

Trials and Tribulations of Training Residents and Meeting Workforce Demands

R. PHILLIPS HEINE
PROFESSOR AND FRANK R. LOCK CHAIR
OBSTETRICS AND GYNECOLOGY



Wake Forest University
School of Medicine



The academic core of  **Atrium Health**

Conflict of Interest

- Pfizer DSM Board Member
 - COVID
 - RSV
 - GBBS

Talk Outline

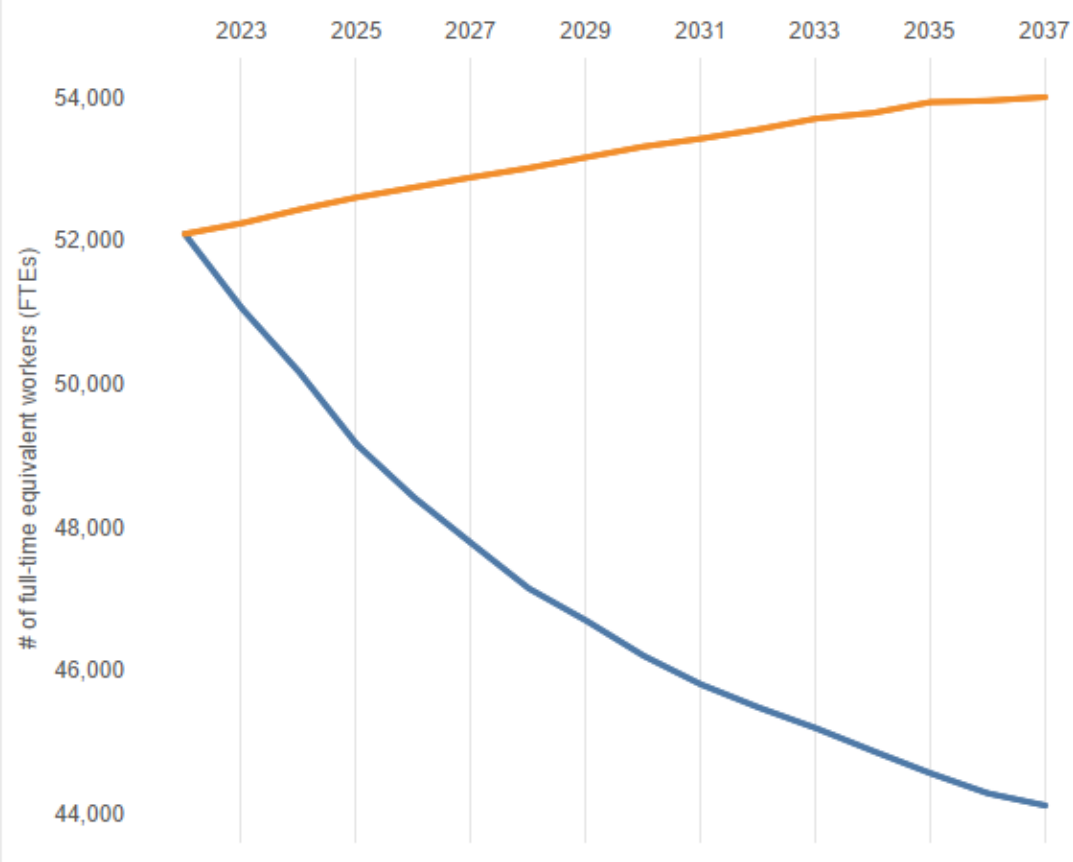
- Current State Ob Gyn Work Force
- ObGyn Residency Interest
- Current Status Resident Training
- Dilemma-Potential Solutions

Current State Ob Gyn Workforce

- Average age – 51 years
 - 35% older than 55
 - Retirement range 59-69
 - Obstetric retirement
 - 44 YO women/52 YO men
- Distribution
 - 38 per 100K
 - 3x more per 100k in Urban than rural
 - 8 in 10 rural counties with no ObGyn

Ob Gyn Workforce Supply vs Demand Total

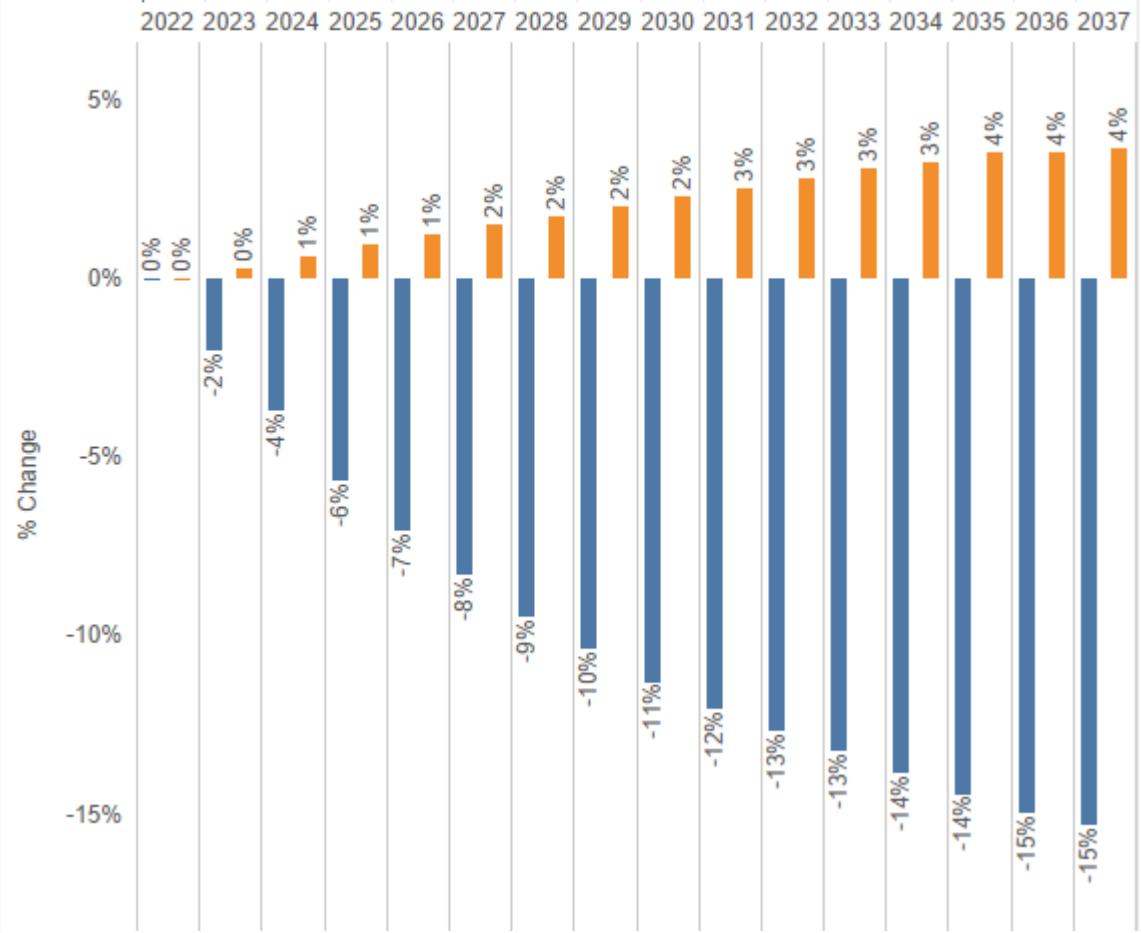
Obstetrics & Gynecology Physicians
Supply & Demand 2022 - 2037



