Staffing Trends for Non-Nursing Occupations in Skilled Nursing Facilities in the United States Between 2018-2022

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CONTENTS

KEY FINDINGS

This study examined trends in staffing of non-nursing direct care occupations in skilled nursing facilities (SNFs) from 2018 to 2022 using the Payroll Based Journal, a publicly available data source with daily staffing information by occupation from the Centers for Medicare & Medicaid Services. Key findings include:

- Non-nursing occupations are a smaller proportion of all SNF staff compared to nursing occupations (i.e., registered nurses, licensed practical nurses, certified nursing assistants, and administrative and nursing support roles), such that nursing occupations accounted for about four times the staff hours compared to all non-nurse occupations.
- The overall and many individual non-nursing occupations experienced a decline between 2018-2022, though when measured as staffing per patient-day, declines were mitigated in part due to concurrent declines in patient census.
- Of the non-nursing occupations in SNFs, declines in census-adjusted staffing levels between 2018-2020 were the largest for therapy staff and feeding assistants.
- Contractors are employed at higher rates for non-nursing occupations than for nursing occupations in SNFs. Specific occupations such as therapy staff, medical directors, and pharmacists were comprised of over 50% contract staff.
- Between 2018-2022, contractor staffing decreased for non-nurse occupations while contractor staffing for nursing occupations increased.

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INTRODUCTION

Skilled nursing facilities (SNFs) recently experienced two major shocks that have significantly affected staffing: October 2019 Medicare payment reform which drastically shifted reimbursement incentives for post-acute stays, followed by the COVID-19 pandemic just months later. While there has been extensive research on the effects of these shocks on nurse staffing in SNFs,[1–5] including registered nurses (RNs), licensed practical nurses (LPNs), and certified nursing assistants (CNAs), little is known about the staffing patterns of non-nursing professions in SNFs and the extent to which these are employed or contract workers. In 2022, the White House put forth a set of recommended reforms that aim to improve nurse staffing in SNFs and ensure high-quality patient care, including proposing national minimum nurse staffing standards.[6,7] In these reforms, no recognition was given to other staff in SNFs, which may be affected if these recommended changes are put into action.

SNFs play a critical role in the health care continuum by providing post-acute care services to short-stay patients as a bridge between the hospital and home and by providing long-term care services for long-stay residents. In May 2022, according to the US Bureau of Labor Statistics, over 200,000 of the nearly three million people employed by SNFs are employed in non-nursing direct care occupations (e.g., administrators, medical director physicians, other physicians and nurse practitioners, dietitians, pharmacists, medical social workers, therapeutic recreation specialists, respiratory therapists and technicians, speech-language pathologists, physical and occupational therapists and their assistants, and therapy aides), providing a range of services for both short and long stays.[8]

Changes in nurse staffing over the course of the pandemic have received significant attention in the literature,[9–13] but quantitative research on non-nursing staff is more limited. A few reports found that SNFs did not struggle as much with medical staffing (e.g., physician assistants and nurse practitioners) as compared with nursing staff during the pandemic.[12,14] In terms of contract staffing, one study found that SNFs were forced to rely on more expensive nurse contract staffing during the COVID-19 pandemic.[18] A study of SNF rehabilitation staffing found declines in staffing during 2019 payment reform and the pandemic, with disproportionately large declines in staffing for physical therapy and occupational therapy assistants and contractors compared to employed physical and occupational therapists.[15] However, there have been no reports on changes in contract staffing for other non-nursing occupations during the pandemic. Qualitative studies have included perspectives of SNF administrators and social work staff regarding workforce challenges during the pandemic, but have not focused on staffing for non-nursing disciplines.[10,19,20] While there have been a variety of studies addressing SNF staffing during the pandemic, most studies focus on a subset of occupations and do not consider trends in staffing for in-house versus contract staffing, or do not provide a view of national trends in staffing for occupations outside of nursing.

This study aims to provide a comprehensive and longitudinal examination of non-nursing staffing in SNFs in the US from 2018-2022. It identifies specific occupations, level of staffing (including accounting for patient census), and administrative roles. The specific study questions include:

1) What mix of non-nursing direct care occupations and at what levels (i.e., hours) do SNFs employ, and has the composition and levels of the direct care SNF workforce changed over time?

2) To what extent do SNFs use contractors versus in-house staff in non-nursing roles, and has the use of these contractors remained stable or changed over time?

As SNFs face unprecedented staffing challenges for nursing occupations, there may be potential implications for how SNFs manage staffing of other direct care occupations and for the use of contractors. Understanding trends in non-nursing staffing prior to and during the pandemic, including how non-nursing staffing trends compare to nursing staffing trends, is vital to understanding potential strategies such as substituting nursing for non-nursing staff, especially as SNFs prepare for potential minimum staffing standards for nursing. Additionally, a comprehensive view of non-nursing staffing trends can inform future work on potential quality implications for patient outcomes specific to non-nursing roles. The study findings can inform policymakers in the US Department of Health and Human Services who are responsible for developing and implementing staffing reforms recommended by the White House.

METHODS

DATA SOURCES

The primary data source for this study is the Payroll Based Journal (PBJ), a publicly available data source from the Centers for Medicare & Medicaid Services (CMS) that includes daily staffing hours and patient census for all Medicare-certified SNFs in the US. The PBJ is federally audited and validated and includes information on all health professions working in SNFs. We included data from January 2018 through September 2022, which was the most recent data available at the time of analysis due to lags in reporting from CMS.

The PBJ includes daily reporting of total paid staff hours, disaggregated by contractor versus employed in-house status, for non-nursing occupations.[21] The PBJ provides information on leadership roles including non-nursing administrators who are licensed by the state and responsible for facility management, as well as physician medical directors, who are responsible for coordination of medical care in the SNF. The PBJ reports on medical staff who are not medical directors but supervise resident medical care, including other non-director physicians, physician assistants, nurse practitioners, and clinical nurse specialists. Other non-nursing occupations include licensed pharmacists and feeding occupations, including licensed dieticians and feeding assistants who work for the SNF to assist in feeding tasks for patients who do not have complicated feeding problems that require nurse training. Rehabilitation therapy occupations include licensed speech-language pathologists (SLPs), licensed occupational therapists (OTs), licensed occupational therapy assistants (OTAs), unlicensed occupational therapy aides who are directly supervised by OTs, licensed physical therapists (PTs), licensed physical therapist assistants (PTAs), and unlicensed physical therapy aides who are directly supervised by PTs. Respiratory occupations include licensed respiratory therapists and respiratory therapy technicians who are directly supervised by respiratory therapists. Recreation occupations, who are employed to meet the residents' needs and interests for recreational activities, include licensed therapeutic recreation specialists, qualified activities professionals who meet Code of Federal Regulations definitions of activities professionals,[21] and other activities staff. Finally, social work occupations include qualified social workers who are either licensed or meet state education and degree criteria in states without licensure, other social workers, and mental health service workers, who are not qualified social workers but provide services targeted towards behavioral, emotional, or psychological well-being such as counselors and psychotherapists.[21]

The PBJ provides separate data on nursing occupations as defined by CMS, including nursing occupations (with and without administrative responsibilities) and some nursing support staff. The PBJ includes paid hours for the following nursing-related occupations: RNs, LPNs, and CNAs, nurse aides in training who are providing nursing-related services under the supervision of an LPN or RN,[21] and medication aides/technicians who are not licensed nursing professionals but fulfill state requirements to administer medications. We include nursing aides and medication aides/technicians in the nursing occupation denominator

for our analysis because these roles support nursing, not the other non-nursing roles, and are likely to be grouped with RNs, LPNs, and CNAs in staffing discussions by leadership. Given that PBJ also details hours spent by nursing staff (RNs and LPNs) on administrative duties, which include the director of nursing, our analysis of nursing occupations includes these hours spent on administrative duties.

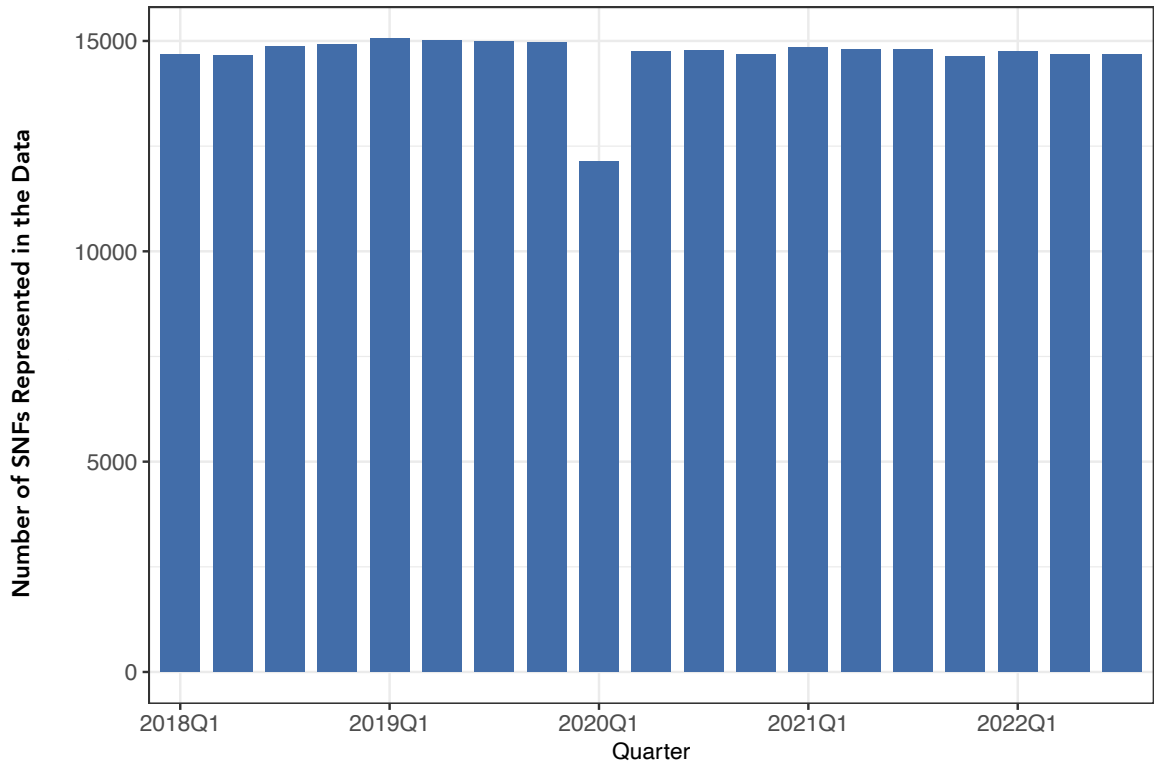
OUTCOMES AND METHODS

For our first set of staffing outcomes, we examined staffing levels for each healthcare occupation, and groupings of healthcare occupations (i.e., non-nursing versus nursing), as measured by: 1) total hours per day, 2) minutes per patient-day (MPPD), and 3) percentage of total staff hours in a facility, with the total staff hours denominator including all non-nursing and nursing occupations. For our second set of staffing outcomes, we examined contractor staffing as the number of contractor hours as a percentage of total hours (including contract and in-house staff) for each occupation. We aggregated the daily PBJ files into quarterly averages for all staffing outcomes in each SNF, then created national averages for all SNFs each quarter. We reported quarterly averages of total paid daily staffing hours and census-adjusted average staffing MPPD for all non-nursing occupations in the **Appendix**. We plotted quarterly trends in national averages for the staffing outcomes for each occupation, grouped by related disciplines, and discuss the national trends in the next section.

RESULTS

NUMBER OF FACILITIES

Figure 1. Number of Skilled Nursing Facilities (SNFs) in Payroll Based Journal Included in Examination of Staffing Trends from 2018-2022

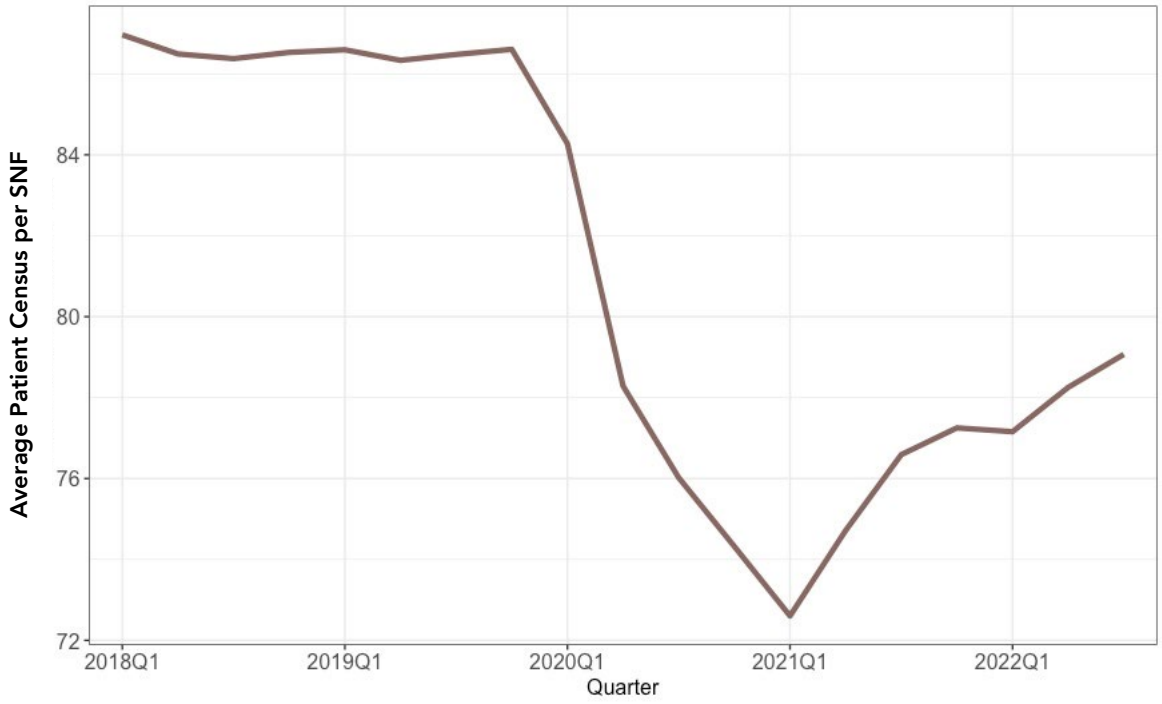


The count of SNFs included in our cohort varied over time. The lowest count was in Q1 2020 at 12,130 SNFs when there were waivers on data reporting requirements during the early COVID-19 public health emergency (**Figure 1**). For all other quarters, the number of SNFs reporting complete staffing data ranged from 14,622 in Q4 2021 to 15,055 in Q1 2019.

AVERAGE PATIENT CENSUS

The average SNF census was 87 patients per facility in Q1 2018, which rapidly declined during the COVID-19 pandemic, reaching its nadir of 73 patients per facility in Q1 2021 (**Figure 2**). Average census rebounded but had not reached pre-pandemic levels by Q3 2022.

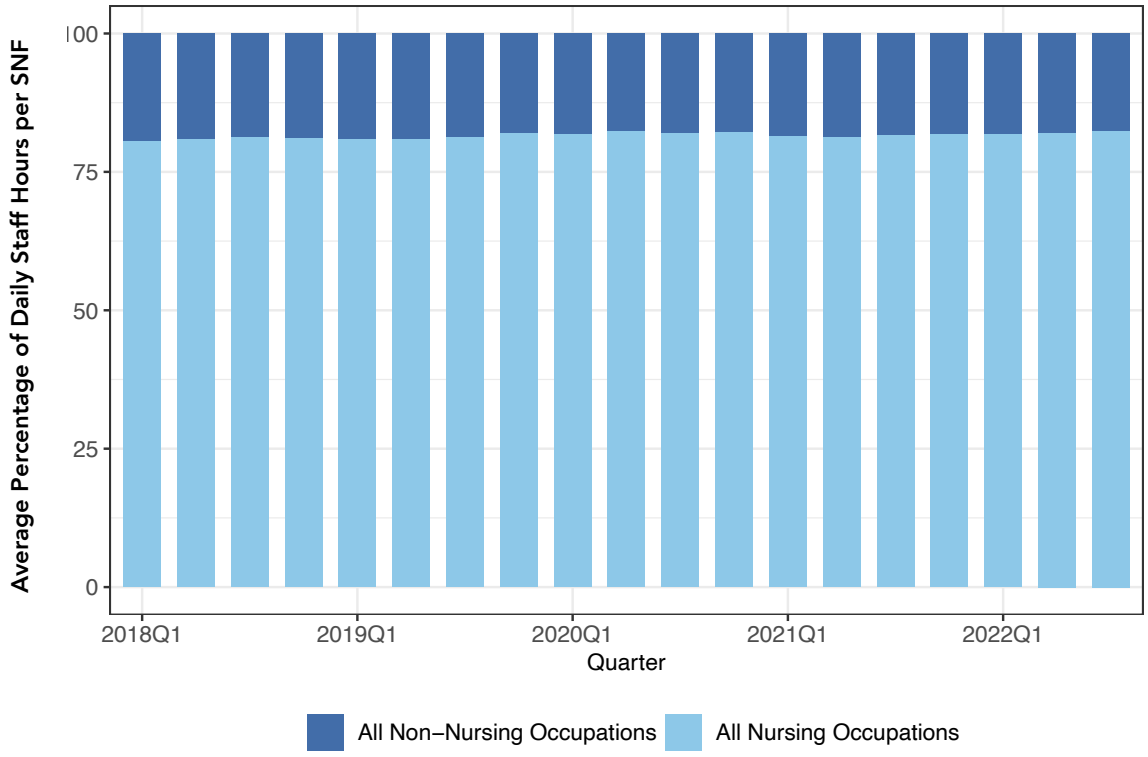
Figure 2. Average Patient Census per Skilled Nursing Facility (SNF) for all SNFs Reporting in the Payroll Based Journal



PERCENTAGE OF TOTAL STAFF HOURS

The percentage of all SNF staff hours accounted for by nursing versus non-nursing occupations varied by less than two percentage points over time (**Figure 3**). Nursing occupations accounted for 80.6% of all staff hours in SNFs in Q1 2018, which increased slightly to 82.4% by Q3 2022. Conversely, all non-nursing occupations combined accounted for 19.4% of all staff hours in Q1 2018, which decreased slightly to 17.6% by Q3 2022. Because of the limited variability in the percentage of all staff hours over time for all non-nursing occupations, we do not report percentages by individual occupations. The non-nursing occupations accounting for the largest proportion of all staff hours throughout the study were administrators and rehabilitation therapy occupations, followed by activities staff (**Appendix**).

