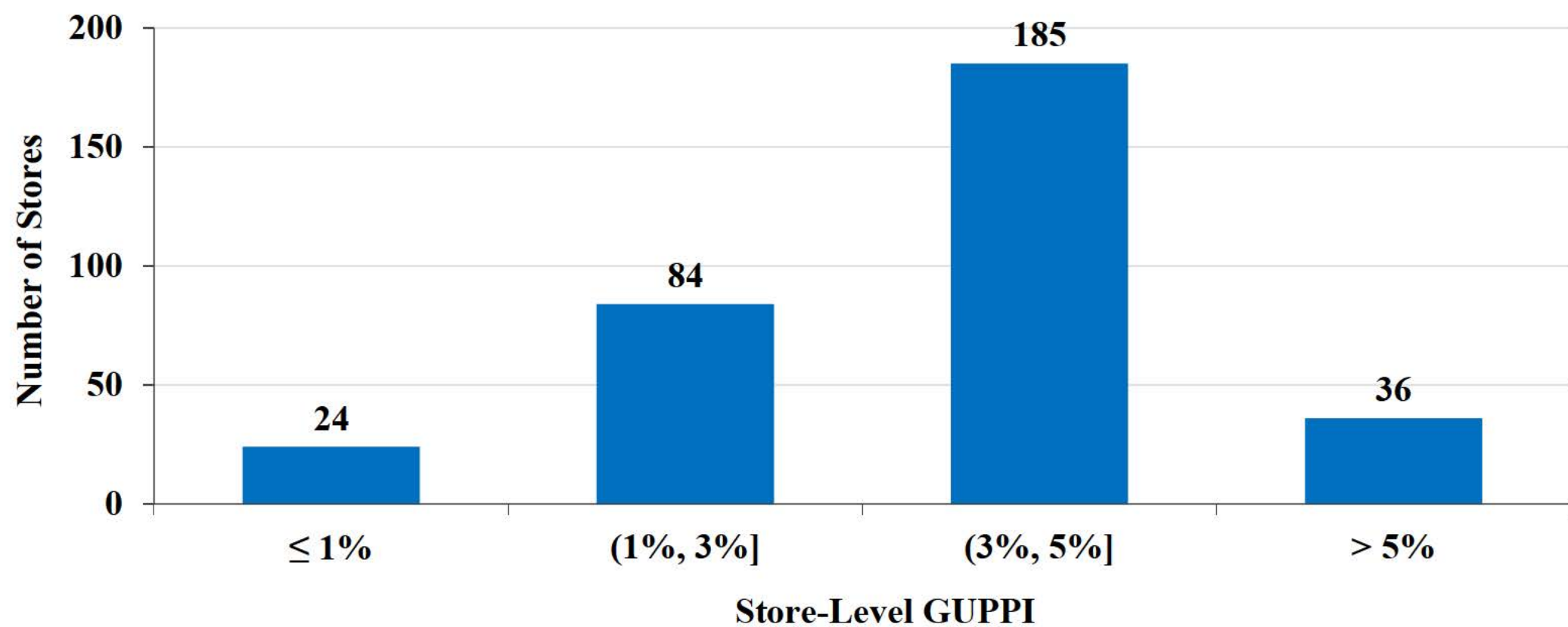


Dr. Nitin Dua

State of Washington v. Kroger et al.

Dr. Israel's GUPPIs (Without Divestiture)

