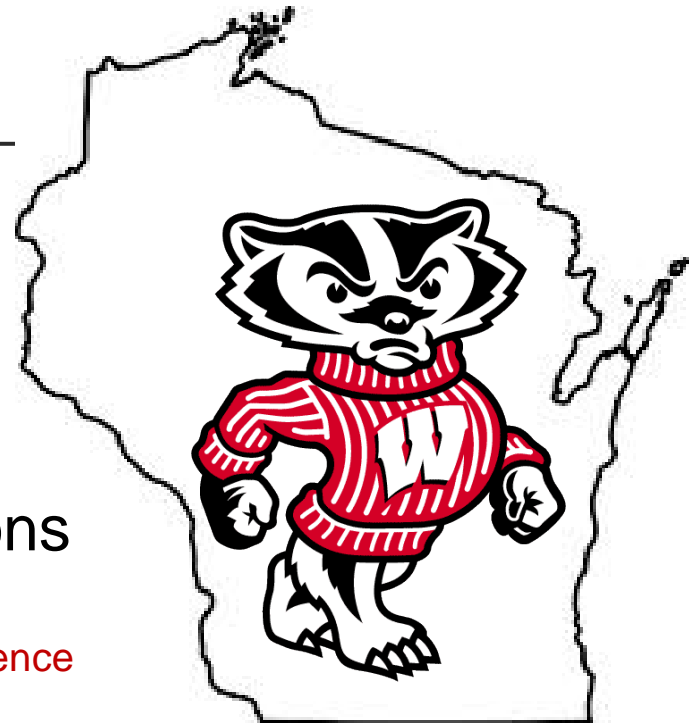


FOOD COST CONTROL

WISCONSIN STYLE

Christine Berndt-Miles, RDN, CD
Dietetic Services Director
Wisconsin Department of Corrections

Assoc. of Correctional FS Affiliates International Conference
August 26, 2015



LEARNING OBJECTIVES

1. WI Culture & History (5 min)
2. Food Cost Calculations (5 min)
3. Validating Trends (5 min)
4. Actions to ↓ Food Cost (15 min)
5. Actions to ↓ Waste (15 min)



What Makes Wisconsin Unique?



Landscape



Long Winters



**WISCONSIN RESIDENTS CONFUSED BY
ABOVE FREEZING TEMPERATURES**

NEWS 3
WISC-TV · MADISON

Fine Cuisine



**WISCONSIN
FOOD PYRAMID**

Green Bay Packers...



...the third-oldest franchise in the NFL, starting play in 1919.

Green Bay Packers



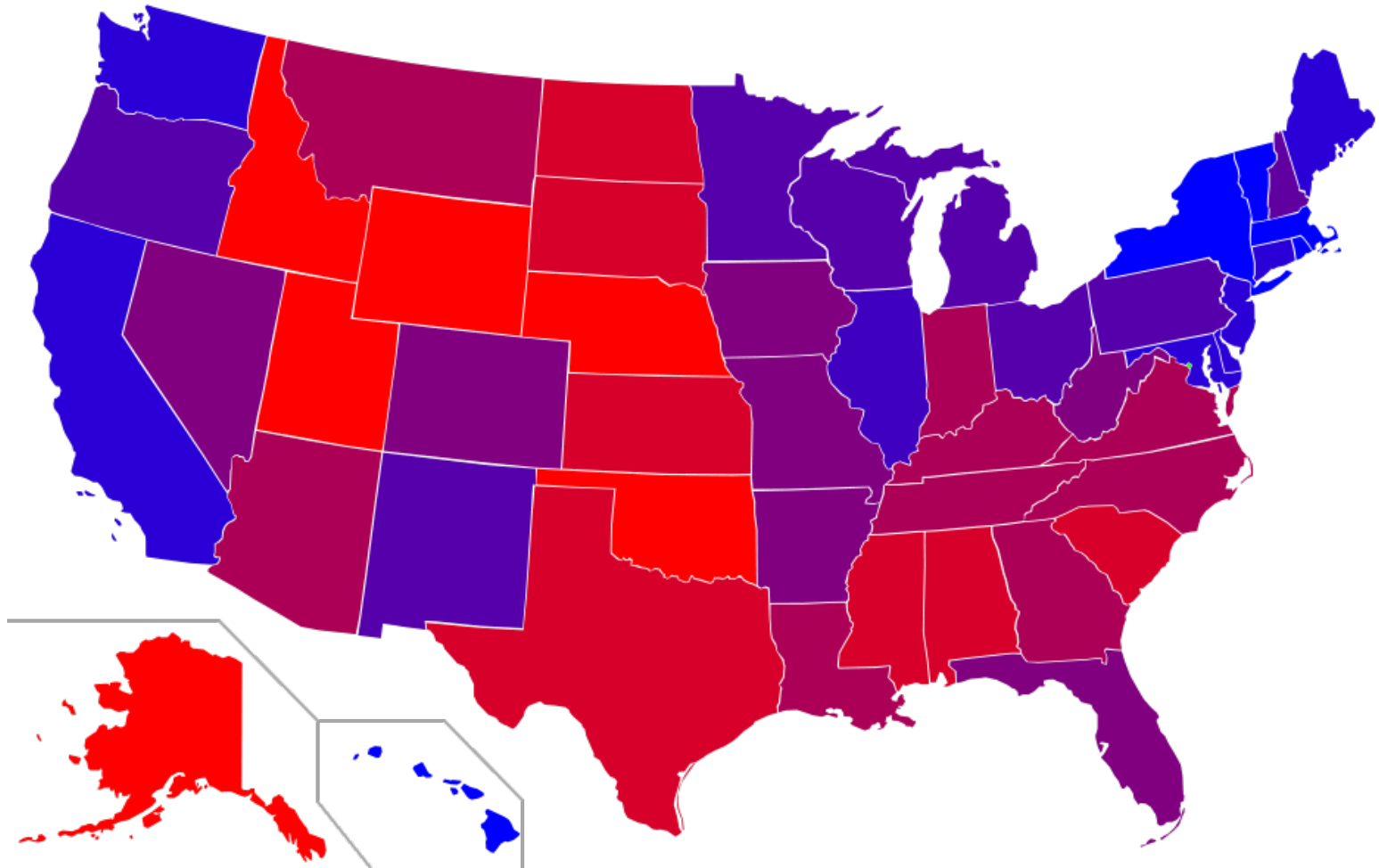
...the ONLY non-profit, community-owned major league professional sports team based in the United States.

