



McManis Consulting

Denver Washington D.C Dallas

November 24, 2014

Via Federal Express

Ms. Courtney Avery
Administrator
Illinois Health Facilities and Services Review Board
525 West Jefferson
Springfield, IL 62761

RECEIVED

NOV 25 2014

HEALTH FACILITIES &
SERVICES REVIEW BOARD

RE: Project 14-043
St. Elizabeth's Hospital, Discontinuation of
Belleville Hospital and Establishment of O'Fallon Hospital

Dear Ms. Avery:

McManis Consulting was asked to conduct a detailed review and analysis of the impact that St. Elizabeth's Hospital's proposed relocation would have on Memorial Hospital in Belleville and Memorial Hospital-East in Shiloh. We found that St. Elizabeth's planned relocation would have a strongly negative impact on both Memorial Hospital and Memorial-East.

McManis is a national health care strategy and research consulting firm that has served over 3000 clients across the country since its founding in 1964. Market dynamics and forecasting are a specialized focus area of our work.

The key analytical findings are summarized below and reflected in greater detail in the body of the attached report.

McManis Consulting performed a detailed market analysis and developed a forecast model to estimate medical/surgical and obstetric services through 2022. For each of 60+ market zip codes, McManis examined demographics, access patterns, drive times, payer mix, market share, and future utilization. Based on that data, McManis developed detailed zip code based forecasts that were used to understand and quantify the impact of St. Elizabeth's proposed relocation on Memorial-East and Memorial-Belleville.

Market Findings:

The Metro East health care market area includes a diverse set of communities with distinct economic, social and demographic characteristics. St. Elizabeth's proposed relocation shifts drive time access away from St. Elizabeth's main Belleville and southern markets to the north and east portion of the market. This move represents a fundamental shift from one market area to another in several notable aspects:

- Annual Median Household Income is much higher,
 - \$78,139 (O'Fallon, 62269) versus \$50,826 (Belleville, 62220)

- Percentage of Families in Poverty is much lower,
 - 6.7% (O'Fallon, 62269) versus 13.5% (Belleville, 62220)
- Percentage of Medicaid, Charity and Self Paying Patients is much lower.
 - 16.9% (O'Fallon, 62269) versus 28.7% (Belleville, 62220)

Impact on Memorial-East:

The proposed relocation places St. Elizabeth's within two miles of Memorial-East, which is currently under construction and set to open in 2016. A market analysis and forecast of Medical, Surgical and Obstetric services in the region reflects the negative impact the relocation would have on Memorial-East. Opening a second hospital duplicating Memorial-East's services in such close proximity would:

- Reduce utilization at Memorial-East by over 29% with at least 2,019 fewer discharges,
- Result in a loss of over 200 FTE staff positions, and
- Decrease annual net revenue by over \$30 million

Collectively, these factors substantially impair Memorial-East's ability to operate as planned and approved by the Illinois CON Board.

Impact on Memorial-Belleville:

St. Elizabeth's proposed relocation from its Belleville location will leave an important part of the market (Belleville and the southern market) with diminished access to care. This is particularly true for those Medicaid, Charity and self pay patients who are more prevalent in this market area and have fewer transportation options. As a result, a large influx of patients would now need to travel to Memorial-Belleville for care. The shift would:

- Result in over 900 inpatients from Belleville and areas to the south that currently go to St. Elizabeth's to now travel to Memorial-Belleville and
- Substantially increase Memorial-Belleville's load of Medicaid, Self-Pay and Charity care patients as they would make up at least 400-500 of these new patients from St. Elizabeth's now going to Memorial.
- Increase emergency room visits to Memorial-Belleville, particularly from Medicaid, Charity Care and Self Pay patients with limited access to transportation.
- Increase demand on Memorial-Belleville's ICUs as St. Elizabeth's moves and downsizes its ICU unit from 24 beds in Belleville to 16 in O'Fallon.

We are happy to review any of our findings in greater detail with you and/or representatives of your office.

Sincerely,



John Misener
Principal
McManis Consulting

cc: Michael Constantino
Illinois Health Facilities and Services Review Board

St. Elizabeth's CON #14-043

Memorial Hospital Impact Analyses

November 24 2014



McManis Consulting

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St. Elizabeth's CON – Memorial Impact Analysis – Executive Summary

McManis Consulting, a national health care research and consulting firm, conducted a review and impact analysis for St. Elizabeth's proposed relocation to O'Fallon, Illinois detailed in CON #14-043. The key findings are summarized below and reflected in greater detail in the body of this report.

Approach:

McManis Consulting performed a detailed market analysis and developed a forecast model to estimate medical/surgical and obstetric services through 2022. For each of 60+ market zip codes, McManis examined demographics, access patterns, drive times, payer mix, market share, and future utilization. Based on that data, McManis developed detailed zip code based forecasts. The forecasts were used to understand and quantify the impact of St. Elizabeth's proposed relocation on Memorial-East and Memorial-Belleville.

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The metro east health care market area includes a diverse set of communities with distinct economic, social and demographic characteristics. St. Elizabeth's proposed relocation shifts drive time access away from St. Elizabeth's main Belleville and southern markets to the north and east portion of the market. This move represents a fundamental shift from one market area to another in several notable aspects:

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- Decrease annual net revenue by over \$30 million, and
- Result in a loss of over 200 FTE staff positions.

Impact on Memorial-Belleville:

St. Elizabeth's proposed relocation from its Belleville location will leave the Belleville and the southern markets with diminished access to care. This is particularly true for those Medicaid, Charity and self pay patients who are more prevalent in this market area and have fewer transportation options. As a result, a large influx of patients would now need to travel to Memorial-Belleville for care. The shift would:

- Result in over 900 patients from Belleville and areas to the south that currently go to St. Elizabeth's to now travel to Memorial-Belleville
- Substantially increase Memorial-Belleville's share of Medicaid, Self-Pay and Charity care patients as they would make up 400-500 of these new patients from St. Elizabeth's.
- Increase emergency room visits to Memorial Belleville, particularly from Medicaid, Charity Care and Self Pay patients with limited access to transportation.
- Increase demand on Memorial-Belleville's ICUs as St. Elizabeth's moves and downsizes its ICU unit from 24 beds in Belleville to 16 in O'Fallon.



Market Observations

St. Elizabeth's Proposed Relocation – Market Observations

As part of the impact analysis, we reviewed market and access data for the current and proposed sites. We considered questions including:

- **How are drive times and access impacted by the relocation?**
- **How does Annual Median Household Income vary across by area?**
- **How does Percent of Families in poverty vary across the market?**
- **How does payer mix vary across the markets?**
 - **Medicaid and Self-pay patients**

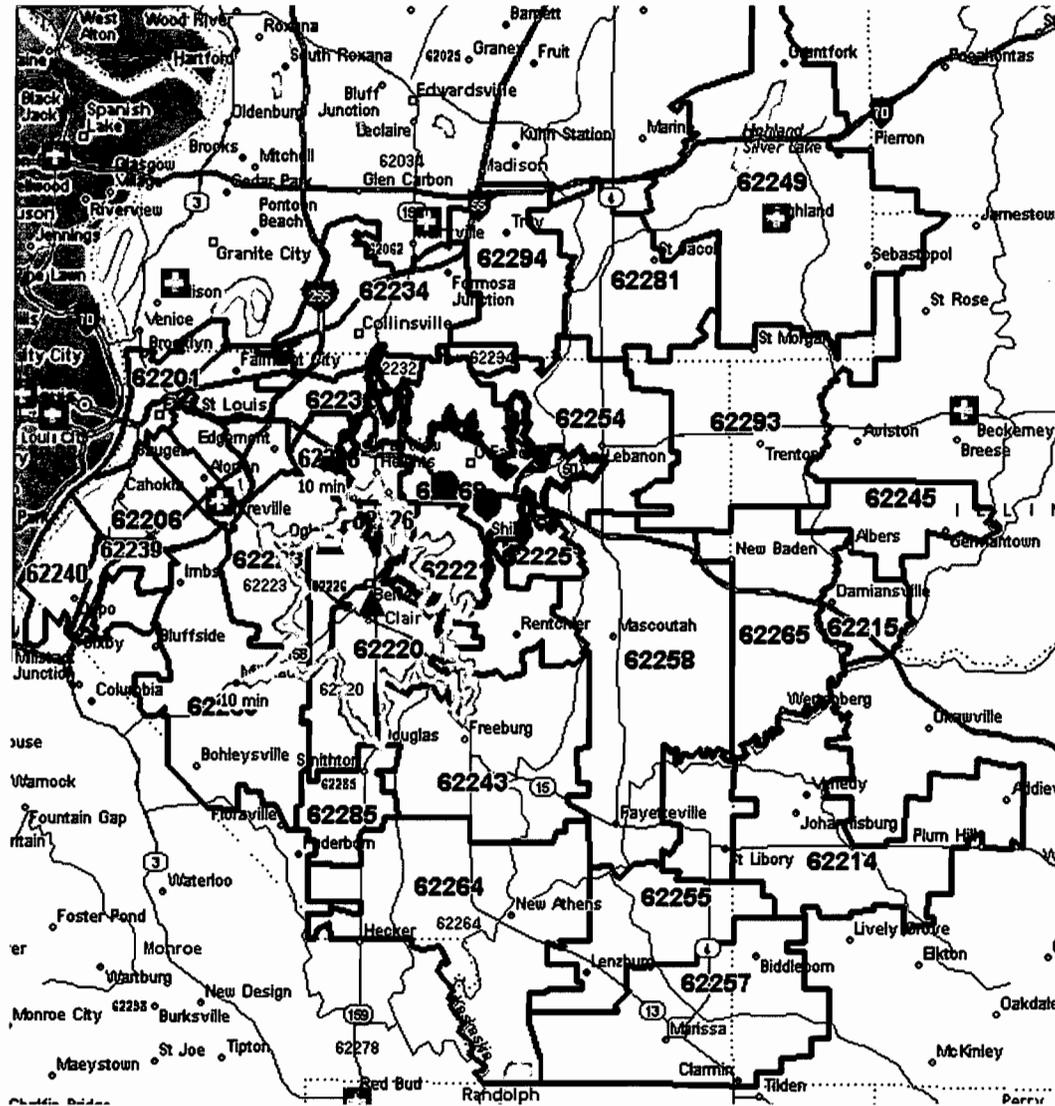
Drive Time Analysis - St. Elizabeth's – Belleville & Proposed