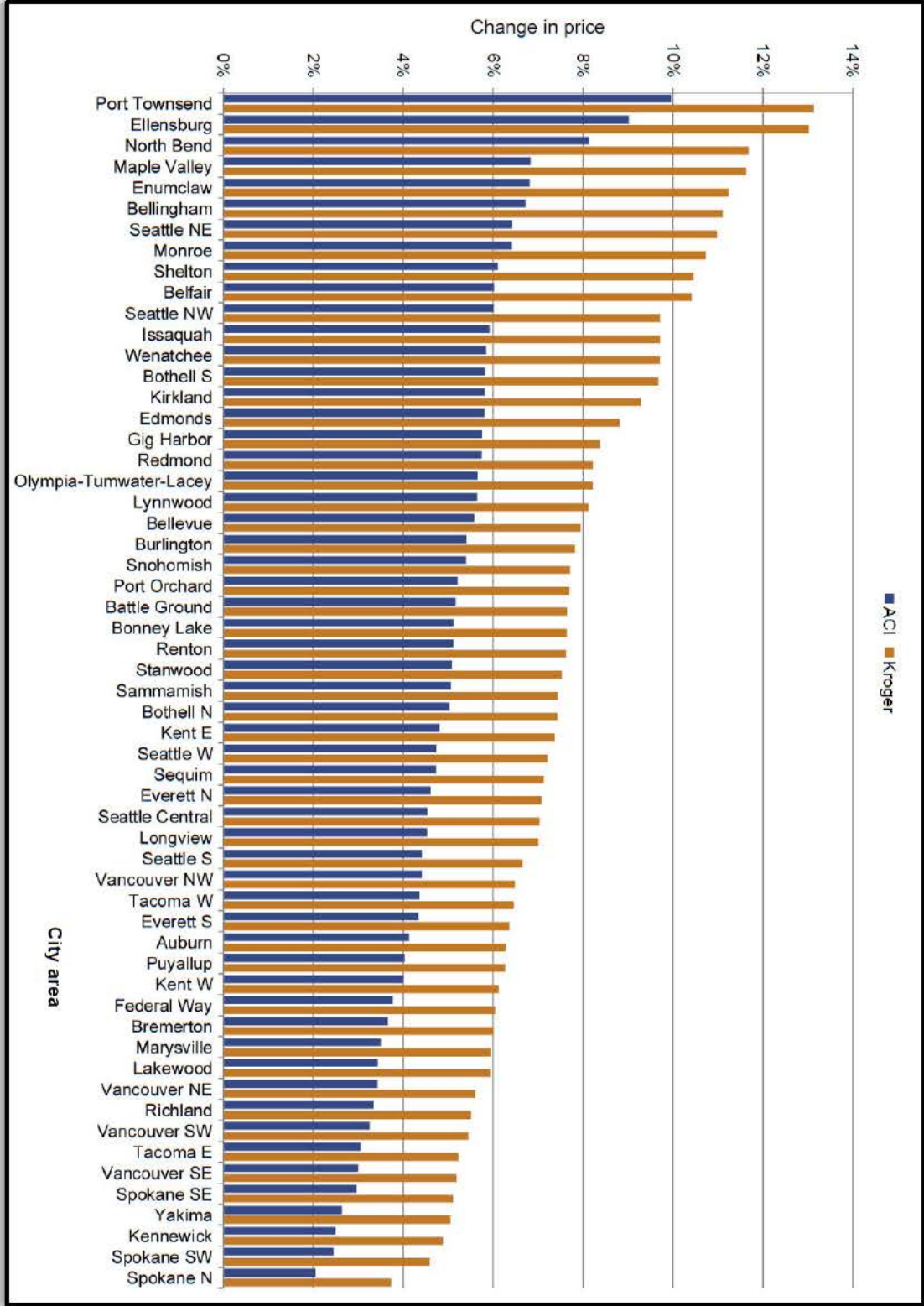


Sources: Israel EGK Data Build; Kroger, Store-Level P&L Data, KR-WA-LIT-0000000037; Albertsons, Store-Level P&L Data, ACI_LIT_0002365479 and ACI_LIT_0002365481.

Notes: This figure shows the distribution of store-level GUPPI calculated using diversion ratios estimated by the updated EGK model and Parties' margin data; GUPPI results for individual stores are provided in my backup materials.

Source: Dua reply report, Figure 20.

Upward Pricing Pressure by City Area



- Predicted changes in price are based on a 50% pass through
 - 5% GUPPI translates to a 2.5% price increase
- Estimated price increases
 - Albertsons: 2–10%
 - Kroger: 4–13%

Source: Dua report, Figure 31 and ¶ 195.

Real-World Evidence Consistently Supports Dr. Dua's Analysis

- QFC Store Closure Analysis
- King Soopers Strike Analysis
- “No Comp” Zones
- ACI Store Closure Analysis
- ACI Entry Analysis
- Loyalty Card Data

EGK Acknowledges Its Own Limitations

“We designed our framework to have parsimonious data requirements. In particular, we do not require the analyst to observe individual consumer expenditures or even tract-specific expenditure shares. Although the low data requirement is an advantage in many settings, **researchers with access to micro-level data should be able to obtain more precise estimates of substitution patterns.**”

Source: Measuring Competition in Spatial Retail, Paul B. Ellickson, Grieco, Khvastunov (2020), p. 225

Results of Dr. Israel's Modified EGK Model

Diversion to Dr. Israel's Defined Store Formats (Inside Good)		Diversion to Outside Good
Supermarkets and Supercenters	Limited Assortment, Club Stores, Natural/Gourmet	
~46%	~21%	~33%

Source: Israel Corrected Report, Table 3.

Dr. Israel's EGK's Diversions at Odds with Ordinary Course Estimates

City	Diversion to supermarkets	
	Dr. Israel's estimates	ACI's estimates
Redmond, WA	<21% (within 5 miles)	86% (within 2 miles)
Kennewick, WA	<44% (within 5 miles)	89% (within 3 miles)
Marysville, WA	25%–30% (within 5 miles)	88% (within 3.5 miles)

Source: Dua reply report, ¶ 69, footnotes 143 and 144.