Go Big Red

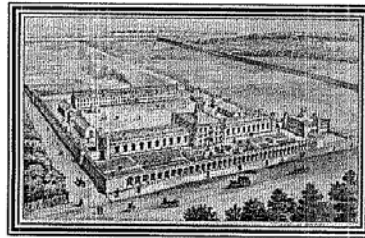


UW Madison & UW System

Wisconsin – Neither Red Nor Blue



*A Historical Overview of the
Wisconsin
Department of Corrections*



*Working to Keep Wisconsin Safe
Since 1851*

WI DOC History – The Early Days

1857 – House of Refuge established for boys.

1874 – Industrial School for Girls established.

1885 – Began 112 acre prison farm.

1886 – Striped suits abolished.

1898 – Security classification system.

1911 – Built Hospital for the Criminally Insane.

1912 – 1 hr recreation on Sat. & Sundays.



1913-14 Report

Apples \$3.00/bu
 Calves \$19.27/head
 Chicken \$0.10/lb
 Eggs \$0.20/doz
 Milk \$0.015/lb
 Tomatoes \$0.35/bu

Total Produced \$6,340
 Total Sold \$1,316

Annual Net Value \$7656

TABLE XXVIII. SHOWING THE QUANTITY AND VALUE OF FARM PRODUCTS RAISED ON THE INSTITUTION FARM AND TRANSFERRED TO THE "SUBSISTENCE ACCOUNT"; THE QUANTITY AND VALUE OF FARM PRODUCTS SOLD; AND OTHER CASH RECEIPTS CREDITED TO THE "BANK, FARM AND GARDEN ACCOUNT" DURING THE BIENNIAL PERIOD ENDING JUNE 30, 1914.

Farm products.	For year ending June 30, 1913.		For year ending June 30, 1914.	
	Quantity.	Value.	Quantity.	Value.
Transferred to the "Subsistence Account":				
Apples	Bbl. 1	\$3 99	Bu. 78	\$27 00
Asparagus	Bu. 475	1 31	Bunches 383	19 93
Beans, string	Bu. 1095 1/2	54 75	Bu. 43	29 09
Beef	Lbs. 997	80 28	Lbs. 673	47 25
Beet greens	Bu. 21	4 33		
Beets	Bu. 145 1/2	47 58	Bu. 110	53 05
Cabbage	Heads 3,553	173 00	Heads 5,308	107 29
Carrots	Bu. 135 1/2	37 67	Bu. 118 1/2	29 83
Carrollflower	Heads 50	4 25	Heads 300	10 00
Cherries			Qts. 60	3 00
Chickens	Lbs. 38	1 80	Lbs. 154	15 40
Corn, sweet	Doz. 277	86 55	Doz. 127 1/2	39 63
Cucumbers	Bu. 117	65 10	Bu. 69	18 00
Currants	Qts. 747	29 68	Qts. 691	23 64
Dill	Lbs. 30	30		
Eggs			Doz. 569 1/2	112 79
Gooseberries	Qts. 24	6 58	Lbs. 362	18 10
Grapes	Lbs. 250	14 03	Bu. 313	7 88
Kohlrabi	Bu. 85 1/2	12 33	Bunches 179	3 43
Lettuce	Bu. 49 1/2	14 83	(Bu. 17 1/2)	9 13
Melons, musk	No. 275	18 75	No. 330	12 00
Milk	Lbs. 22,225	3,750 45	Lbs. 24,385	3,757 25
Miscellaneous garden truck.		100 00		100 00
Onions	Bu. 171 1/2	79 25	Bu. 54 1/2	24 58
Onions, green	Bunches 2,300	45 30	Bunches 2,285	47 00
Parsnips	Bu. 1	45	Bu. 9	4 00
Peas	Lbs. 2,805	339 00	Lbs. 1,297	376 64
Potatoes	Bu. 1,313	563 69	Bu. 1,214 1/2	297 24
Pumpkins			No. 14	43
Radishes	Bunches 2,110	21 10	Bunches 410	4 10
Raspberries, red	Qts. 246	28 60	Qts. 145	14 50
Rhubarb	Lbs. 2,808	28 38	Lbs. 2,699	26 99
Rutabagas	Bu. 40 1/2	43 23	Bu. 104	25 94
Salsich	Bu. 19	6 65		
Squash, Hubbard	No. 427	22 03	No. 207	21 35
Squash, summer	No. 39	53		14 31
Strawberries	Qts. 1,190	47 44	Qts. 259	26 00
Tomatoes, green	Bu. 6	1 23		97 14
Tomatoes, ripe	Bu. 519 1/2	216 48	Bu. 270	
Turnips			Bu. 92	5 50
Veal	Lbs. 611	89 74	Lbs. 430	63 00
Totals		\$6,031 91		\$6,326 88
Sold:				
Beets	Bu. 603 1/2	\$175 04	Bu. 431	\$179 27
Beans, string	Doz. 25 1/2	85 05	Doz. 100 1/2	261 24
Beef	No. 18	18 00	Lbs. 35,462	563 42
Cabbage	Lbs. 59,070	46 81	No. 15	239 99
Calves	No. 18	270 59		

WI DOC History – The 1900s

1914 – Get to see a movie once a week.

1924 – Dept. of Psychology studies delinquency & crime.

1938 – Silent System abolished, 40 watt bulbs installed.



1951 – Education, vocational, social & clinical services programs are expanded.

1951 – Inmates are paid for work.

1955 – Less militaristic discipline, more rehabilitation.

WI DOC History – 1960s

1963 – Associate Wardens are hired at each prison.

1968 – Pre-service training begins for uniformed staff.

