

Going Beyond State-Wide Data: Understanding Variability Within Your State

Early Hearing Detection and Intervention Meeting, 2025

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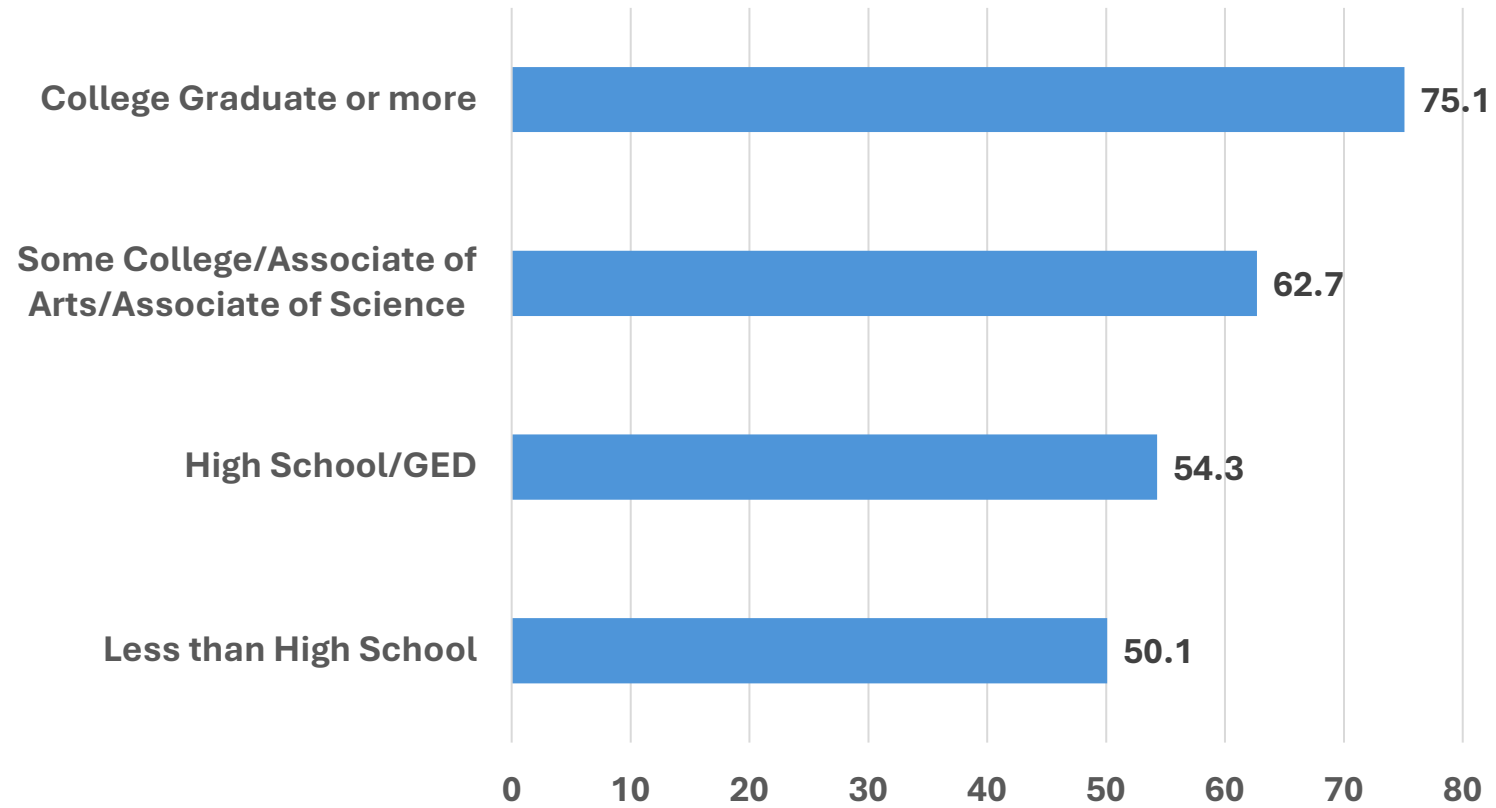
Universal Newborn Hearing Screening



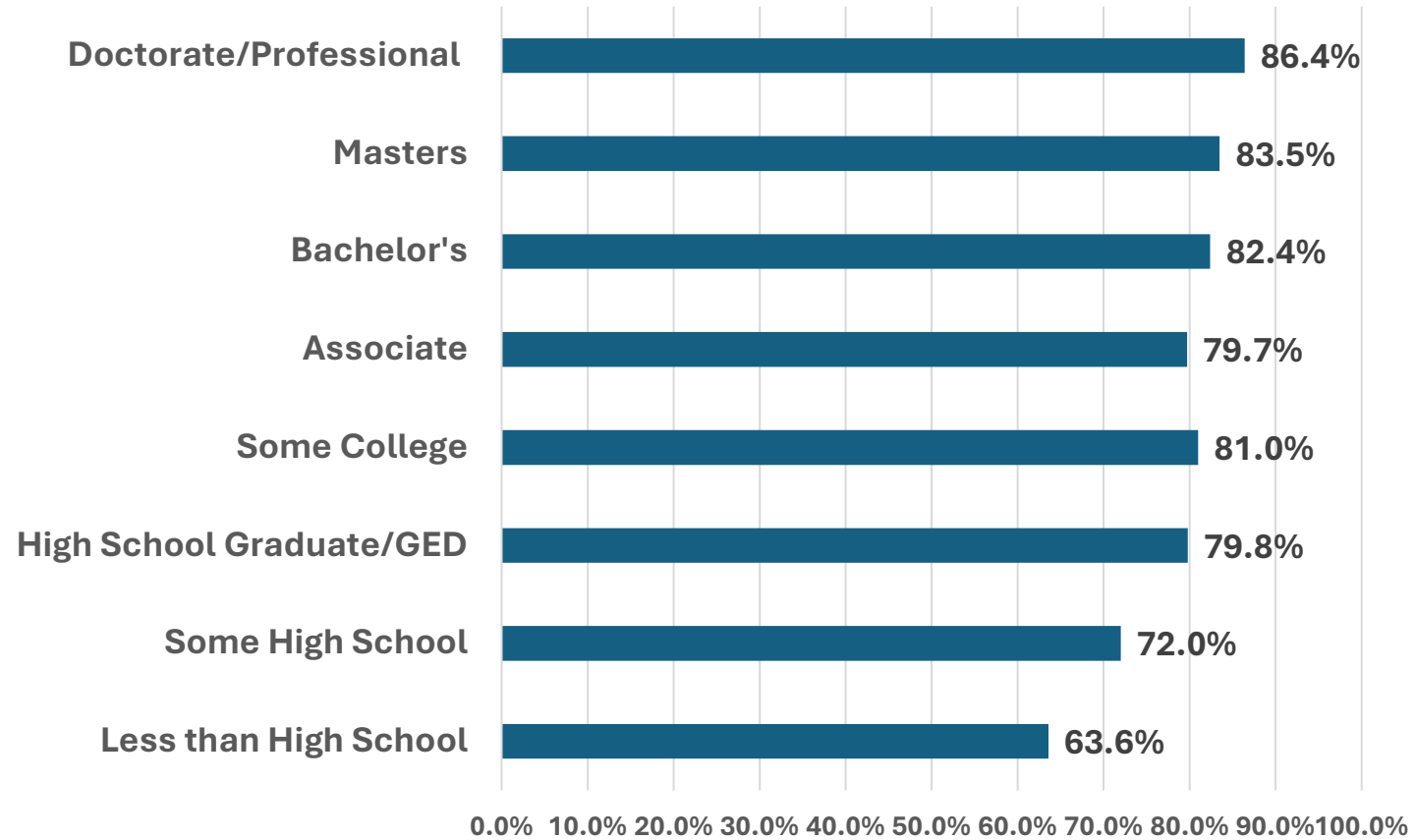
Massachusetts vs US—EHDI Milestones (2023, 2022, 2021, in %)

Milestone	MA (2023)	MA (2022)	MA (2021)	US (2022)
Screen all births	99.14	99.00	99.67	98.1
Screen by age 1 month	97.5	97.6	98.6	95.6
Diagnose all NHS refers	83.4	81.6	89	55.2
Diagnose all refers by age 3 months	74	69.1	75.9	39.9
Lost to Follow-up for diagnosis	3.5	4.1	3.4	34.0
EI enrollment of all with hearing loss	81.6	77.2	81.4	60.3
EI enrollment of all with hearing loss by age 6 mos.	71.1	61.0	60.2	40.9
Lost to follow-up for EI	4.6	4.4	4.5	19.5