Results of Dr. Israel's Modified EGK Model

Diversion to Dr. Israel's Defined Store Formats (Inside Good)		Diversion to Outside Good
Supermarkets and Supercenters	Limited Assortment, Club Stores, Natural/Gourmet	
~46%	~21%	~33%

Source: Israel Corrected Report, Table 3.

The EGK Model Is Sensitive to Minor Adjustments

Dr. Israel's model specification	Diversion to Supermarkets + Supercenters	Diversion to Outside Good
Choices within 15 miles, Israel's Modified EGK (Israel Corrected Report, Table 3)	~46%	~33%
Choices within 10 miles, Original EGK Paper	[not reported]	~30%
Choices within 10 miles, Israel's Modified EGK (Israel Corrected Report, Appendix B)	~37%	~51%
Choices within 15 miles, EGK's grocery expenditure share of income (Israel Corrected Report, Appendix B)	~36%	~51%

Source: Israel Corrected Report Table 3, Appendix B; as discussed in Dua reply report section III.B.5

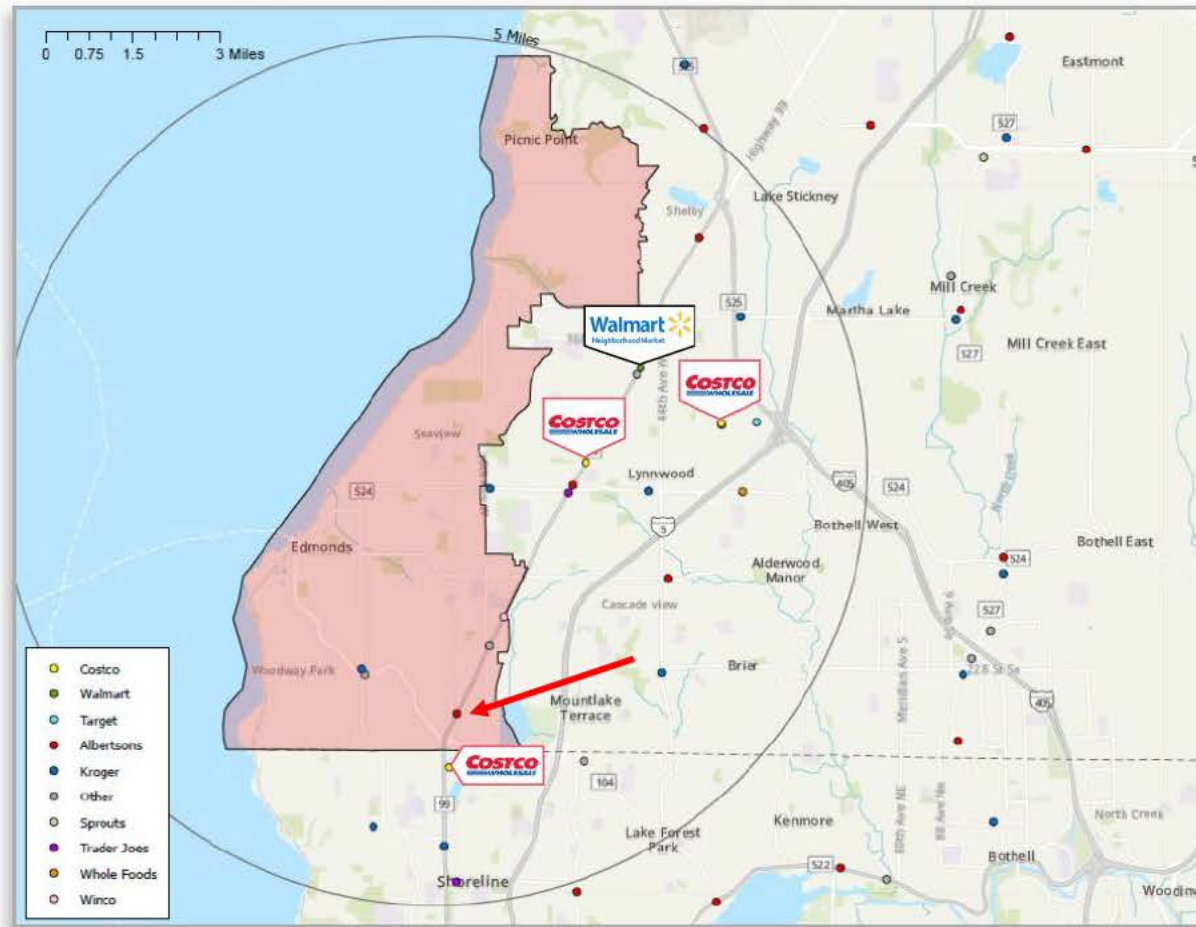
The EGK Model Is Sensitive to Minor Adjustments