1969 – USDA Meal Pattern begins at all prisons.



What Makes WI DOC Unique?

1971 – Riots in Attica, NY, reflects changes occurring in prisons. Inmates granted fundamental rights and have direct access to the courts.



1975 – First substance abuse program.

1976 – Riot destroys Waupun Corr. Inst. sign shop.

WI DOC History – 1980s

- 1981 – Community Service is enacted by Legislature.
- 1981 – “Mini-Computer” used for I/M accounting system.
- 1982 – Main frames installed.
- 1986 – Unit Mgmt introduced.
- 1987 – “Life means Life”
- 1989 – Gender parity in education, work, medical services.
- 1990 – Corrections becomes a state agency.
- Food Management Section = 3 FTE for 7000 I/M



Wisconsin DOC Today

- 22,500 inmates
- Food Mgmt = 3 FTE
- 18 institutions, 19 Correctional Centers, 3 Schools
- 3 prison farms; 1 dairy plant
- Gardens: 388,000 lb in 2013; 224,000 lb in 2014.



- 40 self-operated Food Services; 1 private Food Service

Racine Youthful Offender Correctional Facility



Racine Youthful Offender Correctional Facility

- RYOFC FS is located outside of institution fence.
- FS company creates jobs for the developmentally disabled in local community.
- These contracted employees do not go past the fence.
- Contracted Food Service Manager can enter institution.
- 2 DOC staff employed to monitor contractor's performance & distribute food inside the institution.
- Food is x-rayed before entering.

Works well!

Wisconsin State Statutes

Butter: Chapter 97, 97.18 states

(5) “The serving of oleomargarine or margarine to students, patients or inmates of any state institutions as a substitute for butter is prohibited, except that such situation may be ordered by the institution superintendent when necessary for the health of a specific patient or inmate, if directed by the physician in charge of the patient or inmate.”



Wisconsin State Statutes

(6) “Any person who violates any provision of this section may **be fined** not less than \$100 nor more than \$500 or **imprisoned not less that 3 months or both**; for each offense...”



Wisconsin DOC Admin. Code

Butter & Cheese - DOC 301.27 states,

“(4) **BUTTER AND CHEESE**. No butter or cheese not made wholly and directly from pure milk or cream, salt and harmless coloring matter may be used in any institutions of the department....”



Statistics Disclaimers



“Facts are stubborn things, but statistics are pliable.”

— Mark Twain

*“I couldn't claim that I was smarter than 65 other guys—
but the average of 65 other guys, certainly!”*

— Richard Feynman

*“Abstain from reading comedy or other government economic
statistics.”*

— Jarod Kintz

“All statistics have outliers.”

— Nenia Campbell

Food Cost Interpretations

In evaluating Food Cost statistics from other Correctional facilities or systems, consider the key variables influencing costs, such as:

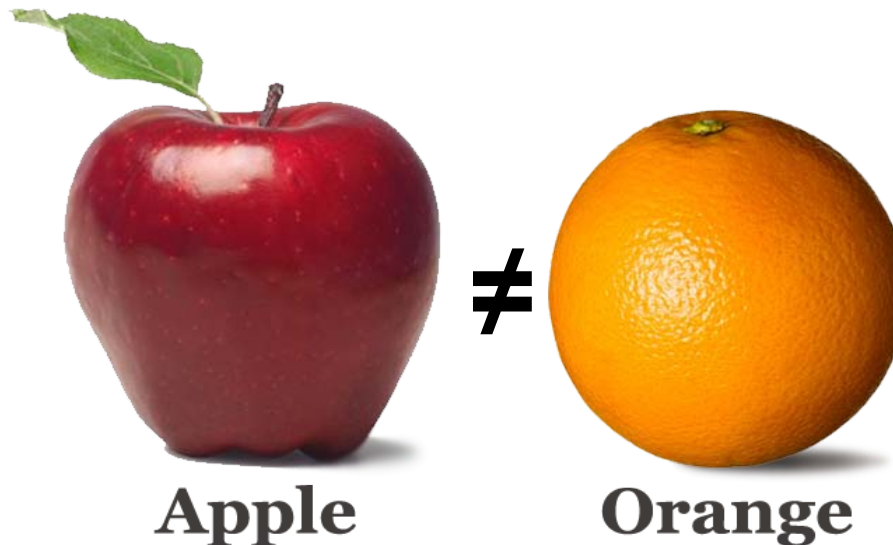
- Self-operation vs privatization
- Types & no. medical diets, religious diets
- Centralized or decentralized dining
- “Blind” feeding? Child Nutrition programs?
- Cook-serve vs cook-chill
- Commercial or HM bread, buns & desserts
- Hot vs cold meals
- Nutritional objectives
- Gardens & farms
- Dairies, meat processing, canning/freezing abilities
- Etc.