US: Mom's Education for Children with Audiological Evaluation (2021)



MA Diagnosed within 3 months of Birth by Mom's Education Level (2022)



Universal Newborn Hearing Screening Program

Massachusetts Department of Public Health 250 Washington Street, Boston, MA 02108

Newborn.hearing@mass.gov



A Generic General Hospital Newborn Hearing Screen Summary

Birth Year: 2021-2022



Birth Year: 2022				
	A Generic General Hospital		Overall Massachusetts	
Total Births	1429 (99.51% screened)		69537 (99.04 % screened)	
Screened ¹	Passed	1,401	Passed	67,389
	Referred	21 (1.48%)	Referred	1,478 (2.19%)
No Screening Results ²	Transferred ³	3	Transferred ³	107
	Refused consent	0	Refused consent	24 (0.03%)
	Other	0	Other	245
Year	Internal Transfer Generic Hospital (% Screened)	Transfer Coming to Generic Hospital (% Screened)	Transfer Out from Generic General (% Screened)	
2022	76 (100% screened)	21 (85.71% screened)	13 (92.31% screened)	
2021	130 (99.23% screened)	30 (96.67% screened)	6 (83.33% screened)	

Birth Year: 2021				
	Generic Hospital		Overall Massachusetts	
Total Births	1293 (99.77% screened)		70110(99.01% screened)	
Screened ¹	Passed	1,261	Passed	67,866
	Referred	29 (2.25%)	Referred	1,552 (2.2%)
No Screening Results ²	Transferred ³	2	Transferred ³	118
	Refused consent	0	Refused consent	33 (0.04%)
	Other	0	Other	235

Diagnostic Follow-up and Early Intervention
Birth Years: 2022,2021,2020

Birth Year	Population	Total with hearing loss (Hearing loss : NHS refer)	Total with hearing loss in Early Intervention (%)	Lost to diagnostic follow- up (%)
2022	Overall MA	148 (10.0%)	113 (76.3%)	60 (4.0%)
	Generic	8 (38.0%)	4 (50.0%)	0
2021	Overall MA	156 (10.0%)	123 (78.8%)	39 (2.5%)
	Generic	3 (10.3)	2 (66.6)	1 (3.4)

1. Latest screen results from birth hospital or secondary hospital
2. Excludes infants deceased without a screen
3. Includes internal transfers and transfers to a secondary hospital
4. Not screened here includes infant deaths



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Birth Years: 2022,2021,2020

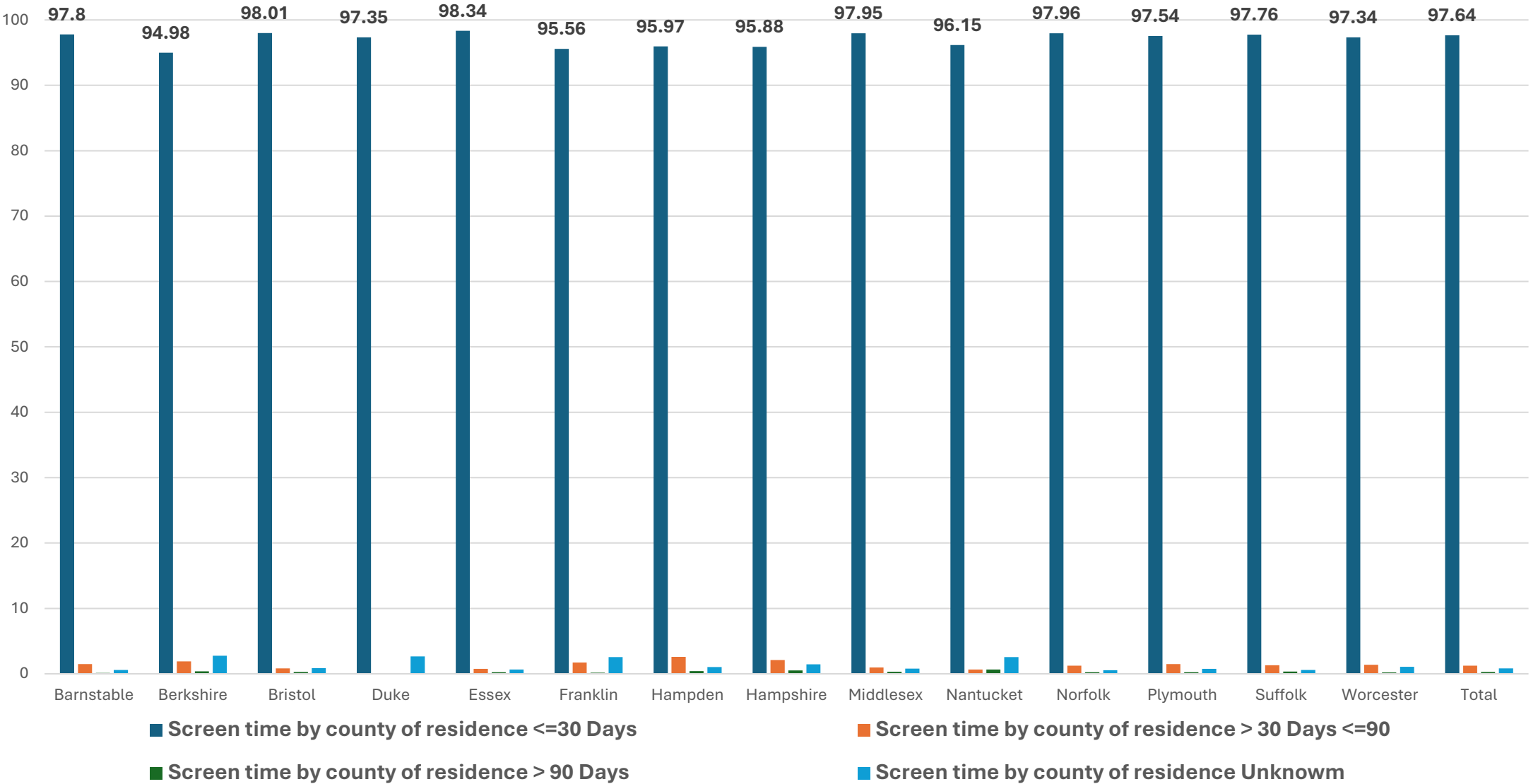
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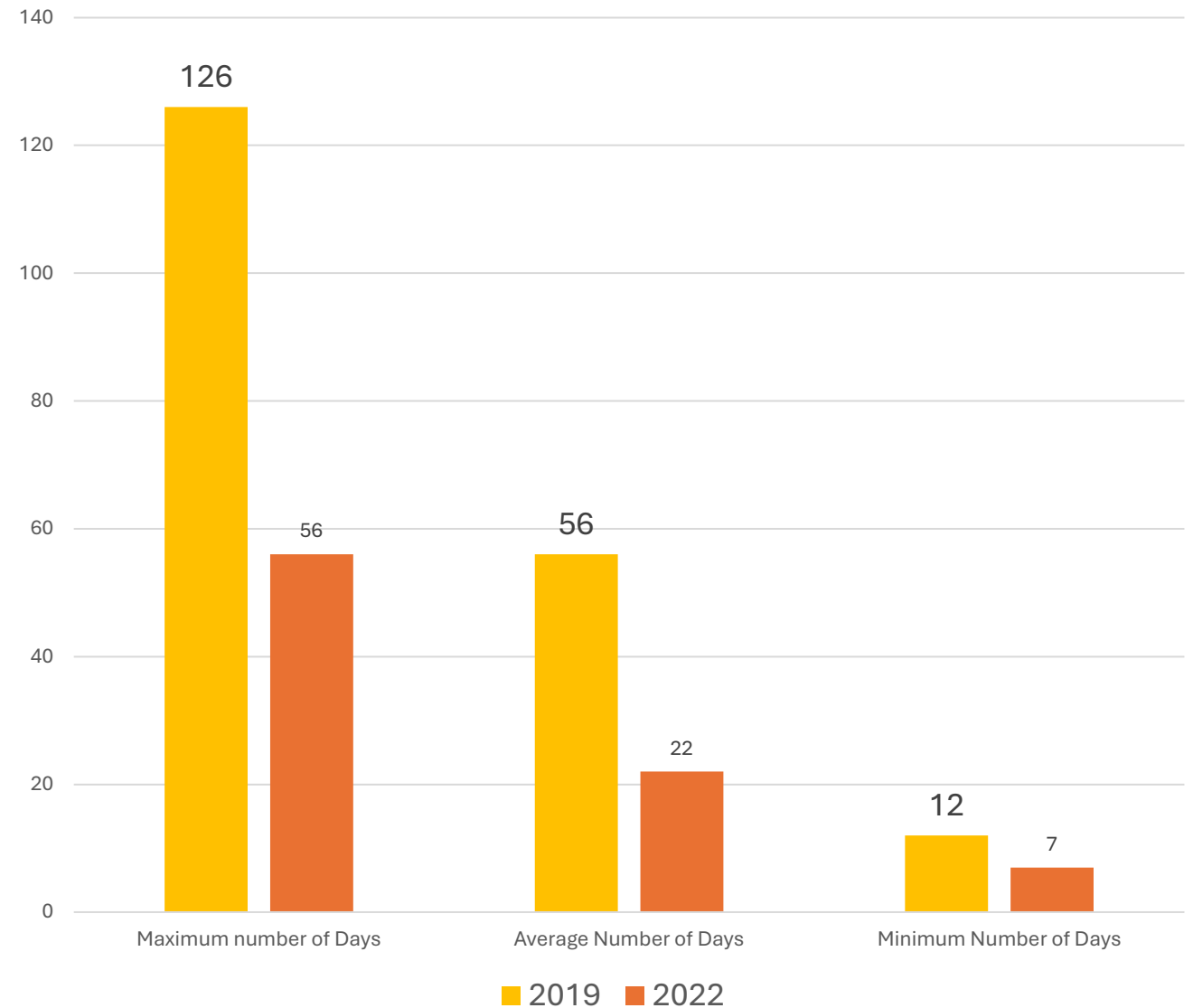
Screen time by county of residence

