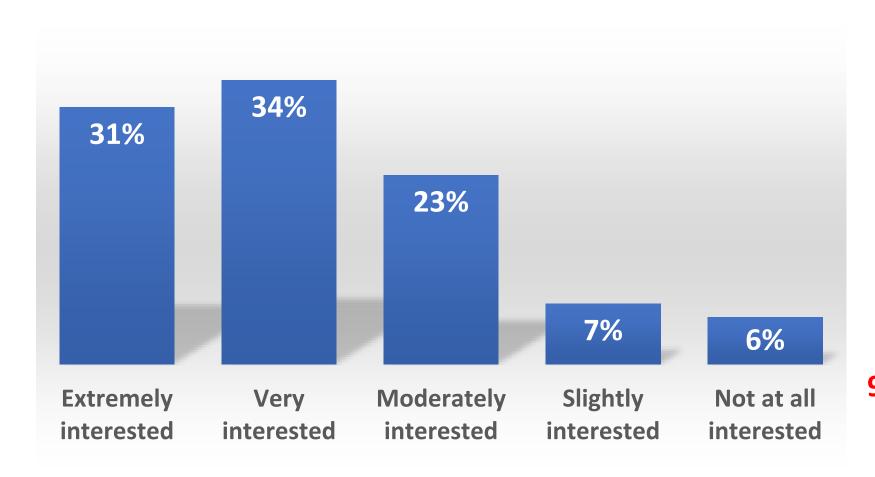


Findings

- > Typical Successful Plan Duration 9 yrs
 - ➢ Planning & Selection 2 yrs
 - > Preparing the Successor 3 yrs
 - > Transitioning & Mentoring 4 yrs
- Poor/unexpected health issues leading factor to succession and high correlation to difficulties with transition
- > Average successor had 15yrs experience & was 45yrs old.



FM Interest in Succession Planning





90% of 3,000 FMs indicated an interest in the topic!

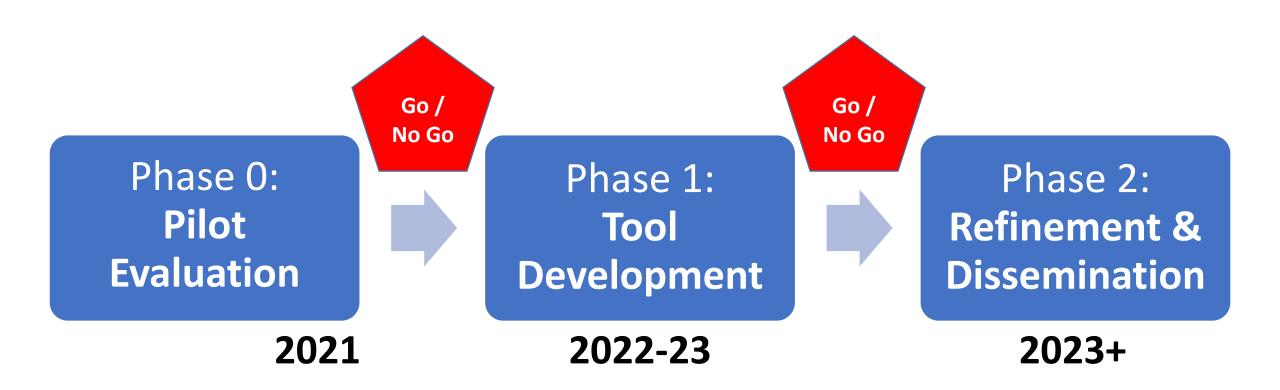


Filling the gap is only half the battle

- Traditional approach: promote mid-level employees to senior positions
- An adjustment is needed the "bubble" is addressed, but experiential knowledge loss is a problem
- Loss of: efficiency, innovation, growth, skills development, money
- Keep in mind: literature shows very little work done in <u>FM</u>-specific succession planning



Project Phasing





Introducing Human Dimensions

HEXACO Personality Inventory

- Based on "Big Six" personality aptitudes and four sub facets each
- Each facet and sub facet is measured on a scale of 1 to 5
- Respondents indicate agreement or disagreement with various statements
- Developed by Ashton & Lee in the early 2000s
- Robust research background
- 60 questions

