		2	2008 Actual		2015 Projected
Physician Specialty		Population	Physicians	/100k	Population
Anesthesiology		35,931	6	16.7	35,782
National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
AMA	14.0	5	Surplus:	1	5
Two Mature HMO	9.7	3	Surplus:	3	3
Adjusted FTE	9.1	3	Surplus:	3	3
GMENAC	8.9	3	Surplus:	3	3
Kaiser Portland	5.9	2	Surplus:	4	1
7 Kaiser Plans	3.9	1	Surplus:	5	1
GHC Seattle	9.0	3	Surplus:	3	3
Three HMOs					
Goodman	7.0	3	Surplus:	3	3
Hicks & Glenn					
Solucient					
Average Requirement	7.6	3	Surplus:	3	3

			2	008 Actual		2015 Projected
Physic	Physician Specialty		Population	Physicians	/100k	Population
Cardio	ovascular Diseases		35,931	20	55.7	35,782
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
	AMA	7.5	3	Surplus:	17	3
	Two Mature HMO	5.4	2	Surplus:	18	2
	Adjusted FTE	5.0	2	Surplus:	18	2
	GMENAC	3.1	1	Surplus:	19	1
	Kaiser Portland	3.0	1	Surplus:	19	1
	7 Kaiser Plans	1.8	1	Surplus:	19	1
	GHC Seattle	2.9	1	Surplus:	19	1
	Three HMOs					
	Goodman	3.6	1	Surplus:	19	1
	Hicks & Glenn	2.6	1	Surplus:	19	1
	Solucient	4.2	2	Surplus:	18	2
	Average Requirement	3.5	1	Surplus:	19	1

			2	008 Actual		2015 Projected
Physicia	n Specialty		Population	Physicians	/100k	Population
Dermate	ology		35,931	1	2.8	35,782
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
	AMA	3.7	1	Adequate	0	1
	Two Mature HMO	2.8	1	Adequate	0	1
	Adjusted FTE	2.6	1	Adequate	0	1
	GMENAC	2.8	1	Adequate	0	1
	Kaiser Portland	2.5	1	Adequate	0	1
	7 Kaiser Plans	2.4	1	Adequate	0	1
	GHC Seattle	2.6	1	Adequate	0	1
	Three HMOs	1.6	1	Adequate	0	1
	Goodman	1.4	1	Adequate	0	1
	Hicks & Glenn	2.1	1	Adequate	0	1
	Solucient	3.1	1	Adequate	0	1
	Average Requirement	2.4	1	Adequate	0	1

			2	008 Actual		2015 Projected
Physic	Physician Specialty Emergency Medicine		Population	Physicians	/100k	Population
Emerg			35,931	13	36.2	35,782
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
	AMA	10.5	4	Surplus:	9	4
	Two Mature HMO	5.5	2	Surplus:	11	2
	Adjusted FTE	5.2	2	Surplus:	11	2
	GMENAC	5.4	2	Surplus:	11	2
	Kaiser Portland	6.7	2	Surplus:	11	2
	7 Kaiser Plans	5.3	2	Surplus:	11	2
	GHC Seattle					
	Three HMOs					
	Goodman	2.7	1	Surplus:	12	1
	Hicks & Glenn					
	Solucient	12.4	4	Surplus:	9	4
	Average Requirement	6.2	2	Surplus:	11	2

		2	008 Actual		2015 Projected
Physician Specialty		Population	Physicians	/100k	Population
Endocrinology, Diabetes &	& Metabolism	35,931	2	5.6	35,782
National Physiciar Standards*	n Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
AMA	1.8	1	Surplus:	1	1
Two Mature HMO	1.1	0	Surplus:	2	0
Adjusted FTE	1.0	0	Surplus:	2	0
GMENAC	0.8	0	Surplus:	2	0
Kaiser Portland	0.9	0	Surplus:	2	0
7 Kaiser Plans	1.1	0	Surplus:	2	0
GHC Seattle					
Three HMOs	0.6	0	Surplus:	2	0
Goodman					
Hicks & Glenn					
Solucient					
Average Requiren	nent 0.9	0	Surplus:	2	0

