



Massachusetts Department of Public Health

Bureau of Substance Addiction Services Treatment Program Workforce Data Update Boston Region

FY 2016 - 2023

BSAS & DMA Health Strategies
Workforce Development Teams

Introduction

BSAS analyzes Treatment System Program Staff information in order to monitor workforce trends. This presentation offers Statewide analysis with comparison to the Boston Region.*

Section	Slide Number
Project Background and Limitations	3
Section 1: Program and Staffing Trends	5
Section 2: Retention	12
Section 3: Staff Characteristics	21
Section 4: Income	31
Section 5: Turnover Cost Model	38
General Takeaways	42
BSAS Workforce Initiatives	43

*Additional presentations available:

- Statewide
- Each BSAS region



Boston Region

To use this information for your own presentation, policy or program development, please contact Jen Parks at BSAS (refer to slide 49).

Background

Purpose:

To describe workforce trends in the BSAS Treatment System (not including other BSAS services such as Prevention, Harm Reduction, or Recovery Support Services)

Data source:

Data retrieved from program licensure renewal applications submitted via the electronic licensing system administered by BSAS (eLicensing) for Fiscal Years (FY) 2014-2023

- Programs renew licenses every two years
- Some programs renew early or late
 - For analysis purposes only, Reporting Period may be shifted to reflect continuous program operations.

Key Terms:

Position: Role reported for each program, independent of the individual that occupies it.

Staff: Individuals that are listed in an application's "Staff Information" section.

Role: Position Category listed in treatment program regulations 105 CMR 164.00 ("Staff Role Type" in eLicensing).

Reporting Period: A two-year snapshot of application data.

Current Reporting Periods: FY 16/17, FY 18/19, FY 20/21, & FY 22/23

Cohort: People working in the System during a specific Reporting Period. (e.g. Cohort FY 22/23)

Level of Care: High level grouping of treatment types.

Limitations

- eLicensing fields are periodically updated; thus, some data has not been collected for all reporting periods.
- eLicensing only captures BSAS Treatment Programs; other BSAS services such as Recovery Supports, Housing, Harm Reduction, and Prevention, etc. are not included.
- Some free-text responses result in data exclusion.
- All information, including demographics, is reported by program representatives, not individual staff members.
- Some programs renew late or early, causing gaps in reporting despite continuous program operations.
- There is no unique identifier for individual staff in raw data. Programs report staff by name; linking individuals across applications is a manual process.
- Vacancies are not uniformly reported.
- Programs only report on positions required by regulations; programs may employ staff not reported.
- Data only provides a snapshot of program activity; workforce hiring/loss between applications is not captured.

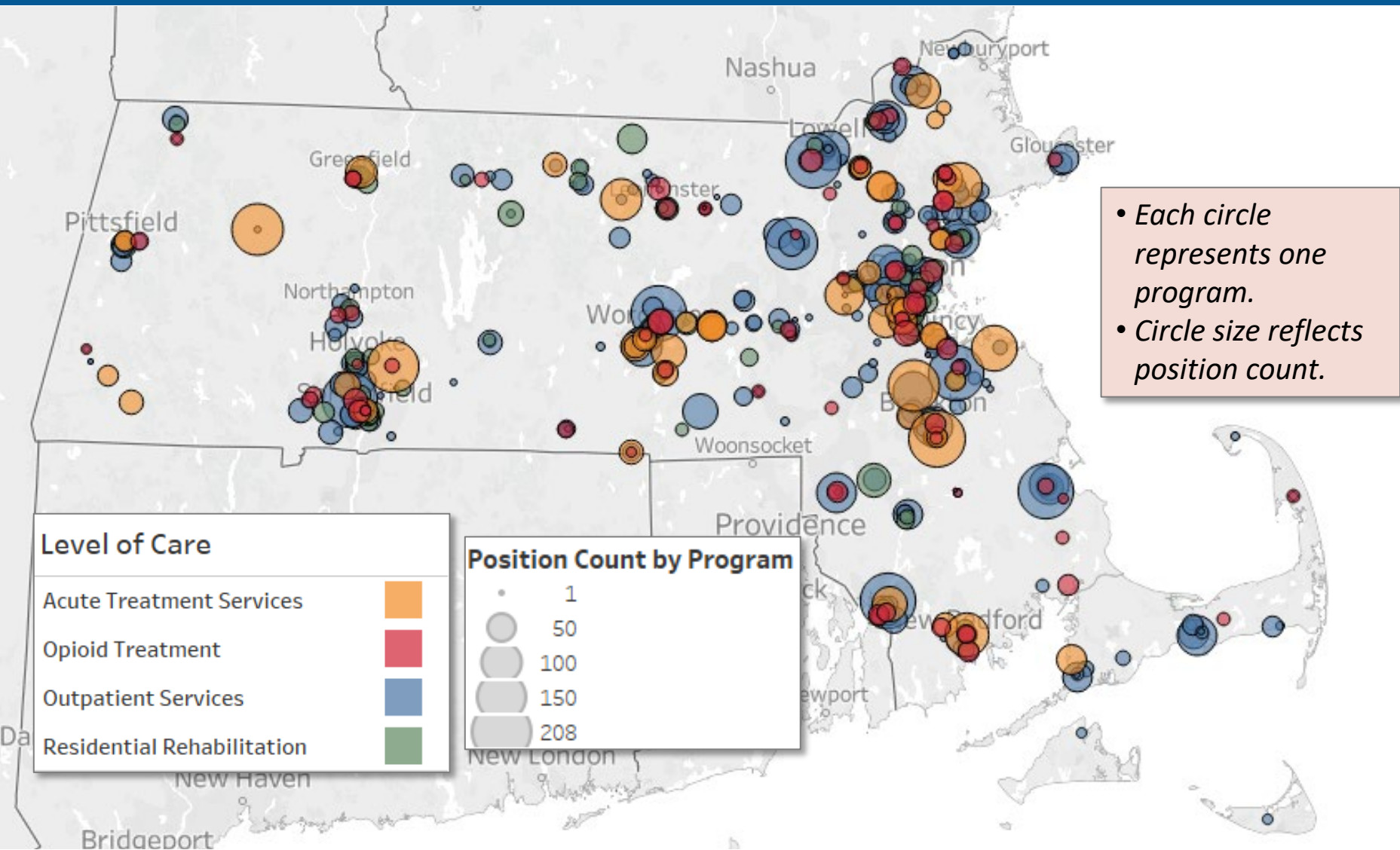
Some sections include specific notes.

Section 1:

Program and Staffing Trends

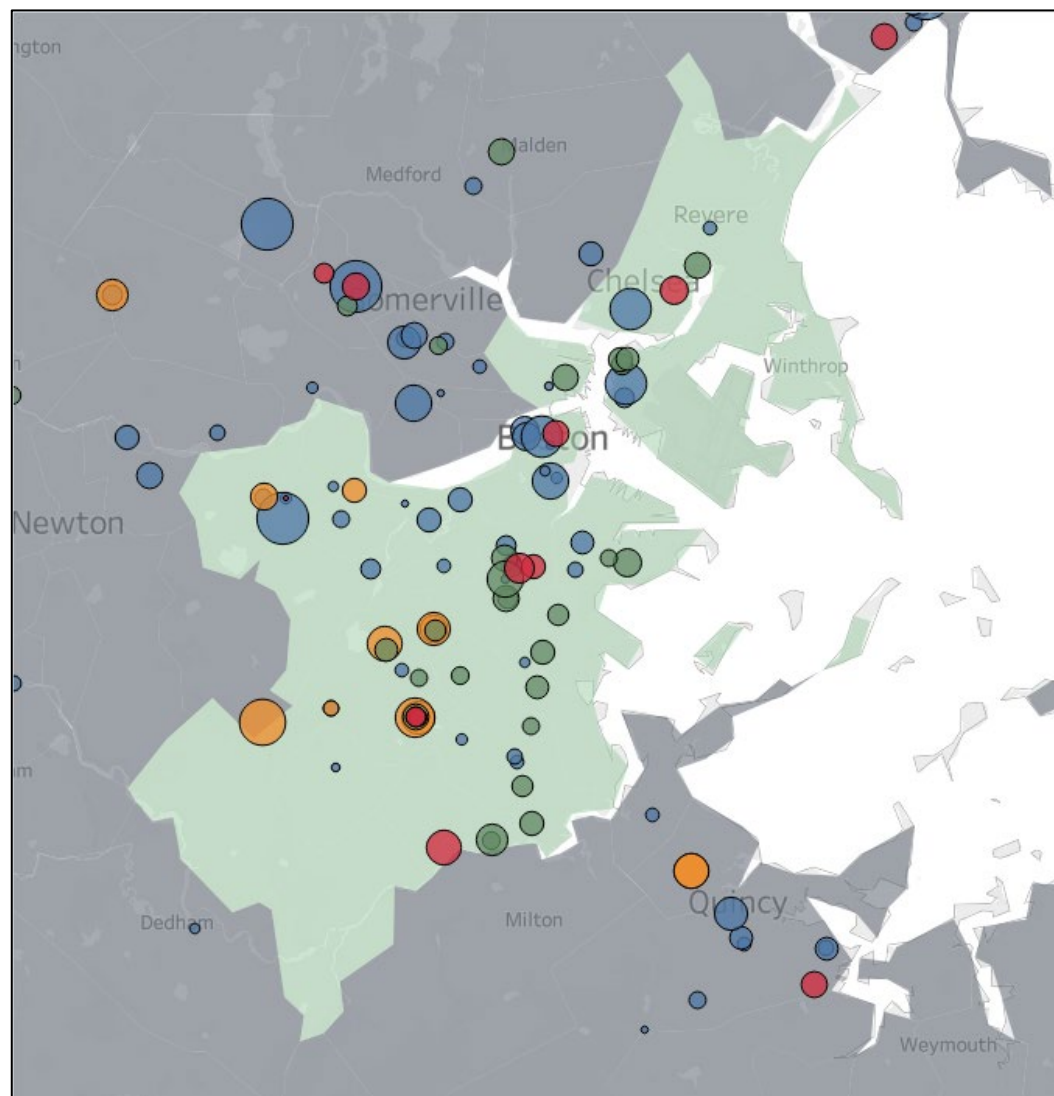


Distribution of Programs by Level of Care (FY 22/23)



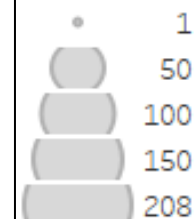
Boston Region Distribution of Programs

by Level of Care (FY 22/23)



- Each circle represents one program.
- Circle size reflects position count.

Position Count by Program

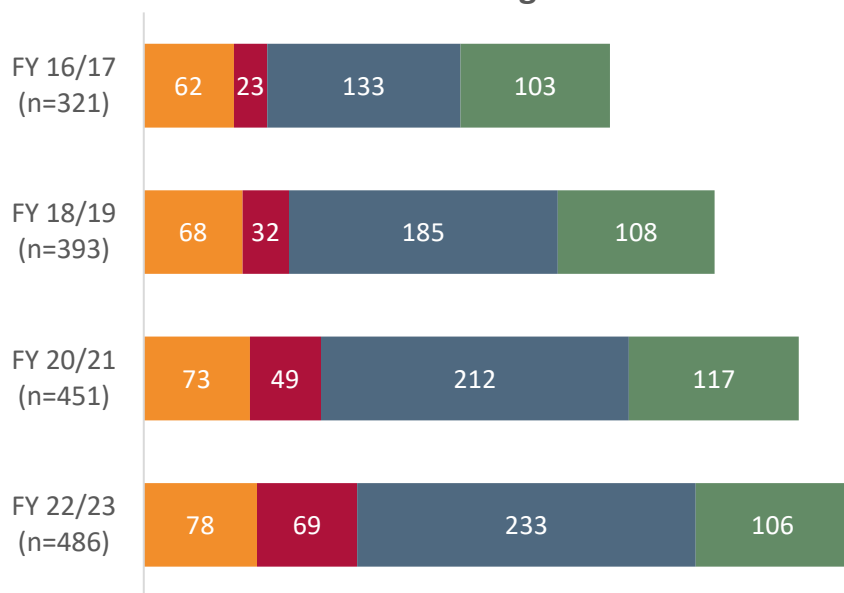


Level of Care

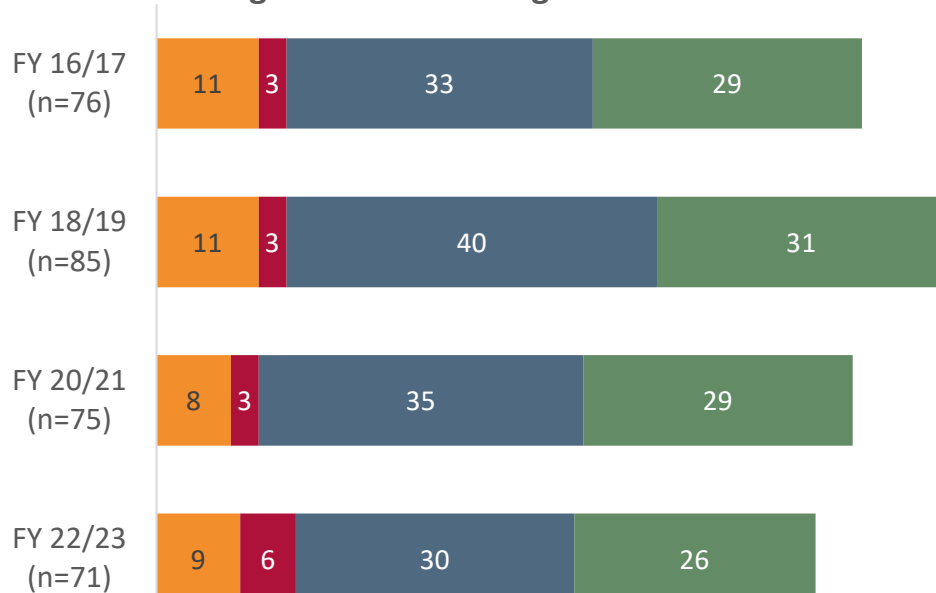
- Acute Treatment Services
- Opioid Treatment
- Outpatient Services
- Residential Rehabilitation

System Landscape

Statewide Historical Program Count



Boston Region Historical Program Count



■ Acute
 ■ Opioid
 ■ Outpatient
 ■ Residential

Statewide, there has been a **51%** overall increase in programs in the Massachusetts Treatment System since FY 16/17, with an average increase of **6%** growth per year.

In the Boston Region, there has been a **6%** decrease in programs since FY 16/17, with an average decrease of **1%** per year.