HONESTY-HUMILITY	EMOTIONALITY	EXTRAVERSION
Sincerity	Fearfulness	Social Self-Esteem
Fairness	Anxiety	Social Boldness
Greed Avoidance	Dependence	Sociability
Modesty	Sentimentality	Liveliness
AGREEABLENESS	CONSCIENTIOUSNESS	OPENNESS TO EXPERIENCE
AGREEABLENESS Forgivingness	Organization CONSCIENTIOUSNESS	Aesthetic Appreciation
Forgivingness	Organization	Aesthetic Appreciation



Emotional Intelligence

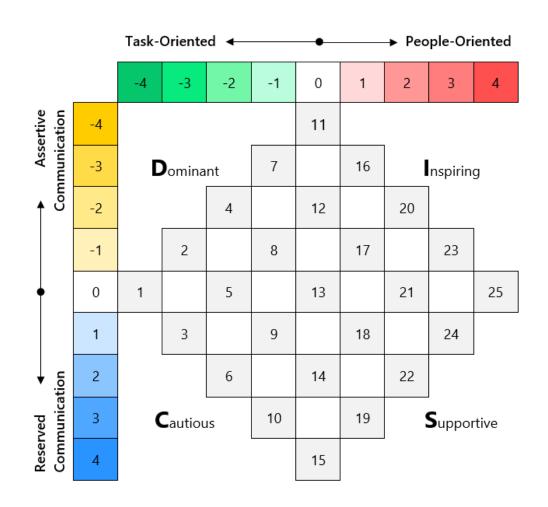
Personal	SELF	SELF
Competence	AWARENESS	MANAGEMENT
Social	SOCIAL	RELATIONSHIP
Competence	AWARENESS	MANAGEMENT

- Four primary skills under two main competencies: personal competence and social competence
- Measured on a scale of 1-100
- Overall Emotional Intelligence score computed from the scores of the primary skills.
- 28 questions
- Respondents indicate how often they demonstrate a behavior (never to always)
- Developed by Bradberry & Greaves



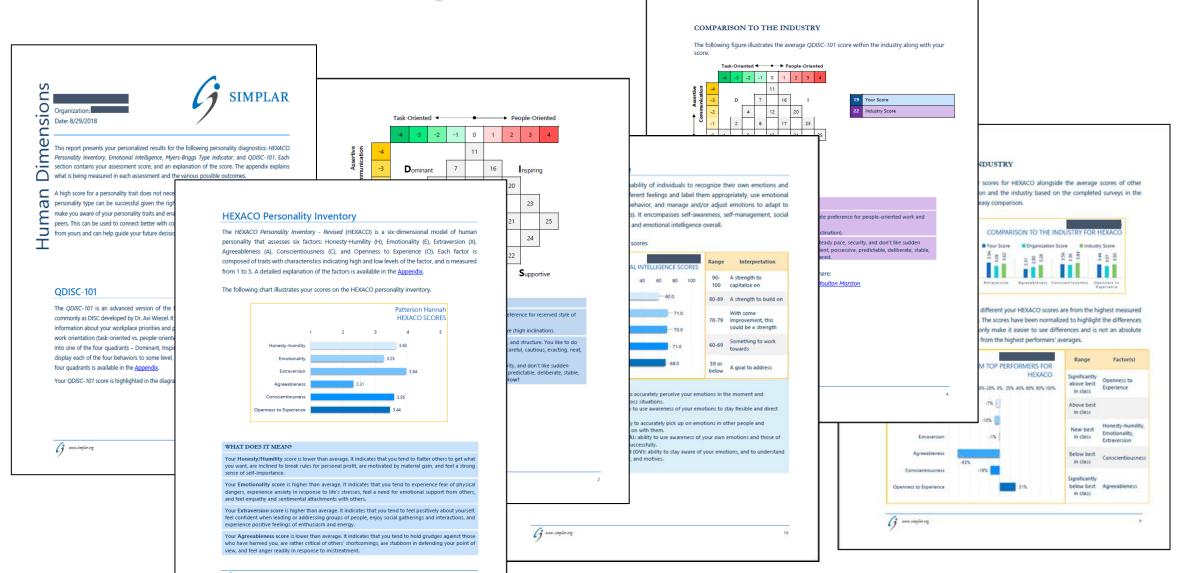
Behavioral Tendencies

- Advanced version of the four-quadrant behavior diagnostic tool known commonly as DISC
- Provides insight into workplace priorities and preferences
- 48 questions
- People vs task orientation (-4 to 4)
- Reserved vs assertive communication (-4 to 4)
- Overall DISC (1 to 25)
- Respondents choose descriptions that are most/least like them :
 - Dominant
 - Cautious
 - Supportive
 - Inspiring





Individualized Reports





Customized Individual Reports



Individualized reports created for every respondent



Report provides a detailed insight into an individual's personality type



Each assessment illustrates how the individual's personality compares with organization & overall industry.



