
Ohio LTC by the Numbers: Workforce Dynamics and Survey Progress

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Disclosures

John Bowblis has the following potential conflicts to disclose:

- » Miami University employs John Bowblis and has received grants and contracts on his behalf from Ohio state agencies, the National Institutes of Health, and other foundations to conduct research.
- » John Bowblis has also been retained as a consulting and testifying expert in litigation matters involving long-term care and health care companies.

Scripps Gerontology Center

Scripps is an Ohio Center of Excellence

- » Conduct research both for the state of Ohio and nationally on LTC topics

Federal Projects

- » Medicaid payment rate adequacy in nursing homes
- » Effectiveness of federal visitation bans
- » Behavioral health and dementia care

Ohio Projects

- » Biennial Survey of Long-term Care Facilities
- » Evaluation of Ohio's MyCare
- » Family satisfaction survey
- » Ohio Long-term Care Research Project



Financial Retention Strategies Associated with Nurse Aide Turnover in Ohio Nursing Homes



Introduction

Nurse aide turnover is a concern for nursing homes

- » Expenses associated with hiring, training, and orientation to the building
- » Can lead to less consistent assignment of the same staff to the same residents
- » Quality of care and life of residents may be impacted
- » CMS now incorporated turnover into the staffing star rating

The objective of this study:

- » To document strategies nursing homes were utilizing to retain nurse aides
- » To examine which strategies were associated with better turnover rates in Ohio



Method

Cross-sectional data reflecting 2023

- » Payroll-Based Journal data
- » Medicare Cost Reports
- » Ohio Biennial Survey of Long-term Care Facilities (which is funded by AGE)

Outcome

- » Turnover rates among nurse aides

Examined factors that may explain turnover rates:

- » Nurse aide hourly wages
- » Fringe benefit rate (hourly fringe benefits as a percentage of the wage rate)
- » Fringe benefit offerings



National Summary Statistics

TABLE 1 | Summary statistics for key variables.

	All nursing homes		Not-for-profit ownership		For-profit ownership		Government ownership	
	Mean/prop.	(SD)	Mean/prop	(SD)	Mean/prop	(SD)	Mean/prop	(SD)
Nurse aide turnover rate (%)	54.69	(27.00)	61.02	(31.80)	51.75	(24.73)	66.06	(29.12)
Nurse aide hourly wages	20.68	(3.79)	21.37	(3.59)	20.61	(3.82)	19.93	(3.79)
Fringe benefit rates (%)	12.24	(9.39)	16.77	(10.41)	11.58	8.46	8.58	11.20

Summary statistics show interesting results:

- » Turnover rates were highest among government and not-for-profit nursing homes
- » Not-for-profits had the highest hourly wages and fringe benefit rates



Key National Findings

Higher nurse aide wages were generally associated with lower turnover rates:

- » Higher wages were found to be most effective among for-profits
- » A \$100,000 investment in nurse aide wages would reduce turnover rates by 0.20 percentage points

Higher fringe benefit rates were generally associated with lower turnover rates:

- » Higher fringe benefit rates were effective for for-profit and not-for-profits
- » A \$100,000 investment in fringe benefits would reduce turnover rates by 1.50 percentage points

Investing in fringe benefits was more effective than investing in wages:

- » On average investing in fringe benefits was 7.5 to 8.2 times more effective than investing in wages



Summary Statistics (Ohio vs. Other States)

TABLE 1. NURSE AIDE TURNOVER, WAGES, FRINGE BENEFIT RATES FOR OHIO'S NURSING HOMES COMPARE TO THE NATION AND BORDER STATES, 2023

State	Nurse Aide Turnover (%)	Nurse Aide Hourly Wages (\$)	Fringe Benefit Rate (%)
Nation	55.58	23.97	16.55
OH	48.24	23.28	16.78
IN	50.19	23.58	15.73
KY	51.46	21.57	14.83
MI	48.97	24.70	17.71
PA	59.84	26.50	19.51
WV	76.19	21.53	15.38

Summary Statistics (Ohio by Turnover Rates)

TABLE 2. WAGES AND FRINGE BENEFIT RATES FOR OHIO'S NURSING HOMES WITH LOW AND HIGH NURSE AIDE TURNOVER, 2023

Nurse Aide Turnover, Wages, and Fringe Benefit Rate	Turnover	
	Low	High
Nurse Aide Turnover (%)	24.98	78.48
Nurse Aide Hourly Wages (\$)	23.61	23.55
Fringe Benefit Rate (%)	17.86	17.49