Change in demand +1910 +5%
 Change in supply -7980 -15%
 Physician Adequacy 82%

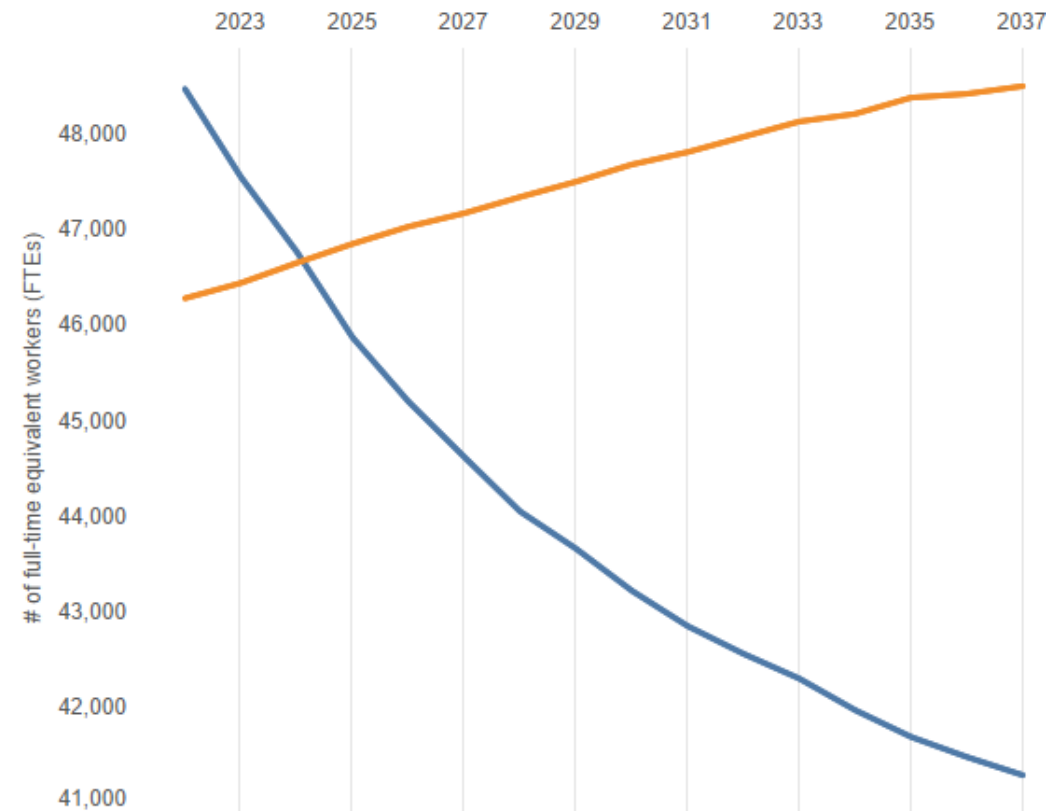
Obstetrics & Gynecology Physicians
Cumulative Percent Change Over Time Since 2022