County	<=30 Days	> 30 Days <=90	> 90 Days	Unknown	Total
Barnstable	1468	22	2	9	1501
	97.8	1.47	0.13	0.6	
Berkshire	794	16	3	23	836
	94.98	1.91	0.36	2.75	
Bristol	4835	41	14	43	4933
	98.01	0.83	0.28	0.87	
Dukes	147	0	0	4	151
	97.35	0	0	2.65	
Essex	8253	65	19	55	8392
	98.34	0.77	0.23	0.66	
Franklin	560	10	1	15	586
	95.56	1.71	0.17	2.56	
Hampden	4334	117	18	47	4516
	95.97	2.59	0.4	1.04	
Hampshire	722	16	4	11	753
	95.88	2.12	0.53	1.46	
Middlesex	15062	148	46	122	15378
	97.95	0.96	0.3	0.79	
Nantucket	150	1	1	4	156
	96.15	0.64	0.64	2.56	
Norfolk	6565	83	17	37	6702
	97.96	1.24	0.25	0.55	
Plymouth	5116	78	12	39	5245
	97.54	1.49	0.23	0.74	
Suffolk	7926	107	28	47	8108
	97.76	1.32	0.35	0.58	
Worcester	8292	118	19	90	8519
	97.34	1.39	0.22	1.06	
Total	64224	822	184	546	65776
	97.64	1.25	0.28	0.83	100

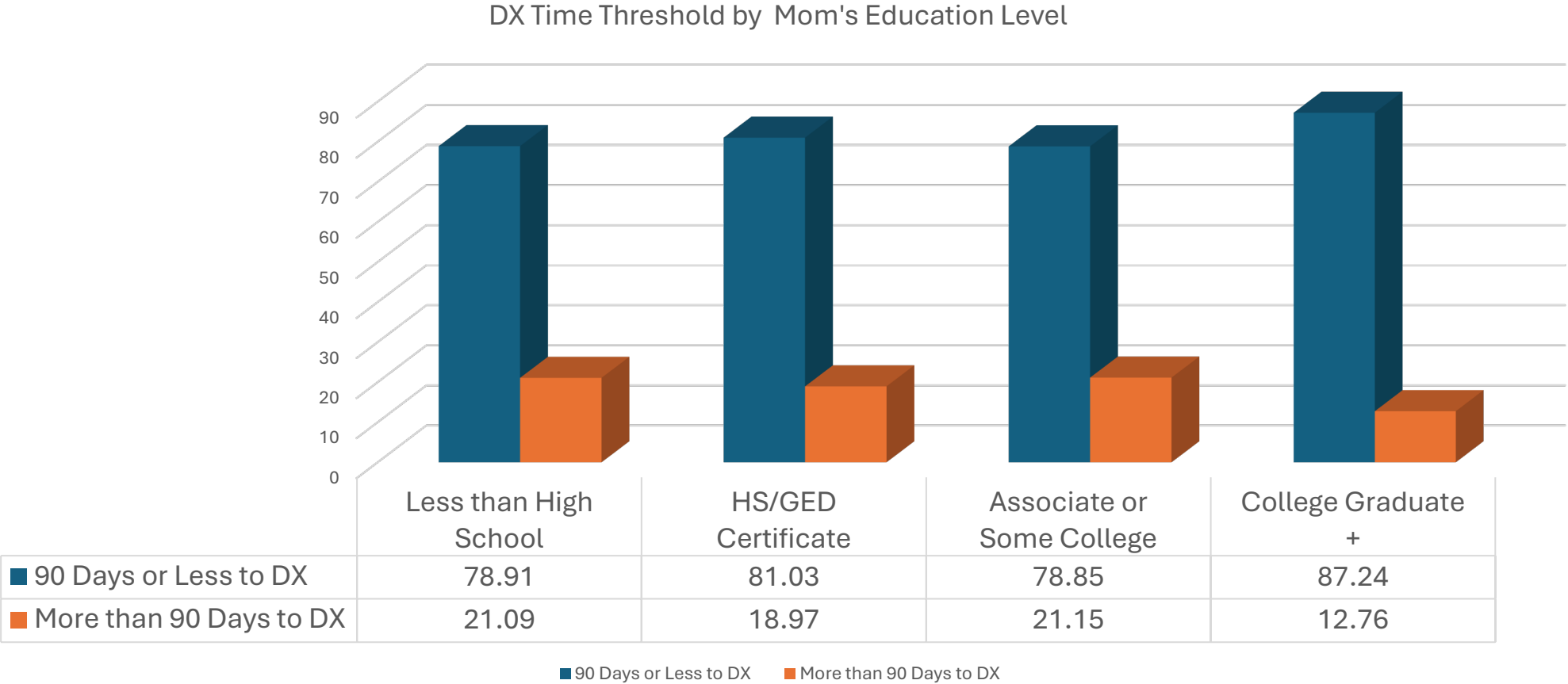
Screen Time Threshold by County of Residence, Percent