Figure 3. The Average Proportion of Total Paid Staff Hours in Skilled Nursing Facilities (SNFs) Filled by Nursing or Non-Nursing Occupations



TOTAL STAFFING HOURS AND CENSUS-ADJUSTED STAFFING HOURS

Leadership

Non-nursing administrator hours declined over time from 9.0 hours per day on average in Q1 2018 to 6.2 hours per day by Q3 2022 (**Figure 4**). When adjusted for census, administrator time per patient-day increased during the COVID-19 pandemic, from 7.26 MPPD in Q1 2018 to a maximum of 8.26 MPPD in Q1 2021. Overall administrator staffing did not increase concomitantly as census rebounded, and instead declined to 5.87 MPPD by Q3 2022. Physician medical director staffing was low at around 0.4 total hours per day and stable throughout the study period.

Medical Staff

Medical staffing, excluding those in medical director roles, was low and relatively stable throughout the study period (**Figure 5**). The average SNF staffed each medical occupation for less than an hour per day, and there was minimal change in MPPD, which remained low (<0.5) throughout the study period.

Pharmacists

Pharmacist staffing was low at <0.5 hours per SNF per day throughout the study period (**Figure 6**). Pharmacist staffing hours decreased from a high of 0.44 hours in early 2019 to a low of 0.37 by Q3 2022. However, accounting for census, MPPD was stable yet low (<0.5) throughout the study period.

Feeding Occupations

Total staffing hours for both dieticians and feeding assistants declined throughout the study period, with feeding assistants notably dropping by about half from 5.15 hours per day in Q1 2018 to 2.74 hours by Q4 2021, with slow recovery. Census-adjusted dietician staffing varied, increasing slightly during the early COVID-19 pandemic, while MPPD declined steadily for feeding assistants (**Figure 7**).

Respiratory Occupations

Total hours and MPPD were stable for respiratory therapists and respiratory technicians throughout the study period (**Figure 8**). Staffing of respiratory therapists was higher overall than for technicians.

Licensed Therapy Occupations

Staffing for therapists and therapy assistants declined for all licensed therapy occupations during the study period, with the sharpest declines occurring in late 2019, coinciding with a new model of Medicare reimbursement for SNFs that targeted therapy provision starting in October 2019 (**Figure 9**).[22] Therapy staffing declines were less steep but still present when accounting for patient census, and therapy MPPD remained lower than 2018 levels throughout 2022. For both measures, SLPs had the lowest staffing at baseline and experienced the smallest declines relative to other licensed therapy occupations, while PTAs and OTAs had the highest staffing at baseline and experienced the largest relative declines. In Q1 2018, SNFs staffed an average of 7.45 hours per day (5.40 MPPD) for OTAs and 8.90 hours per day (6.53 MPPD) for PTAs. Staffing declined to 5.59 hours per day (4.38 MPPD) and 6.60 hours per day (5.30 MPPD) for OTAs and PTAs, respectively, by Q3 2022.

Therapy Aides

Staffing for physical and occupational therapy aides was lower than for therapists and assistants throughout the study period (**Figure 10**). However, total staffing hours and MPPD declined sharply for PT aides from 1.38 hours per day (0.99 MPPD) in Q1 2018 to 0.63 hours per day (0.50 MPPD) in Q3 2022, while the low staffing of OT aides remained stable even when census-adjusted.

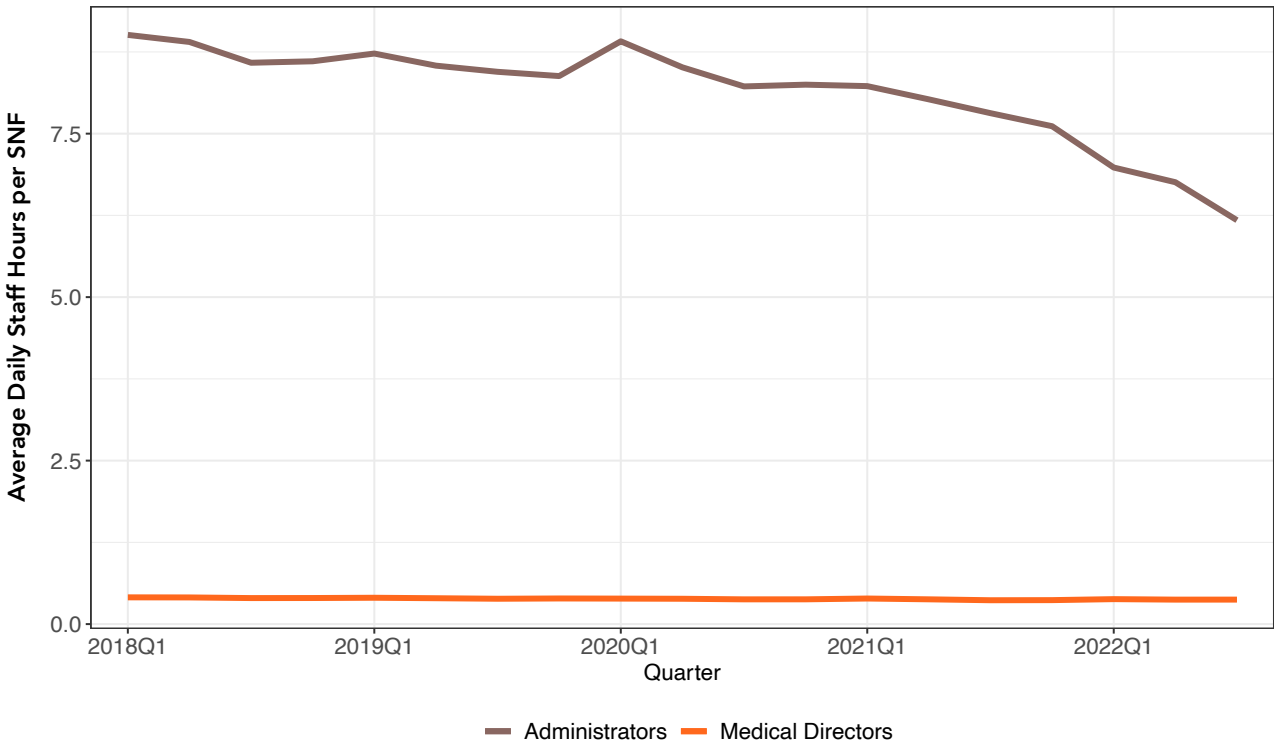
Recreation and Activities Staff

Staffing for other activities occupations was higher than for therapeutic recreation specialists throughout the study, however, other activities staff hours declined from 9.44 hours per day in Q1 2018 to 8.25 by Q3 2022 (**Figure 11**). However, when census-adjusted, MPPD were stable for both activities staff and therapeutic recreation specialists.

Social Work and Mental Health Occupations

Staffing hours for qualified and other social workers declined slightly throughout the study period, but census-adjusted MPPD were more stable compared to total hours (**Figure 12**). Staffing of qualified and other social workers was much higher than for mental health service workers throughout the study period. In Q1 2018, the average SNF had 4.93 hours of qualified social worker staffing, which declined to 4.29 by Q3 2022.

Figure 4. Total Staff Hours and Staff Minutes per Patient-Day for Leadership Occupations in Skilled Nursing Facilities (SNFs)



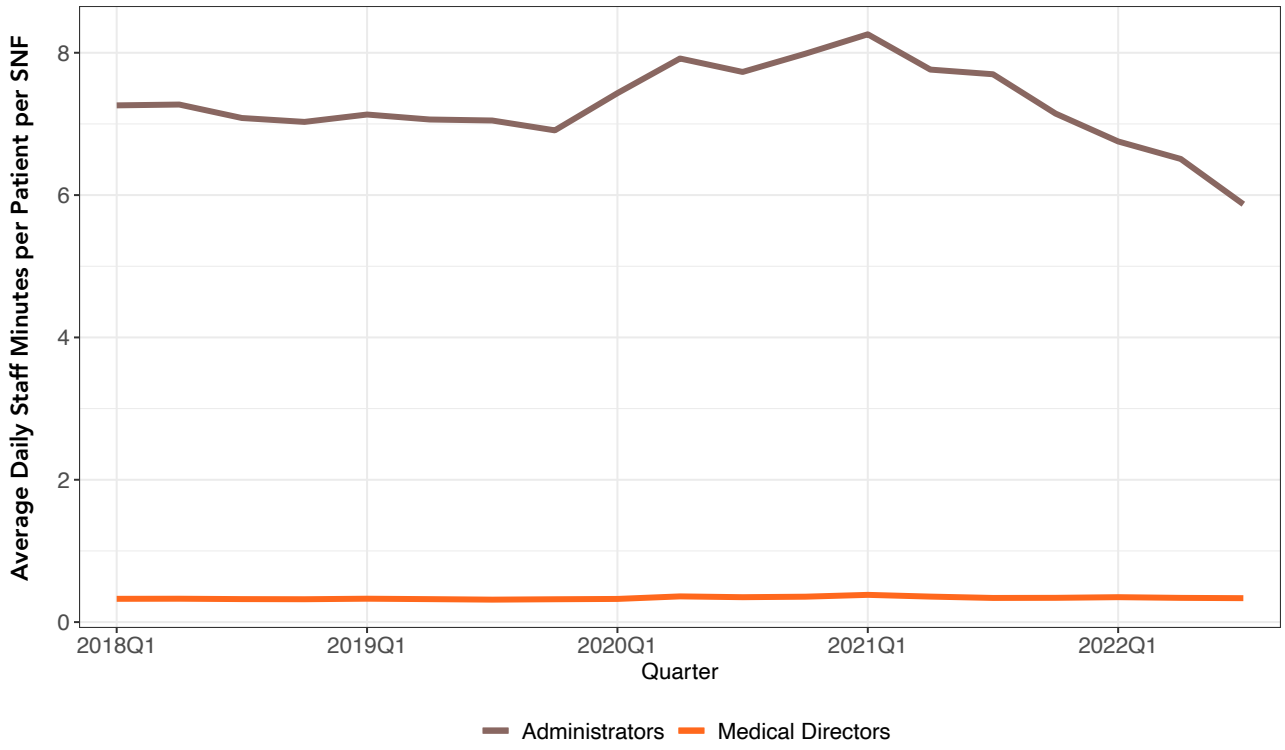


Figure 5. Total Staff Hours and Staff Minutes per Patient-Day for Medical Staff in Skilled Nursing Facilities (SNFs)

