Small vs. Big School Health

E.M.P.A.C.T.S. Project

Joe Buss
Richard Brooks
Matthew Higgins
Paige Higgins
Small schools, compared to larger elementary schools, are typically stereotyped as being less efficient when it comes to their students food health factors for lack of money.
NWACC is located at 36.3575688 Latitude & -94.1721667 Longitude.

West Fork Elementary School is located at 35.9247699 Latitude & -94.1931596 Longitude.

Total distance between the West Fork Elementary and NWACC is 34.35 Miles. Estimated Drive time is 35 minutes.

Bernice Young Elementary School is located at 36.183946 Latitude & -94.204755 Longitude.

Total distance between Bernice Young Elementary and NWACC is 15.3 miles. Estimated Drive time is 19 minutes.
1. The community consists of West Fork, Springdale Public Schools, and the parents of elementary school kids.

2. Raise awareness for people in other communities, and ensure students proper health.
Pat Thaler: Principal West Fork Elementary
Diane Barrett: Superintendant West Fork Schools
Debbie Flora: Principal Bernice Young Elementary
Dr. Jim Rollins: Superintendent Springdale Public Schools
Marjorie Whitmore: Beginning Algebra Instructor.
Technology

- TI-83 Calculator
- Digital Camera
- Computer
  - Microsoft Power Point
Project Summary

1. Gather Health Data
2. Speak with school officials
3. Observe student activities
4. Summarize all findings
1. Joe Buss, Richard Brooks: Visit West Fork school (smaller) and collect data.

2. Matthew Higgins, Paige Higgins: Visit Bernice Young Elementary in Springdale (bigger) and collect data.

3. Interact with school officials to gain a better understanding of their health consciousness.

4. Record and review all data recorded.
1. We went to West Fork and Springdale Elementary Schools three separate days to observe food servings, and speak with Health Officials.

2. We gathered food serving data from the head lunch official concerning amounts per serving.

3. We observed recess times.
Three steps to Healthy Meals

Three Step Program

- Blue: 36.99%
- Green: 34.99%
- Yellow: 32.99%
- Red: 30.99%
- Purple: 25.99%
Lunch Period
Amounts per serving:

- Chicken Fried Steak .................. 222.97 Calories
- ½ Cup Mashed Potatoes .............. 180 Calories
- 1 tbsp. Cream Gravy .................. 5.62 Calories
- ¼ Cup Green Beans .................... 10 Calories
- 1 Wheat roll ............................. 176 Calories
- 1 - 8oz. Milk ............................. 125 Calories

Total Calories per CFS meal: 719.59 Calories
Fajita Day
- Amounts per serving:
  - 2 oz. Chicken Fajita Strips……..72 Calories
  - 1 oz. Cheddar Cheese…………..80 Calories
  - 1 tortilla……………………………….146 Calories
  - 1/8 Cup Salsa……………………….4.25 Calories
  - ½ Cup Pinto Beans……………….110 Calories
  - ½ Orange……………………………..31 Calories
  - 1 - 8 oz. milk…………………………..125 Calories

- Total Calories per meal: 568.25 Calories
Hamburger on a Whole Wheat Bun
- Lettuce and Dill slices
- Baked BBQ Chips

OR

Macaroni and Cheese

Both served with:
- Green Beans
- Pineapple Tidbits
- Whole Wheat Roll
- Milk

<table>
<thead>
<tr>
<th></th>
<th>Average Amount per Meal</th>
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<tbody>
<tr>
<td>Total Calories</td>
<td>744</td>
</tr>
<tr>
<td>Total Fat</td>
<td>22.46 g</td>
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<tr>
<td>Saturated Fat</td>
<td>9.9 g</td>
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<tr>
<td>Protein</td>
<td>32.76 g</td>
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<tr>
<td>Carbohydrates</td>
<td>107.94 g</td>
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Grilled Chicken Sandwich on Whole Wheat Bun OR Cheese Pizza
Both served with:
- Whole Kernel Corn
- Spinach Salad
- Ranch Dressing
- Applesauce
- Milk

<table>
<thead>
<tr>
<th>Nutrition</th>
<th>Average Amount per Meal</th>
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<tbody>
<tr>
<td>Total Calories</td>
<td>663</td>
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<tr>
<td>Total Fat</td>
<td>20.75 g</td>
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<tr>
<td>Saturated Fat</td>
<td>6.0 g</td>
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<tr>
<td>Protein</td>
<td>33.84 g</td>
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<tr>
<td>Carbohydrates</td>
<td>91.98 g</td>
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Students are allowed 30 minutes a day, by state law, for recess. However, West Fork gives students an extra 15 minutes after lunch.

Children burn about 300 Calories per active hour of recess.
Students are only allowed 60 minutes a week for P.E. which accounts for burning over 300 calories due to the activity level.
<table>
<thead>
<tr>
<th>Activity</th>
<th>Details</th>
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<tbody>
<tr>
<td><strong>RECESS</strong></td>
<td>Students have recess 30 minutes daily for a total of 150 minutes of recess per week.</td>
</tr>
<tr>
<td><strong>Physical Education (P.E.)</strong></td>
<td>Students have P.E. twice a week for 40 minutes each session for a total of 80 minutes of P.E. each week.</td>
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West Fork Average Calorie Intake

**CALORIE INTAKE**

- Daily average calories = 643.93
- Weekly Average = 3219.675
- 20 day month = 12878.6

**CALORIES BURNED**

- Daily recess = 45 minutes at 225 Calories burned.
- Weekly average with P.E. = 1,425 Calories burned at school.
- Monthly = 5,700 Calories burned at school.

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<tr>
<td>Daily</td>
<td>418.93</td>
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<tr>
<td>Weekly</td>
<td>1794.675</td>
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<tr>
<td>Monthly</td>
<td>7178.6</td>
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Springdale Average Calorie Intake

**CALORIE INTAKE**

- Daily average calories = 706.67
- Weekly Average = 3533.35
- 20 day month = 14133.4

**CALORIES BURNED**

- Daily recess = 30 minutes at 150 Calories burned per day.
- Weekly average recess & P.E. = 1150 Calories burned at school.
- Monthly = 4600 Calories burned at school.

<table>
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<th>Calories Not Burned at School</th>
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<tr>
<td>Weekly</td>
<td>2383.35</td>
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<tr>
<td>Monthly</td>
<td>9533.4</td>
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Conclusion

- Elementary school kids do get the food they need to sustain a healthy lifestyle.
- More P.E. per week would be a positive change in the curriculum.
- Springdale School meals appear to consist of more calorie intake and less total activity time than West Fork School.
- From our data, we do not feel as though West Fork Elementary or Young Elementary are contributing to childhood obesity.
- Poverty is an uncontrollable factor when considering child health in public schools.