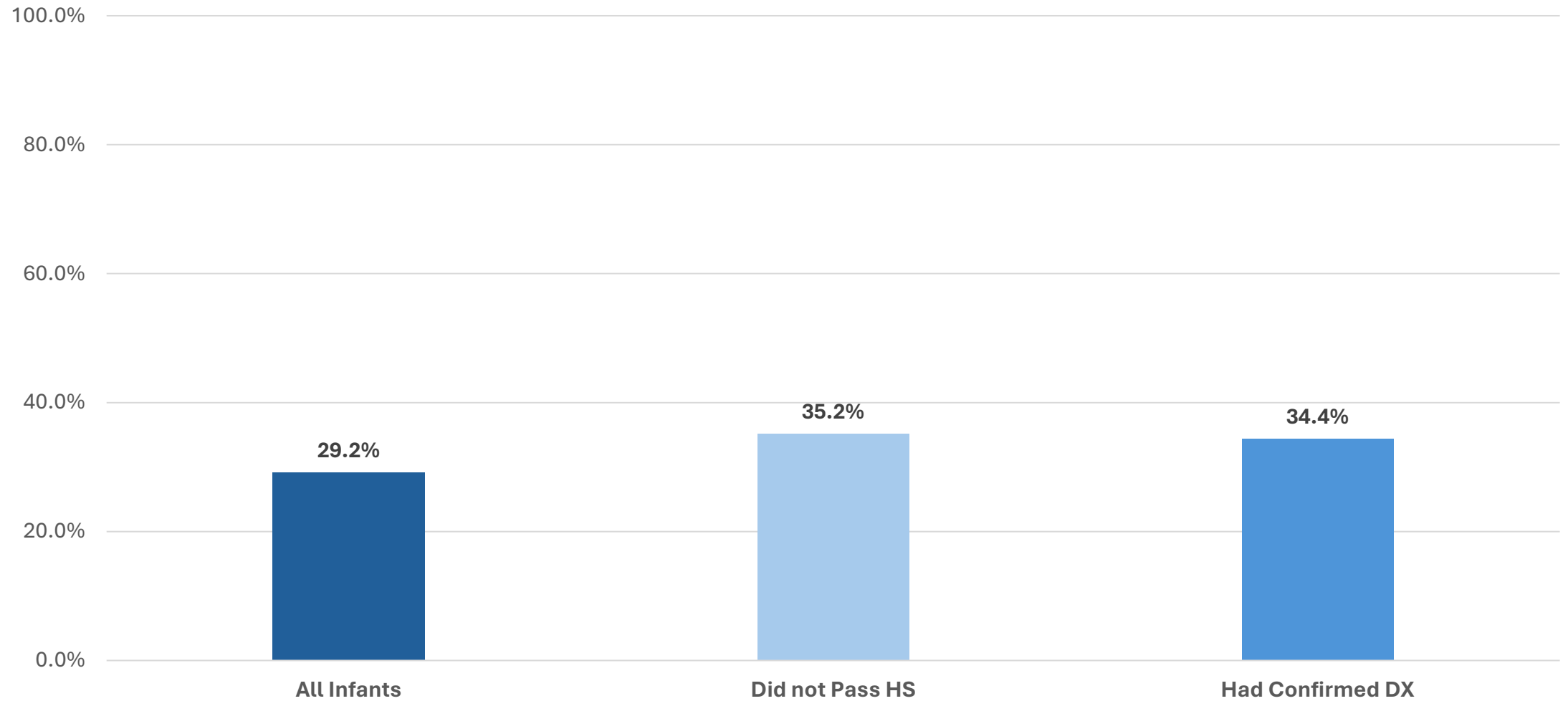
Time Between
Screening and first
Diagnostic
Appointment
(Babies that did not
pass screen at
Cape Cod Hospital
and evaluated at
Remote ABR site)



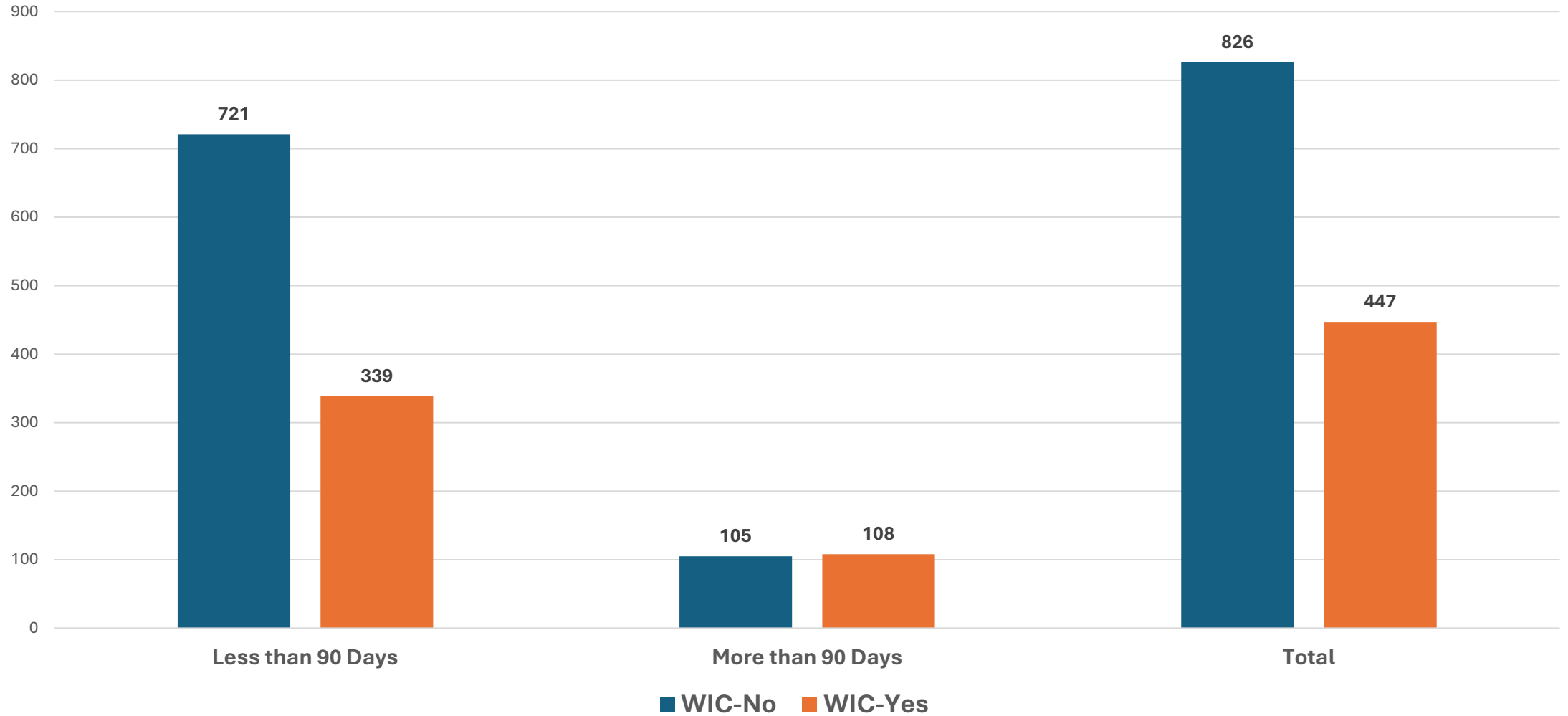
DX Time Threshold (90 days) by Mom's Education Level (2023)



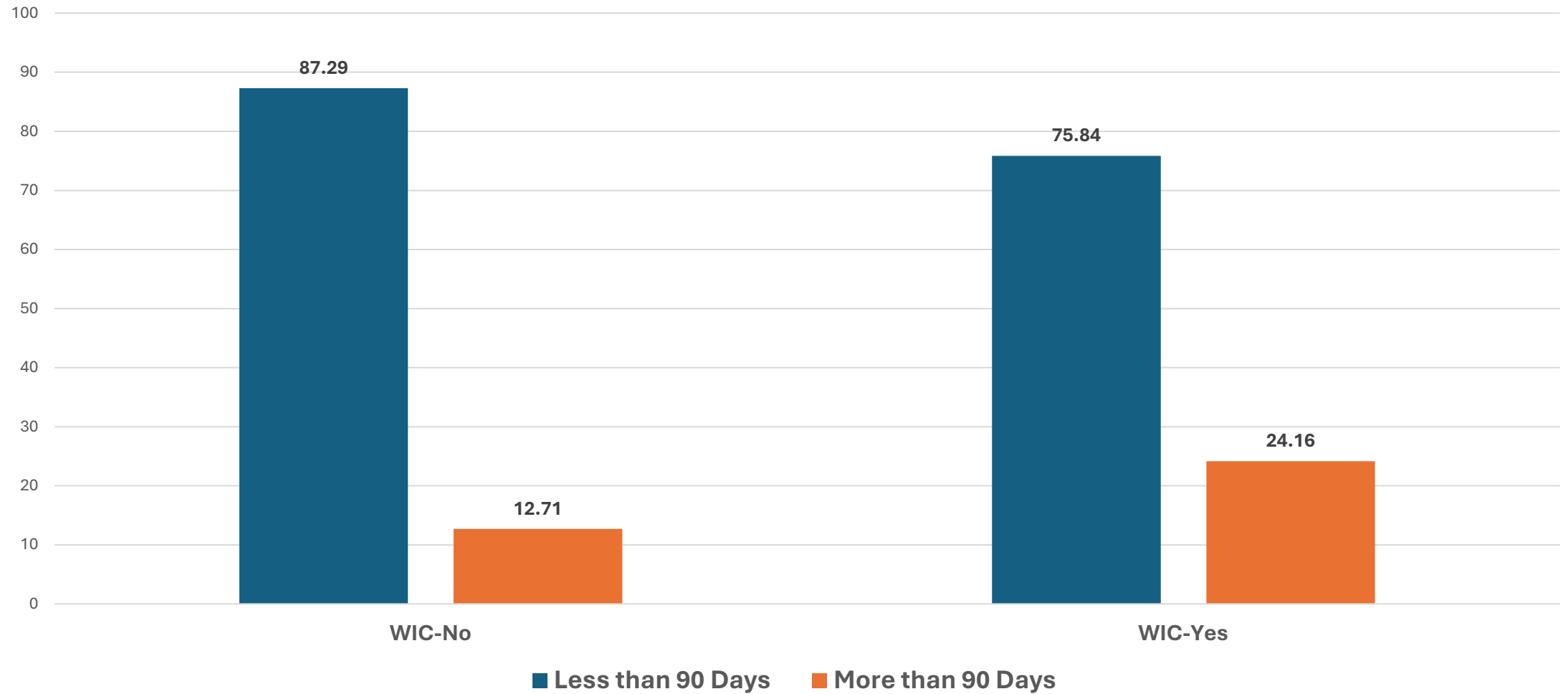
WIC Participants (share of, percent)