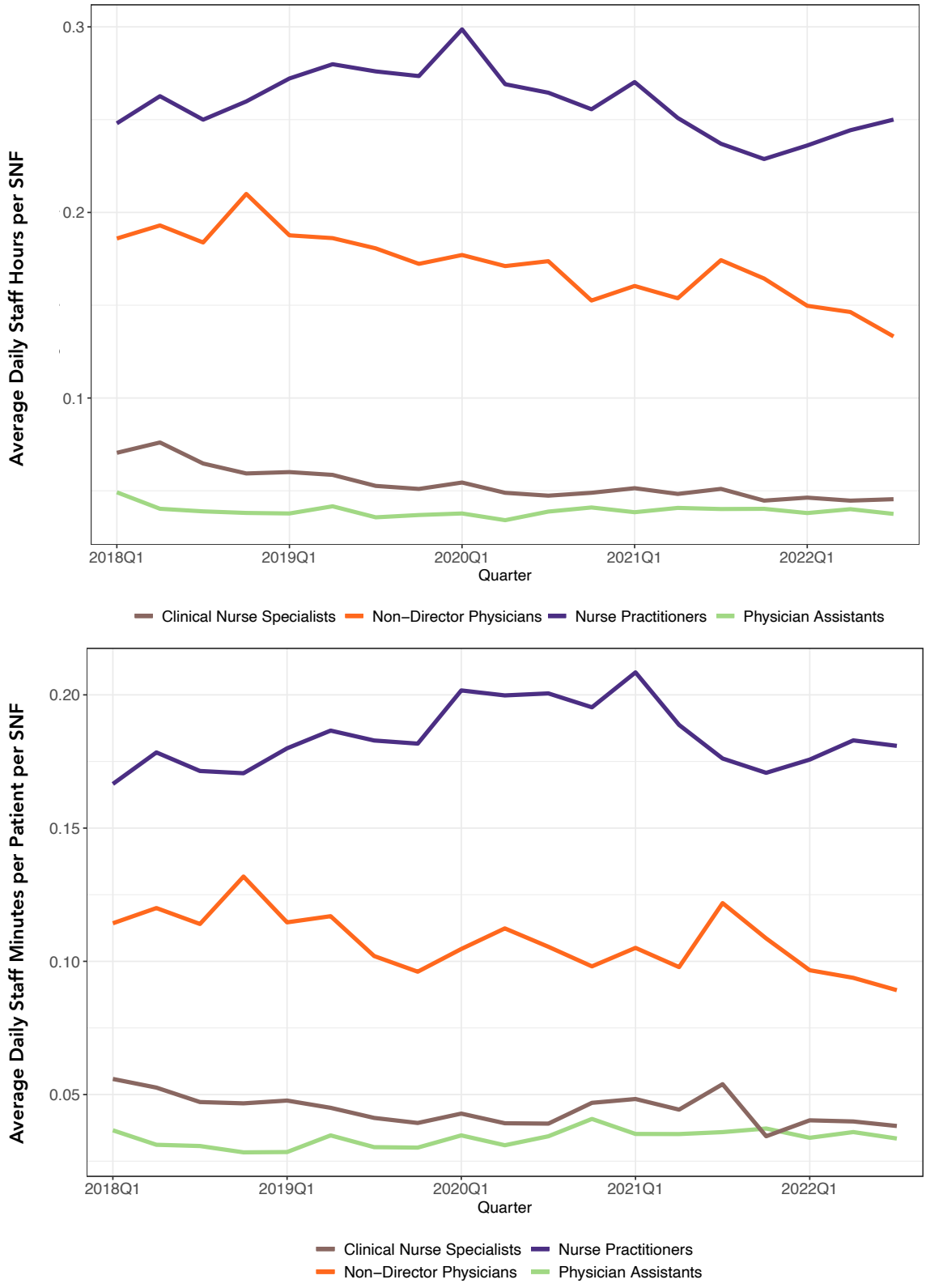


Figure 6. Total Staff Hours and Staff Minutes per Patient-Day for Pharmacists

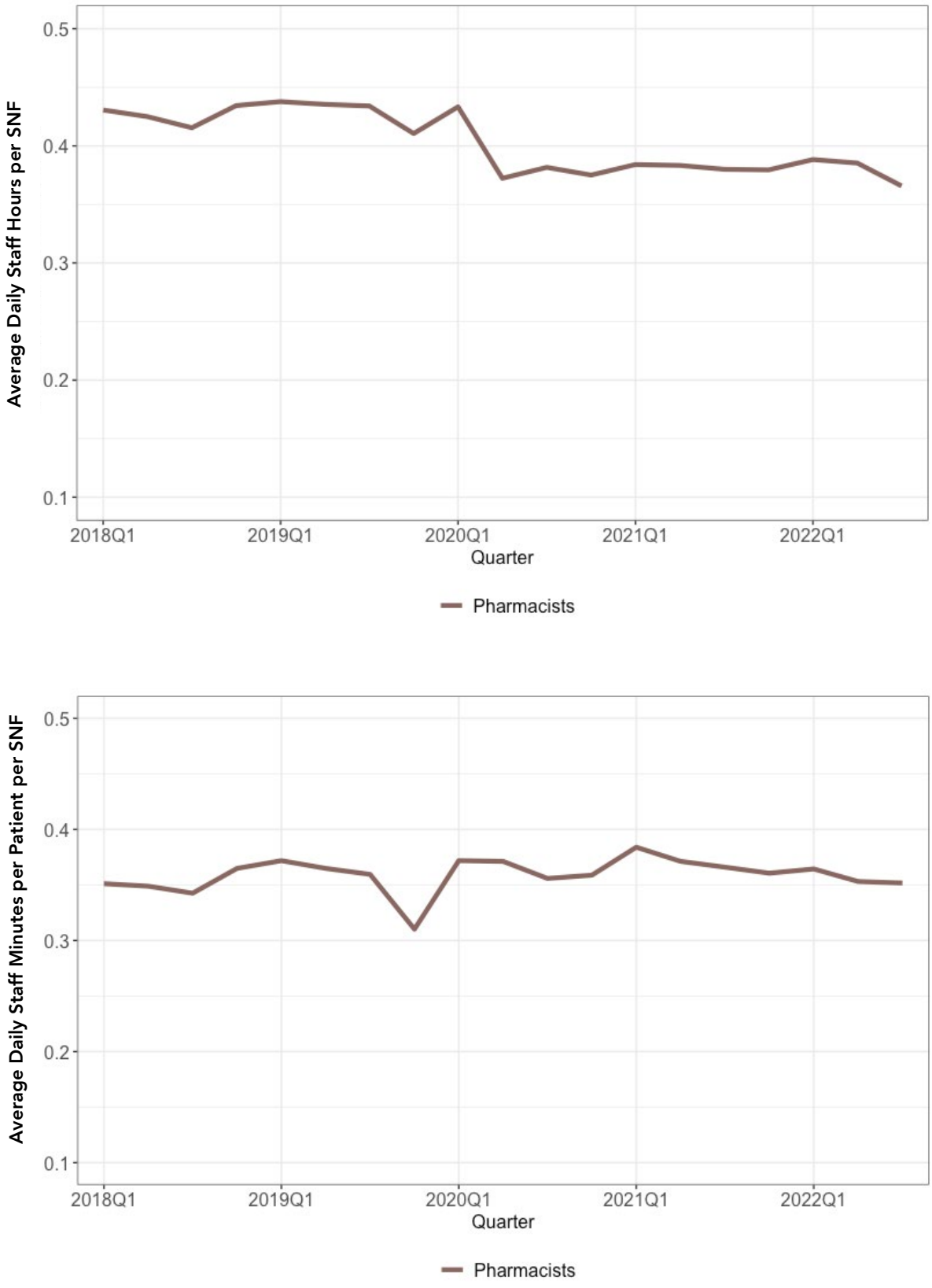
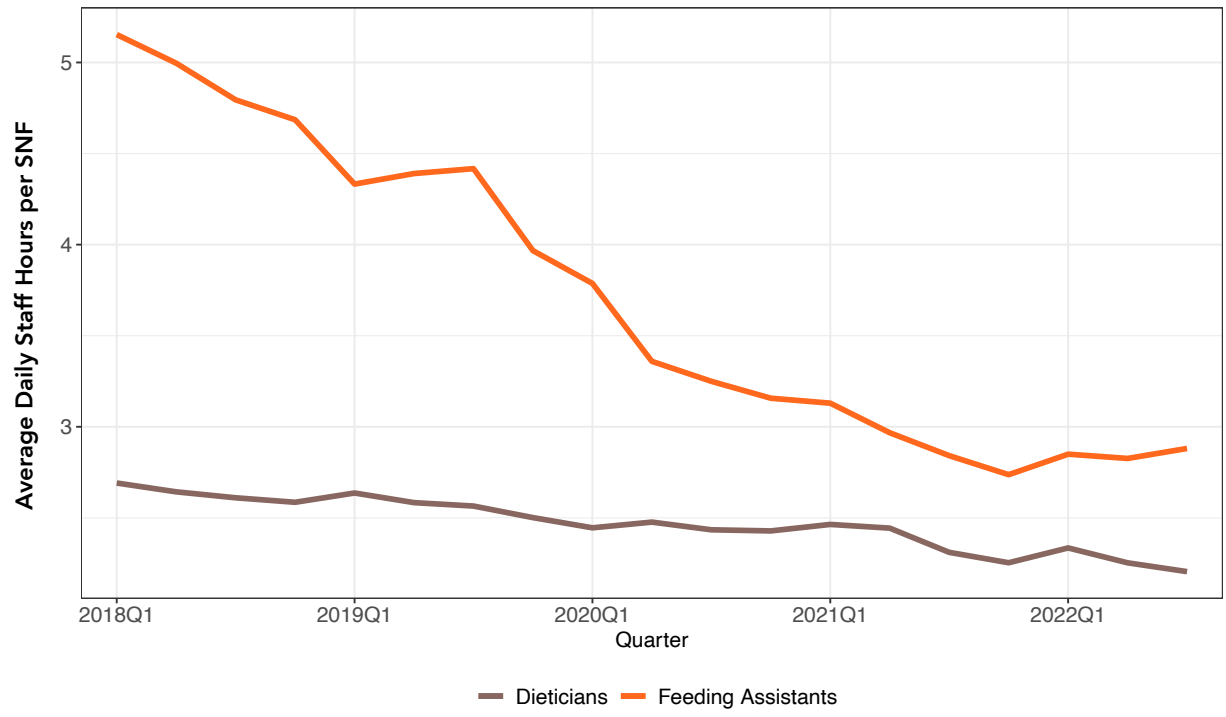


Figure 7. Total Staff Hours and Staff Minutes per Patient-Day for Feeding Occupations in Skilled Nursing Facilities (SNFs)



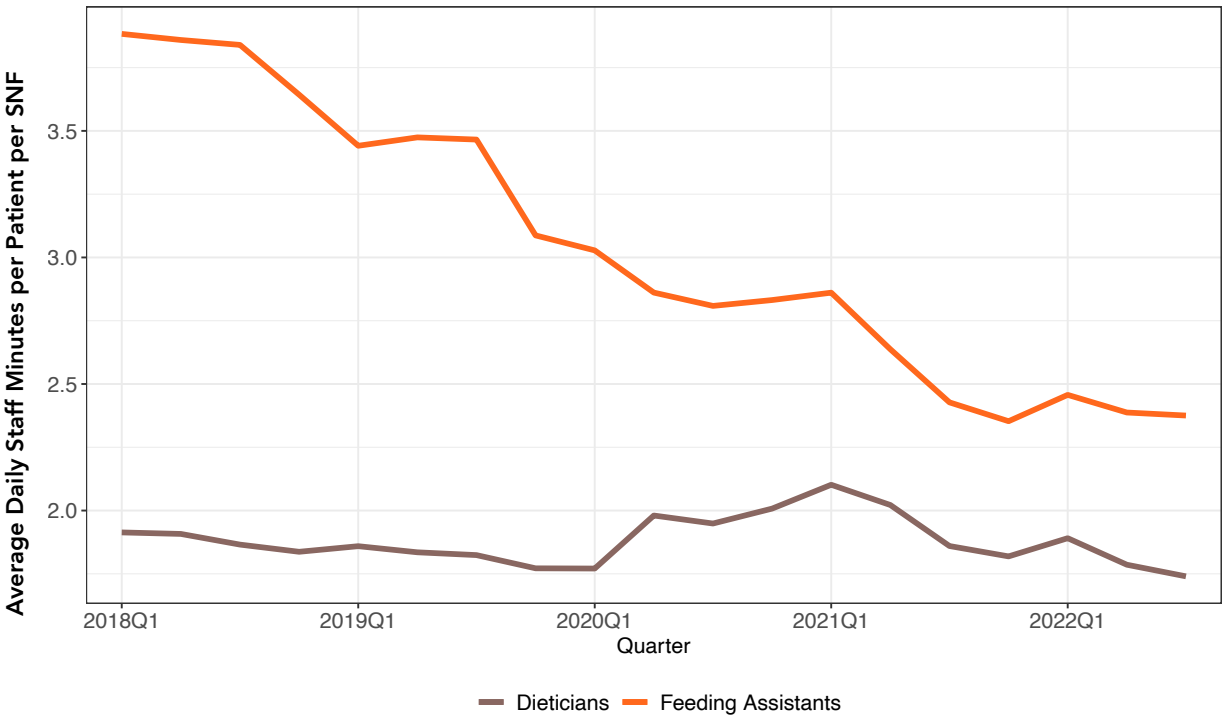
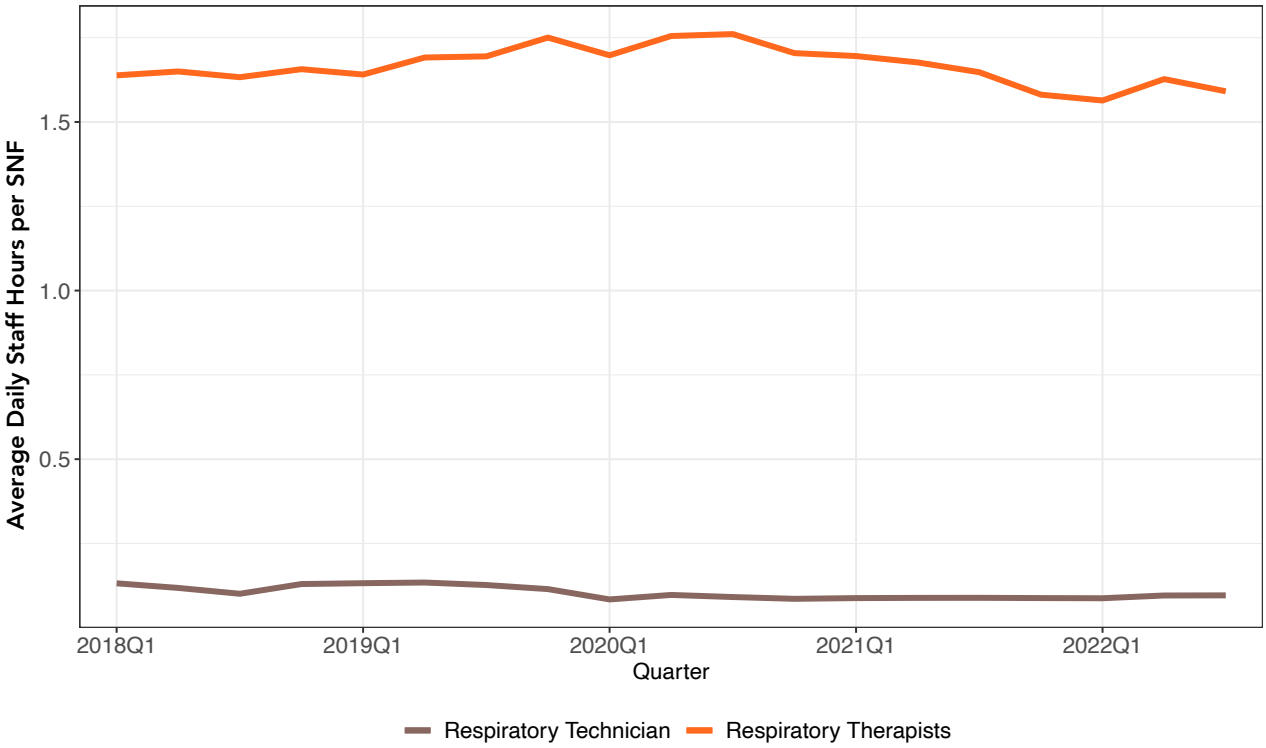


Figure 8. Total Staff Hours and Staff Minutes per Patient-Day for Respiratory Occupations in Skilled Nursing Facilities (SNFs)



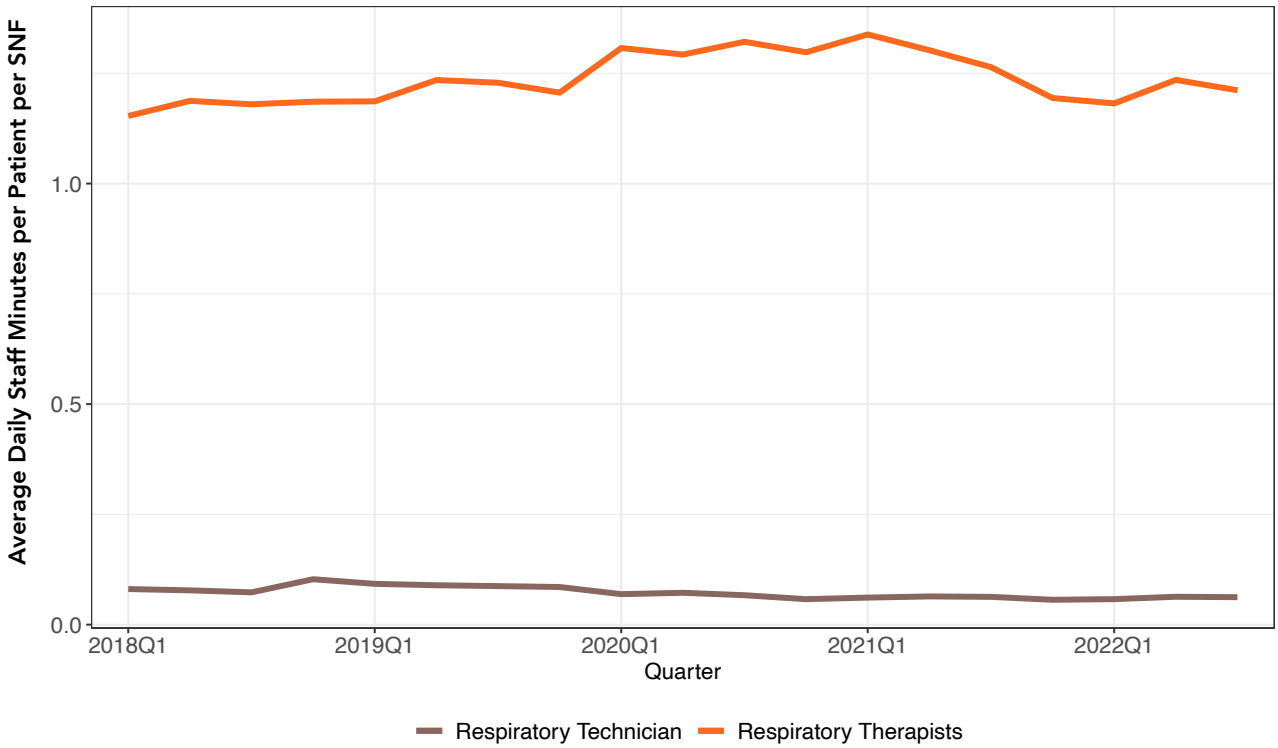
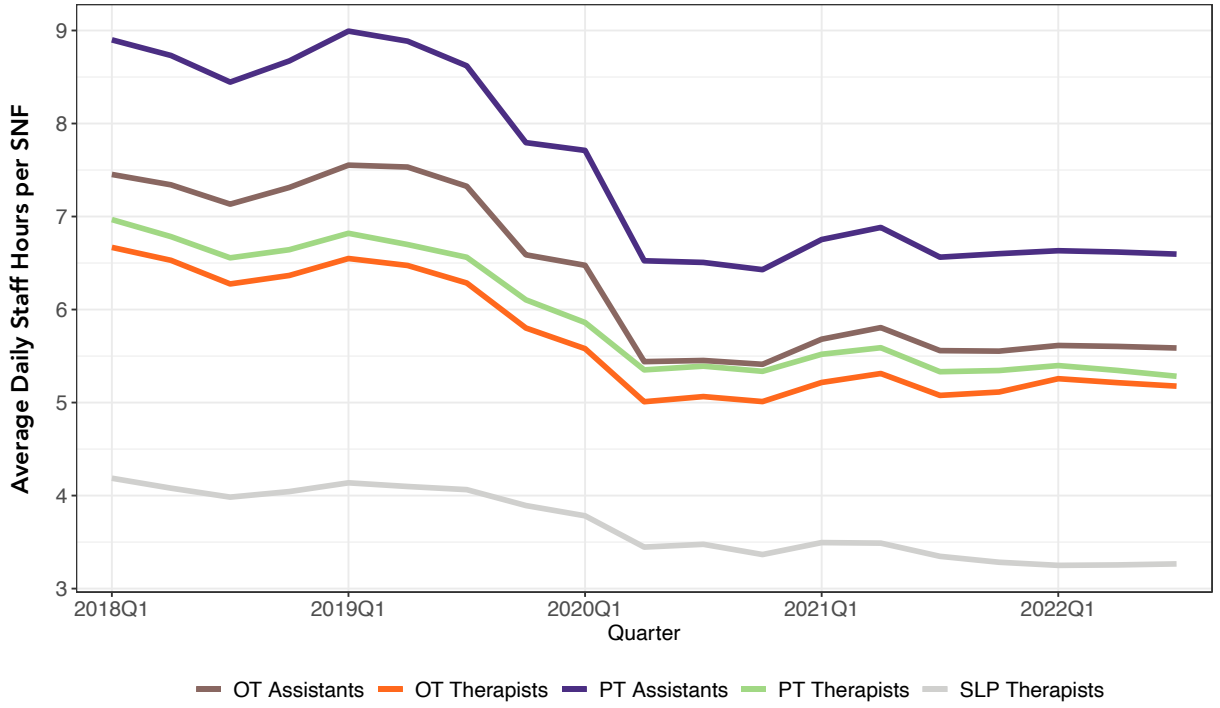


