### Summary

In order to assess the usefulness of an existing data warehouse, the team analyzed several aspects of the company’s sales business and built data driven recommendations. As a result, the team is able to demonstrate existing value in the AdventureWorks data warehouse and recommends continued investment to stream in new sales data and supplement with other sources to introduce additional data types for further analysis.

### Analysis, Findings, and Recommendations

The team built five queries to analyze sales data from different perspectives:

1. Internet sales (products sold directly to consumers)
2. Reseller sales (products sold to distributors or third party stores)
3. Summarized sales by year, sales group (continental regions), and sales country
4. Impact of promotions on sales performance
5. Demographic impacts on customer behavior

Distinct findings and recommendations for each analysis are listed below:

1. Internet sales
   1. Sales growth from 2011 through 2013 were observed across all income groups but stagnated in 2014; $3.6MM in sales growth in the highest income group.
   2. Recommendation: organic growth between 2010 through 2013 should be researched further to plan strategic marketing and promotional campaigns
2. Reseller sales
   1. Bikes accounted for the largest volume and value of products sold
   2. Recommendation: increase end of year promotions and marketing to capitalize on increased spending during the holidays
3. Annual/Geographic sales rollup
   1. North American reseller sales far outstrip all other categories
   2. Recommendation: The data implies weak relationships with overseas resellers; the company should consider investing in an overseas sales team to access the global reseller market
4. Promotional impacts
   1. Under utilized promotions: $307MM sold full price, $134MM at discount.
   2. Recommendation: determine if promotions from Southeast Territories can be run universally to increase sales outside of North America
5. Demographic impacts
   1. Customers with higher educational attainment purchase more products, but the majority of sales are made to customers with less than 6 figure incomes
   2. Recommendation: pursue university partnerships to donate equipment to biking clubs and increase brand recognition amongst our strongest customer base

### Future Opportunities

Slower business growth in 2014 indicates other factors influenced sales. Joining additional data, such as advertising and marketing budgets, could help determine the cause. Loading more sales data from 2015 and beyond could further expand these analyses and add context for further recommendations.