

BI and WIC

Data Warehouse Project Overview

- * **Reason for the Data Warehouse project**
 - * EBT introduces to WIC a wealth of valuable information
 - * Thousands of individual food products, multiple NTEs for each
 - * Possibilities to improve program administration and integrity
 - * Fraud analysis
 - * Cost controls and containment
 - * Food package and nutrition management
 - * Outcome analysis
 - * Vendor metrics and analysis
 - * Information in a usable format (knowledge) can be expensive
 - * 90 WIC agencies with essentially the same information needs
 - * Build-it-once philosophy

Data Warehouse Project Overview

* **Goals for project**

- * Empower WIC agencies with self-service access to knowledge
 - * Base set of data
 - * Tool sets to turn data into knowledge
- * Create a universally usable solution
 - * Not dependent on EBT or MIS solution
 - * Transferable to all WIC agencies
 - * Built on common technology base
 - * Non-proprietary technology

Data Warehouse Project Overview

- * **Goals for project**

- * Sharing of solutions across agencies

- * Analytic built by one state could be used by another
 - * Allow analysis and reporting across multiple WIC agencies
 - * Uniformity in data archiving

- * Extensible in scope

- * Tools and methods to readily:
 - * Incorporate non-EBT WIC data
 - * Incorporate data from other programs

Data Warehouse Project Overview

- * **Approach to project**

- * Project is as much about standards as technology

- * Data governance is key

- * standard meaning, format, and usage of data elements

- * Universal Interface – provides consistency in eWIC data

- * Any universal interface-compliant eWIC system can “plug in” to the data warehouse

- * Readily supports loading of data for analysis

Business Intelligence Cubes

	Milk	Cheese	Juice
NTE Price	\$3.50	\$4.00	\$3.25
Sold Price	\$2.59	\$3.50	\$3.00



Example: NTE By Time

Row Labels	NTE Count	Total NTE Amount
2012	58,932	\$11,485.17
2012 Q3	1,168	\$320.67
Aug 2012	-	\$0.00
Sep 2012	1,168	\$320.67
2012 Q4	57,764	\$11,164.50
Oct 2012	26,728	\$6,173.67

PivotTable Fields

Show fields: (All) [Settings]

- Average Total Exchange Qua...
- Average Total NTE Amount
- Benefit Redemption Detail C...
- Benefit Redemption Transac...
- Discount Amount
- NTE Count**
- Paid Amount
- Requested Amount
- Requested Quantity
- Total Exchange Quantity
- Total NTE Amount**

Enrollment

Example: Drilldown

Row Labels	NTE Count	Total NTE Amount
2012	58,932	\$11,485.17
2012 Q3	1,168	\$320.67
Aug 2012	-	\$0.00
Sep 2012	1,168	\$320.67
2012 Q4	57,764	\$11,164.50
Oct 2012	26,728	\$6,173.67
Oct 1, 2012	1,130	\$244.03
Oct 2, 2012	1,052	\$204.24
Oct 3, 2012	1,023	\$224.77
Oct 4, 2012	808	\$162.80

PivotTable Fields

Show fields: (All)

- more fields
- Date
 - Date Drilldown
 - Fiscal Date Drilldown
 - More Fields
- Date Quarter
 - Fiscal Quarter Drilldown
 - Quarter Drilldown
 - More Fields
- Household
 - Household Active Status

Example: NTE By Vendor

Row Labels	NTE Count	Total NTE Amount
Class I - Central	775	\$314.92
Class I - Eastern	557	\$290.05
Class I - Western	15	\$0.66
Class II - Central	1,102	\$790.88
Class II - Eastern	903	\$615.42
Class II - Western	408	\$153.85
Class III - Central	3,502	\$831.01
Class III - Eastern	4,831	\$1,186.47
Class III - Western	1,973	\$255.67
Class IV - Central	23,768	\$3,679.05
Class IV - Eastern	9,088	\$1,359.00

PivotTable Fields

Show fields: (All)