Figure 9. Total Staff Hours and Staff Minutes per Patient-Day for Licensed Therapy Occupations in Skilled Nursing Facilities (SNFs)



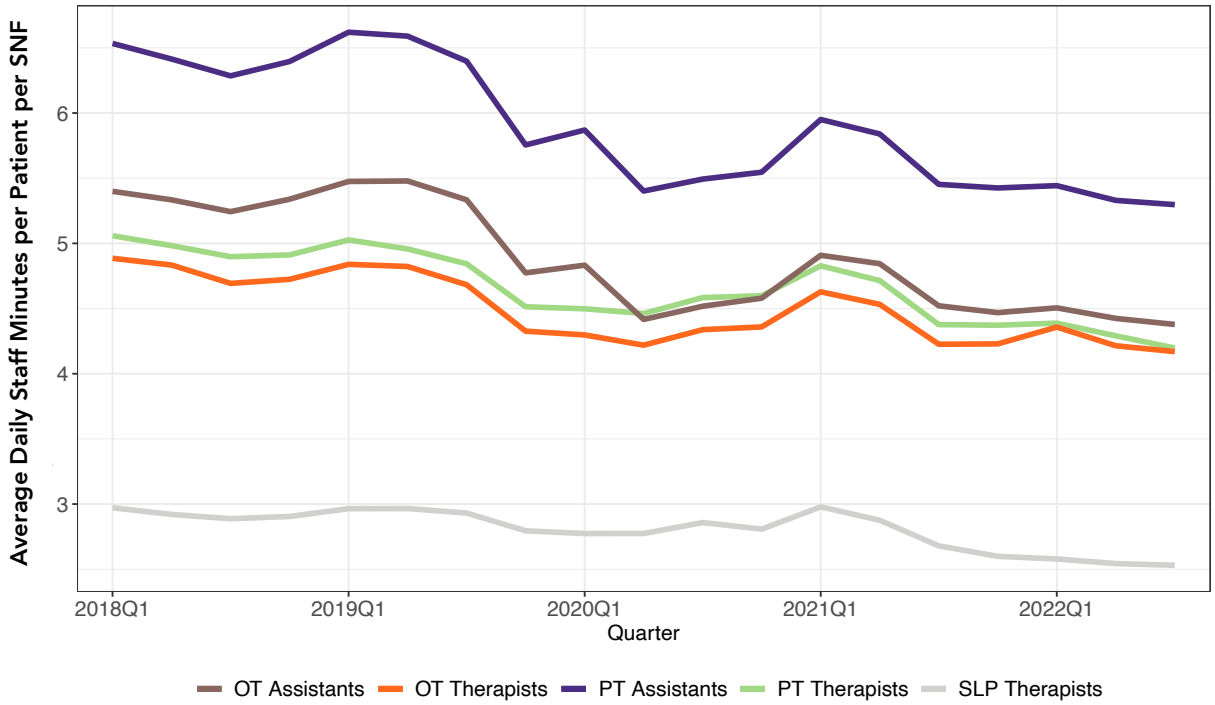
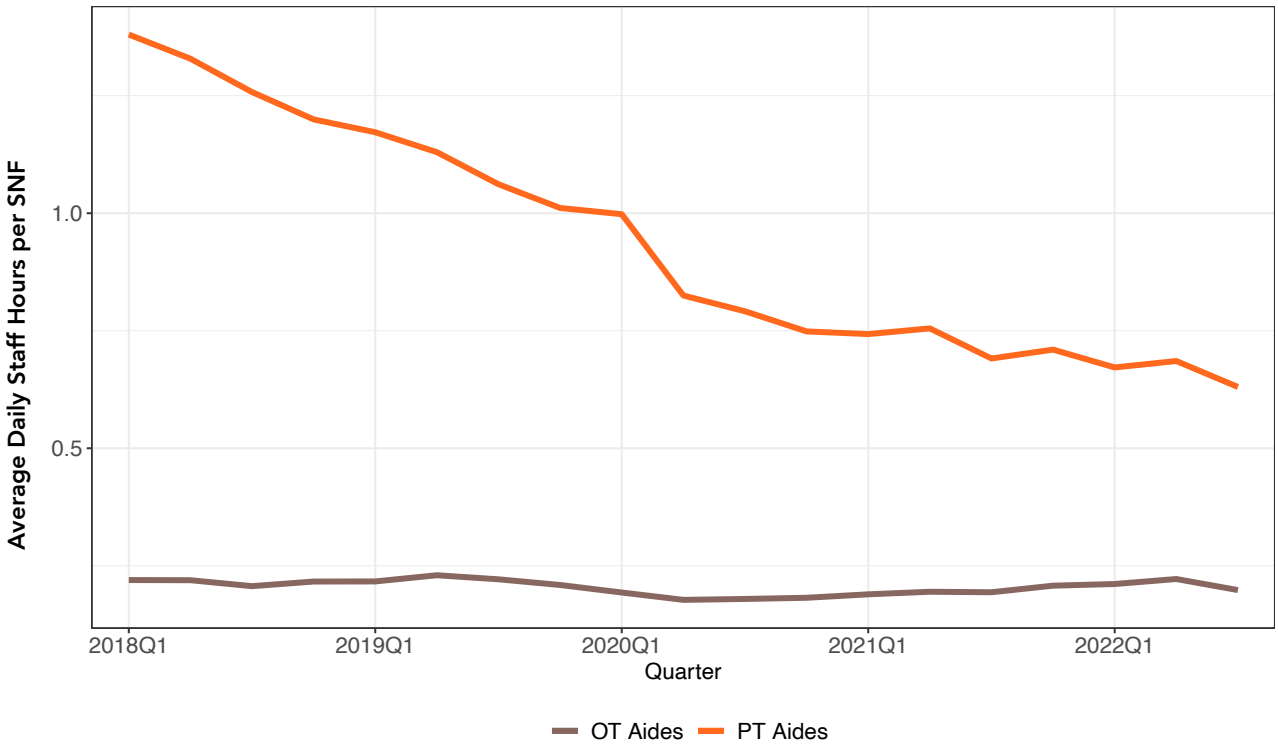


Figure 10. Total Staff Hours and Staff Minutes per Patient-Day for Occupational Therapy (OT) and Physical Therapy (PT) Aides in Skilled Nursing Facilities (SNFs)



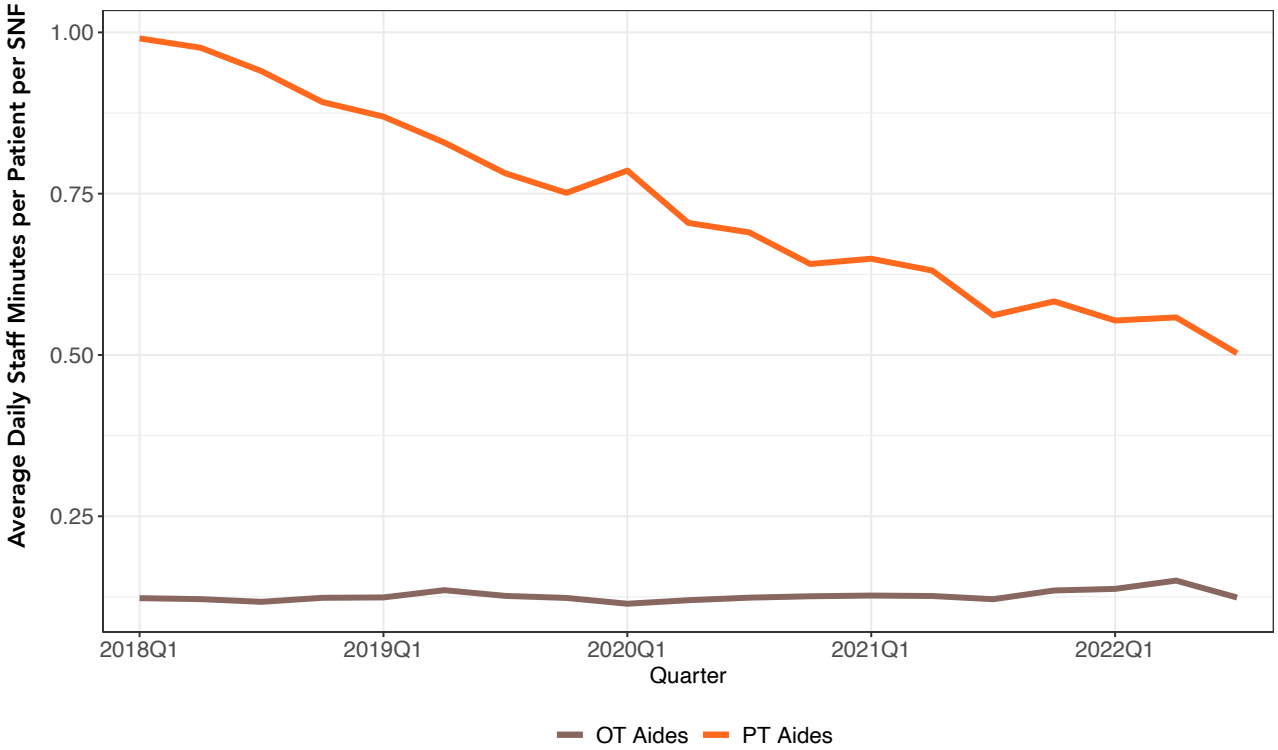
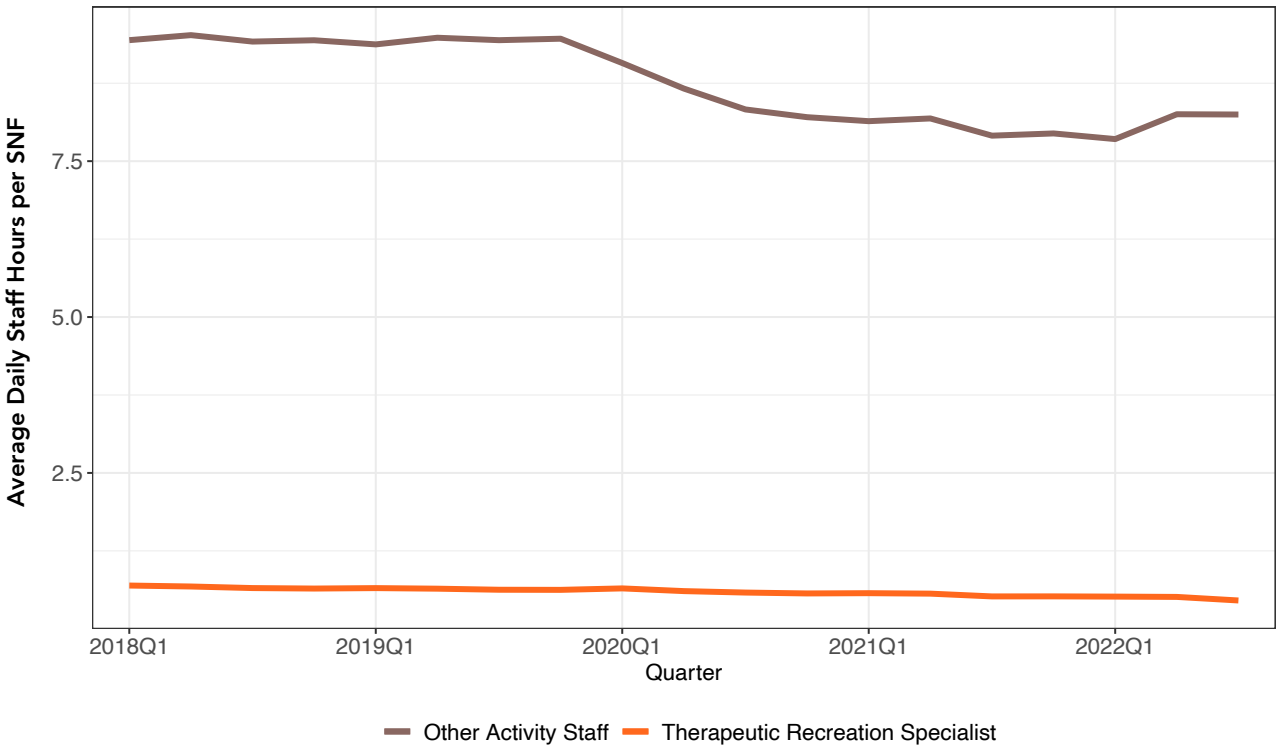


Figure 11. Total Staff Hours and Staff Minutes per Patient-Day for Recreation Occupations in Skilled Nursing Facilities (SNFs)



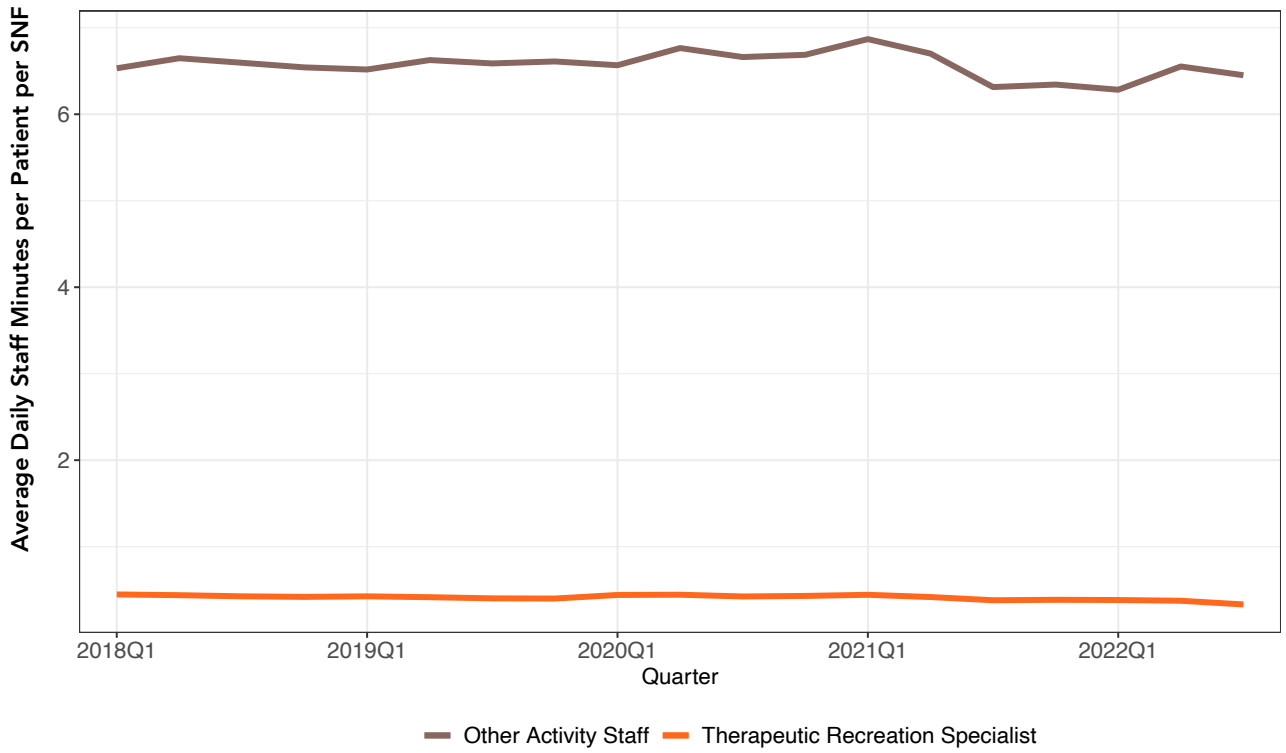
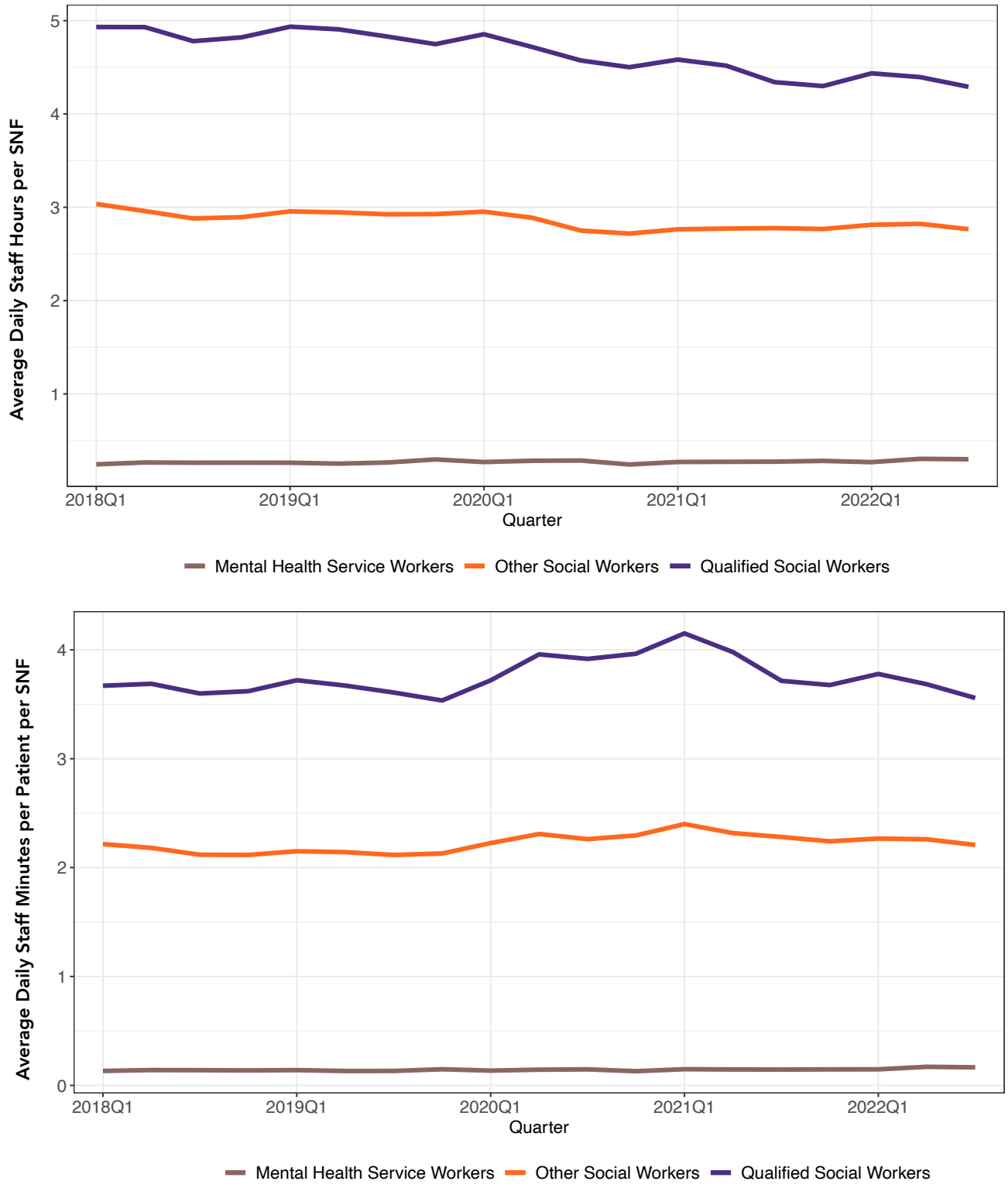


