SUPPORTABLE FLOORSPACE ANALYSIS: ELDERSBURG, MD

Prepared for

EvenBetterPlaces.org

Prepared by

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BACKGROUND AND PURPOSE

In view of planned store openings by Aldi and Lidl in Eldersburg, Maryland, DSR Marketing Systems Inc. (DSR) was retained by EvenBetterPlaces.org to estimate the amount of supermarket floorspace that is supportable - or warranted - by the available consumer demand in the Eldersburg market.

The term "Supermarkets" includes the grocery space included in Discount Department Stores (e.g. Target) and Supercenters (e.g. Walmart). However, it excludes grocery retailers with less than 5,000 sq. ft. of selling space, such as convenience stores, corner stores, and Superettes.

The expertise and services provided by DSR to the supermarket industry are summarized in Appendix 1. Further information is provided on our web-site, dsrmarketing.com, and on request.

RESEARCH APPROACH

Our study was carried out in-office and began with the identification of supermarket locations - both in Eldersburg and in surrounding towns and Baltimore suburbs, such as Finksburg, Mount Airy, Owings Mills, Randallstown, and Reisterstown.

Highway and street patterns were also identified and evaluated and - together with consideration of (a) competitor locations and (b) population density and distribution - resulted in the definition of the primary trade area (PTA) served by the stores located in Eldersburg.

Demographic and expenditure estimates were then developed for the primary trade area (PTA) and analyzed with the competitive data in order to arrive at the required Supportable Floorspace estimates and analysis. Importantly, the latter included consideration of leakage, i.e. the flows of sales and spending into and out of the PTA.

SUMMARY

1. *This Supportable Floorspace Analysis for Eldersburg, Maryland has been conducted in-office, without the benefit of a field visit and analysis, but employs the most current performance statistics on the U.S. supermarket industry.*

2. *Based on consideration of competitor locations, highway patterns, and population density, the Eldersburg trade area is estimated to extend approximately five (5) miles from the intersection of Highways 26 and 32 (but less to the east).*

3. *The population living within the Eldersburg trade area totaled 40,833 in 2016 and is estimated to decline slightly by 2021 (to 40,699). It is affluent, educated and mobile, and estimated to spend $2.85 million weekly on supermarket-type merchandise (STM).+*

4. *Based on the current national average (8,426 people per supermarket), the Eldersburg market has a population sufficient to support five (5) supermarkets. That is, the same as the current number of stores.*

5. *A more detailed consideration of sales inflows and outflows suggests that there is sufficient expenditure potential to support approximately 303,000 sq. ft. of supermarket space (gross building area). This is more than the current provision (293,000 sq. ft.) but almost 14% less than the projected provision including both the Aldi and Lidl stores (351,000 sq. ft.).*

6. *Our conclusion from this analysis is that the opening of the proposed 36,000 sq. ft. Lidl is highly likely to impact sales at the pre-existing competitors (including the Aldi) and produce at least one store closure. There will, therefore, likely be no net improvement in the overall store choice for local consumers from the proposed Lidl development.*

+ Besides Food and Groceries, Supermarket-Type Merchandise (STM) includes Packaged Alcoholic Beverages, Paper and Cleaning Products, Health and Beauty Aids, and Tobacco Products.

SUPERMARKET COMPETITION

The seven (7) local competitors in Eldersburg are located on Map 1 (in Appendix 2) and listed in the following Figure 1. The latter includes the planned Aldi and proposed Lidl.

Surrounding competitors are identified as Map Keys 8 through 24 on Map 2 (also presented in Appendix 2), and include significant clusters of stores in Owings Mills and Randallstown to the east and Mount Airy to the west. These stores serve to delimit the Eldersburg trade area.

It is important to note that there are also BJ's and Wegman's stores located to the east of I-795 in Owings Mills, a proposed Trader Joe's in Reisterstown, and another (existing) Wegman's located in Columbia to the south of I-70. These competitors all have geographically extensive sales draw characteristics, and will also attract some sales from within the Eldersburg trade area. This will be part of the estimated Outflow Leakage (see below, Page 8).

Figure 1

THE KEY COMPETITORS: ELDERSBURG TRADE AREA (4-17)

			Size (sq. ft.)	
Map Key	*Competitor*	*Location*	*Gross*	*Estimated Selling* +
1	*Martin's*	*Eldersburg Market Place*	75,700	56,775
2	*Safeway*	*Londontown Square*	63,223	47,417
4	*Shoppers*	*Freedom Village*	51,278	38,459
6	*Walmart Supercenter*	*Eldersburg Commons*	70,000 ++	52,000 ++
7	*Weis*	*Freestanding*	32,961	24,721
		Sub-Total	293,162	219,372
Planned				
3	*Aldi*	*Eldersburg Crossing*	22,000	16,500
5	*Lidl*	*Freestanding*	36,000	27,000
		Sub-Total	58,000	43,500
		TOTAL	351,162	262,872

NOTES:
+ Based on a 75% proportion of the gross building size.
++ Supermarket-type selling space only. The total store is 189,543 sq. ft.

