

Causes and Consequences of Urban Hospital Closings and Reconfigurations, 1936 - 2010

Alan Sager, Ph.D.

Professor of Health Policy and Management
Boston University School of Public Health
asager@bu.edu

Boston University School of Public Health

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OVERVIEW

- A. The terrain
- B. Identifying the hospitals that are likelier to close
- C. Why do hospital closings matter?
Access, Cost, Quality
- D. Stabilizing needed hospitals

A. The terrain

Overview

- The care we get depends heavily on the caregivers we've got.
- The configuration of urban hospital care—location, hospital type, and number of beds—evolves constantly.
- Over the decades, smaller and mid-size hospitals, and those located in black neighborhoods, have been much likelier to close. Efficiency confers no survival value.
- Patterns differ across cities but consequences for access and cost appear undesirable, on balance. Consequences for quality appear mixed.
- Financial, legal, and policy tools can and should be employed to identify and stabilize needed hospitals and ERs.

Why? When? Which?

- Why?

- 1972 - Duncan Neuhauser assigned “Urban Community Hospital in Transition” – hospital adaptations to neighborhood changes
- Boeing 707
- “The care we get depends heavily on the caregivers we’ve got.”

- When?

- 1937 Guide to U.S. and Canadian Hospitals available in Countway
- 1940 U.S. Census first compiled tract data for all cities > 50,000

- Which?

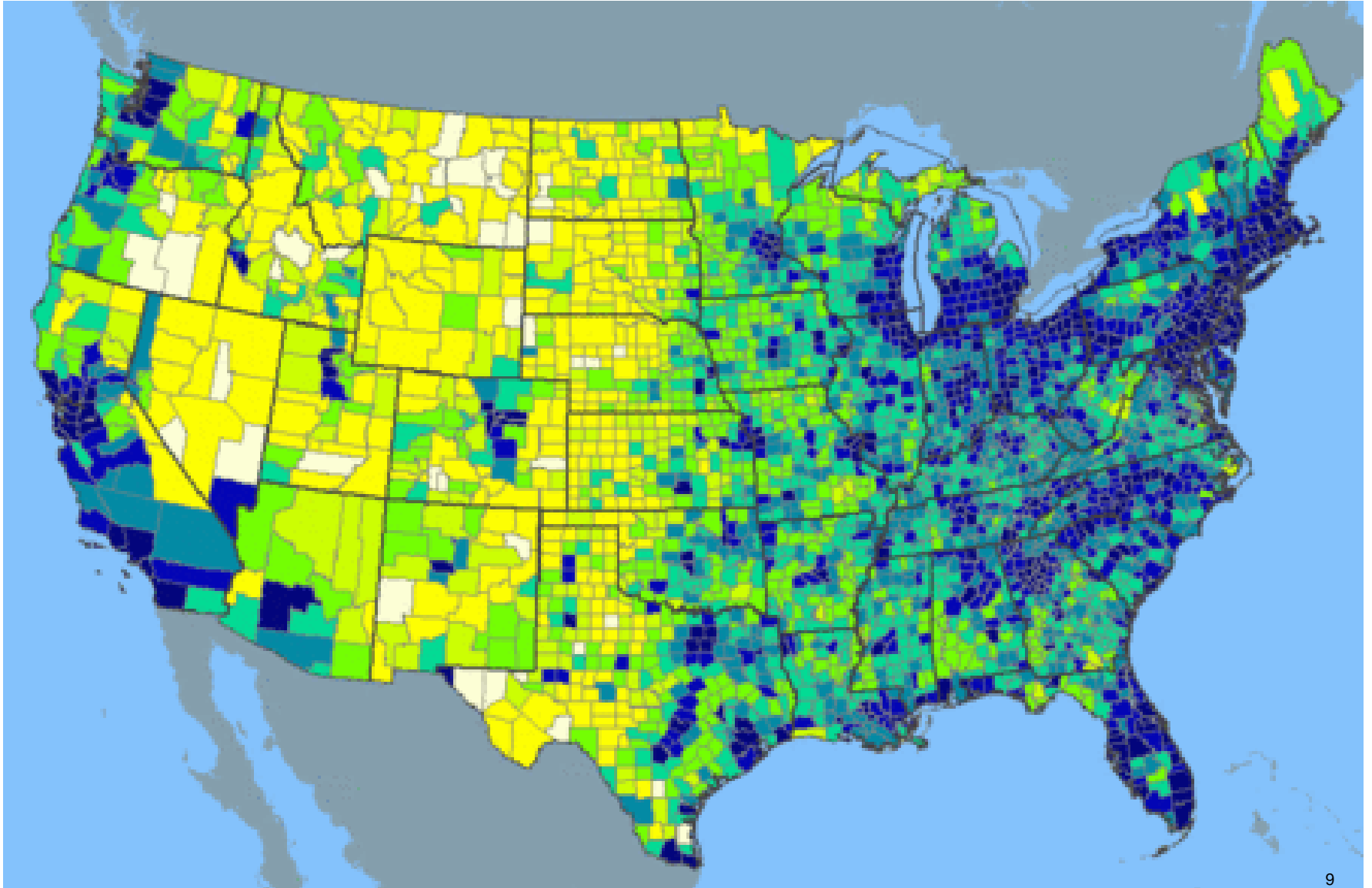
- All central cities of metropolitan areas with 1,000,000 or more in 1970
- Stratified samples of central cities of smaller metro areas (250-500K + 500K-1M)



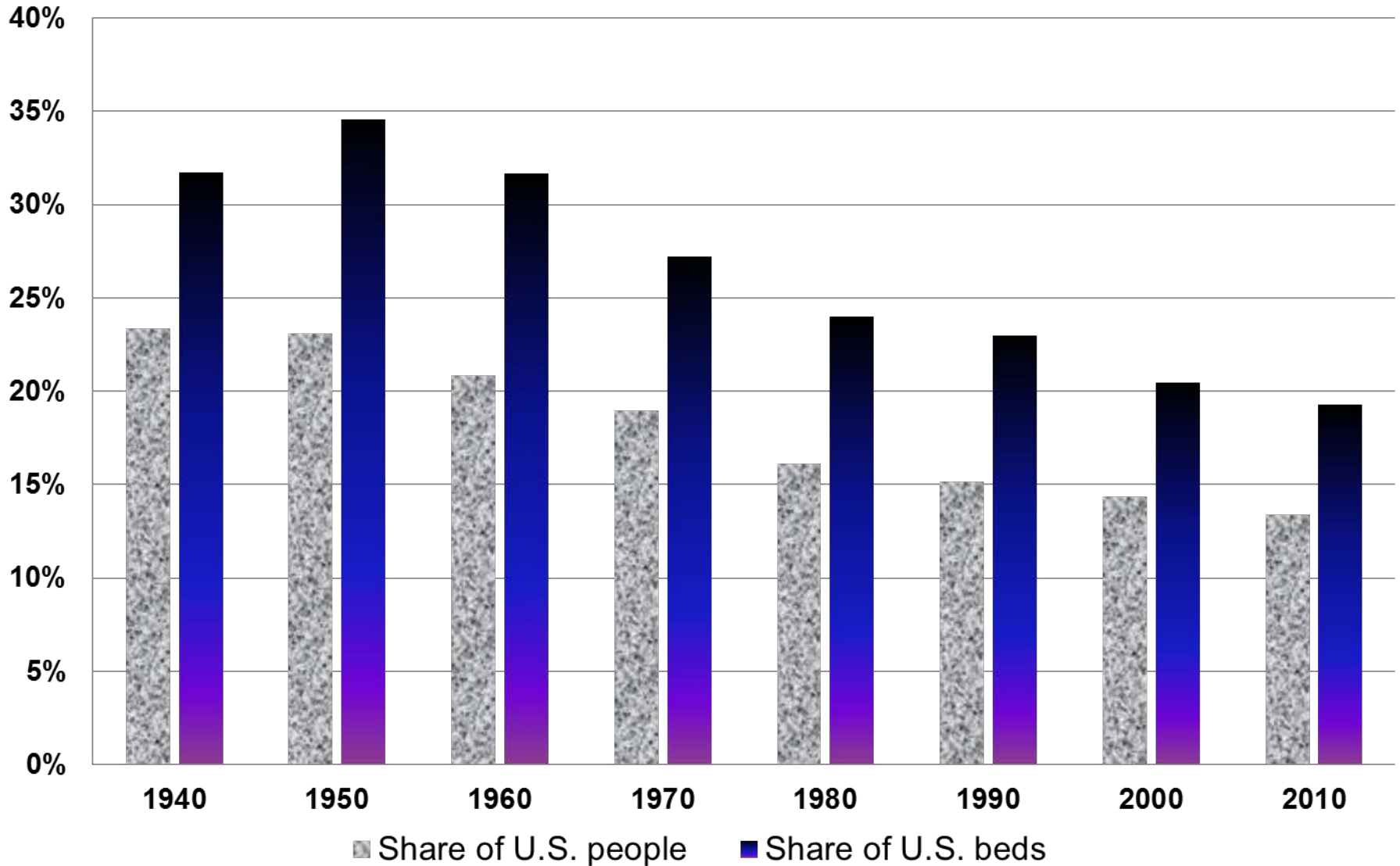
The 52 cities



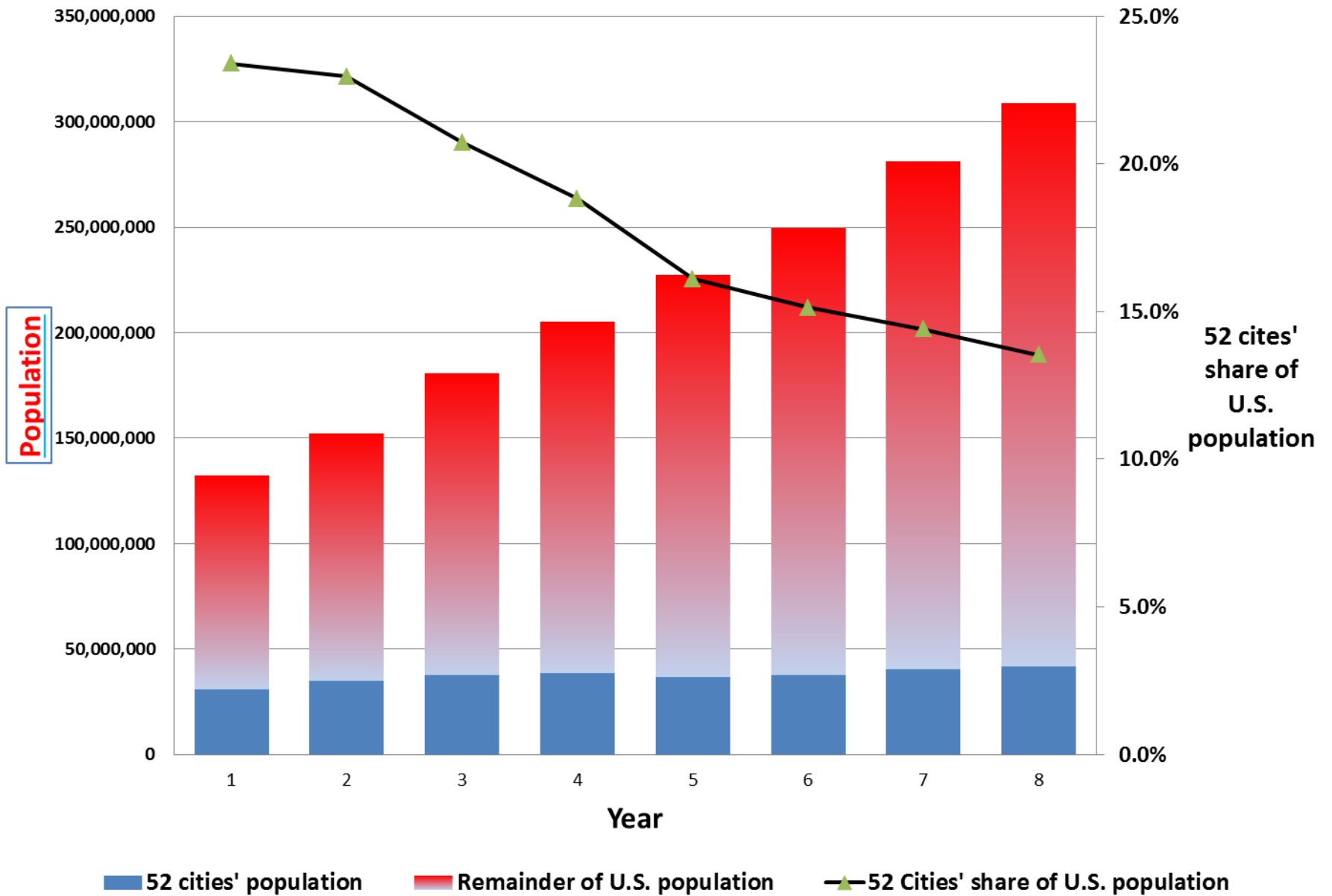
U.S. Population Density, 2010



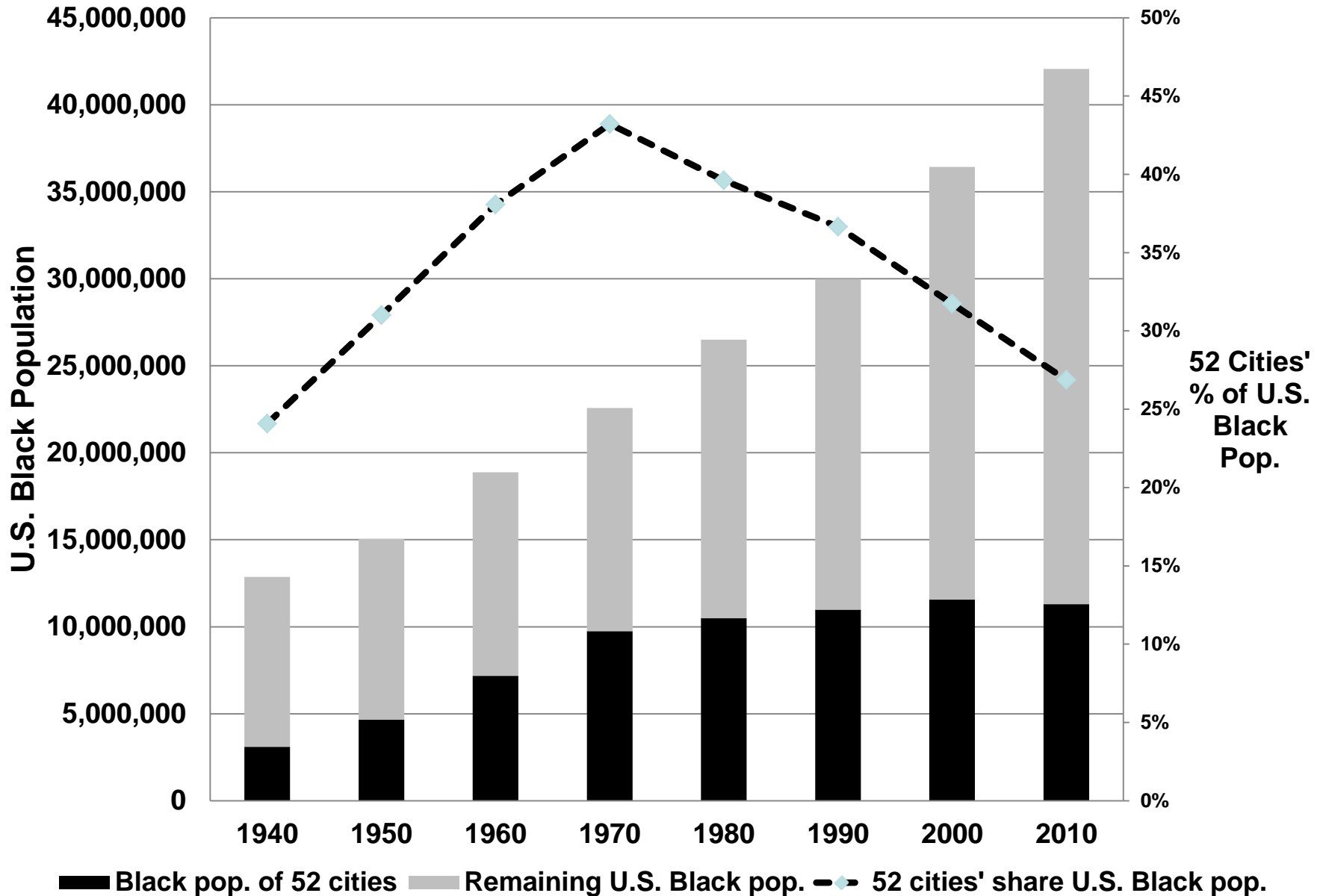
52 Cities' Shares of U.S. People and Beds, 1940 - 2010



52 Study Cities' Share of U.S. Population, 1940 - 2010



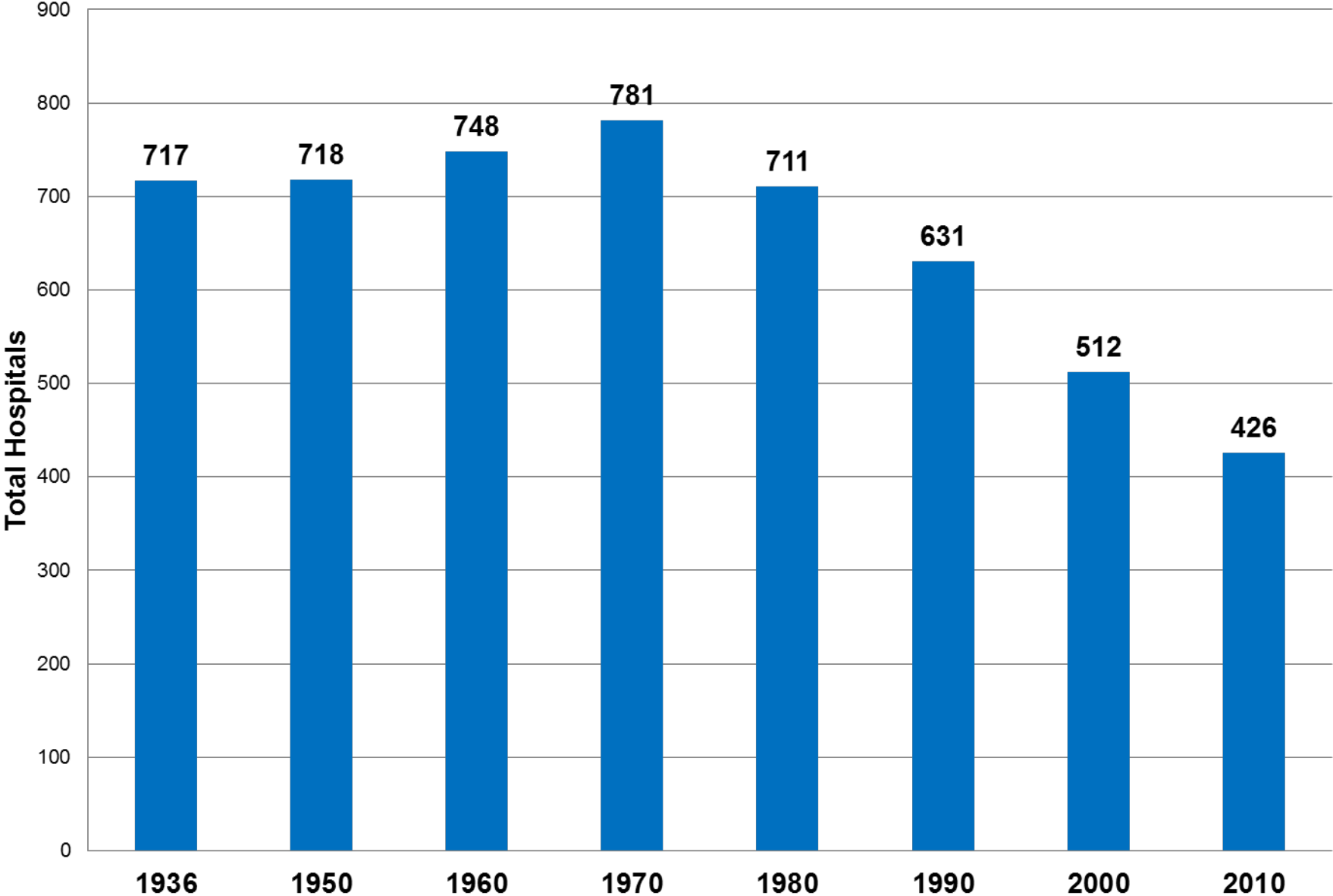
52 Cities' Share of U.S. Black Population, 1940 - 2010