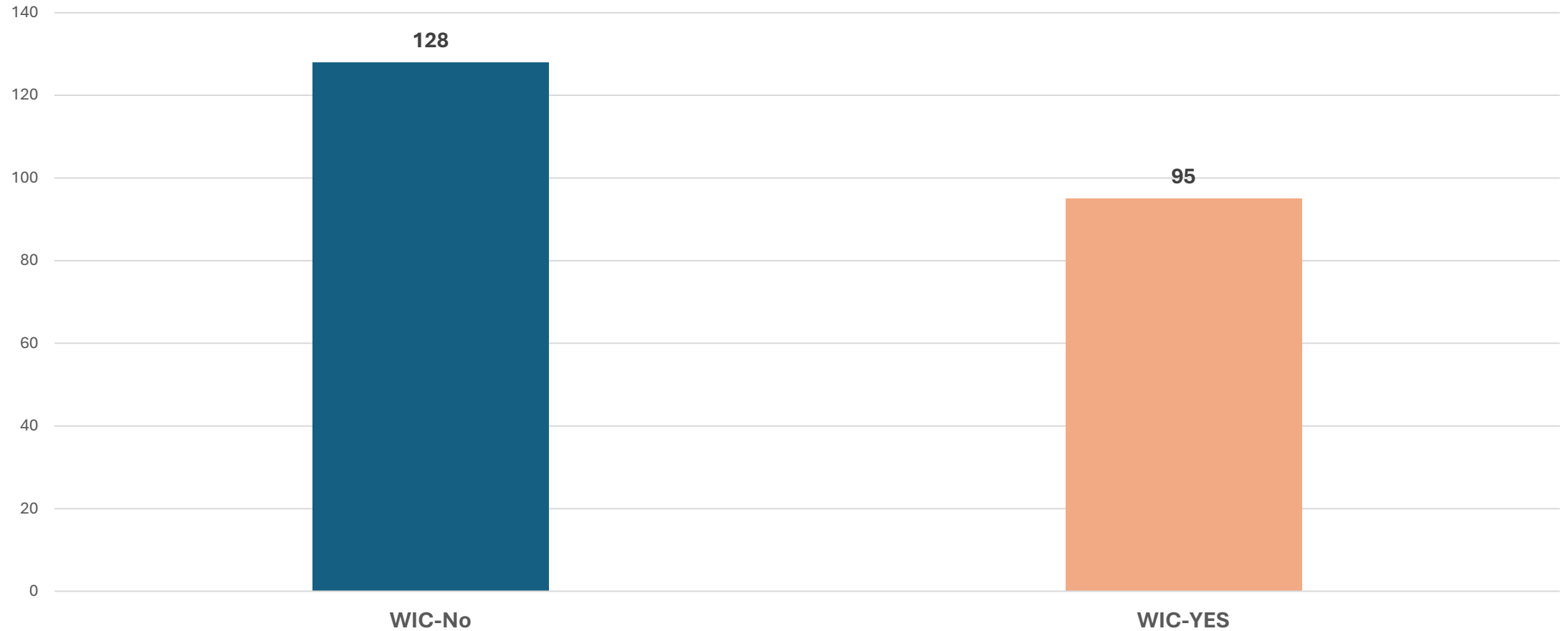
Met DX Threshold Time by WIC Participation (numbers)



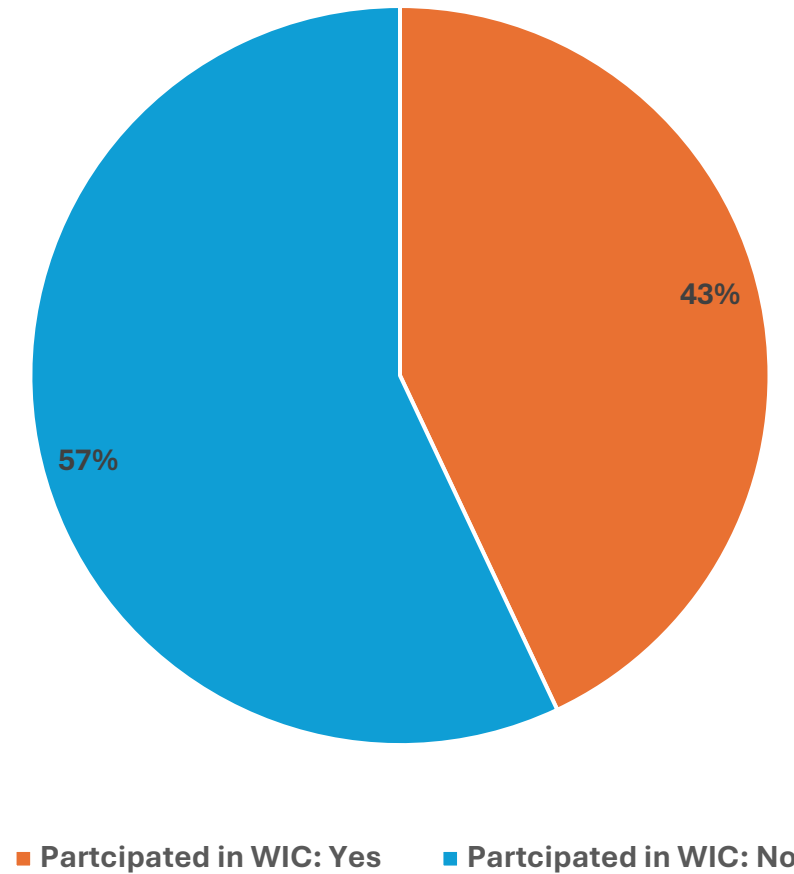
Met DX Threshold Time by WIC Participation (Percent)



Did not pass Hearing Screening and did not get DX by Participation in WIC (numbers)