1 yr interval



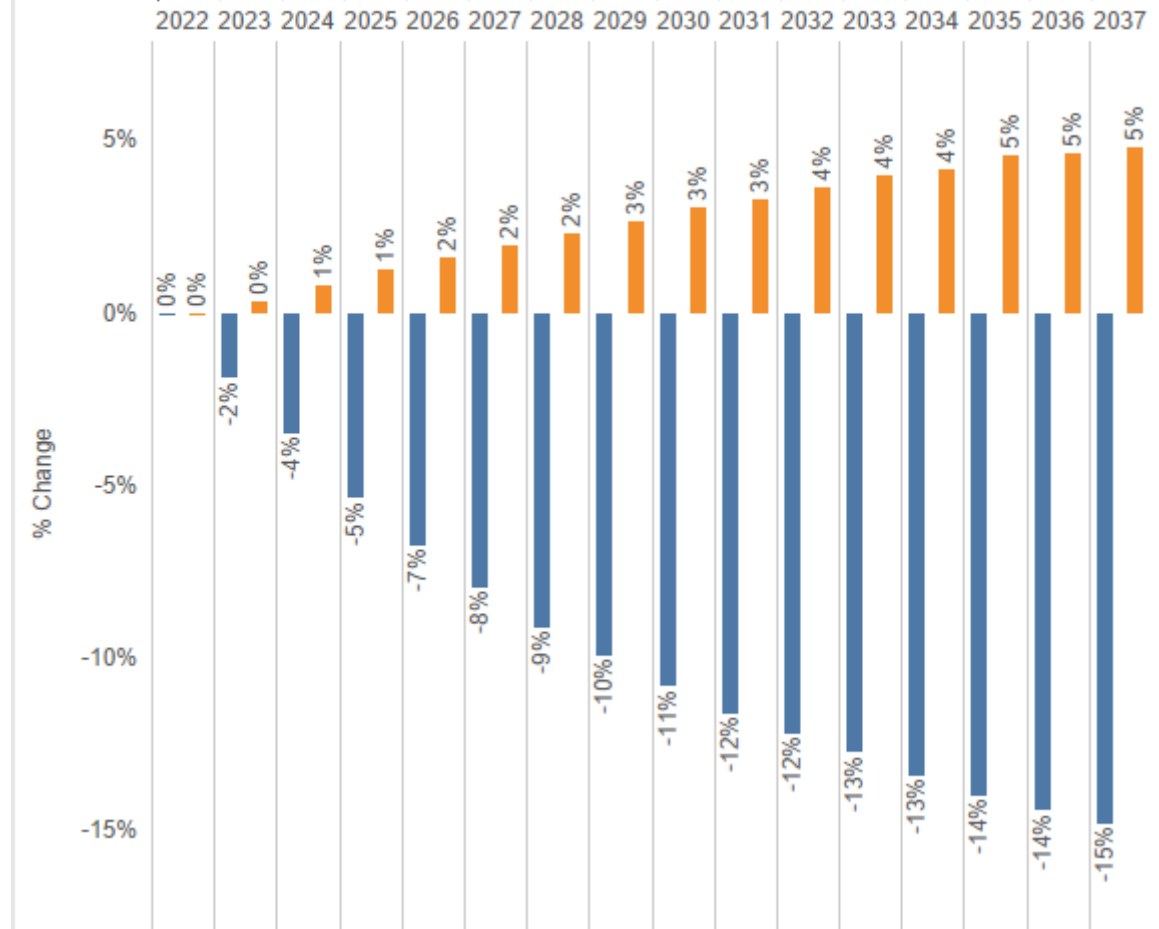
Ob Gyn Workforce Supply vs Demand Metro

Obstetrics & Gynecology Physicians
Supply & Demand 2022 - 2037



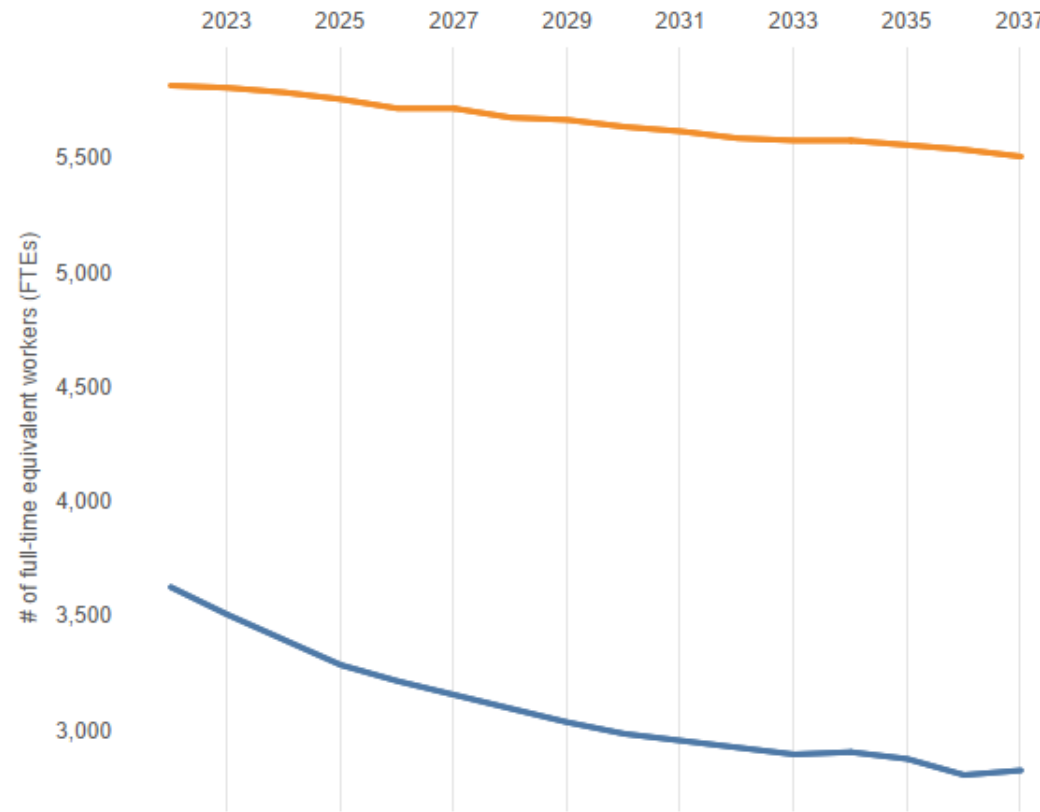
Change in demand +2220 +5%
 Change in supply -7180 -15%
 Physician Adequacy 85%

Obstetrics & Gynecology Physicians
Cumulative Percent Change Over Time Since 2022



Ob Gyn Workforce Supply vs Demand Non-Metro

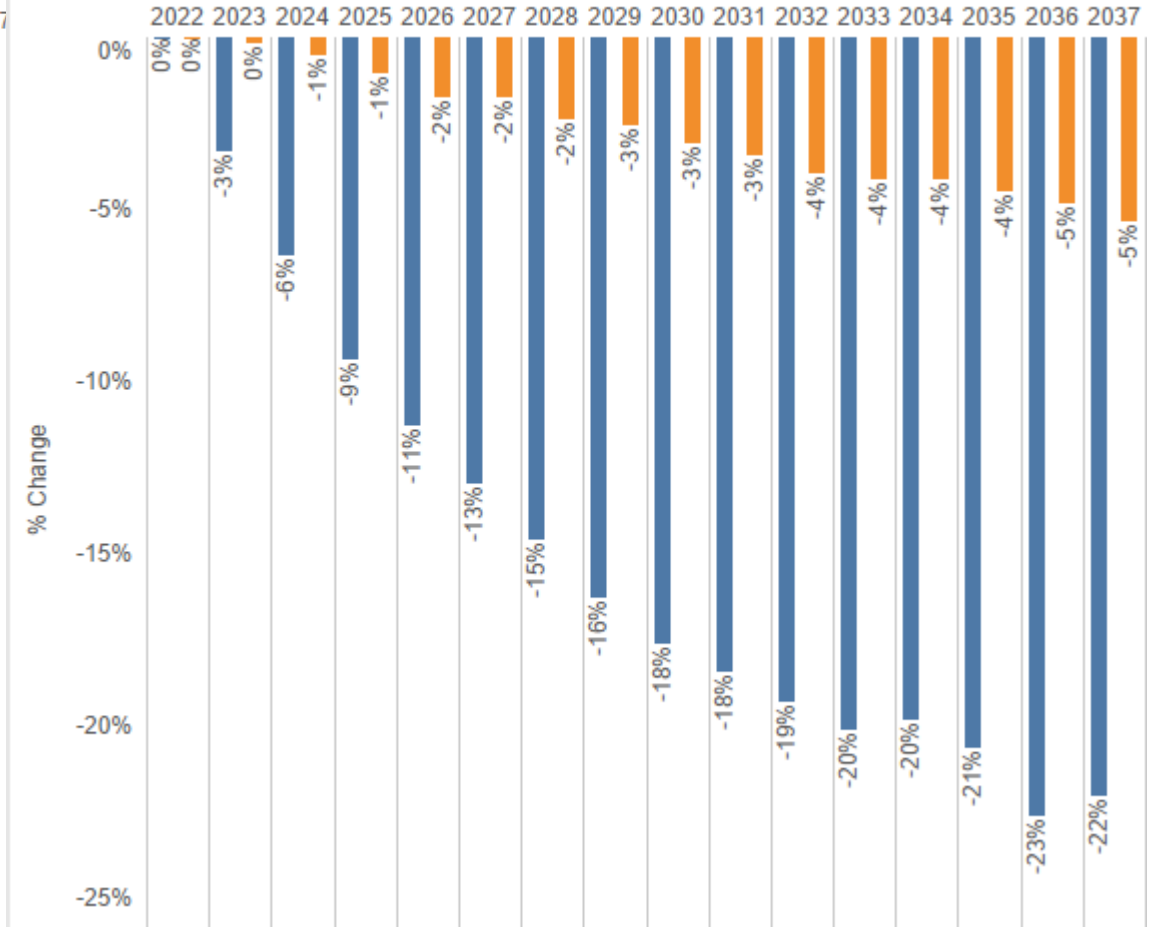
Obstetrics & Gynecology Physicians
Supply & Demand 2022 - 2037