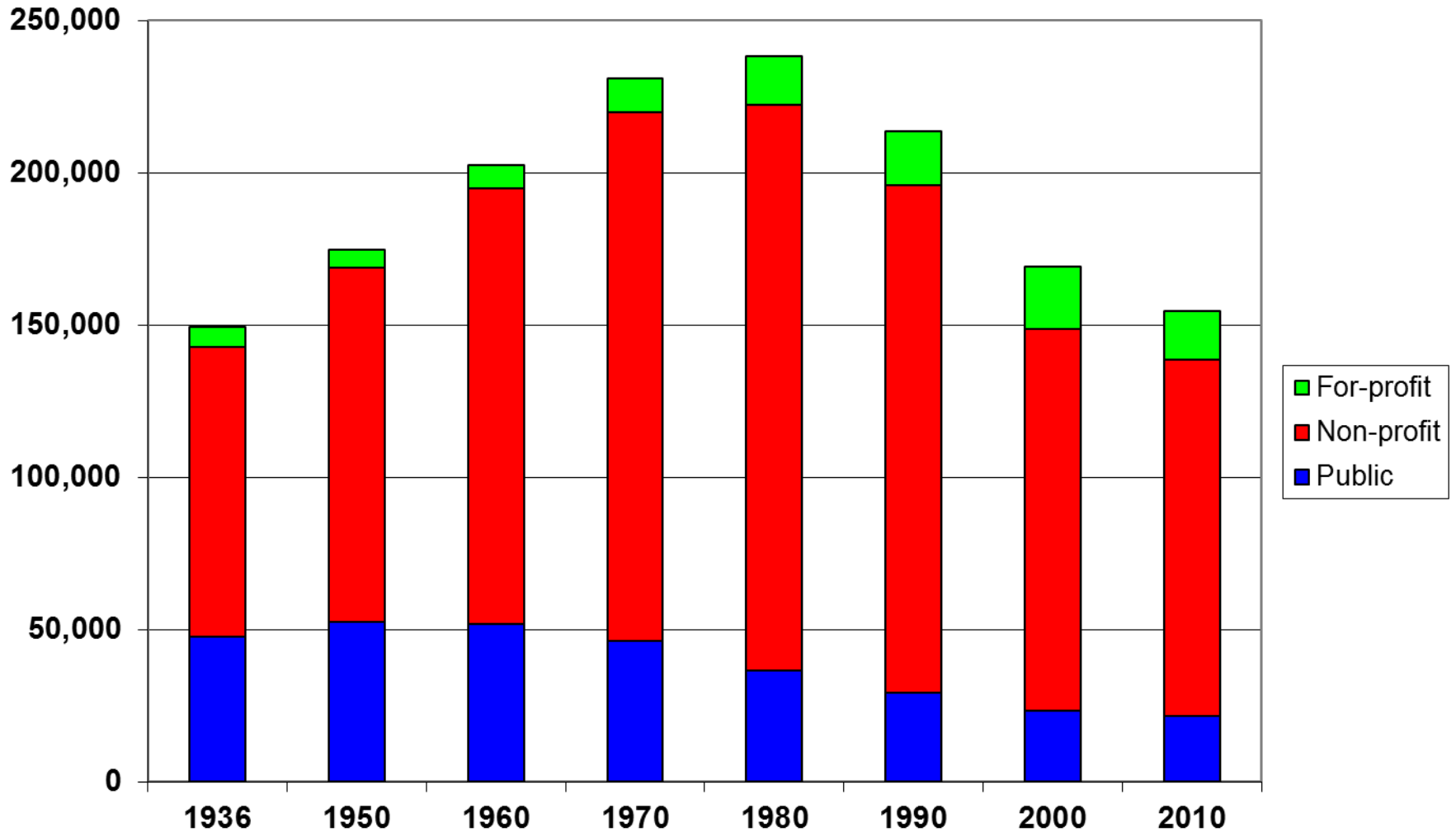
Study Hospitals

- Follow beds, site of care, not corporate entity
- Closing = cessation of acute inpatient care
- Non-federal, short-term, acute “general and other special”
 - Med-surg and other services
 - Pediatric only
 - Obstetrical only (now largely obsolete)
 - Cancer only (now largely obsolete)
 - Excluding psychiatric-only, rehab-only

Total Study Hospitals, 52 Cities, 1936 - 2010

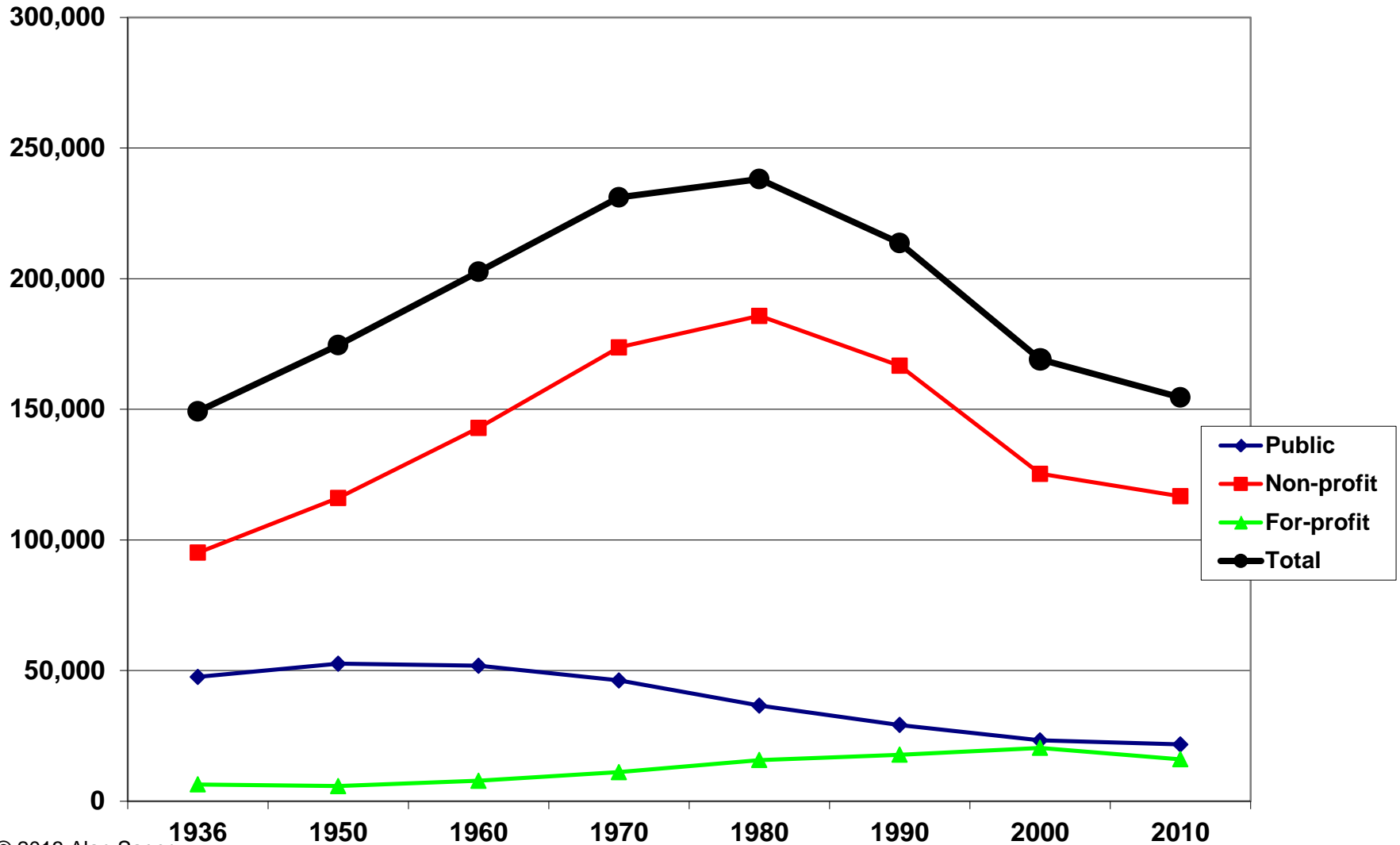


Number of Hospital Beds by Ownership, 52 U.S. Cities, 1936 - 2010



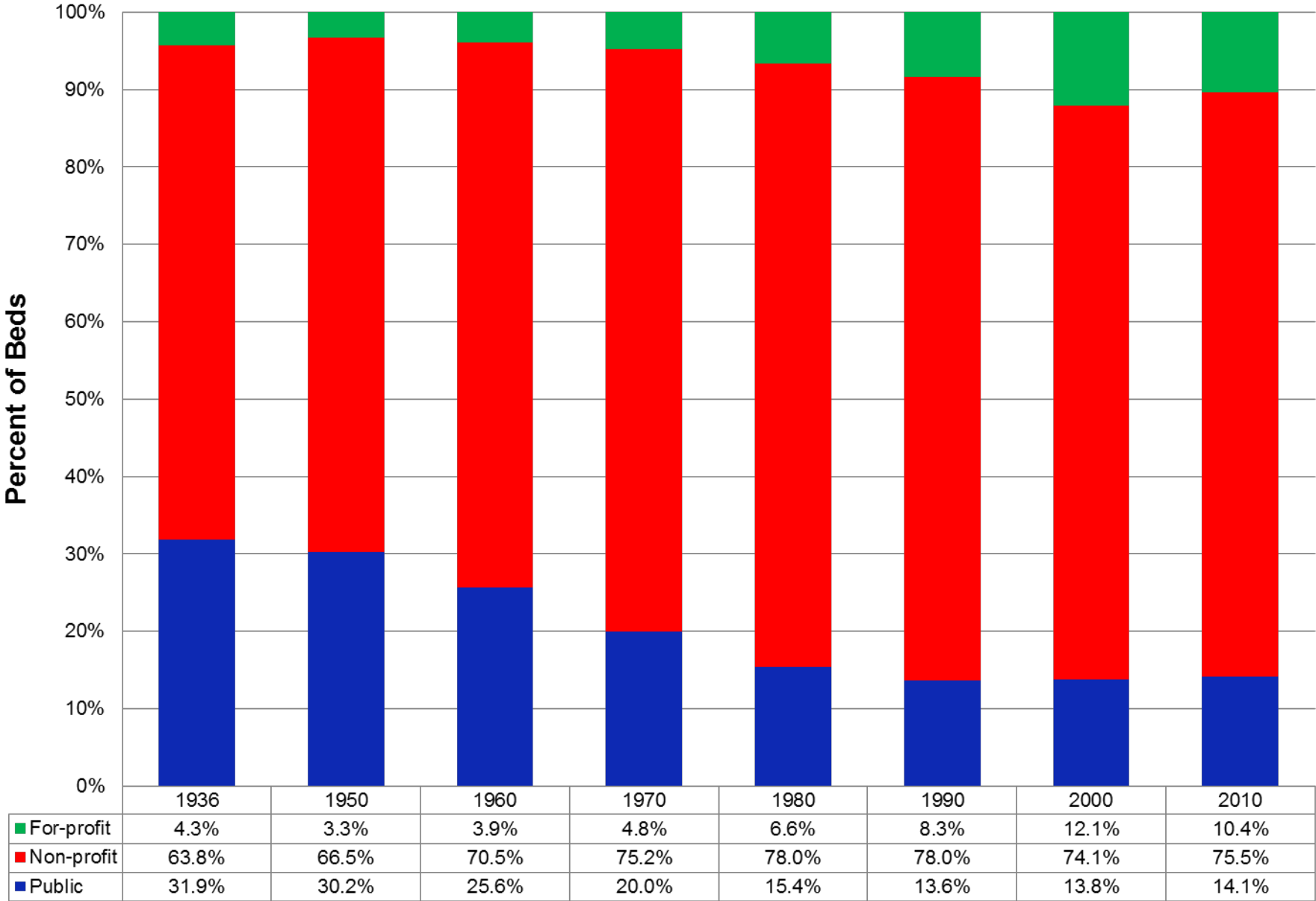
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Hospital Beds by Ownership, 52 U.S. Cities, 1936 - 2010

