### Wisconsin Labor Market Data –

According to Wisconsin Department of Workforce Development and salary.com

<table>
<thead>
<tr>
<th>OCCUPATION</th>
<th>Base Year Employment Estimate, 2012</th>
<th>Projected Year Employment Estimate, 2022</th>
<th>Annual Growth Rate</th>
<th>Period Employment Change</th>
<th>Period Percent Change</th>
<th>Annual Openings Due to Growth</th>
<th>Annual Openings Due to Replacement</th>
<th>Total Annual Openings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineers</td>
<td>31,461</td>
<td>33,380</td>
<td>.59</td>
<td>1,919</td>
<td>6.1</td>
<td>192</td>
<td>848</td>
<td>1,040</td>
</tr>
<tr>
<td>Chefs and Head Cooks</td>
<td>2,796</td>
<td>2,931</td>
<td>.47</td>
<td>135</td>
<td>4.83</td>
<td>14</td>
<td>45</td>
<td>59</td>
</tr>
<tr>
<td>Financial Analysts</td>
<td>4,116</td>
<td>4,650</td>
<td>1.23</td>
<td>534</td>
<td>12.97</td>
<td>53</td>
<td>100</td>
<td>153</td>
</tr>
</tbody>
</table>

### Wisconsin Wages

#### Plant Engineer
- **Level of Experience**
  - Entry Wage: $27.01
  - Median Wage: $32.99
  - Experienced Wage: $39.45
- **Hourly**: $27.01
- **Annual**: $56,180

#### Financial Analyst
- **Level of Experience**
  - Entry Wage: $26.01
  - Median Wage: $32.65
  - Experienced Wage: $42.23
- **Hourly**: $26.01
- **Annual**: $54,090

#### Corporate Chef
- **Level of Experience**
  - Entry Wage: $21.61
  - Median Wage: $33.48
  - Experienced Wage: $52.02
- **Hourly**: $21.61
- **Annual**: $44,959
“Communication is the most important skill an engineer can possess.”

- Writing a technical report or communicating technical information and giving presentations
- Working with professionals from overseas, and interpreting what they are saying (Shakespeare is good practice for interpretation.)

“Everything from geometry to calculus is encountered at some point in the engineering profession. Even if you’re not a wiz math student, you can be an engineer.”

- Use capital investments to determine net present value and internal rates of return
- Use flow rates in a system of pipes to determine what is happening

“Sciences are a good foundation to an engineering career; and while I use physics more often than chemistry and other sciences, I need a basic understanding of all scientific concepts to communicate with somebody when solving a problem.”

- When analyzing the structure of an old building, I use physics to determine roof loading and forces being applied to structures
- Fundamental knowledge of magnetism, sound, electricity, light and other wavelength energies is important to success
- Chemistry is used to understand how the compounds that make up milk can be formulated and processed to make dairy products

CORE CLASS CONNECTIONS: 
ENGINEER

Field

Language arts

Math

Science
## WORKPLACE LEARNING OPPORTUNITIES

**MATH**

1. Not used on the job
2. Perform simple arithmetic computations
3. Perform complex computations (e.g., calculate interest rates, convert to metric system)

**WRITING**

1. Not used on the job
2. Write simple messages
3. Perform more complex writing tasks (e.g., letters, sequential written directions)

**READING**

1. Not used on the job
2. Read simple directions (e.g., labels, memos, filing directives)
3. Read more complex materials (e.g., instructional manuals, reports)

**TASK COMPLEXITY**

1. Perform simple one-step tasks
2. Perform multi-step tasks
3. Perform more than one multi-step task simultaneously

**PLANNING AND DECISION MAKING**

1. Not a responsibility of the job
2. Assist in planning steps. Required to complete multi-step assignments
3. Helps identify alternative methods to complete multi-step assignments and plan steps

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This tool is designed to help you get a better understanding of the level of complexity of the tasks that are performed at a worksite. For each of the competency areas listed below, please circle the level at which the employees must perform.

## Problem Solving and Troubleshooting

1. Identify problems when performing routine work assignments
2. Identify problems and possible solutions to routine work assignments
3. Perform complex, non-routine work assignments that require problem solving

## Computer Technology

1. No use of a computer on the job
2. Use a computer for simple word processing and data-entry tasks
3. Use a computer as a tool for more complex assignments such as spreadsheets, graphs and charts

## Other Technology

1. No use of other technology on the job
2. Perform basic technical tasks
3. Perform advanced technical tasks such as helping maintain computer networks

## Client / Customer Service

1. No interaction with clients/customers on a regular basis
2. Convey simple messages to clients
3. Handle client/customer questions and requests for services

## Oral Communication

1. Job-related communications consist mainly of asking and answering questions
2. Prepare and convey simple ideas and information for co-workers and/or external clients
3. Prepare and convey complex ideas and information to co-workers and/or external clients

## Organize and Analyze Information

1. File and organize materials
2. Prioritize information in a systematic way
3. Read, analyze and interpret complex information
"I use reading, writing and speaking skills every day."