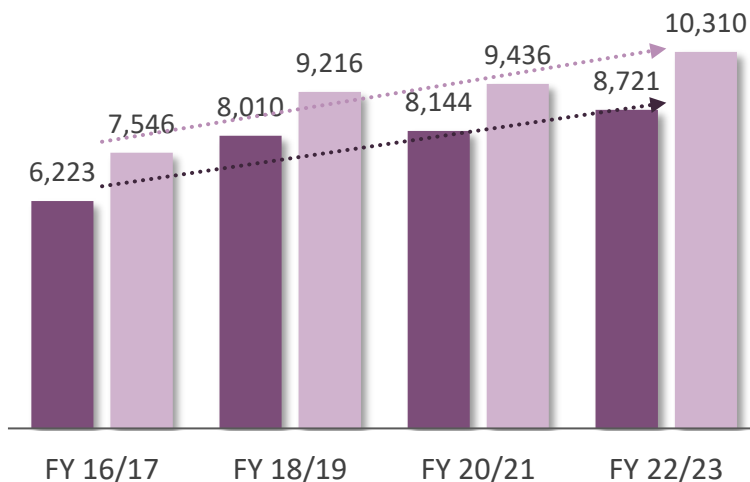
1. Amendments to 105 cmr 164 were promulgated in 2022, reconfiguring how BSAS licenses certain services, which may impact the numbers in this chart.
2. Chart provides count of existing and new programs based on service setting licensure applications approved by BSAS during each time period. During these times, programs opened and closed, creating a variance in counts at any given time.

Charts presented on different scales.

Many factors affect workforce trends; this includes COVID-19 in 2020.

Staff and Position Counts

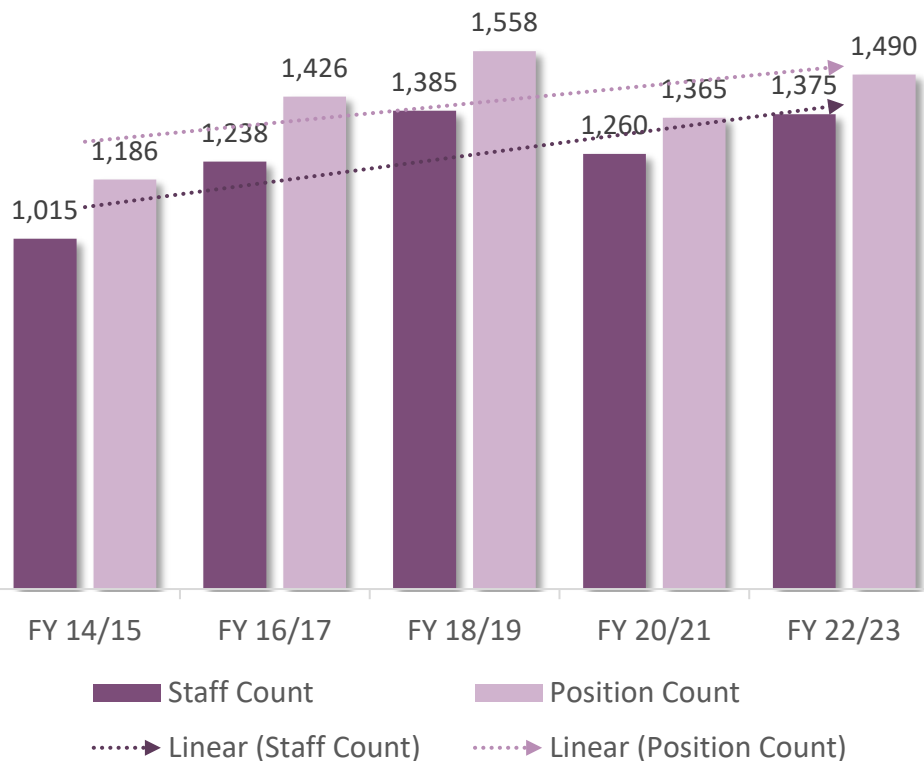
Statewide Staff and Position Counts



Statewide, staff and position growth slowed in FY 20/21 (relative to previous years), and then resumed in FY 22/23.

The Boston Region saw steady growth through FY 18/19, declined in FY 20/21, and had slight growth in FY 22/23.

Boston Region Staff & Position Counts

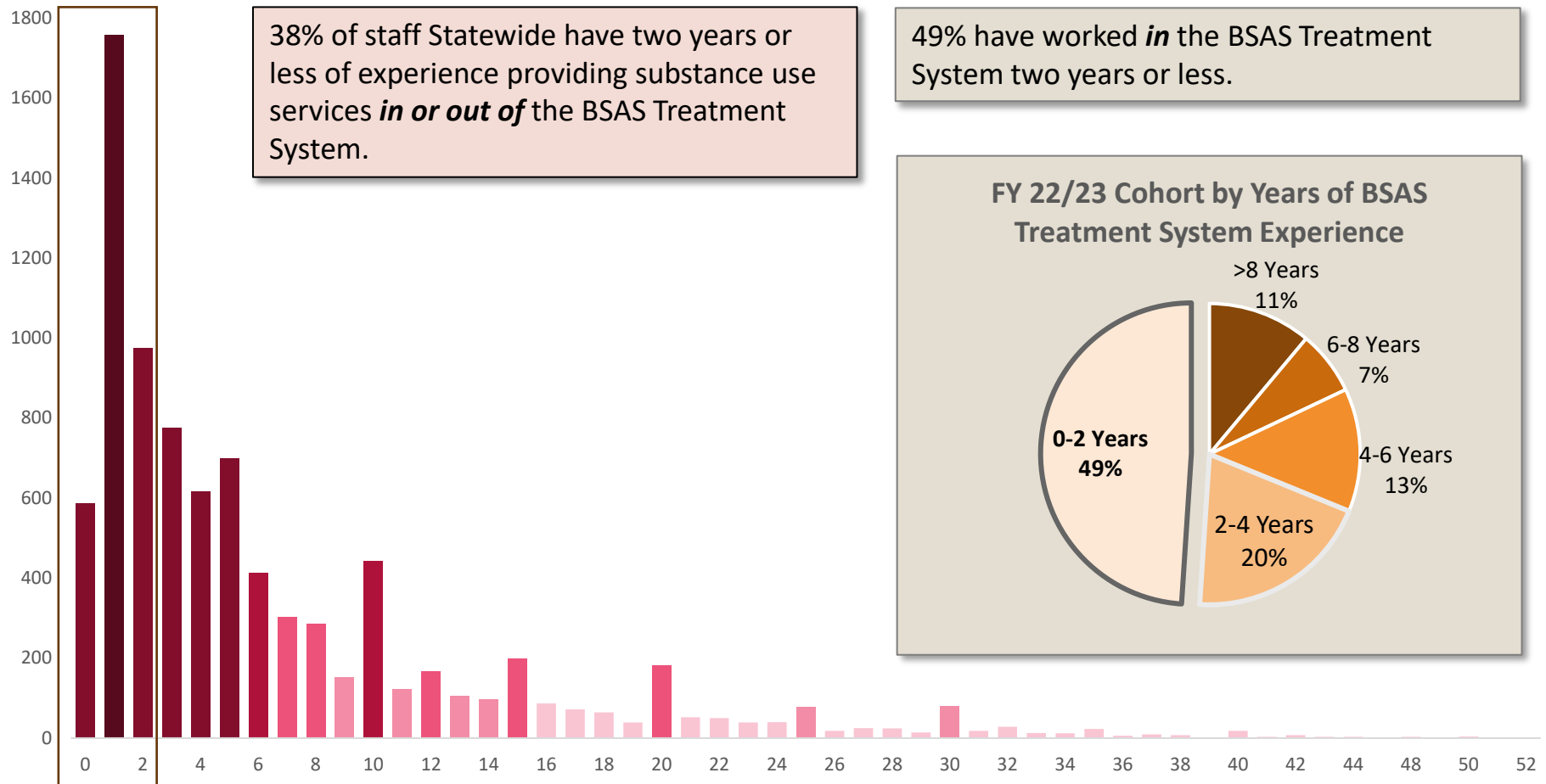


Many factors affect workforce trends; this includes COVID-19 in 2020.

Years of Experience

Providing Substance Use Services

Reported Years of Experience (FY 22/23) (N=8,721)

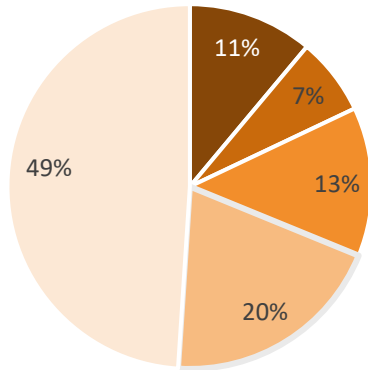


1. Reported Years of Experience (FY 22/23) sourced from eLicensure application data field titled "Years in Addiction Services" from FY 2022 or FY 2023.
2. FY 22/23 Cohort by Years of BSAS Treatment System Experience sourced from ongoing eLicensure application data tracking individuals across applications from FY 2014 through FY 2023.

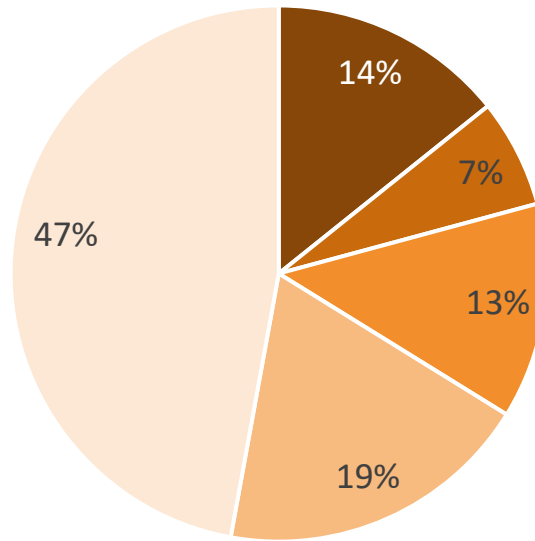
Years of Experience (Boston Region)

Providing Substance Use Services

Statewide FY 22/23 Cohort Composition



Boston Region Cohort Composition
FY 22/23



■ >8 Years ■ 6-8 Years ■ 4-6 Years ■ 2-4 Years ■ 0-2 Years

Slightly less than Statewide, 47% of the Boston Region's staff have worked in the BSAS Treatment System two years or less.

FY 22/23 Cohort by Years of BSAS Treatment System Experience sourced from ongoing eLicensure application data tracking individuals across applications from FY 2014 through FY 2023.

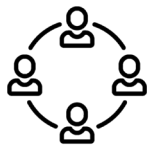
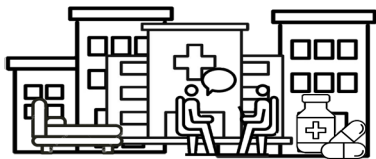
Section 2: Retention



Section 2:

Section-Specific Definitions

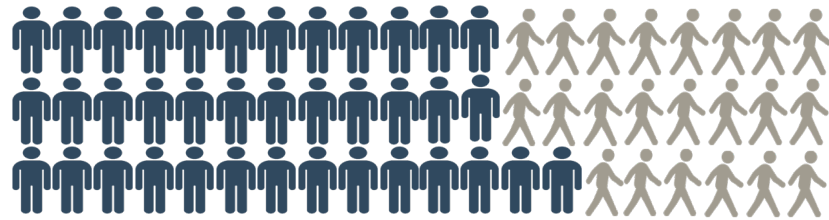
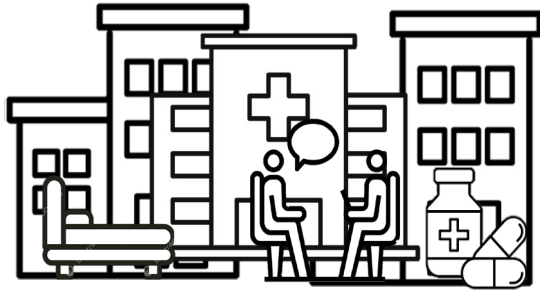
Retention is defined as reporting of a given individual across multiple renewal applications over time.



Retention is analyzed on multiple levels:

- **System Level:** Staff who remain in the BSAS Treatment System (even if they change program or role).
- **Program Level:** Staff who remain in the same Program (averaged across all Programs within the Treatment System).
- **Role Level:** Staff who remain in the System in the same Role (even if they change programs).

System Retention



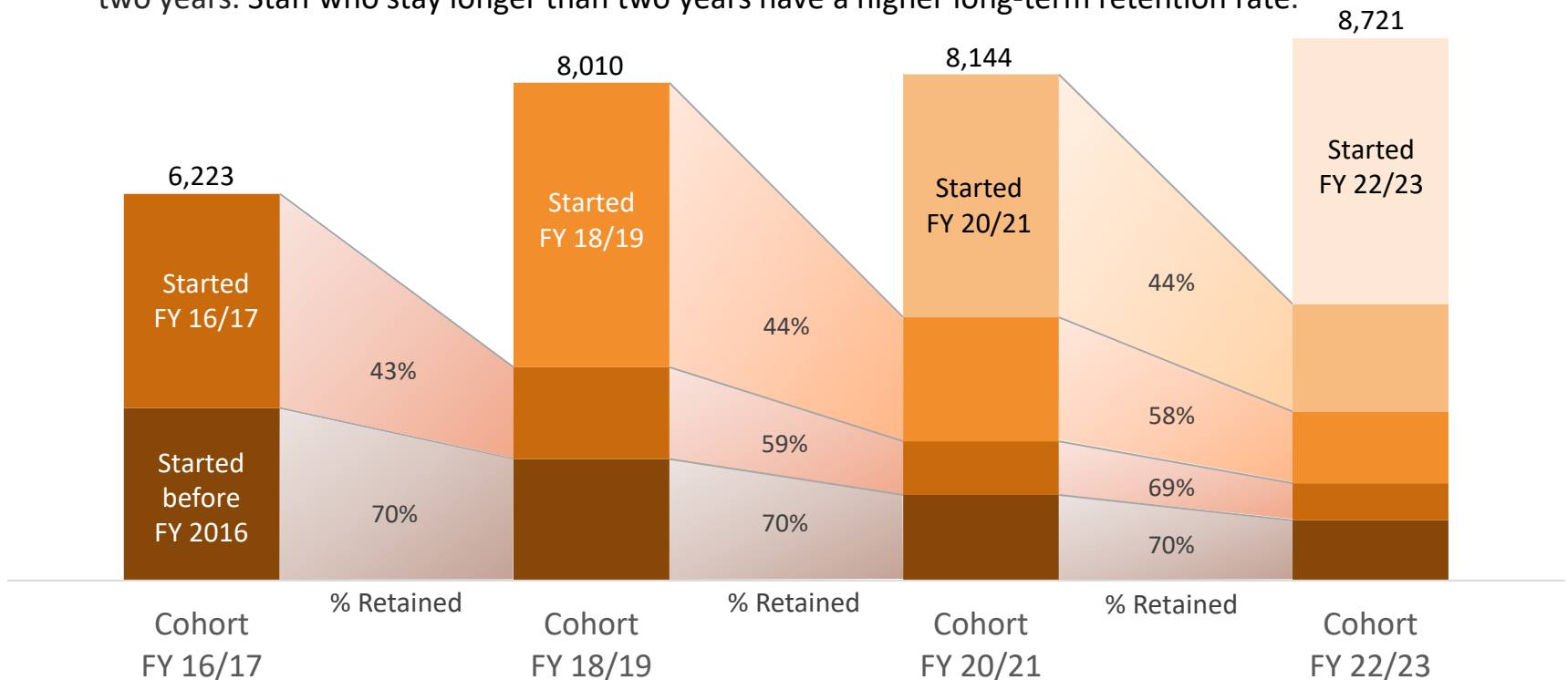
The BSAS Treatment System retained **55%** of staff between FY 20/21 and FY 22/23.