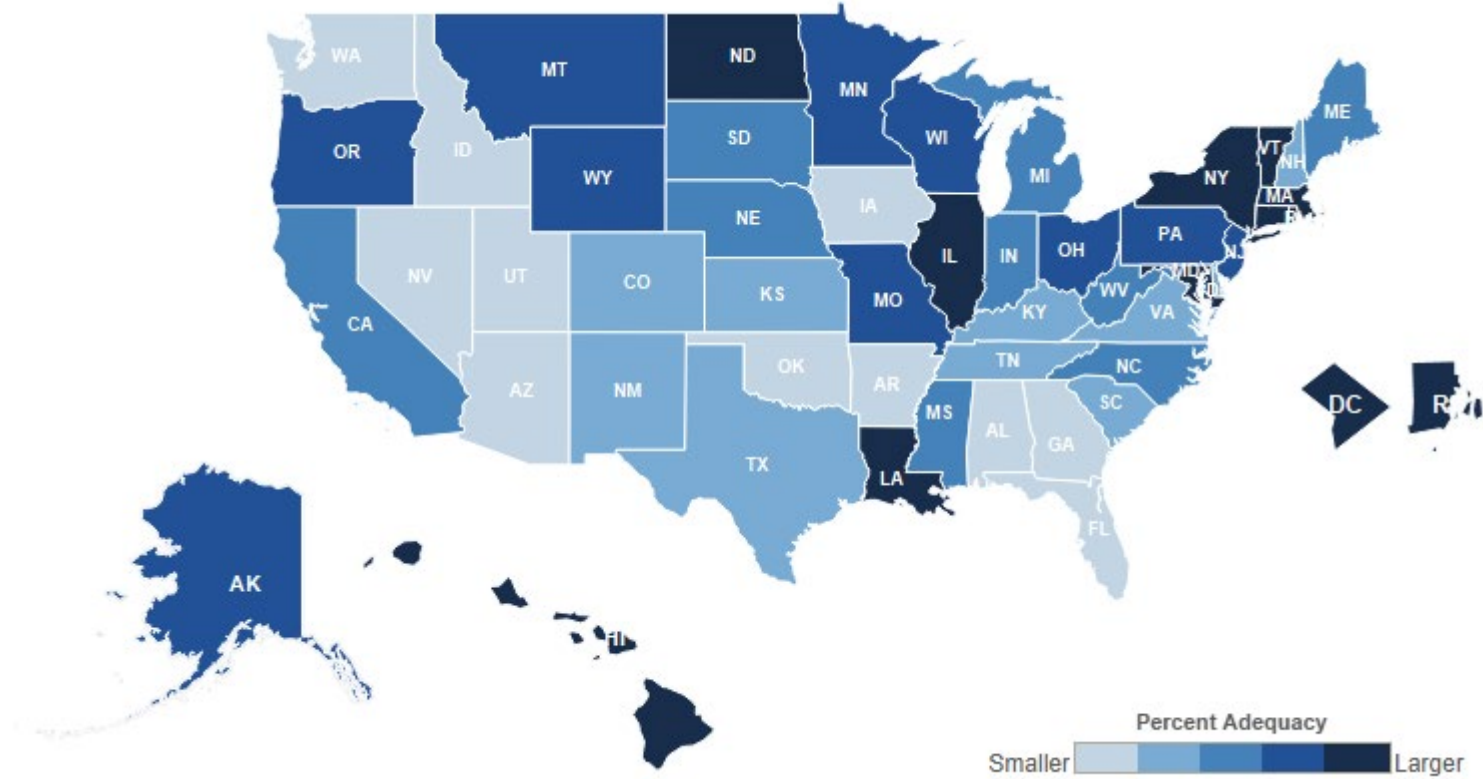
Change in demand -310 -5%
 Change in supply -800 -22%
 Physician Adequacy 54%

Obstetrics & Gynecology Physicians
Cumulative Percent Change Over Time Since 2022

1 yr interval



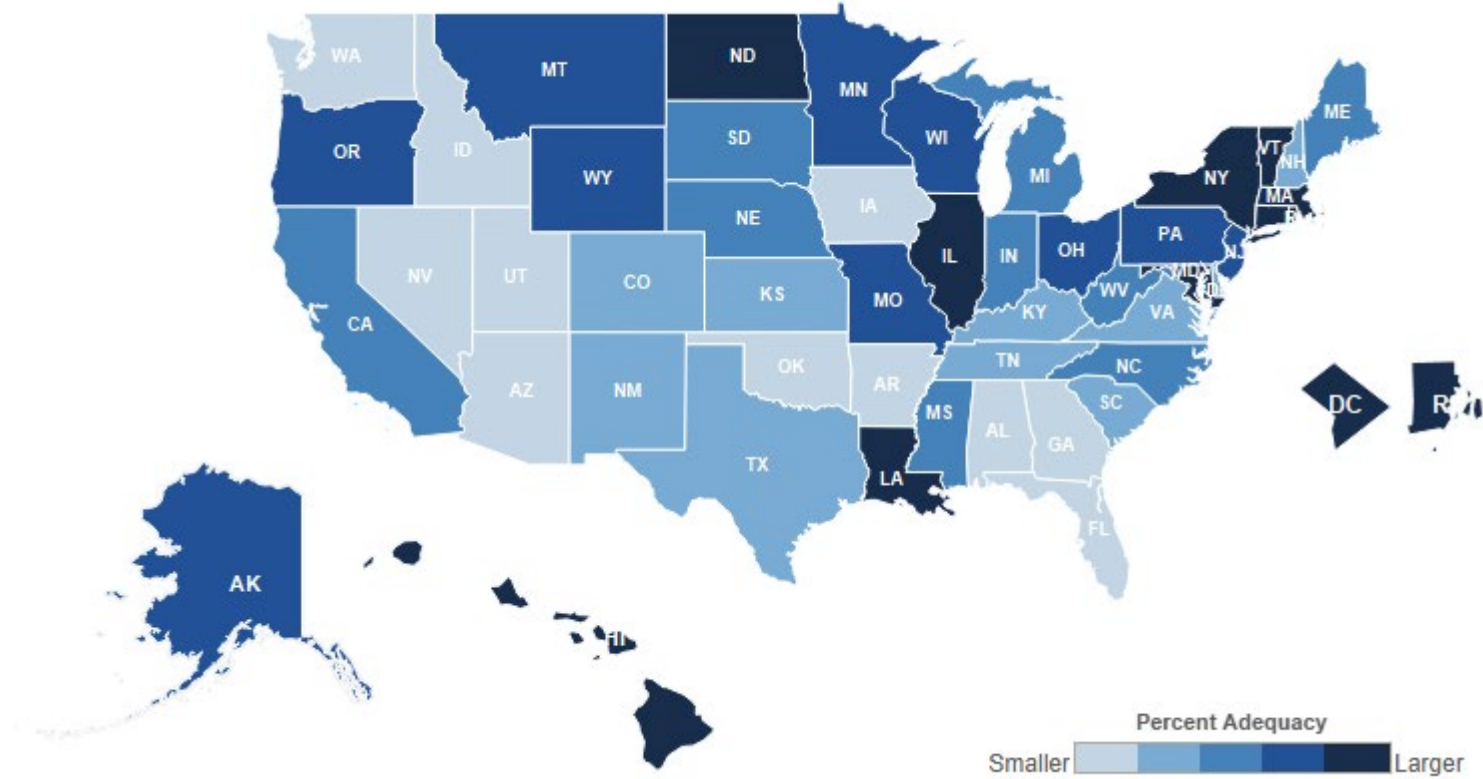
Ob Gyn Workforce State Specific – 2025



Specific states	
Florida	87%
Georgia	92%
South Carolina	88%
North Carolina	97%
Virginia	90%
West Virginia	92%

