



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**

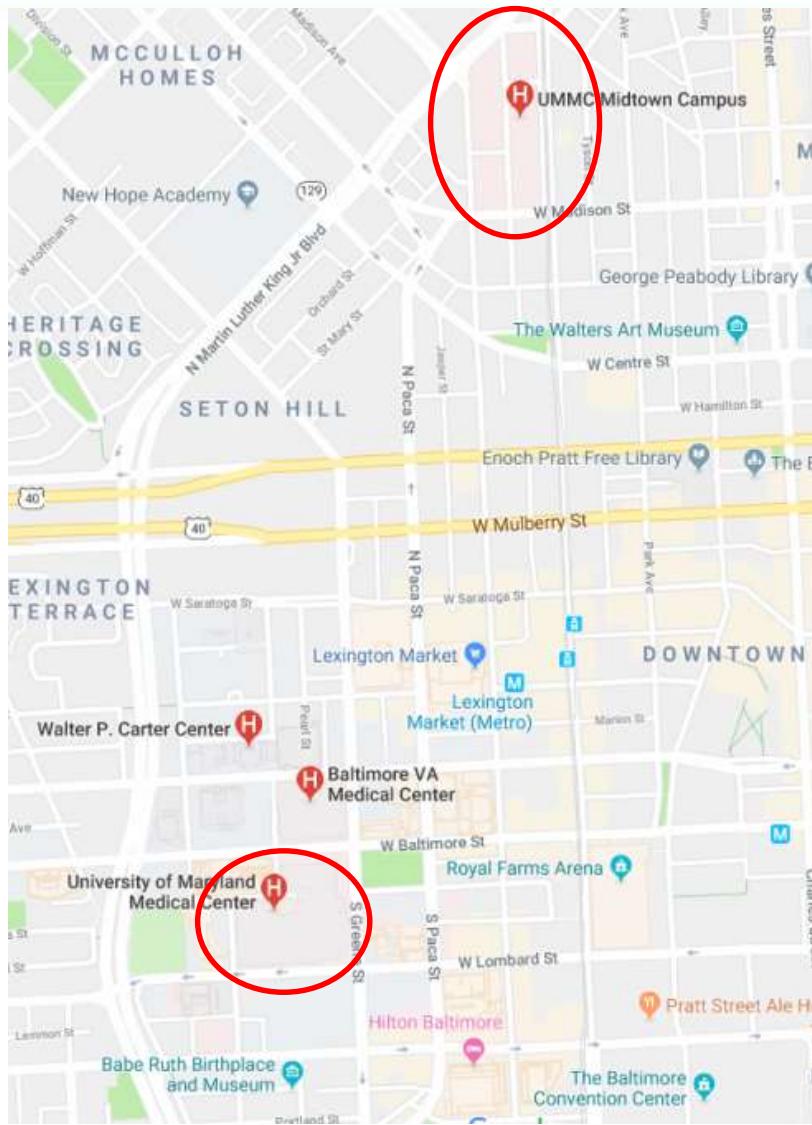
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Director of Operations and Maintenance