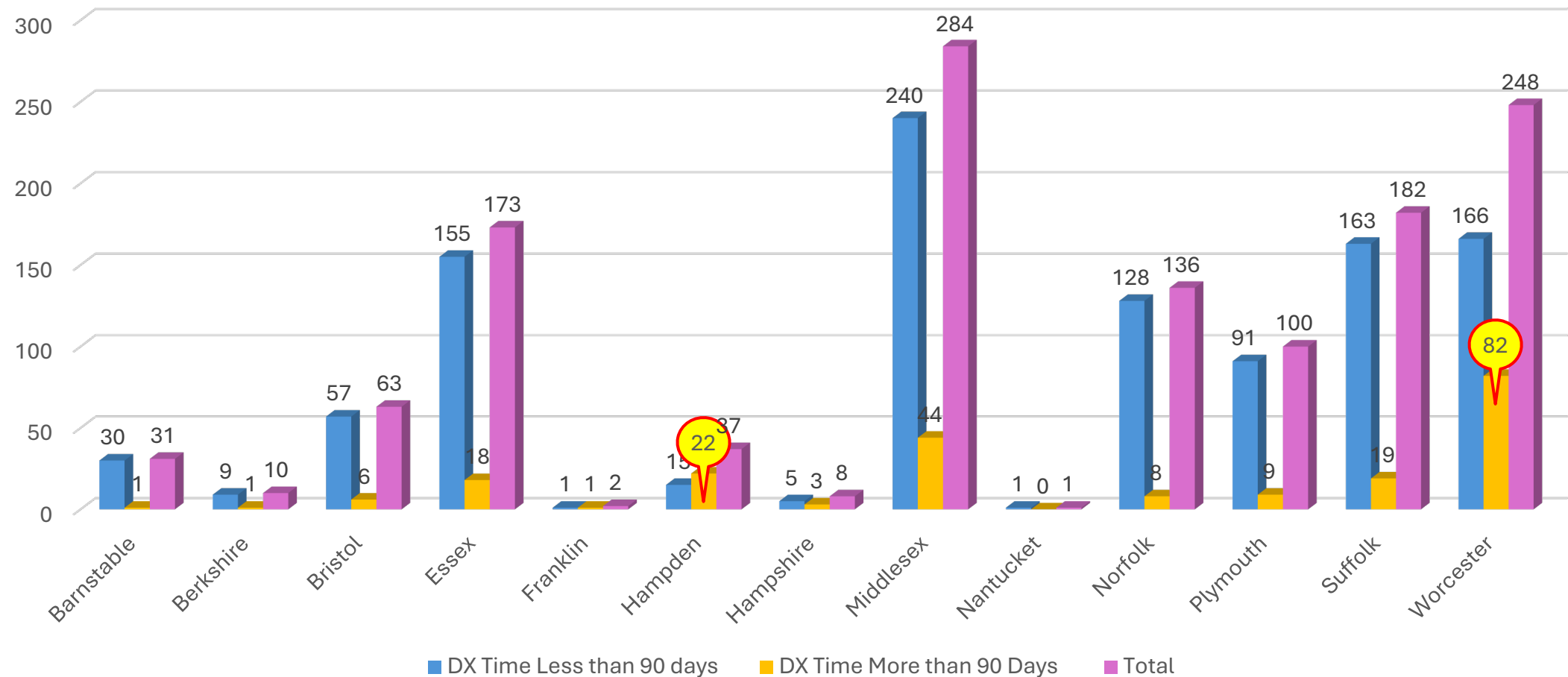


Did not pass Hearing Screening and did not get DX by Participation in WIC (percent)