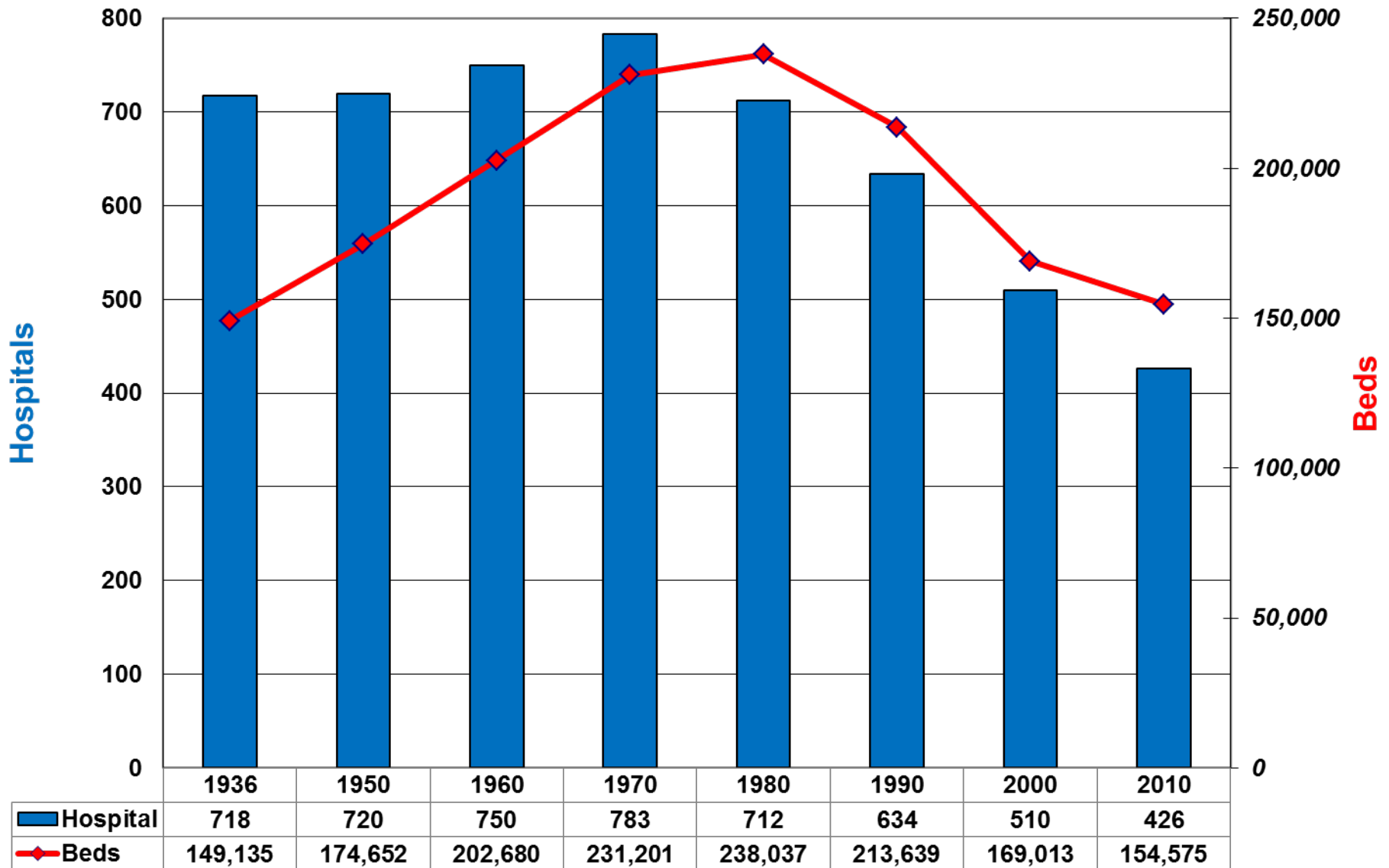


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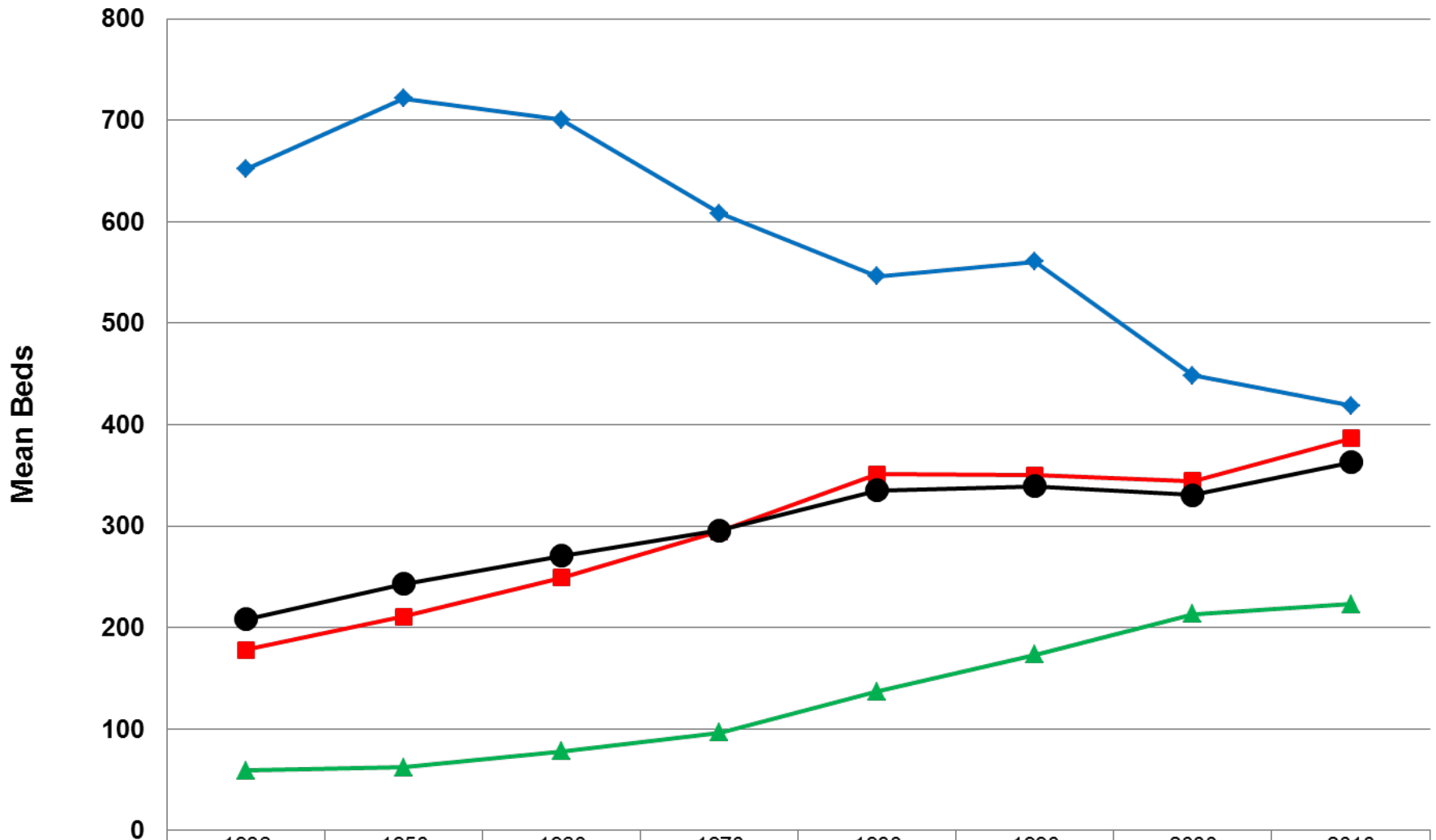
Percent of Beds by Ownership, 1936 - 2010



Acute Care Hospitals and Beds, 52 U.S. Cities, 1936 - 2010

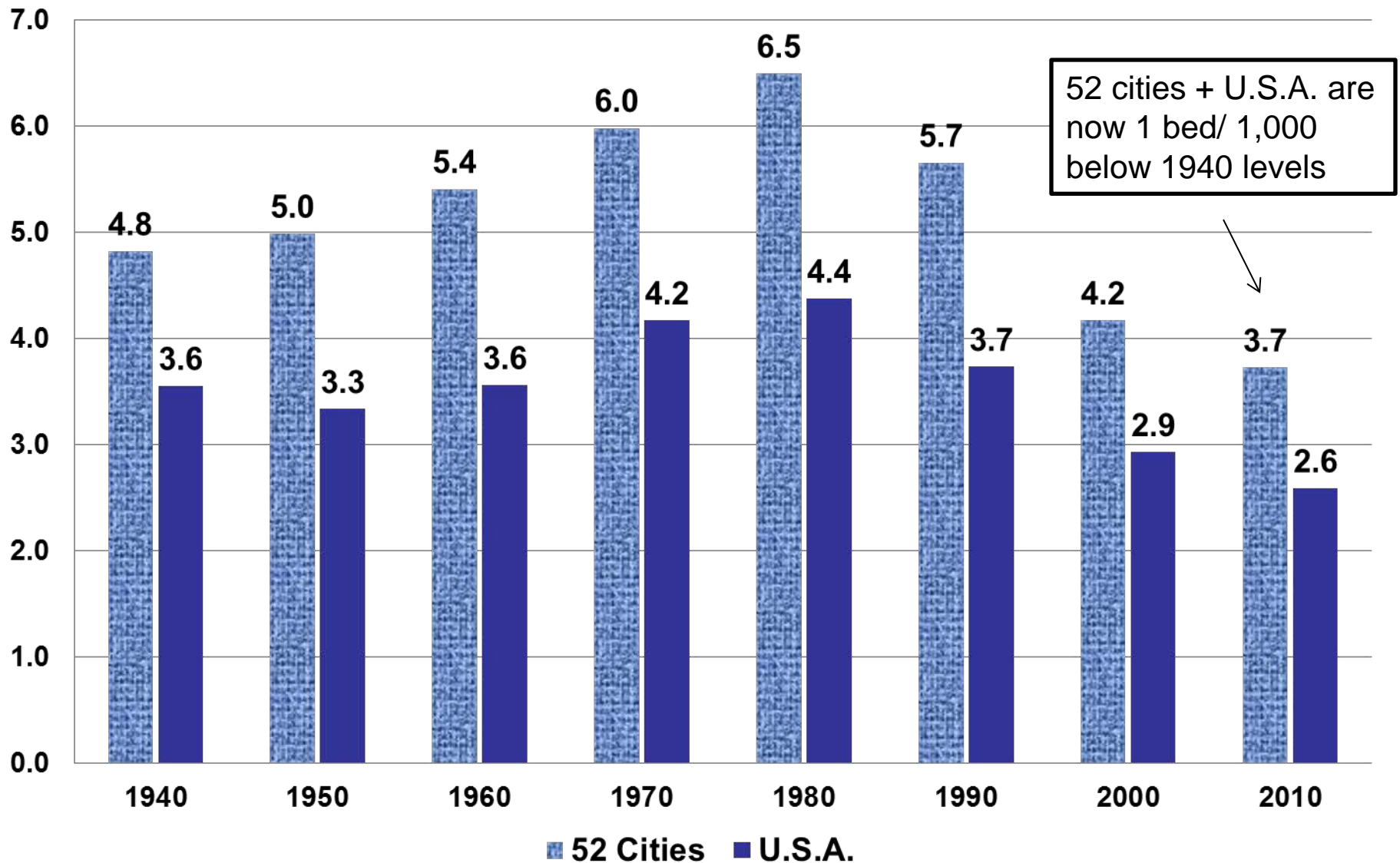


Mean Beds by Ownership, 1937 - 2010

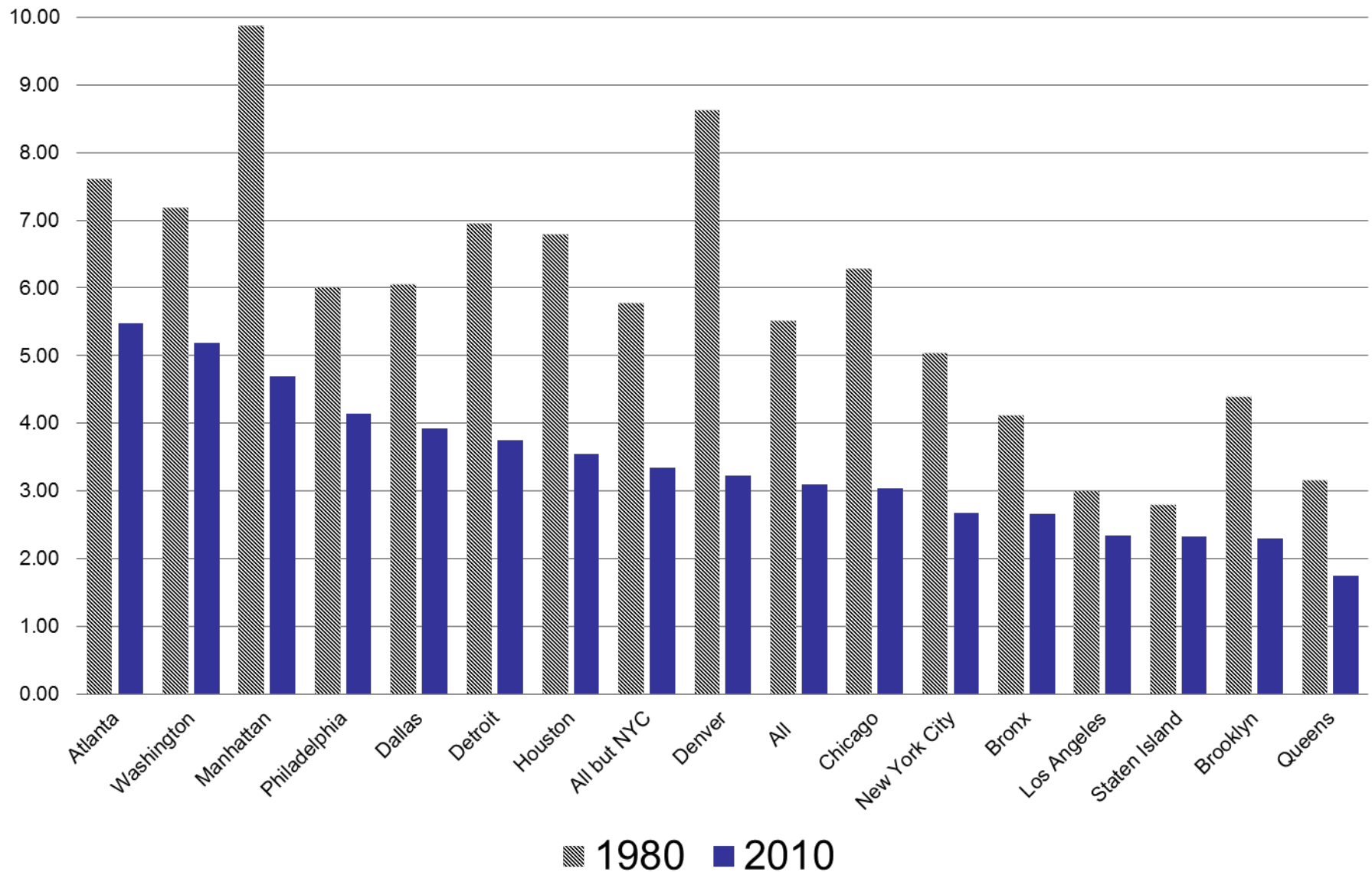


	1936	1950	1960	1970	1980	1990	2000	2010
Public	652	721	701	608	546	561	449	418
Non-profit	178	211	249	295	351	350	344	386
For-profit	59	62	78	96	137	173	213	223
Total	208	243	271	296	335	339	330	363

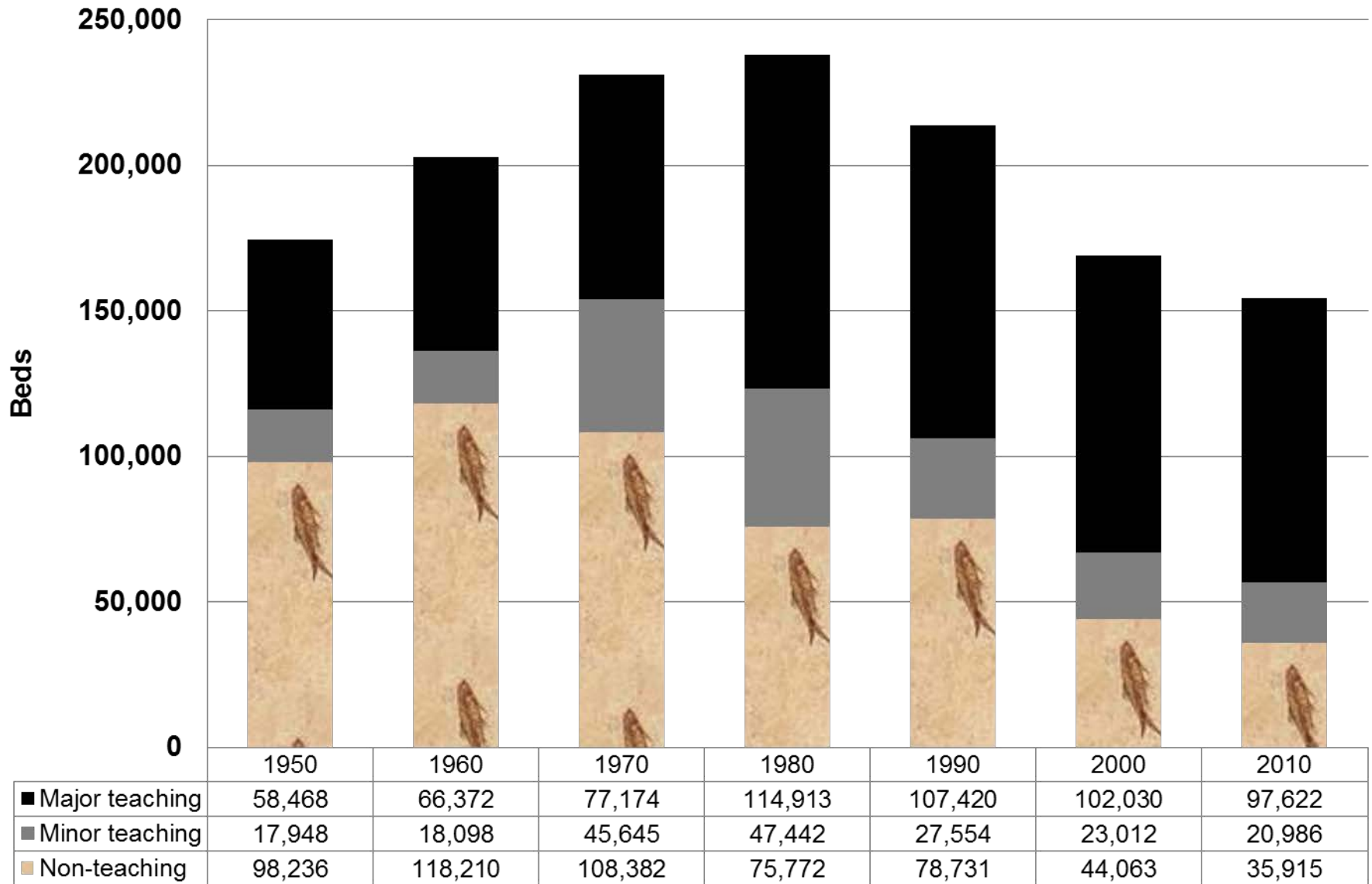
Beds per 1,000 People, 52 Cities and U.S.A., 1940 - 2010



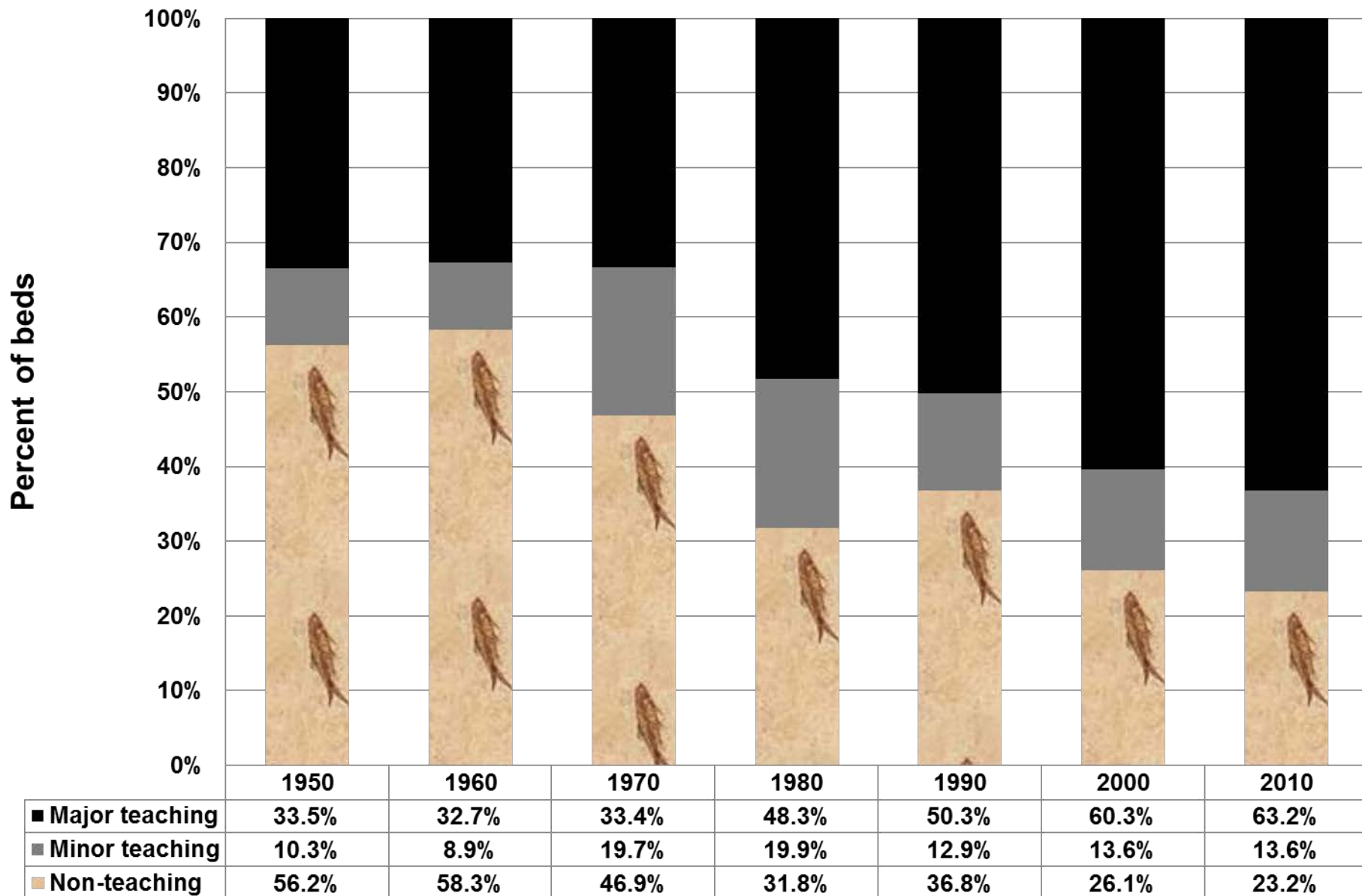
Acute Hospital Beds per 1,000 People, Ten Cities and Five N.Y. City Boroughs, 1980 and 2010



