

## Supplementary Online Content

Loehrer AP, Song Z, Auchincloss HG, Hutter MM. Massachusetts health care reform and reduced racial disparities in minimally invasive surgery. *JAMA Surg*. Published online October 2, 2013. doi:10.1001/jamasurg.2013.2750.

**eFigure 1.** Trend in insurance coverage in Massachusetts

**eFigure 2.** Trends in uninsurance rates in Massachusetts, by patient race

**eFigure 3.** Trends in unemployment between a) Massachusetts and collective control group and b) individual control states

**eTable 1.** Difference-in-differences regression output with corresponding sensitivity analyses for non-white patients (Massachusetts vs control states)

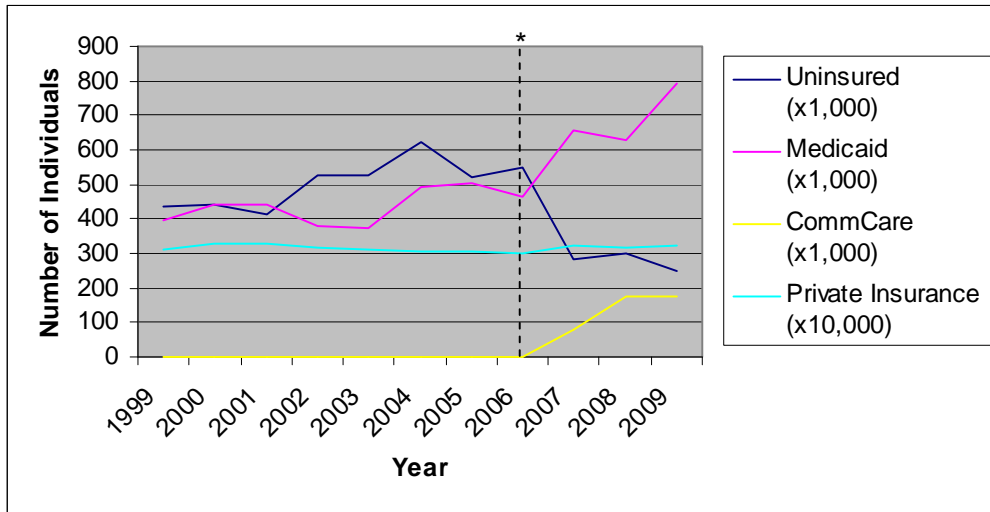
**eTable 2.** Difference-in-differences regression output with corresponding sensitivity analyses for white patients (Massachusetts vs control states)

**eTable 3.** Difference-in-differences regression output with corresponding sensitivity analyses for Massachusetts (non-white vs white patients)

**eTable 4.** Difference-in-differences regression output with corresponding sensitivity analyses for control states (non-white vs white patients)

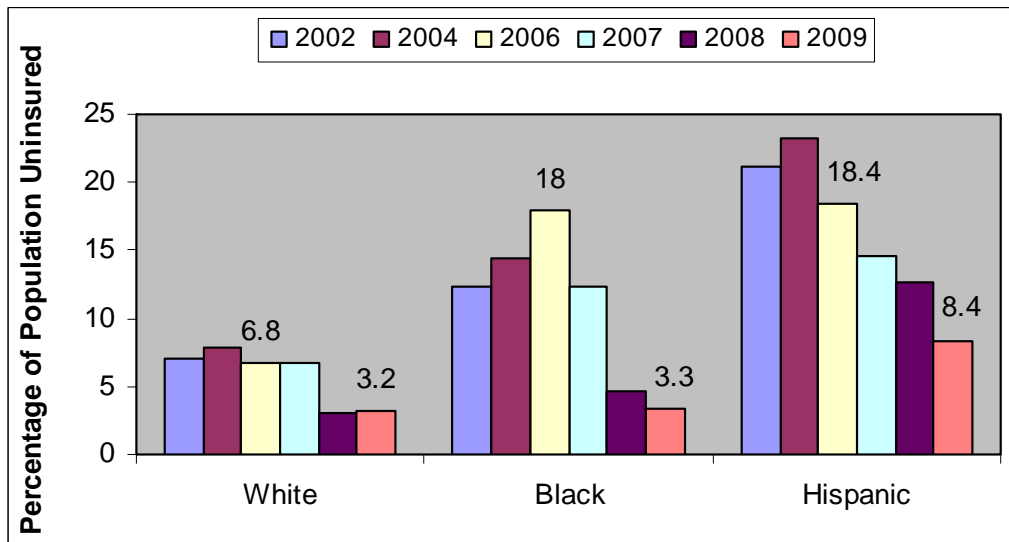
This supplementary material has been provided by the authors to give readers additional information about their work.