There is a nearly complete shift in the 10 minute drive time service areas....

 = Current 10 minute drive time
 = Proposed 10 minute drive time

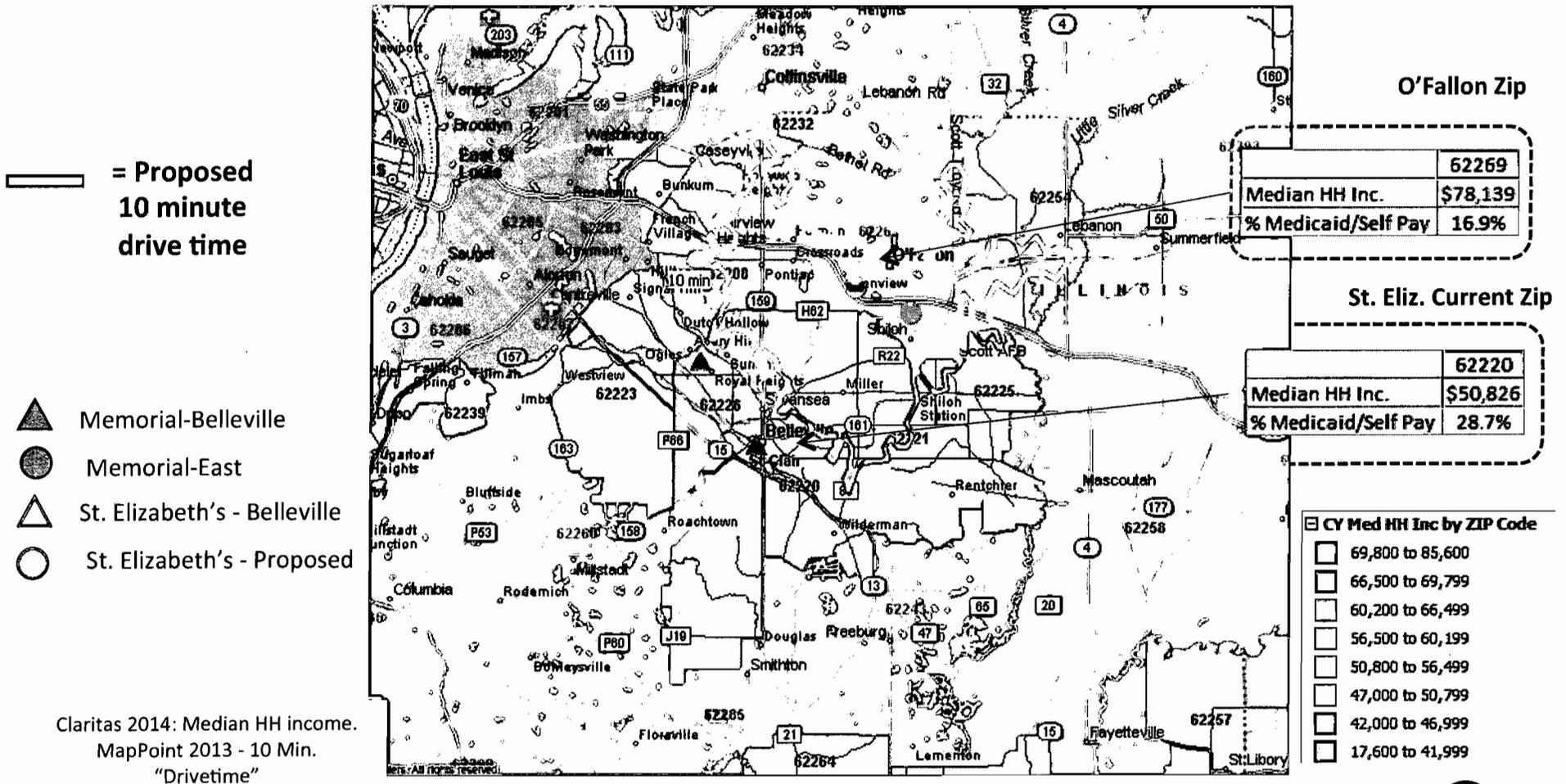
 Memorial-Belleville
 Memorial-East
 St. Elizabeth's - Belleville
 St. Elizabeth's - Proposed

10 Min. "Drivetime Zone" using MapPoint 2013. Measured from St. Elizabeth's Hospital and proposed site (CON application)



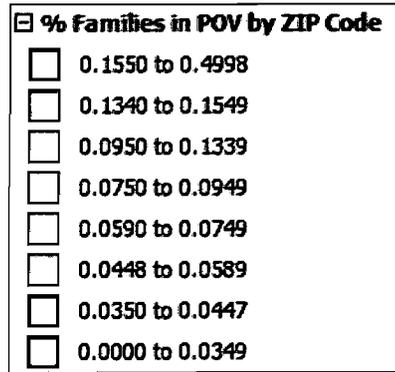
2014 Median HH Income by Zip Code

There are wide variations in HH income in the Primary Service Area. The proposed location puts lower income zip codes outside of the 10 minute drive time.



Percent of Families in Poverty – 2014 (red is higher % poverty)

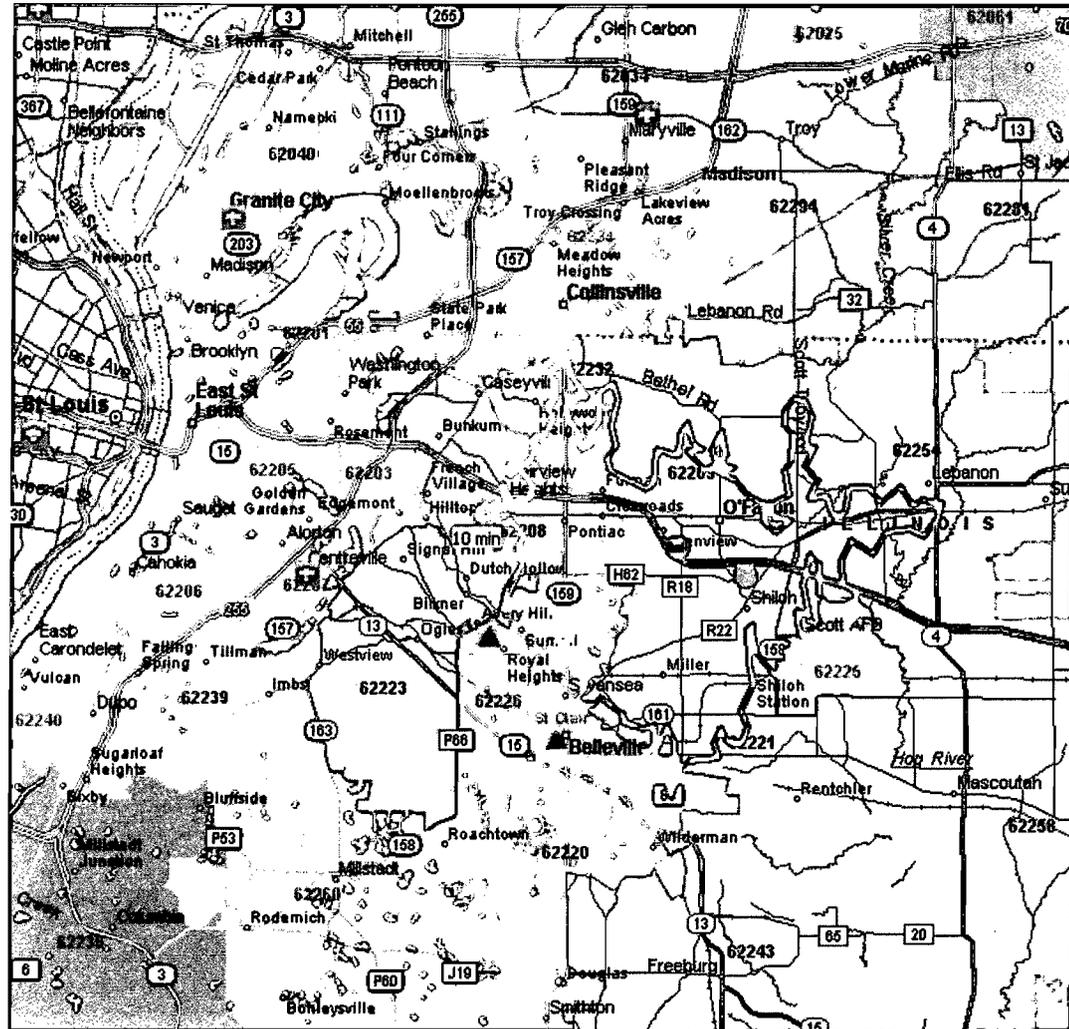
The percent of families in poverty within 10 minutes of the new facility is significantly lower than the current site. Poverty is an important factor in limiting access to transportation, overall mobility, and health care access.