Total Demand 52,620
 Total Supply 49,170
 Physician Adequacy 93%

Ob Gyn Workforce State Specific – 2037

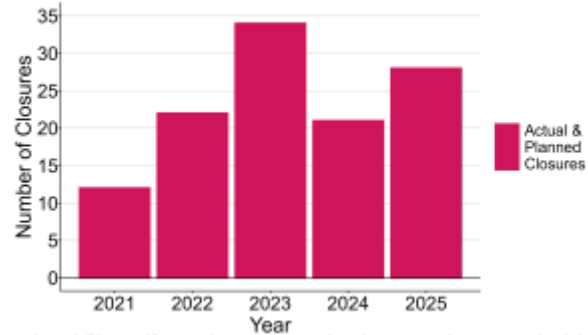


Specific states	
Florida	71%
Georgia	69%
South Carolina	77%
North Carolina	80%
Virginia	75%
West Virginia	83%

Total Demand 54,020
 Total Supply 44,130
 Physician Adequacy 82%

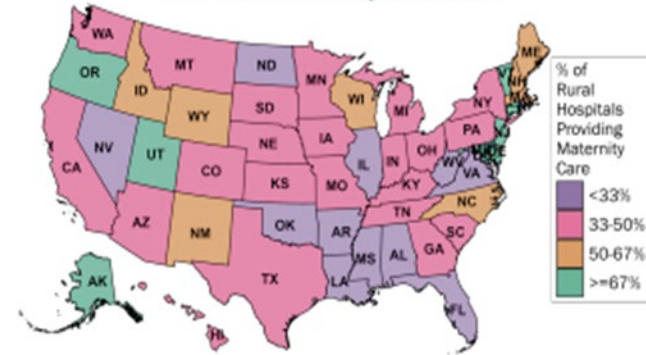
Rural Hospital Dilemma

Closures of Labor and Delivery Units at Rural Hospitals, 2021-2025

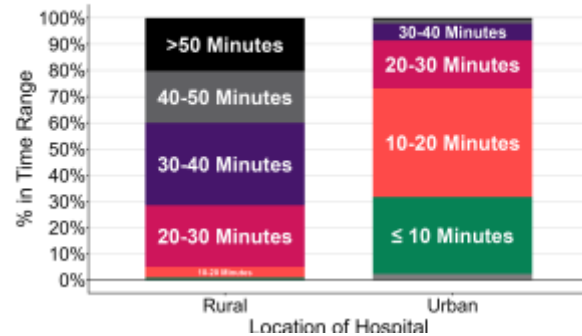


Actual and Planned are closures that already occurred or are scheduled to occur before the end of 2025.

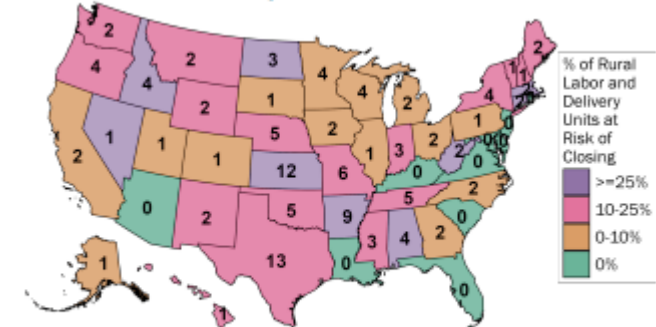
Proportion of Rural Hospitals Still Offering Labor and Delivery Services



Travel Time from Non-Maternity Care Hospitals to Closest Hospital with Maternity Services