Dr. Israel's model specification	Diversion to Supermarkets + Supercenters	Diversion to Outside Good
EGK model applied to Washington region (Dua reply report)	~71%	<5%



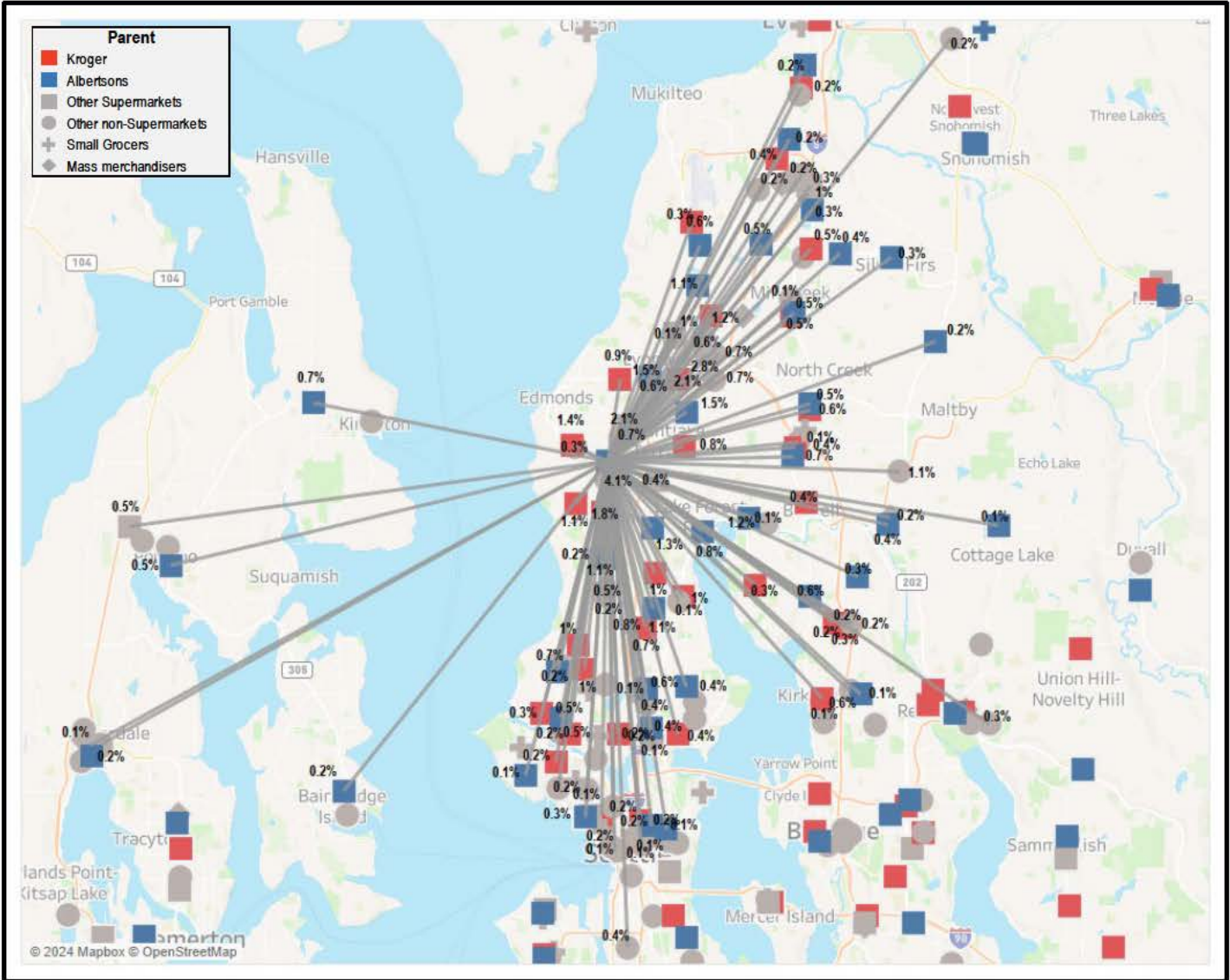
Dua reply report, ¶ 68.

Dr. Dua's Markets Arbitrarily Exclude Relevant Competition: Edmonds, WA City Area



Source: Israel Report Backup,
all_stores_for_mapping.csv,
TDLinx data.dta; Dua Report
Backup, WA city areas.xlsx