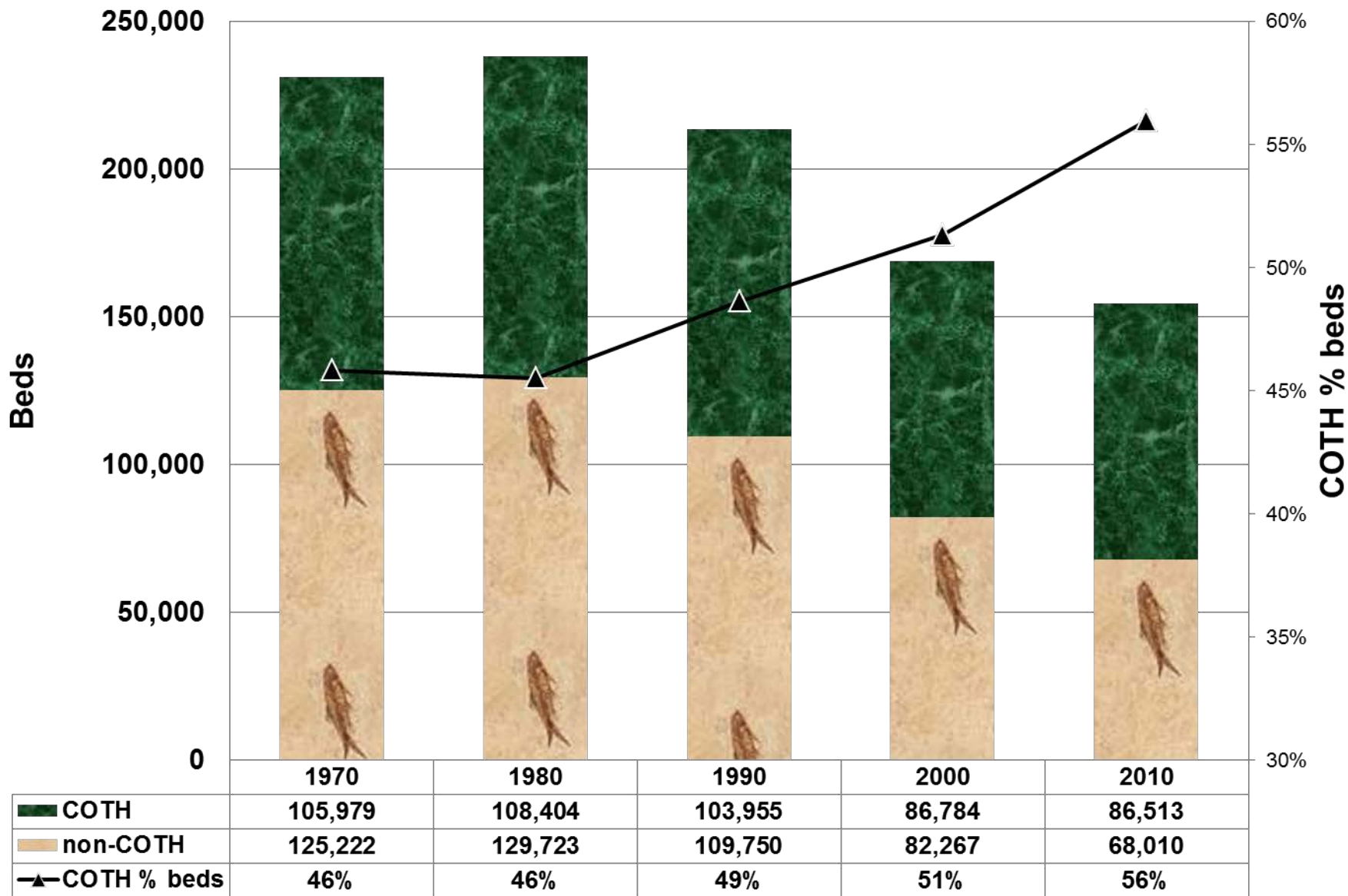
Beds by Medical School Affiliation, 52 cities, 1950 - 2010



Percent of Beds by Medical School Affiliation, 1950 - 2010



Beds by Council of Teaching Hospitals (COTH) Membership, 1970 - 2010



Hospital Closings/relocations and New Hospitals by Decade

<u>Period</u>	<u>Start</u>	<u>Closing</u>	<u>[%] Closing</u>	<u>Survivors</u>	<u>New</u>	<u>End</u>	<u>Change</u>	<u>% Change</u>
1937-50	709	75	11%	634	79	713	4	1%
1950-60	713	81	11%	632	110	742	29	4%
1960-70	742	90	12%	652	122	774	32	4%
1970-80	774	153	20%	621	90	711	-63	-8%
1980-90	711	130	18%	581	50	631	-80	-11%
1990-2000	631	122	19%	509	3	512	-119	-19%
2000-2010	512	87	17%	425	1	426	-86	-17%

**B. Identifying the hospitals
that are likelier to close**

Do rich hospitals deserve to be rich? (Sometimes)

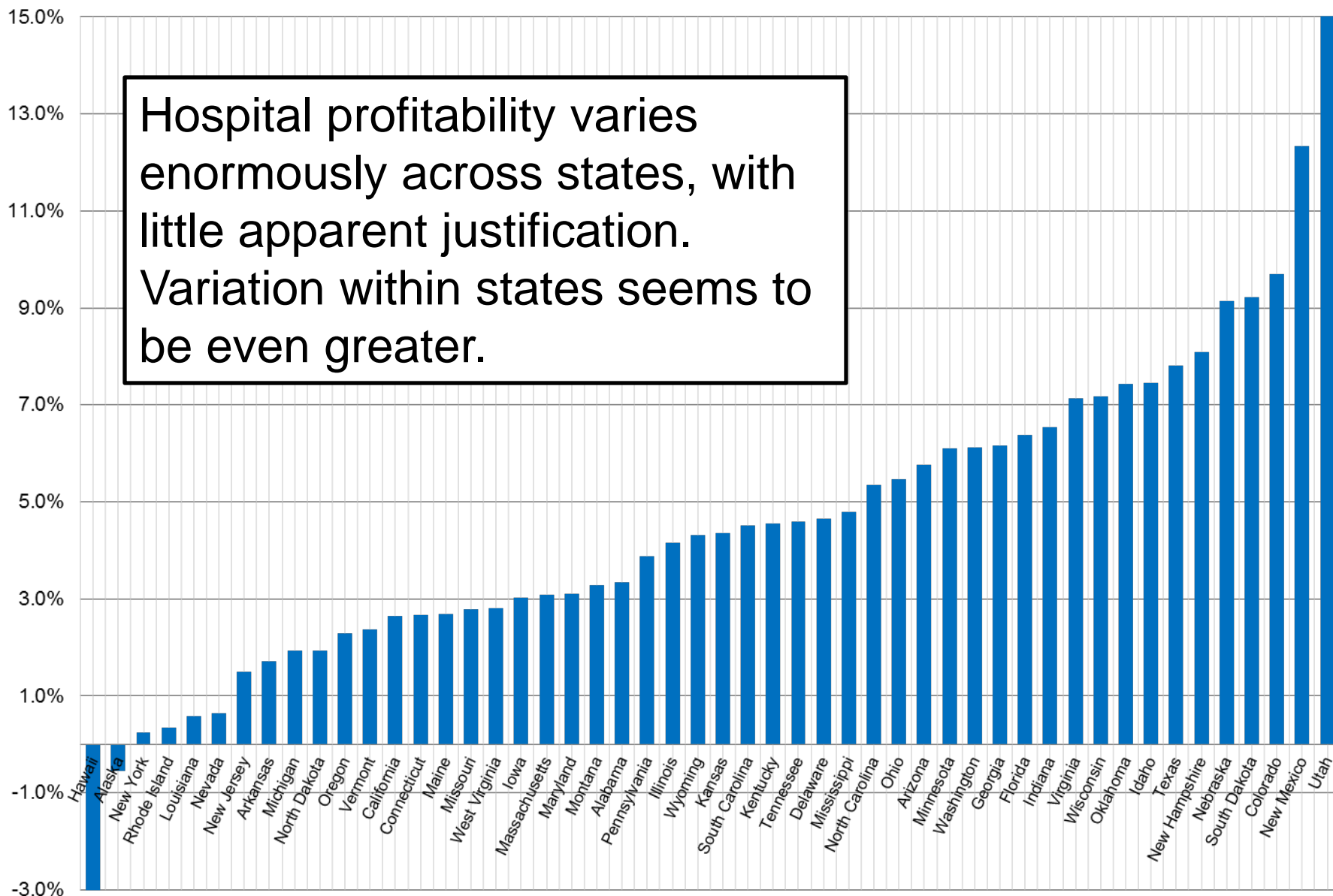
Rich hospitals

- Lots of privately insured pts.
- Located in high-income area
- Treat profitable diagnoses
- Lots of doctors, many salaried
- Efficient? (No evidence)
- Endowment, gifts
- Market power to boost prices
- Reputation? Attract patients
- More political power
- Fair reward by real market?
OR self-sanctification – profits without honor?

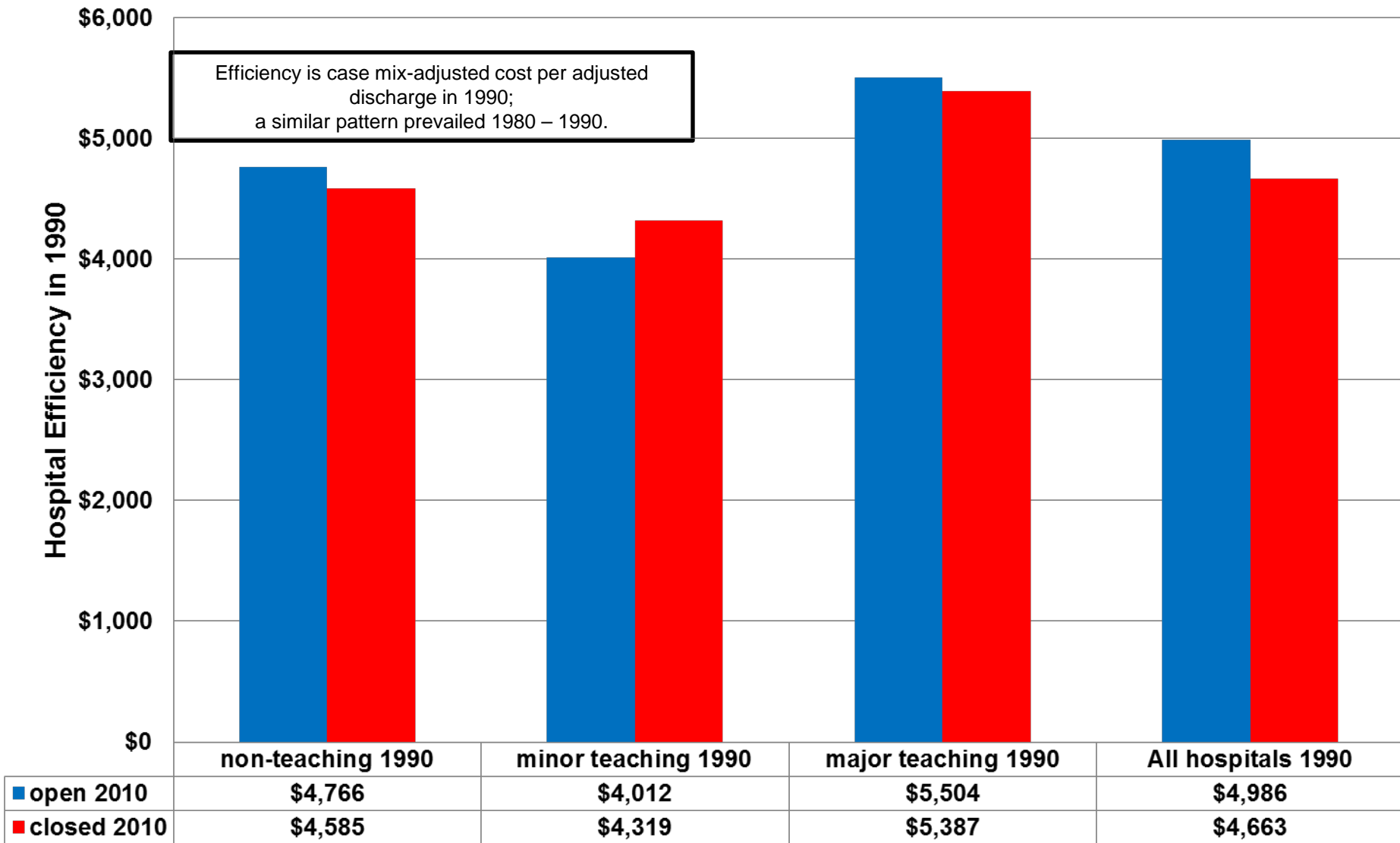
Poor hospitals

- Lots of Medicaid, uninsured
- Located in Black area
- Many unprofitable diagnoses
- Vanishing private doctors
- Weak management?
- Lack money to renew capital
- More competitors/low prices
- Poor perceived quality
- Usually less power
- Game is rigged?
- Self-blame

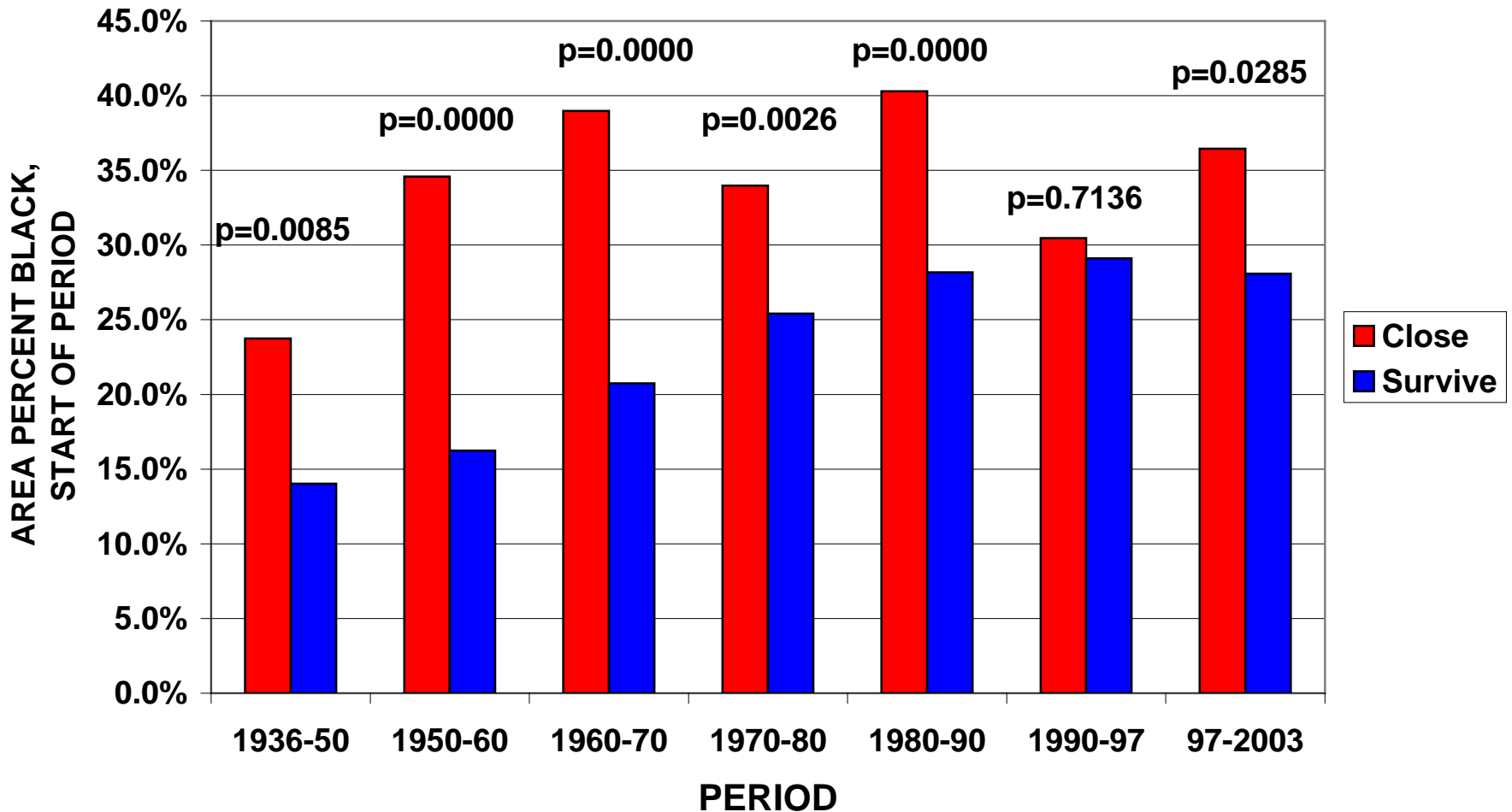
Statewide Hospital Operating Margins, 2009