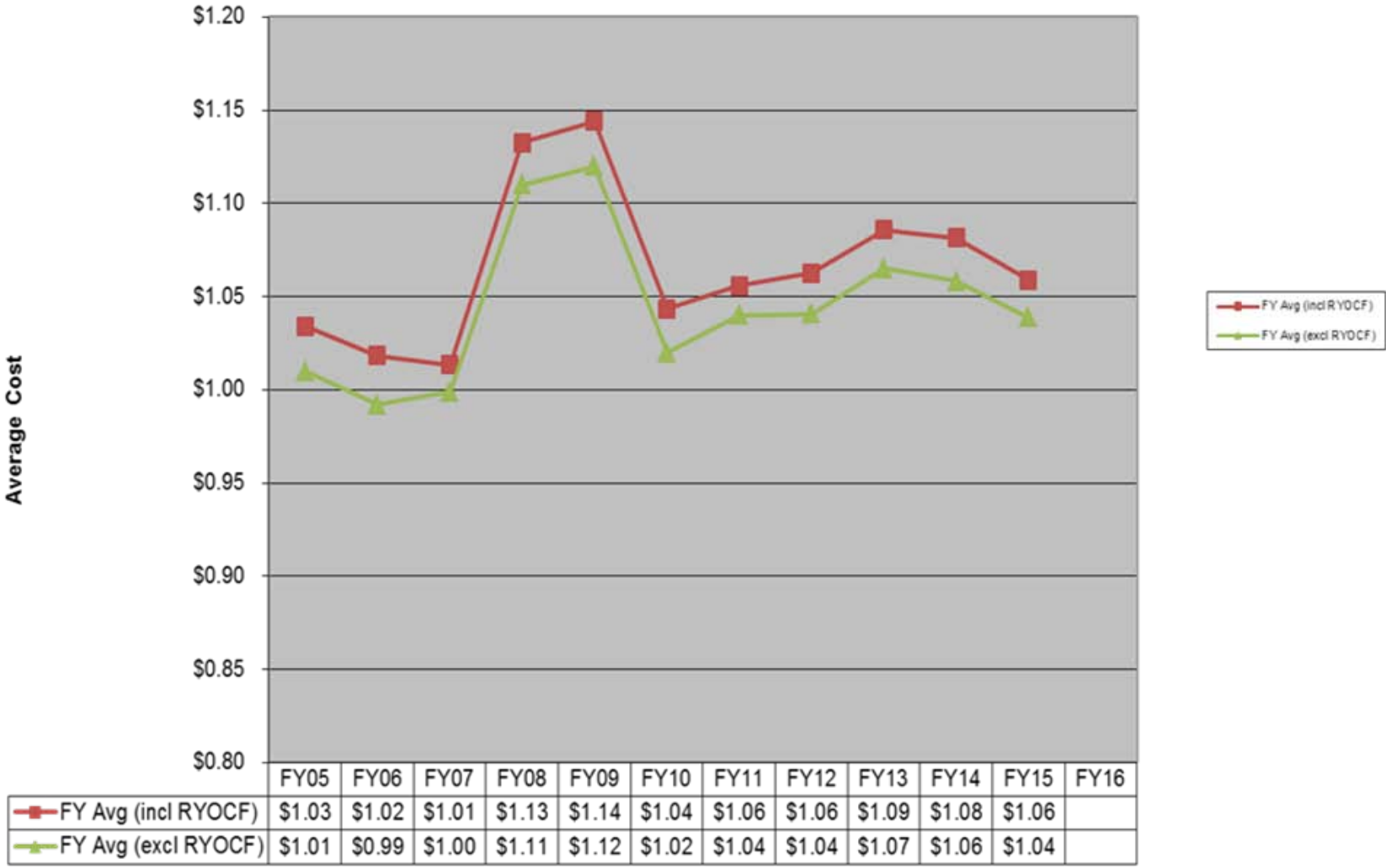
Statistics Disclaimer

- “Ask questions before making comparisons.
- Direct comparisons are frequently invalid.
- Educate your administration & legislators to this reality.”

Chris Berndt-Miles, RDN, CD

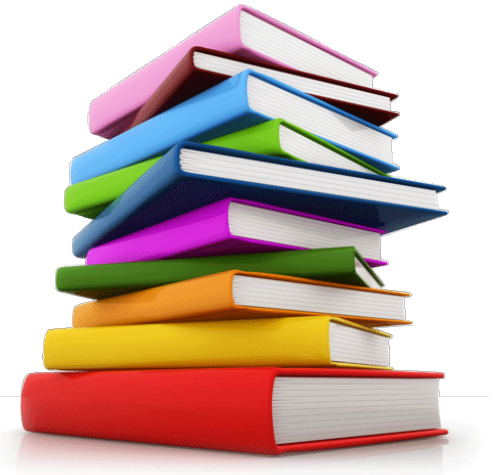


**Department of Corrections
FY Average Cost Per Meal
FY05-FY16**



Fiscal Year

Reporting Raw Food Cost



A. TEXT BOOK DEFINITION:

FOOD Issued / **MEALS** Served = Raw Food Cost

Where **FOOD** Issued:

Starting Inventory
+ Deliveries
- Current Inventory
Expressed in \$

MEALS Served: Plate/Tray/Head Count

Reporting Raw Food Cost

B. Potential Problems with **FOOD** portion of formula

- No Warehouse/Warehouse Manager
- No FS staff tasked with inventory management
- Sites with insufficient storage get frequent deliveries and maintain very low inventory
- 1 CFSL can only oversee 10 out of 21 meals/week