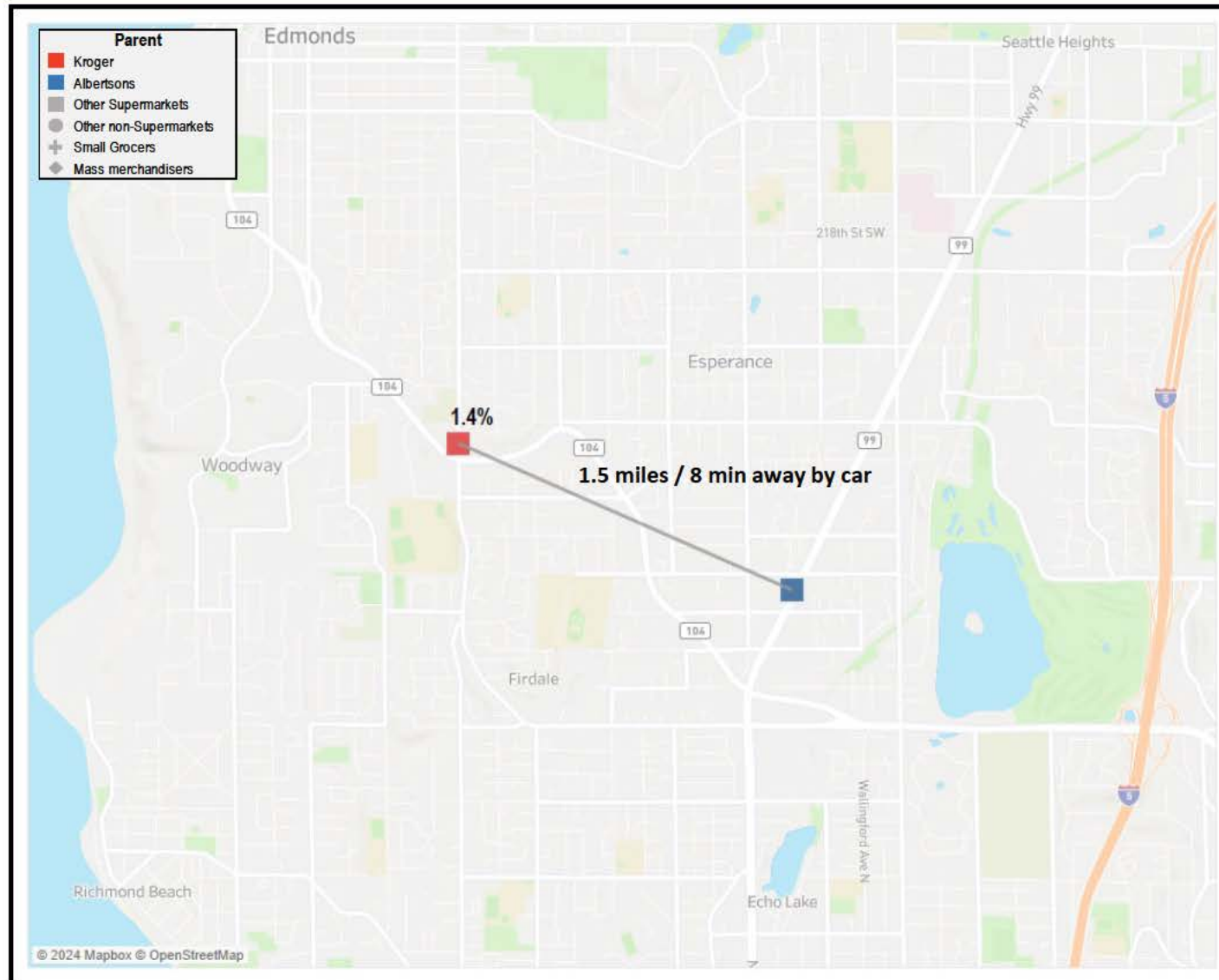
Dr. Israel's Modified EGK Model's Estimates of Diversions



Diversion Numbers Displayed for
Stores with >0.1% Diversion

Source: Dua Report Backup(01 Process EGK store to store diversions.do), Israel report backup (ComputeDivRatioElast.m), TDLinx data, Google Maps (Sun Oct 13, 12pm).

Dr. Israel's Modified EGK Model's Estimates of Diversions - Edmonds Safeway: (TDLinx ID: 0457816)



Note: Distances displayed are drive distances determined by Google Maps.

Source: Dua Report Backup(01 Process EGK store to store diversions.do), Israel report backup (ComputeDivRatioElast.m), TDLinx data, Google Maps (Sun Oct 13, 12pm).