Figure 12. Total Staff Hours and Minutes and Staff Minutes per Patient-Day for Social Work Occupations in Skilled Nursing Facilities (SNFs)

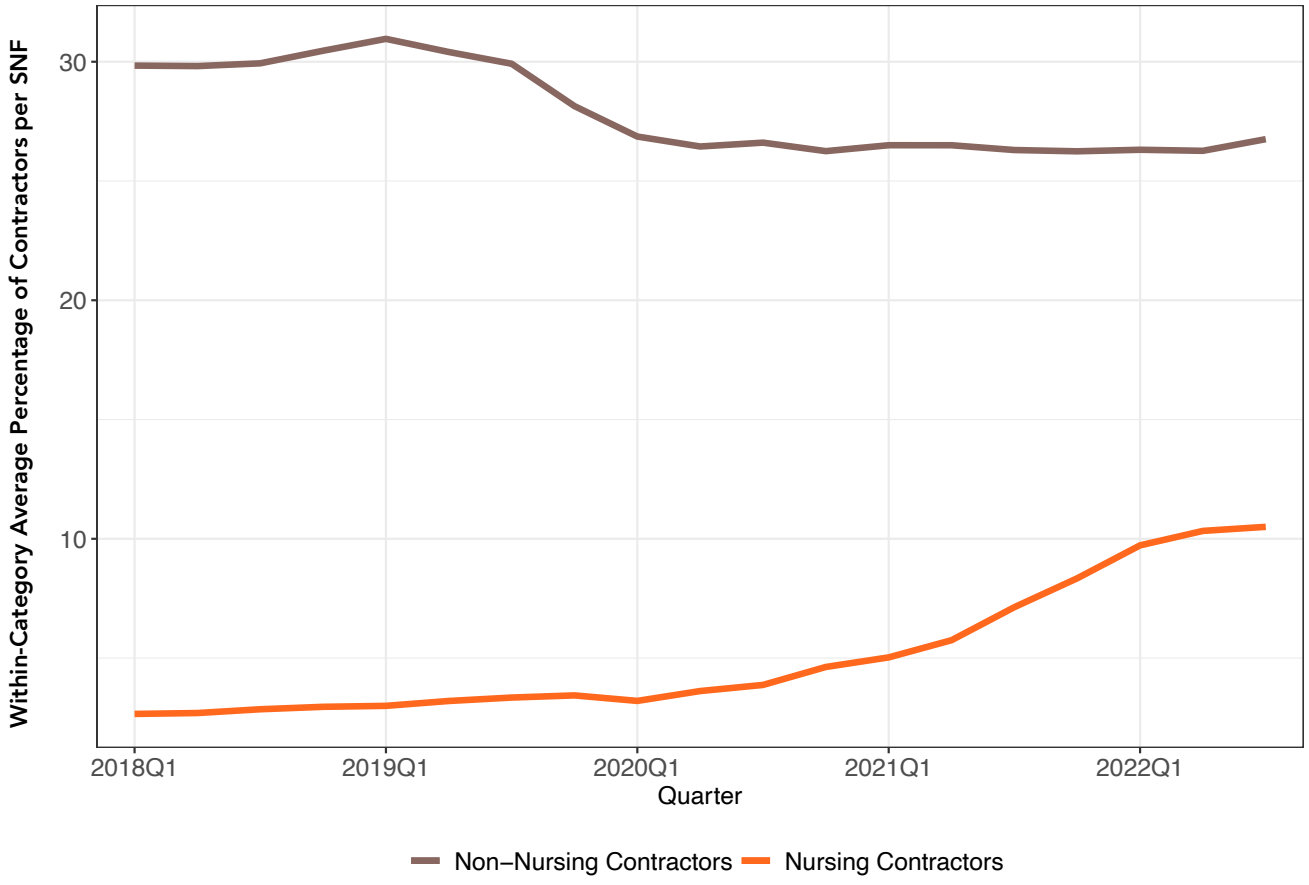


CONTRACTOR STAFFING

Non-Nursing versus Nursing Occupations

SNFs employed more contractor hours as a percentage of all staff for non-nursing occupations compared to nursing occupations (Figure 13). While the percentage of total hours paid to contractors versus in-house staff (referred to as "contractor percentage") for nursing increased over time, the contractor percentage decreased among non-nursing staff. For non-nursing occupations, the contractor percentage was the highest in Q1 2019 at 31.0% and decreased to 26.8% by Q3 2022 (Appendix). This was less steep compared to contractor percentage among nursing occupations during the COVID-19 pandemic: in Q1 2018, 2.7% of nursing staff were contractors, which increased to an average of 10.5% by Q3 2022.

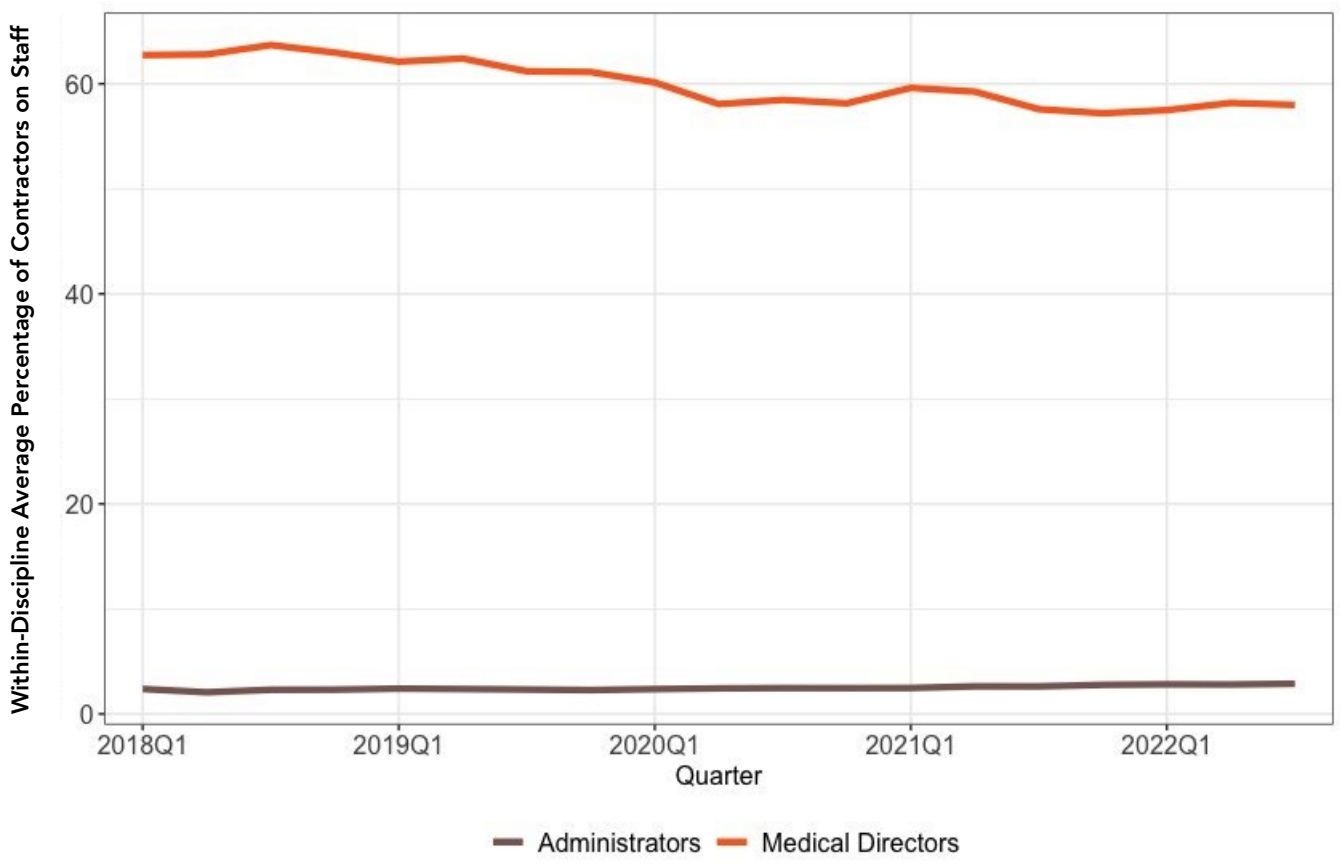
Figure 13. Average Proportion of Contractors versus In-House Staff for Non-Nursing and Nursing Occupations in Skilled Nursing Facilities (SNFs)



Leadership

The contractor percentage for SNF administrators was low and stable from Q1 2018 to Q3 2022 at a quarterly average of 2.5% (Figure 14). The contractor percentage was high for medical directors relative to other administrators, with a slight decrease from a high of 63.0% in Q4 2018 to a low of 57.2% in Q4 2021.

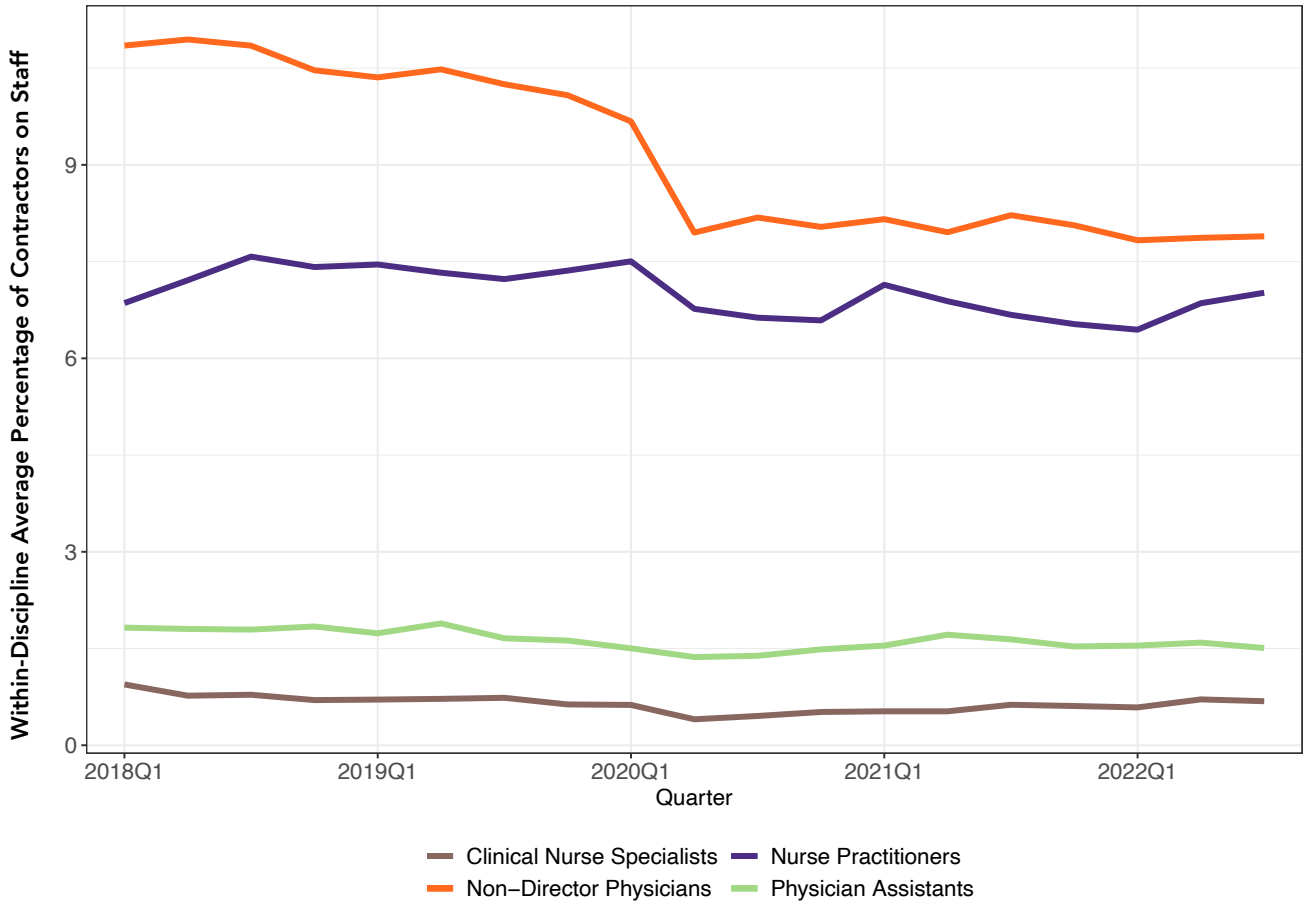
Figure 14. Percentage of Contractors versus In-House Staff for Leadership Occupations in Skilled Nursing Facilities



Medical Staff

Contractor percentages among medical staff remained stable except for other physicians, which declined from over 10% in 2018 to 7.8% by 2022 (Figure 15).