Rural Labor & Delivery Units At Risk of Closing Due to Hospital Financial Losses

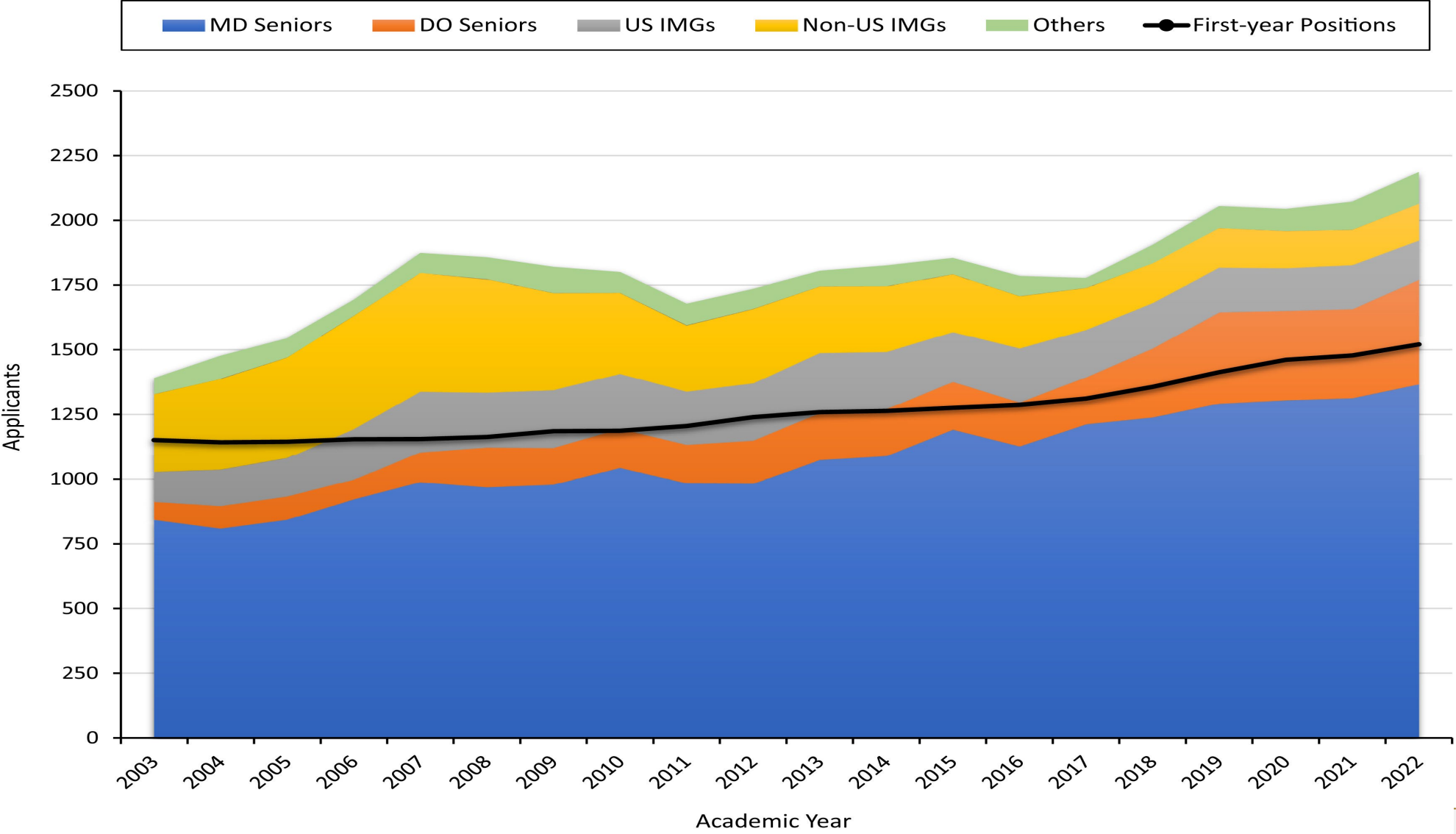


A Labor and Delivery unit is counted as "at risk of closing" if the hospital lost money on all patient services (not just labor and delivery services) in both of the two most recent years available and also had a negative total margin in both years.

ObGyn Residency Interest

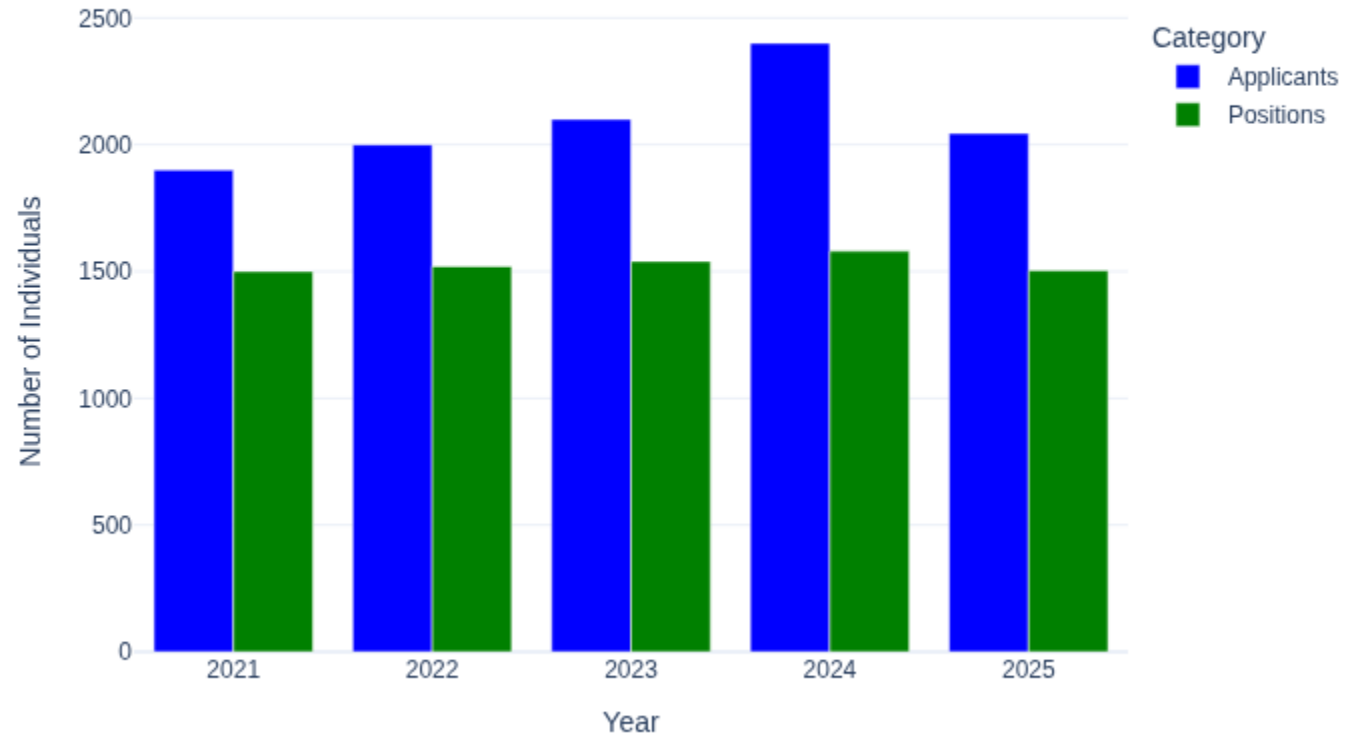
- Medical School growth
 - 2003 16,488
 - 2025 23,440
 - Increase 42%
- DO school growth
 - 2017 5403
 - 2025 8190
 - Increase 52%
- Obstetric Residency Growth
 - Programs 245-288
 - 2003 1151
 - 2025 1521
 - Increase 32%

ObGyn Residency Application Growth



OB/GYN Residency Applicants vs Positions (2021–2025)

OB/GYN Residency Applicants vs Positions (2021–2025)



Applicants have grown faster than positions, increasing competitiveness while maintaining >99% match rates.