Ohio nursing homes were broken into “low” and “high” turnover groups:

- » No major difference in average nurse aide hourly wages
- » No major difference in fringe benefit rates

Fringe Benefits Offered (Direct Wages)

Direct Wage Compensation Benefits Offered

	Turnover	
	Low	High
Longevity wage increases	72	63
Merit wage increases	76	74
Bonuses for attendance	59	40
Extra pay for shift differential	92	84
Hiring bonus after time on the job	56	42
Bonuses, raises, or other rewards when they complete extra education or training	49	43

Low turnover nursing homes offered more direct wage compensation benefits

- » More likely to offer longevity wage increases and bonuses
- » Clearly identified incentives may improve turnover rates



Fringe Benefits Offered (Traditional Benefits)

Other Traditional Benefits

	Turnover	
	Low	High
401K or other retirement plan	94	83
Paid sick leave	79	82
Paid vacation	99	99
Tuition reimbursement	87	76
Career ladders	69	71
Bonuses not tied to education, training, attendance, shift differential, or hiring (e.g. birthday gift card, reduced or free meals at facility)	71	51

Certain traditional benefits are associated with lower turnover rates

- » Interestingly career ladders are not associated with lower turnover rates, however, retirement plans, tuition reimbursement, and other bonuses are associated with better turnover rates



Fringe Benefits Offered (Non-Traditional)

Non-Traditional Benefits		
	Turnover	
	Low	High
Financial assistance with transportation (e.g., gas money, car repair)	22	20
Child care	4	6
Emergency financial support	35	42
Same day pay	46	54

Non-Traditional benefits were associated with higher turnover

- » May be an indication that “outside the box” thinking was required to address issues or an indication the facility was having major problems retaining staff



Conclusions

Higher wages and fringe benefits are associated with lower turnover rates

Fringe benefits were found to have a larger effect than wages

Targeting fringe benefits that nurse aides value would likely have the largest effect

Limitation

- » The availability of jobs with that require similar skills as a nurse aide is still the largest factor that determines turnover rates
- » Analysis was cross-sectional. This means that strategies could have been driven by high turnover instead of as a pre-emptive strategy to retain workers. We need longitudinal data to examine this.



Additional Resources

Ohio Specific Research Brief

- » Entitled: Financial Retention Strategies Associated with Nurse Aide Turnover in Ohio Nursing Homes
- » <https://miamioh.edu/cas/centers-institutes/scripps-gerontology-center/research/publications/2025/financial-retention-strategies-associated-with-nurse-aide-turnover-in-ohio-nursing-homes.html>

Academic Study

- » Entitled: An Assessment of the Association between Wages and Fringe Benefits on Nurse Aide Turnover in Nursing Homes
- » <https://onlinelibrary.wiley.com/doi/10.1111/1475-6773.70019>



Biennial Survey Update



2025 Ohio Biennial Survey

Ohio Department of Aging has authorized the 2025 Biennial Survey

- » This is the 32nd year of the survey
- » Why is this survey important?
- » What have we been doing to minimize the respondent burden?

The upcoming survey is expected to be fielded in late March

New questions:

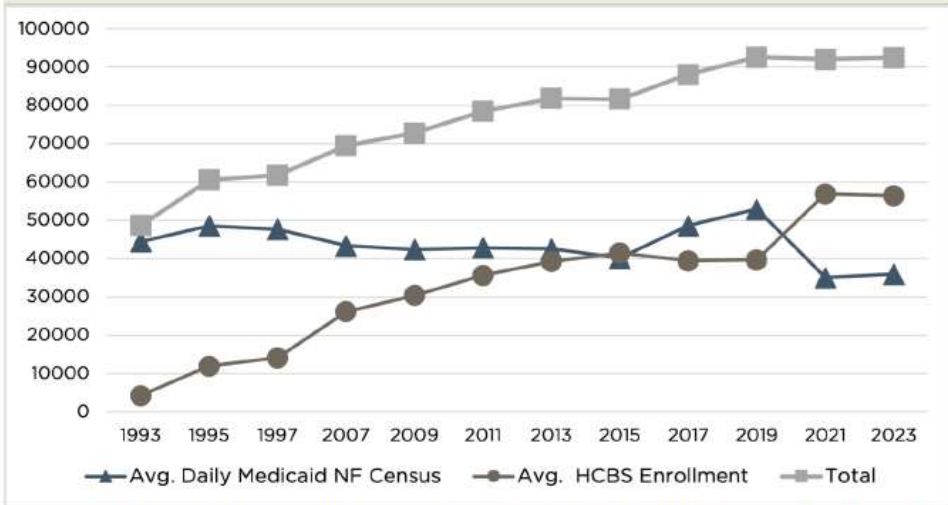
- » Certified medication aides (CMAs)
- » Electronic Medical Records (EMRs)
- » Emergency Preparedness
- » Recertification and Complaint Survey Process



