



UNIVERSITY *of* MARYLAND
MEDICAL CENTER

Financial Management for Facility Managers
Workshop for Performance Management and Finance
Committee on Facility Staffing Requirements for Veterans Health Administration
May 8, 2019

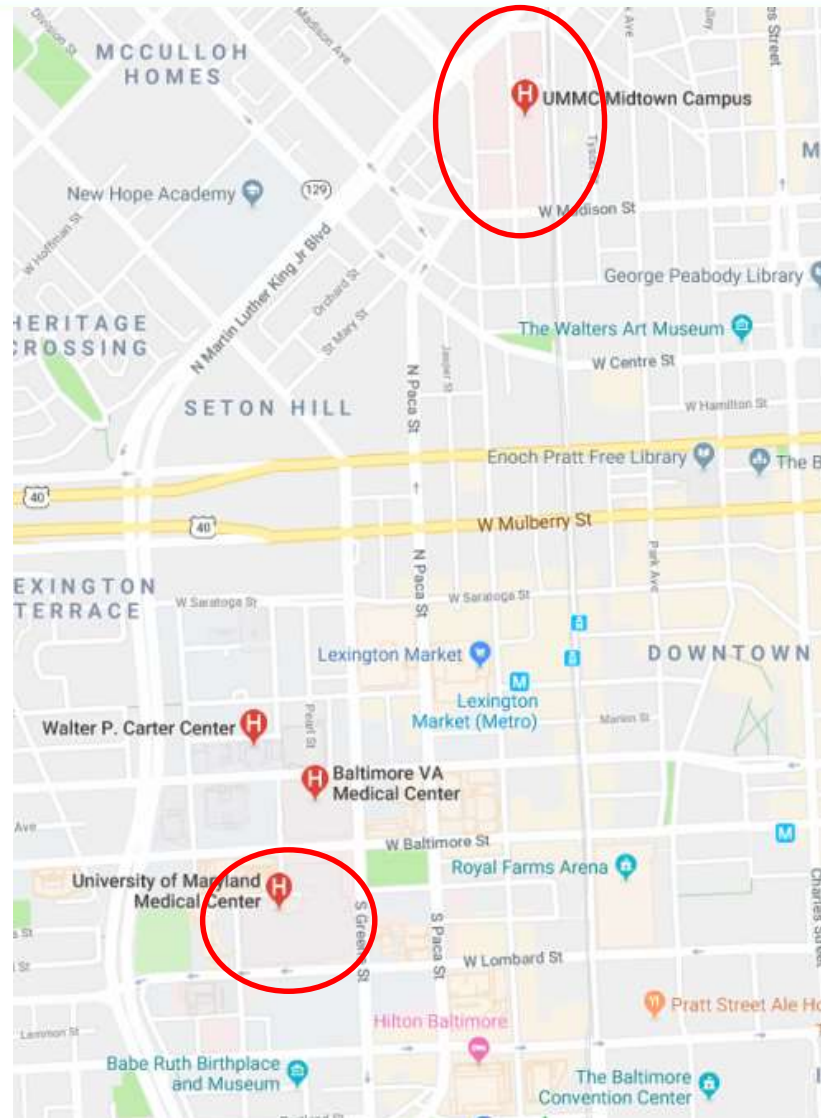
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Director of Operations and Maintenance

University of Maryland Medical Center



- 2 campuses (1 mile apart)
 - 800 bed academic medical center
 - 200 bed community teaching hospital
- 3.5 million square feet total
- Mission
 - Deliver superior health care
 - Train the next generation of health professionals
 - Discover ways to improve health outcomes worldwide

University of Maryland Medical Center



Downtown Campus



- 800 bed academic medical hospital
- 2.5 million square feet total
 - 2.2 million sqft hospital
- \$14 million on energy bills a year
- 41 FTEs in Facilities Maintenance
- No Boilers