# 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

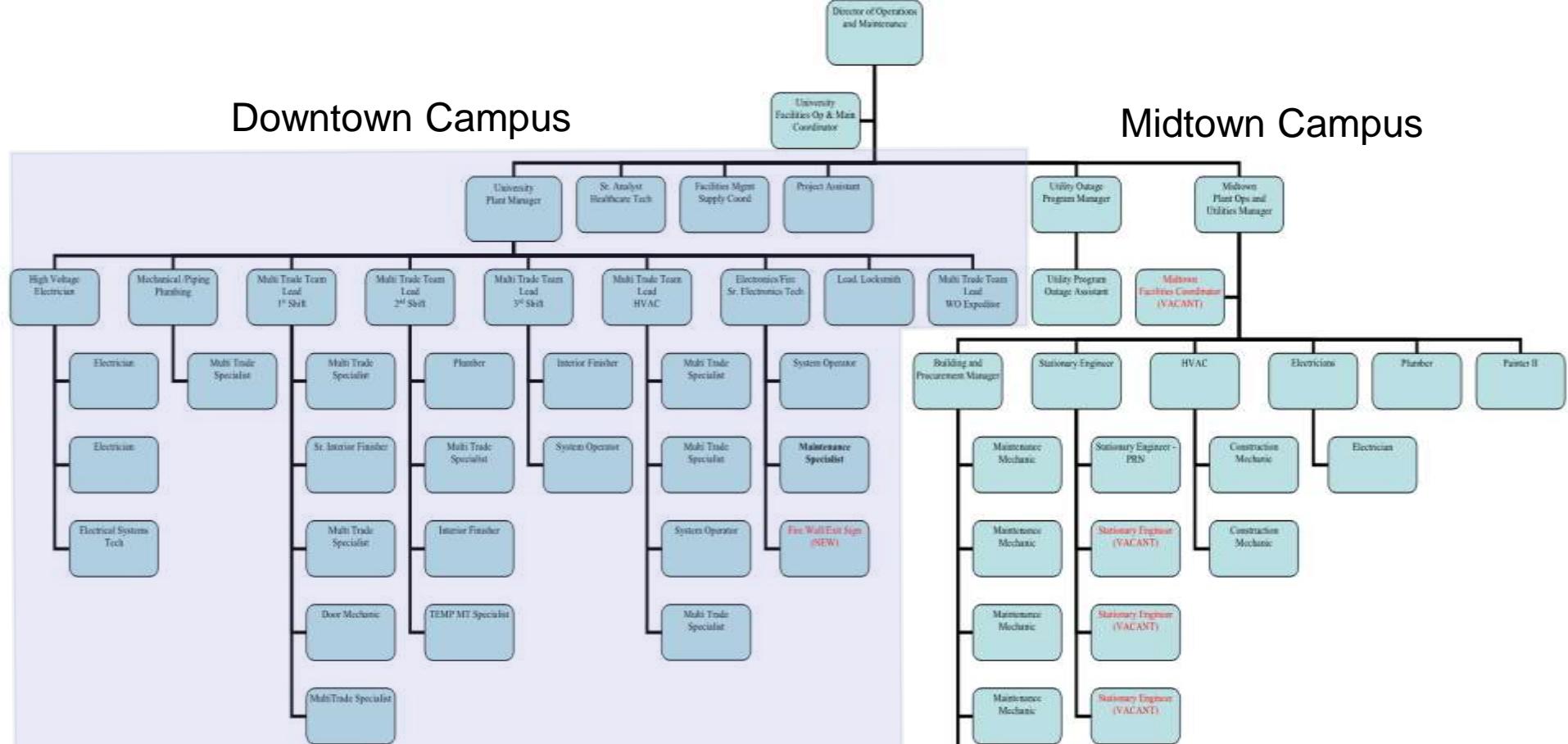
# Midtown Campus



- 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

Facility:	University of Maryland Medical Center	Side by Side Report								IBM ActionOI®				
Standard Department:	05001, Plant Operations / Plant Maintenance and Grounds													
Department:	Plant Operations and Maintenance	Quarterly Period - 4Q 2018												
Compared to:	UMMC Compare Group													
		Host Value												
		Alphabetical Display												
Measure	4Q 2018	AU	Barnes - Jewish Hosp	Baystate	BSWH BUMC	Cedars-Sinai	Emory Univ	Froedtert	Harborview	Johns Hopkins Hosp				
		Health (MCG) - Plant Ops	- 0065005, PLANT	MC - Plant Operation	- 81906-Fac Ops	- Plant/Ops/Gndrs	- Facilities Mgmt	Mem - Plant Operation	Med - 8436, ENGINEERI	- PLANT OPS/MAINT				
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