Reporting Raw Food Cost

C. Potential Problems with **MEALS** Served

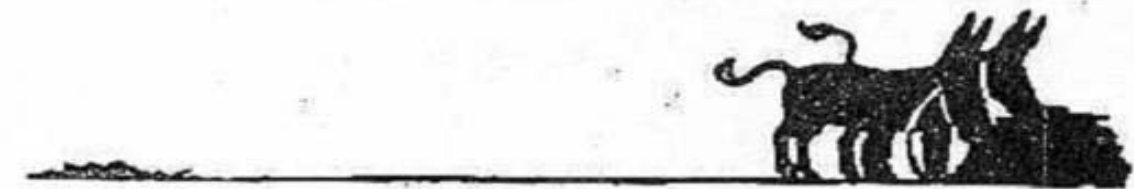
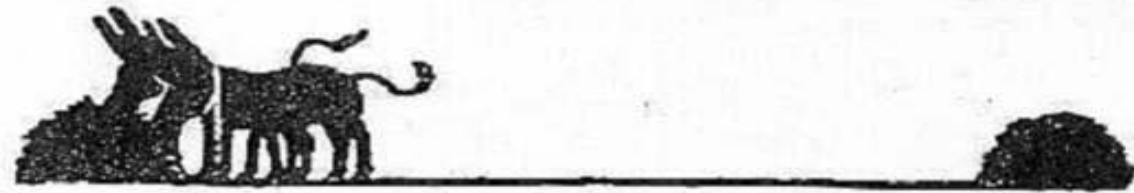
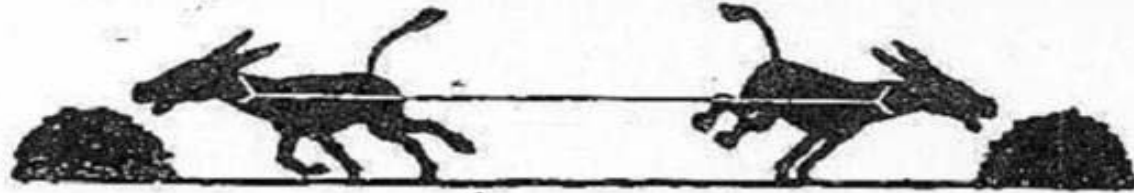
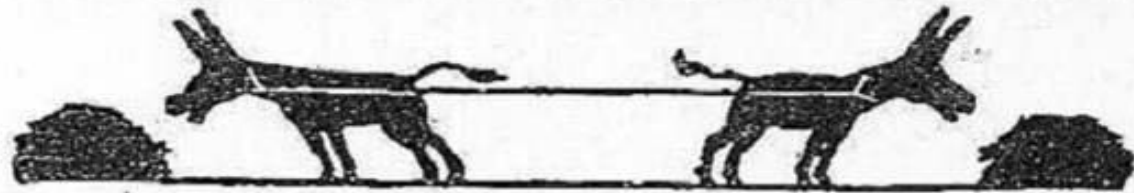
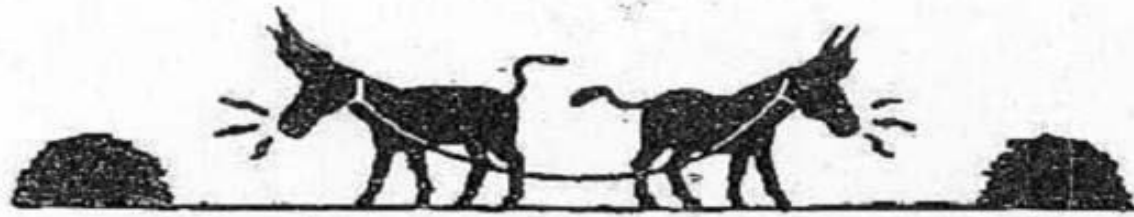
- Plate/Tray Count + Staff (Not practical/accurate, human error)
- Unit Requests + Staff (Counts “increase” for hamburger meals)
- Meals Produced (Just plain wrong)



Reporting Raw Food Cost

FOOD Variables	MEALS Served Variables
Issued	Physical Tray Count*
Purchased	Unit Requests*
	Meals Produced*

* Not verifiable



Reporting Raw Food Cost

Current Policy:

Food Cost =

Food Issued (or Purchased) /

[Prison Count *prior to meal* + Staff Count *validated in WICS*]

ALL figures are verifiable.



DOC Menu Cost Comparisons

Menu Type - Low to High Cost	\$/Diem	\$/Meal	
Plant-Based	\$ 2.54	\$ 0.85	
Female	\$ 2.55	\$ 0.85	
Male - With Bakery	\$ 2.83	\$ 0.94	WI DOC Benchmark
Halal	\$ 2.94	\$ 0.98	
Male - No Bakery	\$ 3.03	\$ 1.01	
Dialysis w/ HS Snack & High Protein	\$ 3.76	\$ 1.25	
Ramadan Bag Meals	\$ 3.23	\$ 1.08	
Dialysis w/ HS Snack	\$ 3.14	\$ 1.05	
Kosher	\$ 6.30	\$ 2.10	
Kosher for Passover	\$ 12.34	\$ 4.11	

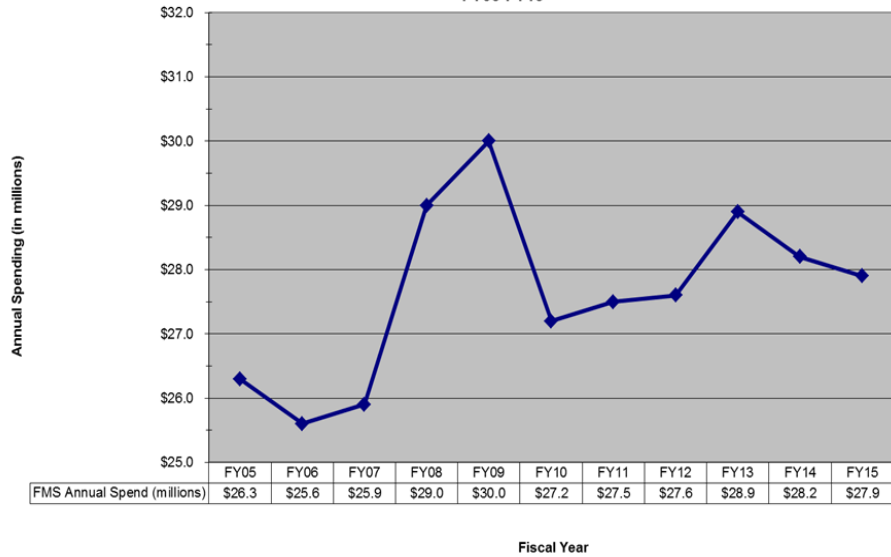
Based on prices in Computrition as of 8-11-15