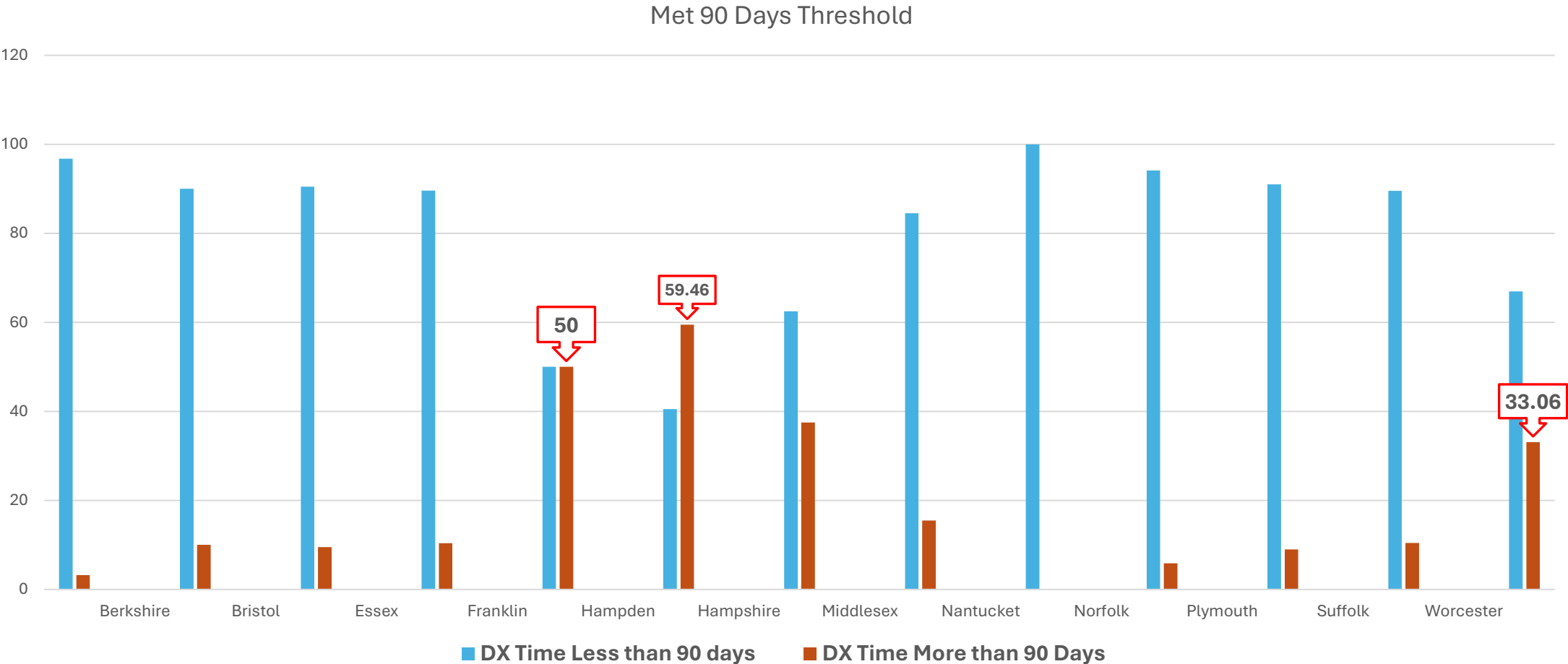


Confirmed DX (Number of DX) <= 90 Days >90: By County of Residence

Met 90 Days Threshold

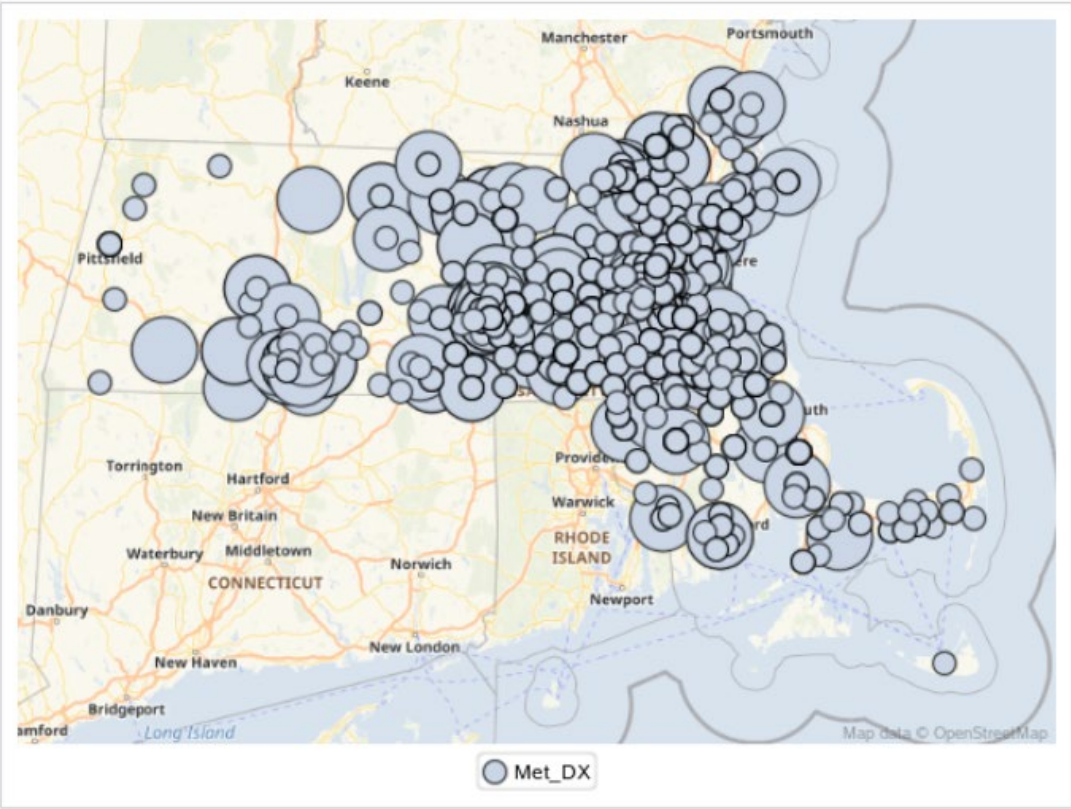


Completed Evaluation (Percent DX) < = 90 Days >90: By County of Residence

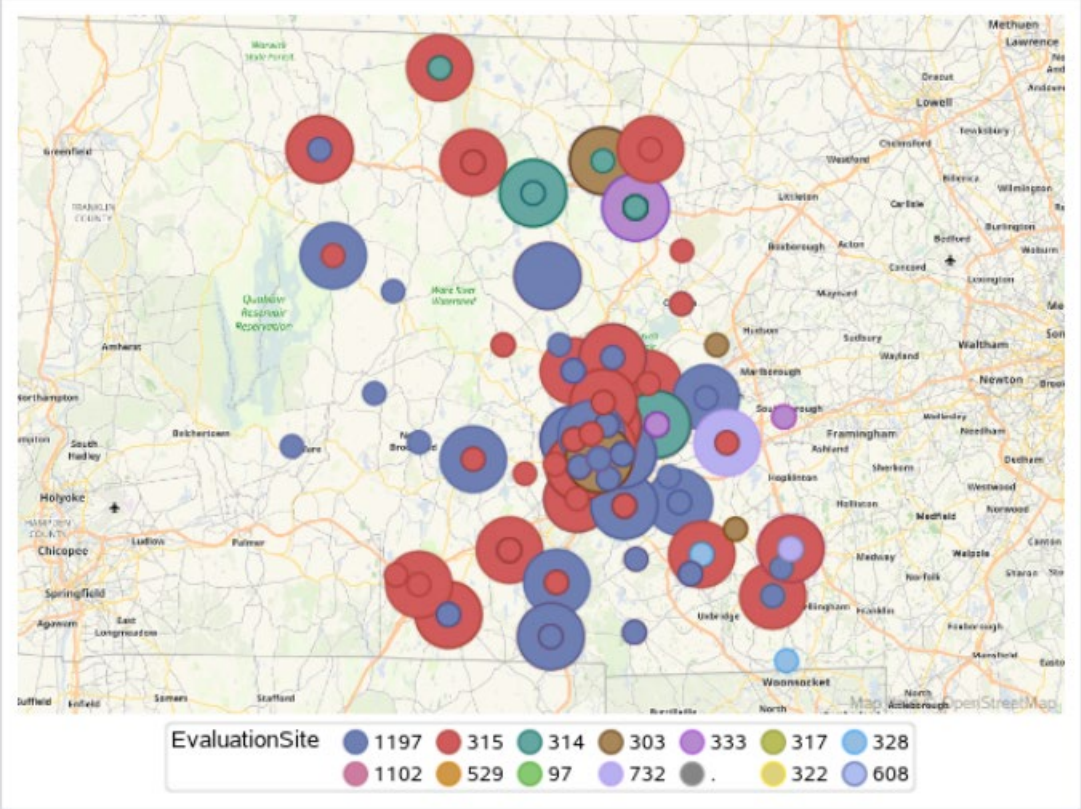


Met DX : Moms' Residence and Audiology Center

Massachusetts

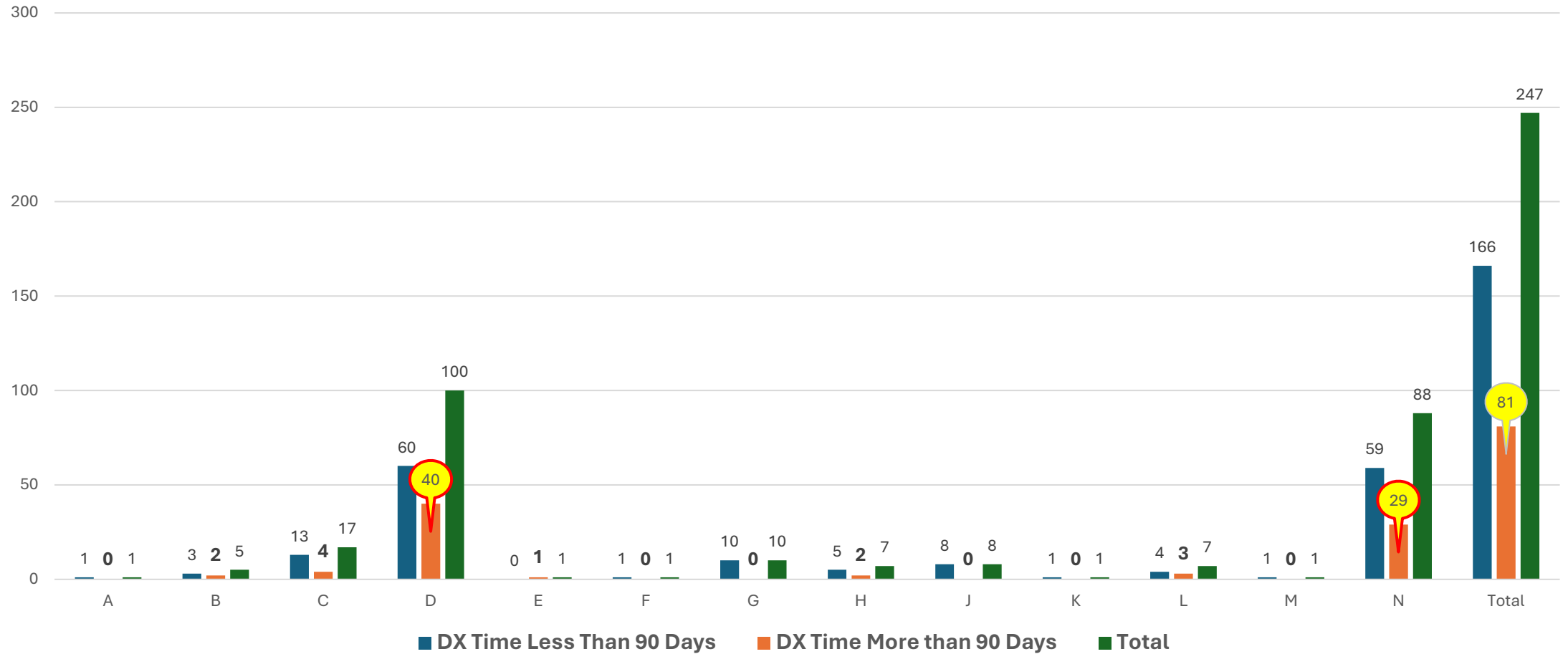


Worcester County