THE ELDERSBURG MARKET

Definition

The primary trade area (PTA) estimated to be served by the supermarkets located in Eldersburg is identified as the list of twenty-five (25) Census Block Groups shaded yellow in Map 3 presented in Appendix 2.

The trade area (market) definition extends approximately five (5) miles in all directions - but less to the east of Eldersburg - and reflects the following considerations:-

1. *Population density within, and surrounding, Eldersburg.*
2. *Strong competition to the east in Owings Mills, Randallstown, and Reistertown.*
3. *The perceptual travel barrier effects of Liberty Lake/Reservoir (east), I-795 (east) and I-70 (south).*
4. *Significant clusters of competitors in Columbia to the southeast and Mount Airy to the west.*

Population Characteristics

The household population+ currently (2016) living in the Eldersburg PTA is estimated at 40,833 and forecast to decline slightly to 40,699 by 2021. Please refer to the reports presented in Appendix 3 which are sourced from Scan/US, Los Angeles, CA.

Based on comparisons with the U.S. averages in 2016, the trade area population is predominantly white, affluent, highly educated, mobile, and lives in relatively large households:-

	Eldersburg PTA	USA
% White	90	71
% Black	5	13
% Hispanic	3	17
Median Household Income	$115,975	$56,793
Average Household Income	$135,620	$78,086
% College Degree+	42	30
% 2+ Vehicles	77	58
Average Household Size (# persons)	2.77	2.54

+ Excluding the population living in Group Quarters: 1,156 in 2016.

Additional demographic data on the population living in the Eldersburg trade area is presented in Appendix 3.

Supermarket-Type Spending Potential

Employing our proprietary PCW Program, the demographic characteristics of the Eldersburg PTA produce a per capita weekly (PCW) spending estimate of $69.74 (on Supermarket-Type Merchandise[+]). When multiplied by the total Household Population within the trade area, this estimate results in a total weekly market size of $2,848,000 in 2016....which is projected to decline slightly to $2,838,000 (in constant 2016 dollars) by 2021.

Please refer to the PCW report presented as Appendix 4.

+ Besides Food and Groceries, Supermarket-Type Merchandise (STM) includes Packaged Alcoholic Beverages, Paper and Cleaning Products, Health and Beauty Aids, and Tobacco Products.

SUPPORTABLE FLOORSPACE ANALYSIS

Based on the current national norms for the Supermarket industry (please refer to the following Figure 2), the population living in the Eldersburg trade area is estimated to be sufficient to support a total of five (5) supermarkets:-

- *Population: 40,833,*
- *Divided by 8,426 people per Supermarket (the national average),*
- *Equals 4.85 stores.*

This is obviously fewer than the seven (7) stores that would exist after the proposed Lidl opening, but is a simple ratio. Further consideration needs to be given to the inflows and outflows of sales and spending with respect to the Eldersburg trade area.

Our best estimates of these inflows and outflows are as follows:-

1. Local Leakage

This is the proportion, or volume, of supermarket-type spending that is captured by store types within the trade area other than Supermarkets. For example, convenience stores, drug stores, gas stations, superettes, farmers markets, and farm stands.

Local leakage normally approximates at least 20% of the total spending on Supermarket-Type Merchandise (STM).

2. Outflow Leakage

This is the proportion of spending that occurs at all types of stores - including Supermarkets - located outside the Eldersburg trade area. For example, in Owings Mills, Randallstown, Reisterstown....and to Howard County to the south, especially the Columbia, MD area.

Given the presence of BJ's, Harris Teeter, two (2) Wegman's (Columbia, Owings Mills), and a proposed Trader Joe's in Reisterstown beyond the primary trade area, this proportion would also, in our experience, approximate at least 20%.

3. Total Leakage

Combining the two (2) forms of leakage reduces the expenditure potential available to the supermarkets in Eldersburg by an estimated 40.0% from $2.848 million (in 2016) to $1.709 million in the same year.

4. Sales Inflows

Counterbalancing the above Leakage losses, the stores located in Eldersburg will also collectively attract additional sales from areas beyond the defined primary trade area....with our best estimate being a 25.0% proportion of the total sales potential.