OB/GYN Residency Match rates

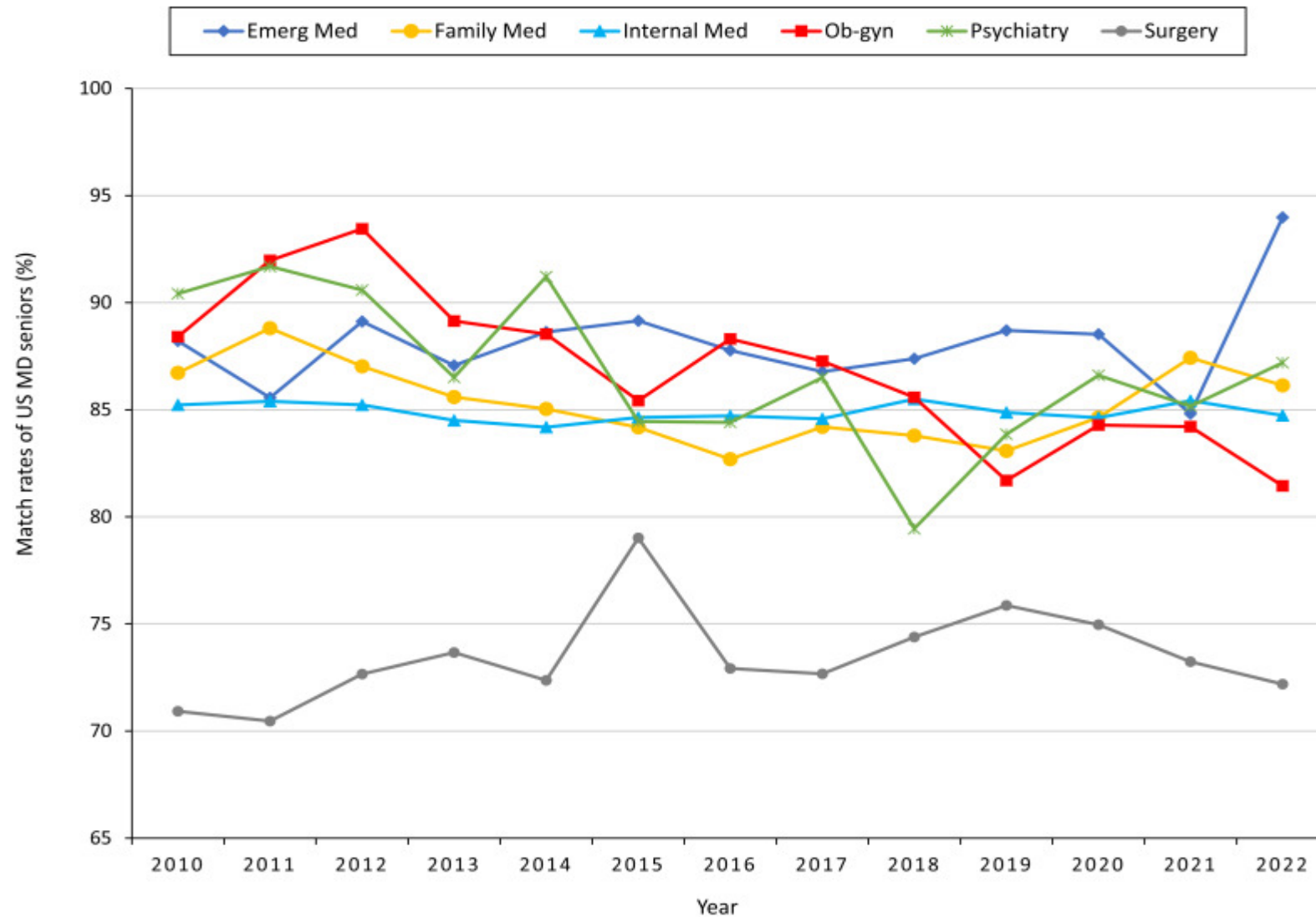


Figure 2 Match rates of US MD seniors for residencies in common specialties

Current Status ACGME funding

- About 230K funded slots across country
- Capped since Balanced Budget act of 1997
- 2020 increased by 1000 slots
 - Rural/primary care focus
 - Smaller increase of 200 in 2023
- Residency Physician Shortage act reintroduced 2025
 - Bipartisan bill
 - Rural/primary care focus
 - Increase slots by 14k
 - 2k per year

Current Status - National Residency training numbers - Obstetrics

Obstetrics Programs in the Nation: 280 Residents in the Nation: 1,485

	Surgeon							Surgeon + TA (PGY 3 & 4)						
	Percentiles							Percentiles						
	10	15	30	50	70	90	95	10	15	30	50	70	90	95
RRC Procedure														
Spontaneous vaginal deliveries	162	176	204	232	271	341	374	208	215	238	273	318	390	441
Cesarean deliveries	127	136	158	187	220	281	318	153	159	184	215	253	317	351
Operative vaginal deliveries	10	11	14	16	19	28	33	15	15	16	18	21	30	36
Forceps	0	0	1	2	5	11	15	0	0	1	2	6	12	16
Vacuum	6	7	10	13	16	22	26	7	9	12	15	17	23	27
Obstetric ultrasound	50	50	56	73	115	245	317	50	51	57	74	118	259	349



Current Status – National Residency training numbers - Gynecology

Gynecology Programs in the Nation: 280 Residents in the Nation: 1,485

RRC Procedure	Surgeon							Surgeon + TA (PGY 3 & 4)						
	Percentiles							Percentiles						
	10	15	30	50	70	90	95	10	15	30	50	70	90	95
Abdominal hysterectomy	15	16	20	22	27	38	43	16	17	20	23	28	39	45
Vaginal hysterectomy	12	13	15	16	19	25	30	14	15	15	17	19	26	31
Laparoscopic hysterectomy	45	48	56	65	77	103	116	47	51	58	67	80	105	119
Total hysterectomies	84	87	94	106	121	153	170	88	90	98	110	125	156	175
Incontinence and pelvic floor	26	27	31	38	48	71	88	27	28	32	39	50	73	90
Cystoscopy (Def Ctgy)	21	25	34	45	62	91	108	22	25	35	46	64	94	113
Laparoscopy	64	68	79	94	112	143	166	67	71	83	99	118	152	171
Operative hysteroscopy	43	45	54	68	85	116	133	45	49	58	71	89	120	139
Abortion	20	22	27	37	52	84	102	23	24	30	39	54	86	104
Transvaginal ultrasound	48	50	51	55	65	97	124	50	50	52	56	66	98	124
Total invasive cancer	26	27	31	38	50	77	96	26	28	32	39	51	79	98
Total robotic procedures	16	20	32	46	62	94	119	17	21	33	47	64	97	124



Current Status – Wake Forest Residency training numbers - Obstetrics

Obstetrics Programs in the Nation: 280 Residents in the Nation: 1,485 Residents in this Program: 6

	Surgeon						Surgeon + TA (PGY 3 & 4)					
	Prog MED	Prog AVE	Prog MIN	Prog MAX	Prog PERC	Natl Prog MED	Prog MED	Prog AVE	Prog MIN	Prog MAX	Prog PERC	Natl Prog MED
RRC Procedure												
Spontaneous vaginal deliveries	235	266.0	198	435	64	238	322	346.7	237	520	82	282
Cesarean deliveries	187	195.7	169	251	54	191	288	291.3	271	336	88	221
Operative vaginal deliveries	20	20.5	15	32	77	16	21	23.2	15	43	79	18
Obstetric ultrasound	67	69.2	54	94	33	84	67	69.3	54	94	31	87

