

## Queries Used

### Query 1

```
Part 1 Query CORREC...r (conradhill (54))
USE [AdventureWorksDW2012];

SELECT CONCAT([FirstName], ' ', [LastName]) AS CustomerName, [EmailAddress], [City], [StateProvinceName],
COUNT([SalesOrderNumber]) AS TotalOrders,
SUM([SalesAmount]) AS Total$Sales
FROM [dbo].[DimCustomer] AS C
INNER JOIN [dbo].[FactInternetSales] AS S
ON C.[CustomerKey] = S.[CustomerKey]
INNER JOIN [dbo].[DimGeography] AS G
ON C.[GeographyKey] = G.[GeographyKey]
WHERE [YearlyIncome] > 100000 AND [TotalChildren] > 2 AND [EnglishEducation] = 'Bachelors'
GROUP BY
C.CustomerKey, [TotalChildren], CONCAT([FirstName], ' ', [LastName]), [EmailAddress], [City], [StateProvinceName]
ORDER BY Total$Sales DESC
```

### Query 2

```
Part 2 A.sql - cb-ot-...ter (conradhill (56))
USE [AdventureWorksDW2012];

SELECT
SUM([SalesAmount]) AS TotalSales,
COUNT([SalesOrderNumber]) AS InvoiceNumber,
AVG([SalesAmount]) AS AvgSalesAmount
FROM [dbo].[DimCustomer] AS C
INNER JOIN [dbo].[FactInternetSales] AS S
ON C.[CustomerKey] = S.[CustomerKey]
GROUP BY [BirthDate], [SalesAmount]
ORDER BY [BirthDate] DESC
```

### Query 3

```
PART 2 TOTAL CHILD...r (conradhill (57))
USE [AdventureWorksDW2012];

SELECT C.CustomerKey, CONCAT([FirstName], ' ', [LastName]) AS CustomerName, YearlyIncome,
COUNT([SalesOrderNumber]) AS Invoice#,
FORMAT(AVG([SalesAmount]), 'N0') AS AvgSales$Amount,
FORMAT(SUM([SalesAmount]), 'N0') AS Total$Sales
FROM [dbo].[DimCustomer] AS C
INNER JOIN [dbo].[FactInternetSales] AS S
ON C.[CustomerKey] = S.[CustomerKey]
GROUP BY
C.CustomerKey, CONCAT([FirstName], ' ', [LastName]), YearlyIncome
ORDER BY YearlyIncome DESC
```

## Executive Summary

This report analyzes information about potential purchaser demographics using data found in the DimCustomer, DimGeography, and DimFactInternetSales tables. The first table shown looks at the purchaser segment that has an annual income of over \$100000, more than two children, and has a bachelor's degree. Each of the following sections looks the total count of sales, average sales amount, and total sales based on a different metric. Part 2a uses the number of children the purchaser has, part 2b uses the age of the purchaser, part 2c uses the education level of the purchaser, part 2d uses the marital status of the purchaser, and part 2e uses the annual income of the purchaser.

## Managerial Recommendations

- Part 1: Amy Sun is the highest spending customer in the segment where the purchaser has an annual income of over \$100000, more than two children, and has a bachelor's degree. Make sure to contact her with new promotions and advertisements.
- Part 1: Morgan Bennet, Tamara Lal, and Corey Kumar should also be focused on in this segment as they all have total sales of around \$8300. After them there is a drop off in total sales of about \$1000 to the next customer, so the customers below these three are potentially less lucrative and therefore not as necessary to target.
- Part 2a: Focus on purchasers who have between 0 and 2 children for potential promotions and advertisement. They have the highest values for the total count of sales, average sales amount, and total sales.
- Part 2b: Focus on purchasers between the ages of 44 and 56. This is the segment with the highest values for the total count of sales, average sales amount, and total sales. Focusing on purchasers between the ages of 38 and 44 could also be a good idea as they are young enough that you could maintain them for a long time. Don't focus on customers over the age of 68 as they had low values for the total count of sales, average sales amount, and total sales. These customers also probably won't be buying products for many more years.
- Part 2c: Focus on purchasers with either a bachelor's degree or partial college. This is the segment with the highest total count of sales, average sales amount, and total sales. Those with a graduate degree could also be a segment worth looking into as the values are decent for the segment, but they could be lower than the other two because there are fewer people who hold a graduate degree but the percentage of those who do hold a graduate degree who are customers could actually be high.
- Part 2d: Focus on purchasers who are married. This is the segment with the highest values for the total count of sales, average sales amount, and total sales. Especially when looking at the average sales and total sales, in these segments the purchasers who are married have values around three times greater than the purchasers who are single.
- Part 2e: Focus on purchasers with an annual income between \$30000 and \$40000 or between \$60000 and \$70000. These purchasers have the highest total count of sales, average sales amount, and total sales. Don't focus on purchasers with an annual income of \$50000 this is one of the worst segments to focus on based on annual income as they have low value in all of the metrics.