Historical Cohort Composition

Historical Cohort Composition by Start Date

(Overall System Retention: 56%)

While there is overall staff growth across reporting periods, only 44% of new staff are retained beyond two years. Staff who stay longer than two years have a higher long-term retention rate.



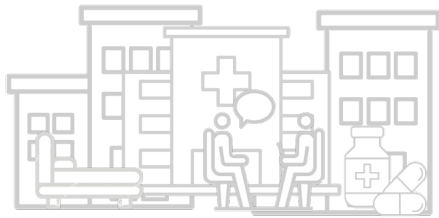
- Almost 50% of the current workforce is new (two years or less in System).
- Staff with six years or more in the System are retained at a higher rate (70%) than staff with two years or less (44%).

Please refer to slide 3 for terminology reference.

Many factors affect workforce trends; this includes COVID-19 in 2020.

System and Program Level Retention

System Level



The BSAS Treatment system retained **55%** of staff between FY 20/21 and FY 22/23.

Program Level



Staff who leave their program may or may not stay in the System.

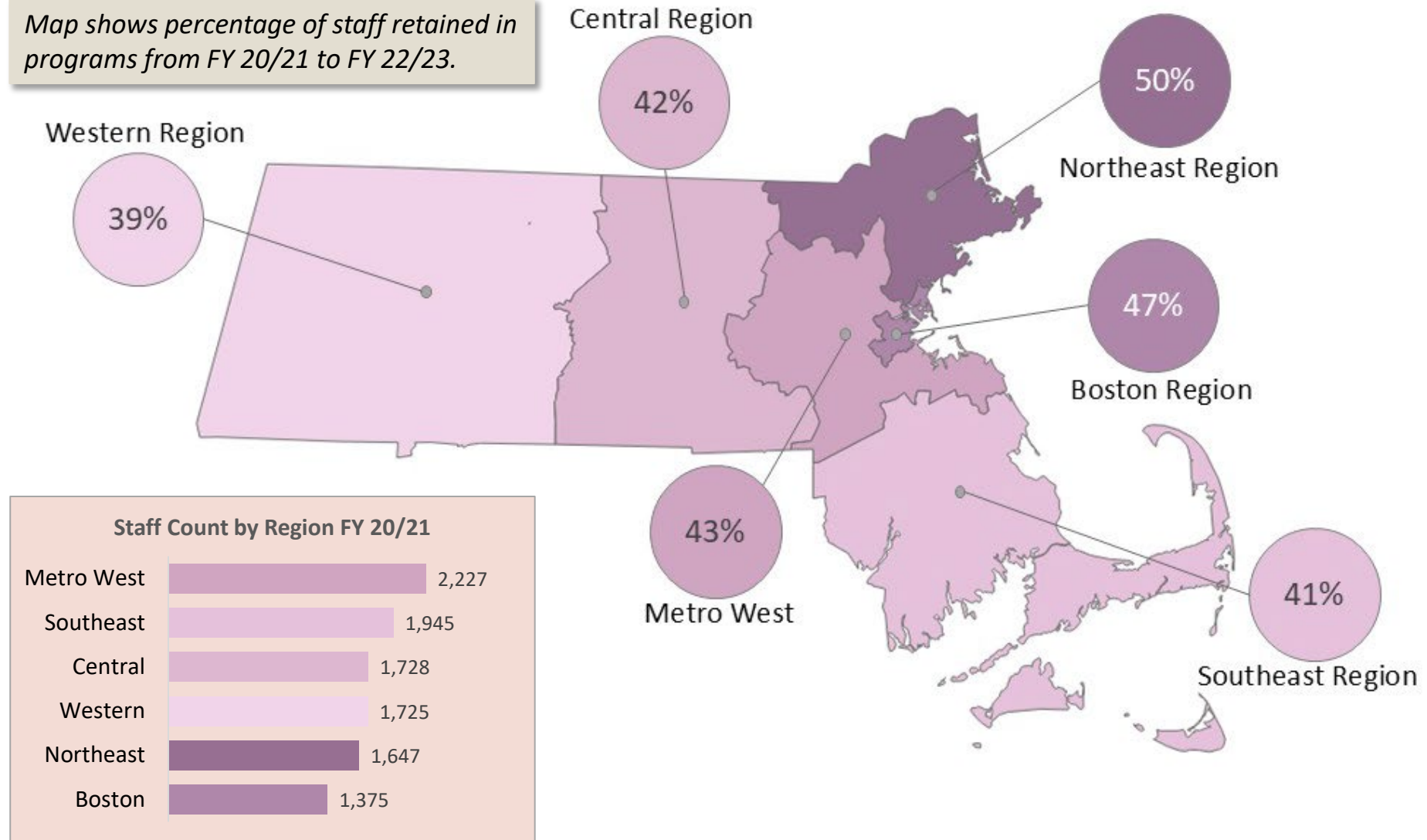


The average program in the BSAS Treatment System retained **41%** of staff between FY 20/21 and FY 22/23.

Program Level Retention by Region

(FY 20/21 to FY 22/23)

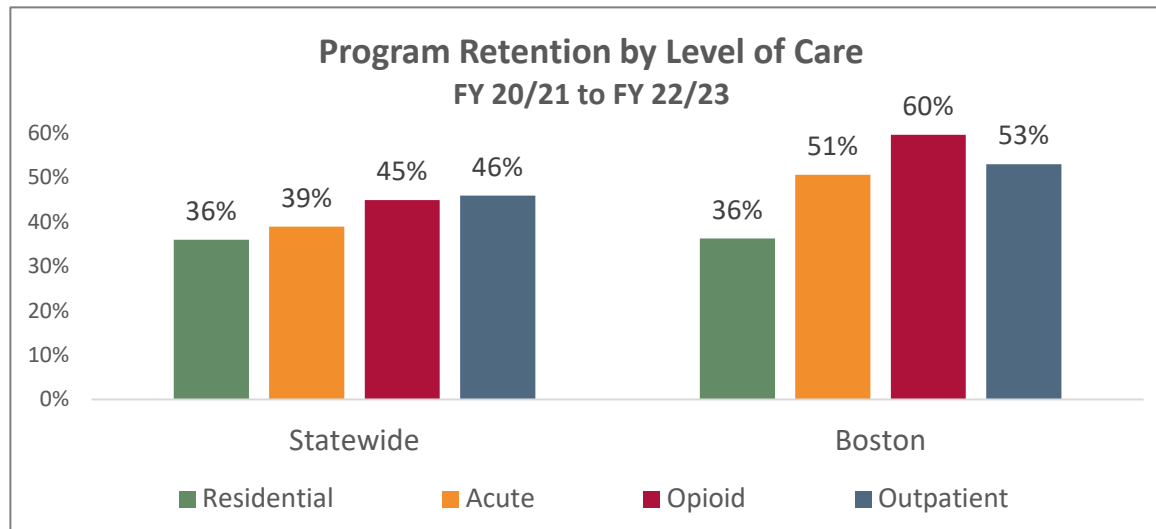
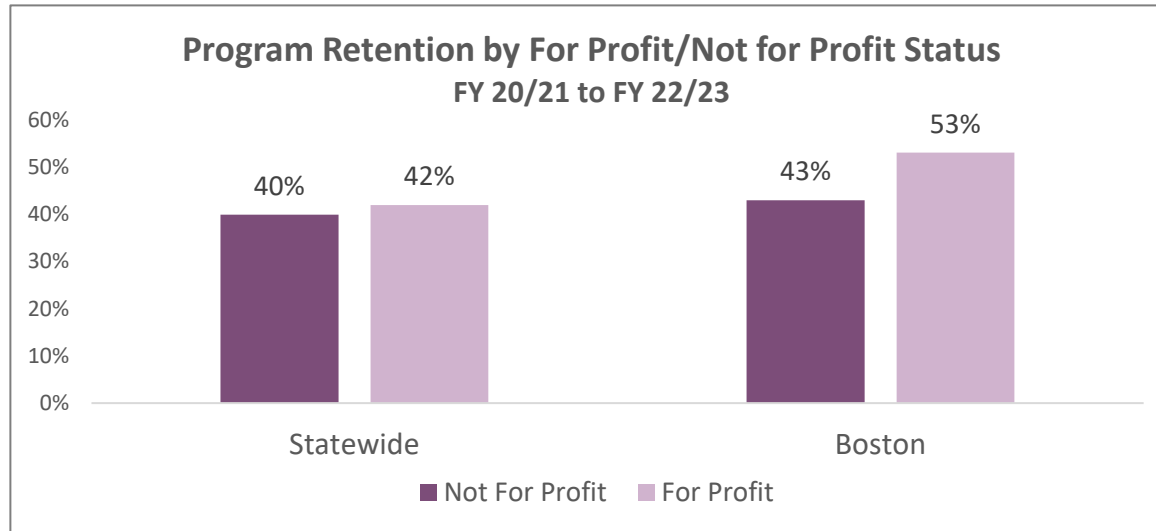
Map shows percentage of staff retained in programs from FY 20/21 to FY 22/23.



Program Level Retention

by Level of Care and For Profit/Not For Profit Status

Average program retention: 41%



- For Profit and Not For Profit programs retain staff at **nearly the same rate**.
- Similar to Statewide, the Boston Region has higher retention in For Profits compared to Not For Profits, but to a greater extent.
- Generally, **inpatient services** retain their staff at a **lower rate** than outpatient services.
- There is only an **10%** difference between the highest and lowest level of care retention rates.
- Similar to Statewide, the Boston Region has **lower retention rates in inpatient services**. However, contrary to Statewide, retention rates in **OTPs far surpass all other levels of care**.

Program Level retention applied to Level of Care and Organization Type because categories are grouped at the program level, not the System level.

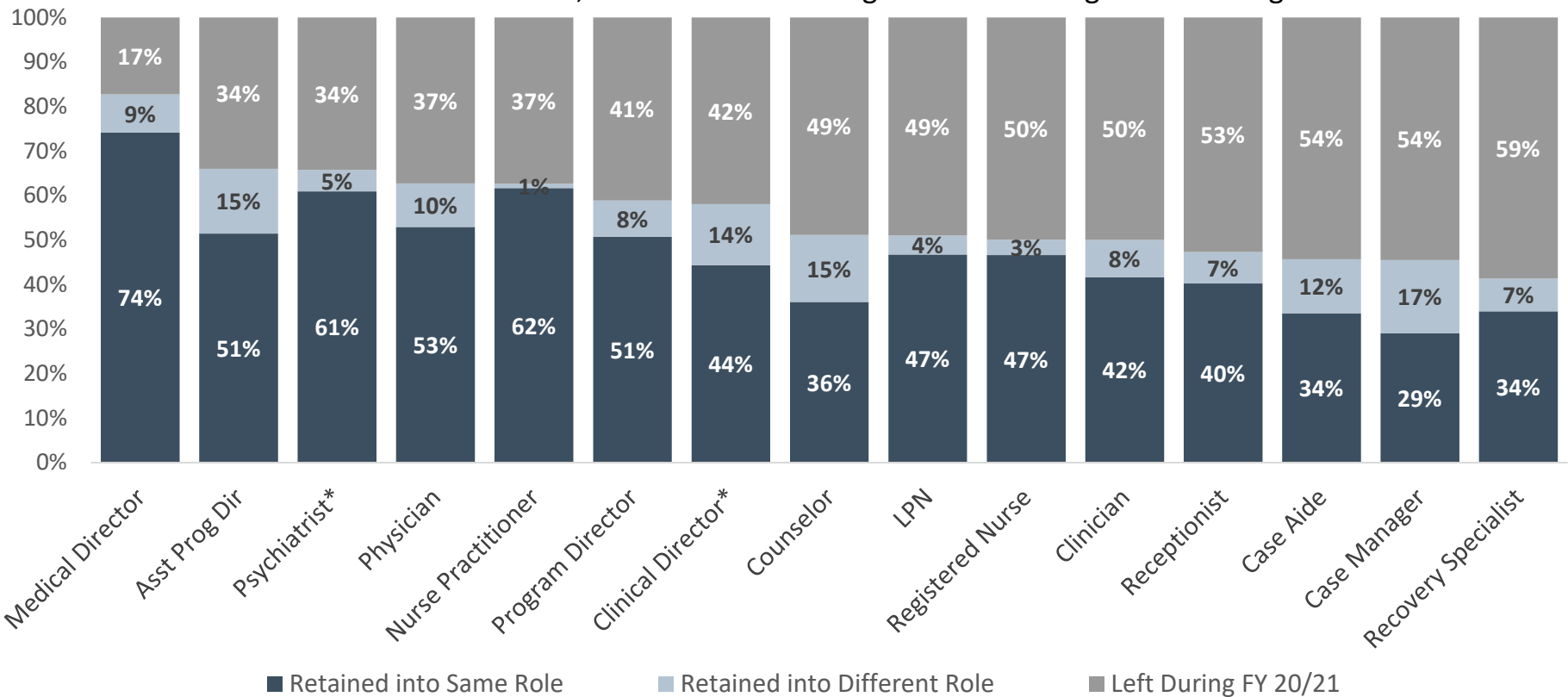
Role Level Retention

DRAFT
NOT FOR
DISTRIBUTION

Statewide System Retention by Role from FY 20/21 into FY 22/23

(Overall System Retention: 55%)

Directors and higher degreed professionals showed the highest overall retention. While Case Manager had some of the lowest overall retention, it also showed the highest amount of growth into higher level roles.