- Email communication to multiple teams like sales, customer service, finance, etc.
- Sales finance training for new finance and sales partners (power point presentations for training.)
- Presentations on financial results to other areas of the business.

"As a financial analyst, I mostly use basic algebra skills and a lot of mathematical equations as well as the basics of addition, subtraction, multiplication and division."

- Determine optimal price points and profit margins (Price – Cost = Profit Margin)
- Converting units of measure for particular items (pounds, ounces, cases)
- Calculate percent and fractions to show trends in results (i.e. volume is up 2 percent vs. last year)

"In finance, I find myself being exposed to the language and concepts of science through project work with other teams like engineering, research & development and operations."

- Understanding product formulas/nutritionals which drive costs
- Understanding the make process at the production facilities for our products

Job description
As a sales financial analyst, your job is to prepare sales and financial performance reports which include customer and product analysis of sales volume, variable and gross margin and Return on Assets. You will need to understand and explain financial performance in oral, written and graphic format and provide on-going financial analytical and strategic support for the company to make sound business decisions. A financial analyst must understand pricing types, product mix, market impacts/lag, cost variances, revenue adjustments, etc.
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“I am a spokesman for my company and language arts are expected for success.”

✓ Direct interaction with the customer via email, phone and in person
✓ Communicate industry changes affecting customers

“From working in a high-paced restaurant with hundreds of customers to developing the next delicious item for a national restaurant chain there isn’t a day where math skills are not used.”

✓ Formulas and recipes developed with measurements to create the next product
✓ Volume, weights, ratios, temperatures, percentages
✓ Timing for smooth flow of the production

“A chef’s role in food manufacturing is to understand how science effects fresh foods, and to assure that handling and preparation are adhered to for customer satisfaction.”

✓ Creating flavors and ensuring food safety
✓ Create recipes for home cooks that include ingredients readily available in grocery stores
✓ Creating products for mass production, product handling and understanding of preparation
✓ Creating products that need to be refrigerated and/or frozen

Job description
As a corporate chef, your job is to provide culinary expertise and solutions required to expand customer menus and the end use of products. A function of the job is to continuously research and report on new culinary trends. You need to provide menu analysis, innovative new concepts, prototypes and recipes. A corporate chef demonstrates functionality of ingredients and concepts through presentations. Strong communication skills, passion, as well as teamwork are needed.
WORKPLACE LEARNING OPPORTUNITIES

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<td><strong>2</strong> Write simple messages</td>
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<td><strong>3</strong> Perform complex computations (e.g., calculate interest rates, convert to metric system)</td>
<td><strong>3</strong> Perform more complex writing tasks (e.g., letters, sequential written directions)</td>
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Schreiber Foods is a business that began in Green Bay, WI and offers many careers that use math in order to do their jobs successfully.

Today you will be visiting various websites to explore local businesses and learn about various math skills that are needed for a variety of careers.

(15 Minutes) To begin, visit www.schreiberfoods.com, watch videos, and surf their page, to answer the following questions: (You will have 15 minutes to complete this portion)

1) Besides Green Bay, what are some other places Schreiber is located?

Schreiber has locations across the nation and globally

2) What type of products does Schreiber make?

Dairy products

3) What are some examples of different jobs and careers Schreiber offers?

Financial Analyst, Chef, Engineer, Human Resources, Administrative Assistant, …

4) Do you see Schreiber products in stores? If so, do they have Schreiber’s logo on the packaging? Why/Why not? (Hint: look under the Business Solutions Link)

Yes, but they are a contractor for dairy products so they make products for other companies. So, they will have a different brand name on the product in store.

5) What did you find most interesting out of everything you read or listened to on the website?

6) How do you think employees at Schreiber use math?
(15 Minutes) Visit www.titletown.org/careerconversations and watch the three career videos about Schreiber Foods. Then answer the following questions.

1) For one of the videos, complete the competency scale as you feel it relates to the position.

2) What careers did you find that use math?

3) How does each career specifically use math?

Let's Share!
What did you find?
(5 Minutes)

Your teacher will show each career competency master sheet as answered by the Schreiber Foods employee in the video. Show each career competency master sheet to the students.

How does your rating compare to the ratings the person from the video gave for their job?
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|----------------------------------|-----------------------------------------------------------------------|
|                                  | 1  Not used on the job                                               |
|                                  | 2  Write simple messages                                             |
|                                  | 3  Perform more complex writing tasks (e.g., letters, sequential written directions) |

| READING                          |
|----------------------------------|-----------------------------------------------------------------------|
|                                  | 1  Not used on the job                                               |
|                                  | 2  Read simple directions (e.g., labels, memos, filing directives)   |
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| TASK COMPLEXITY                  |
|----------------------------------|-----------------------------------------------------------------------|
|                                  | 1  Perform simple one-step tasks                                      |
|                                  | 2  Perform multi-step tasks                                           |
|                                  | 3  Perform more than one multi-step task simultaneously               |

| PLANNING AND DECISION MAKING     |
|----------------------------------|-----------------------------------------------------------------------|
|                                  | 1  Not a responsibility of the job                                    |
|                                  | 2  Assist in planning steps. Required to complete multi-step assignments |
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