- Bases on all the information above the ideal purchaser to focus on would have between 0 and 2 children, be between the age of 44 and 56, have either a bachelor's degree or have attended some college, be married, and have an annual income between \$30000 and \$40000 or \$60000 and \$70000.

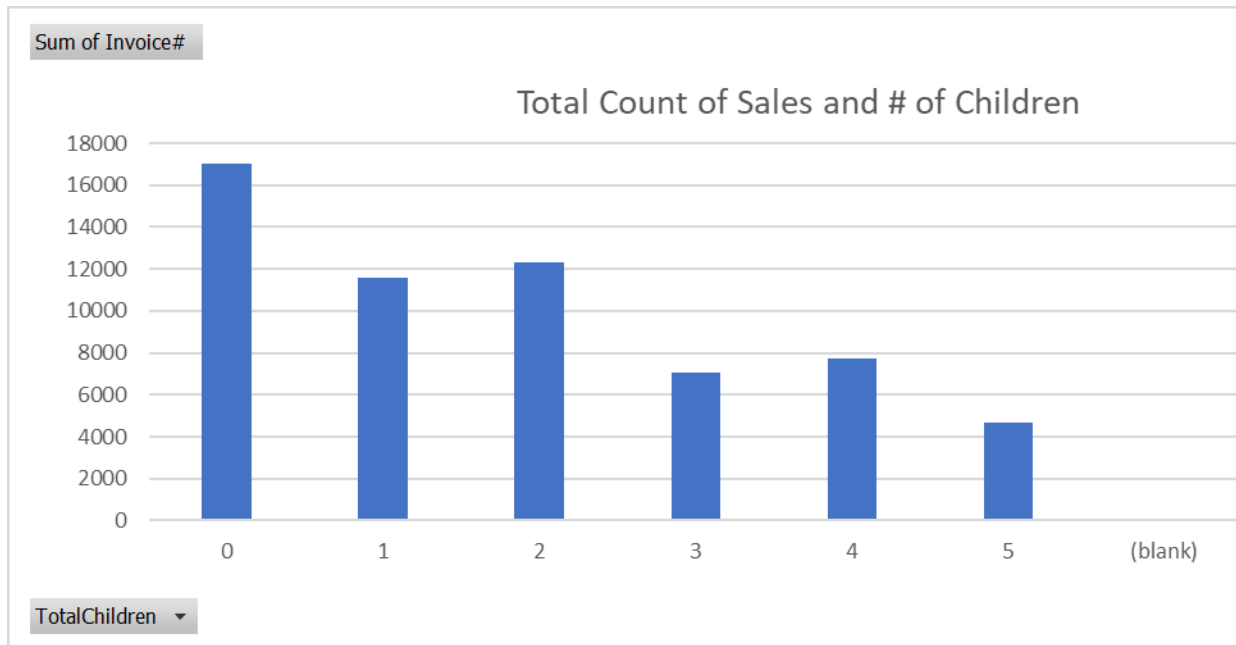
### Part 1 SQL Query

Shown below is the first section of customers from the requested target market High Income, High Children, University Degree.