In the Boston Region, **Medical Directors** had the highest retention at 93%, while **Recovery Specialists** had the lowest retention at 51%.

*Clinical Director full Label: Clinical Director/Clinical Supervisor/Senior Clinician

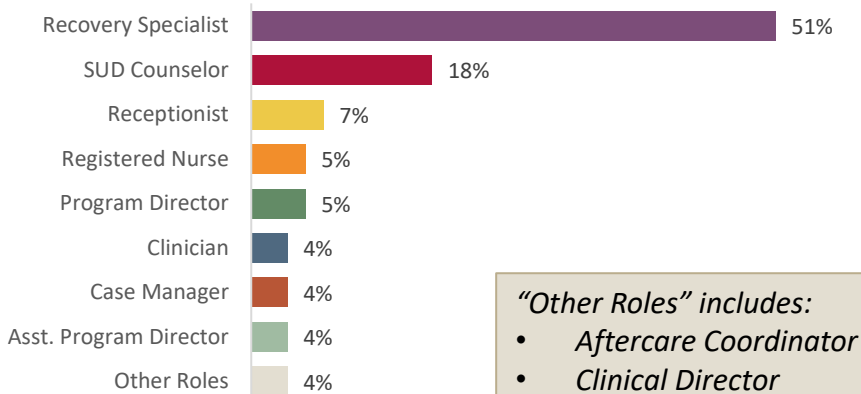
*Psychiatrist full Label: Psychiatrist/Psychologist

Many factors affect workforce trends; this includes COVID-19 in 2020.

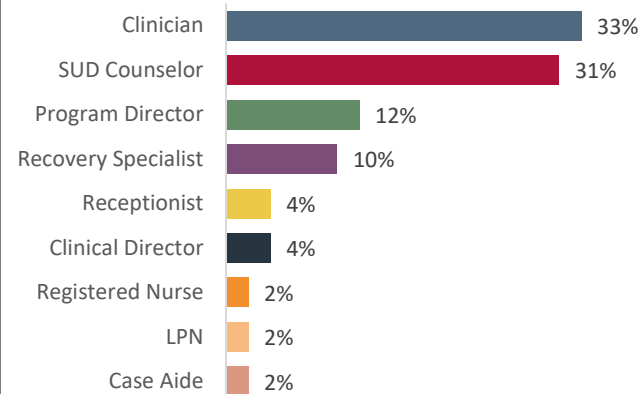
Retention into New Roles

FY 20/21 to FY 22/23

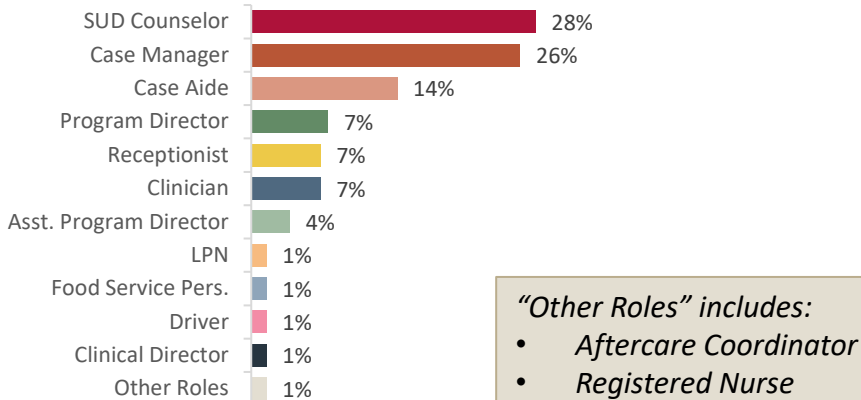
Case Aides become... (n=57)



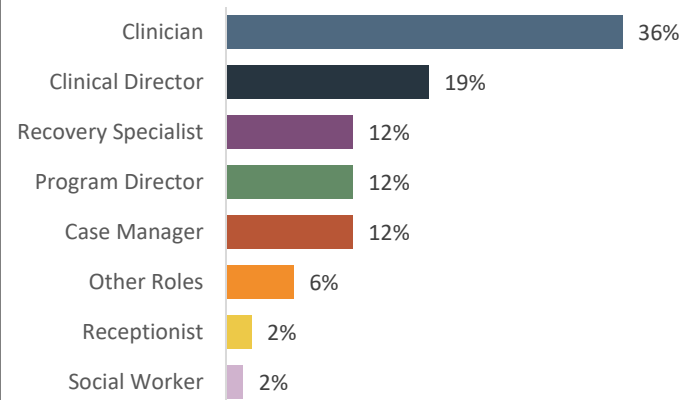
Case Managers become... (n=98)



Recovery Specialists become... (n=134)



SUD Counselors become... (n=129)



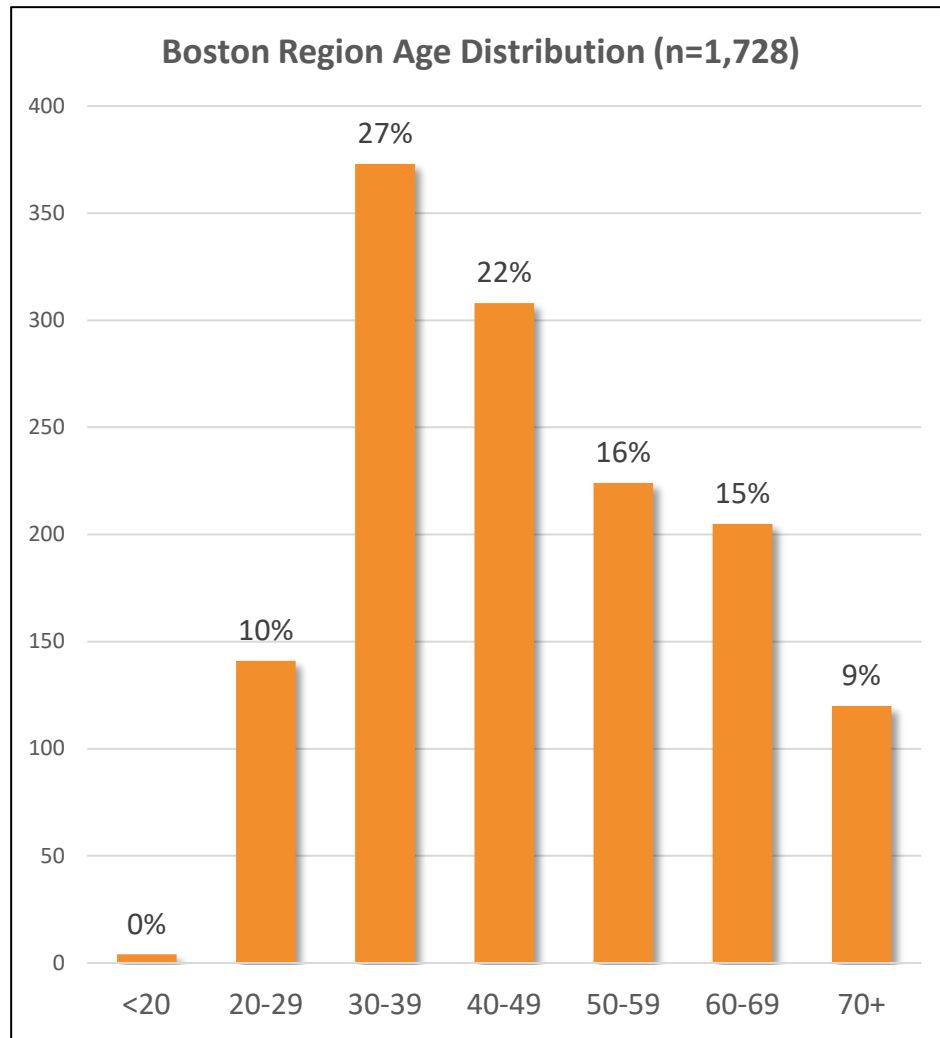
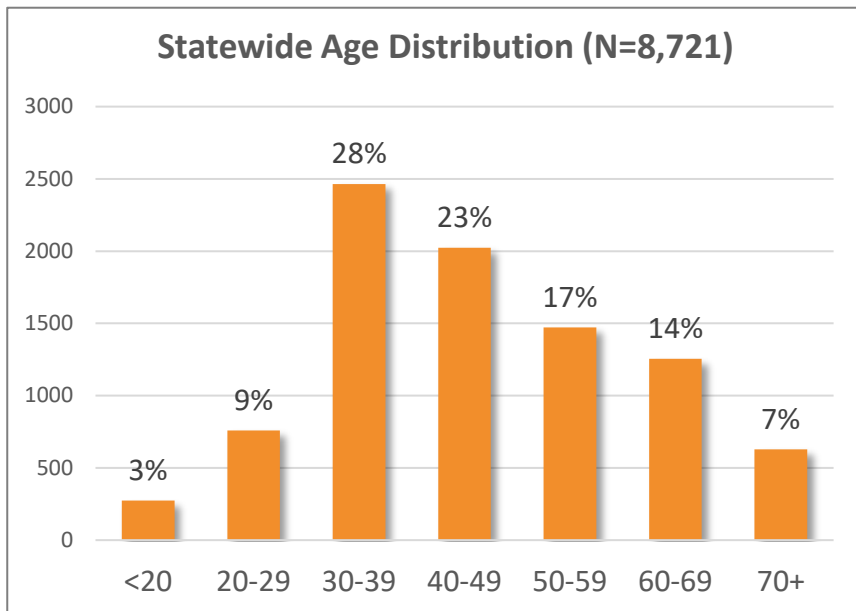
Charts show new roles taken by individuals who were **retained into a different role** between FY 20/21 and FY 22/23 (refer to slide 19). Movement reflects both within and between program changes.

Section 3:

Staff Characteristics FY 22/23



Staff Age and Gender

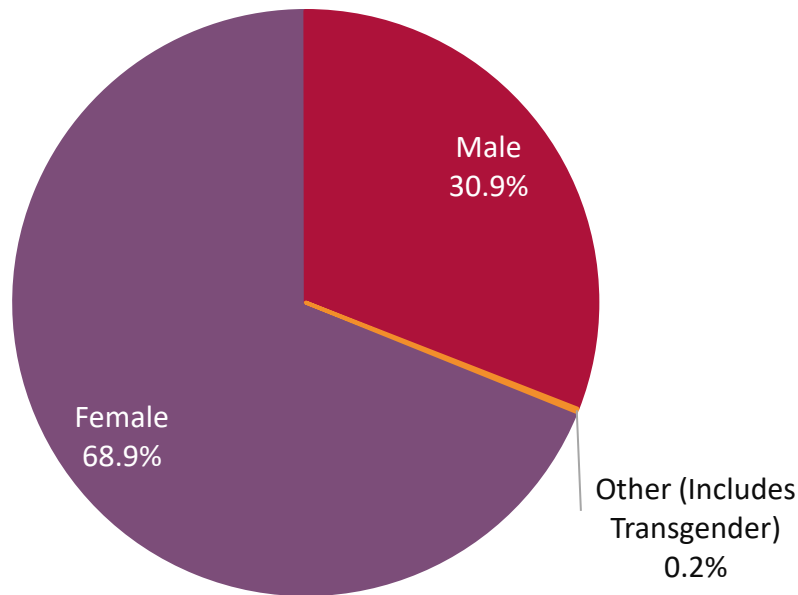


Both Statewide and in the Boston Region, more than 60% of the workforce is age 40 or older.

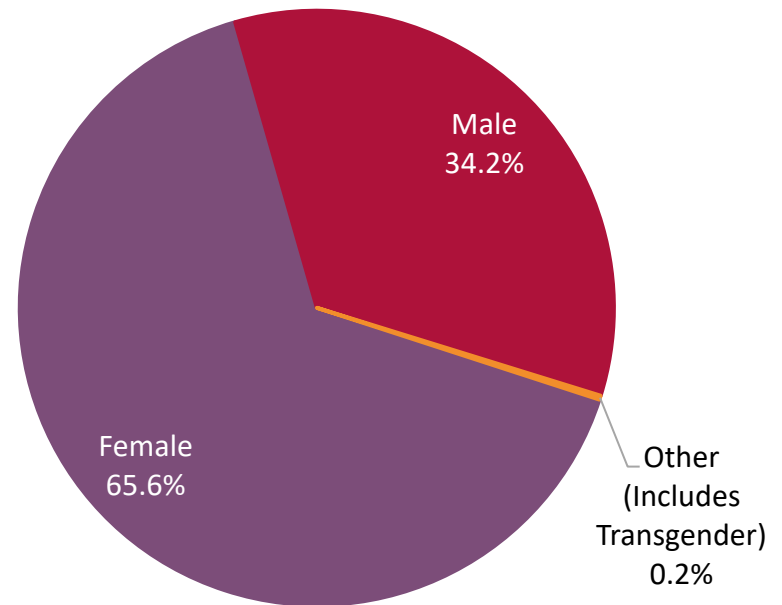
*Age distribution reported for the FY 22/23 reporting period.
All demographic information is reported by program representatives, not individual staff members.*

Staff Age and Gender

Statewide Gender Distribution (N=8,711)



Boston Region Gender Distribution (n=1,362)