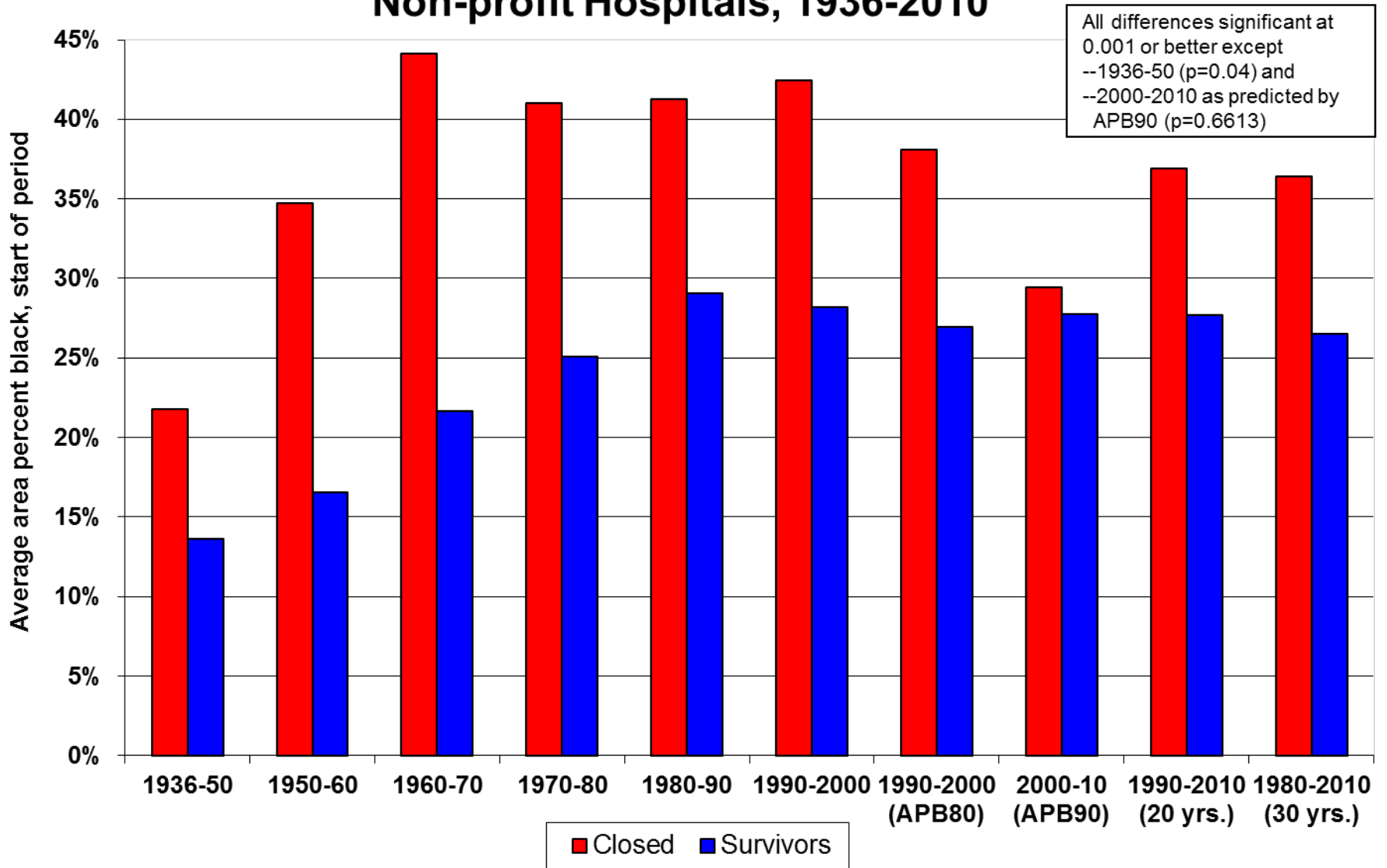
Hospital Efficiency in 1990 by Medical School Affiliation in 1990 And Survival until 2010



AREA PERCENT BLACK, ALL HOSPITALS CLOSING AND SURVIVING, 1936 - 2003



Area Percent Black, Closing and Surviving Non-profit Hospitals, 1936-2010

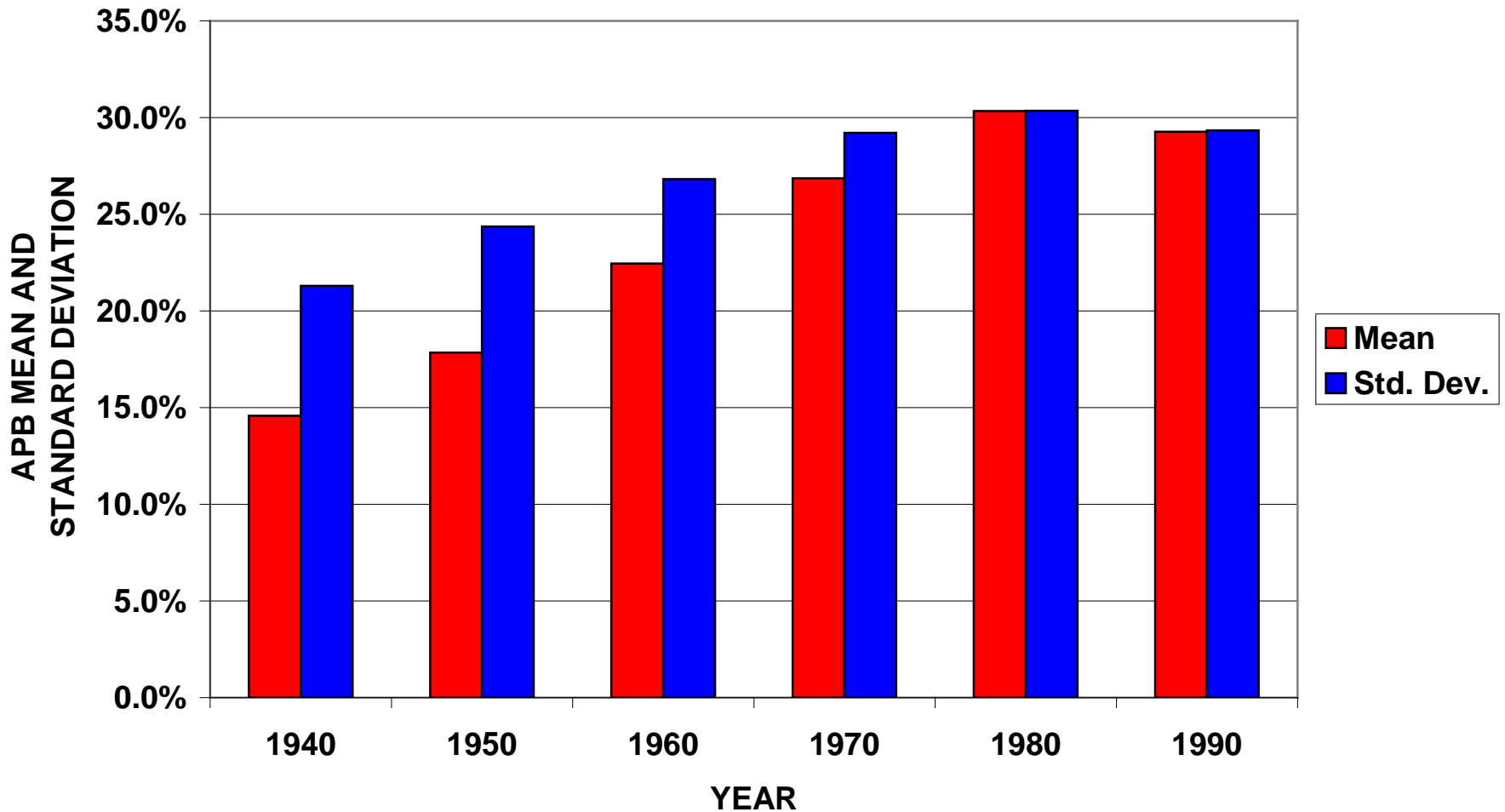


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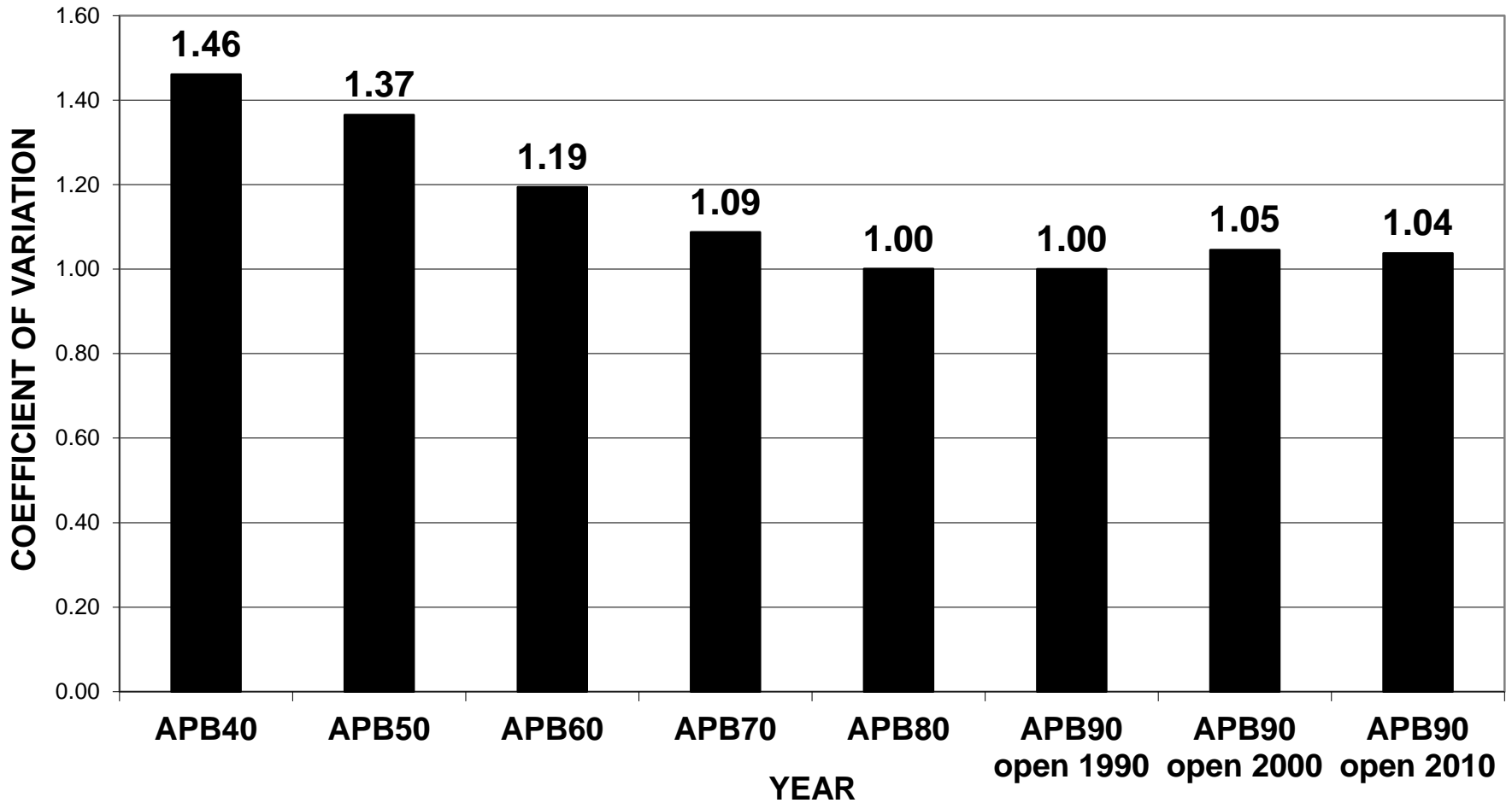
HOSPITAL SURVIVAL BY OWNERSHIP AND RACE, 1990 - 2010

					mean area
	1990-2010		beds in 1990		percent
<u>ownership</u>	<u>survival</u>	<u>hospitals</u>	<u>total</u>	<u>mean</u>	<u>black, 1990</u>
Public	close	5	1,530	306	67%
	survive	46	27,264	593	33%
	total	52	29,156	561	36%
	% closing	10%	5%		
Non-profit	close	148	34,006	230	37%
	survive	317	130,308	411	28%
	total	477	167,018	350	31%
	% closing	31%	20%		
For-profit	close	53	5,688	135	19%
	survive	47	12,208	203	18%
	total	102	17,896	175	19%
	% closing	52%	32%		
All 1990 hospitals		630	213,591	339	29%

AREA PERCENT BLACK (APB) MEAN AND STANDARD DEVIATION, 1940 - 1990



AREA PERCENT BLACK'S (APB) COEFFICIENT OF VARIATION, 1940 - 2010





WHAT PREDICTS MAJOR LEAGUE BASEBALL TEAM RELOCATIONS, 1950 – 1970?

- Race of residents living nearby
- Not attendance
- Not place in standings
- Not age of stadium

Predicting hospital closings, 1990 - 2010

<u>Predictor, 1990 values</u>	<u>Significance</u>
Beds (fewer)	0.000
Hospital fund balance / adj. daily census (lower)	0.000
Occupancy rate (lower)	0.004
Area percent black (higher)	0.008
Hospitals within 1 mile (more)	0.034
Case mix-adjusted cost / discharge (efficiency)	0.637
Operating margin	0.679

Model C-statistic = 0.819

Predicted Chance of Hospital Closing, 1990 – 2010

(**Mean hospital** – as function of mean 1990 characteristics)

Independent Variable	β Estimate (coefficient)	Values for mean hospital	Prediction for mean hospital
Intercept	-2.190	1.000	-2.190
Beds	0.005	328.7	1.772
Area percent black	-0.010	28.7	-0.298
Occupancy rate	1.948	66.1	1.288
Hospitals in 1 mile	-0.168	1.2	-0.202
Fund balance/adjusted census	0.004	\$134,183	0.573
Case mix-adjusted cost/discharge	0.000	\$6,462	0.090
Sum			1.033
Exponential value of sum			2.810
Predicted probability of survival			73.8%
Predicted probability of closing mean hospital			26.2%

Model C-statistic = 0.819

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Sum			1.033
Exponential value of sum			2.810
Predicted probability of survival			73.8%
Predicted probability of closing mean hospital			26.2%

Model C-statistic = 0.819

Predicted Chance of Hospital Closing, 1990 – 2010

(**At-risk hospital** – predicted by riskiest quartile values of variables in 1990)

Independent Variable	β Estimate (coefficient)	Riskiest quartile 1990 values	Prediction for hospital in riskiest quartile
Intercept	-2.190	1.000	-2.190
Beds	0.005	176.0	0.949
Area percent black	-0.010	45.4	-0.472
Occupancy rate	1.948	57.0	1.111
Hospitals in 1 mile	-0.168	2.0	-0.336
Fund balance/adjusted census	0.004	\$33,508	0.143
Case mix-adjusted cost/discharge	0.000	\$4,769	0.067
Sum			-0.729
Exponential			0.482
Predicted probability of survival			32.5%
Predicted probability of closing hospital in riskiest quartile			67.5%

Model C-statistic = 0.819

Predicted Chance of Closing between 1990 and 2010 Rises as Beds Fall and as Area Percent Black Rises

		Beds, 1990				
			Higher quartile	Mean	Lower quartile	
Area Percent Black, 1990		600	433	329	176	100
Lower quartile	5%	6.1%	11.8%	21.9%	38.9%	49.0%
Mean	29%	7.7%	14.6%	26.4%	44.9%	55.1%
Higher quartile	45%	9.0%	16.9%	29.9%	49.2%	59.4%
	75%	11.8%	21.7%	36.7%	56.9%	66.5%
	99%	14.7%	26.2%	42.7%	62.9%	71.8%

Of the 548 non-public hospitals with 50 or more beds that were open in 1990, 193 (35%) closed by 2010. Chance of closing was calculated from mean 1990 values of all significant variables—except Beds and Area Percent Black, which changed with the cell being calculated.

Predicted Chance of Hospital Closing, 1980–2010

(**Mean hospital** – as function of mean 1980 characteristics)

Independent Variable	β Estimate (coefficient)	Values for mean hospital	Prediction for mean hospital
Intercept	-3.441	1.000	-3.441
Beds	0.004	324.2	1.452
Area percent black	-0.011	29.7	-0.324
Medical school affiliation	0.329	0.7	0.002
Occupancy rate	2.681	0.8	2.038
Hospitals in 1 mile	-0.190	1.6	0.000
Fund balance/adjusted census	0.010	\$56,470	0.544

Sum	0.271
Exponential value of sum	1.311
Predicted probability of survival	56.7%
Predicted probability of closing of mean hospital	43.3%

Model C-statistic was 0.824.

Of 608 non-public hospitals with 50 or more beds in 1980, 291 (47.9%) closed by 2010.

Decade-by-decade Logistic Regression Results

- All exclude public hospitals or < 50 beds
- Backwards stepwise: 0=closed + 1=open
- Panel 1 – six decades from 1936 to 2000
- Panel 2 – predicting from decade-old data
- Panel 3 – multi-decade predictions

Panel 1 – Decade-by-decade, 1936-50-60-70-80-90-2000

- All values for predictors are for the year at start of the period
- A few consistent, standard-set predictors:
 - Beds,
 - Area percent black,
 - teaching,
 - occupancy rate
- Fairly consistent results
- C-statistics range from 0.760 to 0.836

Logistic Regression Summary by Decade, 1936 - 2000

Dependent Variable	Alive 1936-50	27 close
3a	0=close/1=survive	461 survive
Independent Variables	β Estimate	P-value
Intercept	1.1327	0.0188
BEDS37	0.0115	0.0159
APB40	-0.0184	0.0161
TCHNG37	1.2939	0.0174
Model c-statistic	0.836	

Dependent Variable	Alive 1970-80	97 close
3d		530 survive
Independent Variables	β Estimate	P-value
Intercept	-2.531	0.0007
BEDS70	0.00588	<0.0001
APB70	-0.01	0.0077
OCCUP70	4.1607	<0.0001
Model c-statistic	0.784	

Dependent Variable	Alive 1950-60	43 close
3b	0=close/1=survive	465 survive
Independent Variables	β Estimate	P-value
Intercept	1.8446	<0.0001
BEDS50	0.0063	0.0006
APB50	-0.0243	<0.0001
Model c-statistic	0.776	

Dependent Variable	Alive 1980-90	111 close
3e		507 survive
Independent Variables	β Estimate	P-value
Intercept	0.0631	0.8177
BEDS80	0.0072	<0.0001
APB80	-0.014	<0.0001
MSA80	0.5126	0.0166
Model c-statistic	0.817	

Dependent Variable	Alive 1960-70	54 close
3c		518 survive
Independent Variables	β Estimate	P-value
Intercept	-0.7793	0.3449
BEDS60	0.00285	0.0191
APB60	-0.0231	<0.0001
OCCUP60	4.1752	0.0004
Model c-statistic	0.760	

Dependent Variable	Alive 1990-2000	111 close
3f		446 survive
Independent Variables	β Estimate	P-value
Intercept	-1.2439	0.0035
BEDS90TF	0.00756	<0.0001
APB90	-0.015	0.0001
OCCUP90	1.9522	0.005
Model c-statistic	0.811	

Panel 2 – Predicting from Decade-old Data

- Values of independent variables are 10 years old at start of period
 - Closings 2000 – 2010 as function of 1990 values
 - Closings 1990 – 2000 as function of 1980 values
- Compare standard-set with expanded-set of independent variables

2. Predicting from Decade-old Data

Consistent standard-set predictors

Expanded-set predictors

Dependent Variable: Alive 2000-2010	82 close		Dependent Variable: Alive 2000-2010	82 close	
3g	=f(1990 values)	355 survive	5	=f(1990 values)	355 survive
Independent Variables	β Estimate	P-value	Independent Variabl	β Estimate	P-value
Intercept	-0.5705	0.2243	Intercept	-0.204	0.475
BEDS90TF	0.00341	0.0001	BEDS90	0.004	0.000
OCCUP90	1.4668	0.0484	FBXAC90	0.004	0.000
Model c-statistic	0.717		Model c-statistic	0.746	
Dependent Variable Alive 1990-2000	107 close				
3k	=f(1980 values)	398 survive			
Independent Variables	β Estimate	P-value			
Intercept	-2.4103	0.0009			
BEDS80	0.00403	<0.0001			
APB80	-0.0136	0.0009			
MSA80	0.4057	0.0243			
OCCUP80	3.5587	0.0005			
Model c-statistic	0.792				