	CustomerName	EmailAddress	City	StateProvinceName	TotalOrders	Total\$Sales
1	Amy Sun	amy19@adventure-works.com	Offenbach	Saarland	4	9780.04
2	Morgan Bennett	morgan71@adventure-works.com	Kirkby	England	9	8377.09
3	Tamara Lal	tamara20@adventure-works.com	London	England	7	8330.79
4	Corey Kumar	corey7@adventure-works.com	Warrington	England	6	8297.29
5	Alan Chen	alan6@adventure-works.com	Ingolstadt	Bayern	10	7295.04
6	Carol Xu	carol24@adventure-works.com	Offenbach	Saarland	7	7285.57
7	Andrew Jones	andrew12@adventure-works.com	Peterborough	England	7	7231.37
8	Jeffery Chen	jeffery2@adventure-works.com	Wokingham	England	8	7205.36
9	Robin Vazquez	robin11@adventure-works.com	Offenbach	Saarland	6	7188.37
10	Dustin Deng	dustin1@adventure-works.com	Liverpool	England	10	7075.27

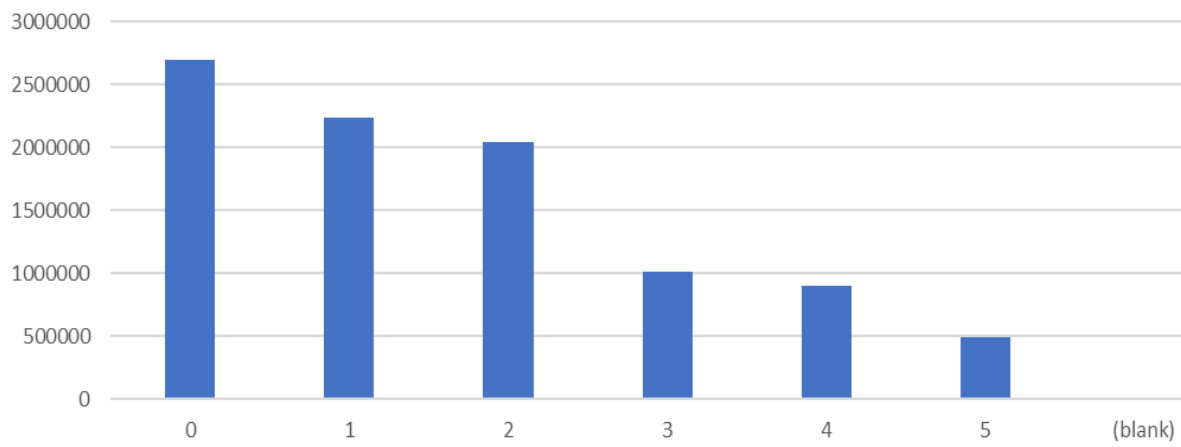
### Part 2

#### a. Number of Children



Sum of AvgSales\$Amount

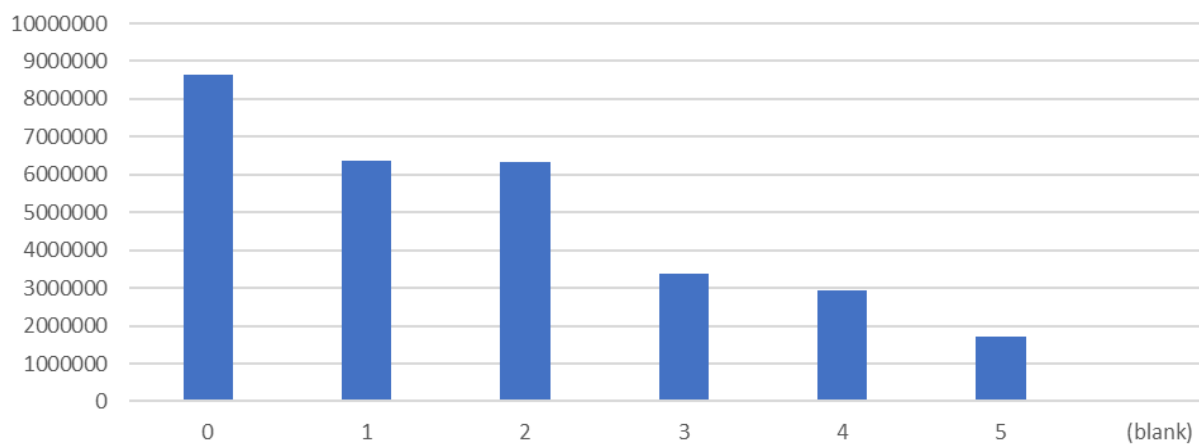
Average Sales Amount and # of Children



TotalChildren ▼

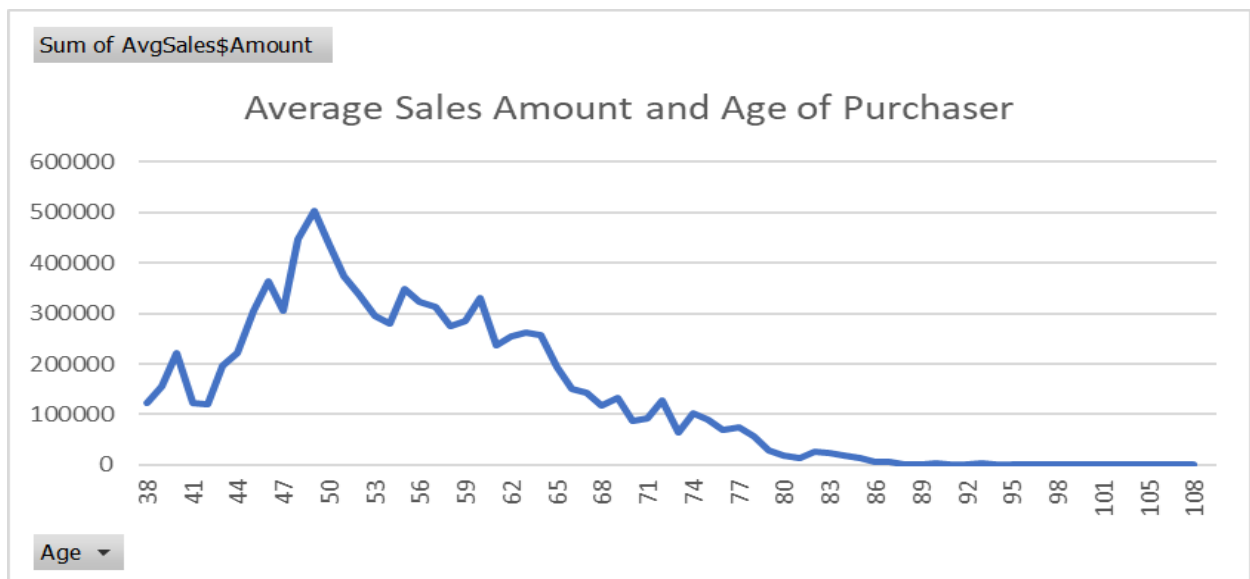
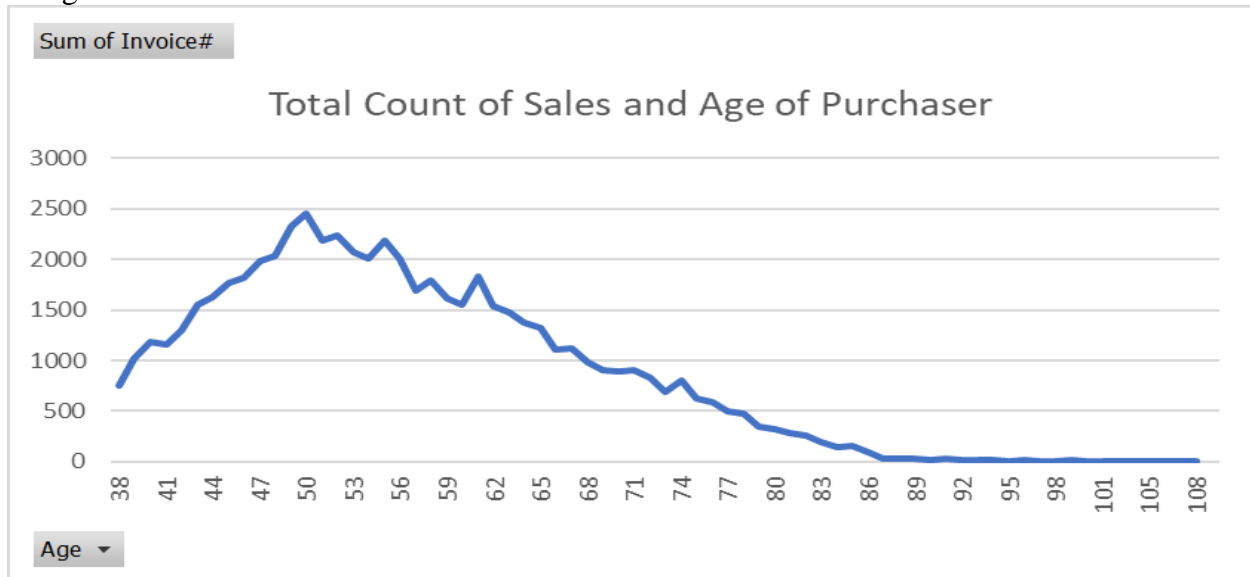
Sum of Total\$Sales