			2	008 Actual		2015 Projected
Phys	Physician Specialty		Population	Physicians	/100k	Population
Fami	ily Practice		35,931	13	36.2	35,782
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
	AMA	31.5	11	Surplus:	2	11
	Two Mature HMO	45.6	16	Deficit:	-3	16
	Adjusted FTE	42.6	15	Deficit:	-2	15
	GMENAC	25.2	9	Surplus:	4	9
	Kaiser Portland	16.7	6	Surplus:	7	4
	7 Kaiser Plans	11.0	4	Surplus:	9	4
	GHC Seattle					
	Three HMOs	9.2	3	Surplus:	10	3
	Goodman					
	Hicks & Glenn	16.2	6	Surplus:	7	6
	Solucient	22.5	8	Surplus:	5	8
	Average Requirement	23.6	8	Surplus:	5	8

			2	008 Actual		2015 Projected
Physic	Physician Specialty		Population	Physicians	/100k	Population
Gastro	oenterology		35,931	4	11.1	35,782
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
	AMA	4.2	2	Surplus:	2	2
	Two Mature HMO	3.1	1	Surplus:	3	1
	Adjusted FTE					
	GMENAC	3.2	1	Surplus:	3	1
	Kaiser Portland	1.7	1	Surplus:	3	1
	7 Kaiser Plans	1.7	1	Surplus:	3	1
	GHC Seattle					
	Three HMOs					
	Goodman	1.3	0	Surplus:	4	0
	Hicks & Glenn					
	Solucient	3.5	1	Surplus:	3	1
	Average Requirement	2.4	1	Surplus:	3	1

			2	008 Actual		2015 Projected
Physic	Physician Specialty nternal Medicine		Population	Physicians	/100k	Population
Interna			35,931	17	47.3	35,782
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
	AMA	53.1	19	Deficit:	-2	19
	Two Mature HMO	21.4	8	Surplus:	9	8
	Adjusted FTE	20.0	7	Surplus:	10	7
	GMENAC	28.8	10	Surplus:	7	10
	Kaiser Portland	28.1	10	Surplus:	7	11
	7 Kaiser Plans	30.3	11	Surplus:	6	11
	GHC Seattle					
	Three HMOs	16.7	6	Surplus:	11	6
	Goodman					
	Hicks & Glenn	11.3	4	Surplus:	13	4
	Solucient	19.0	7	Surplus:	10	7
	Average Requirement	22.0	8	Surplus:	9	8

		2	008 Actual		2015 Projected
Physician Specialty		Population	Physicians	/100k	Population
Nephrology		35,931	3	8.3	35,782
National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
AMA	2.6	1	Surplus:	2	1
Two Mature HMO	1.4	1	Surplus:	2	1
Adjusted FTE	1.3	0	Surplus:	3	0
GMENAC	1.1	0	Surplus:	3	0
Kaiser Portland	0.8	0	Surplus:	3	0
7 Kaiser Plans	0.7	0	Surplus:	3	0
GHC Seattle	0.9	0	Surplus:	3	0
Three HMOs					
Goodman					
Hicks & Glenn					
Solucient	0.7	0	Surplus:	3	0
Average Requirement	1.0	0	Surplus:	3	0

			2	2008 Actual		2015 Projected
Physicia	Physician Specialty		Population	Physicians	/100k	Population
Neurol	leurology		35,931	3	8.3	35,782
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
	AMA	5.0	2	Surplus:	1	2
	Two Mature HMO	2.4	1	Surplus:	2	1
	Adjusted FTE	2.3	1	Surplus:	2	1
	GMENAC	3.3	1	Surplus:	2	1
	Kaiser Portland	1.3	0	Surplus:	3	1
	7 Kaiser Plans	1.7	1	Surplus:	2	1
	GHC Seattle	1.2	0	Surplus:	3	0
	Three HMOs					
	Goodman	2.1	1	Surplus:	2	1
	Hicks & Glenn	1.4	1	Surplus:	2	1
	Solucient	1.8	1	Surplus:	2	1
	Average Requirement	1.9	1	Surplus:	2	1