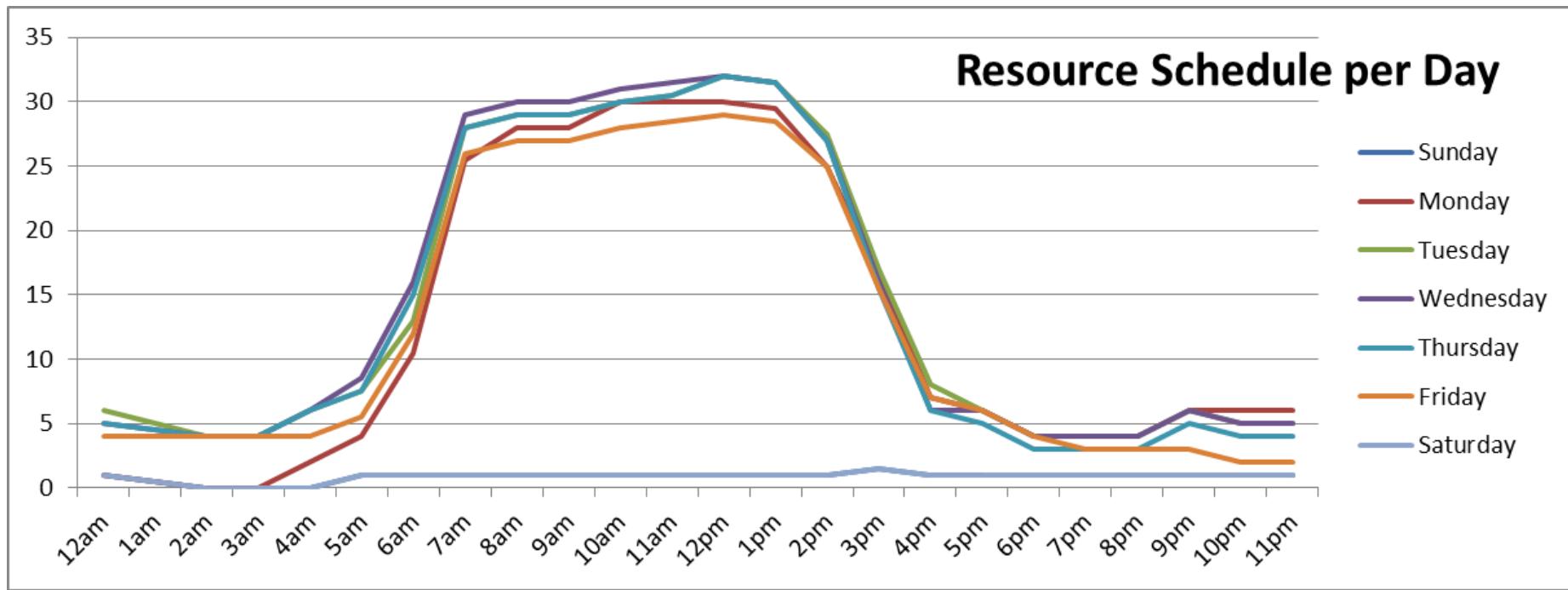
- **Downtown**
  - Paid FTEs: 43.89
  - Opportunity at 75<sup>th</sup> Percentile: **0.5 FTE**
- **Midtown**
  - 1000 Gross Square Feet Maintained: 792.16
  - Paid FTEs: 24.22
  - Opportunity at 75<sup>th</sup> Percentile: **2.82 FTE**

# Comparison

<b>Downtown - Academic</b>		
<b>Data</b>	<b>FTEs</b>	<b>Staffing Ratio</b>
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
<b>AVERAGE</b>	<b>43.25</b>	<b>1 : 52,216</b>

<b>Midtown – Medical Center</b>		
<b>Data</b>	<b>FTEs</b>	<b>Staffing Ratio</b>
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
<b>AVERAGE</b>	<b>25.19</b>	<b>1 : 31,844</b>

# 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 <sup>(1)</sup>	
	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
<b>Maintenance and repair workers, general</b>	<b>49-9071</b>	<b>1,432.6</b>	<b>1,545.1</b>	<b>112.5</b>	<b>7.9</b>	<b>\$37,670</b>
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