5. Available Local Sales/Spending Potential

When the reduced trade area spending potential ($1.709 million) is divided by 0.75 (the reciprocal of 25.0%) to incorporate the Sales Inflows mentioned above, the available spending potential (for the stores in Eldersburg) increases to $2.278 million per week.

6. Supportable Floorspace Estimate

Dividing the $2.278 million per week by the current national average Supermarket sales per square foot+ of $7.53 (per week) produces a Supportable Floorspace estimate of 303,000 square feet.

7. Use of the national average Supermarket sales per square foot statistic assumes an industry average level of profitability for all the stores in the Eldersburg market. This (Net Profit After Taxes) is currently only 1.7% of total sales....reflecting what is a highly competitive industry. As a practical matter, the level of profitability will vary from store to store in Eldersburg but it is reasonable to assume that, in aggregate, they will approximate the national average.

8. Supply/Demand Comparison

The above Supportable Floorspace estimate (303,000 sq. ft.) is 13.8% less than the combined Gross Area floorspace that will result from the opening of the Lidl store (i.e. 351,000 square feet). Please refer to Figure 1 above.

9. Our conclusion from this analysis is that the opening of the proposed 36,000 sq. ft. Lidl is highly likely to impact sales at the pre-existing competitors (including the Aldi) and produce at least one store closure. There will, therefore, likely be no net improvement in the overall store choice for local consumers from the proposed Lidl development.

+ Of gross building area.

Figure 2

NATIONAL SUPERMARKET STATISTICS: 2015-2016

Sources: The Food Marketing Institute,
Progressive Grocer magazine,
U.S. Census Bureau.

		Statistic
1	*No. of Supermarkets*	*38,441*
2	*Average Size, sq. ft.:*	
	Selling area (at 75% of Gross area)	*33,325*
	Gross area	*44,433*
3	*Supermarket Space (gross square feet, millions)*	*1,708.06*
4	*U.S. Resident Population, 7-2016 (millions)*	*323.89*
5	*Gross square feet/person*	*5.27*
6	*Population per Store*	*8,426*
7	*Average Weekly Sales Per Store ($)*	*334,519*
8	*Sales/Sq. Ft.:*	
	Selling area ($)	*10.04*
	Gross area ($)	*7.53*

APPENDIX 1

ABOUT DSR MARKETING SYSTEMS INC.

ABOUT DSR MARKETING SYSTEMS. . .

DSR Marketing Systems, Inc. is a market research and consulting firm which specializes in retail research, including store location analysis and consumer research.

Dr. David Rogers is the President of DSR Marketing Systems, Inc. He was formerly Head of Site Potential Statistics for J. Sainsbury PLC, the major British supermarket chain, and has given presentations on market research topics for a wide variety of U.S. and British retail trade organizations.

Dr. Rogers is the Assistant Director of the annual Retail Location Analysis seminar at Oxford University's Said Business School, and co-editor of Store Location and Store Assessment Research, a text-book published by John Wiley and Sons Ltd. He is also a regular columnist for retail trade magazines in Canada, the USA and UK, including Canadian Grocer, Grocery Headquarters, and Progressive Grocer.

Dr. Rogers has consulted with an extensive number of retail, restaurant, and shopping center clients in Australia, Canada, France, Iceland, Mexico, Puerto Rico, Saudi Arabia, Sweden, the United Arab Emirates, the United Kingdom, and the U.S.A.

His experience includes expert witness testimony at planning and traffic impact inquiries and in cases concerning Retail Competition and Eminent Domain.

Dr. Rogers received his undergraduate degree from the University of Bristol (England), his M.S. from the University of Wisconsin (Madison), USA, and his doctorate from the University of Reading (England). All three degrees are in the field of Urban Studies.