 = Proposed 10 minute drive time

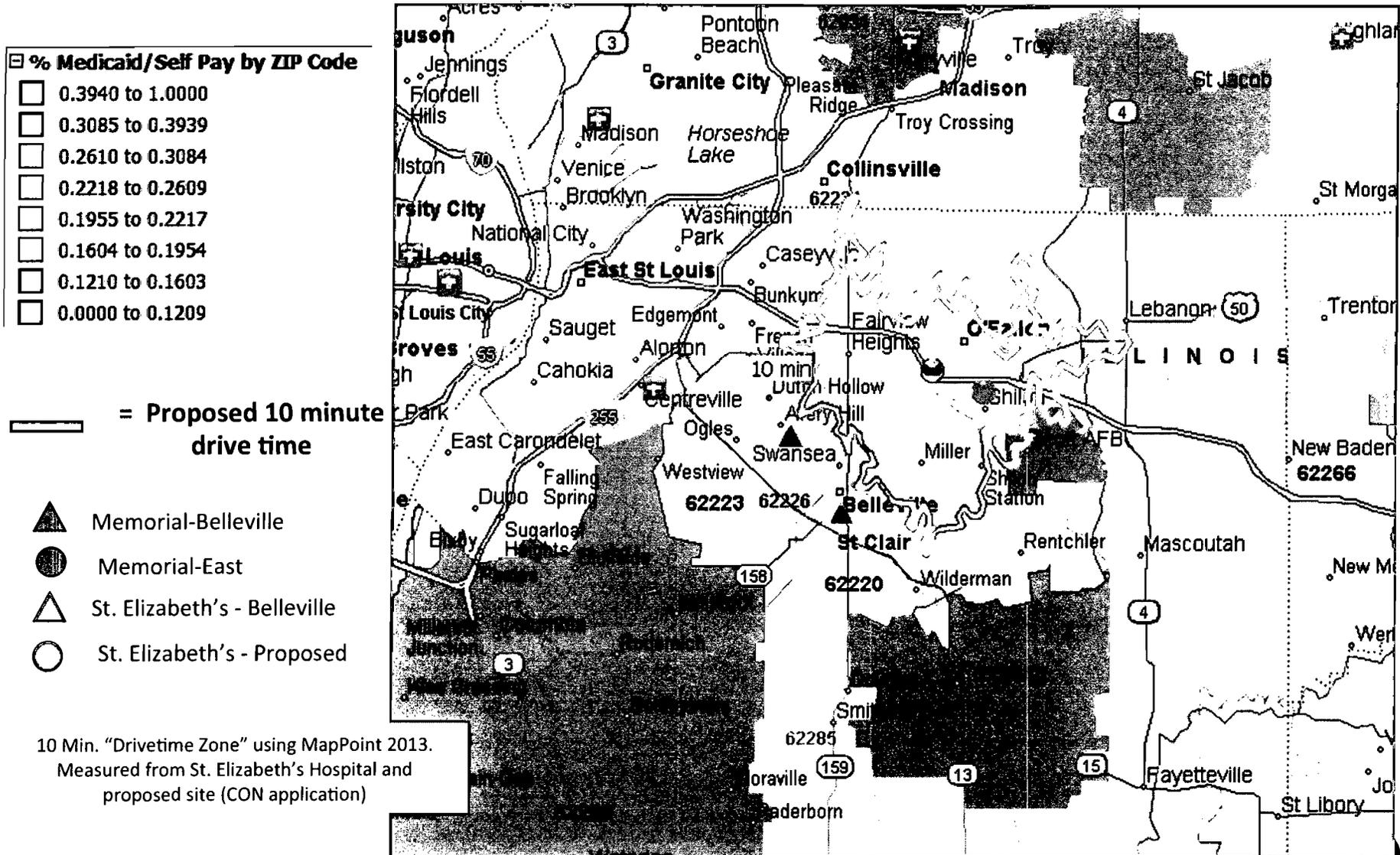
-  Memorial-Belleville
-  Memorial-East
-  St. Elizabeth's - Belleville
-  St. Elizabeth's - Proposed

Family Income - Claritas 2014. 10 Min. "Drivetime Zone" using MapPoint 2013.



All Hospitals - 2013 Medicaid + Self Pay % of Total Cases by Zip

The highest Medicaid and Self Pay areas are to the south and west, which are a further distance from the proposed site.



Modeling Approach

St. Elizabeth's Proposed Relocation - Modeling Approach

We developed an eight year forecast model to assess the St. Elizabeth's relocation impacts on inpatient admissions for Memorial-East and Memorial-Belleville.

There are several key elements used to develop the model:

- Utilized Memorial's current 2013 Bond Financing forecast as baseline comparison estimate.
- Extended the forecast to 2022 to reflect several years of operations for Memorial-East, Memorial-Belleville and the relocated St. Elizabeth's hospital.
- Incorporated several key assumptions from St. Elizabeth's CON application such as location, volume growth and timing.
- Addressed Med-Surg and OB services (excluded Rehab services not provided by Memorial)
- Utilized more conservative utilization rates than the St. Elizabeth's CON
 - Declining rates versus St. Elizabeth's constant assumption
- Considered the latest Illinois State Hospital Data (CompData) and Missouri Hospital Association's Hospital Industry Data Institute (HIDI) to assess and estimate market shares.

St. Elizabeth's Proposed Relocation - Modeling Components

The model considered several iterative steps...



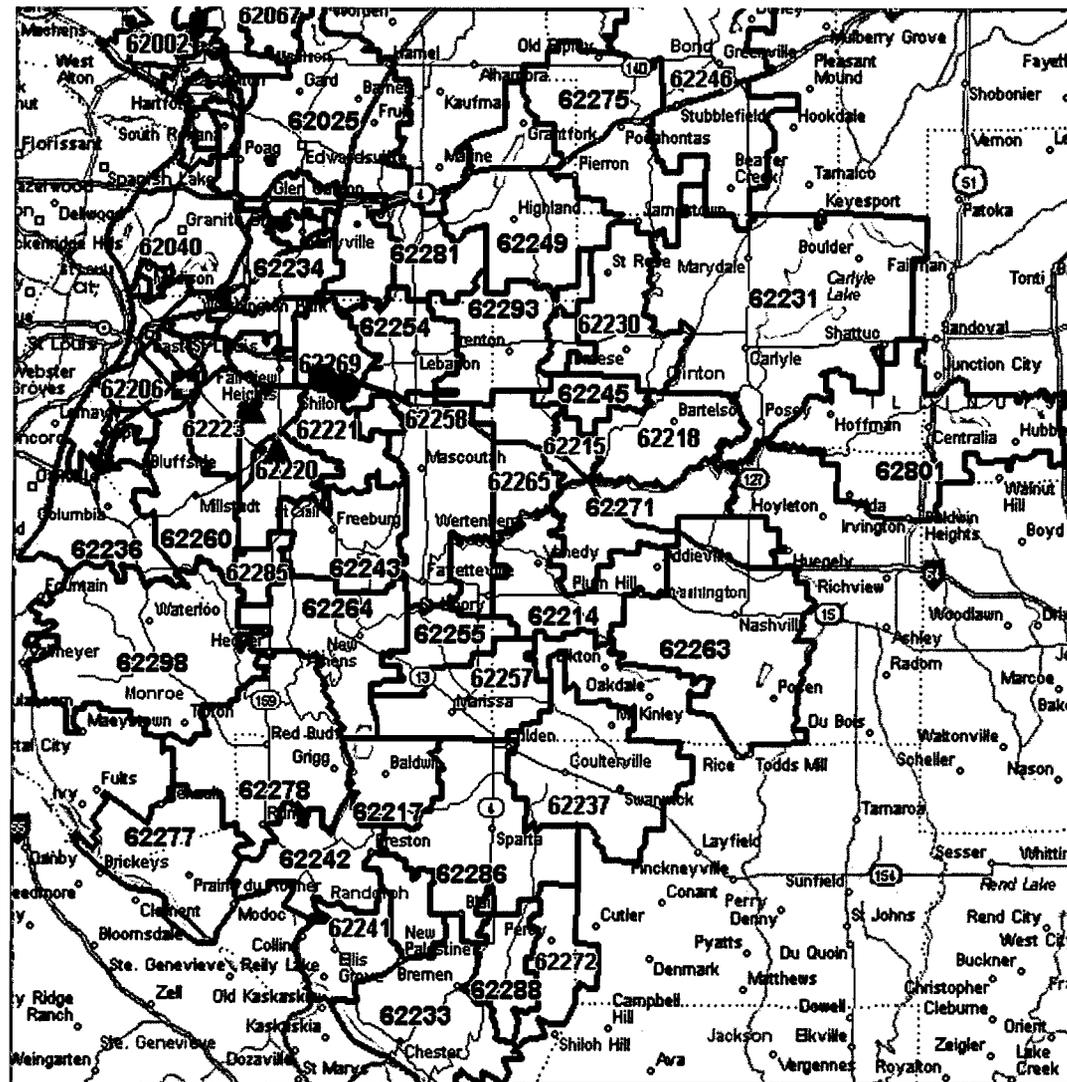
- Memorial and St. Elizabeth's market definitions/ drawing areas
- Impacted services
 - Med Surg, OB
- Population demographics and growth