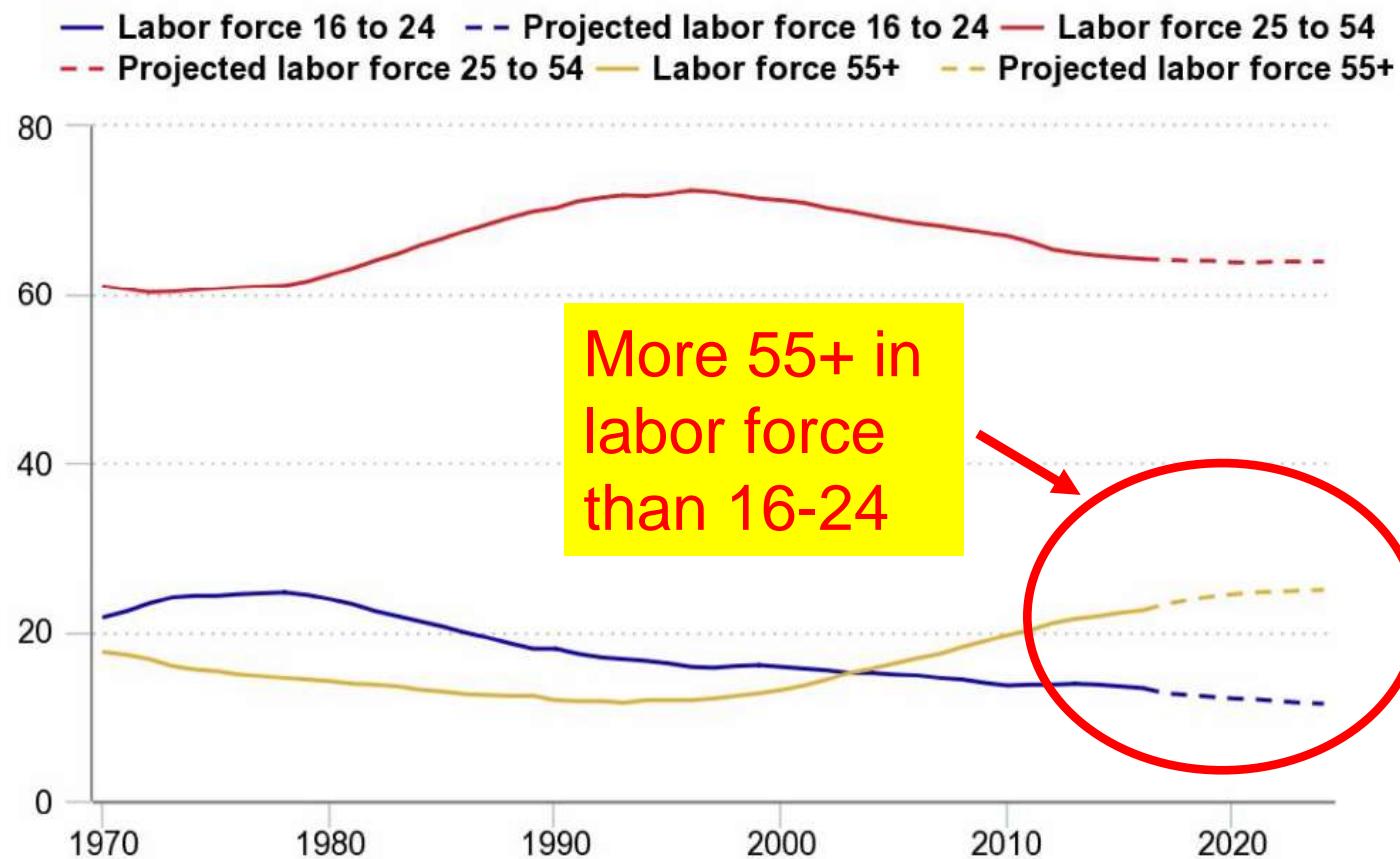
Footnotes:

<sup>(1)</sup> 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

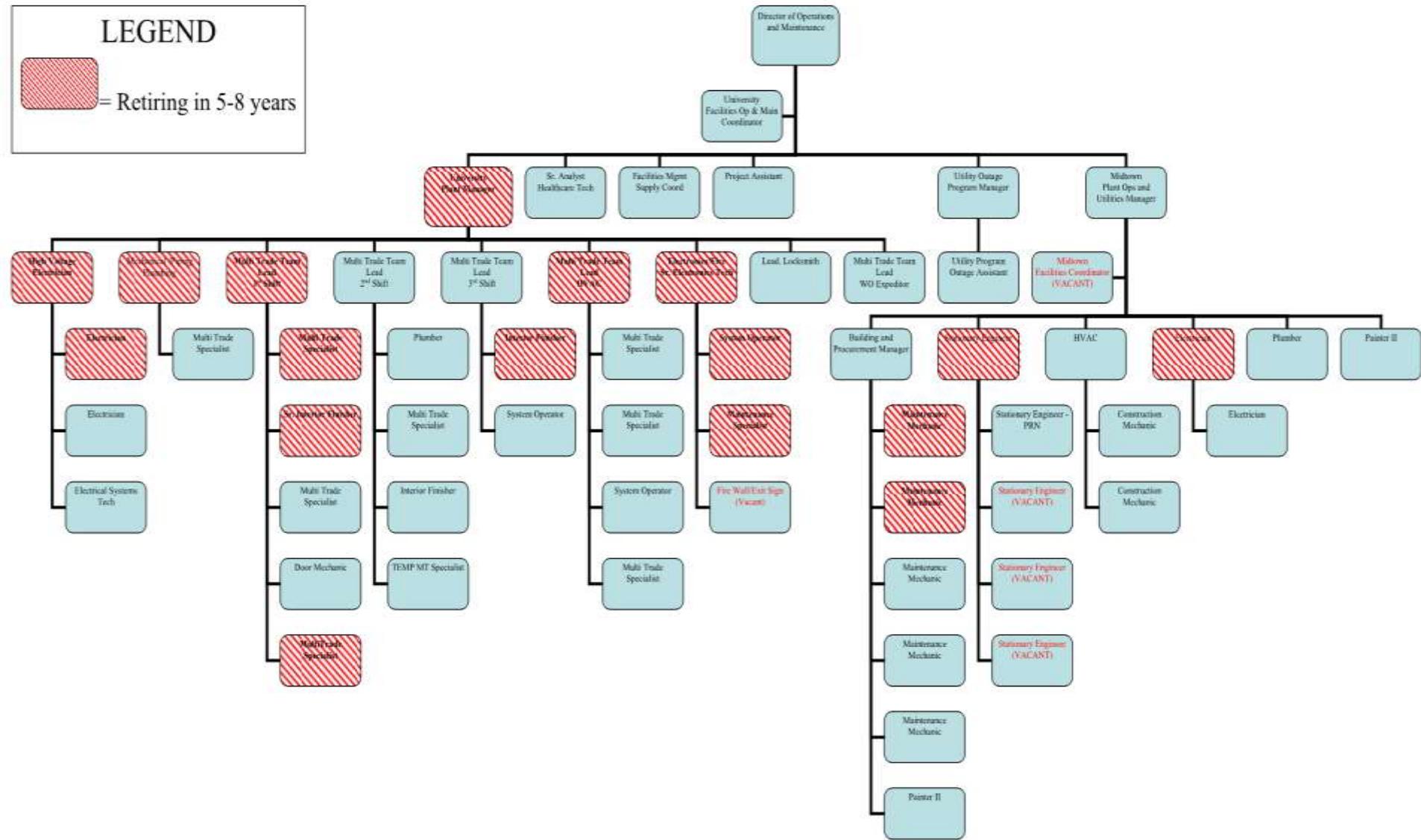
U.S. Labor Force Shares by Age, 1970 to 2014 and Projected 2014 -2024 (percent)