Cost/Meal vs. Annual Spend

Department of Corrections
FY Average Cost Per Meal
FY05-FY16



Department of Corrections
FMS Annual Food Spend
FY05-FY15



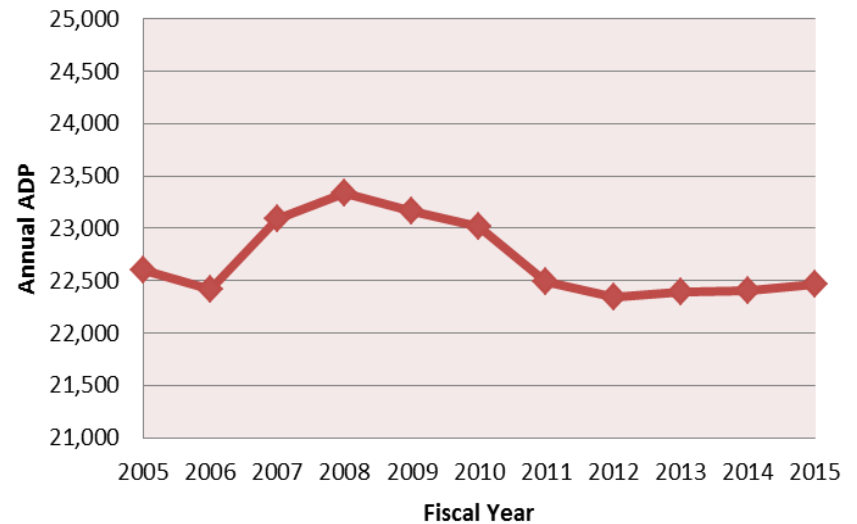
Fiscal Year

Cost/Meal vs. Inmate Population

Department of Corrections
FY Average Cost Per Meal
FY05-FY16

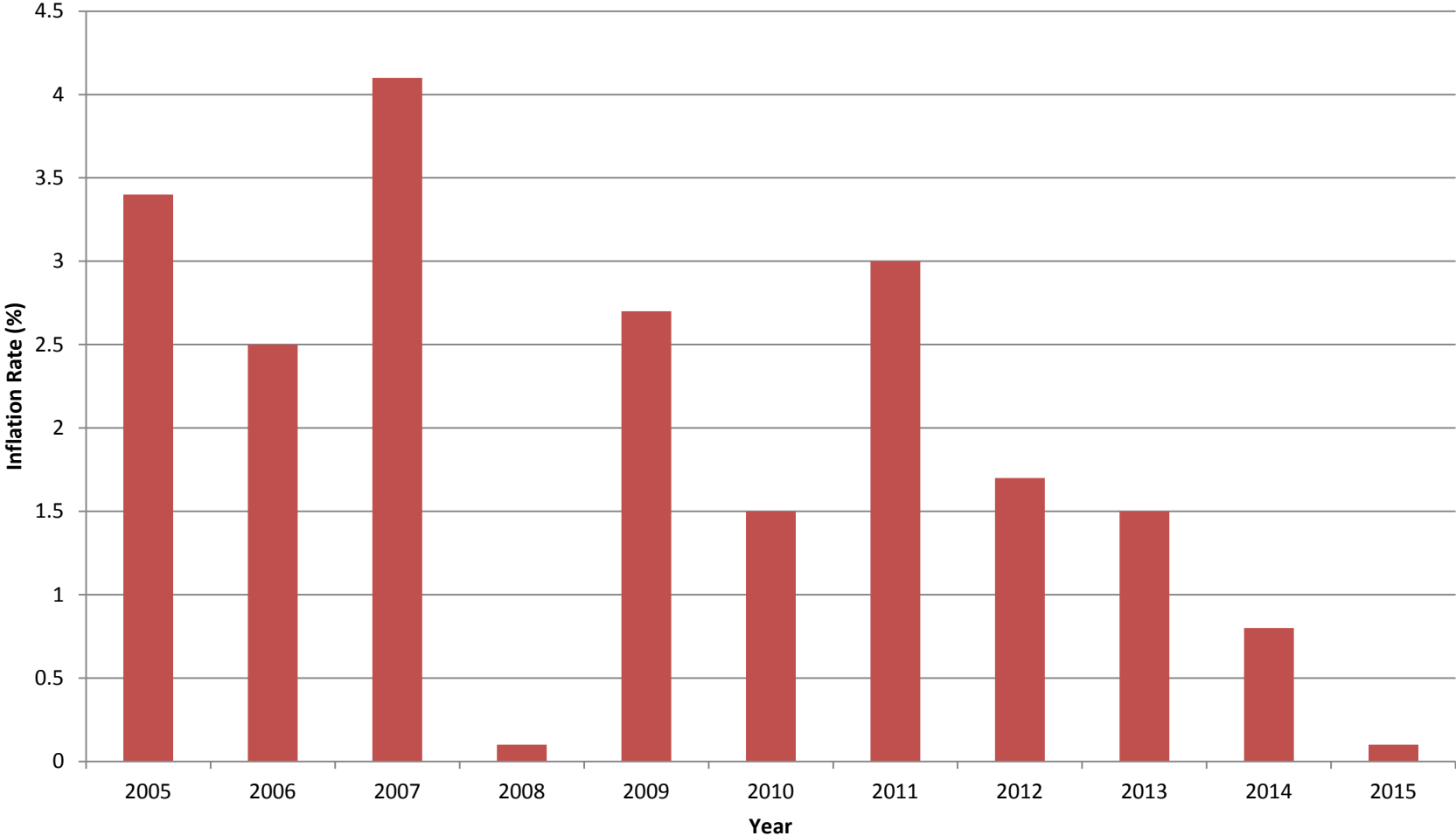


Avg. Daily Population by Fiscal Year



Fiscal Year

Annual Inflation Rates Chart 2005-2015



Source: www.usinflationcalculator.com/inflation/current-inflation-rates/

<http://www.usinflationcalculator.com/>

If in 2005 (fill in year)