- Current market position
 - Volume, Share
- Current Payer mix for each organization
- Current overall utilization levels
- Current access and drive time considerations
- Out of area adjustments

- Timing, site of relocation
- Demographic and utilization shifts
- Impact on St. Elizabeth's proposed site
- Impact on Memorial's East site
- Impact on Memorial's Belleville site

St. Elizabeth's Proposed Relocation - Market Area Review

We analyzed over 60 individual market area zip codes as well as out of area cases traveling to the area...



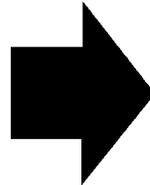
ZIP	PO NAME	Service Area
62025	Edwardsville	SSA-north
62034	Glen Carbon	SSA-north
62040	Granite City	SSA-north
62046	HAMEL	SSA-north
62059	LOVEJOY	SSA-north
62060	Madison	SSA-north
62062	Maryville	SSA-north
62090	Vernice	SSA-north
62201	East Saint Louis	SSA-north
62202	EAST SAINT LOUIS	SSA-north
62208	East Saint Louis	PSA
62204	East Saint Louis	PSA
62205	East Saint Louis	PSA
62206	East Saint Louis	PSA
62207	East Saint Louis	PSA
62208	Fairview Heights	PSA
62214	Addicksville	East Mkt
62215	Albers	East Mkt
62216	AVISTON	SSA-north
62218	Bartleso	East Mkt
62219	Beckemeyer	East Mkt
62220	Belleville	PSA
62221	Belleville	PSA
62222	BELLEVILLE	PSA
62225	Belleville	PSA
62225	Scott Air Force Base	PSA
62226	Belleville	PSA
62230	Breese	East Mkt
62231	Carlyle	East Mkt
62232	Caseyville	PSA
62234	Collinsville	PSA
62236	Columbia	SSA-south
62239	Dupo	PSA
62240	East Carondelet	PSA
62243	Freeburg	PSA
62245	Germanatown	East Mkt
62249	Highland	East Mkt
62252	Huey	East Mkt
62254	Lebanon	PSA
62255	Lentburg	SSA-south
62257	Warrens	SSA-south
62258	Mascoutah	PSA
62260	Millstadt	PSA
62263	Nashville	East Mkt
62264	New Athens	SSA-south
62265	New Baden	SSA-north
62266	NEW MEMPHIS	SSA-north
62269	O Fallon	PSA
62271	Okawville	East Mkt
62281	Saint Jacob	SSA-north
62282	SANT LIBORY	PSA
62285	Smithton	SSA-south
62289	SUMMERFIELD	PSA
62293	Trenton	SSA-north
62294	Troy	SSA-north
62298	Waterloo	SSA-south
62002	Alton	OOA
62010	Bingham	OOA
62018	Cottage Hills	OOA
62024	East Alton	OOA
62048	Hartford	OOA
62067	Moro	OOA
62087	South Roxana	OOA
62095	Wood River	OOA
62217	Baldwin	OOA
62233	Chester	OOA
62237	Gouletville	OOA
62241	Ellis Grove	OOA
62242	Greenville	OOA
62246	Greenville	OOA
62272	Percy	OOA
62275	Pocahontas	OOA
62277	prairie du Rocher	OOA
62278	Red Bud	OOA
62281	Saint Jacob	OOA
62286	Sparta	OOA
62288	Steeleville	OOA
62297	Walsh	OOA
62801	Centralia	OOA

St. Elizabeth's Proposed Relocation – Zip Code Analysis

For each zip code, we considered forecast factors...

Current Zip Code:

- Current volume Market Share
- Current volume Payer Mix
- Location:
 - Drive times
 - Location relative to other hospitals
 - Access patterns



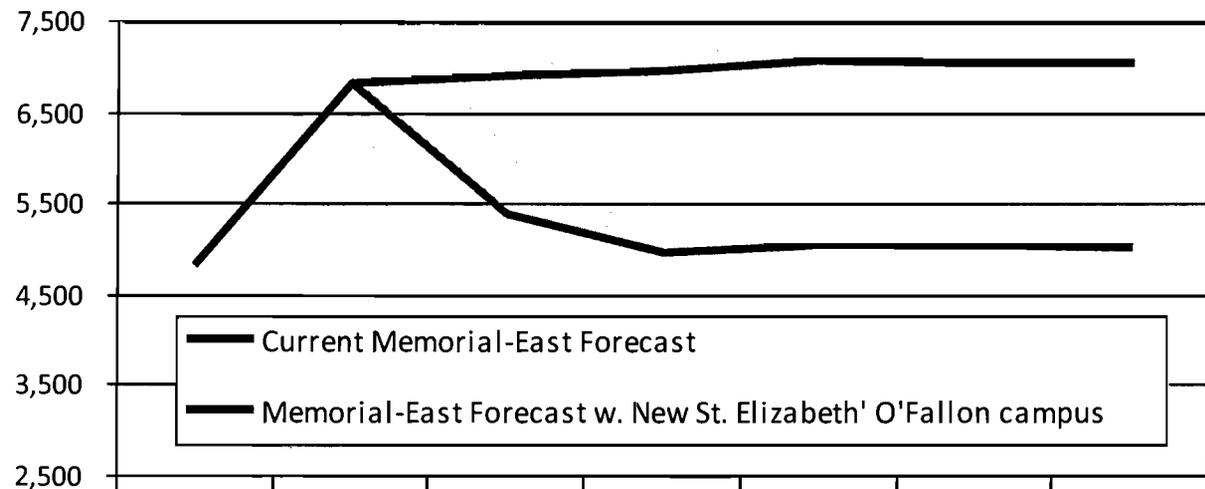
Zip Code Forecast:

- What current St. Elizabeth's volume moves to new Facility?
- What current St Elizabeth's volume goes to others?
 - e.g. Memorial, outmigration
- Where does Memorial-Belleville and Memorial-East lose/ gain volume?
 - Impact on southern zip codes
 - Impact on northern, eastern zip codes

Impact of New St. Elizabeth's on Memorial-East

The relocation of St. Elizabeth's has a sharply negative impact on Memorial-East. Projected discharges are almost 29% lower than current forecasts...

Med/Surg + Obstetrics Discharges at Memorial-East

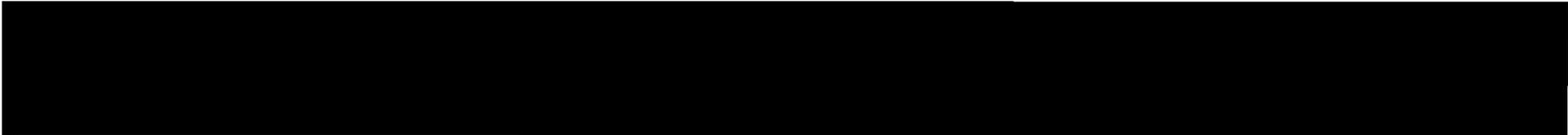


	2016	2017	2018	2019	2020	2021	2022
— Current Memorial-East Forecast	4,823	6,824	6,902	6,980	7,074	7,057	7,042
— Memorial-East Forecast w. New St. Elizabeth' O'Fallon campus		6,824	5,384	4,960	5,058	5,045	5,033
Difference in Cases		-	(1,517)	(2,019)	(2,016)	(2,012)	(2,008)
Difference in %		0.0%	-22.0%	-28.9%	-28.5%	-28.5%	-28.5%

* Estimated opening of St. Elizabeth's O'Fallon facility.