			2	008 Actual		2015 Projected
Physician	Specialty	_	Population	Physicians	/100k	Population
OB/GYN			35,931	6	16.7	35,782
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
•	AMA	14.1	5	Surplus:	1	5
-	Two Mature HMO	12.1	4	Surplus:	2	4
-	Adjusted FTE	11.3	4	Surplus:	2	4
-	GMENAC	9.9	4	Surplus:	2	4
-	Kaiser Portland	11.6	4	Surplus:	2	4
-	7 Kaiser Plans	11.5	4	Surplus:	2	4
-	GHC Seattle	10.0	4	Surplus:	2	4
-	Three HMOs	8.8	3	Surplus:	3	3
-	Goodman	8.4	3	Surplus:	3	3
-	Hicks & Glenn	8.0	3	Surplus:	3	3
-	Solucient	10.2	4	Surplus:	2	4
-	Average Requirement	10.2	4	Surplus:	2	4

			2	008 Actual		2015 Projected
Physic	Physician Specialty		Population	Physicians	/100k	Population
Optha	almology		35,931	2	5.6	35,782
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
	AMA	6.0	2	Adequate	0	2
	Two Mature HMO	5.9	2	Adequate	0	2
	Adjusted FTE	5.5	2	Adequate	0	2
	GMENAC	4.6	2	Adequate	0	2
	Kaiser Portland	2.4	1	Surplus:	1	1
	7 Kaiser Plans	3.1	1	Surplus:	1	1
	GHC Seattle	5.0	2	Adequate	0	2
	Three HMOs					
	Goodman	3.5	1	Surplus:	1	1
	Hicks & Glenn	3.2	1	Surplus:	1	1
	Solucient	4.7	2	Adequate	0	2
	Average Requirement	4.2	2	Adequate	0	2

			2	008 Actual		2015 Projected
Physician 9	Physician Specialty		ian Specialty Population Phy	Physicians	/100k	Population
Orthopedi	c Surgery		35,931	3	8.3	35,782
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
	AMA	8.3	3	Adequate	0	3
	Two Mature HMO	6.8	2	Surplus:	1	2
_	Adjusted FTE	6.4	2	Surplus:	1	2
_	GMENAC	6.0	2	Surplus:	1	2
_	Kaiser Portland	5.9	2	Surplus:	1	2
_	7 Kaiser Plans	4.2	2	Surplus:	1	2
_	GHC Seattle	6.7	2	Surplus:	1	2
_	Three HMOs	3.0	1	Surplus:	2	1
_	Goodman	5.9	2	Surplus:	1	2
_	Hicks & Glenn	4.2	2	Surplus:	1	2
	Solucient	6.1	2	Surplus:	1	2
_	Average Requirement	5.5	2	Surplus:	1	2

			2	008 Actual		2015 Projected
Physician	Physician Specialty		Population	Physicians	/100k	Population
Otolaryn	gology		35,931	2	5.6	35,782
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
	AMA	3.4	1	Surplus:	1	1
	Two Mature HMO	3.2	1	Surplus:	1	1
	Adjusted FTE					
	GMENAC	3.2	1	Surplus:	1	1
	Kaiser Portland	3.4	1	Surplus:	1	1
	7 Kaiser Plans	2.4	1	Surplus:	1	1
	GHC Seattle	3.0	1	Surplus:	1	1
	Three HMOs					
	Goodman					
	Hicks & Glenn					
	Solucient					
	Average Requirement	3.0	1	Surplus:	1	1

			2	008 Actual		2015 Projected
Physician S	Physician Specialty		Population	Physicians	/100k	Population
Pathology	,		35,931	3	8.3	35,782
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
_	AMA	6.3	2	Surplus:	1	2
_	Two Mature HMO	1.9	1	Surplus:	2	1
_	Adjusted FTE	1.8	1	Surplus:	2	1
_	GMENAC	6.4	2	Surplus:	1	2
_	Kaiser Portland	3.3	1	Surplus:	2	1
_	7 Kaiser Plans	1.8	1	Surplus:	2	1
_	GHC Seattle					
_	Three HMOs					
_	Goodman	4.1	1	Surplus:	2	1
_	Hicks & Glenn					
_	Solucient					
_	Average Requirement	3.2	1	Surplus:	2	1

			2	008 Actual		2015 Projected
Physician	Physician Specialty		Population	Physicians	/100k	Population
Pediatric	s		35,931	7	19.5	35,782
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
	AMA	24.9	9	Deficit:	-2	9
	Two Mature HMO	16.6	6	Surplus:	1	6
	Adjusted FTE	15.5	6	Surplus:	1	6
	GMENAC	12.4	4	Surplus:	3	4
	Kaiser Portland	11.9	4	Surplus:	3	6
	7 Kaiser Plans	16.0	6	Surplus:	1	6
	GHC Seattle					
	Three HMOs	9.8	4	Surplus:	3	4
	Goodman					
	Hicks & Glenn	7.6	3	Surplus:	4	3
	Solucient	13.9	5	Surplus:	2	5
	Average Requirement	13.0	5	Surplus:	2	5