Current Status – Wake Forest Residency training numbers - Gynecology

Gynecology												
Programs in the Nation: 280 Residents in the Nation: 1,485 Residents in this Program: 6												
	Surgeon						Surgeon + TA (PGY 3 & 4)					
	Prog MED	Prog AVE	Prog MIN	Prog MAX	Prog PERC	Natl Prog MED	Prog MED	Prog AVE	Prog MIN	Prog MAX	Prog PERC	Natl Prog MED
RRC Procedure												
Abdominal hysterectomy	29	30.8	24	42	79	23	29	31.0	24	42	73	25
Vaginal hysterectomy	30	30.5	25	41	95	16	30	30.8	26	41	95	17
Laparoscopic hysterectomy	107	108.7	89	134	94	66	107	109.0	90	134	93	69
Total hysterectomies	176	170.0	141	186	94	107	177	170.8	143	186	94	111
Incontinence and pelvic floor	36	36.3	25	53	35	40	36	36.3	25	53	30	42
Cystoscopy (Def Ctgy)	88	83.2	61	96	91	47	89	84.0	62	97	89	48
Laparoscopy	129	140.0	105	215	91	99	131	141.5	105	216	89	105
Operative hysteroscopy	92	105.7	86	162	85	70	96	109.7	87	165	85	74
Abortion	31	35.0	26	54	42	38	33	37.7	28	56	43	40
Transvaginal ultrasound	56	55.3	53	58	40	59	56	55.5	53	58	35	59
Total invasive cancer	47	44.7	33	53	58	41	48	44.8	33	53	56	42
Total robotic procedures	35	37.7	27	55	32	51	36	37.8	27	55	30	52



Dilemma

- Severe Shortage
 - Both urban and rural
- Residency Expansion limited
 - Operative numbers
 - GME residency slots



Solutions

- Models of care
 - APP expansion
 - Rural Obstetrics
- Residency numbers
 - Simulation
 - Expansion beyond Ivory Tower
 - Mentorship post residency



Models of Care

- APP expansion
 - No shortage ambulatory or hospital support APPs
 - Severe shortage independent APPs
 - 14,500 CNMs with need for 22,000
 - Graduate 600-700 per year
- Rural Obstetrics
 - Ob Gyn/Family Medicine Obstetrics coverage
 - Ob-Gyn
 - Gyn and Surgical focus
 - Family Medicine
 - General Ob, Newborn Pediatrics, Primary Care
 - Shared Obstetric call
 - Gyn coverage a significant limitation

Residency Numbers Simulation

- Pros

- Safe environment
- Skill repetition
- Improve confidence
- Teamwork/Communication
- Allows for structured feedback

- Cons

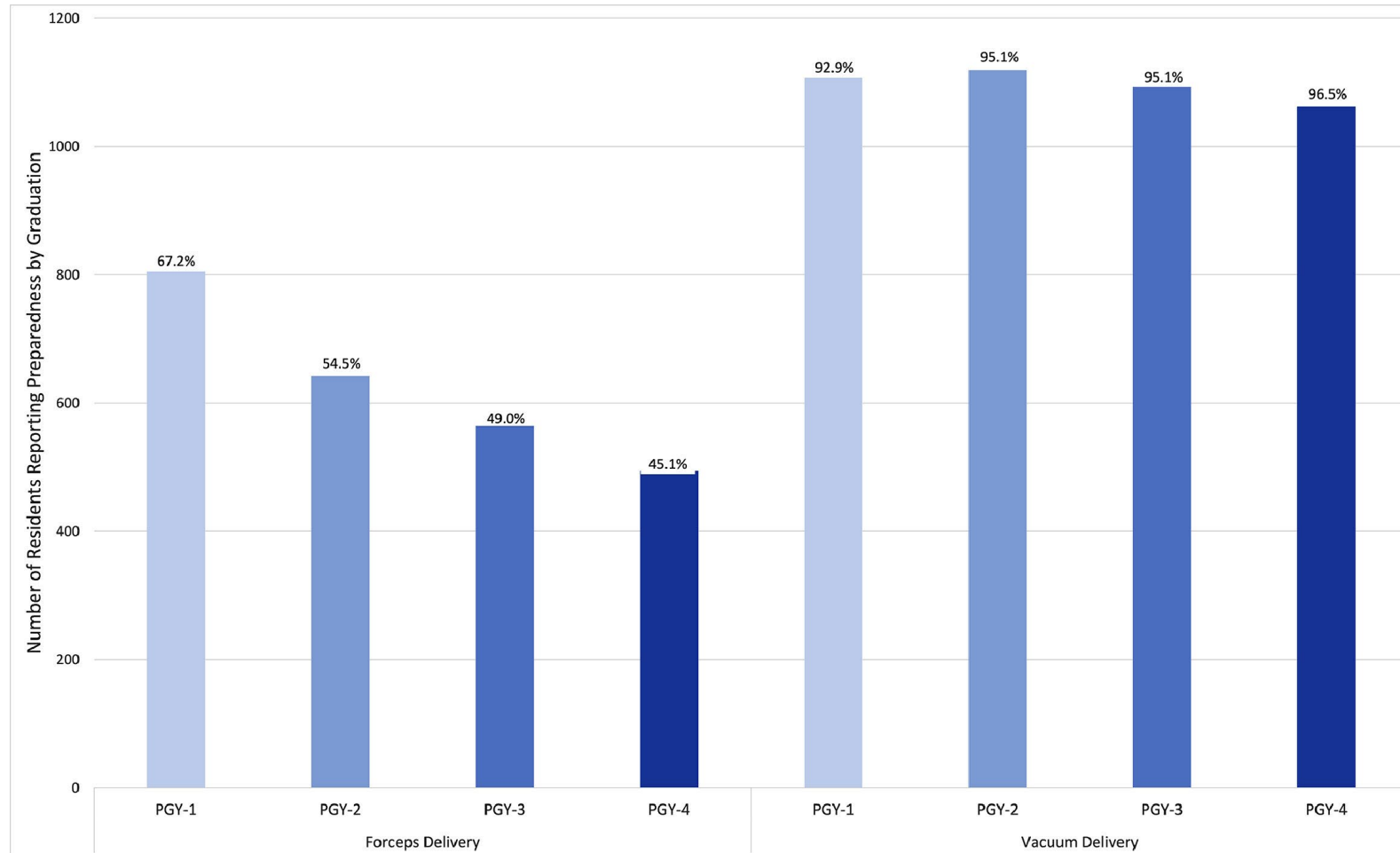
- Costs/Technical Challenges
- Realism Gap
- Limited Patient Interaction
- Skill transfer Issues
- Resource barriers

Simulation Forceps Training

Variable	Clustered (1 session)			Spaced (3 sessions)		
	Before simulation	After simulation	<i>P</i> value	Before simulation	After simulation	<i>P</i> value
Likert scale (mean scores: 0.0–10.0)						
Identify fetal vertex position	8.0	9.0	.19	7.3	7.9	.42
List indications/contraindications to procedure	7.4	8.2	.32	5.5	7.9	.005 ^a
Name risk/benefits/alternatives	8.0	8.2	.80	7.2	8.2	.13
Apply forceps and perform checks	5.3	7.2	.03 ^a	4.0	7.9	.0001 ^a
Able to independently perform FAVD	3.7	6.4	.0004 ^a	3.1	6.5	.0001 ^a

Simulation Resident Comfort

Total N- 5084



Resident Surgical Experience

- Expansion beyond Ivory Towers
 - Take Advantage of System/Local/Regional Providers
- Surgical Mentorship Post-residency
 - Purposeful program
 - Lyndhurst experience

Questions/Comments