McManis Original Model, CompData 2013, Claritas 2013





Memorial-East Impact

Impact of New St. Elizabeth's on Memorial-East

The relocation of St. Elizabeth's to O'Fallon adversely impacts Memorial-East in several critical areas...

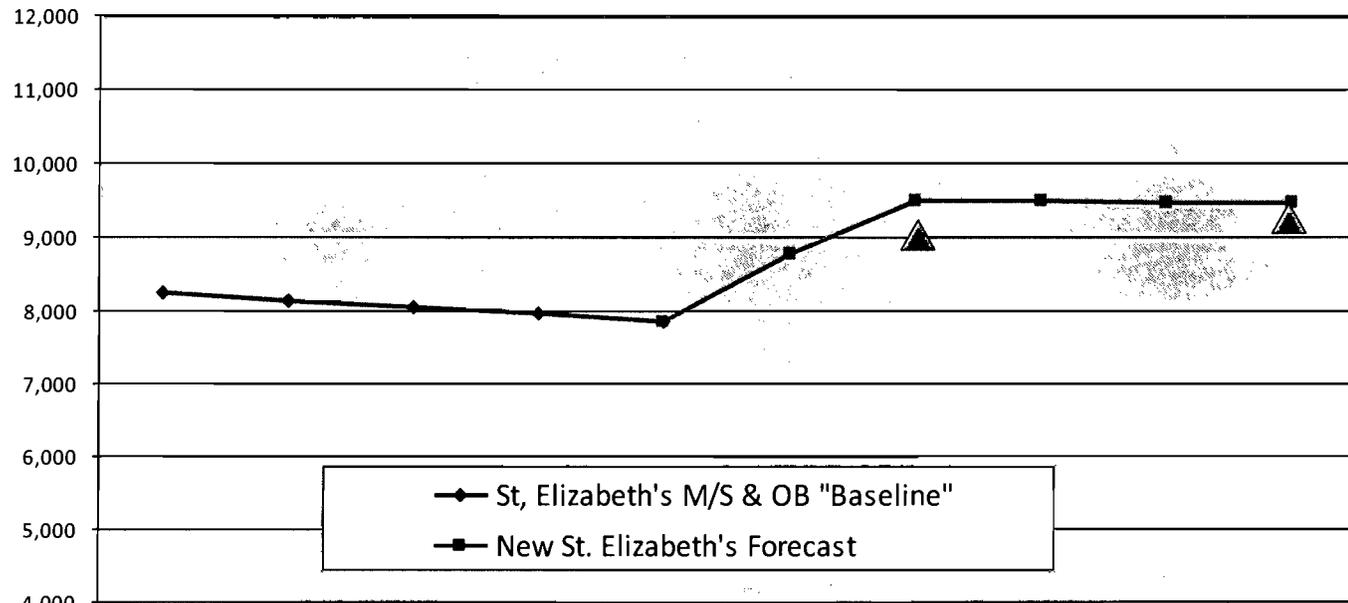
1. Volumes decline by 29% or 2,019 discharges
2. Net revenue drops by at least \$30 million annually for the facility
3. Over 200 jobs would be lost with the sharply lower utilization and revenue

Collectively, these factors substantially impair Memorial-East's ability to operate as planned and approved by the Illinois CON Board

New St. Elizabeth's – O'Fallon – Baseline projection vs. New Forecast

With the new location, St Elizabeth's captures new volumes in the North and East of the market area....

Med/Surg + Obstetrics Discharges at St. Elizabeth's O'Fallon



	2013	2014	2015	2016	2017	2018*	2019	2020	2021	2022
◆ St, Elizabeth's M/S & OB "Baseline"	8,247	8,148	8,055	7,963	7,873					
■ New St. Elizabeth's Forecast					7,873	8,777	9,498	9,487	9,476	9,464

▲ From St. Elizabeth's CON application Attachment 20 – Med/Surg + OB Admissions (8,994 in 2019 & 9,321 in 2022)

* Estimated opening of St. Elizabeth's O'Fallon facility.

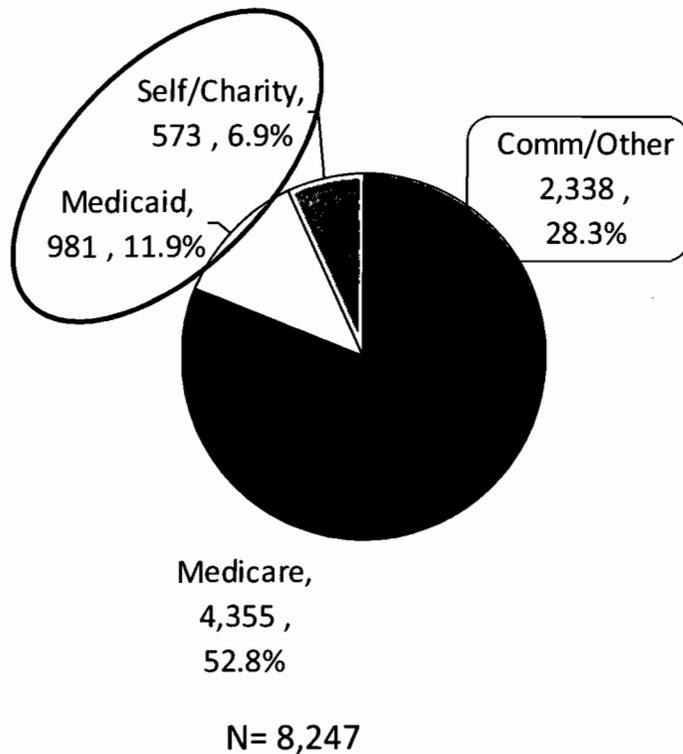
McManis Original Model, CompData 2013, Claritas 2013



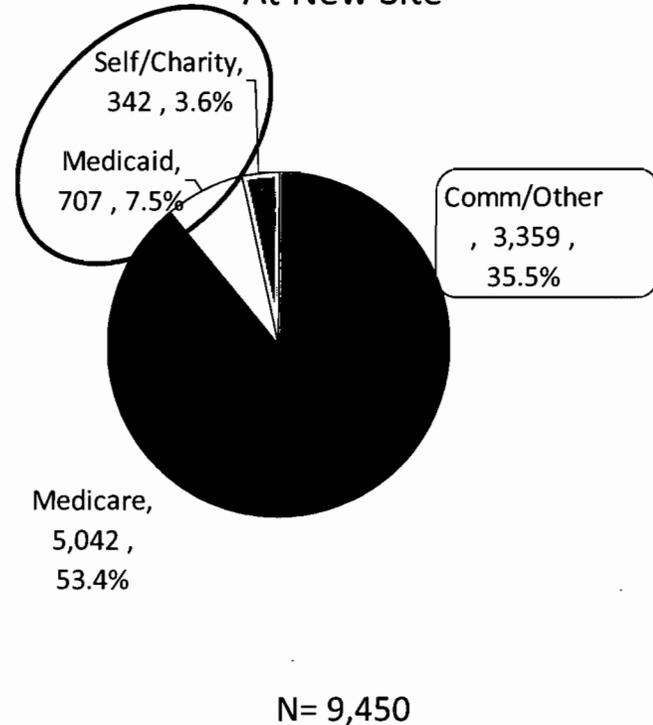
St. Elizabeth's Payer Mix Shift – Current Versus Proposed Site

The shift in drawing area significantly improves St. Elizabeth's payer mix with more commercial payment and much lower Medicaid and Self Pay/ Charity care...

Current Actual Meds/Surg & OB Payer Mix



Future Forecasted Payer Mix At New Site



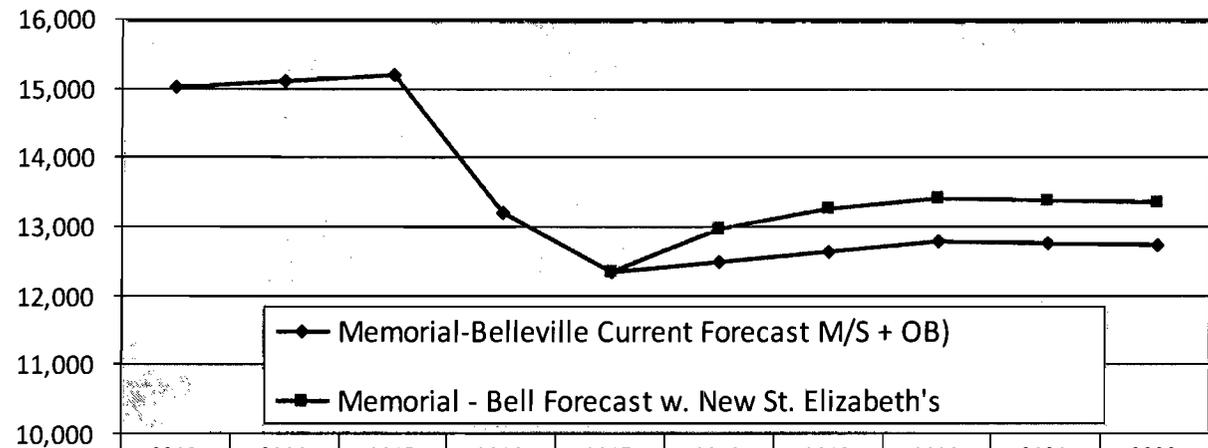


Memorial-Belleville Impact

Impact of New St. Elizabeth's on Memorial-Belleville

The relocation of St. Elizabeth's will increase volume to Memorial-Belleville from those zip codes to the south...