Midtown Campus

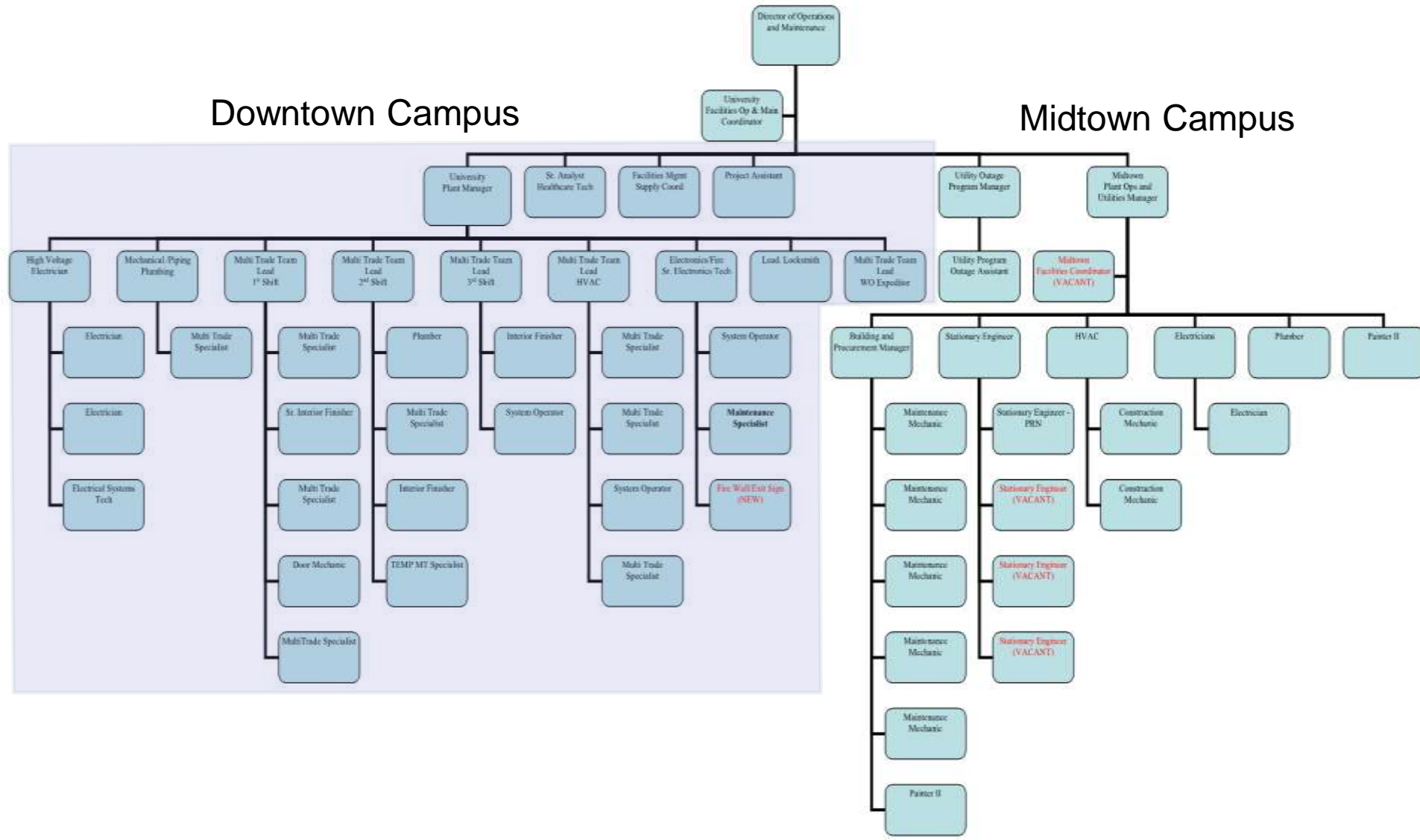


- 200 bed community teaching hospital
- 800,000 square feet total
 - 350,000 sqft hospital
- \$3 million on energy bills a year
- 21 FTEs in Facilities Maintenance
- Boilers

UMMC Facilities Organizational Chart

Downtown Campus

Midtown Campus





Full Time Equivalent Benchmarks

IFMA Benchmarking 2.0 (2010 & 2013)



Adams, T., et al. (2010). Operations and maintenance benchmarks for health care facilities report. International Facility Management Association. Retrieved from <https://facilityexecutive.com/wp-content/uploads/ASHEIFMABenchmark.pdf>

IFMA Benchmarking 2.0 (2010)

Total Maintenance

2009 IFMA study – 1 : 49,000
2010 IFMA study – 1 : 31,000

“The complexity of hospital operations and the continuous hours of operations, it makes sense that the ratio reflects a higher level of staffing.”