Further information on our services and expertise is available on our web-site,

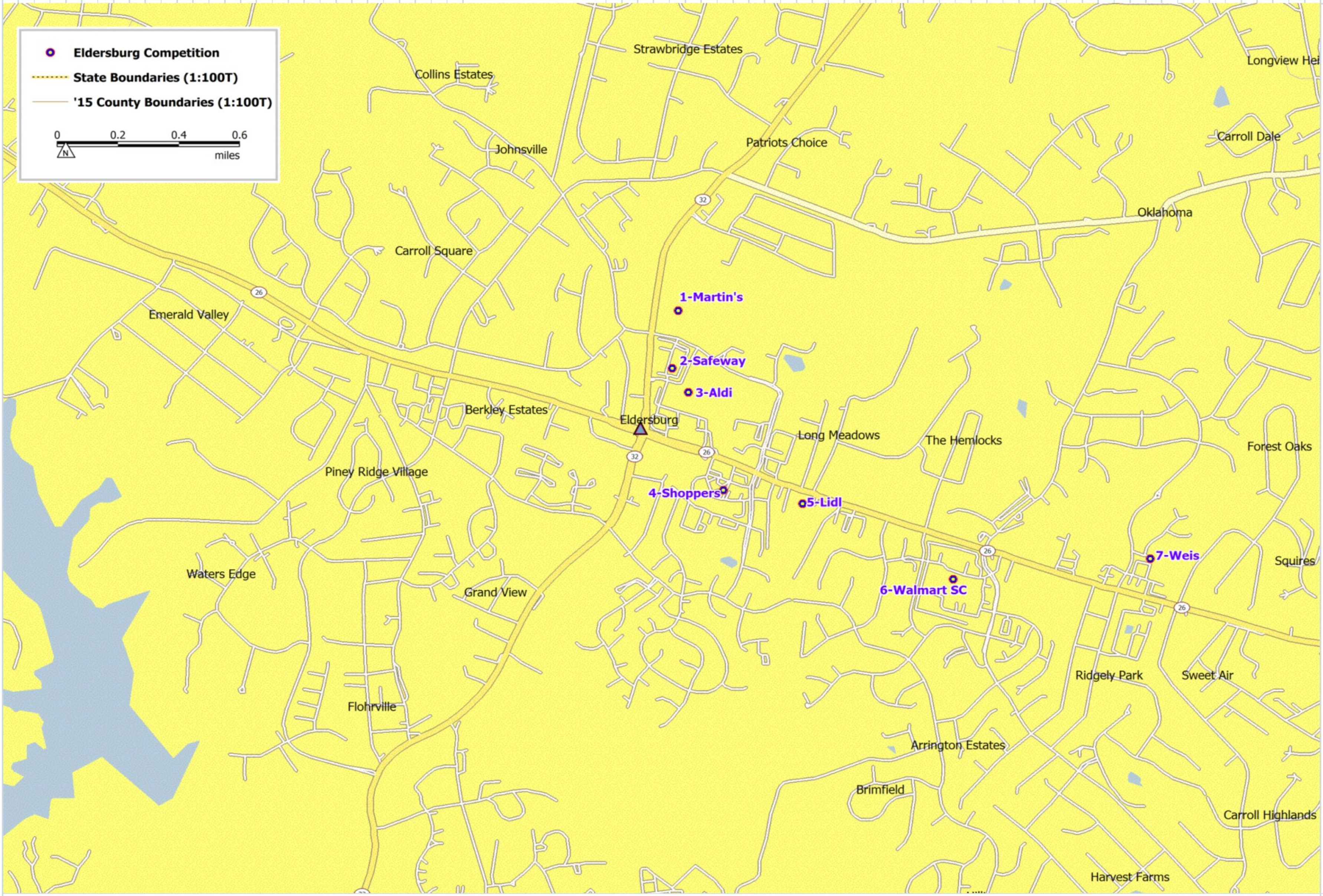
www.dsrmarketing.com.

APPENDIX 2

MAPS 1-3

Map 1: Eldersburg, MD - Local Competition

Scan/US, Inc.