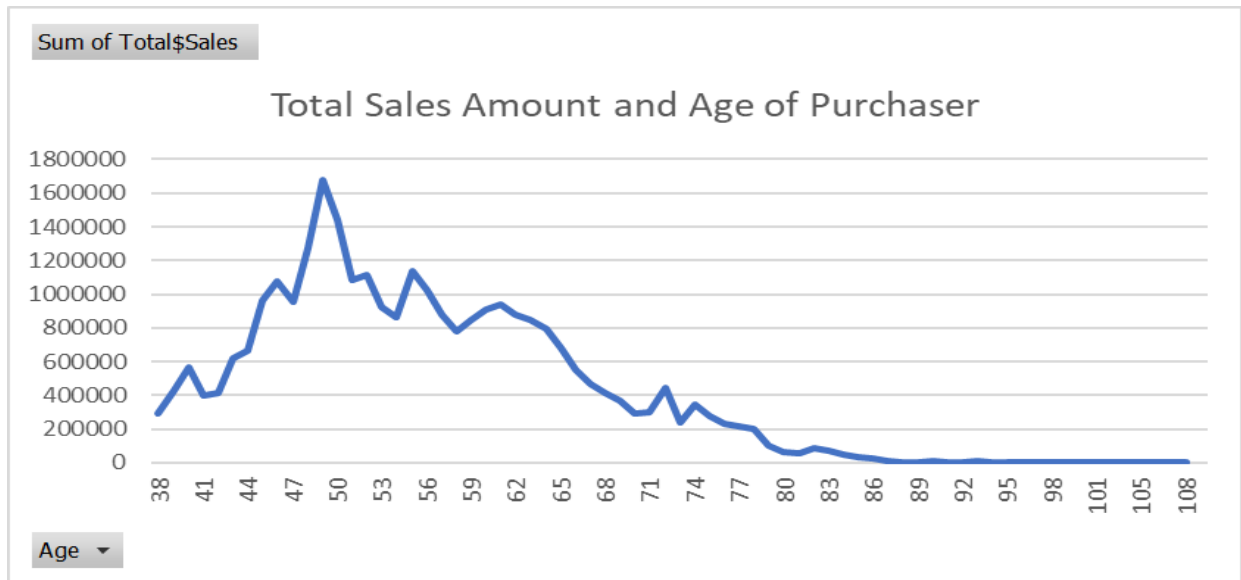
Total Sales Amount and # of Children



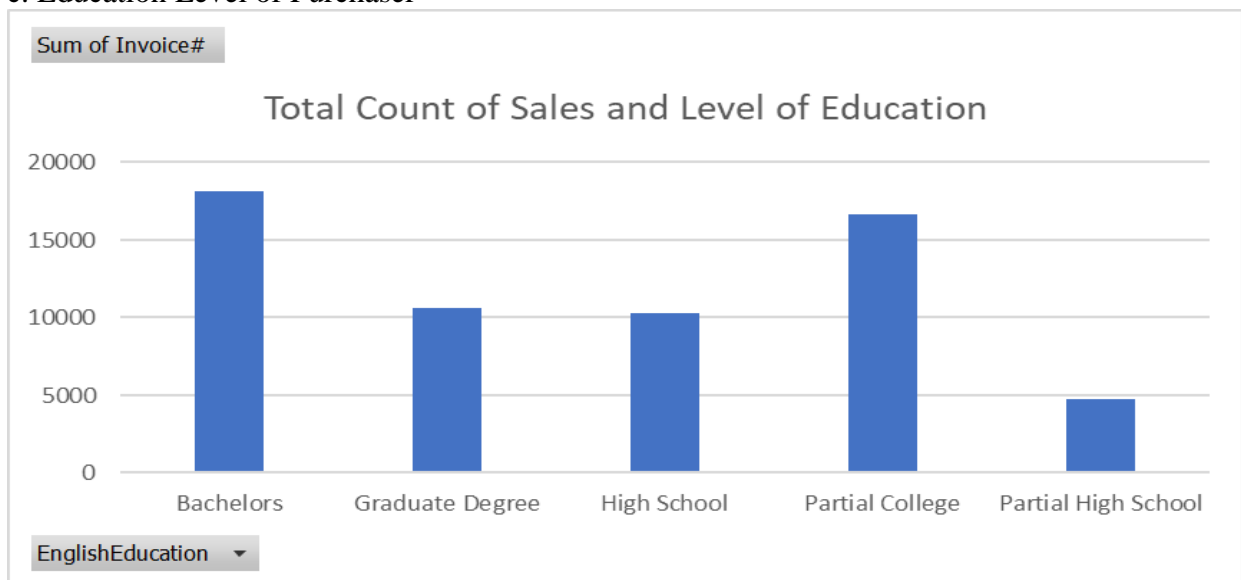
TotalChildren ▼

b. Age of Purchaser