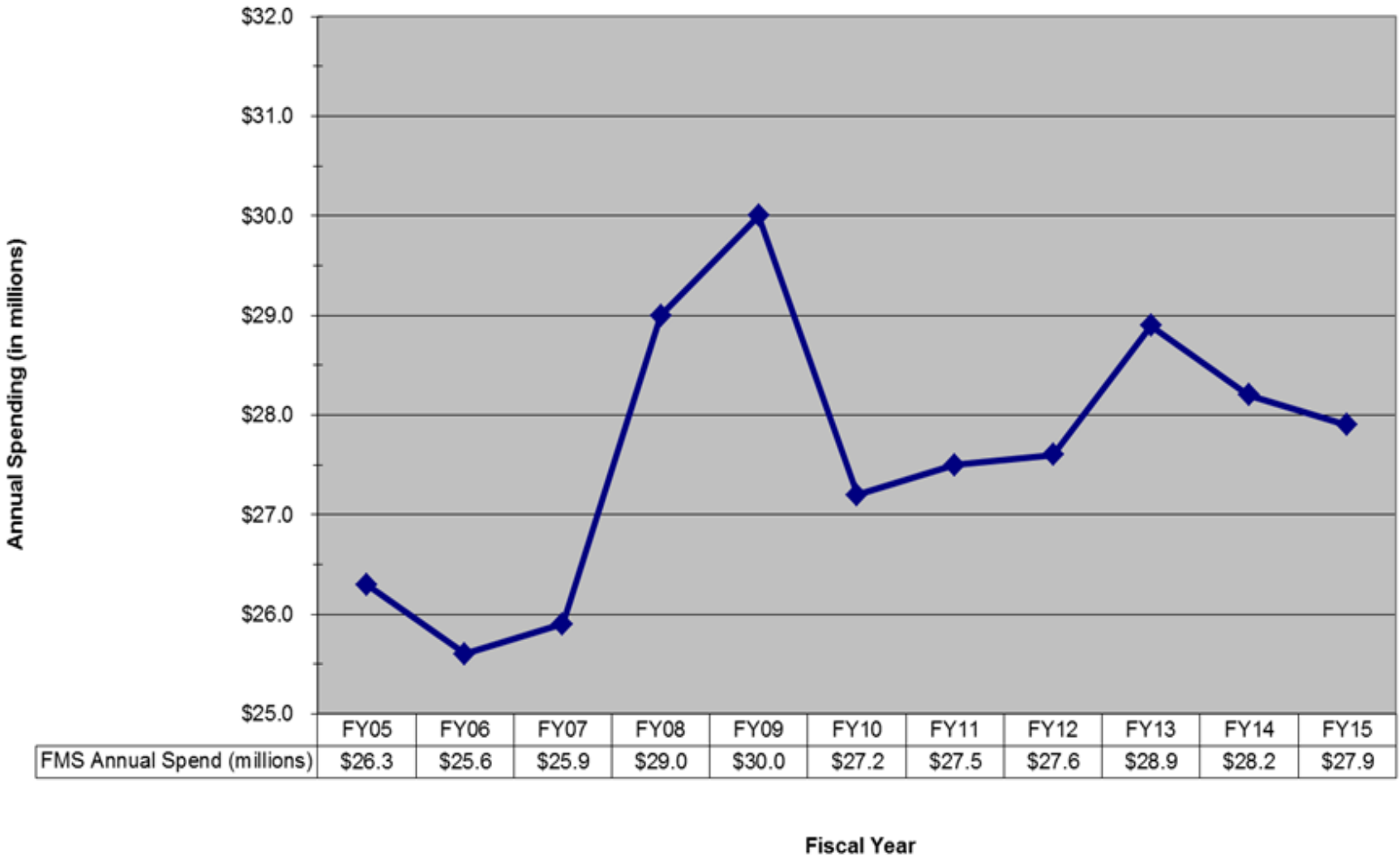
I purchased an item for \$ 1.01

Then in 2015 (fill in year)

That same item would cost \$1.23

Cumulative rate of inflation 22.2%

**Department of Corrections
FMS Annual Food Spend
FY05-FY15**



FMS Annual Spend (millions)	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15
	\$26.3	\$25.6	\$25.9	\$29.0	\$30.0	\$27.2	\$27.5	\$27.6	\$28.9	\$28.2	\$27.9

2006 – Healthy Meals Initiative

- ↓ Overall calories, from 3600 to 3200/day for adult males
- ↓ From 4 c. 1% to 3 c. Skim milk daily
- ↓ Bread portions from 4 slices to 2 slices (or 1 bun)
- ↓ Animal protein, ↑ plant protein (soy)
- Casseroles → 33% beef, 33% turkey, 33% soy
- Limit desserts to one/day
- Evaluated dessert portions
- Eliminated sugar soft drinks
- Eliminated coffee & sugar at noon and evening



2006 – Healthy Meals Initiative

Nutritional Outcomes

- ↑ Dietary Fiber
- ↓ Fat, ↓ % Calories from sat. fat, ↓ Chol.



dreamstime.com

Financial Outcomes

- ↓ Cost/Meal \$0.02 from FY05 to FY07
- ↓ Annual Spend from \$400,000



2007/2008

- Eliminated coffee (+ sugar, filters, urn cleaner, etc.)
- Stopped serving during hot summer weather.
- Did not resume in the fall



2010 Consolidated Master Menu

- ANOTHER shift in “corporate culture.”
- Top down decision – must have admin support!
- Every site on the SAME menu (or very close)
- Allowed to change two meals per week.
- Identical food specifications, order guides.
- Maximum purchasing power
- Greater use of soy protein in *select* menu items.



2010 Consolidated Master Menu

Implemented between July 1 & Dec. 31, 2009.

Implemented Monthly Quality Assurance reports:

- Menu Compliance
- Nutrition Compliance
- Inmate Complaints/month
- Top 80% Spend items (Opp. Buys)
- Cost/Meal & FMS Spend

Projected to save \$1 million annually



2010 Consolidated Master Menu

Actual Savings:

- ↓ From \$1.14/meal to 1.04/meal = **\$0.10/meal**
- ↓ From \$30.0 Million to \$27.2 Million = **\$2.8 Million**



Since 2010...

- 2010 to Present – Expanded bakery operations, garden acreage and **shared services** at every opportunity.
- 2011 - DOC Cost/Meal ↑ 1% from FY10 to FY11, whereas food prices ↑ 5% for the same time period.
- 2012-13 – Nationwide drought: Low crop yields; livestock sold off. Prices shot up. Changed to 67% ground turkey, 33% soy in casseroles and strong flavored dishes.
- **DOC Response:** Implemented **weekly conference calls** with food vendor to identify Top Spend items & cost savings opportunities. Butter, Turkey Ham, Gr. Beef Bulk & Patties, Flour...etc.
- Fortified fruit drink offered more often.

Since 2013...

- Continued to expand bakeries, gardens & shared services – **with some limitations.**
- Updated over 80% of our food specs
- Rebid Prime Vendor contract
- **Periodic menu updates d/t market conditions.**



Example: Applesauce → Assorted Canned Fruit

Under Consideration...