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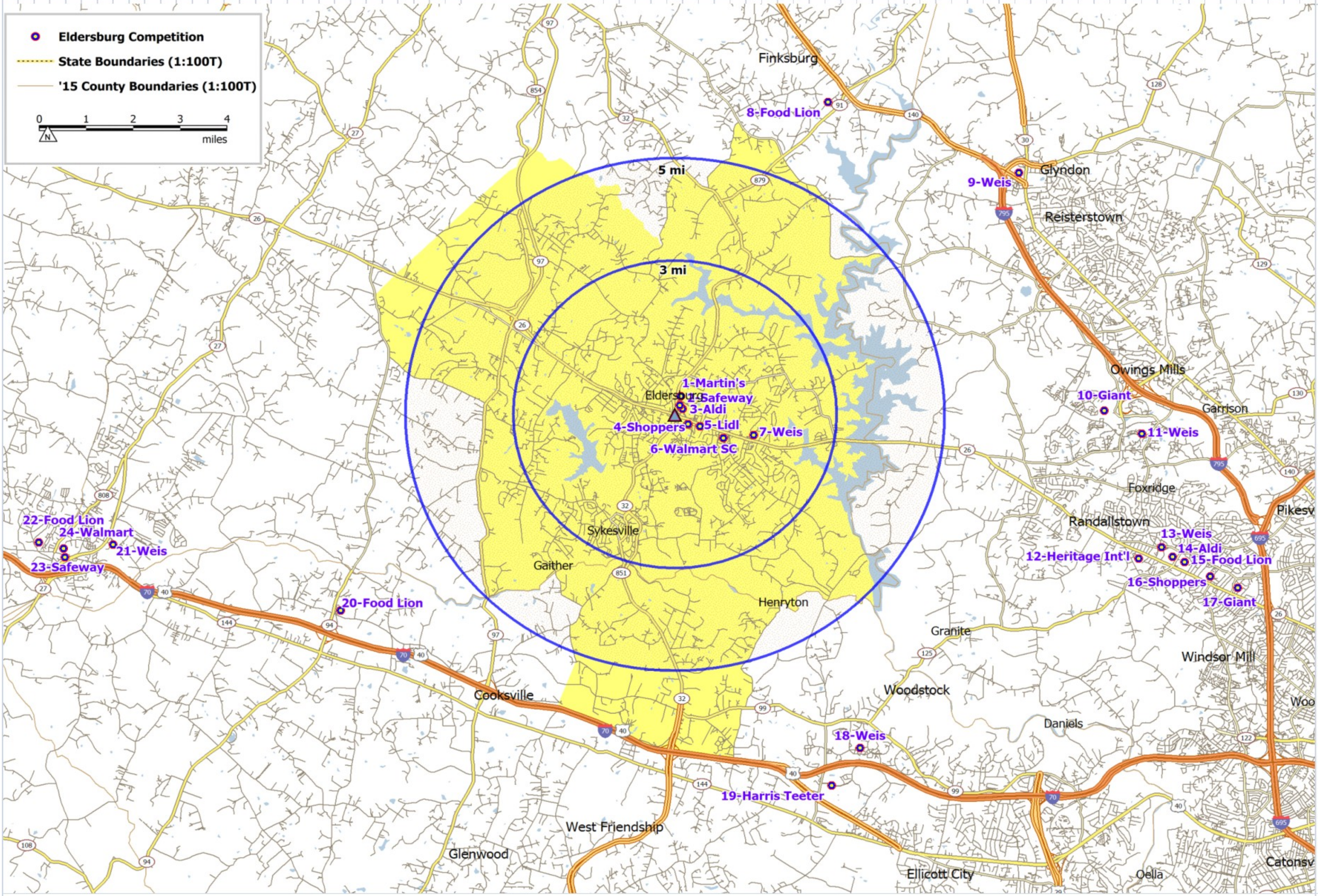
Map 2: Eldersburg, MD - Surrounding Competition

Scan/US, Inc.



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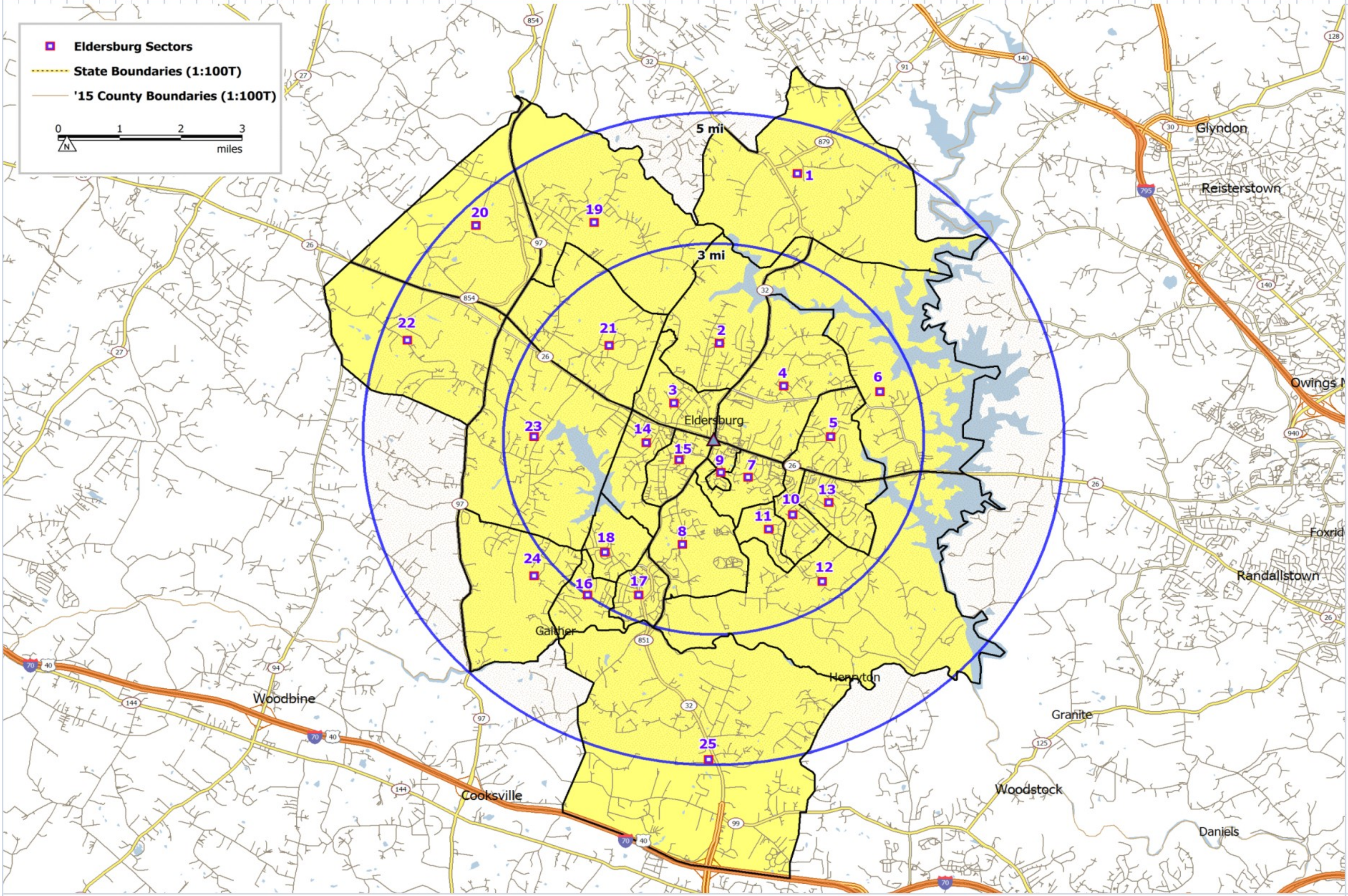
Map 3: Eldersburg, MD Trade Area Sectors