Panel 3 – Multi-decade Predictions

- Predicting 20 or 30 years of behavior
- As function of values at beginning of period
- Consistent standard-set predictors compared with expanded-set predictors

3a. Multi-decade predictions: 1990-2010

Consistent standard-set predictors

Expanded-set predictors

Dependent Variable:	Alive	193 close	Dependent Variable:	Alive	193 close
3i	1990-2010	355 survive	6	1990-2010	355 survive
Independent Variables	β Estimate	P-value	Independent Variable	β Estimate	P-value
Intercept	-2.0105	<0.0001	Intercept	-2.190	0.000
BEDS90TF	0.00541	<0.0001	BEDS90	0.005	0.000
APB90	-0.0117	0.0007	APB90	-0.010	0.003
OCCUP90	2.2134	0.0004	OCCUP90	1.948	0.003
			HM190	-0.168	0.035
			FBXAC90	0.004	0.000
Model c-statistic	0.787		Model c-statistic	0.815	

3b. Multi-decade predictions 1980 - 2000

Consistent standard-set
predictors

Expanded-set
predictors

Dependent Variable:	Alive	220 close	Dependent Variable	Alive	220 close
3j	1980-2000	398 survive	2	1980-2000	398 survive
Independent Variables	β Estimate	P-value	Independent Variab	β Estimate	P-value
Intercept	-2.9883	<0.0001	Intercept	-3.5476	0.0000
BEDS80	0.00525	<0.0001	BEDS80	0.0053	0.0000
APB80	-0.0154	<0.0001	APB80	-0.0153	0.0000
MSA80	0.4964	0.001	MSA80	0.3740	0.0293
OCCUP80	3.1194	0.0002	OCCUP80	3.7380	0.0000
			HMI180	-0.2228	0.0007
			FBXAC80	0.0097	0.0001
Model c-statistic	0.827		Model c-statistic	0.846	

3c. Multi-decade predictions, 1980 - 2010

Consistent standard-set
predictors

Expanded-set
predictors

Dependent Variable:	Alive	291 close		Dependent Variable	Alive	291 close
3l	1980-2010	317 survive		3	1980-2010	317 survive
Independent Variables	β Estimate	P-value		Independent Variab	β Estimate	P-value
Intercept	-2.7837	<0.0001		Intercept	-3.441	0.000
BEDS80	0.00428	<0.0001		BEDS80	0.004	0.000
APB80	-0.0114	0.0005		APB80	-0.011	0.001
MSA80	0.4825	0.0003		MSA80	0.329	0.029
OCCUP80	2.102	0.0093		OCCUP80	2.681	0.002
				HMI180	-0.190	0.002
				FBXAC80	0.010	0.000
Model c-statistic	0.805			Model c-statistic	0.824	

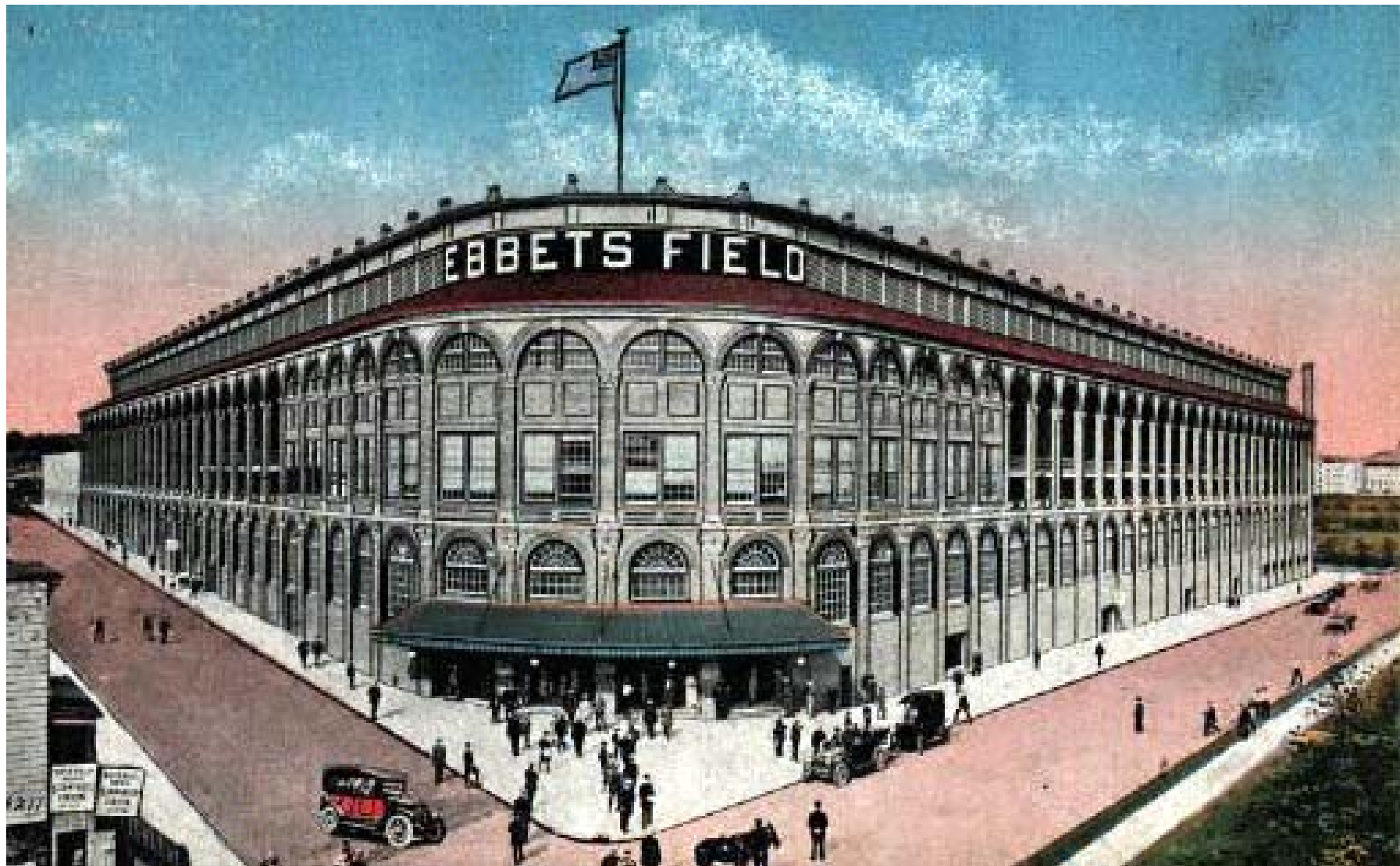
Characteristics of survivors and closings, 1990-2000, 1990-2010, and 2000-2010

Predicting closings, 1990 - 2000

Predicting closings
1990 - 2010

Predicting Closings,
2000 - 2010

Predictors	1990 mean values				1990 mean values				1990 mean values		
	all 1990 hospitals	still open 2000	close by 2000	p	still open 2010	close by 2010	p	still open 2010	close by 2010	p	
1990 values predict	n = 612	n=499	n=113		n = 404	n = 198		n = 404	n = 85		
Beds 90	348.0	385.3	183.2	0.0000	413.4	216.3	0.0000	413.2	259.1	0.0000	
Ownership 90	2.1	2.0	2.3	0.0000	2.0	2.2	0.0000	2.0	2.2	0.0032	
Area % Hispanic 90	15.7	15.8	15.0	0.6812	16.3	14.4	0.2910	16.2	14.8	0.5662	
Area % minority 90	44.2	42.9	50.2	0.0170	42.7	47.2	0.0775	42.8	44.1	0.7173	
Area % black 90	29.4	27.9	36.1	0.0077	27.3	33.6	0.0130	27.4	30.1	0.4392	
Med sch affil 90	0.79	0.91	0.27	0.0000	0.98	0.40	0.0000	0.98	0.55	0.0001	
COTH 90	0.32	0.37	0.09	0.0000	0.40	0.13	0.0000	0.40	0.19	0.0002	
Age assets 90	8.13	8.16	8.01	0.7504	8.07	8.30	0.5547	8.07	8.63	0.2829	
Cost, cmi-adjust 90	\$4,890	\$4,943	\$4,656	0.3782	\$4,975	\$4,684	0.2858	\$4,954	\$4,728	0.5703	
Cost, unadjusted 90	\$6,644	\$6,818	\$5,882	0.0473	\$6,973	\$5,951	0.0096	\$6,987	\$6,091	0.1165	
Hosps w/in 1 mile 90	1.23	1.25	1.12	0.3816	1.26	1.08	0.1657	1.2	1.0	0.1883	
Occupancy rate 90	67.3%	69.7%	56.7%	0.0000	71.4%	58.9%	0.0000	71.3%	61.8%	0.0000	
Fund bal/adj cens 90	\$133,280	\$149,463	\$62,393	0.0000	\$162,753	\$72,558	0.0000	\$164,504	\$107,236	0.0127	
Total margin 90	0.68	1.57	-3.19	0.0000	2.10	-2.26	0.0000	2.04	-0.99	0.0052	
Operating margin 90	-1.27	-0.66	-3.94	0.0074	-0.03	-3.88	0.0002	-0.14	-3.72	0.0097	



Closed Brooklyn Hospitals



St. Mary's



Brooklyn Jewish



Interboro

Shibe Park, Philadelphia





Mt. Sinai



Presbyterian



Northeastern



Hospital of Women's
Medical College

Braves Field, Boston



The wrong team left town. "Survival of the fattest."

C. Why do hospital closings matter?

Access

Cost

Quality

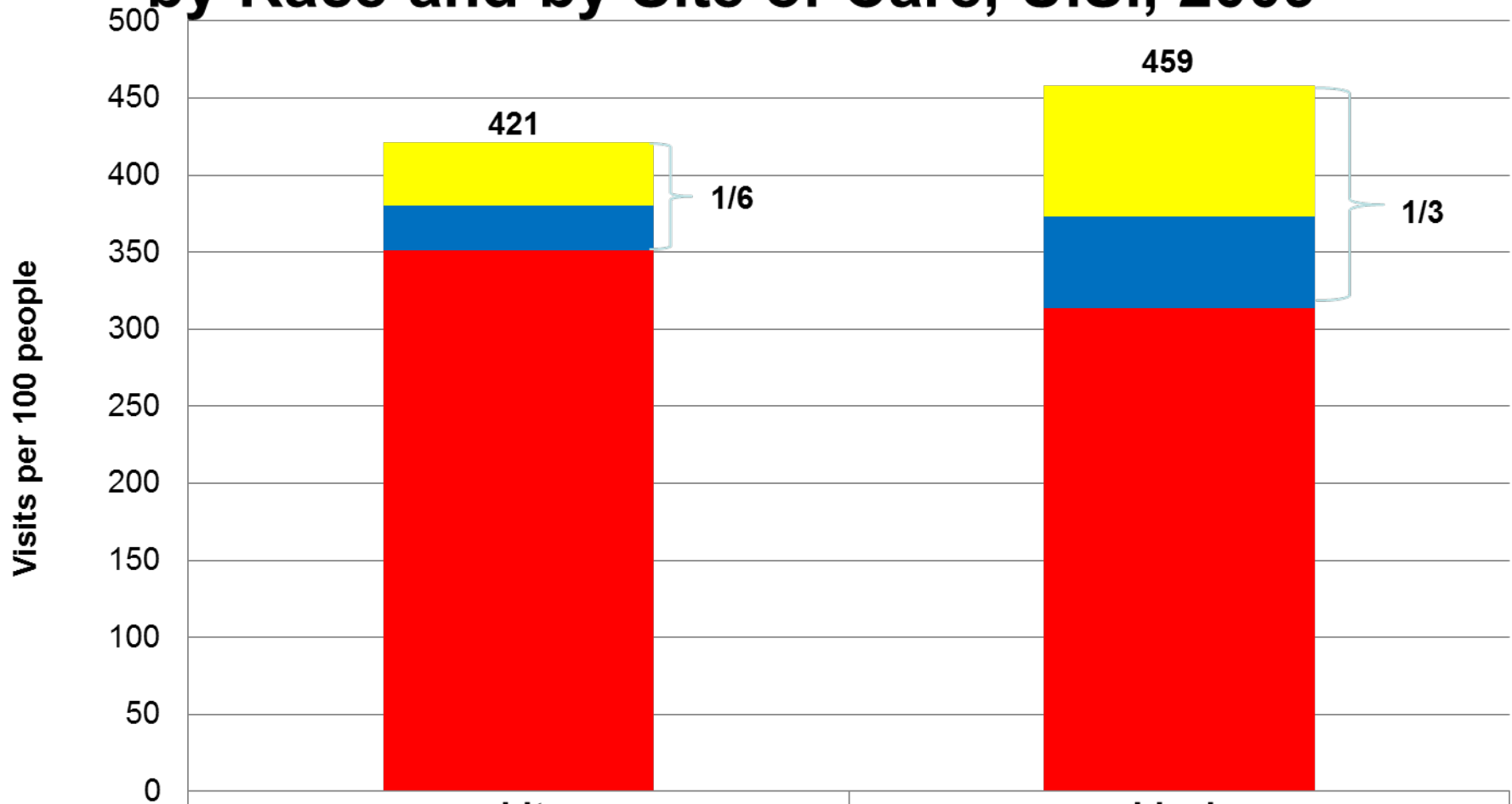
So what?

- Don't patients just vote with their feet, avoiding low-quality or unresponsive hospitals?
- How can a hospital be needed if it's losing \$
- Do we really need many hospitals?
 - Won't community health centers substitute?
 - Won't we live forever if we lose a little weight?
- Consider access – cost – quality → →

ACCESS - Ambulatory

- Share of all doctor visits made at hospital emergency room or outpatient department
 - Blacks 32 percent
 - Whites 15 percent
- So hospital closings disproportionately displace ambulatory care for blacks.
- Loss of a hospital undermines remaining physicians in private practice in an area.
- CHC capacity likely to remain inadequate, especially in arranging specialty physician care.

Physician Visits per 100 People, by Race and by Site of Care, U.S., 2009



■ ER
■ OPD
■ MD office

	white
ER	41
OPD	29
MD office	351

	black
ER	85
OPD	59
MD office	314

Source: *Health United States, 2011, Table 96, age-adjusted.*

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If doctors exit community hospitals, they're forced to close

- Hospitals + doctors = symbiotic, not substitutes
- If neighborhood changes, ordinary non-teaching community hospitals often want to provide care to new residents
- But, if doctors in private practice followed former residents to suburbs, lack of physicians can mean no care for patients and no revenue for hospital
- Loss of hospital can drive away remaining docs

ACCESS – inpatient

- Cumulative loss of access grows over time, as large expanses of many U.S. cities lose their hospitals → “medical wastelands”
 - 45% of 774 open in 1970 had closed by 2010
 - 3/5 closed in areas >60% black in 1990
- Risk of putting too many beds in too few baskets: Katrina/NOLA, Sandy/Manhattan
- Consider changes in St. Louis, Detroit, Washington, D.C., Baltimore, or Cleveland
- 30% of inpatient volume displaced by closing is lost initially, and only gradually reappears

St. Louis, Missouri

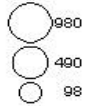
★ Hospitals Closing, 1936 - 2003

● Hospitals Open, 2003

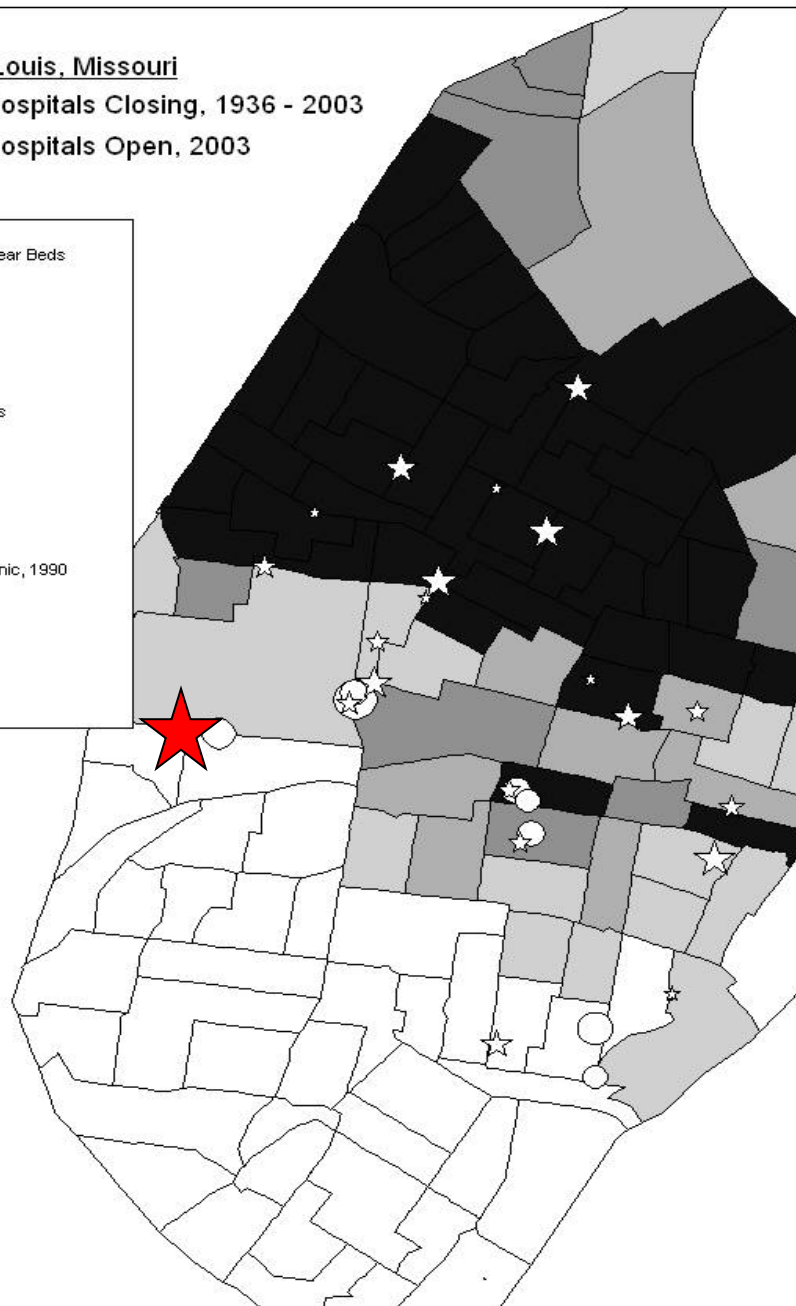
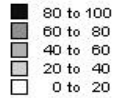
Closed Hospitals: Final Year Beds