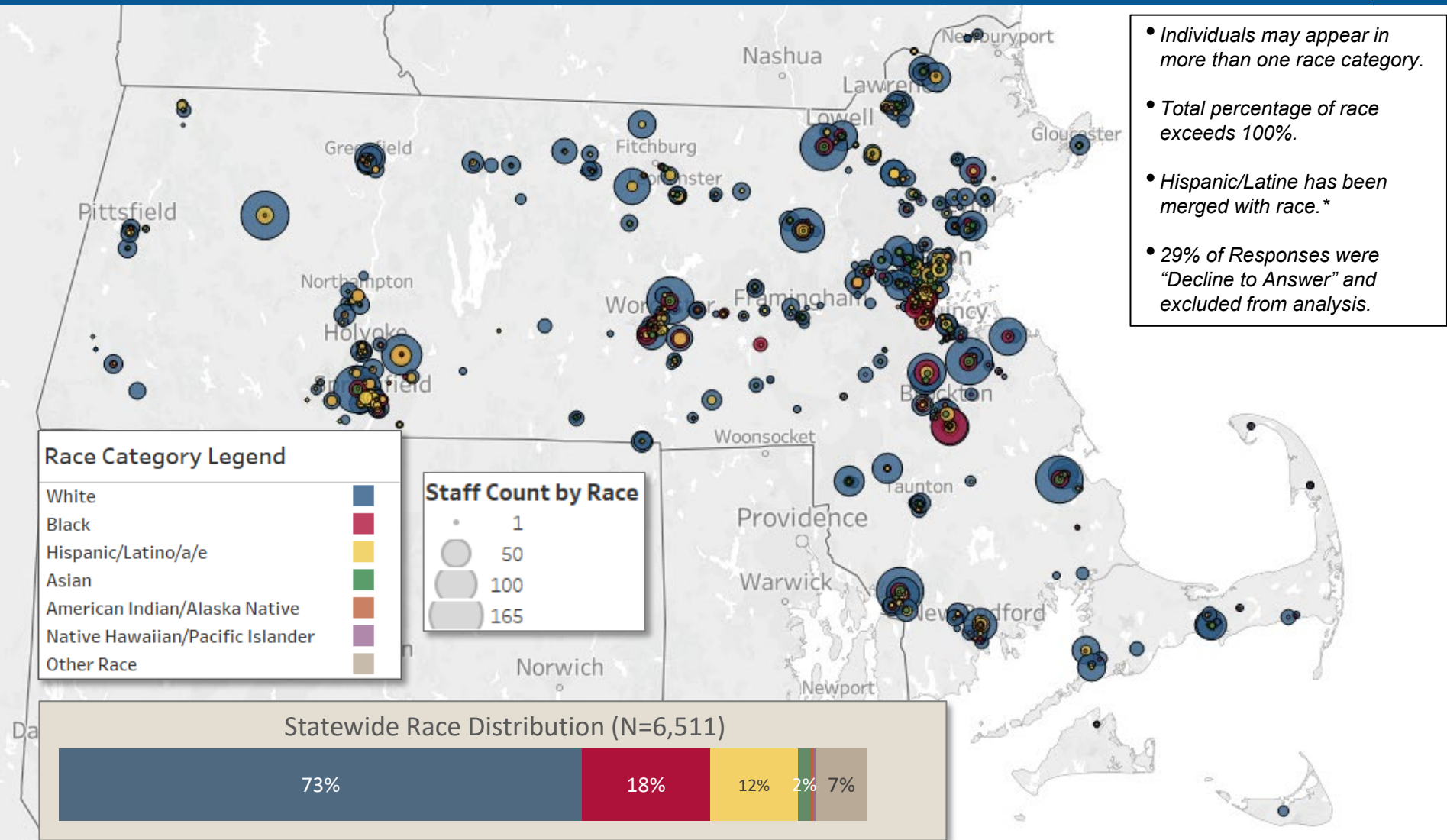
■ Female ■ Male ■ Other (Includes Transgender)

The Boston Region has a slightly lower proportion of staff that are reported as female, compared to Statewide.

*Gender distribution reported for the FY 22/23 reporting period.
All demographic information is reported by program representatives, not individual staff members.*

Distribution of Staff by Race

(FY 22/23)

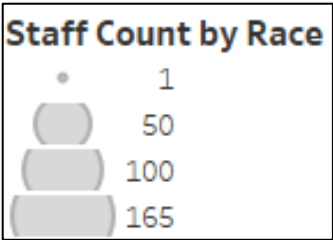
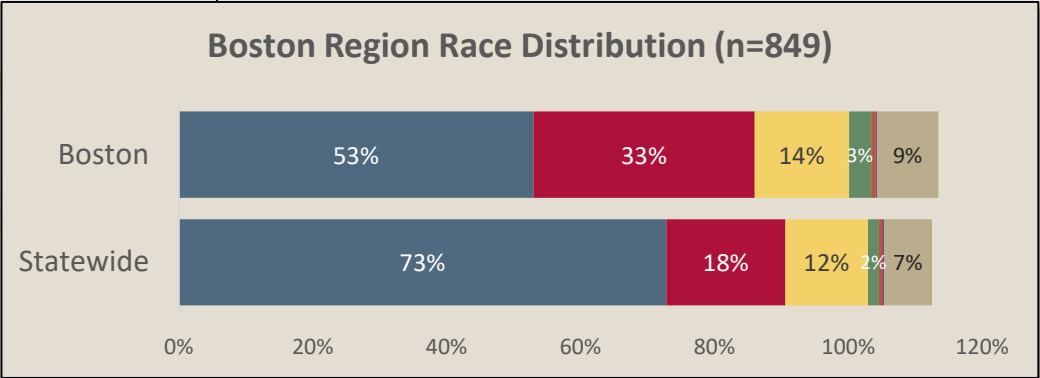
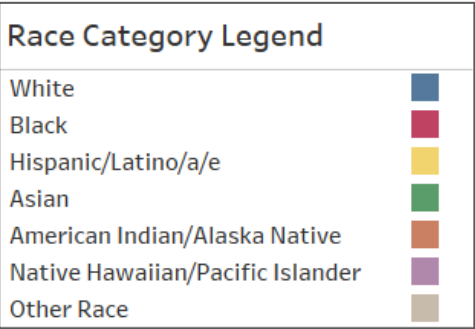
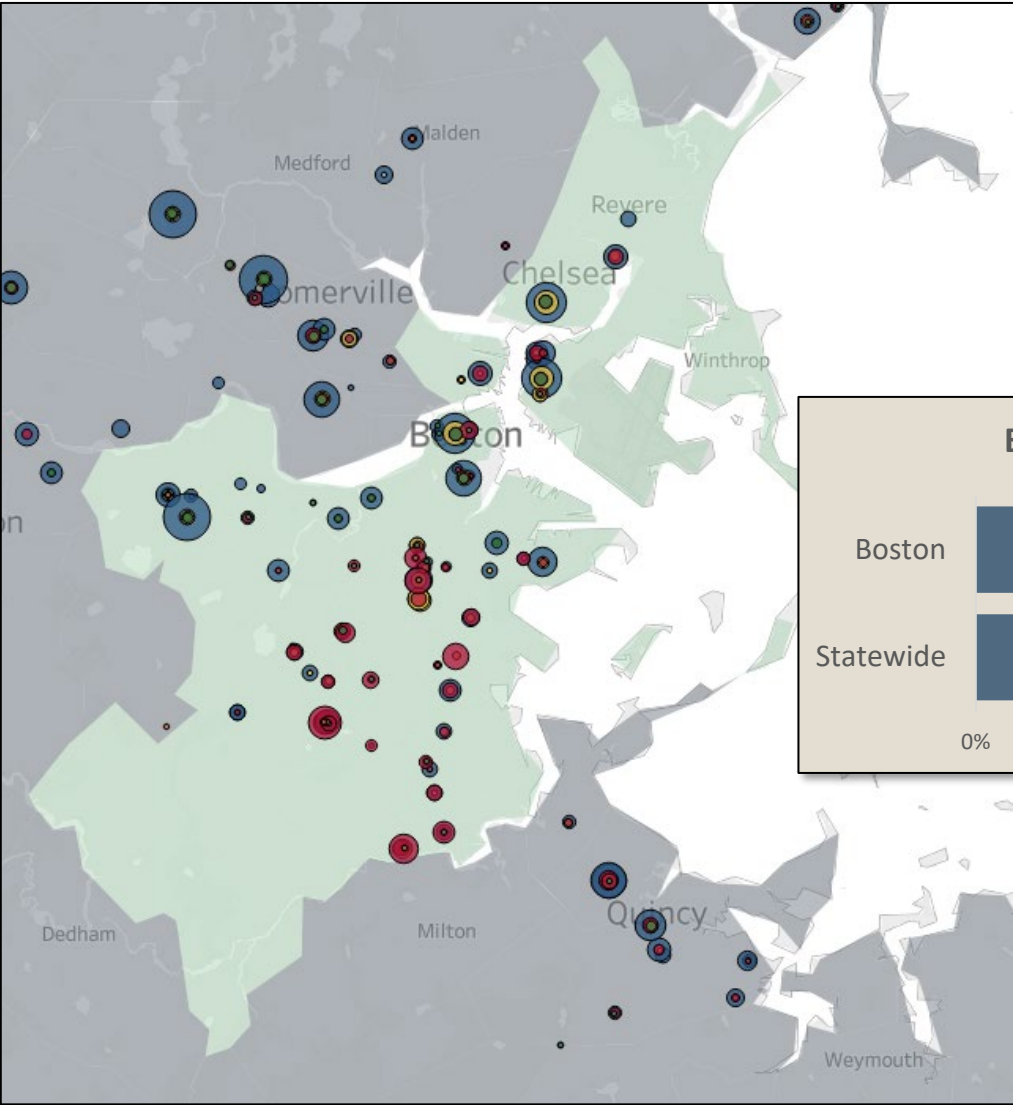


All demographic information is reported by program representatives, not individual staff members.

*Some individuals identify their race as Hispanic/Latino/a/e.

Distribution of Staff by Race

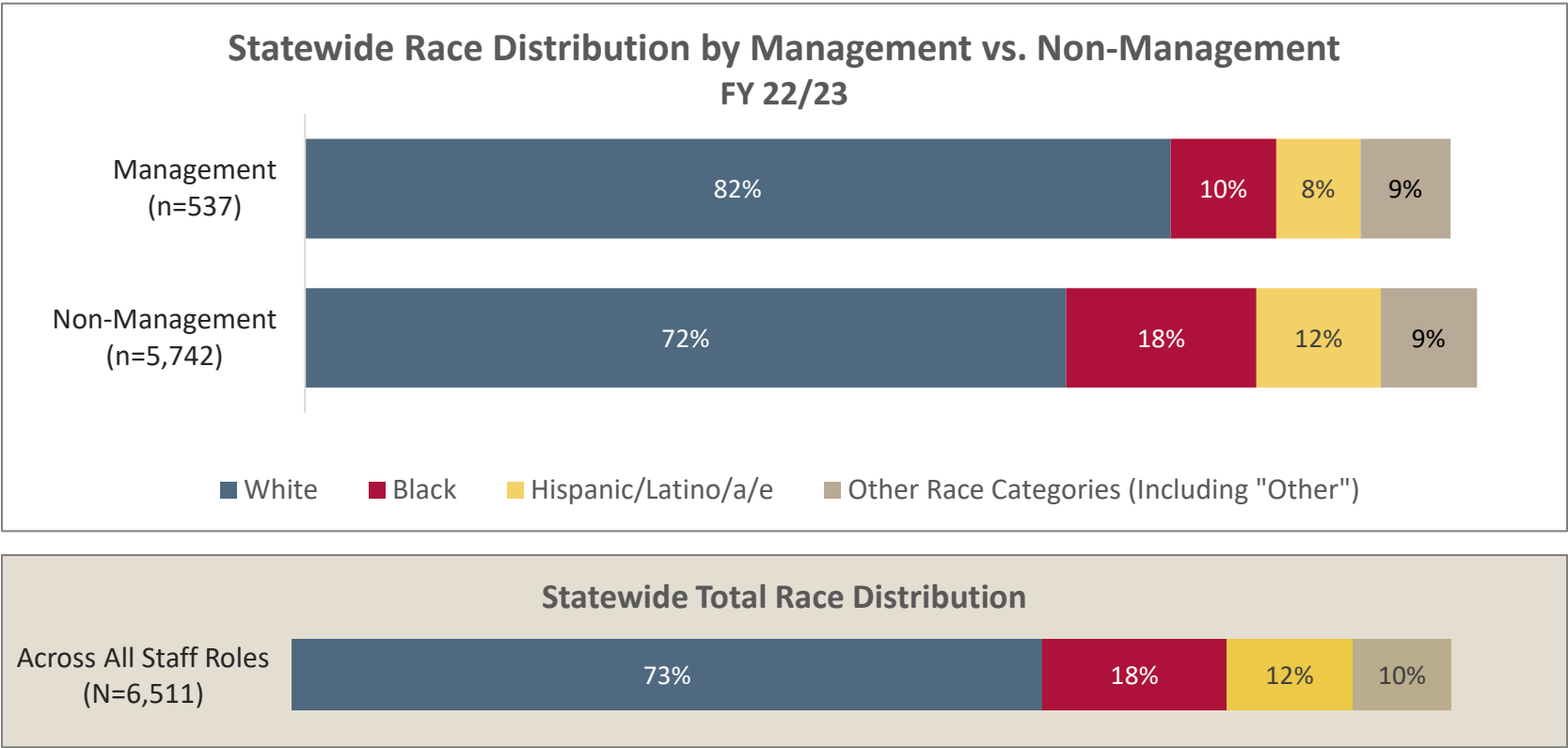
Boston Region (FY 22/23)



All demographic information is reported by program representatives, not individual staff members.

*Some individuals identify their race as Hispanic/Latine.

Management Status and Race



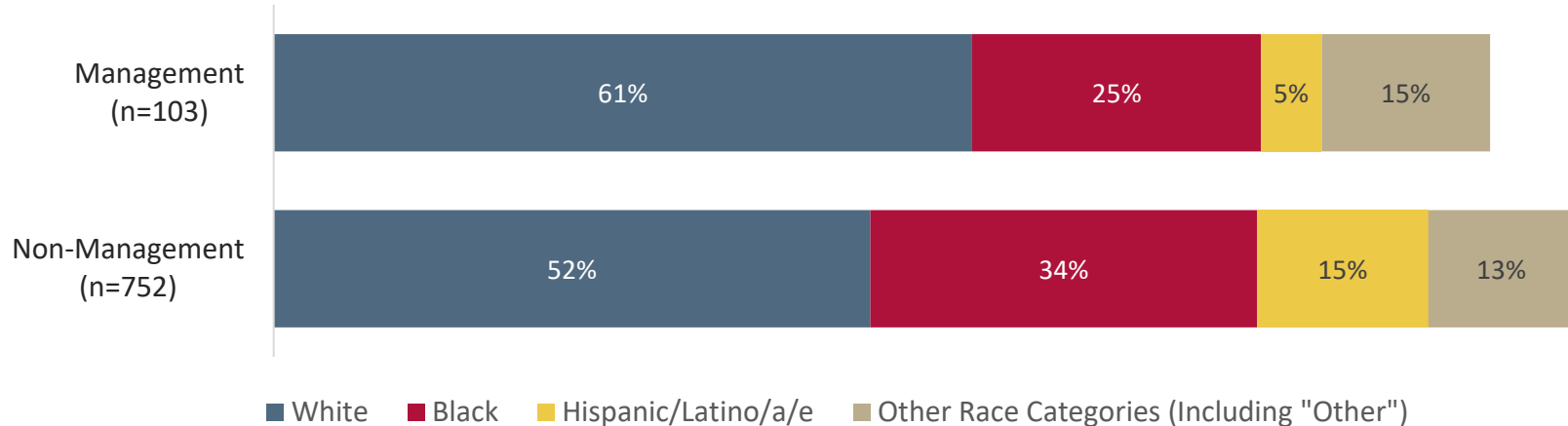
- In Management Roles,
- Staff reported as White are **over**-represented
 - Staff reported as Black or Hispanic/Latine are **under**-represented
- compared to Non-Management and Total Race Distribution.*

*Race distribution reported for the FY 22/23 reporting period.
All demographic information is reported by program representatives, not individual staff members.*

Management Status and Race

Boston Region

Boston Region Race Distribution by Management vs. Non-Management
FY 22/23



Boston Region Total Race Distribution



In Management Roles,

- Staff reported as White are **evenly represented**
- Staff reported as Black or Hispanic/Latine are slightly **over-represented** compared to Non-Management and Total Race Distribution.