Total Maintenance Staff		
Facility Size (RSF)	N	Number of FTEs
Less than 250,000	38	8.15
250,000 – 500,000	25	15.10
500,001 – 750,000	25	20.86
750,001 – 1,000,000	15	29.14
1,000,001 – 2,000,000	19	39.52
More than 3,000,000	12	71.10

Institution	N	Total Maintenance Staff
Acute Care	87	22.75
Critical Access	6	7.58
Medical Center	30	34.08
Rehabilitation Center	7	8.25

IFMA Benchmarking 2.0 (2013)

Total Maintenance Staff		
Facility Size (RSF)	N	Number of FTEs
Less than 250,000	49	4.12
250,000 – 500,000	20	14.59
500,001 – 750,000	14	19.73
750,001 – 1,000,000	8	26.00
1,000,001 – 2,000,000	15	46.42
More than 3,000,000	11	83.50

Institution	N	Total Maintenance Staff
Academic or Research	15	63.05
Acute Care	113	11.75
Critical Access	8	4.77
Medical Center	13	26.69

IBM ActionOI

Facility:	University of Maryland Medical Center	Side by Side Report					IBM ActionOI®			
Standard Department:	05001, Plant Operations / Plant Maintenance and Grounds	Quarterly Period - 4Q 2018								
Department:	Plant Operations and Maintenance									
Compared to:	UMMC Compare Group									
	Host Value	Alphabetical Display								
			Barnes - Jewish Hosp - 0065005, PLANT	Baystate MC - Plant Operation	BSWH BUMC - 81906-Fac Ops	Cedars-Sinai - Plant/Ops/Grnds	Emory Univ - Facilities Mgmt	Froedtert Mem - Plant Operation	Harborview Med - 8436, ENGINEERI	Johns Hopkins Hosp - PLANT OPS/MAINT
Measure	4Q 2018	AU Health (MCG) - Plant Ops								
Dept Operating Statistics										
Gross Square Feet Maintained	2,253,700.00	3,065,405.00	4,686,866.00	3,329,835.00	3,674,527.00	2,980,000.00	2,288,000.00	3,071,294.00	3,052,723.00	6,993,036.00

Trend and Compare Group: **Major Teaching**

Labor Productivity Ratio: **Hours Worked per 1000 Gross Feet Maintained**

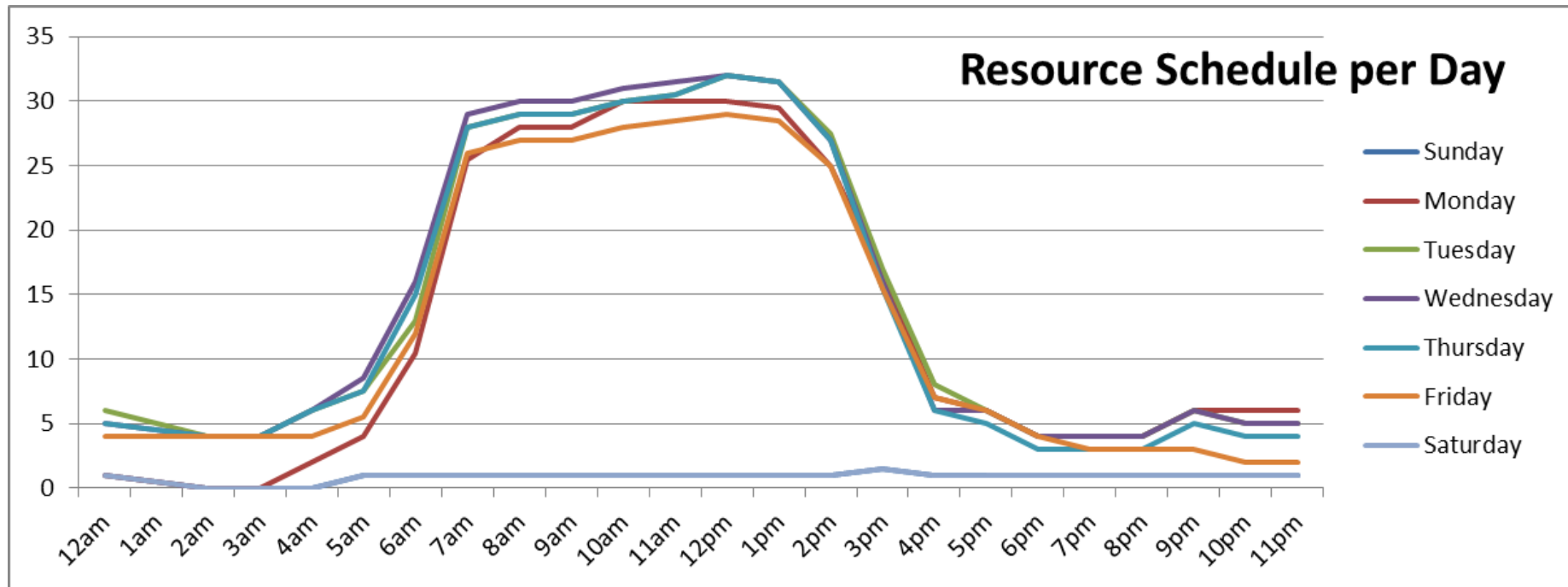
- **Downtown**
 - Paid FTEs: 43.89
 - Opportunity at 75th Percentile: **0.5 FTE**
- **Midtown**
 - 1000 Gross Square Feet Maintained: 792.16
 - Paid FTEs: 24.22
 - Opportunity at 75th Percentile: **2.82 FTE**