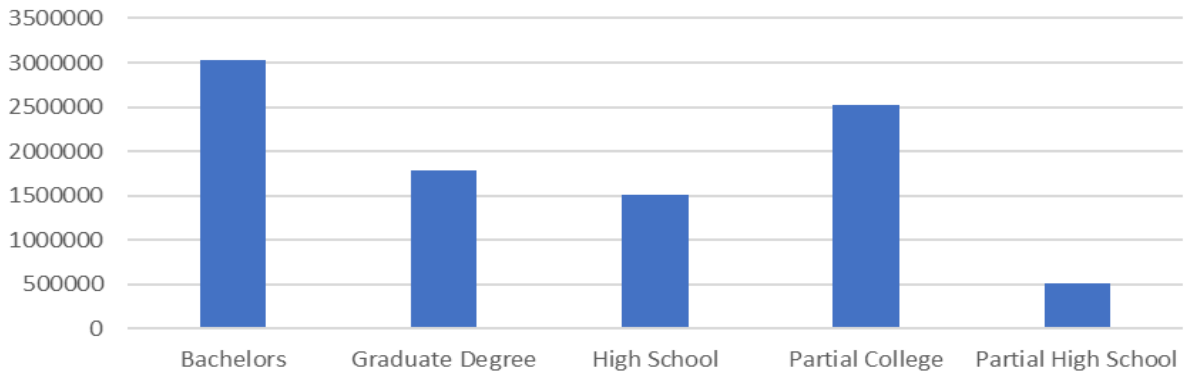


c. Education Level of Purchaser



Sum of AvgSales\$Amount

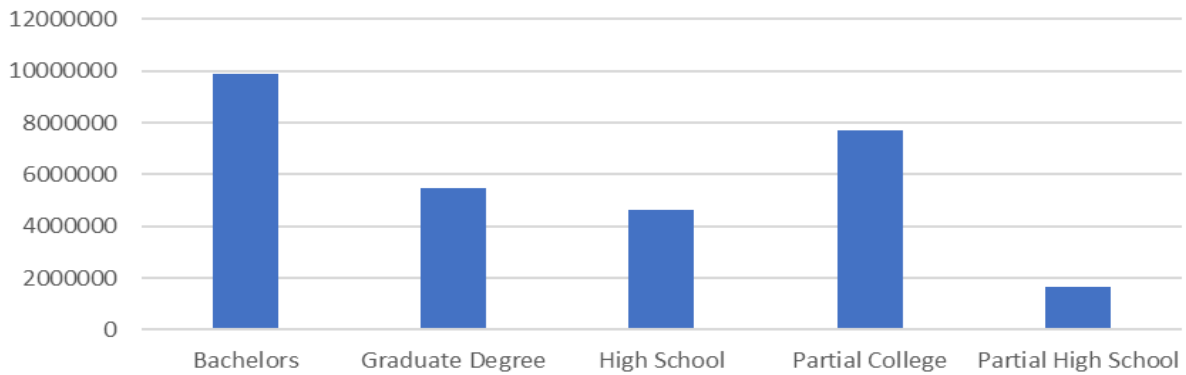
Average Sales Amount and Level of Education