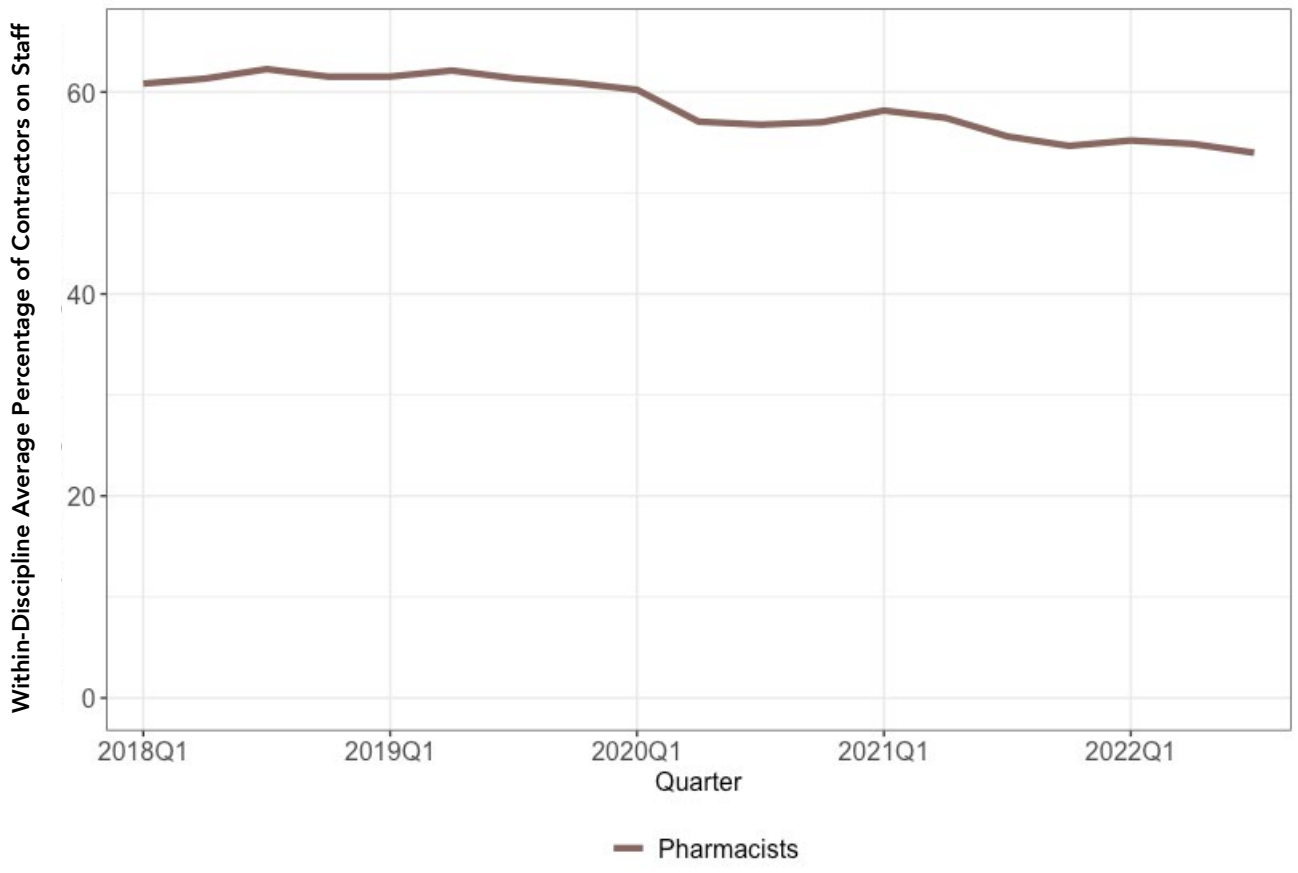
Figure 15. Percentage of Contractors versus In-House Staff for Medical Staff in Skilled Nursing Facilities (SNFs)



Pharmacists

The contract percentage for pharmacists decreased from a high of 62.3% in Q3 2018 to 54.0% by Q3 2022 (Figure 16).

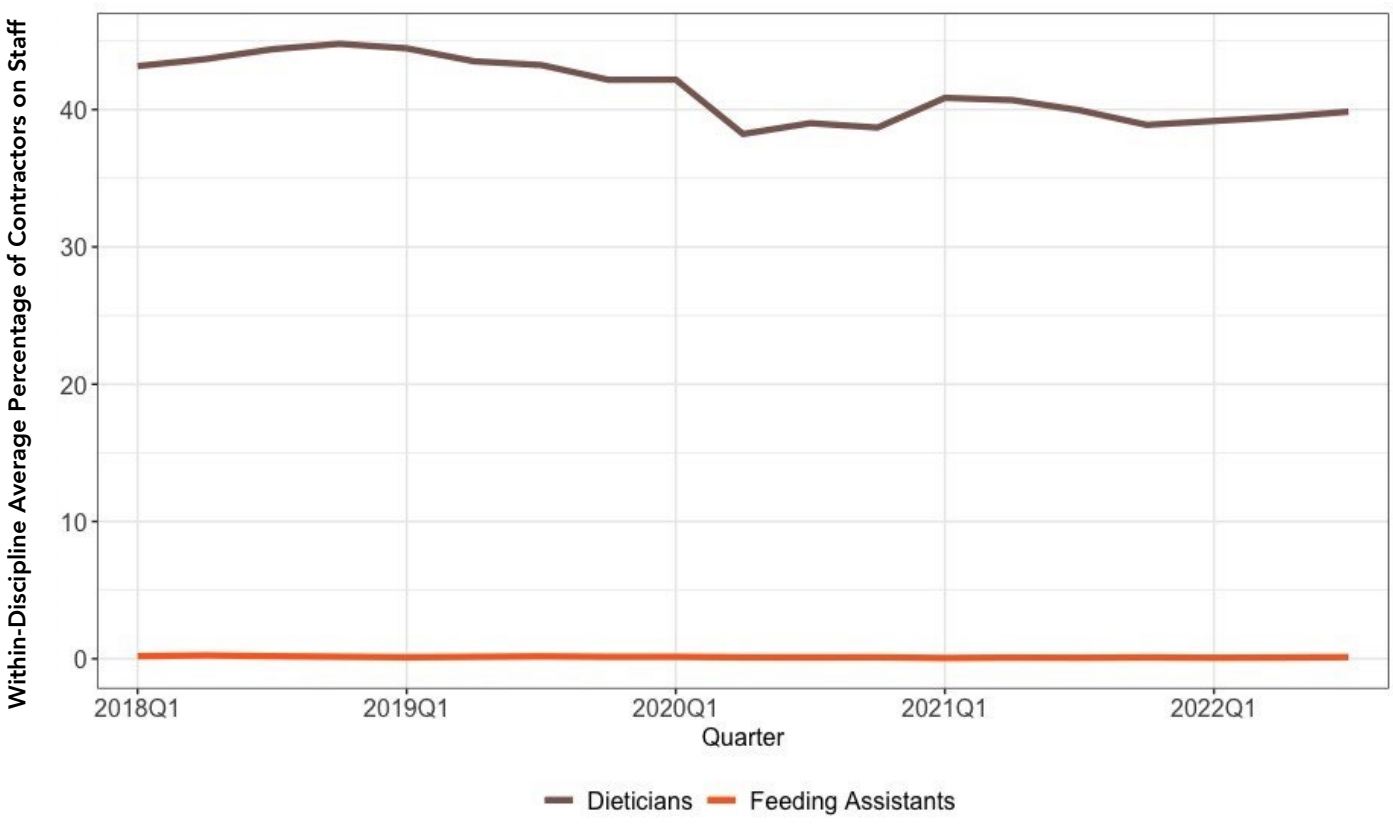
Figure 16. Percentage of Contractors versus In-House Staff for Pharmacists in Skilled Nursing Facilities (SNFs)



Feeding Occupations

Contractor percentages for feeding assistants were negligible (<0.5%) and stable throughout the study. The contractor percentage for dieticians was much higher at an average of 41.4% (Figure 17). There was a slight decrease in dietician contractor staffing during the COVID-19 pandemic.

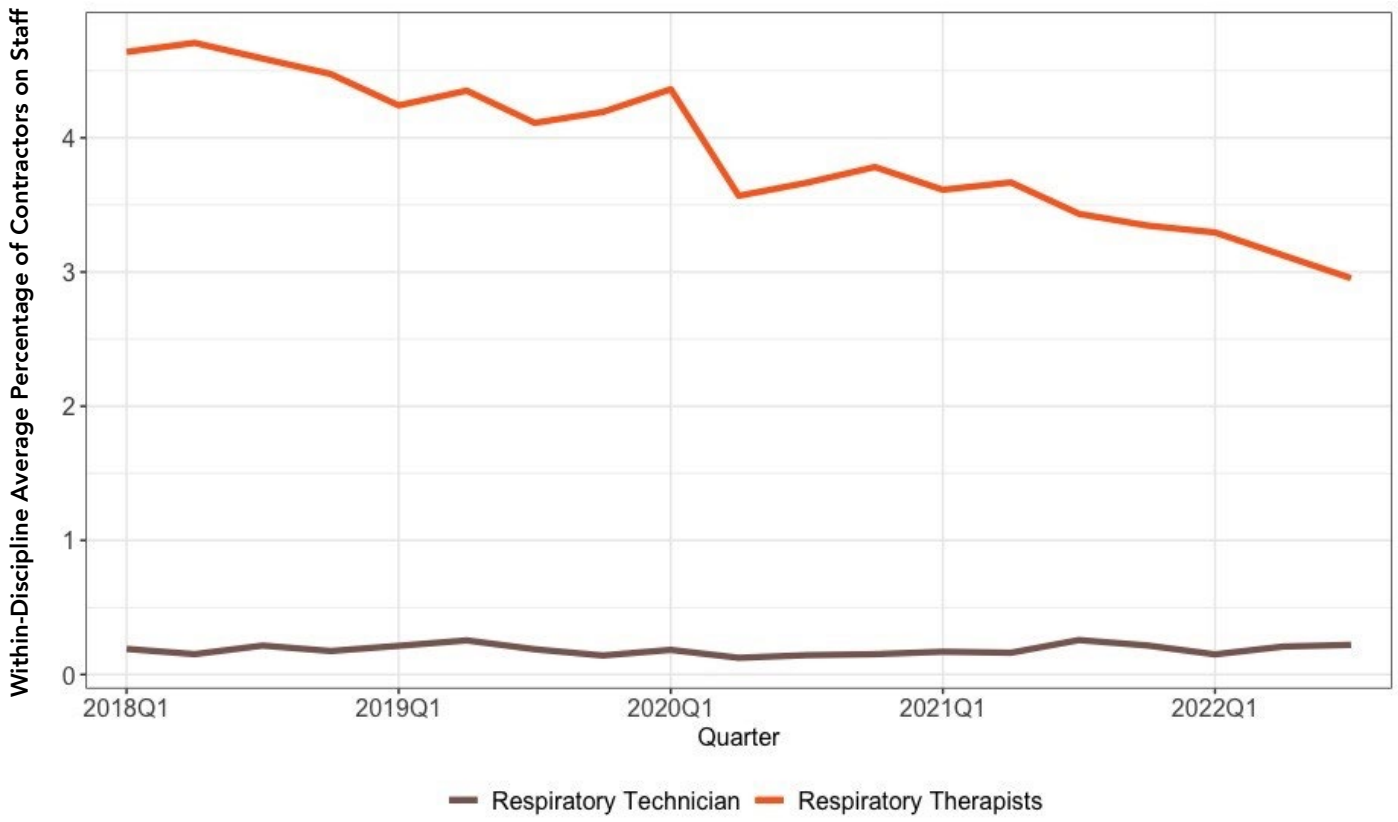
Figure 17. Percentage of Contractors versus In-House Staff for Feeding Occupations



Respiratory Occupations

Contractor percentages for respiratory technicians were low and stable throughout the study (Figure 18). Contractor staffing for respiratory therapists declined from 4.71% in Q2 2018 to 2.95% by Q3 2022.

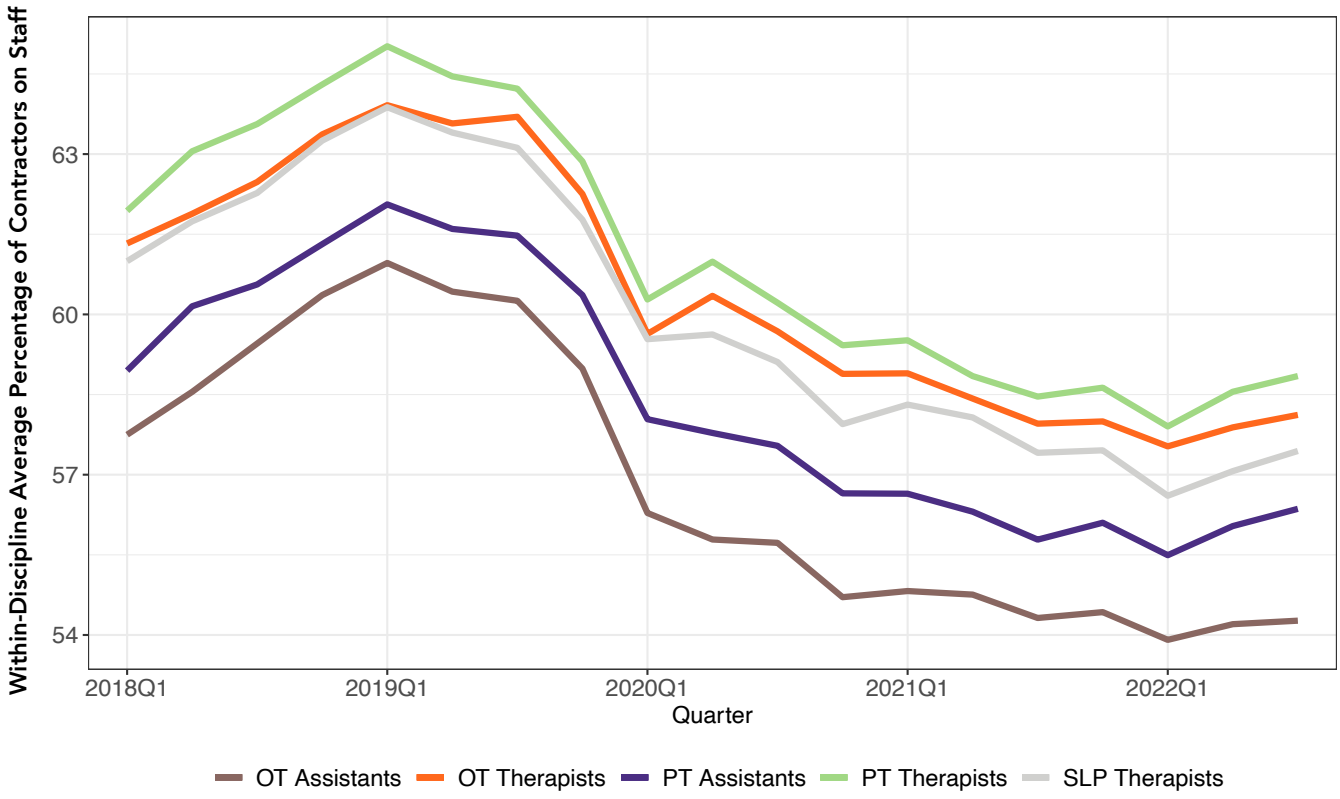
Figure 18. Percentage of Contractor versus In-House Staff for Respiratory Occupations in Skilled Nursing Facilities (SNFs)



Licensed Therapy Occupations

Contractor percentages for all licensed therapy occupations were high, especially for therapy assistants (Figure 19). Contractor percentages increased in 2018, but then decreased through mid-2022, with the sharpest declines in contractor staffing occurring in late 2019.

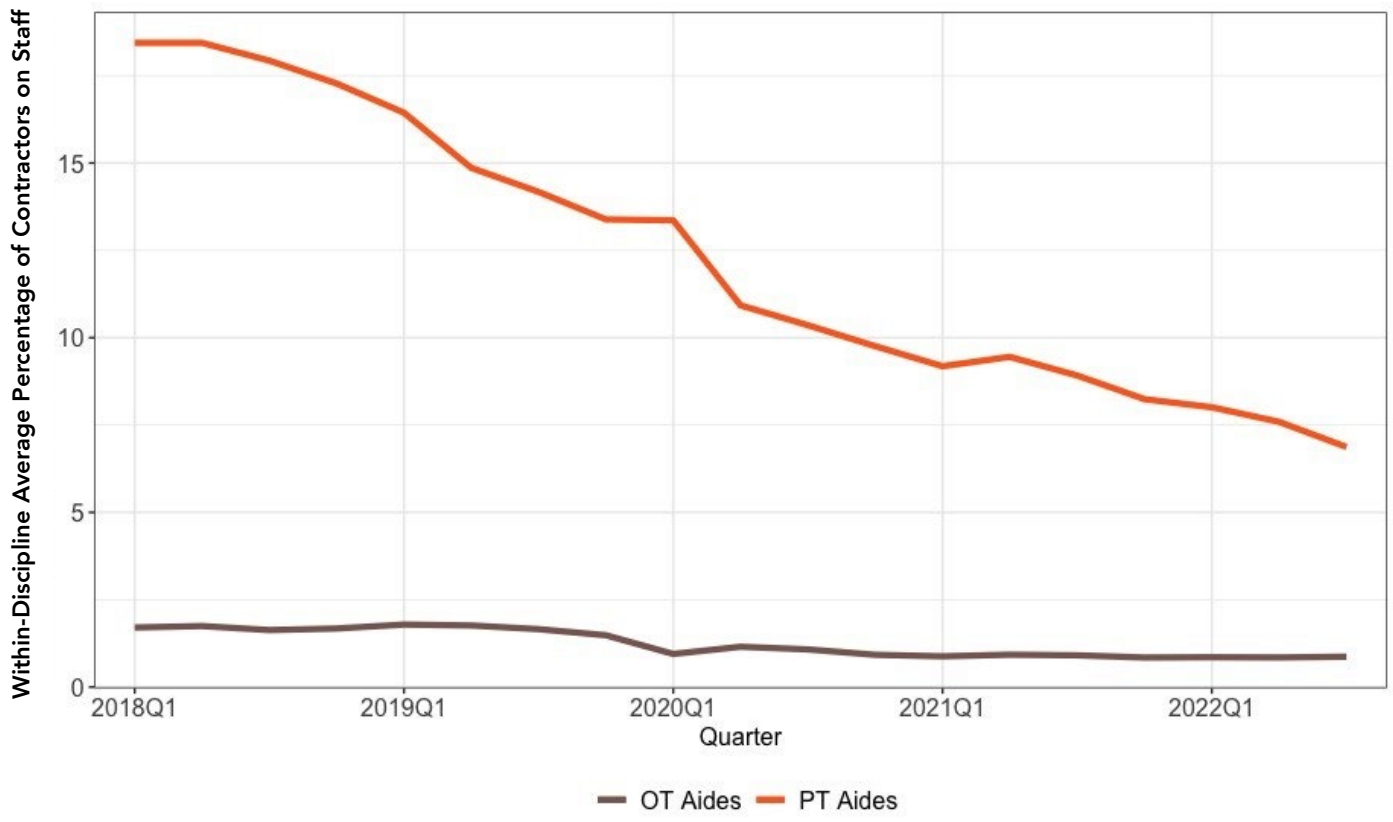
Figure 19. Percentage of Contractor versus In-House Staff for Licensed Therapy Occupations in Skilled Nursing Facilities (SNFs)



Therapy Aides

Contractor percentage for therapy aides was lower than for therapists and assistants (Figure 20). Contractor percentage for OT aides was stable, but contract staffing for PT aides declined from 18.4% in Q1 2018 to 6.9% in Q3 of 2022.