Dr. Israel's Modified EGK Model's Estimates of Diversions



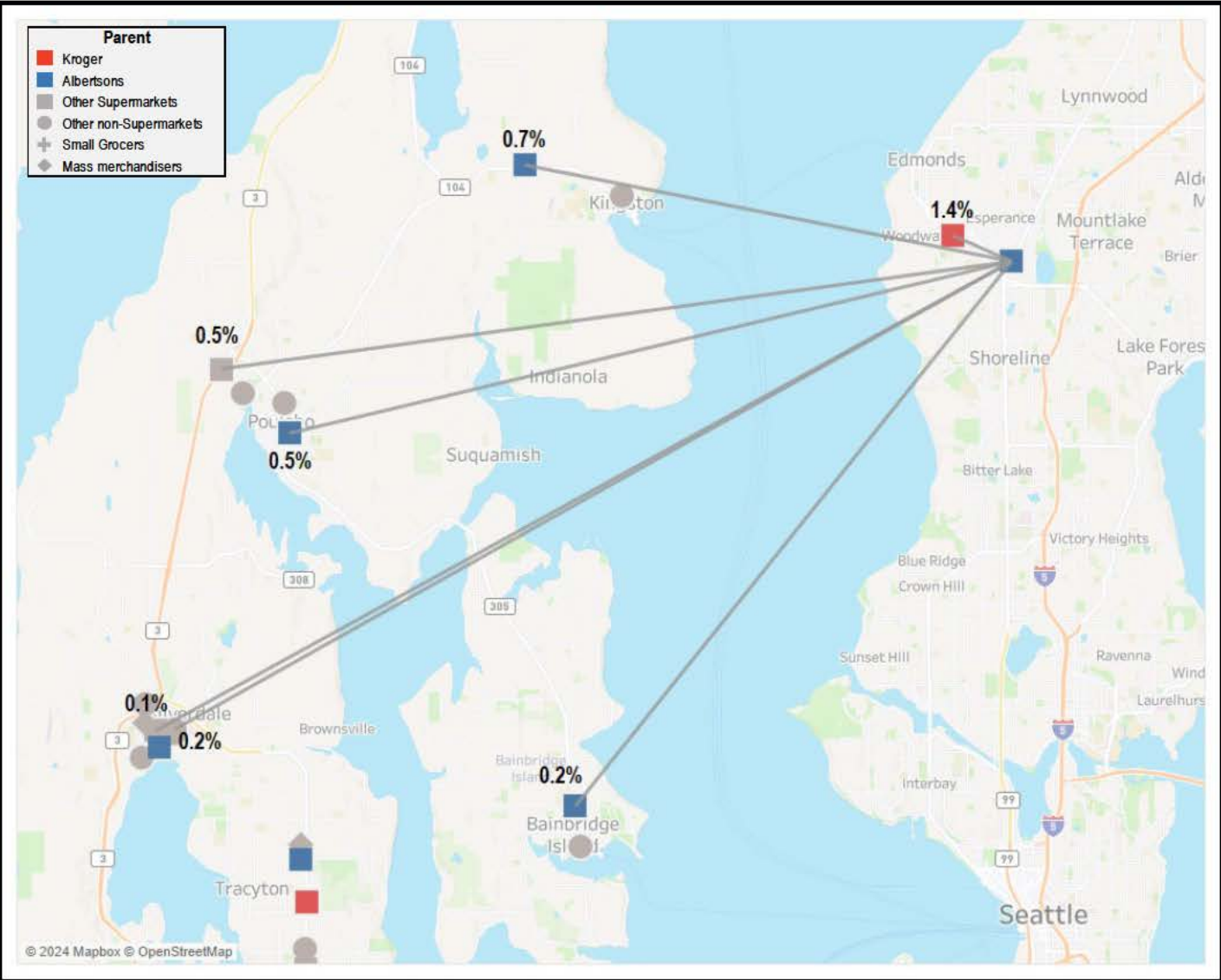
Note: Distances displayed are drive distances determined by Google Maps.

Source: Dua Report Backup(01 Process EGK store to store diversions.do), Israel report backup (ComputeDivRatioElast.m), TDLinx data, Google Maps (Sun Oct 13, 12pm).

Dr. Israel's Modified EGK Model's Estimates of Diversions

Diversion to defined store options across the Puget Sound = **2.5%**

Diversion Numbers Displayed for Stores with >0.1% Diversion



Source: Dua Report Backup(01 Process EGK store to store diversions.do), Israel report backup (ComputeDivRatioElast.m), TDLinx data, Google Maps (Sun Oct 13, 12pm).

Hypothetical Monopolist Test: Merger Guidelines

Specifically, the test requires that a hypothetical profit-maximizing firm, not subject to price regulation, that was the only present and future seller of those products (“hypothetical monopolist”) likely would impose at least a small but significant and non-transitory increase in price (“SSNIP”) **on at least one product in the market, including at least one product sold by one of the merging firms.**

2010 Horizontal Merger Guidelines 4.1.1

When evaluating a merger of sellers, the HMT asks whether a hypothetical profit-maximizing firm, not prevented by regulation from worsening terms, that was the only present and future seller of a group of products (“hypothetical monopolist”) likely would undertake at least a small but significant and non-transitory increase in price (“SSNIP”) or other worsening of terms (“SSNIPT”) **for at least one product in the group.**

2023 Merger Guidelines 4.3.A

Margins Used by Dr. Israel and Dr. Dua

	Dr. Dua's Gross Margins	Dr. Israel's Variable Margins
Kroger	~25%	~16%
Albertsons	~29%	~15%

Source: Dua report, Figure 18; Israel corrected report backup: "Dynamic Effect Example.xlsx", "input" tab

Gross Margins in Economic Literature

“Gross margins, which are the relevant object for assessing pricing constraints following competitive entry (i.e., the scope for adjusting prices downward), are much higher.”