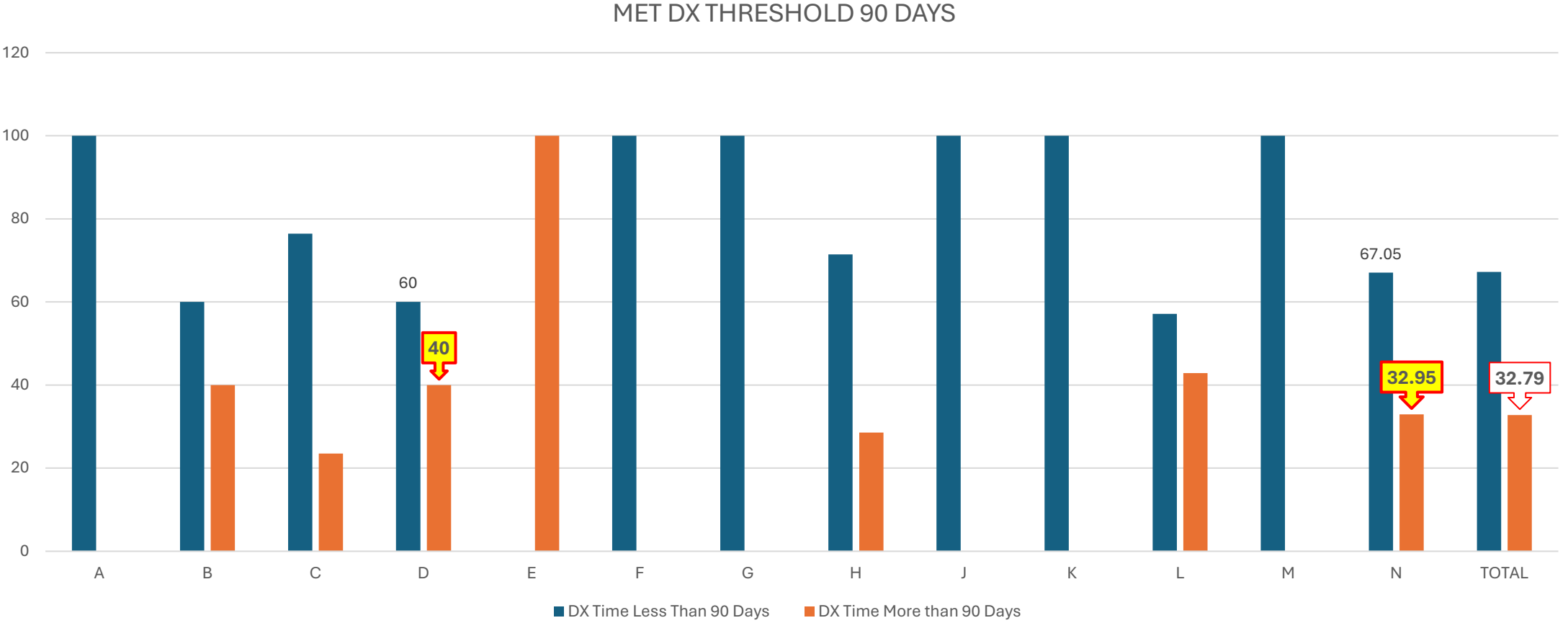


Confirmed DX (Number DX) \leq 90 Days $>$ 90: by **Evaluation Site** (Worcester County)

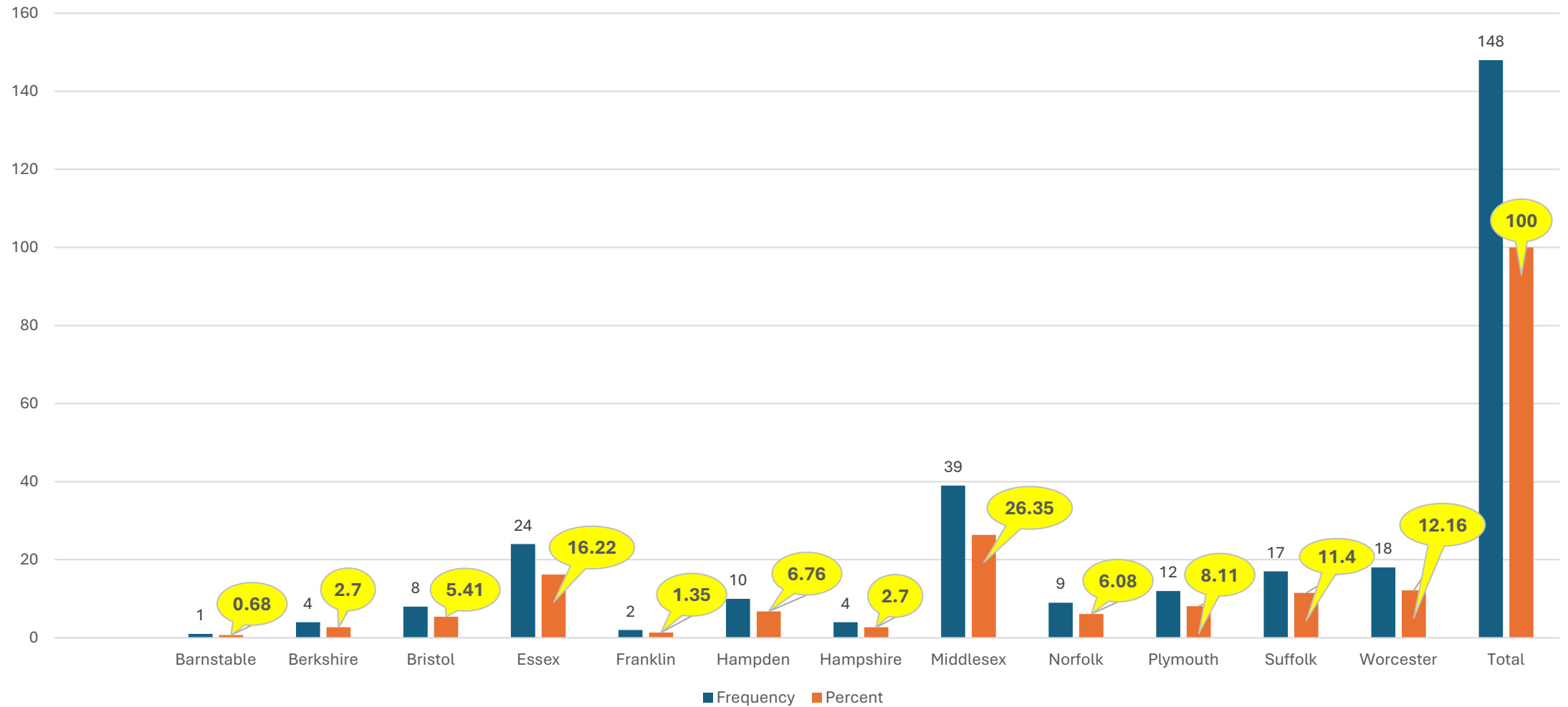
MET THRESHOLD 90 DAYS



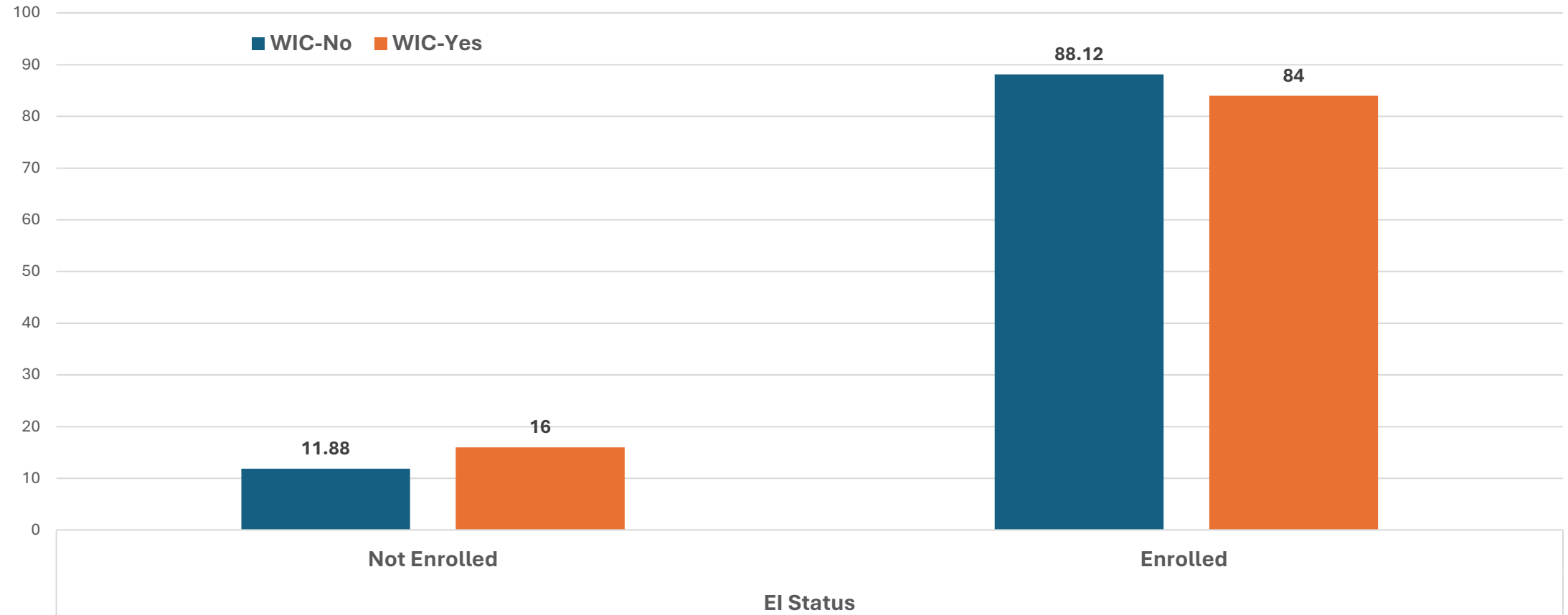
Confirmed DX (percent of DX) < = 90 Days >90:
by **Evaluation Site** (Worcester County)



EI Participation by County of Residence



WIC Participation and EI Status, Percent



EI Status and Insurance Type, Percent