Comparison

Downtown - Academic		
Data	FTEs	Staffing Ratio
Current State	43.89	1 : 51,348
IFMA 2010	39.52	1 : 57,026
IFMA 2013	46.42	1 : 48,550
ActionOI	43.39	1 : 51,941
AVERAGE	43.25	1 : 52,216

Midtown – Medical Center		
Data	FTEs	Staffing Ratio
Current State	24.22	1 : 32,707
IFMA 2010	29.14	1 : 27,185
IFMA 2013	26.00	1 : 30,468
ActionOI	21.40	1 : 37,017
AVERAGE	25.19	1 : 31,844

Evaluation of Team





Looking into the Future

Department of Labor Projections

Occupations with the most job growth, 2016 and projected 2026 (Numbers in thousands)						
2016 National Employment Matrix title and code		Employment		Change, 2016-26		Median annual wage, 2017 ⁽¹⁾
		2016	2026	Number	Percent	
Total, all occupations	00-0000	156,063.8	167,582.3	11,518.6	7.4	\$37,690
Home health aides	31-1011	911.5	1,342.7	431.2	47.3	\$23,210
Personal care aides	39-9021	2,016.1	2,793.8	777.6	38.6	\$23,100
Software developers, applications	15-1132	831.3	1,086.6	255.4	30.7	\$101,790
Medical assistants	31-9092	634.4	818.4	183.9	29.0	\$32,480
Market research analysts and marketing specialists	13-1161	595.4	733.7	138.3	23.2	\$63,230
Medical secretaries	43-6013	574.2	703.2	129.0	22.5	\$34,610
Financial managers	11-3031	580.4	689.0	108.6	18.7	\$125,080
Combined food preparation and serving workers, including fast food	35-3021	3,452.2	4,032.1	579.9	16.8	\$20,180
Registered nurses	29-1141	2,955.2	3,393.2	438.1	14.8	\$70,000
Management analysts	13-1111	806.4	921.6	115.2	14.3	\$82,450
Construction laborers	47-2061	1,216.7	1,367.1	150.4	12.4	\$34,530
Licensed practical and licensed vocational nurses	29-2061	724.5	813.4	88.9	12.3	\$45,030
Cooks, restaurant	35-2014	1,231.9	1,377.2	145.3	11.8	\$25,180
Nursing assistants	31-1014	1,510.3	1,683.7	173.4	11.5	\$27,520
Landscaping and groundskeeping workers	37-3011	1,197.9	1,333.1	135.2	11.3	\$27,670
Accountants and auditors	13-2011	1,397.7	1,537.6	139.9	10.0	\$69,350
Janitors and cleaners, except maids and housekeeping cleaners	37-2011	2,384.6	2,621.2	236.5	9.9	\$24,990
Teachers and instructors, all other	25-3099	993.9	1,091.8	98.0	9.9	\$30,310
Sales representatives, services, all other	41-3099	983.0	1,077.9	94.9	9.7	\$52,510
General and operations managers	11-1021	2,263.1	2,468.3	205.2	9.1	\$100,410
Receptionists and information clerks	43-4171	1,053.7	1,149.2	95.5	9.1	\$28,390
Business operations specialists, all other	13-1199	1,023.9	1,114.3	90.3	8.8	\$70,010
Teacher assistants	25-9041	1,308.1	1,417.6	109.5	8.4	\$26,260
Maintenance and repair workers, general	49-9071	1,432.6	1,545.1	112.5	7.9	\$37,670
Laborers and freight, stock, and material movers, hand	53-7062	2,628.4	2,828.1	199.7	7.6	\$27,040
Elementary school teachers, except special education	25-2021	1,410.9	1,514.9	104.1	7.4	\$57,160
Waiters and waitresses	35-3031	2,600.5	2,783.0	182.5	7.0	\$20,820
Heavy and tractor-trailer truck drivers	53-3032	1,871.7	1,980.1	108.4	5.8	\$42,480
Stock clerks and order fillers	43-5081	2,008.6	2,109.6	100.9	5.0	\$24,470
Customer service representatives	43-4051	2,784.5	2,920.8	136.3	4.9	\$32,890