Med/Surg + Obstetrics Discharges at Memorial-Belleville



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
◆ Memorial-Belleville Current Forecast M/S + OB)	15,014	15,102	15,191	13,222	12,344	12,498	12,653	12,797	12,767	12,738
■ Memorial - Bell Forecast w. New St. Elizabeth's					12,344	12,961*	13,271	13,414	13,383	13,353
New St Eliz. cases to Memorial Belleville						696	928	925	924	923
Memorial-Belleville Cases (Northern PSA) going to New St. Eliz. Hospital						(232)	(309)	(309)	(308)	(308)
Difference in Cases						463	619	617	616	615
Difference in %						3.7%	4.9%	4.8%	4.8%	4.8%

The relocation will also:

- Increase emergency room visits to Memorial Belleville, particularly from Medicaid, Charity Care and Self Pay patients with limited access to transportation.
- Increase demand on Memorial Belleville's ICUs as St. Elizabeth's moves and downsizes its ICU unit from 24 beds in Belleville to 16 in O'Fallon.

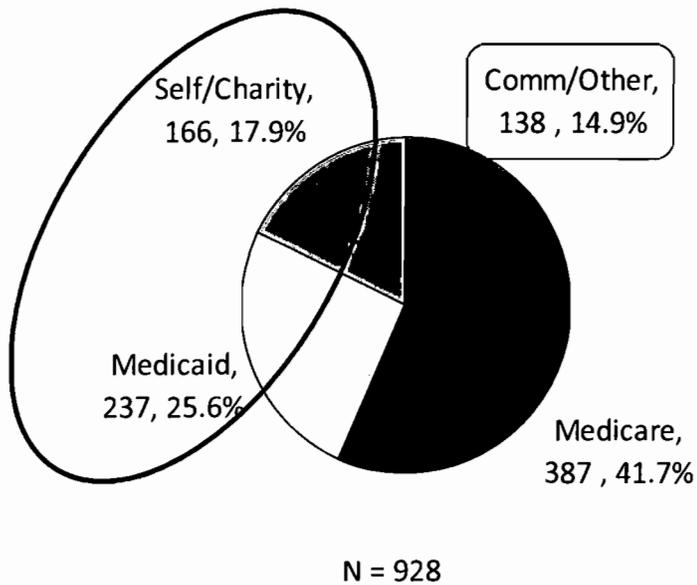
* Estimated opening of St. Elizabeth's O'Fallon facility.



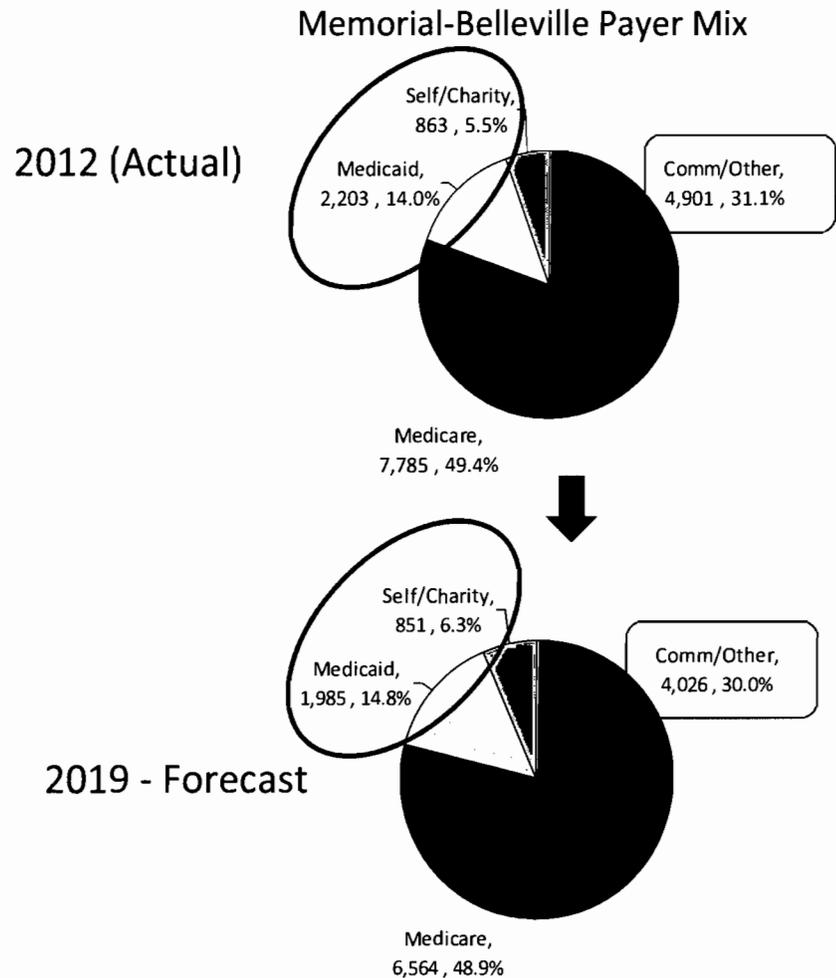
Impact of new St. Elizabeth's on Memorial-Belleville Payer Mix

Memorial-Belleville's payer mix will be negatively impacted....

A large number of cases from St. Elizabeth's will now go to Memorial-Belleville. This includes a high mix of Medicaid, Charity and Self Pay cases....

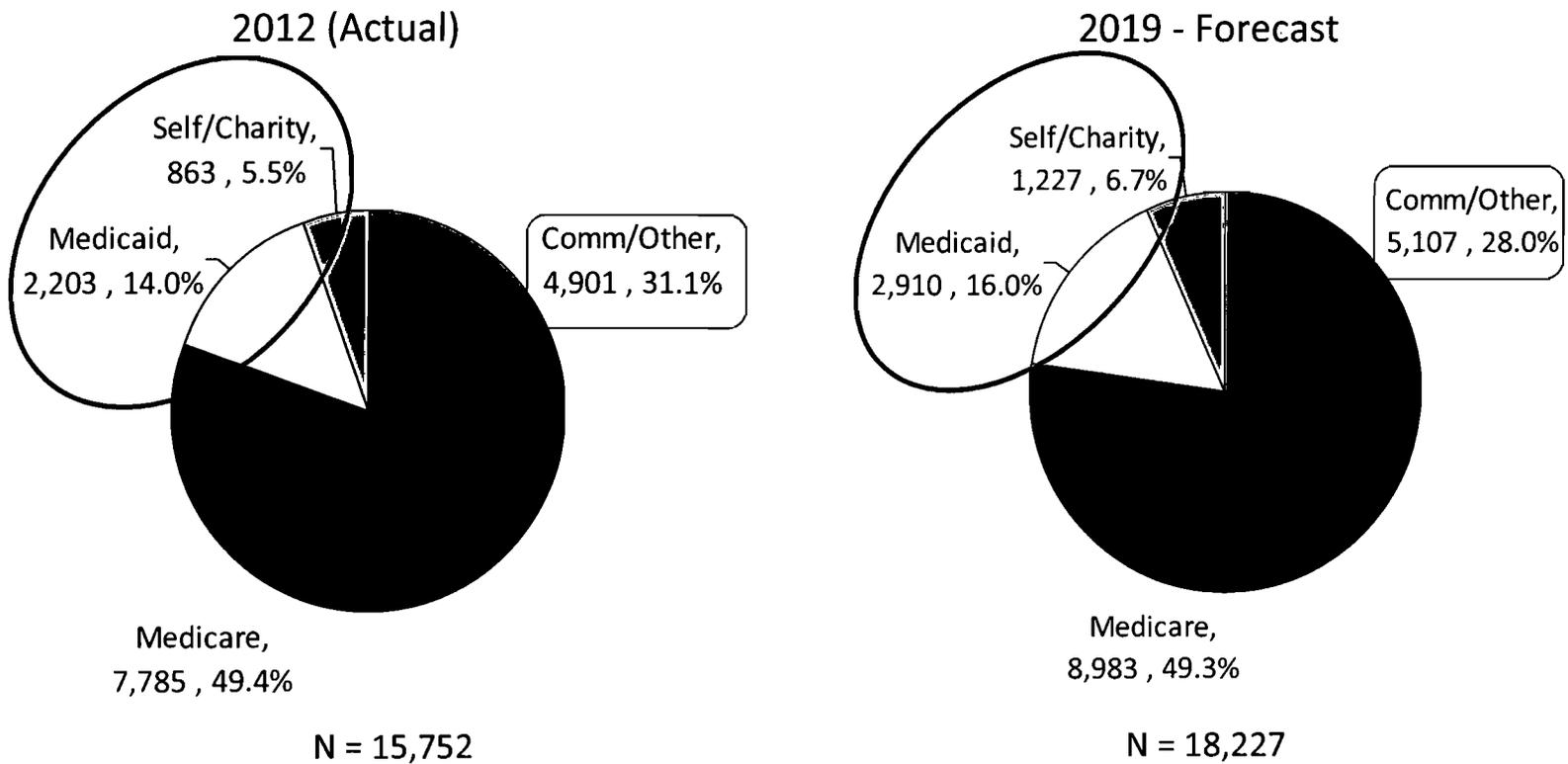


These cases negatively impact the overall payer mix of Memorial-Belleville....