		2	008 Actual		2015 Projected
Physician Specialty	Physician Specialty		Physicians	/100k	Population
Plastic Surgery		35,931	1	2.8	35,782
National Physic Standards*	ian Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
AMA	2.4	1	Adequate	0	1
Two Mature HM	10				
Adjusted FTE					
GMENAC	1.1	0	Surplus:	1	0
Kaiser Portland	0.3	0	Surplus:	1	
7 Kaiser Plans					
GHC Seattle	0.4	0	Surplus:	1	0
Three HMOs					
Goodman	1.1	0	Surplus:	1	0
Hicks & Glenn	2.3	1	Adequate	0	1
Solucient	2.2	1	Adequate	0	1
Average Requir	ement 1.2	0	Surplus:	1	0

			2	008 Actual		2015 Projected
Physici	Physician Specialty Psychiatry		Population	Physicians	/100k	Population
Psychia			35,931	5	13.9	35,782
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
	AMA	13.6	5	Adequate	0	5
	Two Mature HMO	7.7	3	Surplus:	2	3
	Adjusted FTE	7.2	3	Surplus:	2	3
	GMENAC	15.4	6	Deficit:	-1	6
	Kaiser Portland	5.2	2	Surplus:	3	1
	7 Kaiser Plans	4.1	1	Surplus:	4	1
	GHC Seattle					
	Three HMOs					
	Goodman	7.2	3	Surplus:	2	3
	Hicks & Glenn	3.9	1	Surplus:	4	1
	Solucient	5.7	2	Surplus:	3	2
	Average Requirement	7.1	3	Surplus:	2	3

		2	008 Actual		2015 Projected
Physician Specialty		Population	Physicians	/100k	Population
Pulmonary Diseases		35,931	2	5.6	35,782
National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
AMA	3.5	1	Surplus:	1	1
Two Mature HMO	2.0	1	Surplus:	1	1
Adjusted FTE	1.9	1	Surplus:	1	1
GMENAC	1.4	1	Surplus:	1	1
Kaiser Portland	1.4	1	Surplus:	1	0
7 Kaiser Plans	1.0	0	Surplus:	2	0
GHC Seattle	1.4	1	Surplus:	1	1
Three HMOs					
Goodman	1.4	1	Surplus:	1	1
Hicks & Glenn					
Solucient	1.3	0	Surplus:	2	0
Average Requirement	1.5	1	Surplus:	1	1

			2	008 Actual		2015 Projected
Physician Specialty		Population	Physicians	/100k	Population	
Radiology	,		35,931	3	8.3	35,782
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
_	AMA	11.4	4	Deficit:	-1	4
_	Two Mature HMO	13.6	5	Deficit:	-2	5
_	Adjusted FTE	13.7	5	Deficit:	-2	5
_	GMENAC	7.7	3	Adequate	0	3
_	Kaiser Portland	8.5	3	Adequate	0	2
_	7 Kaiser Plans	4.7	2	Surplus:	1	2
_	GHC Seattle	7.7	3	Adequate	0	3
_	Three HMOs					
_	Goodman	8.0	3	Adequate	0	3
_	Hicks & Glenn					
_	Solucient					
_	Average Requirement	9.1	3	Adequate	0	3

			2	008 Actual		2015 Projected
Physic	Physician Specialty Rheumatology		Population	Physicians	/100k	Population
Rheun			35,931	2	5.6	35,782
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
	AMA	1.5	1	Surplus:	1	1
	Two Mature HMO	1.1	0	Surplus:	2	0
	Adjusted FTE	1.0	0	Surplus:	2	0
	GMENAC	0.7	0	Surplus:	2	0
	Kaiser Portland	0.4	0	Surplus:	2	0
	7 Kaiser Plans	0.7	0	Surplus:	2	0
	GHC Seattle	0.7	0	Surplus:	2	0
	Three HMOs					
	Goodman	0.4	0	Surplus:	2	0
	Hicks & Glenn					
	Solucient	1.3	0	Surplus:	2	0
	Average Requirement	0.8	0	Surplus:	2	0