**eFigure 1.** Trend in insurance coverage in Massachusetts

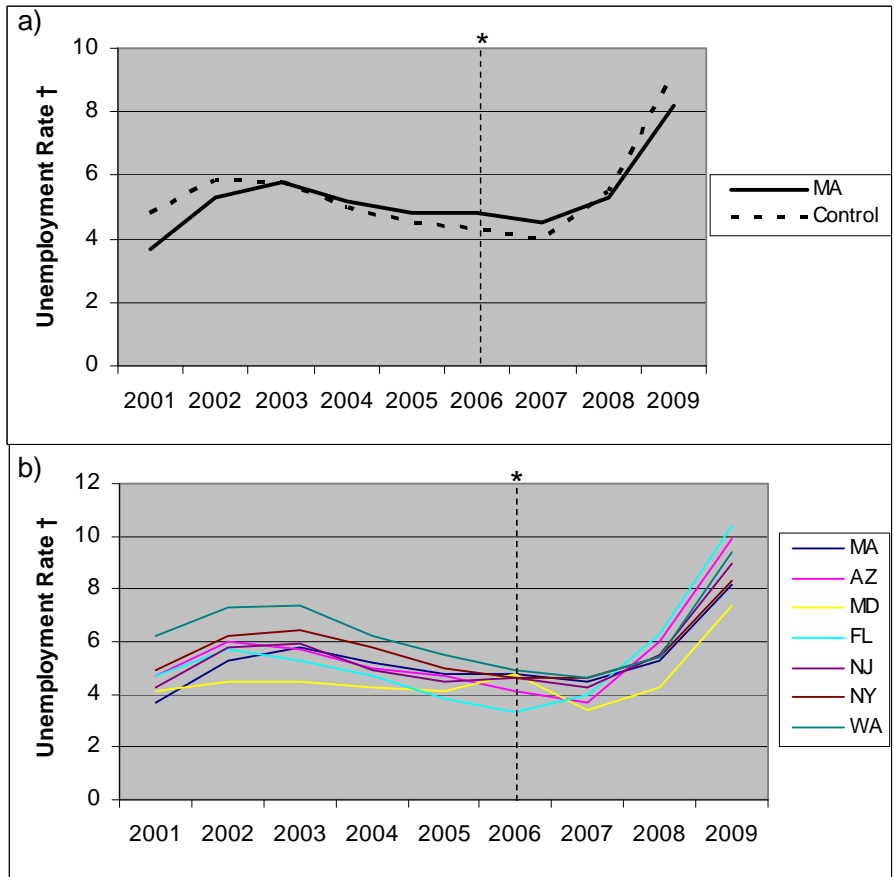


\* 2006 Massachusetts health care reform

**eFigure 2.** Trends in uninsurance rates in Massachusetts, by patient race



**eFigure 3.** Trends in unemployment between a) Massachusetts and collective control group and b) individual control states



\*2006 Massachusetts Health Care Reform

**eTable 1.** Difference-in-differences regression output with corresponding sensitivity analyses for non-white patients (Massachusetts vs control states)

Probability of MIS	Coefficient	Std Err	P-Value
<b>Mass*Intervention</b>	0.0371	0.0149	0.013
<b>Mass</b>	-0.0026	0.0104	0.804
<b>Intervention</b>	0.0199	0.0089	0.025
<b>Age</b>	0.0005	0.0002	0.011
<b>Female</b>	0.2084	0.0043	0
<b>Elixhauser Comorbidity Index</b>	0.0026	0.0023	0.254
<b>Hospital Type</b>			
Private, <100 beds (Reference)	Ref	Ref	Ref
Private, >100 beds compared to reference	0.3694	0.1334	0.006
NFP, Rural, <100 compared to reference	0.19	0.1394	0.173
NFP, Rural, >100 beds compared to reference	0.1558	0.1343	0.246
NFP, Urban, <100 beds compared to reference	0.3348	0.1335	0.012
NFP, Urban, 100-299 beds compared to reference	0.2473	0.1321	0.061
NFP, Urban, >300 beds compared to reference	0.2548	0.1321	0.054
<b>Admission Type</b>			
Emergent (Reference)	Ref	Ref	Ref
Urgent compared to reference	-0.0094	0.0102	0.355
Elective compared to reference	0.0323	0.0127	0.011
<b>Complicated Disease</b>	-0.2336	0.0097	0
<b>Temporal trend (2001 Q1 -- 2009 Q4)</b>	0.0099	0.0004	0