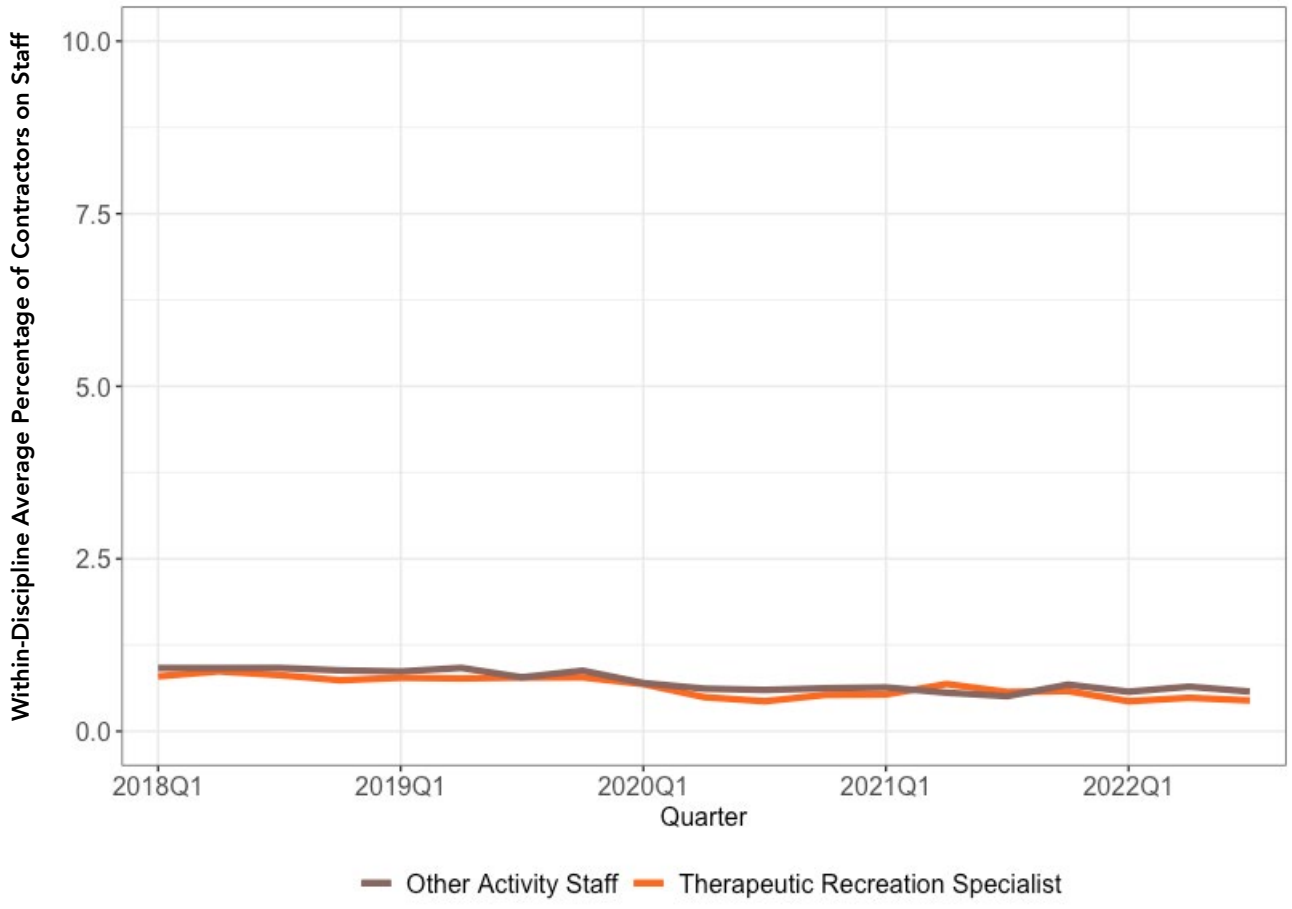
Figure 20. Percentage of Contractor versus In-House Staff for Therapy Aides in Skilled Nursing Facilities (SNFs)



Recreation and Activities Staff

Contractor percentages for activities staff and therapeutic recreation specialists declined slightly starting in 2020, however, overall rates of contract staffing were at 1.0% or below for both disciplines throughout the study period (Figure 21).

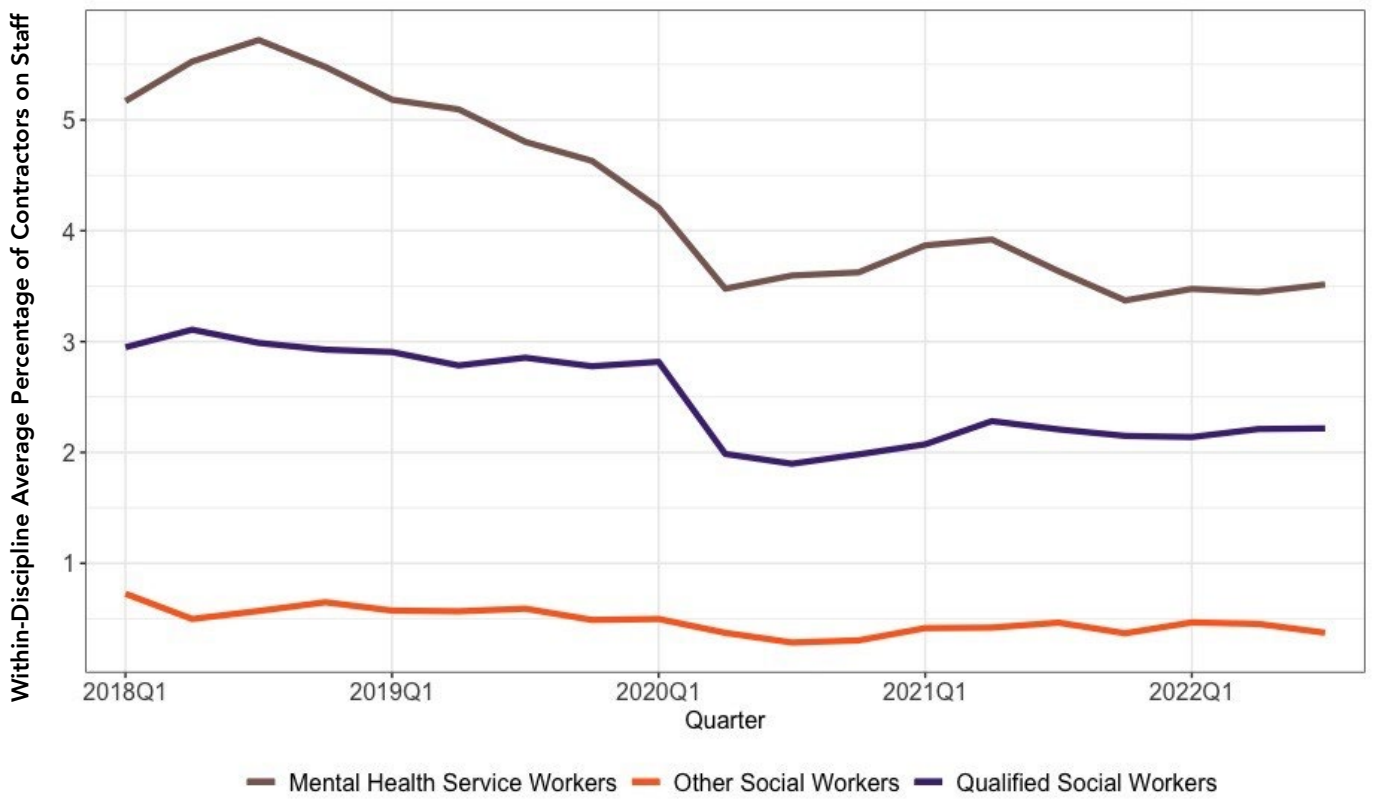
Figure 21. Percentage of Contractor versus In-House Staff for Recreation and Activities Staff in Skilled Nursing Facilities (SNFs)



Social Work and Mental Health Occupations

Contractor percentage was higher for mental health service workers compared to social workers (Figure 22). Contractor percentage declined for mental health service workers and qualified social workers during the study period, with the steepest declines occurring in the early pandemic.

Figure 22. Percentage of Contractor versus In-House Staff for Social Work and Mental Health Occupations in Skilled Nursing Facilities (SNFs)



DISCUSSION

STAFFING LEVELS

Among all staff hours in SNFs, nursing occupations dominated and increased slightly between January 2018 and September 2022. Non-nursing occupations slightly declined over this same time period, primarily driven by declines in staffing of administrators, therapy occupations, activities staff, and feeding assistants. However, declines in staffing hours for non-nursing occupations occurred during times of declining patient census, so when census-adjusted, the declines were mitigated. When patient census rebounded, however, staffing MPPD did not increase for certain occupations (i.e., therapy and feeding occupations).

Staffing MPPD of therapy occupations and feeding assistants remained notably low compared to 2018 baselines by the end of the study period. Feeding assistants receive minimal training compared to other nursing staff such as CNAs, and job functions are limited to tasks including escorting residents to dining rooms, meal set-up, and direct feeding support.[23,24] Declines in feeding assistant staffing may be related to the reduction in communal dining that occurred during the COVID-19 pandemic or related to SNF efforts at increasing efficiency by reducing hiring of single-task staff.[24] However, declines in feeding assistant staffing are concerning as tasks related to feeding in SNFs likely shifted to CNAs, who already reported a lack of time to perform one-on-one resident feeding support prior to the COVID-19 pandemic.[23,25]

Staffing declines for rehabilitation therapists and assistants in SNFs over our study period have already been reported in multiple studies[15,26,27] and attributed in part to 2019 Medicare payment reform removing incentives for SNFs to provide intensive therapy to short-stay SNF patients.[22] However, to our knowledge, this is the first study to demonstrate declines in PT aide staffing in SNFs. Declines in therapy aide staffing in SNFs are likely related to less therapy provided overall during the study time period,[27,28] as well as reductions in therapist staffing specifically, because Medicare requires therapy aides to be supervised by a licensed therapist.[29] Therapy aides, however, provide both administrative and scheduling support for OTs, PTs, OTAs, and PTAs, as well as physical assistance and safety support during treatment sessions with highly debilitated patients.[30,31] Further research is needed to determine whether fewer PT aides in SNFs led to increased time on non-billable tasks for PTs and PTAs or reductions in opportunities to mobilize for patients requiring extensive physical assistance.

CONTRACTORS

Non-nursing occupations of physician medical directors, pharmacists, and therapy occupations had the highest percentage of contract staff, averaging over 50% during the study period. Contractor staffing, however, declined for all non-nursing occupations in SNFs during the study period. Thus, the total staffing declines were experienced by contract staff more so than in-house staff for these occupations. While there were reductions in contractor staffing for most non-nursing occupations, the gross decrease in the percentage of contractors was largest for therapy. This trend is consistent with multiple studies that found therapy contractors were disproportionately impacted by payment reform and the COVID-19 pandemic.[15,26,27]

Declining non-nursing staffing levels, concurrent with increasing use of contractors for nurses and the decreasing use of non-nursing contractors, suggest that SNFs may have deprioritized non-nursing staffing to address widely reported nurse staffing shortages.[12,14,18,32] Specifically, as SNFs were forced to utilize more expensive contractors to fill nursing roles, non-nursing staffing may have been reduced in order to maintain margins or attenuate financial losses.[18,33] This potential replacement effect is supported by the qualitative literature reporting increased demands on nursing staff as they took on additional responsibilities during the pandemic.[19,34,35] Future research is needed to understand the extent to which the shift from non-nursing contractors to nursing contractors may be related to minimum staffing standards that are in place in some states, which only apply to nursing disciplines and not to other occupations in SNFs.[36–38]

LIMITATIONS

While the PBJ is reliable in capturing paid staff hours, it is still subject to potentially different interpretations of which staff roles fit into each PBJ-defined category. For example, while the PBJ requires reporting of hours based on the primary role, there may be some differences in reporting particularly for unlicensed occupations or jobs that have some overlap in responsibilities, such as feeding assistants and CNAs.[39] The PBJ does allow for reporting of hours under multiple role categories for staff who shift responsibilities throughout the day, such as nurses who may have both clinical and administrative duties, however, accurate reporting of these hours is subject to how well payroll staff understand how each individual employee spends their day. Accurate reporting of job roles may have been particularly challenging early in the COVID-19 pandemic when SNFs reported cross-training of staff to cover direct care roles during illness-related absences or to cover emergent staffing shortages.[32] Additionally, the PBJ does not capture unpaid time, which might disproportionately impact accurate reporting for salaried employees. The PBJ also reports only paid hours for staff working in the SNF, which would not capture care time for medical staff, such as primary care providers, who may continue to direct care for patients on their outpatient clinic caseloads when those patients are admitted to SNF, but are not employed by the SNF.[40]

CONCLUSIONS AND POLICY IMPLICATIONS

In this study of staffing patterns in SNFs, we identify the many occupations employed and contracted by SNFs beyond nursing disciplines. The reductions in staffing of non-nursing occupations in SNFs between 2018-2022 were mitigated when accounting for concomitant declines in patient census. Census-adjusted staffing declines were largest for specific occupations, including therapy and feeding assistants, which warrants further investigation to ensure that patient care is not compromised. While nursing contractor staffing increased, non-nursing contractor staffing decreased, suggesting a possible replacement effect as SNFs struggled to maintain nurse staffing levels. Understanding these tradeoffs between nursing versus non-nursing staff, and the implications for quality as non-nursing staffing is decreased, is especially important as policymakers implement new federal staffing mandates for nursing.

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APPENDIX: STAFFING TRENDS OF NON-NURSING OCCUPATIONS IN SKILLED NURSING FACILITIES IN THE UNITED STATES BETWEEN 2018-2022

TABLE 1.