Preview of 2023 Biennial Survey Results: Use of HCBS vs. Nursing Homes

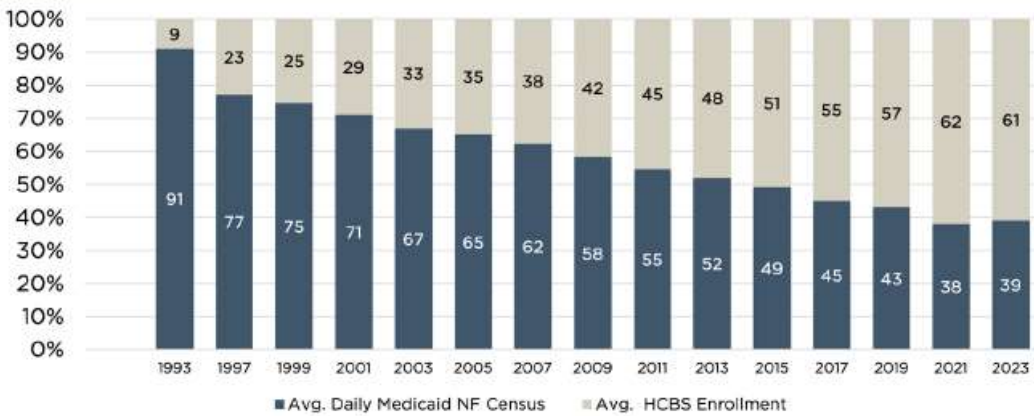


FIGURE 2. MEDICAID NURSING HOME AND HCBS WAIVER USE FOR INDIVIDUALS AGE 60 AND OLDER, 1993-2023



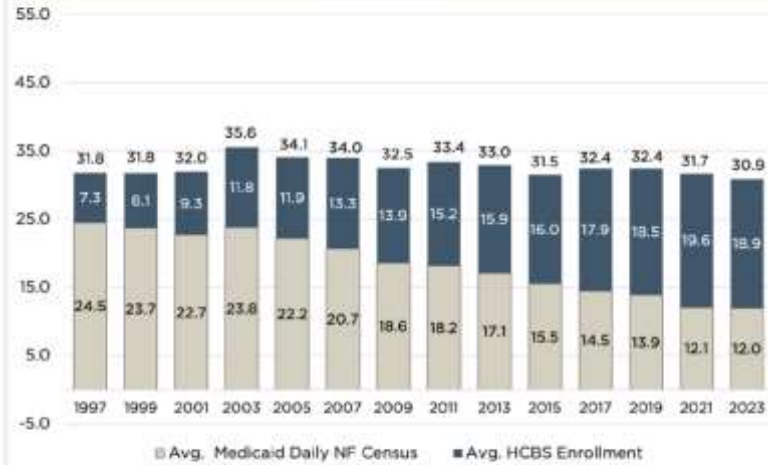
Source: Data from PASSPORT Information Management System (PIMS) and Ohio Biennial Survey of Nursing Homes.^{4,5}

FIGURE 1. PROPORTION OF OHIO'S NURSING HOME AND HCBS USE BY INDIVIDUALS AGE 60 AND OLDER, 1993-2023



Source: Data come from PASSPORT Information Management System (PIMS) and Ohio Biennial Survey of Nursing Homes.^{2,3}

FIGURE 3. LTSS USE RATE PER 1000 INDIVIDUALS AGE 60 AND OLDER ON MEDICAID RESIDING IN A NURSING FACILITY OR ENROLLED IN HCBS, 1997-2023



Source: Home and Community-Based Services data from PASSPORT and Ohio Department of Medicaid.⁶

Source: Nursing Home data from the Ohio Biennial Survey of Nursing Homes, Ohio Department of Medicaid, and Health Policy Institute of Ohio.⁷

TABLE 6. OCCUPANCY RATES IN OHIO'S RESIDENTIAL CARE FACILITIES, 2013-2023

Year	2013	2015	2017	2019	2021	2023
Number of Facilities	606	655	708	759	791	796
Number of Units	33,182	35,979	40,450	45,931	50,124	50,424
Unit Occupancy (%)	87.8	88.9	85.3	81.3	72.1	77.9