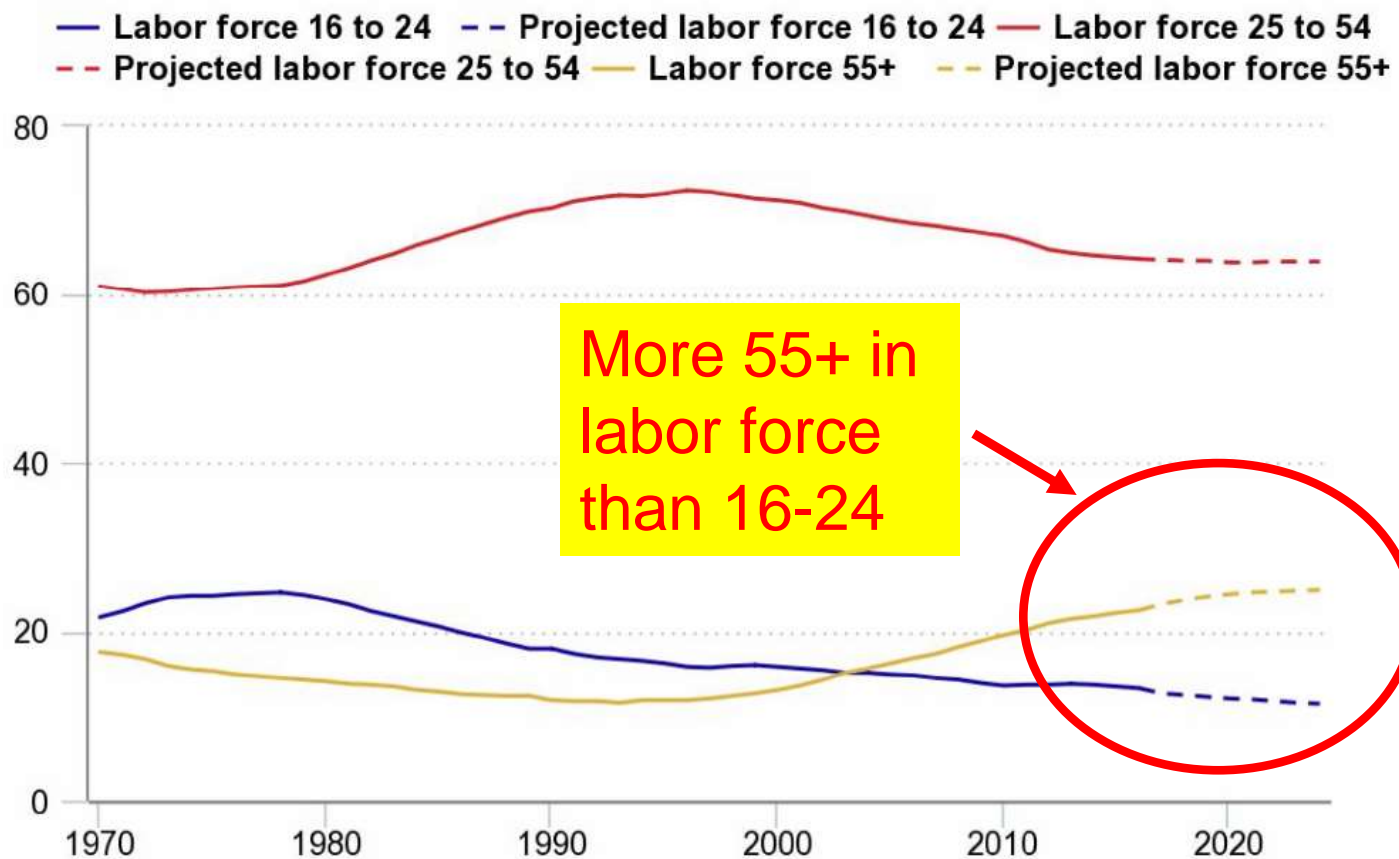
Footnotes:

⁽¹⁾ Data are from the Occupational Employment Statistics program, U.S. Bureau of Labor Statistics. Wage data cover non-farm wage and salary workers and do not cover the self-employed, owners and partners in unincorporated firms, or household workers.

Source: Employment Projections program, U.S. Bureau of Labor Statistics

Labor Force Shares in Next 10 Years

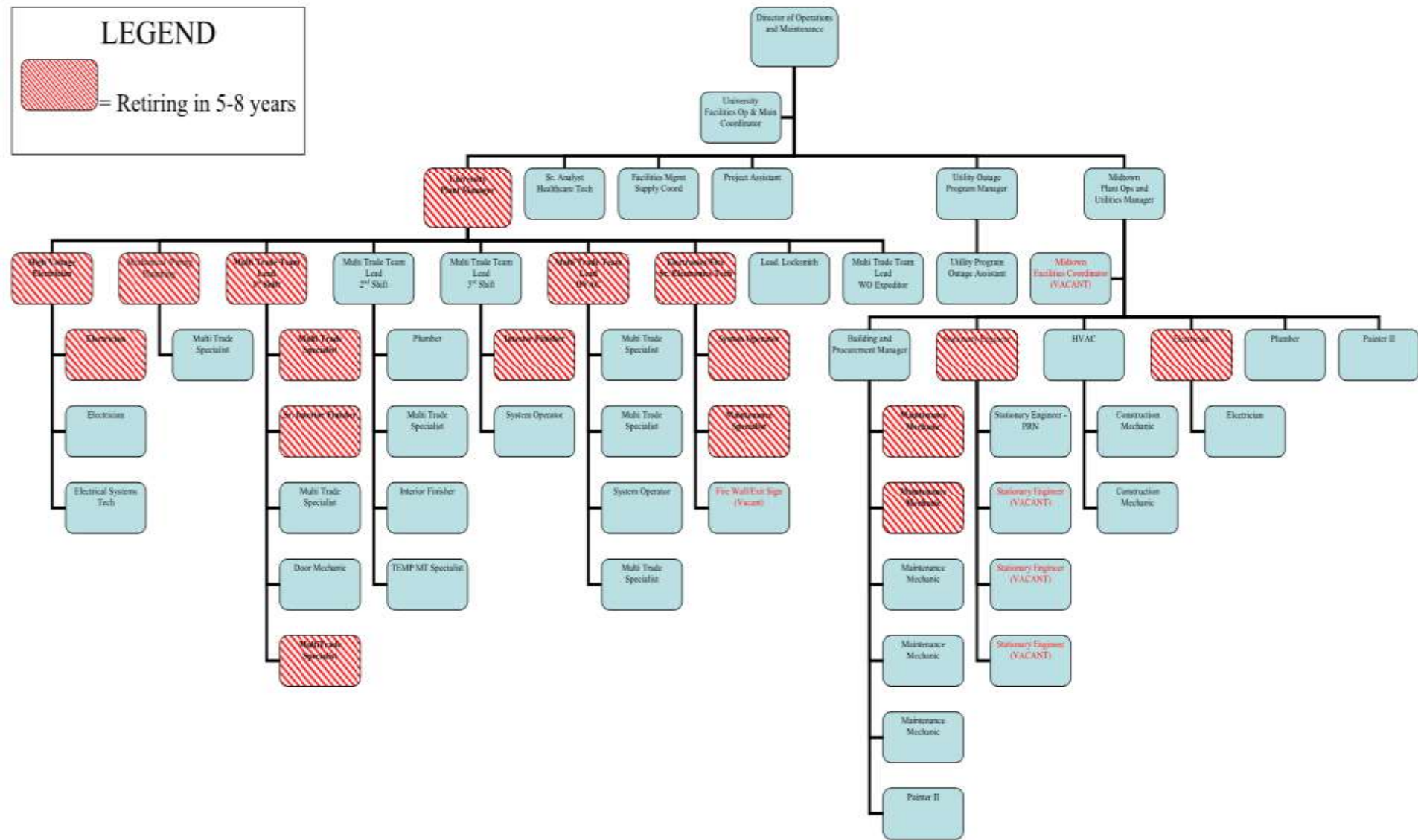
U.S. Labor Force Shares by Age, 1970 to 2014 and Projected 2014 -2024 (percent)