Race distribution of management and non-management roles in Boston Region is opposite to Statewide.

Race distribution reported for the FY 22/23 reporting period.

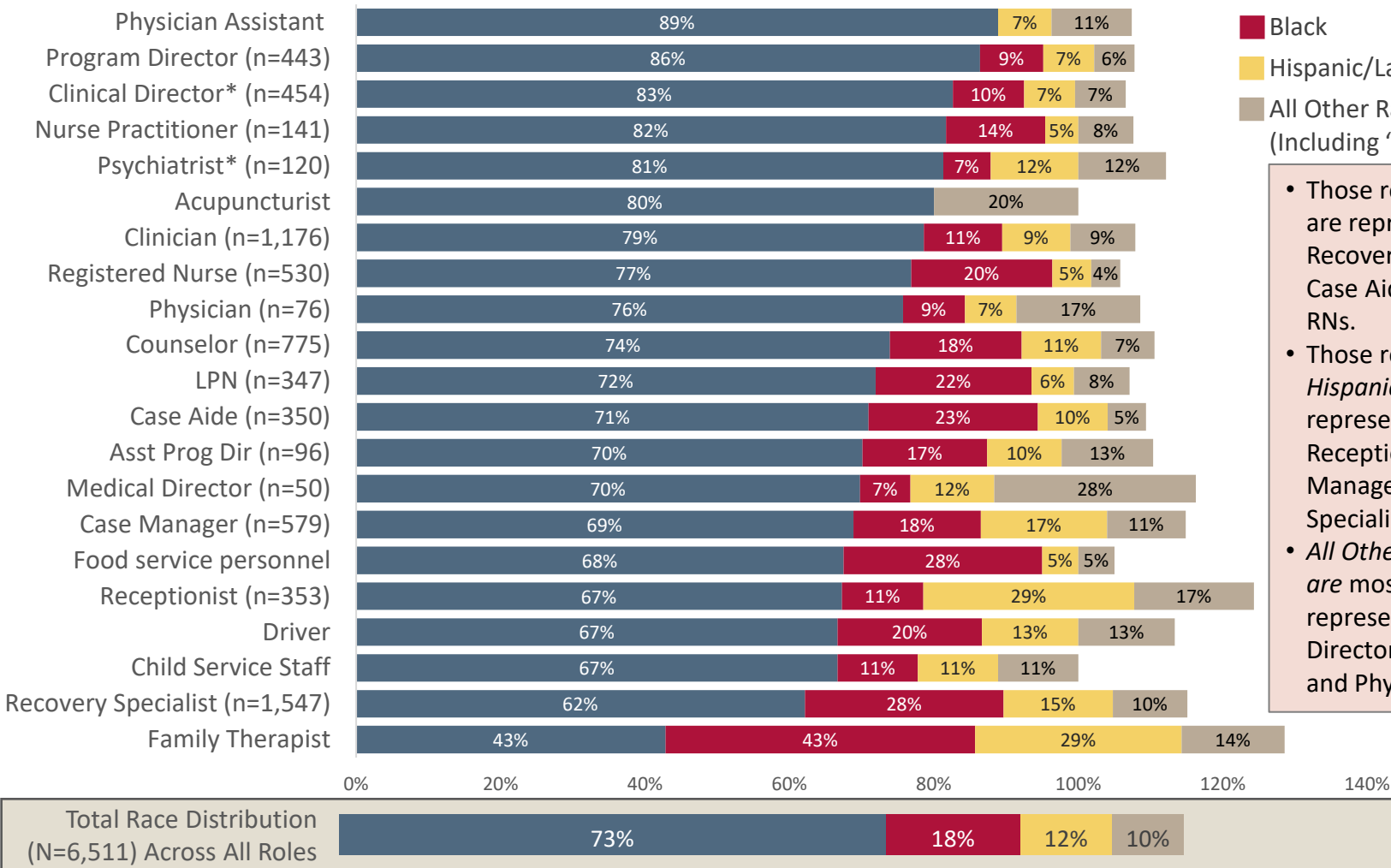
All demographic information is reported by program representatives, not individual staff members.

Roles and Race

Race Distribution by Role FY 22/23

White
 Black
 Hispanic/Latino/a/e
 All Other Race Categories
 (Including "Other")

- Those reported as *Black* are represented most in Recovery Specialists, Case Aides, LPNs, and RNs.
- Those reported as *Hispanic/Latine* are represented most in Receptionists, Case Managers, and Recovery Specialists.
- *All Other Race Categories* are most highly represented in Medical Director, Receptionist, and Physician.



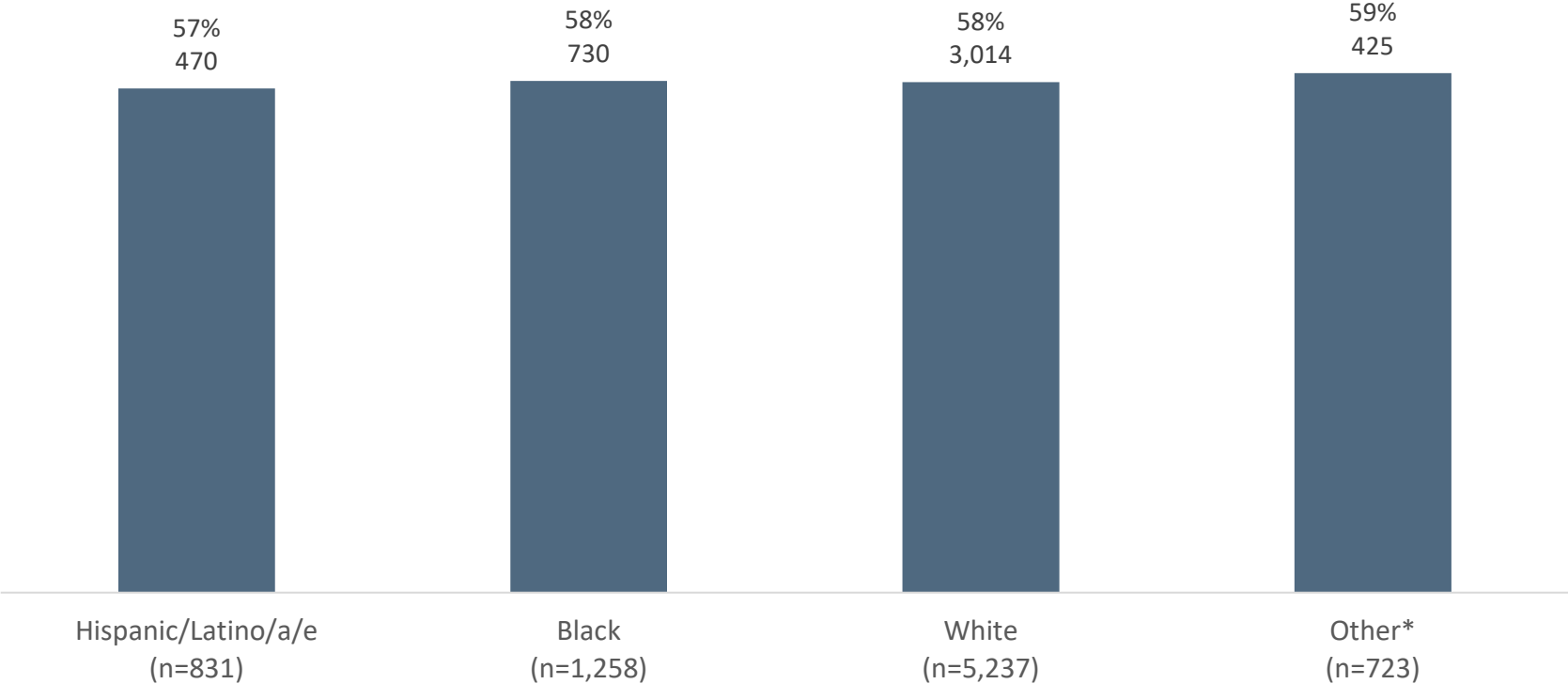
*Clinical Director/Clinical Supervisor/Senior Clinician

*Psychiatrist full Label: Psychiatrist/Psychologist

All demographic information is reported by program representatives, not individual staff members.

System Level Retention by Race

Statewide System Retention by Race FY 20/21 to FY 22/23
(Overall System Retention: 55%)



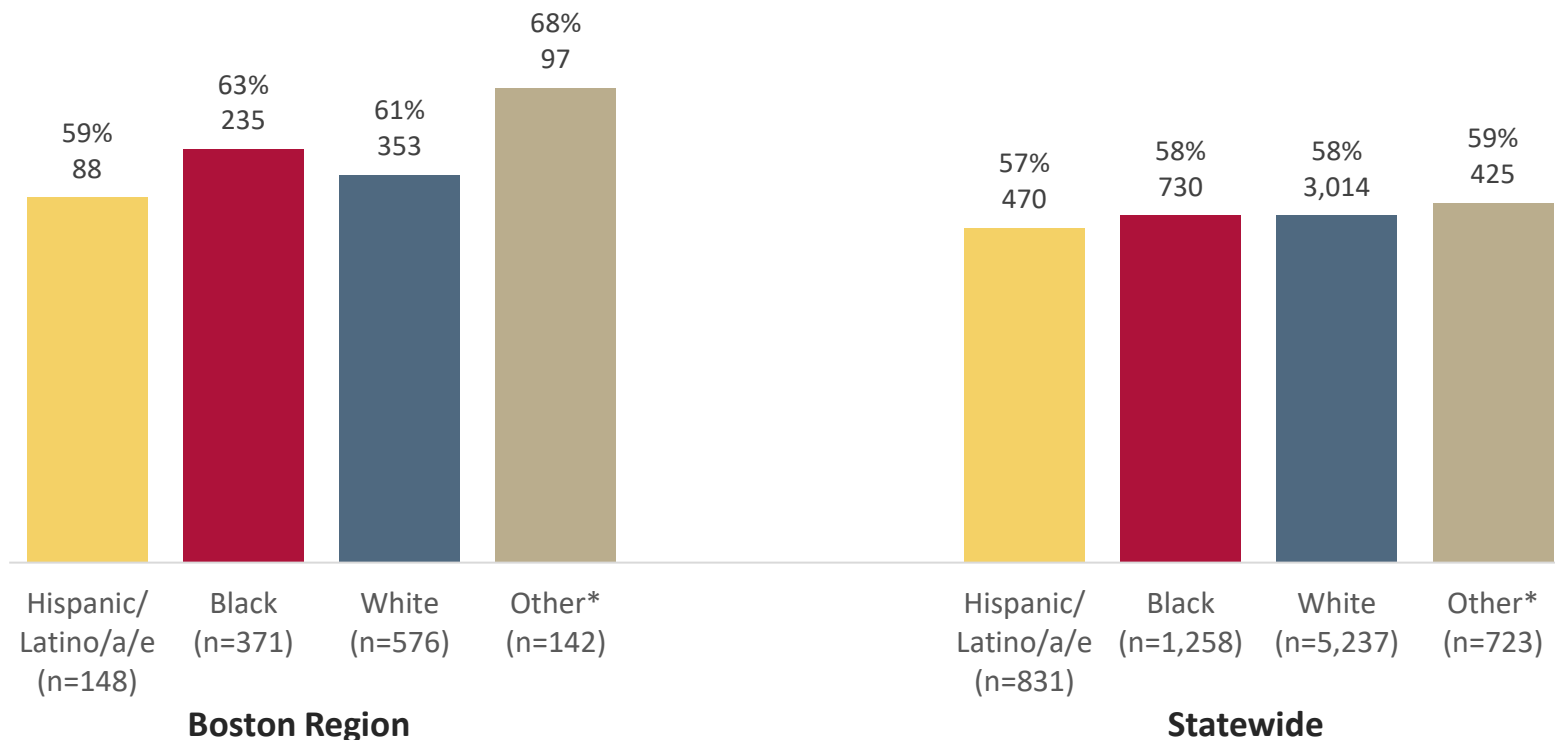
System level retention **does not vary by race.**

All demographic information is reported by program representatives, not individual staff members.

System Level Retention by Race

System Retention by Race FY 20/21 to FY 22/23

(Overall System Retention: 55%)



- Overall, retention in the Boston Region is **higher for all races** compared to Statewide.
- However, there are **larger differences** in retention rates between races in the Boston Region compared to Statewide.

All demographic information is reported by program representatives, not individual staff members.

Section 4:

Staff Income FY 22/23



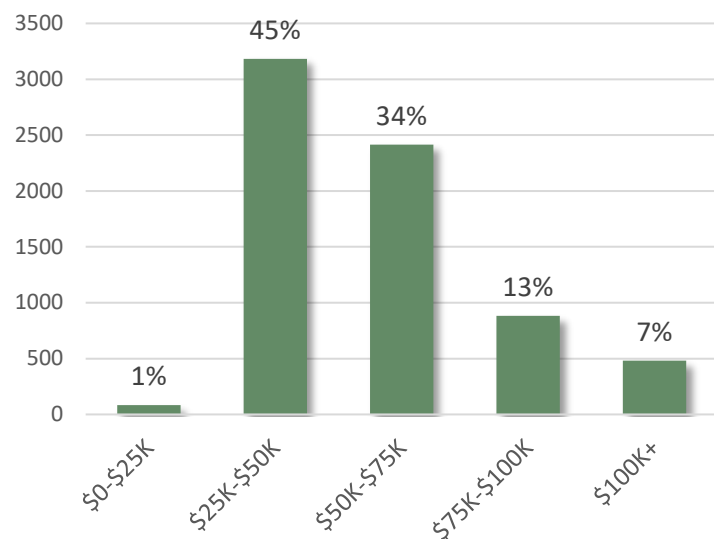
Section 4:

Section-Specific Notes

- Salaries are reported in selected ranges. Salary ranges are not exclusive.
- Income analysis is limited to full-time employees only.
 - Full-time workers per the IRS are employed on average at least 30 hours per week or 130 hours per month.
- Salary range is based on annual salary rather than an hourly wage for both full-time and part-time employees.
- Individuals may be reported in more than one salary category if they appear in multiple program applications in FY 2022 and FY 2023.
- Results for income analysis by race categories are suppressed for small groupings to protect confidentiality.