Scan/US, Inc.



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APPENDIX 3

DEMOGRAPHIC DATA FOR THE ELDERSBURG TRADE AREA

Source: Scan/US, Los Angeles, CA.

2016 Demographics in brief

'15 Blockgroups (1:100T)

Eldersburg Block Groups
(Eldersburg TA)

Population	41,989	%
in households	40,833	97.2
in families	36,816	87.7
in non-families	4,017	9.6
in group quarters	1,156	2.8
noninstitutional GQ	222	0.5
under age 18	9,593	22.8
male	21,046	50.1
female	20,943	49.9

Households	14,733	%
families	11,487	78.0
non-families	3,246	22.0
with persons under 18	5,537	37.6
1 person households	2,683	18.2
2 person households	4,936	33.5
3-4 person households	5,450	37.0
5+ person households	1,664	11.3
Household size 2.77	Family size	3.21

Age		%
under 5 years	1,918	4.6
5 to 9 years	2,537	6.0
10 to 14 years	3,067	7.3
15 to 19 years	3,057	7.3
20 to 24 years	2,470	5.9
25 to 34 years	4,298	10.2
35 to 44 years	4,984	11.9
45 to 54 years	7,251	17.3
55 to 64 years	5,904	14.1
65 to 74 years	3,822	9.1
75 years and over	2,681	6.4

Median age	42.6	male	41.3	female	44.3

Household income		%	cum %
under $15,000	295	2.0	2.0
$15,000 - 24,999	608	4.1	6.1
$25,000 - 34,999	604	4.1	10.2
$35,000 - 49,999	1,185	8.0	18.3
$50,000 - 74,999	1,798	12.2	30.5
$75,000 - 99,999	1,906	12.9	43.4
$100,000 -	1,507	10.2	53.6
$125,000 -	1,619	11.0	64.6
$150,000 -	2,529	17.2	81.8
$200,000 and over	2,682	18.2	100.0

	Median	Average
Household income	$115,975	$135,620
Family income	$134,480	$152,844
Non-family income	$58,188	$74,667

Race		%
white	37,686	89.8
black	2,060	4.9
American Indian	94	0.2
Asian, Pacific Islander	1,201	2.9
other, multi-racial	948	2.3
Hispanic	1,149	2.7

Vehicles available		%
without vehicle	483	3.3
1 vehicle available	2,873	19.5
2 vehicles available	6,141	41.7
3+ vehicles available	5,236	35.5
vehicles/household	2.27	

Education (pers. 25+)	28,940	%
no high school diploma	1,687	5.8
high school graduate	7,096	24.5
some college	7,939	27.4
college degree	7,429	25.7
graduate/professional	4,789	16.5