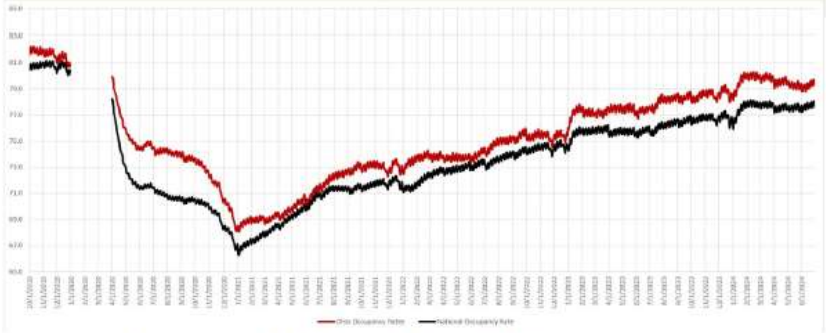
Source: Department of Health Biennial Survey of Long-Term Care Facilities 2013-2023

Preview of 2023 Biennial Survey Results: Nursing Homes



Daily Occupancy Rates are Still Down

FIGURE 1. NURSING HOME OCCUPANCY RATES, OHIO AND THE NATION, 2019 TO 2024



Source: Payroll-Based Journal (PBJ) Data from Q4 2019 to Q2 2024

Source: Calculated from number of residents per PBJ data and number of beds per NH Compare Archive data.
Notes: The number of facilities reporting data change on a quarterly basis.



TABLE 9. AVERAGE NURSING STAFF LEVELS IN OHIO AND THE NATION: 2019 TO 2024

Nursing staff type	2019	2020	2021	2022	2023	2024 (Q1-Q2)	% Change (2019-2024)
Certified nurse aides							
Ohio	2.08	2.10	2.03	2.01	2.05	2.09	0.4%
Nation	2.30	2.35	2.26	2.22	2.25	2.28	-0.9%
Direct care nursing staff							
Ohio	3.36	3.44	3.34	3.27	3.33	3.36	0.0%
Nation	3.55	3.68	3.55	3.45	3.48	3.51	-1.2%
Total nursing staff							
Ohio	3.66	3.76	3.66	3.58	3.63	3.68	0.5%
Nation	3.84	3.99	3.86	3.75	3.77	3.80	-1.0%

Source: Payroll-Based Journal (PBJ) data from 2019 to Q2 2024. Notes: Average nursing staff levels are measured in hours per resident day (HPRD). Direct care staffing includes all nursing staff (RNs, LPNs, and CNAs) assigned to direct care only. Total nursing staff includes all nursing staff assigned to direct care and administrative duties.

TABLE 10. AVERAGE NURSING STAFF LEVELS IN OHIO AND NEIGHBORING STATES, 2023

Nursing Staff Level in Hours Per Resident Day					
State	Registered nurses	Licensed practical nurses	Certified nurse aides	Direct care nursing staff	Total nursing staff
Nation	0.64	0.88	2.25	3.48	3.77
Ohio	0.61	0.97	2.05	3.33	3.63
Indiana	0.64	0.80	2.23	3.32	3.66
Kentucky	0.67	0.84	2.29	3.45	3.80
Michigan	0.73	0.88	2.27	3.57	3.88
Pennsylvania	0.77	0.91	2.08	3.49	3.76
West Virginia	0.65	0.89	2.05	3.32	3.59

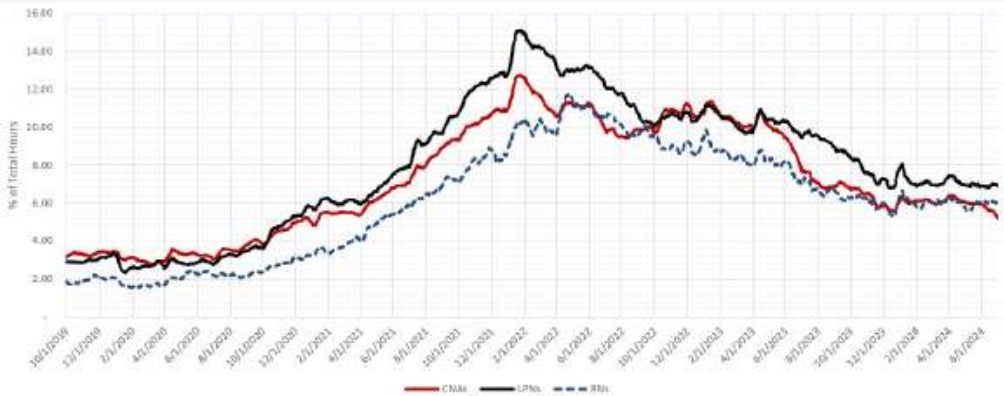
Source: Payroll-Based Journal (PBJ) data, 2023. Notes: Registered nurse and licensed practical nursing staff hours per resident include staff assigned to direct care and administrative duties. Total nursing staff includes nursing staff assigned to direct care and administrative duties.