Open Hospitals: 2001 Beds



Tract Percent Black & Hispanic, 1990



★ Closed 2003 - 2010

Sportsman's Park, St. Louis



17014 Homer G. Phillips, St. Louis, 1933 - 1980





De Paul



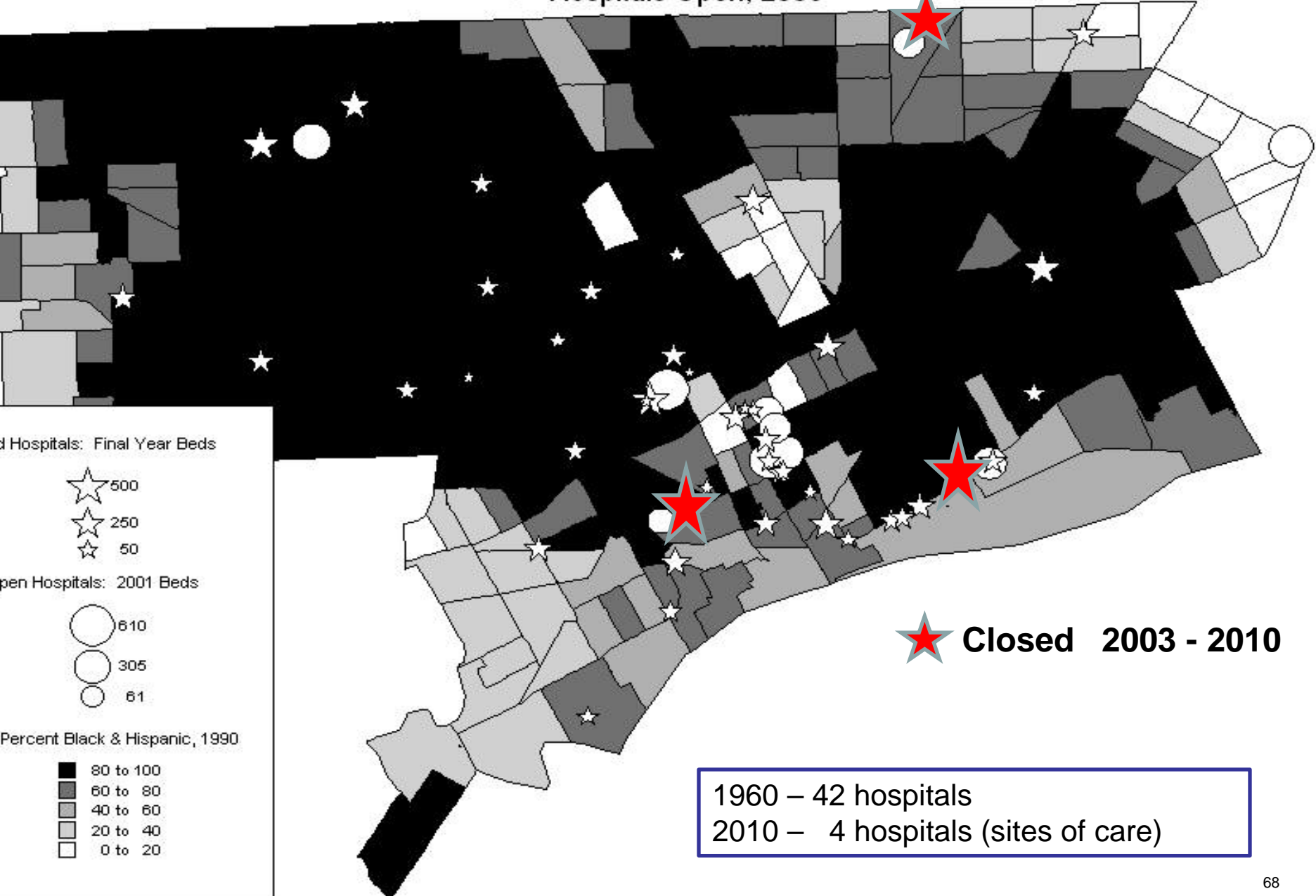
Evangelical Deaconess



Missouri Baptist

Detroit, Michigan

- ★ Hospitals Closing, 1936 - 2003
- Hospitals Open, 2003



Closed Hospitals: Final Year Beds

- ★ 500
- ★ 250
- ★ 50

Open Hospitals: 2001 Beds

- 610
- 305
- 61

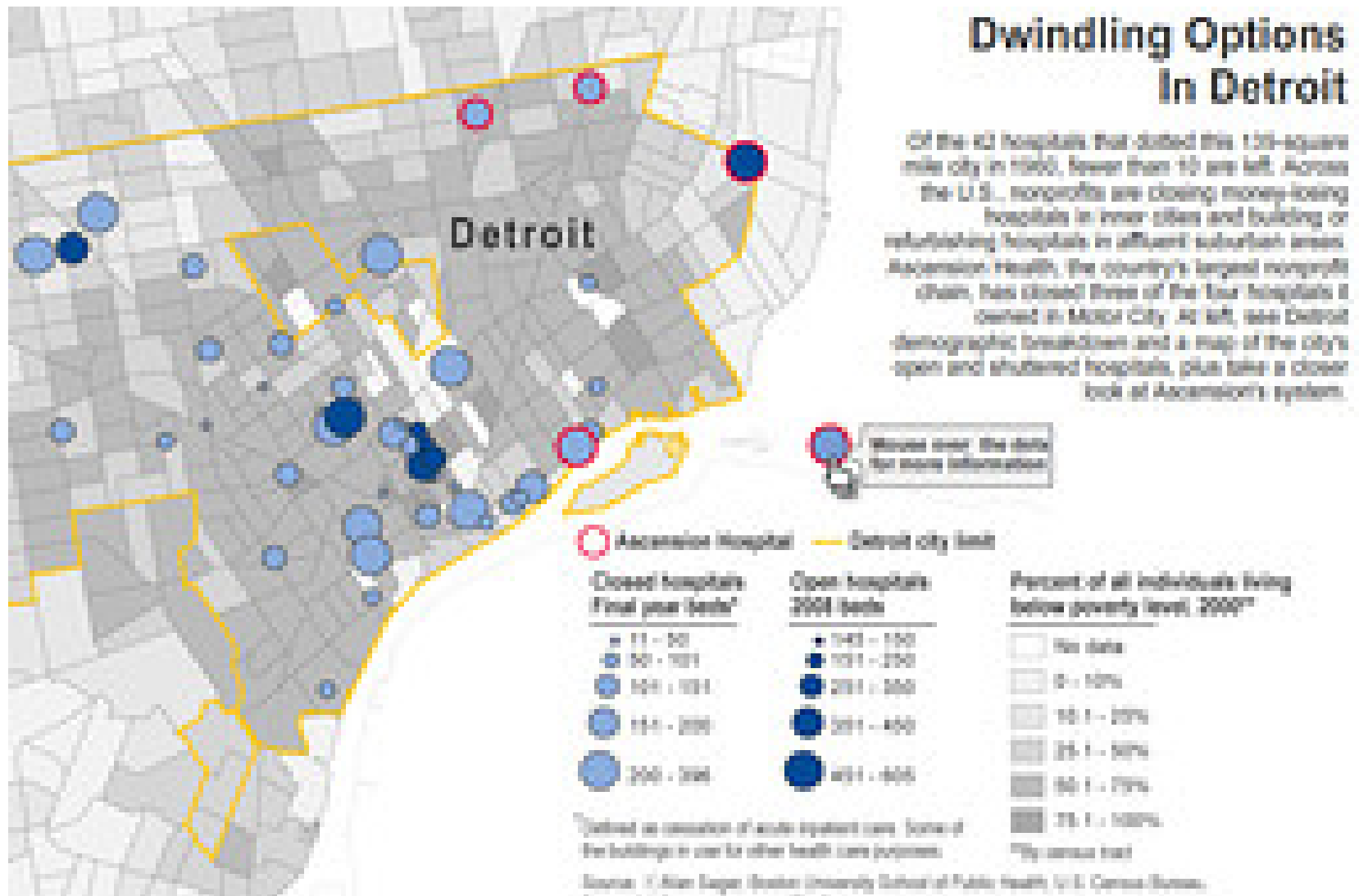
Percent Black & Hispanic, 1990

- 80 to 100
- 60 to 80
- 40 to 60
- 20 to 40
- 0 to 20

★ Closed 2003 - 2010

1960 – 42 hospitals
2010 – 4 hospitals (sites of care)

Barbara Martinez, “Nonprofit Hospitals Leave the City for Greener Pastures,” *WSJ*, 14 Oct. 08



8057 Detroit Riverview, - 2008



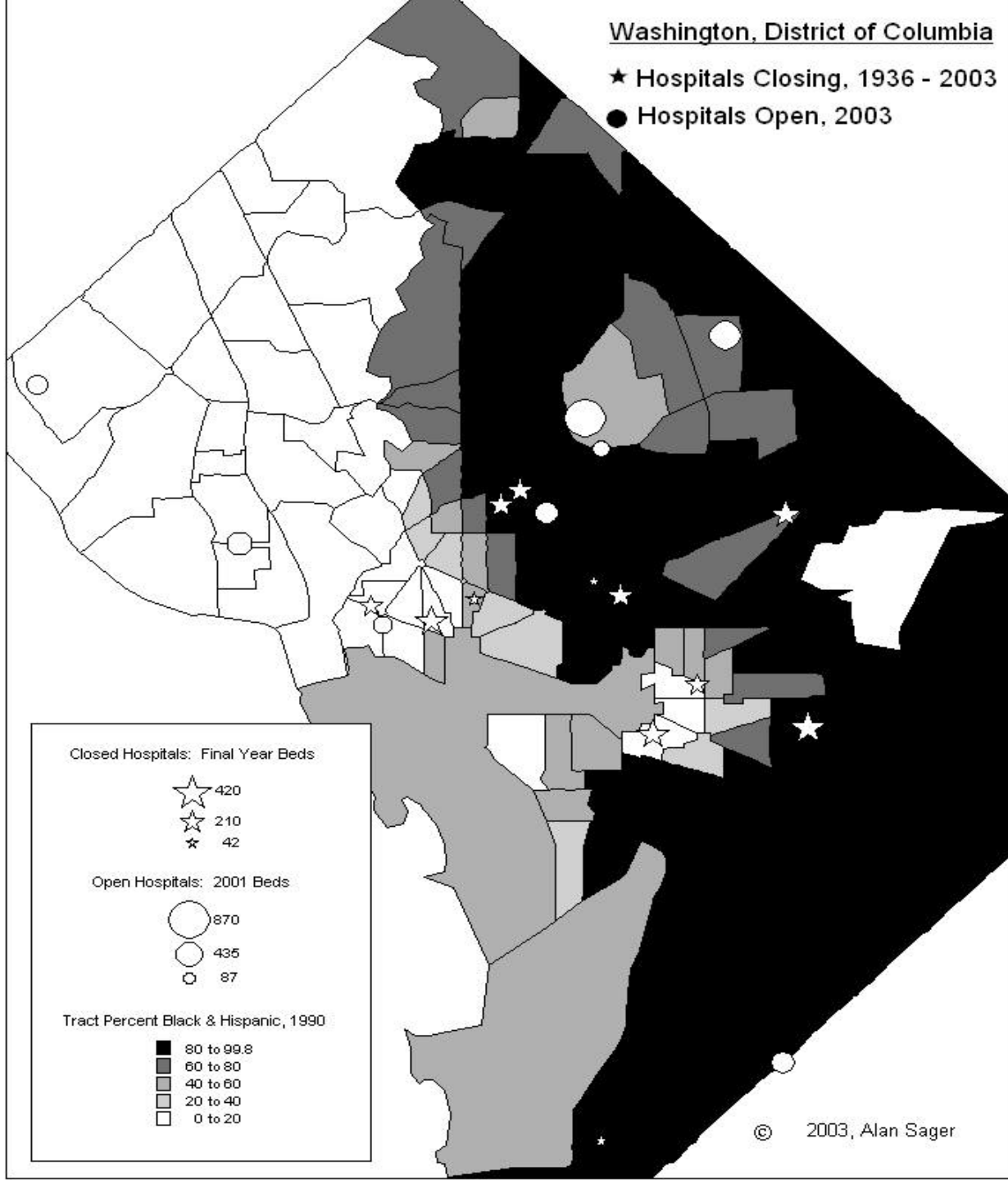
8054 Southwest Detroit Hospital, 1974 - 1991



Washington, District of Columbia

★ Hospitals Closing, 1936 - 2003

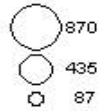
● Hospitals Open, 2003



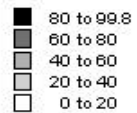
Closed Hospitals: Final Year Beds



Open Hospitals: 2001 Beds



Tract Percent Black & Hispanic, 1990



Griffith Stadium, Washington, D.C.



Eastern Dispensary

18007 D. C. General, 1846 - 2001



Sibley Hospital (old)



Garfield Memorial Hospital⁷⁴

Baltimore, Maryland

★ Hospitals Closing, 1936 - 2003

● Hospitals Open, 2003



Cleveland, Ohio

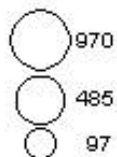
★ Hospitals Closing, 1936 - 2003

● Hospitals Open, 2003

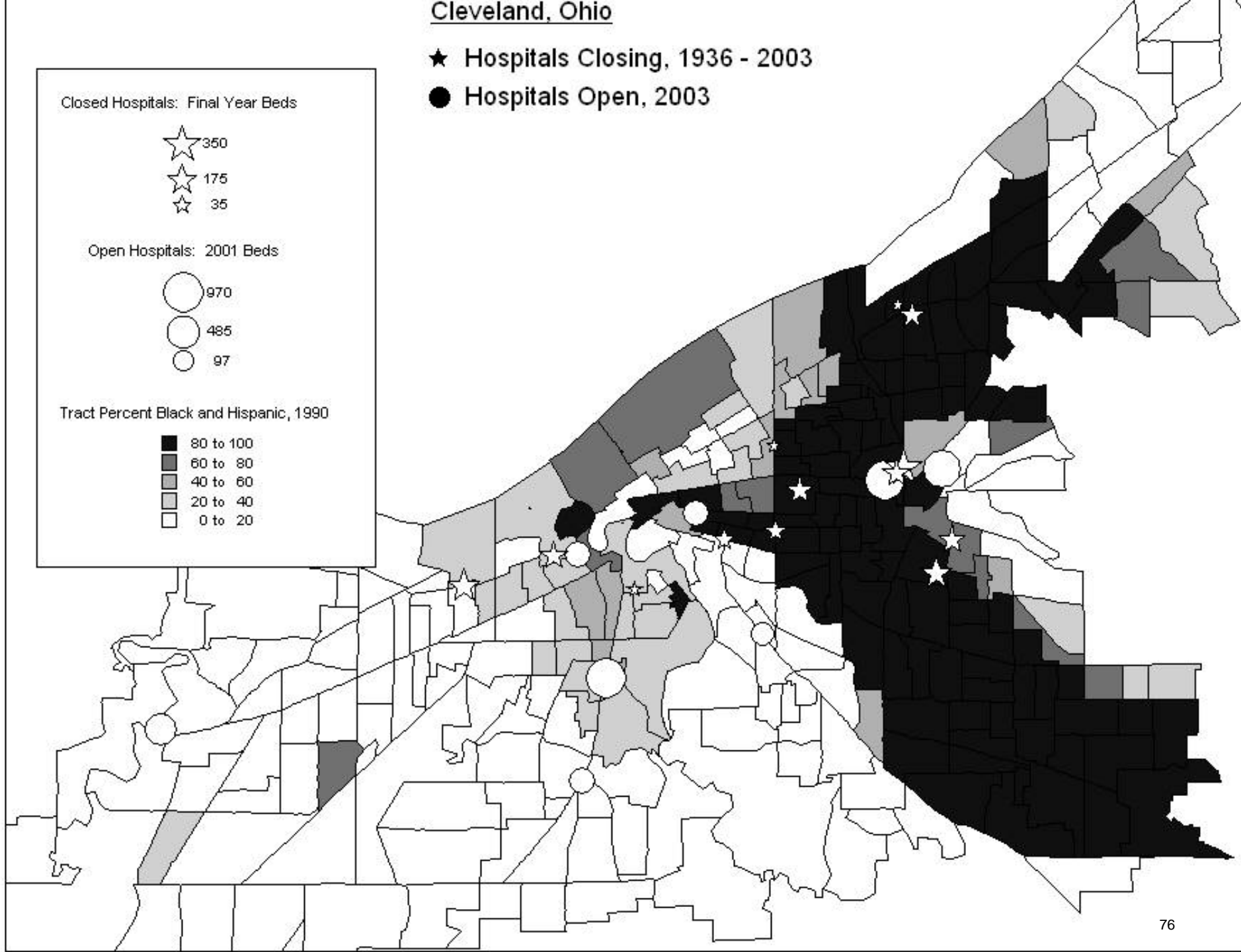
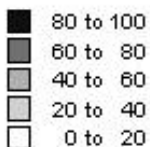
Closed Hospitals: Final Year Beds