EnglishEducation ▼

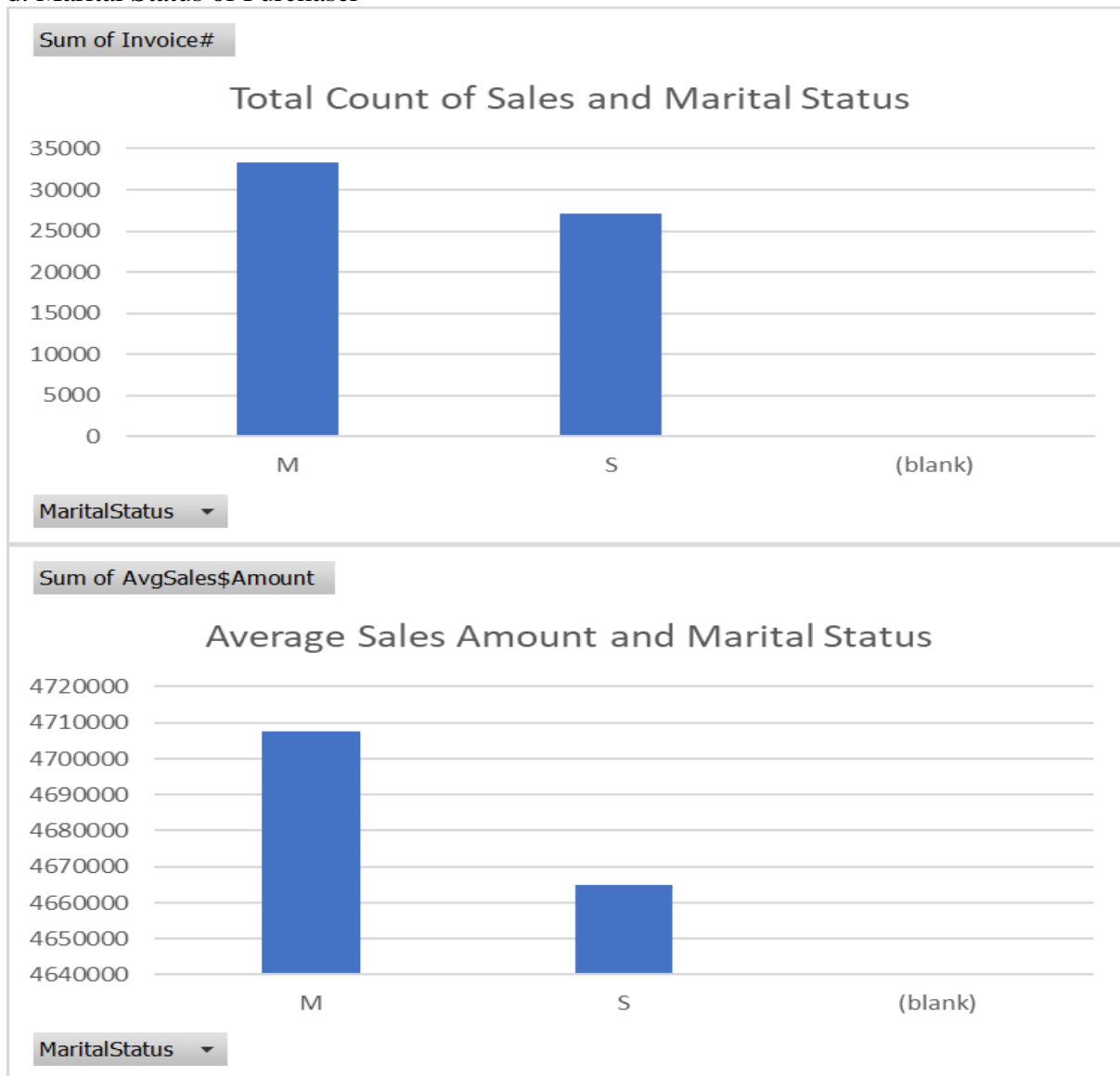
Sum of Total\$Sales

Total Sales Amount and Level of Education