Density	
households per sq.mile	215
household population per sq.mile	596

Employmen (pers. 16+)	33,754	%
in civilian labor force	22,707	67.3
employed	22,182	97.7
unemployed	525	2.3
in Armed Forces	46	0.1
not in labor force	11,001	32.6

Housing units	15,169	%
owner occupied	12,710	83.8
renter occupied	2,023	13.3
vacant units	436	2.9

Scan/US®

Source: Scan/US 2016 Estimates (Jul 1) 04/25/2017

Demographics Trends 2010-2016-2021

population households **1**

'15 Blockgroups (1:100T) Page 1 of 4

Eldersburg Block Groups (Eldersburg TA)

	2010 Census		2016 Estimate		2021 Projection	
Population	**41,690**	**%**	**41,989**	**%**	**41,855**	**%**
in households	40,534	*97.2*	40,833	*97.2*	40,699	*97.2*
in families	36,878	*91.0*	36,816	*90.2*	36,294	*89.2*
in non-families	3,656	*9.0*	4,017	*9.8*	4,405	*10.8*
in group quarters	1,156	*2.8*	1,156	*2.8*	1,156	*2.8*
in noninstitutional group quarters	43	*3.7*	222	*19.2*	222	*19.2*
under age 18	10,876	*26.1*	9,593	*22.8*	8,855	*21.2*
age 55 and over	10,100	*24.2*	12,407	*29.5*	13,912	*33.2*
age 65 and over	5,000	*12.0*	6,503	*15.5*	7,831	*18.7*
age 75 and over	2,232	*5.4*	2,681	*6.4*	3,407	*8.1*
Per capita income	**38,030**		**47,867**		**61,541**	
Median age	**40.8**		**42.6**		**43.4**	
male	39.5		41.3		41.9	
female	42.1		44.3		45.2	
Race white	38,062.0	*91.3*	37,686.0	*89.8*	37,325.0	*89.2*
black	1,787.0	*4.3*	2,060.0	*4.9*	2,117.0	*5.1*
American Indian	97.0	*0.2*	94.0	*0.2*	101.0	*0.2*
Asian, Pacific Islander	918.0	*2.2*	1,201.0	*2.9*	1,284.0	*3.1*
other, multi-racial	826.0	*2.0*	948.0	*2.3*	1,028.0	*2.5*
Hispanic	929.0	*2.2*	1,149.0	*2.7*	1,283.0	*3.1*
Diversity index	18		26		28	
Households	**14,248**	**%**	**14,733**	**%**	**15,369**	**%**
families	11,297	*79.3*	11,487	*78.0*	11,655	*75.8*
with person under 18	5,833	*51.6*	5,507	*47.9*	5,355	*45.9*
non-families	2,951	*20.7*	3,246	*22.0*	3,714	*24.2*
with person under 18	29	*1.0*	30	*0.9*	29	*0.8*
Median household income	**95,498**		**115,975**		**130,201**	
median family income	111,152		134,480		153,391	
median non-family income	44,081		58,188		63,222	
Household size	**2.84**		**2.77**		**2.65**	
family size	3.26		3.21		3.11	
non-family size	1.24		1.24		1.19	
Housing Units	**14,670**	**%**	**15,169**	**%**	**15,833**	**%**
owner-occupied	12,267	*83.6*	12,710	*83.8*	13,125	*82.9*
renter-occupied	1,981	*13.5*	2,023	*13.3*	2,244	*14.2*
vacant units	422	*2.9*	436	*2.9*	464	*2.9*

Scan/US®

Source: 2000 Census, Scan/US 2016 Estimates (Jul 1) 04/25/2017

'15 Blockgroups (1:100T)

Eldersburg Block Groups (Eldersburg TA)