Open Hospitals: 2001 Beds

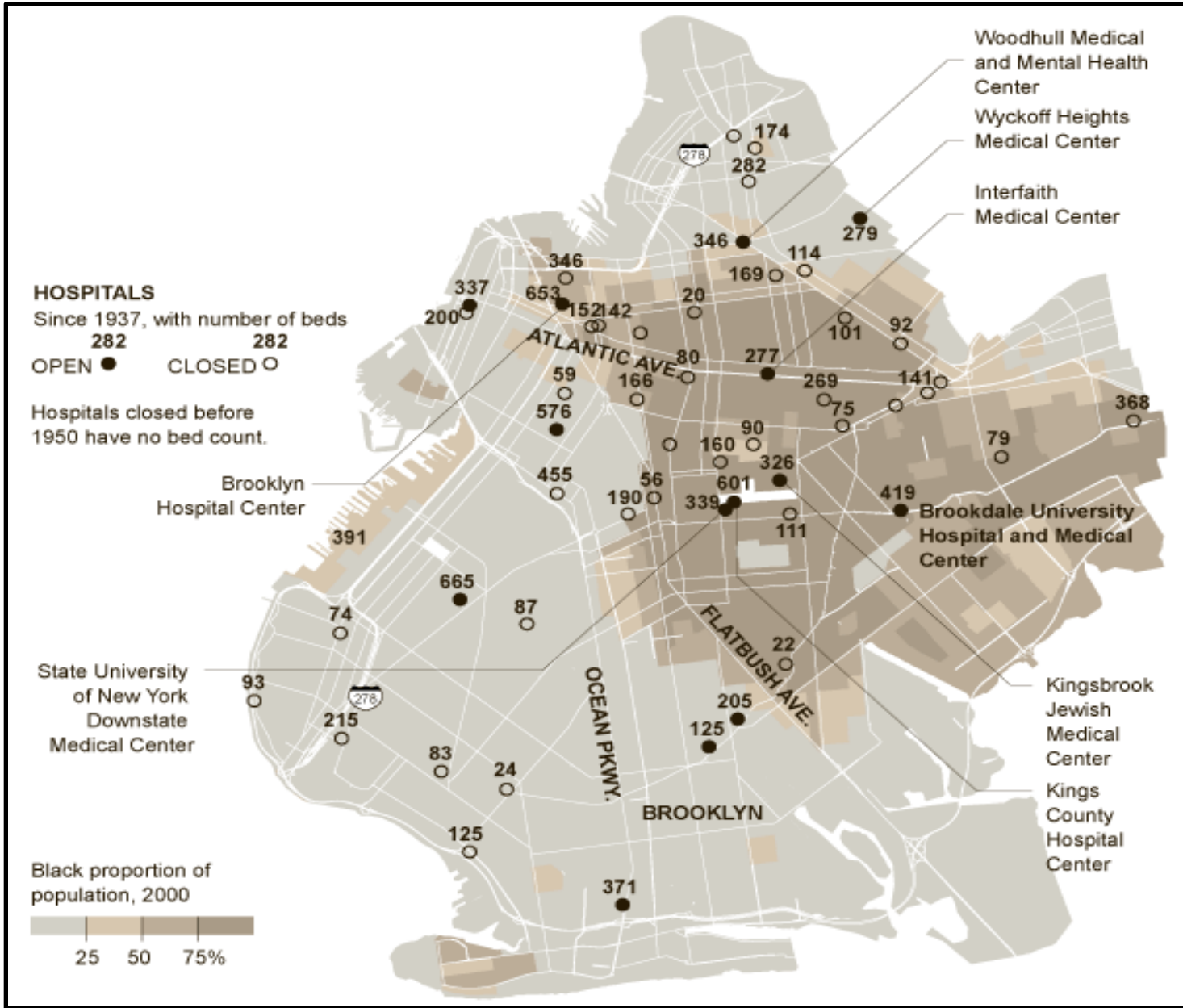


Tract Percent Black and Hispanic, 1990

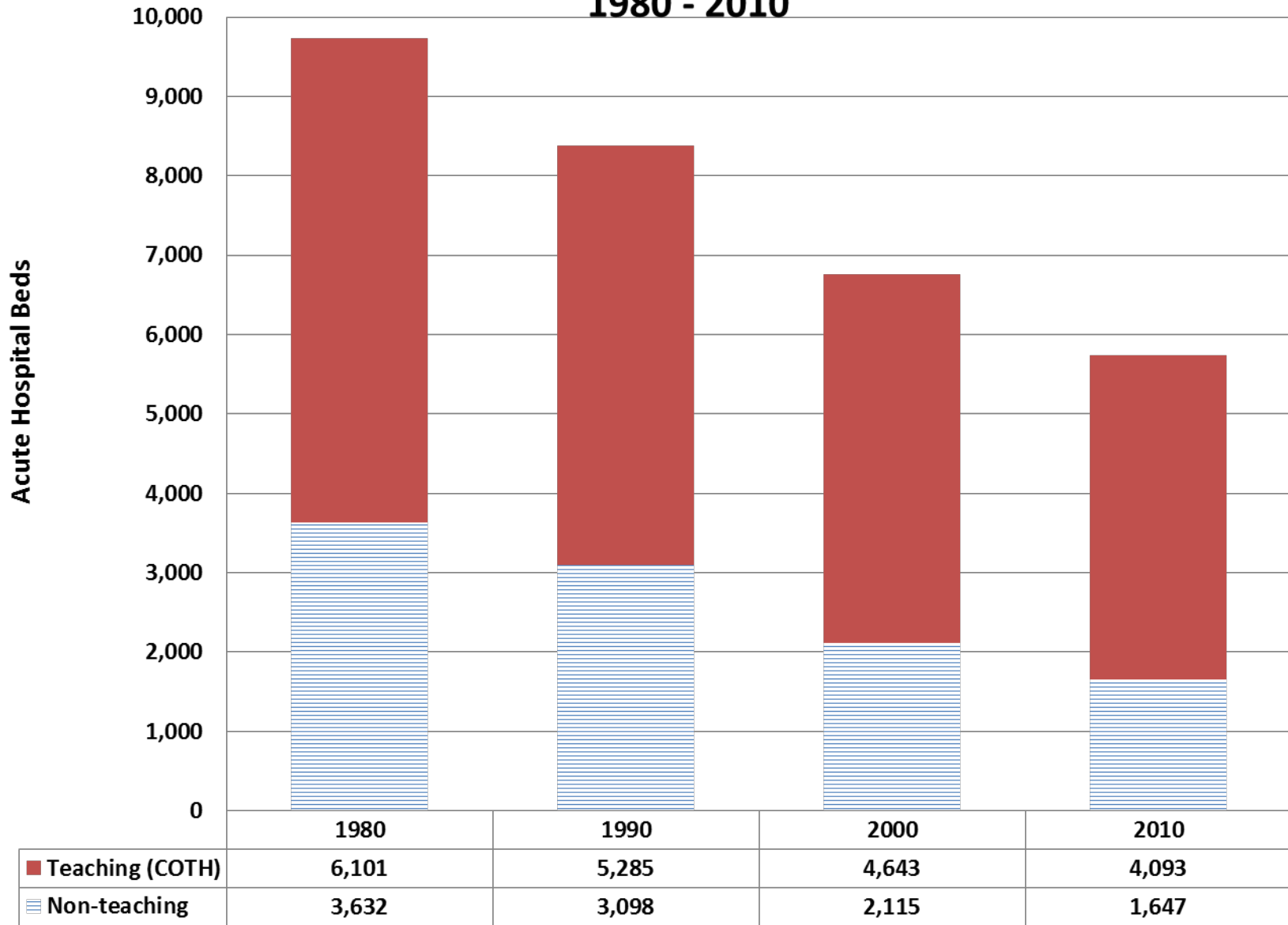


Nina Bernstein, “Seeking a Cure for Troubled Hospitals in Brooklyn,” *NYT*, 9 Nov. 11

“The effort to reduce costs by cutting capacity has often meant closing smaller hospitals. Those hospitals are more likely to be in minority areas. Five hospitals in Brooklyn are now in peril, putting pressure on Kings County, State University of New York Downstate and Woodhull medical centers, the public hospitals.”



Brooklyn Acute Hospital Beds by Teaching (COTH) Status, 1980 - 2010



29002 San Jose Medical Center - 2004



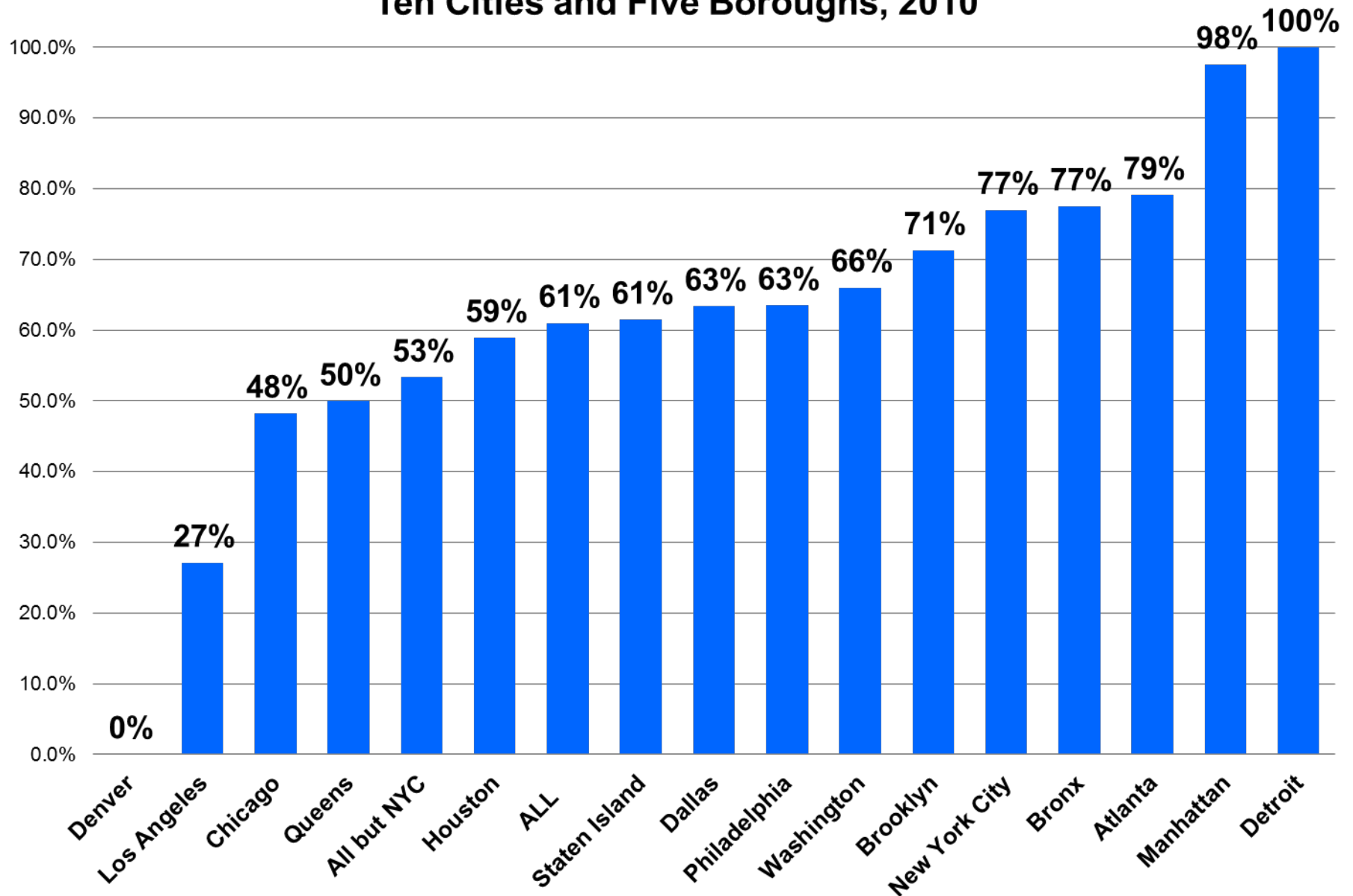
How Much of 1990s' Care Capacity Survived to 2010?

	<u>Closing</u>	<u>Surviving</u>	<u>All</u>	<u>Closing % of All</u>
Beds	43,040	167,227	210,267	20.5%
Admissions, total	1,389,756	6,138,392	7,528,148	18.5%
Admissions, Medicare	407,537	1,676,125	2,083,662	19.6%
Admissions, Medicaid	321,768	1,210,903	1,532,671	21.0%
Outpatient visits, total	14,293,329	62,323,207	76,616,536	18.7%
Emergency visits	3,765,315	14,747,054	18,512,368	20.3%
Non-emergency visits	10,528,014	47,576,153	58,104,168	18.1%

COST

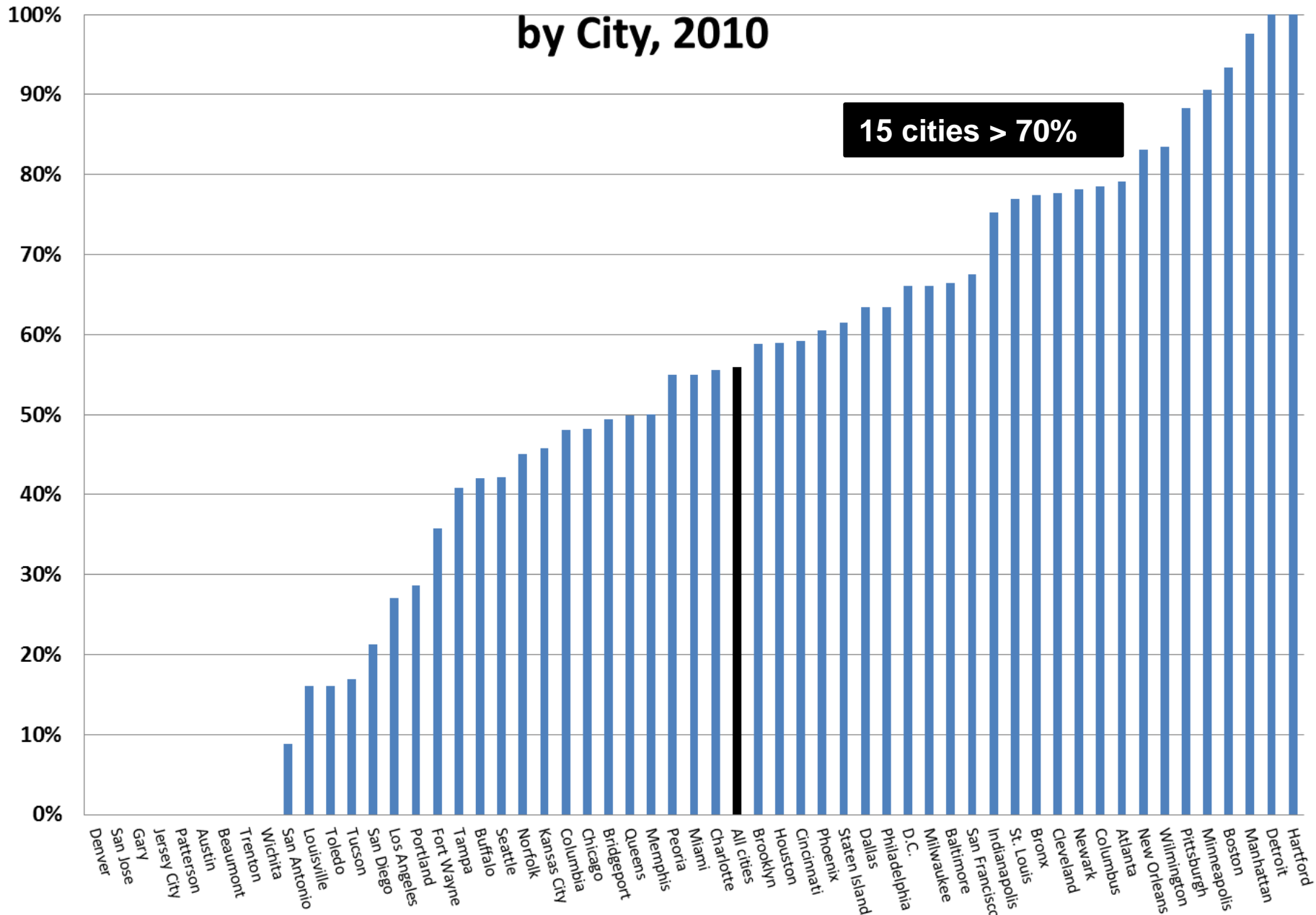
- Fewer hospitals → fewer competitors → less price competition → higher revenue for surviving hospitals → enables them to incur higher costs.
- Slight/moderate tendency, decade after decade, for the more efficient—the less expensive—hospitals to close
- Teaching hospitals' growing share of most cities' hospital beds (great variation x city!)
 - 44% in 1950
 - 77% in 2010
- Major COH teaching hospitals' share rises from 46% in 1970 to 56% in 2010 (also great variation by city)
- Growing tendency to care for our lower-income urban patients in the world's costliest teaching hospitals
 - Puts added cost pressure on Medicaid

Major Teaching Hospital (CO TH) Percent of Acute Beds, Ten Cities and Five Boroughs, 2010



COTH Major Teaching Hospitals' Shares of Beds, by City, 2010

Council of Teaching Hospitals Members' Shares of Beds, 2010



QUALITY

- Were many closed hospitals effectively segregated racially and unequal in quality?
- If so, closing of heavily black non-teaching hospitals and relocation of their patients to large teaching hospitals might → more integrated, mainstream care, boosting quality.
- But
 - Do patients with routine problems get good care in large teaching hospitals that focus on complex problems?
 - And is care at integrated teaching hospitals racially neutral?

D. Stabilizing needed hospitals

CASE FOR INTERVENTION - 1

1. We lack a free market that could weed out the inefficient hospitals.
2. Even if we had a free market, it could only ratify purchasing power and doctor location—both maldistributed today.
3. Racial link with closings is very troubling.
4. Bed shortages may loom in many areas.
 - Average hospital census nationally now about 530,000—could easily rise substantially in coming decades.

CASE FOR INTERVENTION - 2

5. Cost of replacing closed beds has surpassed ~ \$1M → \$2-3M for LAC-USC
 - \$1-2-3 billion / 1,000 beds
6. Hospital today is usually worth more than promises tomorrow, especially when its survival depends on organizing needed care
7. Jobs matter.
8. With so many hospitals closed, burden of proof should shift
 - No hospitals should be allowed to close without proof that they are no longer needed to protect the health of the public.

ACTION STEPS

1. Identify needed hospitals likely to close
 - Which hospitals (and ERs) are needed to protect the health of the public, today and tomorrow.
 - ✓ What types of hospitals and where should they be located?
 - ✓ Only one state has such a list.
 - ✓ Which hospitals are required to attract and retain needed doctors to each locality?
 - Identify hospitals that are likely to close in time to intervene
 - ✓ Track financial ratios annually
 - ✓ Use long-term predictive model

ACTION STEPS - 2

2. Raise public awareness of the risk to a needed hospital
 - Trustees and CEOs deny problems until it's too late
 - They claim that going public would only undermine the hospital prematurely.
 - They often act as if they thought, “If we can't save this hospital, we would be embarrassed if someone else bailed us out.”
 - They often believe that hospitals that can't compete in the market deserve to close.

ACTION STEPS - 3

3. For temporary protection

- Enact state hospital receivership laws, allowing officials or citizens to petition a court to take control of a hospital and stabilize its finances.
- Or urge governors to declare that closing Hospital X constitutes a “public health emergency,” allowing state to seize control of needed hospital and stabilize it.
- Underpin either legal step with short-term financial relief through state trust fund financed by 0.25 percent of each hospital’s revenue, → about \$2 billion yearly in U.S.
- Consider mothballing instead of delicensing.

ACTION STEPS - 4

4. To durably protect each needed hospital, establish all-payer rate setting to guarantee enough money to sustain efficient, high-quality operation
 - In a free market, each payer would pay the same price
 - Without a free market, only a public structure can protect each needed hospital, regardless of its teaching status, neighborhood demographics, or endowment
5. Seriously address quality problems at all hospitals.