			2	008 Actual		2015 Projected
Physic	Physician Specialty General Surgery		Population	Physicians	/100k	Population
Gener			35,931	7	19.5	35,782
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
	AMA	12.5	4	Surplus:	3	4
	Two Mature HMO	9.4	3	Surplus:	4	3
	Adjusted FTE	8.8	3	Surplus:	4	3
	GMENAC	9.7	3	Surplus:	4	3
	Kaiser Portland	7.0	3	Surplus:	4	2
	7 Kaiser Plans	6.2	2	Surplus:	5	2
	GHC Seattle	5.9	2	Surplus:	5	2
	Three HMOs	4.2	2	Surplus:	5	2
	Goodman	9.7	3	Surplus:	4	3
	Hicks & Glenn	4.1	1	Surplus:	6	1
	Solucient	6.0	2	Surplus:	5	2
	Average Requirement	7.1	3	Surplus:	4	3

			2	008 Actual		2015 Projected
Physician Specialty			Population	Physicians	/100k	Population
Urology			35,931	2	5.6	35,782
	National Physician Standards*	Standard Phys/100,000 Pop.	Physician Need	Sta	tus	Physician Need
	AMA	3.5	1	Surplus:	1	1
	Two Mature HMO	3.5	1	Surplus:	1	1
	Adjusted FTE	3.3	1	Surplus:	1	1
	GMENAC	3.1	1	Surplus:	1	1
	Kaiser Portland	3.3	1	Surplus:	1	1
	7 Kaiser Plans	2.3	1	Surplus:	1	1
	GHC Seattle	2.9	1	Surplus:	1	1
	Three HMOs					
	Goodman	2.6	1	Surplus:	1	1
	Hicks & Glenn	1.9	1	Surplus:	1	1
	Solucient	2.9	1	Surplus:	1	1
	Average Requirement	2.9	1	Surplus:	1	1

Report created by Georgia Board for Physician Workforce, State of Georgia

- (1) McClendon, B., R.Polizer, E. Christain, and E. Fernandez. 1997. Downsizing the Physician Workforce. Public Health Reports. May/June 112:231-239.
- (2) Graduate Medical Education National Advisory Committee Summary Report. 1981. Pub. No. (HRA) 81-651. Washington: Government Printing Office.
- (3) American Medical Association. 1996. Physician Characteristics and Distribution in the US: 1995/1996. Chicago.
- (4) American Osteopathic Association. 1993. 1994 Yearbook and Directory of Osteopathic Physicians. Chicago.
- (5) Hart, L., E. Wagner, J. Parzada, A.Nelson, and R.Rosenblah. 1997. Physician Staffing Ratios in Staff- Model HMO's: A Cautionary Tale, Health Affairs 16, no. 1:55-70.
- (6) Weiner, J.P. 1994 Forecasting the Effects of Health Reform on U.S. Physician Workforce Requirement. JAMA 272, no. 3:222-230.
- (7) Steinwachs, D., J.P. Weiner, S. Shapiro, et al. 1986. A Comparison of the Requirements for Primary Care Physicians in with Projections Made by the Graduate Medical National Advisory Committee. New England Journal of Medicine 314:217-222.
- (8) Kronick, R., D.C. Goodman, J. Wennberg, and E.Wagner. 1993. The Marketplace in Health Care Reform: The Demographic Limitations of Managed Competition. New England Journal of Medicine 328:1480152. See also, related NAPS Document 04998.
- (9) Vansdow, N.A. The Physician Workforce: Issues for Academic Medical Centers. Forum on the Future of Academic Medicine. December 2, 1996.
- (10) Forte, G.J., Dionne, M., Beaulieu, M., and Salsberg, E. Profile of New York State Physicians. Rensselaer, NY: Center for Health Workforce Studies, School of Public Health, SUNY Albany. April 2001.
- (11) A Review of Physician-to-Population Ratios. Merritt Hawkins & Associates. GMENAC, Goodman (Dec. 11, 1996 JAMA), Hicks & Glenn (1989 Journal of Health Care Management), Solucient (2003).
- (12) American Medical Association. Physician Characteristics and Distribution in the US, 2010 Edition; 2010.

^{*}Standards are presented as rates per 100,000 population