

Supplemental Digital Content 5: Multiple variable model explaining receipt of breast reconstruction.

Characteristic	Patient-level model		Patient and Surgeon multilevel model	
	OR (95% CI)	P-value	OR (95% CI)	P-value
Site: LA vs GA	0.81 (0.51-1.26)	0.347	0.69 (0.35-1.33)	0.266
Age survey: (continuous) +1 year	0.95 (0.93-0.97)	<0.001	0.95 (0.93-0.97)	<0.001
Race: Asian vs White	0.44 (0.22-0.88)	0.020	0.51 (0.23-1.11)	0.090
Race: Black vs White	1.29 (0.75-2.21)	0.400	1.12 (0.55-2.29)	0.760
Race: Latina vs White	0.89 (0.50-1.58)	0.688	1.05 (0.46-2.39)	0.910
Behavior: Invasive vs DCIS	0.55 (0.35-0.85)	0.007	0.50 (0.27-0.92)	0.025
Mastectomy Type: Bilateral vs Unilateral	3.27 (2.26-4.75)	<0.001	3.85 (2.25-6.60)	<0.001
Diabetes: Yes vs No	0.58 (0.34-0.99)	0.047	0.59 (0.30-1.19)	0.139
Bronchitis/Emphysema: Yes vs No	0.41 (0.21-0.82)	0.011	0.35 (0.13-0.92)	0.033
BMI category: underweight BMI<18.5 vs Normal	0.86 (0.21-3.48)	0.831	0.55 (0.08-3.63)	0.538
BMI category: overweight >25-30 vs Normal	1.22 (0.76-1.97)	0.408	1.66 (0.86-3.18)	0.129
BMI category: obese >30 vs Normal	0.67 (0.41-1.08)	0.099	0.74 (0.40-1.36)	0.330
Cup size: C vs A/B	1.35 (0.87-2.11)	0.183	1.46 (0.85-2.52)	0.171
Cup size: D vs A/B	1.67 (0.95-2.95)	0.074	1.88 (0.94-3.77)	0.075
Cup size: DD+ vs A/B	1.78 (0.96-3.29)	0.068	1.86 (0.81-4.29)	0.143
At least some college: Yes vs No	1.21 (0.76-1.94)	0.422	1.15 (0.64-2.06)	0.632
Income group: 40K-<90K vs <40K	1.35 (0.87-2.10)	0.186	1.18 (0.67-2.08)	0.563
Income group: 90K+ vs <40K	2.83 (1.65-4.85)	<0.001	2.65 (1.22-5.74)	0.014
Insurance: None/Other vs Private	0.69 (0.22-2.13)	0.517	1.21 (0.29-4.95)	0.795
Insurance: Medicaid vs Private	0.60 (0.35-1.03)	0.063	0.79 (0.36-1.69)	0.537
Insurance: Medicare vs Private	0.72 (0.44-1.17)	0.181	0.73 (0.40-1.34)	0.313
Insurance: Other Public vs Private	1.11 (0.25-5.04)	0.889	1.87 (0.32-10.9)	0.487
Married: No vs Yes	1.25 (0.86-1.80)	0.245	1.15 (0.73-1.82)	0.553
Surgeon Clustering Effect (per SD)	N/A	N/A	2.25 (0.94-5.43)	0.078

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Surgeon; breast cancer patient volume: 51+ vs Less	N/A	N/A	2.43 (1.40-4.20)	0.002
Surgeon; teaching (resident/fellows) status: Yes vs No	N/A	N/A	1.24 (0.69-2.22)	0.474
Surgeon; years in practice since completing residency: (continuous) +1 year	N/A	N/A	0.99 (0.97-1.02)	0.475

Shaded model reported in Forest Plot.