Annual Income

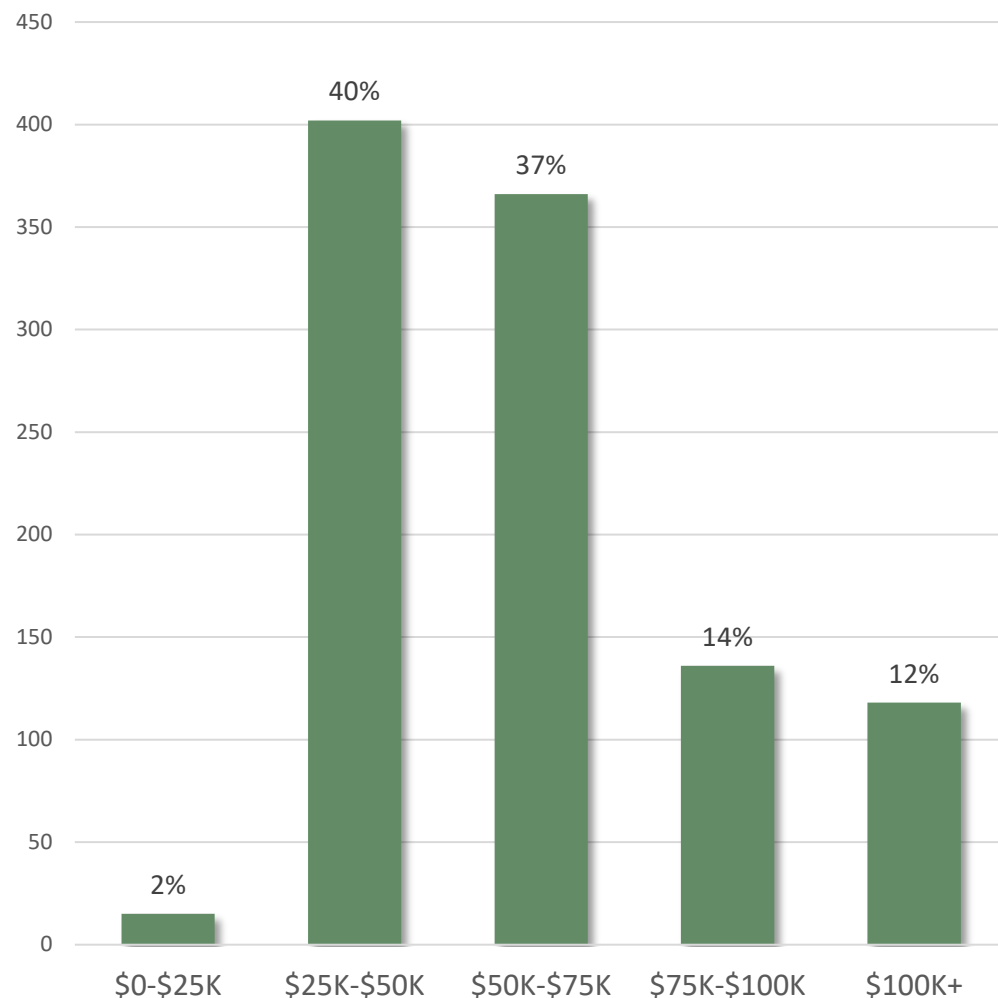
Statewide Staff Income Distribution
(N=7,045)



Both Statewide and in the Boston Region, **40%** of the full-time workforce reported making \$50,000 or less per year.

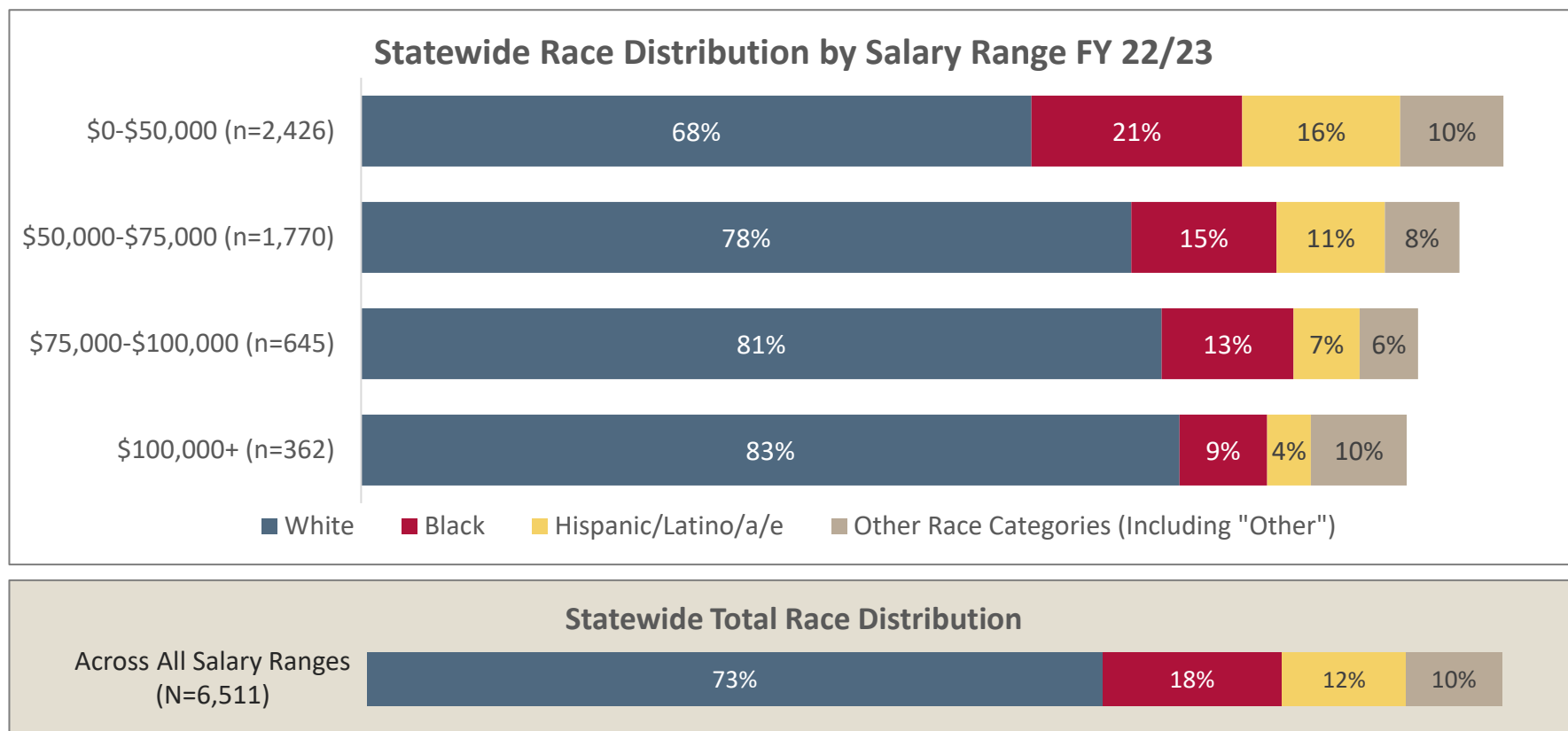
The average annual salary in FY 22/23, based on salary range mid-points, was **\$60,400** Statewide, and **\$65,800** in the Boston Region.

Boston Region Staff Income Distribution (n=1,000)



*Income distribution reported for the FY 22/23 reporting period.
Please refer to slide 32 for section notes.*

Salary Range and Race Distribution



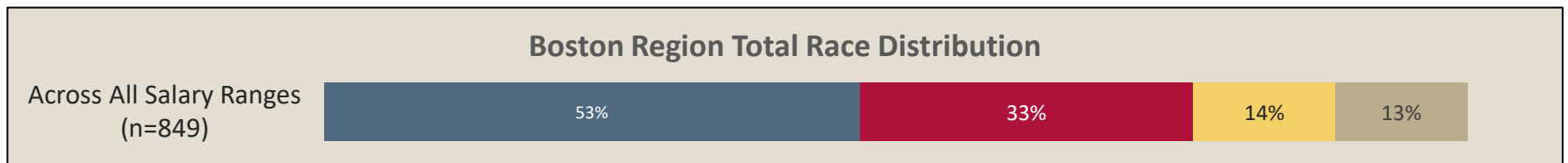
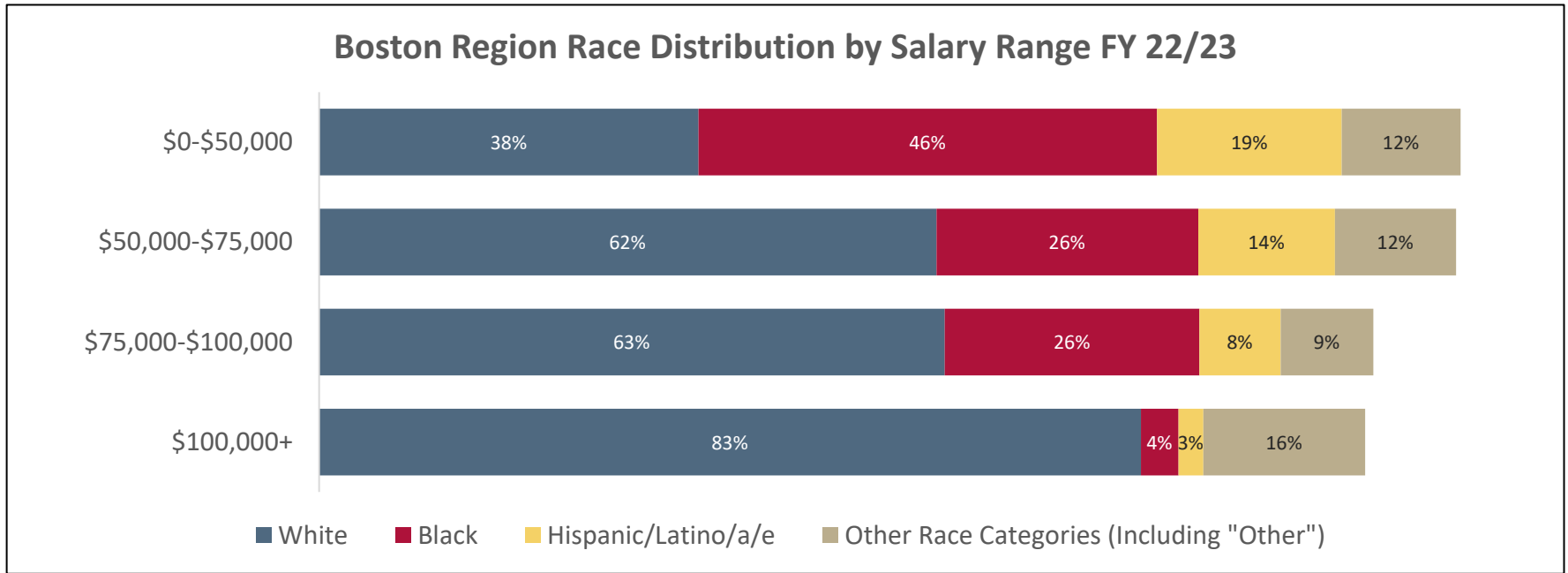
Compared to their proportion in the total race distribution:

- Staff reported as White are **over**-represented in **higher** salary ranges and **under**-represented in **lower** salary ranges.
- Staff reported as Black or Hispanic/Latine are **over**-represented in **lower** salary ranges and **under**-represented in **higher** salary ranges.

Please refer to slide 24 for description of race categories, and slide 32 for section notes.

Salary Range and Race Distribution

Boston Region



Compared to their proportion in Boston Region's total race distribution:

- Staff reported as White are **over**-represented in **every salary range except the lowest**.
- Staff reported as Black or Hispanic/Latine are most **over**-represented in the **lowest** salary range and most **over under**-represented in **highest** salary ranges.

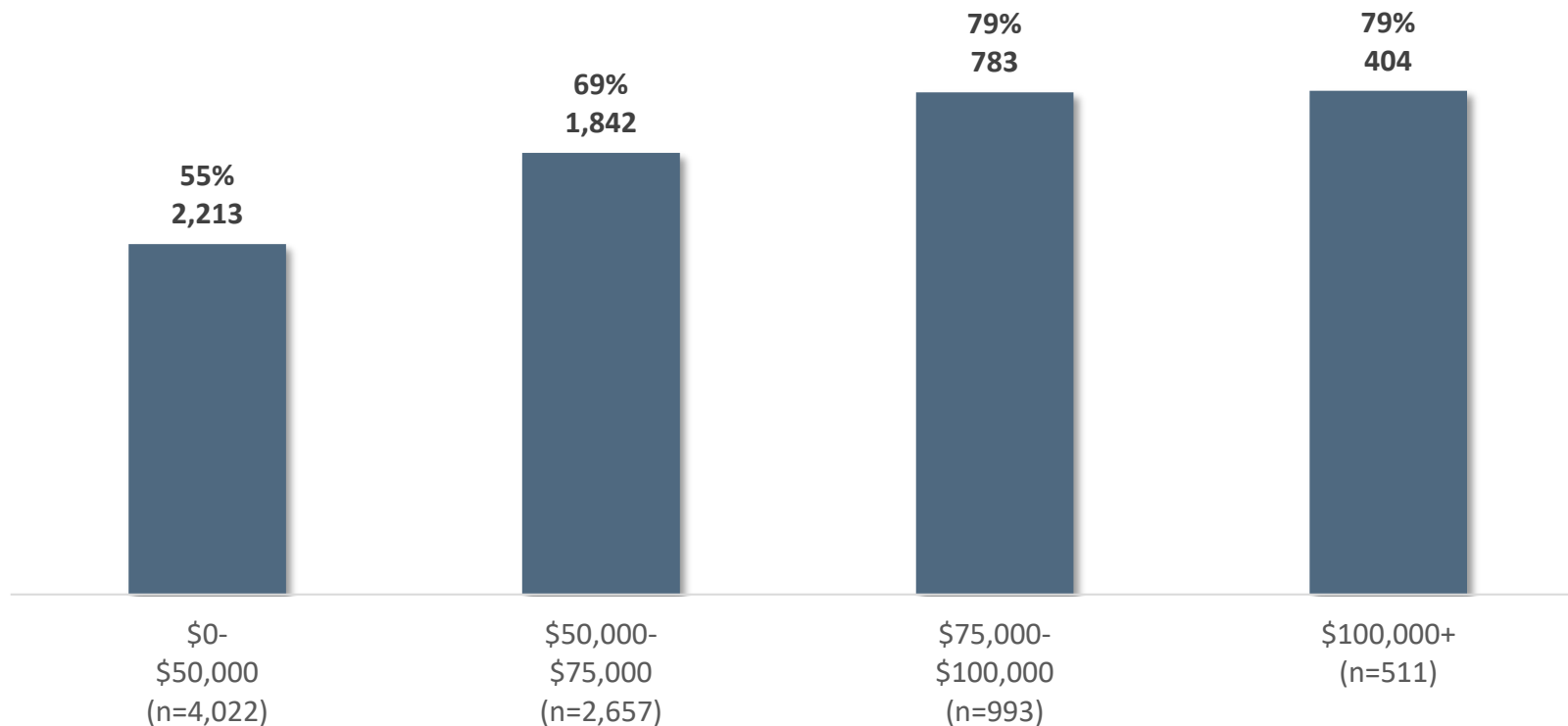
Race distribution by salary range in Boston Region differs from Statewide trends.