Evaluation of Team

LEGEND

 = Retiring in 5-8 years

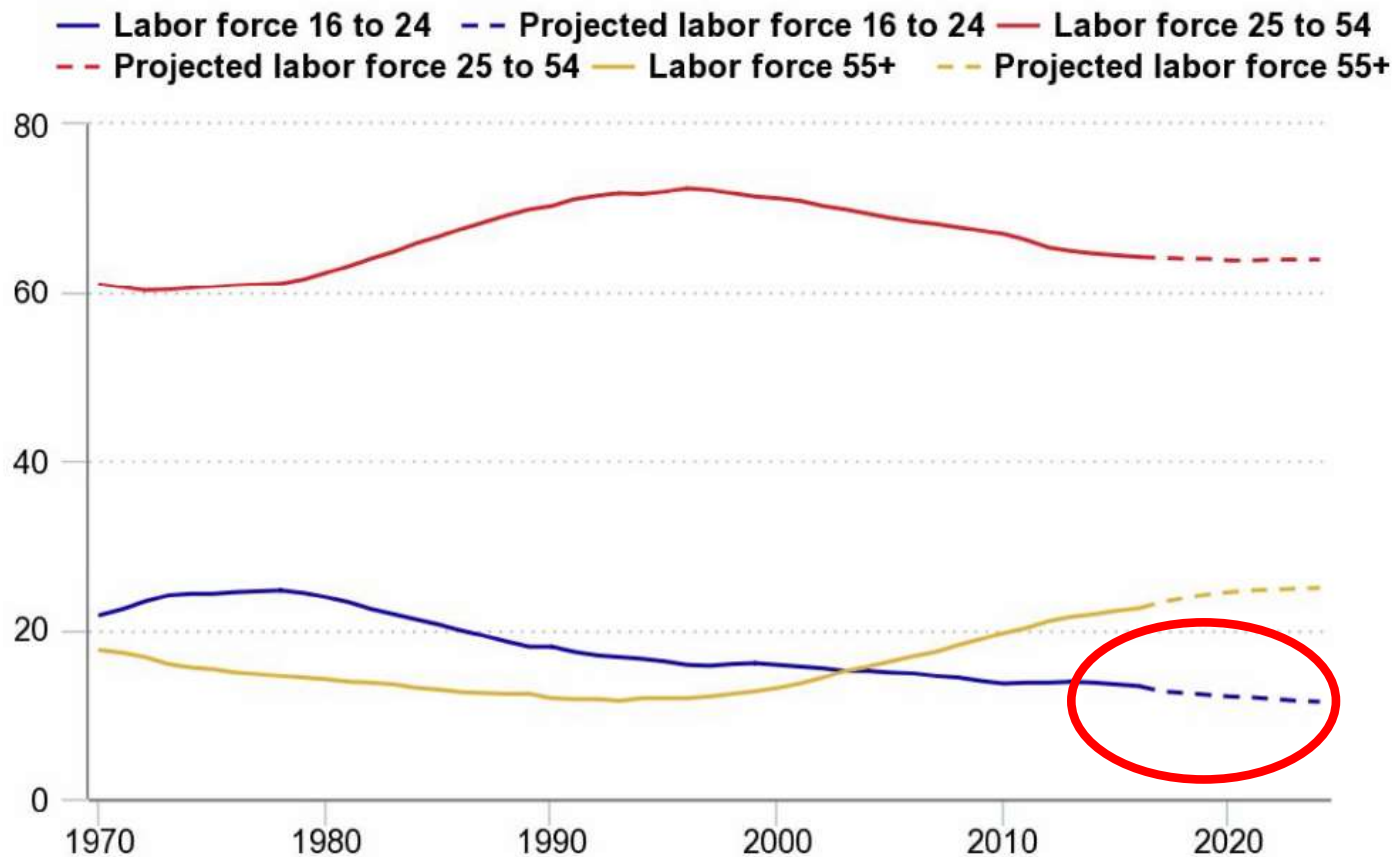


State of the Department

- **28% of the Department nearing Retirement!**
 - Average tenure is 24 Years.
 - Results in an unprecedented increase in turnover.
 - Most leaders are departing soon.
 - Loss of institutional knowledge.
 - No succession plan.
 - No formal career ladder.
 - Highly skilled candidates demand high wages.

How do we attract this segment of the workforce?