TABLE 12. USE OF AGENCY STAFF BY OHIO AND THE NATION, 2019 TO 2024 (% OF FACILITIES)

Type of Nursing staffing	2019	2020	2021	2022	2023	2024 (Q1-Q2)
Certified nurse aides						
Ohio	17.3	19.2	31.1	39.3	34.3	28.9
Nation	17.6	20.0	30.2	40.0	35.7	30.9
Certified nurse aides						
Ohio	11.3	12.3	23.6	31.8	28.1	23.1
Nation	12.8	14.3	22.6	31.9	30.2	26.4
Registered nurses						
Ohio	4.6	5.4	11.1	16.1	13.7	12.7
Nation	7.5	8.7	12.3	17.8	17.9	16.5

Source: Payroll-Based Journal (PBJ) data, 2019-Q2 2024

FIGURE 2. PROPORTION OF DIRECT CARE NURSING STAFF HOURS PROVIDED BY AGENCY STAFF IN OHIO, 2019 TO 2024



Note. Proportion of nursing staff hours provided by agency staff (14-day moving average) sourced from the PBJ data.

TABLE 13. MEDIAN HOURLY NURSING STAFF WAGES AND TOTAL LABOR COSTS IN OHIO, 2019-2023

Type of nursing staff	Year			% Change (2019-2023)
	2019	2021	2023	
Hourly wage costs of directly employed nursing staff				
Registered nurses	30.57	34.48	40.75	33.3
Licensed practical nurses	23.66	27.24	33.12	40.0
Certified nurse aides	14.67	17.16	21.13	44.0
Hourly labor cost of directly employed nursing staff				
Registered nurses	34.59	39.02	45.65	32.0
Licensed practical nurses	26.61	30.64	36.68	37.8
Certified nurse aides	16.32	19.28	23.22	42.3
Agency nursing staff hourly labor cost				
Registered nurses	50.04	59.92	60.13	20.2
Licensed practical nurses	40.00	48.83	50.00	25.0
Certified nurse aides	25.61	32.73	35.00	36.7

Source: Medicare Cost Reports (CMS-2540-10).

Notes. Median hourly labor cost measured in dollars includes wages and benefits (e.g., health insurance) for freestanding nursing homes with a full-year Medicare Cost Report. The year represents the fiscal year end date of the Medicare Cost Report.

TABLE 14. AVERAGE NURSING STAFF LEVELS BY MEDICAID RESIDENT DAYS IN OHIO, 2023

Staffing Level in Hours Per Resident Day					
Medicaid resident days	Registered nurses	Licensed practical nurses	Certified nurse aides	Direct care nursing staff	Total nursing staff
0%-50%	0.77	1.07	2.34	3.79	4.18
51%-65%	0.62	0.94	2.10	3.34	3.66
66%-80%	0.54	0.93	1.95	3.15	3.42
81%-100%	0.47	0.99	1.90	3.10	3.36

Source: Medicaid Cost Reports and Payroll-Based Journaling Data, 2023.

Notes. Staffing levels are reported for Ohio nursing homes with a fiscal year end date in 2023. The data were restricted to facilities with full-year cost reports and reported PBJ data for all days in 2023. Registered nurse and licensed practical nursing staff hours per resident include staff assigned to direct care and administrative duties. Total nursing staff includes nursing staff assigned to direct care and administrative duties.

TABLE 23. AVERAGE STAR RATINGS BY MEDICAID RESIDENT DAYS IN OHIO, 2023

Medicaid Resident Days	Overall Star Rating	Health Inspection Star Rating	Quality Measures Star Rating	Staffing Star Rating
0%-50%	3.7	3.6	4.1	2.8
51%-65%	3.2	3.2	3.9	2.1
66%-80%	2.4	2.5	3.7	1.6
81%-100%	2.0	2.0	4.0	1.4

Sources: Medicaid Cost Reports and Nursing Home Compare Archive Data

Notes: The staffing star rating is based on total nursing staff levels, RN staffing levels, and three measures of turnover.

Thank you!

Contact Information

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Scrippsaging.org (Scripps web site)