Please refer to slide 24 for description of race categories, and slide 32 for section notes.

System Level Retention by Income

Statewide System Level Retention by Income FY 20/21 to FY 22/23

(Overall System Level Retention: 55%)

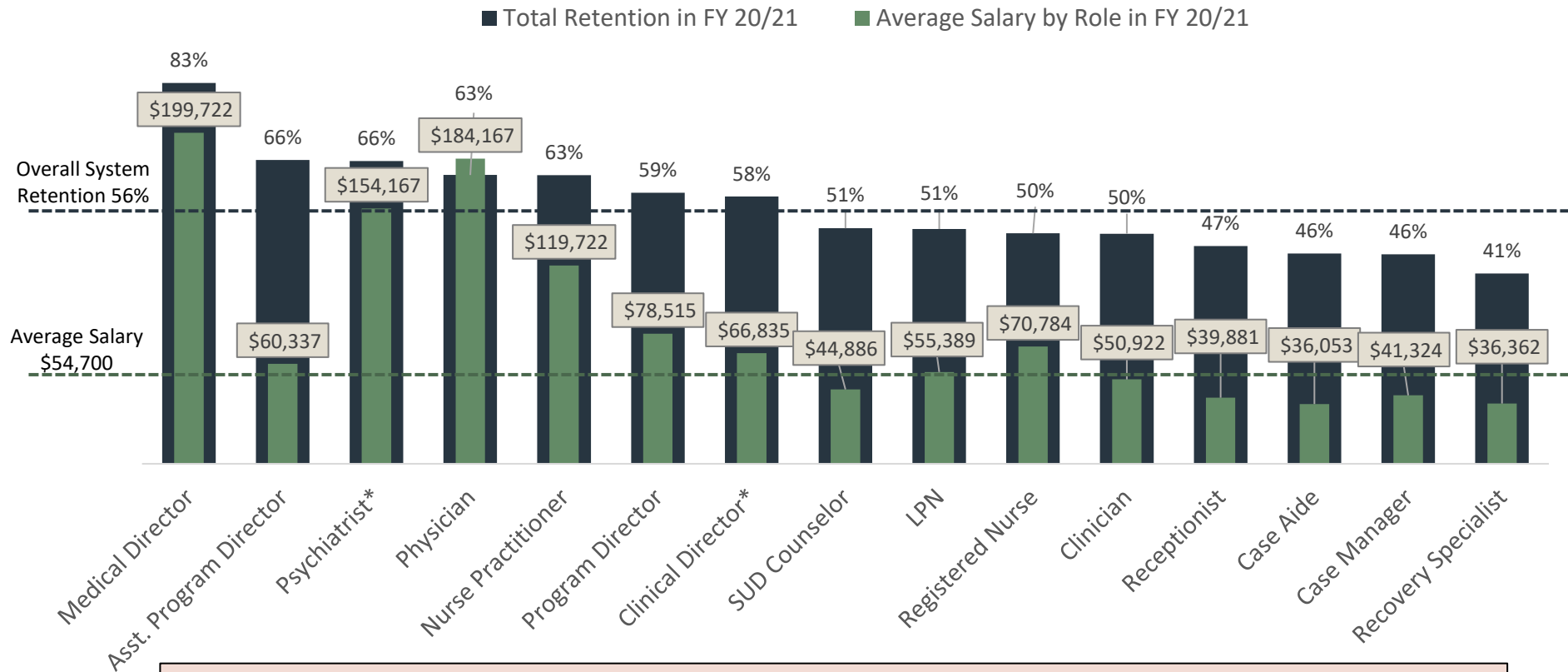


- Retention generally **increases** as salary range increases.
- Retention generally plateaus at just under 80% from \$75,000.

Please refer to slide 32 for Section notes.

Role Level Retention and Salary

Statewide Retention Rate and Average Salary by Role (FY 20/21 into FY 22/23)



Generally, retention rates by role follow salary patterns with some exceptions:

- Assistant Program Directors have one of the highest retention rates while their salary is closer to the overall average.
- Registered Nurses have a salary slightly higher than the overall average, but a below average retention rate.
- Physicians have some of the highest reported salaries, but only slightly above average retention.

*Clinical Director full Label: Clinical Director/Clinical Supervisor/Senior Clinician

*Psychiatrist full Label: Psychiatrist/Psychologist

Please refer to slide 32 for Section notes.

Section 5: Turnover Cost Model



Staff Turnover in BSAS Treatment System

(FY20/21 Cohort)

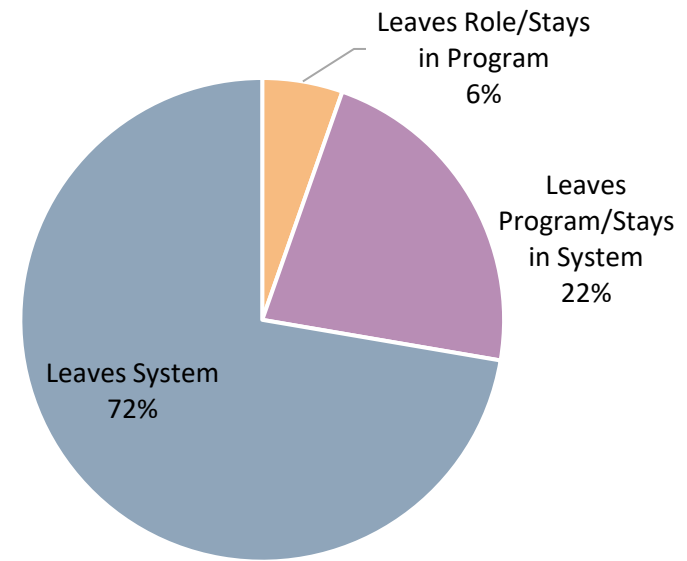
- **Turnover** occurs when a worker leaves a job, creating a vacancy which must be filled.
- Lower retention rates imply higher turnover rates and associated costs (e.g., substitute coverage, productivity loss, recruitment, hiring, training).
- *Movement can be good for the worker or the system, but the program still has to deal with the vacancy.*

Three types of Vacancies*:

- A worker leaves their role but **stays in their program**
- A worker leaves their program, but **stays in the system**
- A worker **leaves the system**

Does **not include: program closure; eliminated positions; or new positions created by program expansion.*

Percent of Created Vacancies in FY 20/21



Illustrative Model: System Turnover Cost

Literature review

- Replacement cost calculations use various actual or estimated direct and indirect costs.
- Costs range from 30% to 213% of the salary paid to a vacant position.
- Higher cost ranges are often found for higher paid employees.

Selected Model

Estimated Turnover Cost =

Total # of Employees x Turnover Rate x Estimated Cost of Departure

Base *Estimated Cost of Departure* on annual income tiers

- < \$50,000, cost of replacement equals **30%** of annual income.
- \$50,000-\$100,000, cost of replacement equals **35%** of annual income.
- >\$100,000, cost of replacement equals **40%** of annual income.

Overall Result

\$94.8M total estimated cost of turnover **across all programs** based on the conservative Selective Model

\$155.6M total estimated cost **across all programs** *if* highest income tier estimated with highest percentage (213%).

\$217K would be the average estimated turnover cost **per program** in FY 20/21, using the conservative model.

Notes:

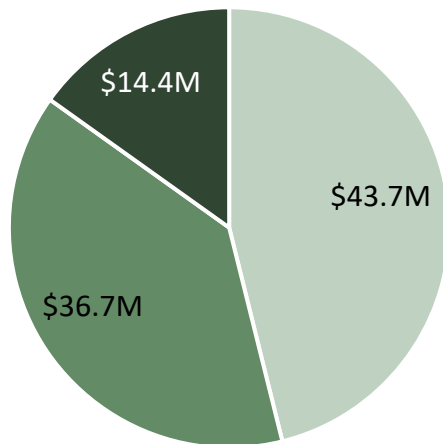
Cost includes both PT & FT employees. Cost estimation calculated over a two-year Reporting Period. Data collection on actual costs was not part of this project.

Individuals with invalid reported salary ranges excluded overall from turnover analysis (n=2)

Cost of Turnover (FY20/21 Cohort)

Based on Conservative Model

Turnover Cost by Salary Range



- \$0-\$50,000
- \$50,000-\$100,000
- \$100,000 or More

Those earning \$50,000 or less make up almost half of all turnover costs (\$43.7M).

Cost of Turnover by Role FY 20/21 to FY 22/23



Statewide & Regional Takeaways

Programs & Staff

-----Statewide -----

- Treatment system growing.
- 50% of workforce have been in system two years or less.

----- Boston Region-----

- Program decrease since FY2016.
- Most diverse region among state; almost 50% of management roles are non-white staff.

Retention

- 56% of staff retained in system.
- Average of 41% of staff retained in programs.
- Varies by role and income; not by race.

- Higher program retention than Statewide.
- Retention by race varies more than Statewide.

Income

- 46% earn \$50,000 or less annually.
- Average annual salary \$54,000.
- Black & Hispanic/Latine staff earn less proportionally than White staff.

Boston Region income trends are in line with Statewide trends.

BSAS Workforce Initiatives

FY 25 BSAS Equity Initiatives

Supporting Culturally Responsive and Affirming service provision

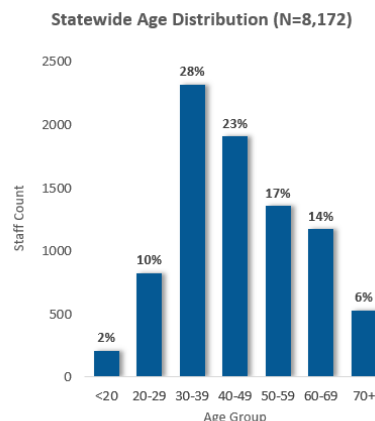
- Hired BSAS Director of Equity and Focus Populations
- Launched the Living Expertise Advisory Pool (LEAP) to engage with community members
- Released Request for Information to gather community recommendations about elements of Culturally Responsive Education
- Finalizing Practice Guidance on working with Transgender and Gender Expansive clients
- Used a Racial Equity lens throughout BSAS organizational development process (including hiring)
- Continued making anti-racism and other equity-focused trainings available and encouraged for internal and external workforce



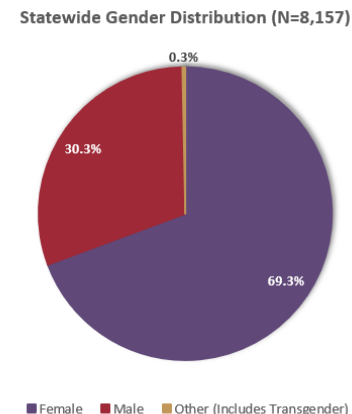
Ongoing Use of Data for Quality Improvement

Provider data gathering and analysis

- Licensed treatment program workforce data – ongoing since 2014
- Career Ladder/Pathway Practice Guidance in development
- Prevention Workforce Survey



Sixty percent of the workforce is age 40 or older.



Training/Technical Assistance Quality Improvement

- Training/TA Evaluation project
- T/TA Trainer & Facilitator Training

FY25 BSAS Capacity Building Initiatives



CAREERS OF SUBSTANCE

Workforce recruitment & retention

- [Careers of Substance](#) website
- Credentialing collaborations with Schools of Social Work
- Cross systems collaborations

Training & technical assistance (T/TA)

- Recovery Education Collaborative
- Addiction Education Advisory Group
- Supervisor Communities of Practice for clinical and non-clinical supervisors



RECOVERY EDUCATION COLLABORATIVE

Practice Improvement Throughout the BSAS System

Organization/Program Practice Improvement Training & Tech Assistance

Annual Peer Review -

Collaboration across programs

Dual Diagnosis Capability of Addiction Treatment (DDCAT) –

Co-occurring services assessment and support in collaboration with Case Western University



EMO Health -

Medication Management

NIATx - Continuous Quality Improvement

Evaluation of workforce development activities, through **Appreciative Inquiry**

Resources

Careers of Substance: www.careersofsubstance.org

Careers of Substance Trainings and Events:

<https://www.careersofsubstance.org/trainings-and-events/calendar>

The Massachusetts Substance Use Helpline Helplinema.org

BSAS Website: www.mass.gov/dph/bsas

MA Health Promotions Clearinghouse:

massclearinghouse.ehs.state.ma.us

EMO Health: www.emo.health

NIATx (Process Improvement for Behavioral Health): niatx.wisc.edu

Dual Diagnosis Capability of Addiction Treatment Services (DDCAT)

(Case Western Reserve): case.edu/socialwork/centerforebp

Contact Us

BSAS Team

Jen Parks

Workforce Development

jennifer.f.parks@mass.gov

SarahEvan Colvario

Professional Development/Practice Improvement

sarahevan.colvario2@mass.gov

Laura Crosby

Professional Development/Practice Improvement

laura.crosby@mass.gov

DMA Health Strategies Team

Lindsay Rubridge

lindsayr@dmahealth.com

Deborah Strod

deborahs@dmahealth.com

Connect with DPH



Massachusetts Department of Public Health



@MassDPH



mass.gov/dph