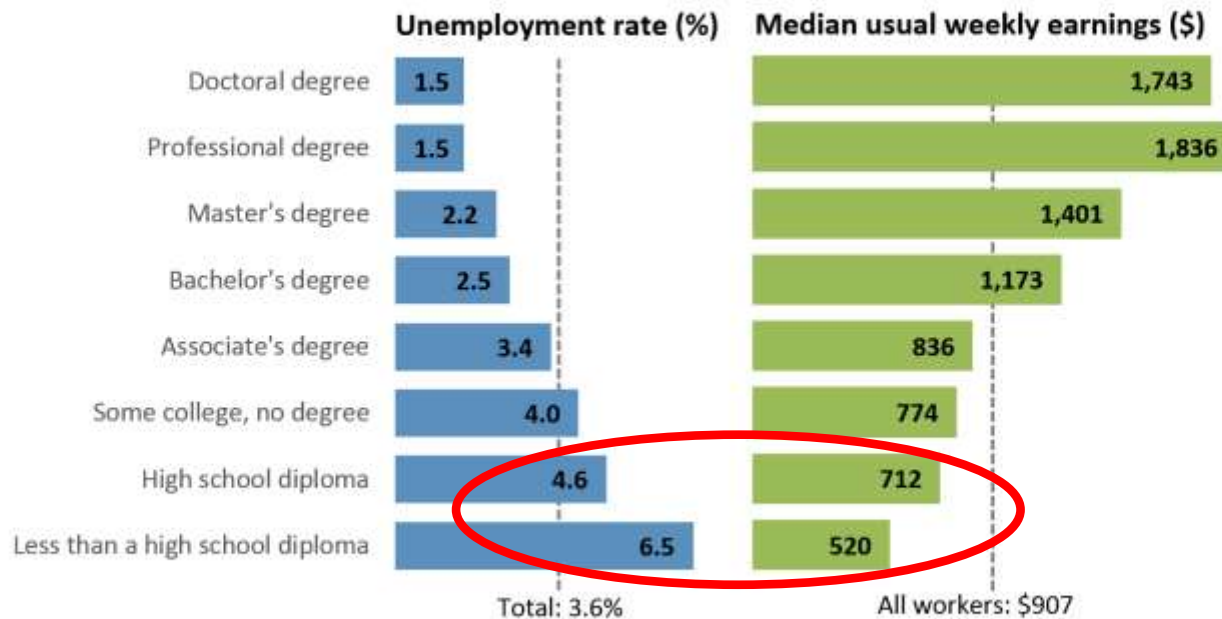
U.S. Labor Force Shares by Age, 1970 to 2014 and Projected 2014 -2024 (percent)



Source: U.S. Bureau of Labor Statistics

Population Health: Reduce the Unemployment Rate?

Unemployment rates and earnings by educational attainment, 2017



Note: Data are for persons age 25 and over. Earnings are for full-time wage and salary workers.
Source: U.S. Bureau of Labor Statistics, Current Population Survey.



QUESTIONS?