Impact of new St. Elizabeth's on Memorial's Overall Payer Mix

As a system, Memorial's overall payer mix will be negatively impacted....

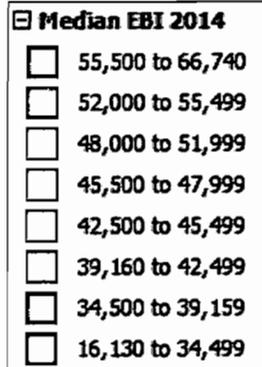




Additional Reference Information

Median Effective Buying Income – 2014

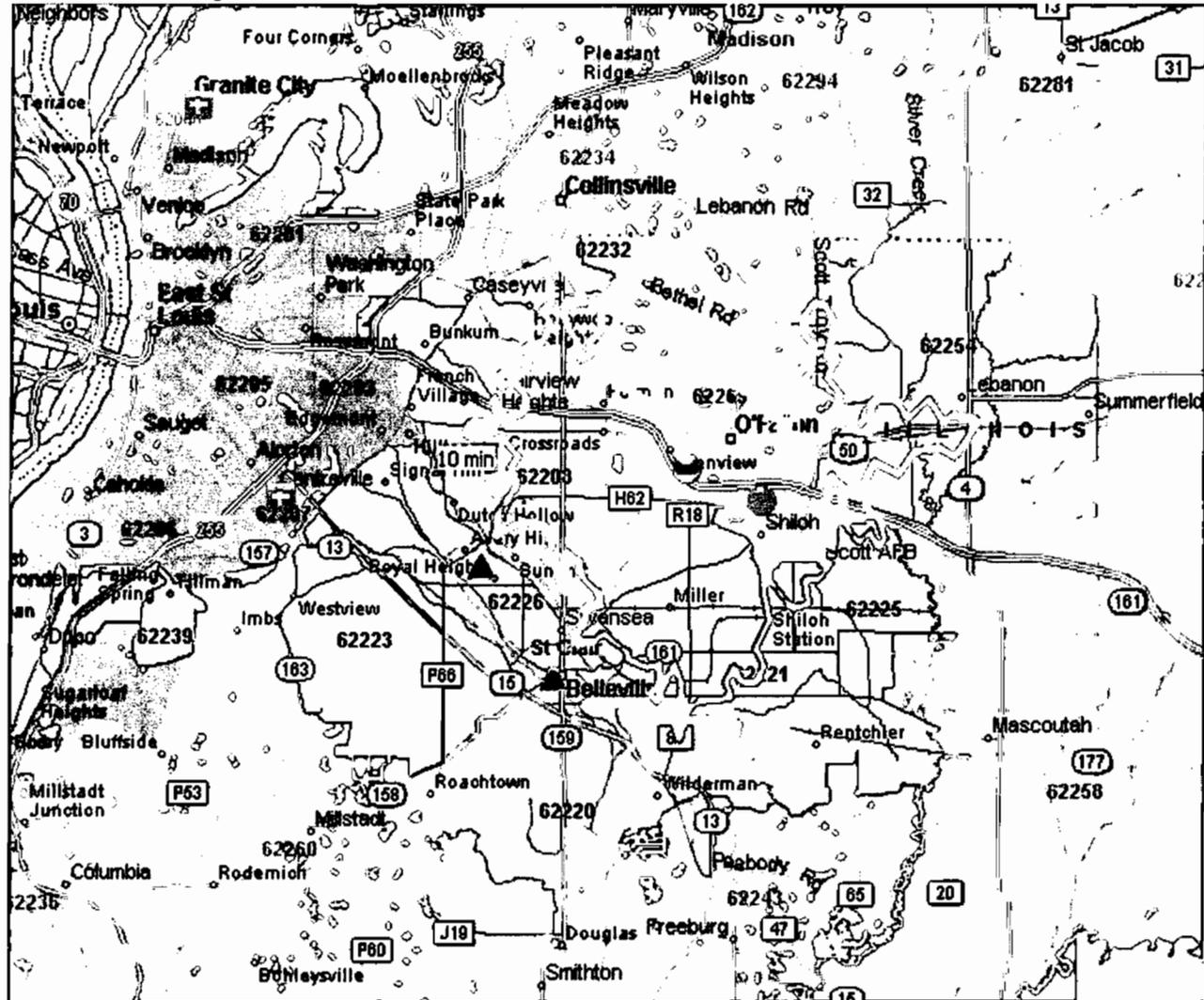
Effective buying income is lowest to the south and west. Buying income can impact access to transportation.



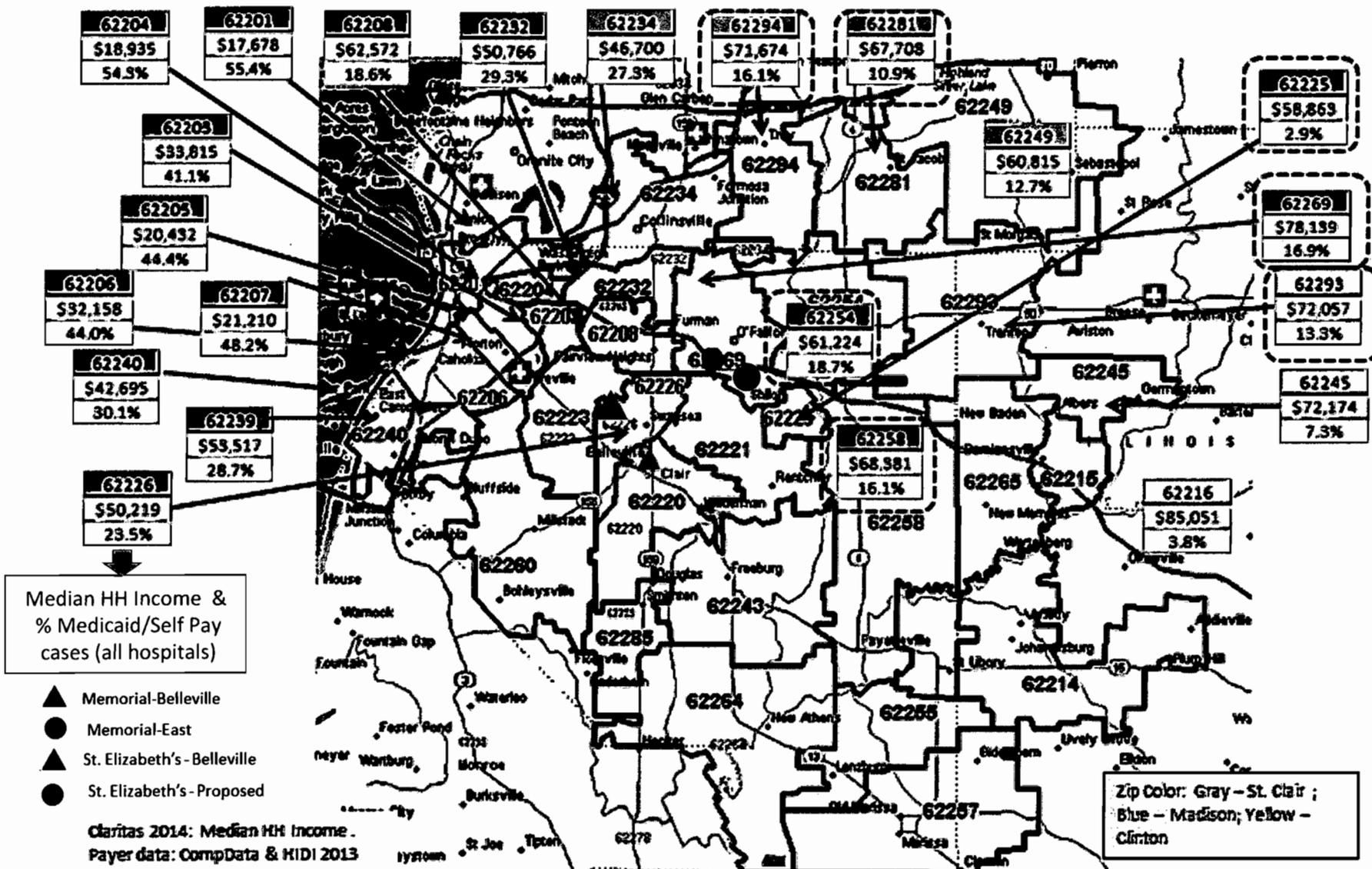
— = Proposed 10 minute drive time

- ▲ Memorial-Belleville
- Memorial-East
- △ St. Elizabeth's - Belleville
- St. Elizabeth's - Proposed