**eTable 2.** Difference-in-differences regression output with corresponding sensitivity analyses for White Patients (Massachusetts vs control states)

Probability of MIS	Coefficient	Std Err	P-Value
<b>Mass*Intervention</b>	-0.0076	0.013	0.559
<b>Mass</b>	0.0173	0.0089	0.051
<b>Intervention</b>	0.0359	0.0107	0.001
<b>Age</b>	0.0003	0.0002	0.11
<b>Female</b>	0.1549	0.005	0
<b>Elixhauser Comorbidity Index</b>	0.0023	0.0025	0.352
<b>Hospital Type</b>			
Private, <100 beds (Reference)	Ref	Ref	Ref
Private, >100 beds compared to reference	0.474	0.0754	0
NFP, Rural, <100 compared to reference	0.2939	0.0742	0
NFP, Rural, >100 beds compared to reference	0.2376	0.0731	0.001
NFP, Urban, <100 beds compared to reference	0.266	0.0735	0
NFP, Urban, 100-299 beds compared to reference	0.3085	0.0726	0
NFP, Urban, >300 beds compared to reference	0.3252	0.0726	0
<b>Admission Type</b>			
Emergent (Reference)	Ref	Ref	Ref
Urgent compared to reference	0.0246	0.0087	0.005
Elective compared to reference	-0.0325	0.0132	0.014
<b>Complicated Disease</b>	-0.2797	0.0105	0
<b>Temporal trend (2001 Q1 -- 2009 Q4)</b>	0.0094	0.0005	0

**eTable 3.** Difference-in-differences regression output with corresponding sensitivity analyses for Massachusetts (non-white vs white patients)

Probability of MIS	Coefficient	Std Err	P-Value
<b>Non-White*Intervention</b>	0.0463	0.181	0.011
<b>Non-White</b>	-0.507	0.0124	0
<b>Intervention</b>	0.0154	0.0201	0.442
<b>Age</b>	0.0002	0.0004	0.629
<b>Female</b>	0.1354	0.009	0
<b>Elixhauser Comorbidity Index</b>	0.0072	0.0046	0.122
<b>Hospital Type</b>			
Private, <100 beds (Reference)	Ref	Ref	Ref
Private, >100 beds compared to reference	0.4876	0.0699	0
NFP, Rural, <100 compared to reference	0.0254	0.081	0.754
NFP, Rural, >100 beds compared to reference	0.2589	0.0754	0.001
NFP, Urban, <100 beds compared to reference	0.2431	0.0691	0
NFP, Urban, 100-299 beds compared to reference	0.2939	0.0673	0
NFP, Urban, >300 beds compared to reference	0.2846	0.0673	0
<b>Admission Type</b>			
Emergent (Reference)	Ref	Ref	Ref
Urgent compared to reference	0.0005	0.0109	0.961
Elective compared to reference	-0.0593	0.0318	0.062
<b>Complicated Disease</b>	-0.3111	0.02	0
<b>Temporal trend (2001 Q1 -- 2009 Q4)</b>	0.01	0.0009	0

**eTable 4.** Difference-in-differences regression output with corresponding sensitivity analyses for control states (non-white vs white patients)

Probability of MIS	Coefficient	Std Err	P-Value
<b>Non-White*Intervention</b>	-0.0051	0.0071	0.478
<b>Non-White</b>	-0.0207	0.0049	0
<b>Intervention</b>	0.0305	0.0085	0
<b>Age</b>	0.0005	0.0002	0.002
<b>Female</b>	0.1933	0.0035	0
<b>Elixhauser Comorbidity Index</b>	0.002	0.0018	0.28
<b>Hospital Type</b>			
Private, <100 beds (Reference)	Ref	Ref	Ref
Private, >100 beds compared to reference	0.5172	0.1743	0.003
NFP, Rural, <100 compared to reference	0.4412	0.1739	0.011
NFP, Rural, >100 beds compared to reference	0.3567	0.1734	0.04
NFP, Urban, <100 beds compared to reference	0.4544	0.1737	0.009
NFP, Urban, 100-299 beds compared to reference	0.4347	0.1732	0.012
NFP, Urban, >300 beds compared to reference	0.4494	0.1732	0.009
<b>Admission Type</b>			
Emergent (Reference)	Ref	Ref	Ref
Urgent compared to reference	0.0155	0.0084	0.064
Elective compared to reference	0.0063	0.0096	0.508
<b>Complicated Disease</b>	-0.247	0.0076	0
<b>Temporal trend (2001 Q1 -- 2009 Q4)</b>	0.0096	0.0003	0