PROPOSAL

- ↓ Eggs to once a week
- ↓ Sodium to ~ 3100 mg.
- Making homemade stock, revising salt & sodium in recipes
- Changing bread recipe to 60%WW flour, reduced salt
- Adding boneless whole muscle chicken (thigh) back to menu.
- Adding fajitas with chunk chicken thigh.
- Less expensive OJ w/ Ca & Vitamin D
- Meet w/ vendor 1-3 times per month.
- Monitoring impact of drought, avian flu, El Niño & ???

Potential Cost Savings?



It may be time for another paradigm shift....

FY15 Goal – Reduce Waste

- Food Production
- Unit Counts
- Kitchen Waste
- Dining Room Waste
- Theft
- Waste Disposal, Recycling, Etc.



Best Practices - Production

- AM production based on Midnight Census.
- Unit staff communicate w/ FS re: unit transfers, admits, discharges.

- Maintain low food inventory - makes it easier to spot over or under production.
- Pull sheets indicate the exact amount of meat or product to use.
- A yield log sheet is used to track how much food is prepared, served and leftover.
- The log sheet is out and available for 8 weeks.
- Produce according to historical data. Example: always produce corn at 100%, but not carrots and salads.

- Batch cook for centralized dining. Determine needs as each group comes through.
- Standardized recipes are easy to follow.
- Recipes are scaled to yield institution needs.
- Staff supervise measuring of ingredients.
- Must have supervisor's permission to deviate from recipe.
- Count items are tightly controlled and calculated.
- Accurate counts for single serve items.
- Supervise, supervise, supervise. Double count. Triple count.
- Staff must count at least once.

Best Practices - Production

- Watch how they slice/portion meats.
- Protein items most prone to overproduction and over-serving.
- Show meat slicers the correct portion, using a scale.
- Then put 10 portions on scale. If ten 2-oz portions weigh 22 oz...for 700 servings = 10 pounds short.
- Use correct scale to accurately identify portion size discrepancies.
- Unit servers are held to the number of servings they should be getting out of pans.
- Meal carts are checked by FS staff, then locked to insure that nothing can be added or removed from them prior to delivery to the units.
- Document use of leftovers.
- Watch trash cans, watch what I/M are throwing out.

Best Practices – Unit Counts

- Use unit counts from Control, subtract diets & FS workers.
- Requiring unit 'on hand' inventories before sending additional items.
- Send food in locked food carts.
- Require security staff to verify amount of product received.
- Conduct unit visits at meal time to oversee leftovers, sanitation, correct utensils, serving sizes.
- Limit type of food units can order in bulk to: milk, salt & pepper, catsup & mustard.
- Pre-portion peanut butter & jelly in Main Kitchen. Send out according to unit count or portion directly onto tray.
- FS tracks amounts issued to units; ask questions if units request extra.

Best Practices – Kitchen Waste

- Monitor perishable food dates & quality on a daily basis.
- Staff **watch and instruct** inmates on how to clean/trim raw produce.
- Maintain Yield Log, and **adjust recipes when needed**.
- Leftover pre-prepped produce is frozen and used in soups, casseroles, etc.
- Utilize leftovers as much as possible, **freeze what product may be used again or for diets**.
- **Use Food Cooling Log to for time/temperature documentation.**
- Leftovers that cannot be re-utilized (partial pans) are put out at lunch in staff dining area.
- Vegetable/fruit scraps are **composted** during growing season.
- Food waste is composted; Cans, cardboard and plastics are recycled.
- Certain leftovers to go to **local church food pantry**. Food is frozen and sent out once a week.

Best Practices – Dining Room Waste

- Monitor what was sent to serveries/dining areas.
- Monitor how food items are received. Send 'estimated' amounts on items that are generally not taken by all inmates.
- Use Summer/Winter Menus for variety.
- I/M may pass or give a portion of their food to another inmate seated at the same table.
- I/M are allowed to take 1 piece of fruit to their cell.
- I/M NOT allowed to take a tray & immediately dump it out.

Best Practices – Deter Theft

- Bar cookies vs drop cookies.
- Lock dessert cabinets.
- Freezers, coolers, storage areas are locked at all times.
- Keep “high theft” items locked in cooler cages or staff office: yeast, juice, sugar, spices, raisins, cheese, powdered milk, drink mix, choc. & butterscotch chips, peanut butter, etc.
- Only staff may handle yeast, spices and other high-theft items.
- Only bring out the amount of food needed. Limit number of cases out at a time for hamburgers, sausages and other "piece" items.
- Use clear bags for bag meals or snacks. Seal clear bags with name label and watch for broken seals.
- Spot check modified diet bags.

Best Practices – Deter Theft

- **FS supervision needs constant training/coaching** from mgt in meetings or one-on-one.
- Security, supervision and cameras.
- Need adequate ratio of security to inmates.
- **Pat down inmates before entering or leaving kitchen.**
- Searches: kitchen, serveries, bathrooms, break rooms.
- Regular cell searches are conducted on inmate workers; institution food is occasionally found.
- Room searches or strip searches (with cause) if theft is suspected I/Ms caught stealing are terminated.
- **Be firm, fair and consistent in applying kitchen rules.**

Best Practices – Waste Management

- Produce waste is composted. Food waste is composted.
- Food waste & cardboard used by **vermiculture (worm farm)**.
- **Pulp** as much food waste as possible to reduce landfill fees.
- **Cans, cardboard, plastics, milk cartons are recycled.**
- Drain food waste from kitchen & serveries; due to problems with local sewer system.
- Maintenance Department built an **accessory to the potato peeler to catch solids**. Can discard solids, rather than putting into sewer. Have saved money on sewer surcharges and helped our small, local water/sewer utility.
- **Compost ALL dining room tray scraps. Eliminated one dumpster. Also save on water that would have gone down the garbage disposal.**

LEARNING OBJECTIVES

1. WI Culture & History (5 min)
2. Food Cost Calculations (5 min)
3. Validating Trends (5 min)
4. Actions to ↓ Food Cost (15 min)
5. Actions to ↓ Waste (15 min)



Questions?

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Wisconsin Department of Corrections

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