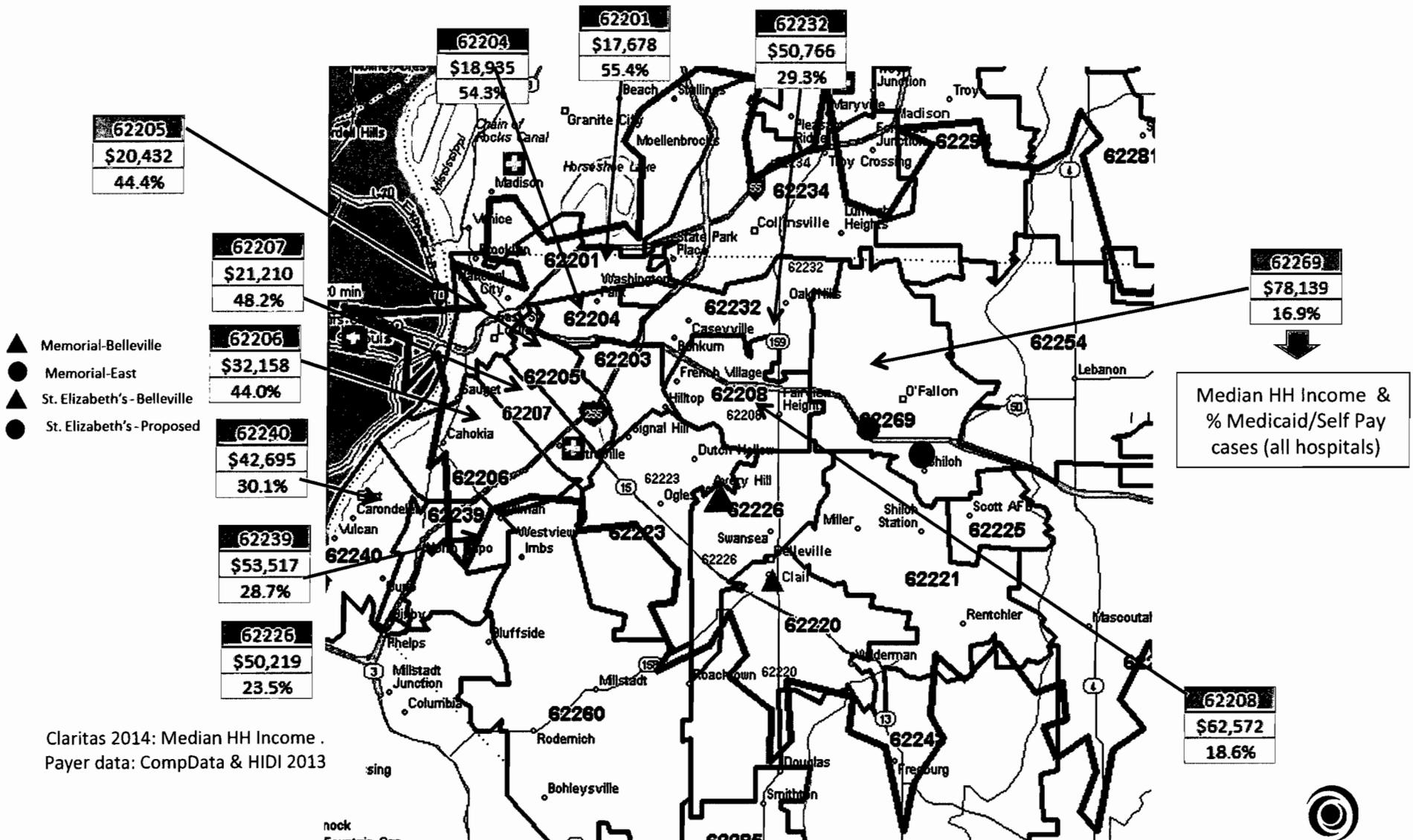
Claritas: Effective Buying Income (EBI) is defined as money less personal tax payments, a number often referred to as "disposable" or "after-tax" income. MapPoint 2013 – 10 Min. "Drivetime"



Median HH Income and Medicaid/Self Pay % by Zip Code (North)



Median HH Income (2013) and All Hospital Medicaid/Self Pay % of Total Cases (2013) – NW St Clair County & Nearby Areas



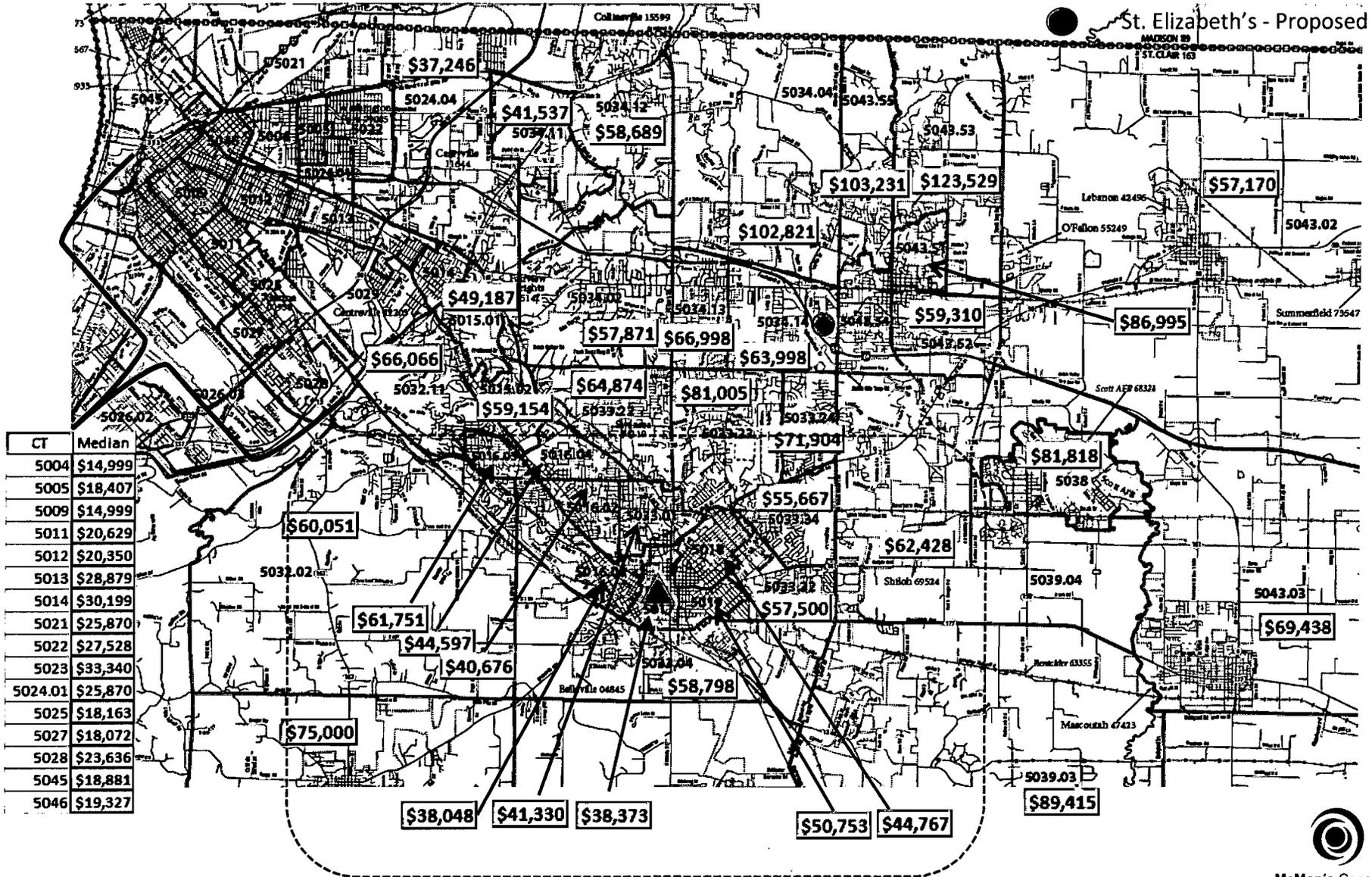
Claritas 2014: Median HH Income .
 Payer data: CompData & HID1 2013



Census Tract Level - Median HH Income 2013

At the Census Tract Level the lower Median Income zones are largely in St. E's current location area...

▲ St. Elizabeth's - Belleville
● St. Elizabeth's - Proposed



Medicaid Enrollees (2013) per 1,000 by Zip Code

The Medicaid concentration is sharply lower within a five-mile radius of the proposed site compared to St. Elizabeth's current site.

