The most detailed grain is the combination of individual product or service, individual customer, and date (for special events, only customer and date).

1. 50000 members: sum of member rows
2. 350 franchises: sum of franchises
3. 450,000 items sold merchandises (Contains rows) per year
4. 500 Unique merchandise items
5. 100,000 ServicePurchase rows per year
6. 20 Unique ServCategory rows
7. 300 SpecialEvents Worksheet rows per year per franchise with 200 franchises using this spreadsheet
8. 150 unique customers per special event worksheet
9. Merchandise Product sales(item level): 450,000
10. Days per year: 365
11. Customer number (product) = 50000
12. Customer number (service) = 50000
13. Customer number (special event) = 200\*150=30000
14. Fact table size (merchandize product sales) is determined - 450000 purchases per year (including merchandise product)
15. Fact table size (service sales) is determined - 100000 purchases per year (including service)
16. Fact table size (special event sales) is determined - 300\*200=60000 purchases per year (including special events)
17. Sparsity estimate:

* 1 - ( fact table size / product of dimensions )
* (1 – ( 450000 / (500\*50000\*365) ) = 0.9995
* The data cube has mostly missing cells with slightly more than 0.0005% of cells with non-zero values.
* 1 - ( fact table size / service of dimensions )
* (1 – ( 100000 / (20\*50000\*365) ) = 0.997
* The data cube has mostly missing cells with slightly more than 0.003% of cells with non-zero values.