- TIME
 - Time Drilldown
 - More Fields
- Vendor
 - Vendor Drilldown
 - More Fields
- Vendor Peer Group
 - Vendor Peer Group
 - Vendor Peer Group Desc
 - Vendor Peer Group Id

Example: NTE By Food

Row Labels	NTE Count	Total NTE Amount
05 - Cereal (Adult)	3,650	1349.39
06 - Legumes	9,071	365.21
08 - Fish	60	31.88
09 - Infant Cereal	765	196.97
12 - Infant Fruits and Vegetables	3,740	762.87
13 - Infant Meats	58	16.6
16 - Breads/Whole Grains	2,565	452.95
21 - Infant Formula (IF)	681	2008.93
51 - Milk Whole	5,086	860.36
001 - Whole Milk - generic	5,059	856.63
003 - Lact-red and/or Lact-Fr	27	3.73
52 - Milk Low fat	17,417	3028.32
53 - Juice 48	1,043	206.99
54 - Juice 64	2,406	1079.72
U - Unknown	32	2.56
Grand Total	58,932	11485.17

Example: Enrollment with Multiple Drilldowns

Row Labels	Children	Infants Breastfed	Fully Formula	Infants Total	Women Breastfeeding	Post Partum	Pregnant	Women Total	Grand Total
County A	456	44	150	194	44	76	90	210	860
County B	284	18	117	135	17	45	57	119	538
County C	919	36	331	367	25	129	229	383	1,669
County D	435	37	129	166	31	51	79	161	762
County E	699	49	339	388	29	93	210	332	1,419
County F	408	34	166	200	31	60	113	204	812
County G	177	10	65	75	6	22	35	63	315
County H	341	13	110	123	8	43	99	150	614
County I	349	17	105	122	16	54	74	144	615
County J	762	70	365	435	55	139	177	371	1,568
County K	534	42	180	222	36	71	128	235	991
County L	2,398	243	832	1,075	239	360	437	1,036	4,509
County M	2,398	243	832	1,075	239	360	437	1,036	4,509
Health Dept 100	1,091	71	424	495	77	201	262	540	2,126
Health Dept 200	1,305	172	408	580	162	159	175	496	2,381
Health Dept 300	2								2

Example: High Risk

Row Labels	Abnormal Milk Purchase Count	Full Redemption Count	Vendor Total Amount	Out Of Contract Total Amount	Whole Dollar Purchase Count	Price Above NTE Threshold Count
Class I - Central	183	4	\$190,650.23	\$38,113.74	9	13,722
Class I - Eastern	26	1	\$139,335.11	\$15,086.75	45	5,788
Class I - Western	-	-	\$2,940.54	\$204.94	-	435
First Honest Grocery	-	-	\$603.12	\$11.37	-	103
Second Honest Grocery	-	-	\$1,698.25	\$9.58	-	251
Last Honest Grocery	-	-	\$639.17	\$183.99	-	81
Class II - Central	119	4	\$409,950.06	\$76,477.17	49	14,468
Class II - Eastern	53	-	\$281,883.04	\$28,010.47	18	12,918
Class II - Western	16	-	\$170,077.86	\$13,952.47	79	10,463
Class III - Central	72	-	\$851,672.93	\$79,870.70	250	62,039
Class III - Eastern	118	-	\$1,267,444.83	\$87,672.68	366	100,530
Class III - Western	92	-	\$1,162,987.22	\$52,672.08	199	84,231
Class IV - Central	491	19	\$5,504,507.42	\$838,543.38	629	809,162
Class IV - Eastern	151	1	\$1,856,441.43	\$438,081.29	299	198,883
Class IV - Western	219	4	\$2,730,342.26	\$209,922.91	452	340,126
P	-	-	\$73,808.65	\$11,977.08	-	130
Grand Total	1,540	33	\$14,642,041.58	\$1,890,585.66	2,395	1,652,895

So...

- * Recipe:
 - * A dash of technology
 - * One pound of understanding of the data
 - * One ton of data
- * And you get...