		2010 Census		2016 Estimate		2021 Projection	
Education	persons age 25+	27,752	%	28,940	%	29,439	%
no high school diploma		1,897	*6.8*	1,687	*5.8*	1,706	*5.8*
high school graduate		7,041	*25.4*	7,096	*24.5*	7,212	*24.5*
some college		**5,278**	***19.0***	**5,523**	***19.1***	**5,611**	***19.1***
associate degree		**2,347**	***8.5***	**2,416**	***8.3***	**2,453**	***8.3***
college degree		6,675	*24.1*	7,429	*25.7*	7,571	*25.7*
graduate/professional degree		4,514	*16.3*	4,789	*16.5*	4,886	*16.6*
Labor Force	persons age 16+	32,286	%	33,754	%	34,265	%
in labor force		**21,861**	***67.7***	**22,707**	***67.3***	**23,061**	***67.3***
employed		20,997	*96.0*	22,182	*97.7*	22,533	*97.7*
unemployed		864	*4.0*	525	*2.3*	528	*2.3*
in Armed Forces		**45**	***0.1***	**46**	***0.1***	**47**	***0.1***
not in labor force		**10,380**	***32.2***	**11,001**	***32.6***	**11,157**	***32.6***
Vehicles available	households	14,248	%	14,733	%	15,369	%
without vehicles		491	*3.4*	483	*3.3*	510	*3.3*
1 vehicle available		2,921	*20.5*	2,873	*19.5*	3,045	*19.8*
2 vehicles available		**5,982**	***42.0***	**6,141**	***41.7***	**6,386**	***41.6***
3 or more vehicles available		**4,904**	***34.4***	**5,236**	***35.5***	**5,428**	***35.3***
Average vehicles per household		1.80		2.27		2.26	
Total vehicles available		25,698		33,429		34,745	
Density							
Area (sq.miles)		68.54		68.54		68.54	
Population/sq mile		608.23		612.60		610.64	
Households/sq mile		**207.87**		**214.95**		**224.23**	
Household population/sq mile		**591.37**		**595.73**		**593.78**	
Aggregate income (M)/sq mile		23.13		29.32		37.58	
Aggregate houshold income(M)/sq mile		22.94		29.15		37.41	
Vehicles available/sq mile		**374.92**		**487.71**		**506.91**	

Minor category percent shares are based on the next higher category.

Scan/US®

Source: 2000 Census, Scan/US 2016 Estimates (Jul 1) 04/25/2017

APPENDIX 4

PCW ESTIMATES BY CENSUS BLOCK GROUP
FOR THE ELDERSBURG TRADE AREA

Source: **The PCW Program, Version 25.0,**
DSR Marketing Systems Inc.

PCW PROGRAM	VERSION	25.0			REGION TYPE CODES:			
DSR MARKETING SYSTEMS, INC.						AVE.	URBAN	RURAL
					USA	1	2	3
REGION / AREA TYPE:		**10**			NE	4	5	6
NON FOODS FACTOR (%):		**27**			MW	7	8	9
INFLATION UPDATE:		**1.007**			SOUTH	10	11	12
INCOME YEAR (2010):		**2010**			WEST	13	14	15
Study Name:	Eldersburg, MD				Copyright 2016			
Date:	4-25-17							
					Region selected:		SOUTH	AVERAGE
	Average	Average						
	Household	Household	%	%	%	$		
Sector Name	Size	Income	Black	Hispanic	Asian	PCW	Sector	
#240135042022	2.83	98,062	4.53	1.46	2.37	66.31	1	
#240135051011	2.87	114,147	7.34	2.26	2.02	68.99	2	
#240135051012	3.26	136,890	6.14	2.51	2.09	67.52	3	
#240135051021	2.90	126,555	2.55	1.15	2.43	71.04	4	
#240135051022	2.97	108,300	1.84	1.89	2.62	66.75	5	
#240135051023	2.61	113,743	1.57	1.57	0.43	73.38	6	
#240135052031	2.71	94,109	2.86	4.15	2.52	67.47	7	
#240135052032	1.30	91,195	65.84	0.24	1.30	78.21	8	
#240135052033	2.69	96,980	3.64	4.67	5.89	68.11	9	
#240135052051	2.95	109,743	4.89	3.54	3.90	67.09	10	
#240135052052	2.71	108,288	3.75	3.18	1.25	70.50	11	
#240135052061	3.05	125,032	1.53	2.04	2.62	69.13	12	
#240135052062	2.40	87,645	2.32	1.84	2.95	70.06	13	
#240135052071	3.02	112,786	4.59	2.94	5.27	66.74	14	
#240135052072	2.57	86,901	3.16	4.38	3.79	67.52	15	
#240135052081	3.18	125,476	1.77	3.11	2.68	68.07	16	
#240135052082	2.24	68,226	7.27	4.05	4.25	65.70	17	
#240135052083	2.28	82,655	1.29	2.70	1.22	70.55	18	
#240135141001	2.84	112,314	2.43	1.47	1.02	69.43	19	
#240135141002	2.78	85,458	2.37	5.75	0.00	64.49	20	
#240135141003	2.84	137,179	3.62	3.28	1.43	72.57	21	
#240135142011	2.69	129,404	1.91	1.91	0.64	74.69	22	
#240135142021	2.90	130,140	2.95	3.25	1.37	71.40	23	
#240135142022	2.56	116,881	3.24	3.10	2.50	74.61	24	
#240276030031	2.97	148,983	5.18	2.55	8.31	70.97	25	