Arcidiacono, Peter, Paul B. Ellickson, Carl F. Mela, and John D. Singleton. “The competitive effects of entry: Evidence from supercenter expansion.” *American Economic Journal: Applied Economics* 12, no. 3 (2020): 175-206, at 180–181.

“The cost of goods is the vendor cost net of discounts and inclusive of shipping costs. This measure is the most comprehensive cost measure available to us. This cost measure is viewed by the retailer as measuring the replacement cost of an item, and it is the cost measure they use in their pricing decisions.”

Eichenbaum, Martin, Nir Jaimovich, and Sergio Rebelo. “Reference prices, costs, and nominal rigidities.” *American Economic Review* 101, no. 1 (2011): 237.

Source: Dua Reply Report, Footnote 135

Gross Margins Used in Ordinary Course Pricing Documents



Andy Groff
Head of Pricing, Kroger



Stuart Aitken
Chief Merchandising
Officer, Kroger

Date: Wednesday, September 1, 2021 12:45 PM

Subject: RE: Eggs

From: Aitken, Stuart W

To: Groff, Andy

CC: Murphy, Mike; St. Clair, Chadd; Meyer, Matt; Silva, Edward F

Thanks Andy, this is helpful to see, albeit early. Keep us posted.

Cheers, Stuart

From: "Groff, Andy"

Date: Wednesday, September 1, 2021 at 9:36 AM

To: "Aitken, Stuart W"

Cc: Mike Murphy; St. Clair, Chadd; Meyer, Matt; Silva, Edward F; Meyer, Kate

Subject: RE: Eggs

Hi Stuart,

It's still pretty early to tell (only 2 full ad weeks since the changes), but we are certainly seeing an improvement on total commodity units, driven by both the 12ct and the 18ct price reductions. The sales trend appears to be improving, but the 18ct was on promo during 1 of the past 2 weeks, so it is still too early to understand if the improvement in sales trend will continue. We are seeing some pretty heavy investment in GM\$ and rate, as the commodity was down \$47k/wk in GM\$ vs trend and down nearly 10% (1,000bp) in rate.

It is very unlikely that the profit lines will cross on this due to the deep price reductions (12ct down \$0.90 and 18ct down \$1.10). We need a bit more time to see if commodity sales will be positively impacted.

Attached are a few slides that show YTD trends on sales, units, GM\$, rate and avg retail at the commodity level, and for both the 12ct and 18ct items.

Remember that CA has mandated the change to cage free starting Jan 1 2022.

Thanks,
Andy

Andrew Groff | Co-Director Pricing Strategy & Execution
The Kroger Co. 601182020, Cincinnati, OH 45202
M: 513.444.1111 | F: 513.444.1111 | E: agroff@kroger.com

From: Aitken, Stuart W

Sent: Sunday, August 29, 2021 6:49 AM

To: Meyer, Matt; Groff, Andy

Cc: Murphy, Mike; St. Clair, Chadd

Subject: RE: Eggs

How are eggs doing in Ralphs? I think we have been in market a couple of weeks now. Thanks.

CONFIDENTIAL

KRPROD-FTC-2R-000170450

From: "Groff, Andy"

Date: Wednesday, September 1, 2021 at 9:36 AM

To: "Aitken, Stuart W"

Cc: Mike Murphy; St. Clair, Chadd; Meyer, Matt; Silva, Edward F; Meyer, Kate

Subject: RE: Eggs

Hi Stuart,

It's still pretty early to tell (only 2 full ad weeks since the changes), but we are certainly seeing an improvement on total commodity units, driven by both the 12ct and the 18ct price reductions. The sales trend appears to be improving, but the 18ct was on promo during 1 of the past 2 weeks, so it is still too early to understand if the improvement in sales trend will continue. We are seeing some pretty heavy investment in GM\$ and rate, as the commodity was down \$47k/wk in GM\$ vs trend and down nearly 10% (1,000bp) in rate.

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Attached are a few slides that show YTD trends on sales, units, GM\$, rate and avg retail at the commodity level, and for both the 12ct and 18ct items.

Remember that CA has mandated the change to cage free starting Jan 1 2022.

Thanks,
Andy

Source: KRPROD-FTC-2R-000170450; Dua Reply Report, n. 135.