Information about how the individual compares against the procurement leadership in the industry is provided



We need YOU

- ✓ Get your own FREE personality profile
- ✓ Have your team get their own FREE profiles
 - √ 100% confidential

https://qrco.de/HD-survey





Conclusion & Call to Action





Free Webinar Series

3rd Tuesday every month @ 12pm Central US Time (GMT -0600)

15-min Teaching Moment

(learn a new tip, trick, or tool)

30-min Virtual Peer Group

(network with professionals)

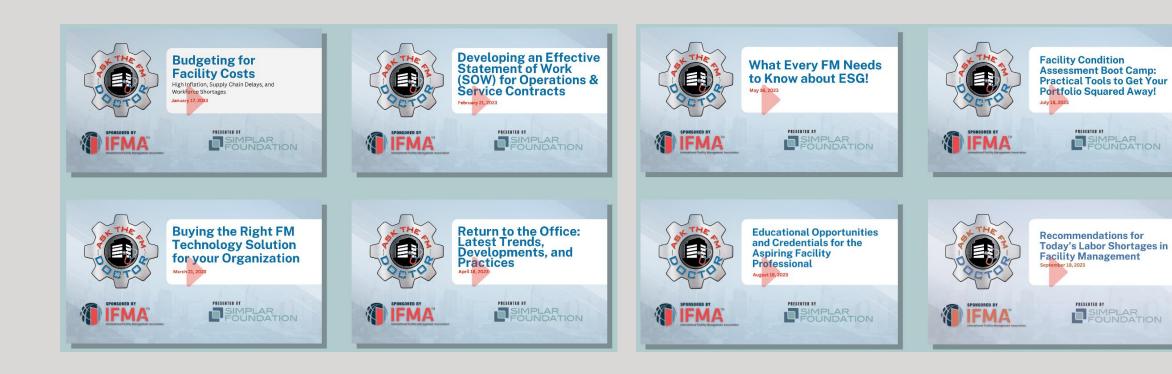
Office Hours

(open Q&A until the questions run out!)





Previous Recordings Available Online!



simplarfoundation.org



← Next Month!





Finding the One: Identifying Future High Performers in FM

We discuss the results of IFMA's newest tool: human dimensions and profiles of facility professionals! We will discuss how facility leaders can improve their ability to identify future top talent early in their careers, and customize talent development based upon each individuals' specific traits, personality, and aptitudes.

21 November





Easy Pickings: Save Time, Money and Gray Hair in Hiring the Right Vendors

Hiring industry partners is one of the most common things that FM's do... but how often do they not meet expectations? Nothing will make you work harder and longer than hiring the "wrong person". We will show you three powerful tools that will make your next contractor selection a refreshing experience.

19 December





Using Drones to Inspect Roofs and Buildings - Don't Break a Leg!

Drones can be used to conduct inspections of roofs or other hazardous areas, survey overall site layouts, and more. We wil review the recommended drones specifically for facility managers, costs, training requirements, and applicable laws.

16 January





Quick Start Guide to Using Building Information Modeling (BIM) in Facility Management

Many owners are starting to require BIM models as part of their construction standards, and yet FMs often don't really know where to get started. What are the common software applications out there? How can an FM be a savvy BIM user on the next renovation project? What is a clash detection report anyway? Walk away with practical guidance on how to

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February





Using Ai in Facilities Management

Discover how artificial intelligence can revolutionize the field of facilities management in this interactive online session. You'll learn how Al can streamline maintenance programs, optimize real estate investments, and reshape the way facilities managers operate. Embrace the future of technology and learn to make more efficient, strategic decisions in your role



Upcoming Topics!





Other FM Research Projects – Reach Out!

- C-Suite: Making the Case
- Global Trends
- Life Cycle Exploratory Study
- ROI Credentials Company
- Salary Web Interface

- Amenities
- Benchmarking Healthcare
- FM Outsourcing
- Veterans in FM
- Women Exiting FM

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Key Learning Points

- We are seeking to develop tools that add real-world, practical insights to facility professionals around the world
- Start benchmarking... TODAY!
- The FM work force challenges are very real: we <u>MUST</u> adapt now, or get left behind