## Evaluation of Team

## LEGEND

◻ = Retiring in 5-8 years

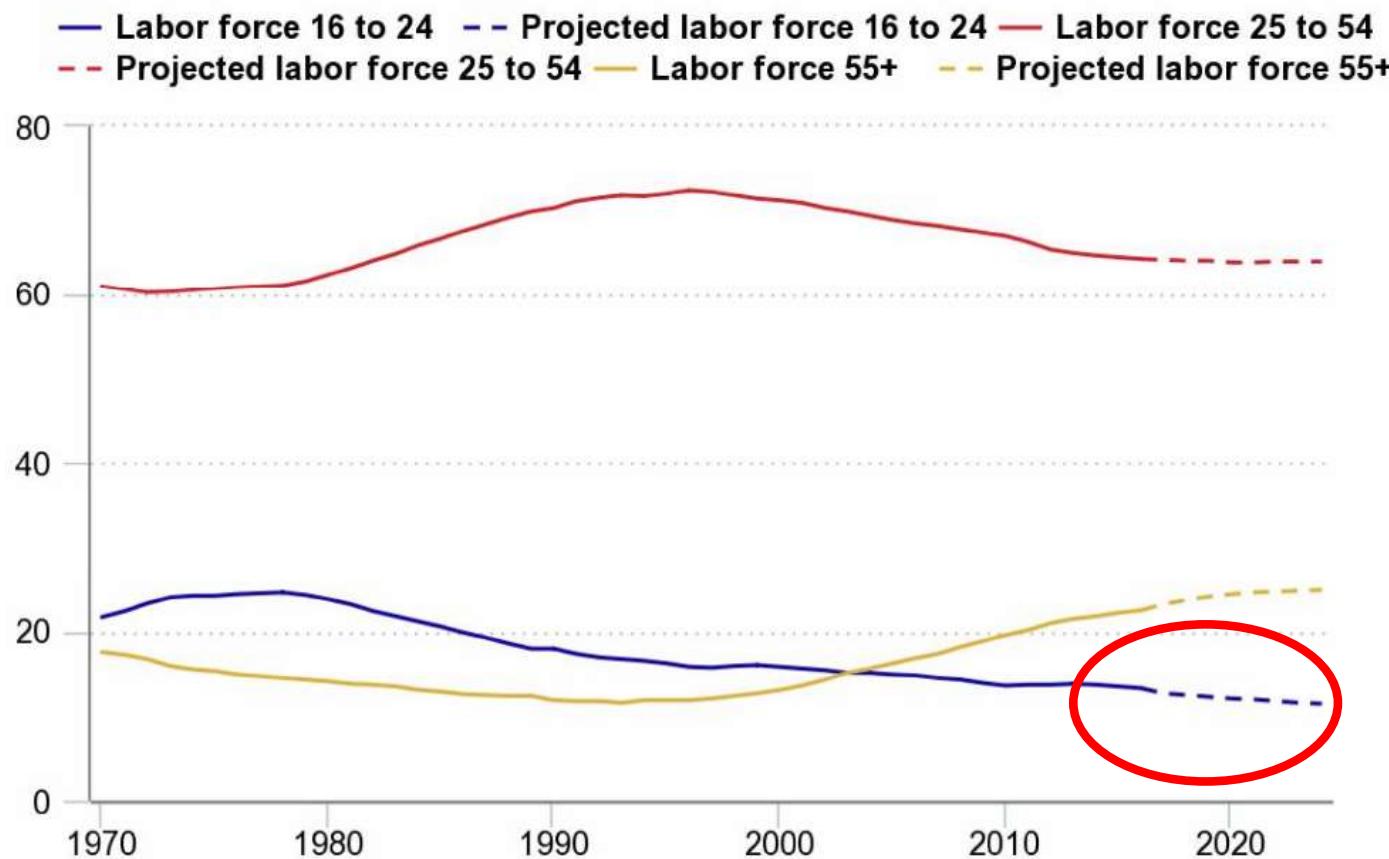


# State of the Department

- **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?

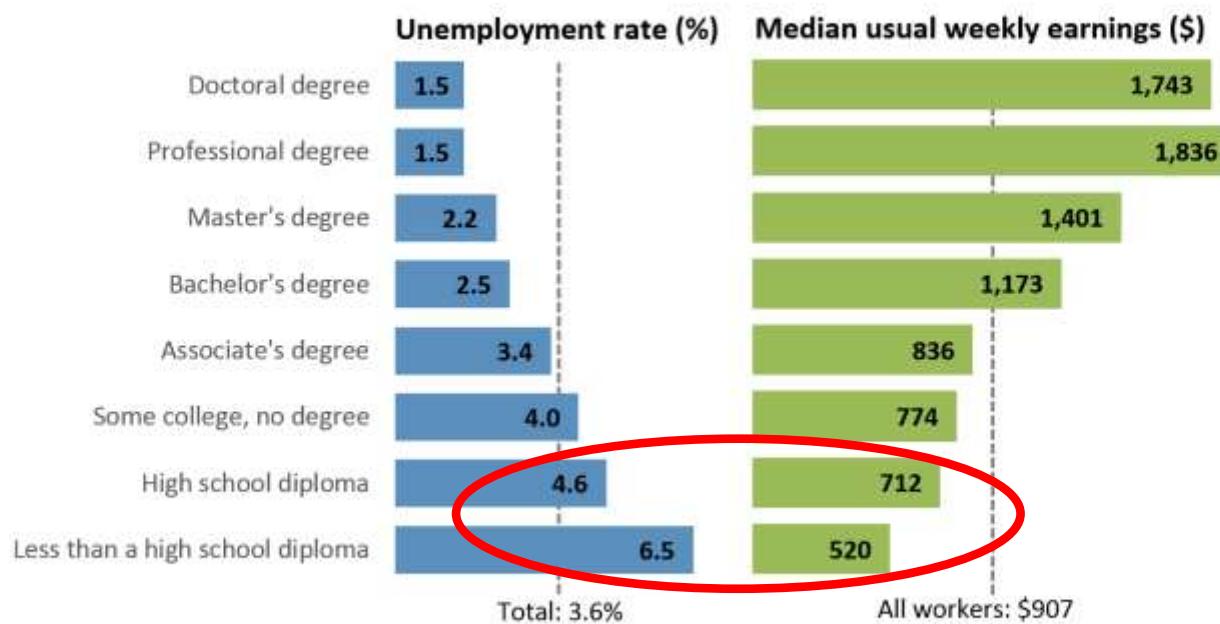
U.S. Labor Force Shares by Age, 1970 to 2014 and Projected 2014 -2024 (percent)



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?