Gross Margins Used in Ordinary Course Pricing Documents



Impacts

Albuquerque Investment <u>GM\$</u> 52 week annual impact				UPC Retail Changes		Two Tier Tags		
Recap Dept	<u>GM\$</u> Impact	Total Group Count	Total UPC Count	Retail Price Up	Retail Price Down	Two Tier – Yes Group Count	Two Tier – Yes UPC Count	Two Tier – Yes <u>GM \$</u>
Grocery	\$(2,096,656)	1,215	3,227	580	2,647	657	1,674	\$(1,860,317)
HBC	\$(354,465)	852	2,507	1,037	1,470	480	935	\$(468,210)
Packaged Meat	\$(450,961)	61	158	23	135	40	102	\$(414,453)
Natural Foods	\$(108,745)	151	508	116	392	68	239	\$(119,557)
Total	\$(3,010,827)	2,279	6,400	1,756	4,644	1,245	2,950	\$(2,862,537)

Source: KRPROD-FTC-2R-000673585. Dua reply report, footnote 135.

Gross Margins Used in Ordinary Course Pricing Documents

From: "Harpole, Josh" <[REDACTED]>
Date: July 22, 2022 at 3:34:24 PM GMT+2
To: Valerie Jabbar <[REDACTED]>
Subject: Re: Chickens

Hi Val,

Sorry this took a little longer than normal but I've been traveling. We updated our pricing strategy 4.5 weeks ago. On average, our sales are running about 3% better than they were prior to the change and units are down 9% versus our prior trend. We have been able to maintain the same gross margin dollars that we were making prior to the change, which is good, as our goal was to 100% offset the cost increases. Our dollar market share gap has also been lessening as we were at -2.19% the week prior to our pricing change, and last week we were at -0.24%.

We have seen many of our traditional grocery competitors moving up in markets that we have increased retails. Walmart has moved up twice to get to the \$6.97 price point as you sent me in the photo. We will continue to monitor competitive retails weekly and adjust by market. We will work with each division and ensure we stay engaged on specific competitors. Please let me know if you have any additional questions or would like to discuss further.

Thank you, Josh

Josh

Josh Harpole | Vice President Deli & Bakery Merchandising
Deli/Bakery | The Kroger Co.

Gross Margins in 30(b)(6) Testimony

“So in our view, selling gross margin is a more narrowly defined calculation of profit margin where it is limited through strictly the re – what we sell items to – to the final consumer and what our acquisition costs are. By moving to gross profit margin, **you bring other items into that calculation**, such as advertising expense, warehousing and transportation expense, and shrink expense, **that would not directly be related to our retail price or our acquisition price**. So we feel **selling gross margin is a narrower definition, is a much more accurate reflection of what our pricing activity is** versus gross – bottom line gross profit margin.”

– Tim Springer, Director of Merger and Acquisition Finance at Kroger, testifying as Kroger’s corporate 30(b)(6) designee

Regressions of Price on HHI Are Unreliable and Uninformative

“merger analysis does not benefit from regressions of price on the HHI, which have been firmly rejected, for excellent reasons, by decades of academic research.” (p.258)

“By contrast, economic theory does support a causal impact of mergers on price. Absent offsetting efficiencies, a merger between competitors creates incentives for the merging firms to raise prices and reduce output. Economic theory provides support for the established legal presumption that a merger in a market is likely to have adverse competitive effects when it occurs in a concentrated market and makes it more concentrated (i.e. increases the HHI), regardless of whether it is possible to find an empirical relationship between price and the HHI in data.” (p.255)

Nathan Miller, Steven Berry, Fiona Scott Morton, Jonathan Baker, Timothy Bresnahan, Martin Gaynor, Richard Gilbert, George Hay, Ginger Jin, Bruce Kobayashi, Francine Lafontaine, James Levinsohn, Leslie Marx, John Mayo, Aviv Nevo, Ariel Pakes, Nancy Rose, Daniel Rubinfeld, Steven Salop, Marius Schwartz, Katja Seim, Carl Shapiro, Howard Shelanski, David Sibley, Andrew Sweeting, Marta Wosinska, “On the misuse of regressions of price on the HHI in merger review”, *Journal of Antitrust Enforcement*, 2022, 248–259.

Dr. Israel's Regression Analysis

Table 9: Testing Dr. Dua's Market Definition, Including Divestiture Stores

Base		
Specification	Party	HMT Price Increase
# of Competitors	Kroger	-0.2%
	ACI	0.5%
HHI	Kroger	-0.5%
	ACI	5.6%

Sources: Parties' data productions; US Census; TDLinx.



Dr. Israel's back up

Base		
Specification	Party	Price increase from max comp. change
# of Competitors	Kroger	-0.5%
	ACI	1.0%
HHI	Kroger	-0.8%
	ACI	9.5%



Source: Israel corrected report, Table 9; Dua reply report, ¶ 45, Figure 4, Figure 5.