Table 1. Skilled Nursing Facility Staffing Averages for Non-Nursing Occupations

	Average Per-Facility Daily Total Staffing Hours for Each Occupation											
Quarter	Administrators	Medical Director	Other Physicians	Physician Assistants	Nurse Practitioners	Clinical Nurse Specialist	Pharmacists	Dieticians	Feeding Assistants	Occupational Therapists	Occupational Therapy Assistants	Occupational Therapy Aides
2018Q1	9.01	0.41	0.19	0.05	0.25	0.07	0.43	2.69	5.15	6.67	7.45	0.22
2018Q2	8.90	0.41	0.19	0.04	0.26	0.08	0.42	2.64	5.00	6.53	7.34	0.22
2018Q3	8.58	0.40	0.18	0.04	0.25	0.06	0.42	2.61	4.79	6.28	7.13	0.21
2018Q4	8.61	0.40	0.21	0.04	0.26	0.06	0.43	2.59	4.69	6.37	7.31	0.22
2019Q1	8.72	0.40	0.19	0.04	0.27	0.06	0.44	2.64	4.33	6.55	7.55	0.22
2019Q2	8.54	0.40	0.19	0.04	0.28	0.06	0.44	2.58	4.39	6.47	7.53	0.23
2019Q3	8.45	0.39	0.18	0.04	0.28	0.05	0.43	2.56	4.42	6.29	7.33	0.22
2019Q4	8.38	0.39	0.17	0.04	0.27	0.05	0.41	2.50	3.97	5.80	6.59	0.21
2020Q1	8.91	0.39	0.18	0.04	0.30	0.05	0.43	2.45	3.79	5.58	6.48	0.19
2020Q2	8.51	0.39	0.17	0.03	0.27	0.05	0.37	2.48	3.36	5.01	5.44	0.18
2020Q3	8.22	0.38	0.17	0.04	0.26	0.05	0.38	2.43	3.25	5.06	5.45	0.18
2020Q4	8.25	0.38	0.15	0.04	0.26	0.05	0.38	2.43	3.16	5.01	5.41	0.18
2021Q1	8.23	0.39	0.16	0.04	0.27	0.05	0.38	2.46	3.13	5.22	5.68	0.19
2021Q2	8.02	0.38	0.15	0.04	0.25	0.05	0.38	2.44	2.97	5.31	5.81	0.19
2021Q3	7.81	0.36	0.17	0.04	0.24	0.05	0.38	2.31	2.84	5.08	5.56	0.19
2021Q4	7.61	0.37	0.16	0.04	0.23	0.04	0.38	2.25	2.74	5.11	5.55	0.21
2022Q1	6.98	0.38	0.15	0.04	0.24	0.05	0.39	2.33	2.85	5.26	5.61	0.21
2022Q2	6.76	0.37	0.15	0.04	0.24	0.04	0.39	2.25	2.83	5.21	5.60	0.22
2022Q3	6.18	0.37	0.13	0.04	0.25	0.05	0.37	2.20	2.88	5.18	5.59	0.20
2022Q4	5.89	0.37	0.14	0.04	0.26	0.05	0.37	2.16	2.82	5.20	5.62	0.22
2023Q1	5.70	0.40	0.16	0.04	0.32	0.04	0.41	2.41	3.34	5.63	5.91	0.26

Table 1 Continued. Skilled Nursing Facility Staffing Averages for Non-Nursing Occupations

	Average Per-Facility Daily Total Staffing Hours for Each Occupation											
Quarter	Physical Therapists	Physical Therapist Assistants	Physical Therapy Aides	Respiratory Therapists	Respiratory Therapy Technicians	Speech Language Pathologists	Therapeutic Recreation Specialists	Qualified Activity Professionals	Other Activities Staff	Qualified Social Workers	Other Social Workers	Mental Health Service Workers
2018Q1	6.97	8.90	1.38	1.64	0.13	4.19	0.69	4.34	9.44	4.93	3.04	0.25
2018Q2	6.78	8.73	1.33	1.65	0.12	4.08	0.68	4.38	9.52	4.93	2.96	0.27
2018Q3	6.56	8.45	1.26	1.63	0.10	3.98	0.65	4.26	9.42	4.78	2.88	0.26
2018Q4	6.64	8.67	1.20	1.66	0.13	4.04	0.65	4.31	9.44	4.82	2.89	0.26
2019Q1	6.82	8.99	1.17	1.64	0.13	4.14	0.65	4.38	9.37	4.94	2.96	0.26
2019Q2	6.70	8.89	1.13	1.69	0.13	4.10	0.64	4.42	9.48	4.91	2.95	0.25
2019Q3	6.56	8.62	1.06	1.69	0.13	4.06	0.63	4.33	9.44	4.83	2.93	0.26
2019Q4	6.10	7.79	1.01	1.75	0.11	3.89	0.62	4.39	9.46	4.75	2.93	0.30
2020Q1	5.86	7.71	1.00	1.70	0.08	3.78	0.65	4.40	9.07	4.85	2.95	0.27
2020Q2	5.35	6.52	0.82	1.75	0.10	3.45	0.60	4.28	8.66	4.72	2.89	0.28
2020Q3	5.39	6.51	0.79	1.76	0.09	3.48	0.58	4.21	8.33	4.57	2.75	0.29
2020Q4	5.34	6.43	0.75	1.70	0.09	3.37	0.57	4.14	8.21	4.50	2.72	0.24
2021Q1	5.52	6.75	0.74	1.70	0.09	3.49	0.57	4.18	8.14	4.58	2.76	0.27
2021Q2	5.59	6.88	0.75	1.68	0.09	3.49	0.56	4.18	8.18	4.52	2.77	0.27
2021Q3	5.33	6.56	0.69	1.65	0.09	3.35	0.52	4.06	7.91	4.34	2.78	0.27
2021Q4	5.34	6.60	0.71	1.58	0.09	3.28	0.52	4.10	7.94	4.30	2.77	0.28
2022Q1	5.40	6.63	0.67	1.56	0.09	3.25	0.52	4.13	7.85	4.44	2.81	0.27
2022Q2	5.35	6.62	0.69	1.63	0.10	3.25	0.51	4.16	8.25	4.40	2.82	0.30
2022Q3	5.28	6.60	0.63	1.59	0.10	3.27	0.45	4.06	8.25	4.29	2.77	0.30
2022Q4	5.37	6.63	0.63	1.62	0.09	3.22	0.47	4.11	8.31	4.25	2.75	0.33
2023Q1	5.76	6.83	0.66	1.44	0.09	3.36	0.48	4.47	9.29	4.70	2.77	0.39

Data from a national sample of skilled nursing facilities reporting staffing data in the Payroll Based Journal between January 2018 and September 2022

Table 2. Skilled Nursing Facility Staffing Averages for Non-Nursing Occupations

	Average Per-Facility Daily Staffing Minutes per Patient Day for Each Occupation											
Quarter	Administrators	Medical Director	Other Physicians	Physician Assistants	Nurse Practitioners	Clinical Nurse Specialist	Pharmacists	Dieticians	Feeding Assistants	Occupational Therapists	Occupational Therapy Assistants	Occupational Therapy Aides
2018Q1	7.26	0.33	0.11	0.04	0.17	0.06	0.35	1.91	3.88	4.89	5.40	0.12
2018Q2	7.27	0.33	0.12	0.03	0.18	0.05	0.35	1.91	3.86	4.83	5.33	0.12
2018Q3	7.08	0.32	0.11	0.03	0.17	0.05	0.34	1.87	3.84	4.69	5.24	0.12
2018Q4	7.03	0.32	0.13	0.03	0.17	0.05	0.36	1.84	3.64	4.72	5.34	0.12
2019Q1	7.13	0.33	0.11	0.03	0.18	0.05	0.37	1.86	3.44	4.84	5.47	0.12
2019Q2	7.06	0.32	0.12	0.03	0.19	0.05	0.36	1.84	3.47	4.82	5.48	0.14
2019Q3	7.05	0.32	0.10	0.03	0.18	0.04	0.36	1.82	3.47	4.68	5.33	0.13
2019Q4	6.91	0.32	0.10	0.03	0.18	0.04	0.31	1.77	3.09	4.33	4.77	0.12
2020Q1	7.43	0.33	0.10	0.03	0.20	0.04	0.37	1.77	3.03	4.30	4.83	0.11
2020Q2	7.92	0.36	0.11	0.03	0.20	0.04	0.37	1.98	2.86	4.22	4.42	0.12
2020Q3	7.73	0.35	0.11	0.03	0.20	0.04	0.36	1.95	2.81	4.34	4.52	0.12
2020Q4	7.99	0.36	0.10	0.04	0.20	0.05	0.36	2.01	2.83	4.36	4.58	0.13
2021Q1	8.26	0.38	0.11	0.04	0.21	0.05	0.38	2.10	2.86	4.63	4.91	0.13
2021Q2	7.76	0.36	0.10	0.04	0.19	0.04	0.37	2.02	2.64	4.53	4.84	0.13
2021Q3	7.70	0.34	0.12	0.04	0.18	0.05	0.37	1.86	2.43	4.23	4.52	0.12
2021Q4	7.15	0.34	0.11	0.04	0.17	0.03	0.36	1.82	2.35	4.23	4.47	0.13
2022Q1	6.75	0.35	0.10	0.03	0.18	0.04	0.36	1.89	2.46	4.36	4.51	0.14
2022Q2	6.51	0.34	0.09	0.04	0.18	0.04	0.35	1.79	2.39	4.21	4.42	0.15
2022Q3	5.87	0.34	0.09	0.03	0.18	0.04	0.35	1.74	2.38	4.17	4.38	0.12
2022Q4	5.56	0.34	0.09	0.03	0.19	0.04	0.35	1.68	2.31	4.10	4.32	0.14
2023Q1	5.45	0.35	0.10	0.04	0.22	0.04	0.41	1.77	2.69	4.19	4.32	0.16

Table 2 Continued. Skilled Nursing Facility Staffing Averages for Non-Nursing Occupations

	Average Per-Facility Daily Staffing Minutes per Patient Day for Each Occupation											
Quarter	Physical Therapists	Physical Therapist Assistants	Physical Therapy Aides	Respiratory Therapists	Respiratory Therapy Technicians	Speech Language Pathologists	Therapeutic Recreation Specialists	Qualified Activity Professionals	Other Activities Staff	Qualified Social Workers	Other Social Workers	Mental Health Service Workers
2018Q1	5.06	6.53	0.99	1.15	0.08	2.97	0.45	3.64	6.53	3.67	2.22	0.13
2018Q2	4.98	6.41	0.98	1.19	0.08	2.92	0.44	3.67	6.65	3.69	2.18	0.14
2018Q3	4.90	6.29	0.94	1.18	0.07	2.89	0.43	3.56	6.60	3.60	2.12	0.14
2018Q4	4.91	6.40	0.89	1.19	0.10	2.90	0.42	3.63	6.54	3.62	2.12	0.14
2019Q1	5.03	6.62	0.87	1.19	0.09	2.96	0.43	3.68	6.52	3.72	2.15	0.14
2019Q2	4.96	6.59	0.83	1.23	0.09	2.97	0.42	3.71	6.63	3.67	2.14	0.13
2019Q3	4.84	6.40	0.78	1.23	0.09	2.93	0.40	3.67	6.59	3.61	2.12	0.13
2019Q4	4.51	5.75	0.75	1.21	0.09	2.79	0.40	3.70	6.61	3.53	2.13	0.15
2020Q1	4.50	5.87	0.79	1.31	0.07	2.77	0.44	3.78	6.57	3.72	2.23	0.14
2020Q2	4.46	5.40	0.70	1.29	0.07	2.77	0.44	3.92	6.77	3.96	2.31	0.14
2020Q3	4.58	5.49	0.69	1.32	0.07	2.86	0.42	3.96	6.66	3.92	2.26	0.15
2020Q4	4.60	5.55	0.64	1.30	0.06	2.81	0.43	4.02	6.69	3.96	2.30	0.13
2021Q1	4.83	5.95	0.65	1.34	0.06	2.98	0.44	4.19	6.87	4.15	2.40	0.15
2021Q2	4.71	5.84	0.63	1.30	0.06	2.88	0.42	4.05	6.70	3.98	2.32	0.15
2021Q3	4.38	5.45	0.56	1.26	0.06	2.68	0.38	3.86	6.31	3.72	2.28	0.15
2021Q4	4.37	5.43	0.58	1.19	0.06	2.60	0.39	3.87	6.34	3.68	2.24	0.15
2022Q1	4.39	5.44	0.55	1.18	0.06	2.58	0.38	3.90	6.28	3.78	2.27	0.15
2022Q2	4.29	5.33	0.56	1.23	0.06	2.54	0.37	3.86	6.55	3.68	2.26	0.17
2022Q3	4.20	5.30	0.50	1.21	0.06	2.53	0.33	3.70	6.45	3.56	2.21	0.17
2022Q4	4.17	5.22	0.49	1.21	0.06	2.45	0.34	3.69	6.44	3.50	2.19	0.17
2023Q1	4.21	5.12	0.49	0.98	0.05	2.44	0.32	3.89	7.01	3.68	2.19	0.20

Data from a national sample of skilled nursing facilities reporting staffing data in the Payroll Based Journal between January 2018 and June 2022

Table 3. Skilled Nursing Facility Non-Nursing Contractor Staffing Averages

	Average Daily Percentage of Contractor Hours Per Occupation											
Quarter	Administrators	Medical Director	Other Physicians	Physician Assistants	Nurse Practitioners	Clinical Nurse Specialist	Pharmacists	Dieticians	Feeding Assistants	Occupational Therapists	Occupational Therapy Assistants	Occupational Therapy Aides
2018Q1	2.38	62.74	10.85	1.82	6.86	0.94	60.83	43.17	0.19	61.33	57.75	1.71
2018Q2	2.07	62.80	10.94	1.80	7.21	0.77	61.32	43.67	0.25	61.88	58.55	1.75
2018Q3	2.31	63.69	10.85	1.79	7.58	0.78	62.26	44.39	0.19	62.48	59.45	1.63
2018Q4	2.32	62.98	10.47	1.84	7.42	0.70	61.52	44.79	0.15	63.37	60.36	1.68
2019Q1	2.42	62.11	10.36	1.74	7.45	0.71	61.53	44.46	0.11	63.92	60.96	1.79
2019Q2	2.38	62.41	10.48	1.89	7.33	0.72	62.13	43.52	0.14	63.57	60.43	1.76
2019Q3	2.33	61.19	10.25	1.66	7.23	0.74	61.37	43.24	0.18	63.70	60.25	1.66
2019Q4	2.28	61.12	10.08	1.62	7.36	0.63	60.89	42.17	0.14	62.25	58.99	1.48
2020Q1	2.37	60.14	9.67	1.50	7.50	0.63	60.22	42.18	0.14	59.63	56.28	0.95
2020Q2	2.44	58.07	7.95	1.37	6.77	0.40	57.06	38.22	0.10	60.35	55.79	1.15
2020Q3	2.47	58.47	8.18	1.39	6.63	0.45	56.76	39.01	0.10	59.68	55.72	1.08
2020Q4	2.46	58.14	8.04	1.49	6.59	0.52	57.01	38.69	0.11	58.89	54.71	0.92
2021Q1	2.47	59.62	8.16	1.55	7.14	0.53	58.17	40.85	0.05	58.90	54.82	0.88
2021Q2	2.63	59.26	7.96	1.71	6.89	0.53	57.44	40.69	0.08	58.42	54.76	0.93
2021Q3	2.62	57.59	8.22	1.64	6.67	0.63	55.60	39.95	0.07	57.95	54.32	0.91
2021Q4	2.77	57.20	8.06	1.53	6.53	0.61	54.67	38.88	0.10	58.00	54.43	0.85
2022Q1	2.82	57.49	7.83	1.55	6.44	0.59	55.20	39.17	0.07	57.53	53.91	0.85
2022Q2	2.81	58.18	7.87	1.59	6.85	0.71	54.86	39.46	0.09	57.89	54.20	0.85
2022Q3	2.88	57.99	7.89	1.51	7.02	0.68	53.98	39.84	0.12	58.12	54.27	0.87

Table 3 Continued. Skilled Nursing Facility Non-Nursing Contractor Staffing Averages

	Average Daily Percentage of Contractor Hours Per Occupation											
Quarter	Physical Therapists	Physical Therapist Assistants	Physical Therapy Aides	Respiratory Therapists	Respiratory Therapy Technicians	Speech Language Pathologists	Therapeutic Recreation Specialists	Qualified Activity Professionals	Other Activities Staff	Qualified Social Workers	Other Social Workers	Mental Health Service Workers
2018Q1	61.94	58.95	18.44	4.64	0.19	61.00	0.80	0.96	0.92	2.95	0.73	5.17
2018Q2	63.05	60.15	18.44	4.71	0.15	61.74	0.87	0.91	0.92	3.11	0.50	5.53
2018Q3	63.56	60.56	17.93	4.59	0.22	62.27	0.81	1.00	0.92	2.99	0.57	5.72
2018Q4	64.30	61.31	17.28	4.48	0.17	63.25	0.74	0.99	0.88	2.93	0.65	5.48
2019Q1	65.02	62.06	16.44	4.24	0.21	63.88	0.78	1.00	0.87	2.91	0.57	5.18
2019Q2	64.45	61.60	14.86	4.35	0.25	63.40	0.77	0.94	0.92	2.78	0.57	5.09
2019Q3	64.22	61.47	14.17	4.11	0.19	63.12	0.78	0.87	0.78	2.85	0.59	4.80
2019Q4	62.86	60.36	13.39	4.19	0.14	61.77	0.78	0.98	0.88	2.78	0.49	4.63
2020Q1	60.28	58.04	13.36	4.36	0.18	59.54	0.68	0.95	0.70	2.82	0.50	4.21
2020Q2	60.99	57.78	10.93	3.57	0.12	59.62	0.50	0.64	0.62	1.99	0.37	3.48
2020Q3	60.22	57.54	10.36	3.67	0.14	59.11	0.44	0.65	0.60	1.90	0.29	3.60
2020Q4	59.42	56.65	9.76	3.78	0.15	57.95	0.53	0.76	0.62	1.98	0.30	3.62
2021Q1	59.52	56.64	9.18	3.61	0.17	58.31	0.53	0.77	0.64	2.07	0.42	3.87
2021Q2	58.85	56.31	9.45	3.67	0.16	58.07	0.69	0.73	0.56	2.28	0.42	3.92
2021Q3	58.46	55.78	8.92	3.43	0.26	57.41	0.57	0.71	0.51	2.21	0.46	3.64
2021Q4	58.63	56.10	8.24	3.35	0.22	57.46	0.58	0.83	0.68	2.15	0.37	3.37
2022Q1	57.90	55.49	8.01	3.29	0.15	56.61	0.44	0.82	0.57	2.14	0.47	3.48
2022Q2	58.55	56.04	7.59	3.12	0.21	57.07	0.49	0.81	0.65	2.21	0.45	3.45
2022Q3	58.85	56.36	6.87	2.95	0.22	57.44	0.45	0.82	0.58	2.22	0.37	3.52

Data from a national sample of skilled nursing facilities reporting staffing data in the Payroll Based Journal between January 2018 and September 2022