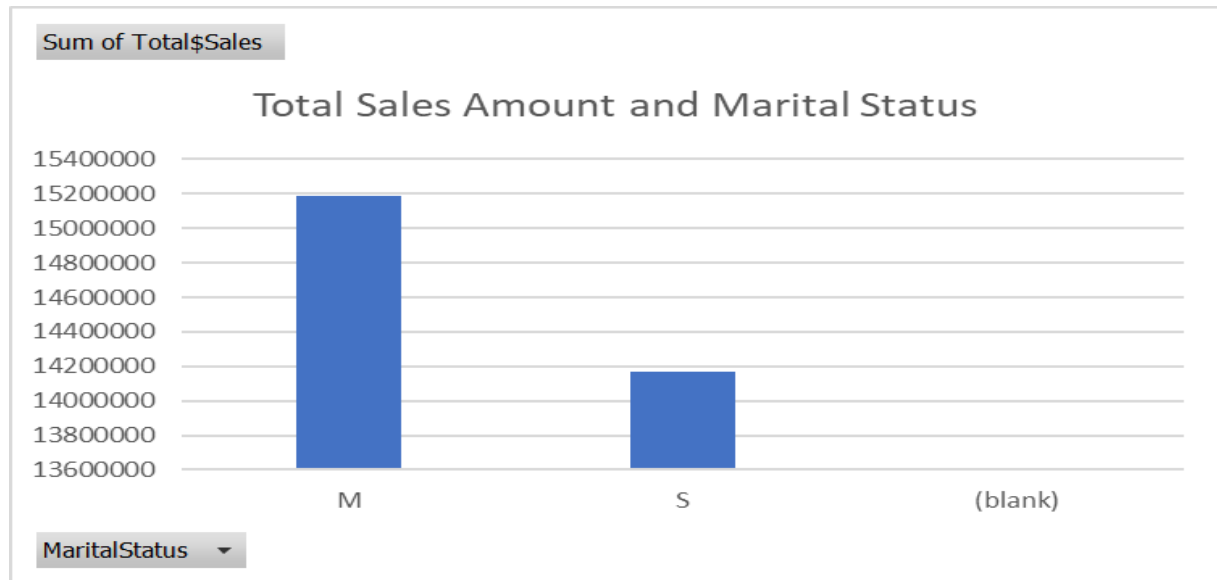


EnglishEducation ▼

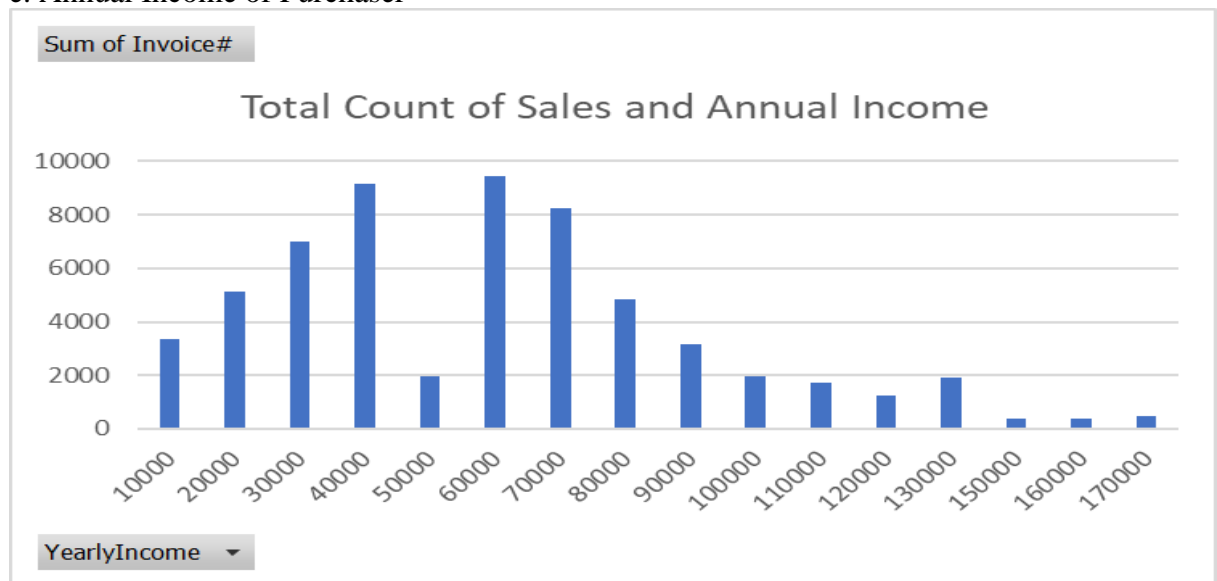
d. Marital Status of Purchaser





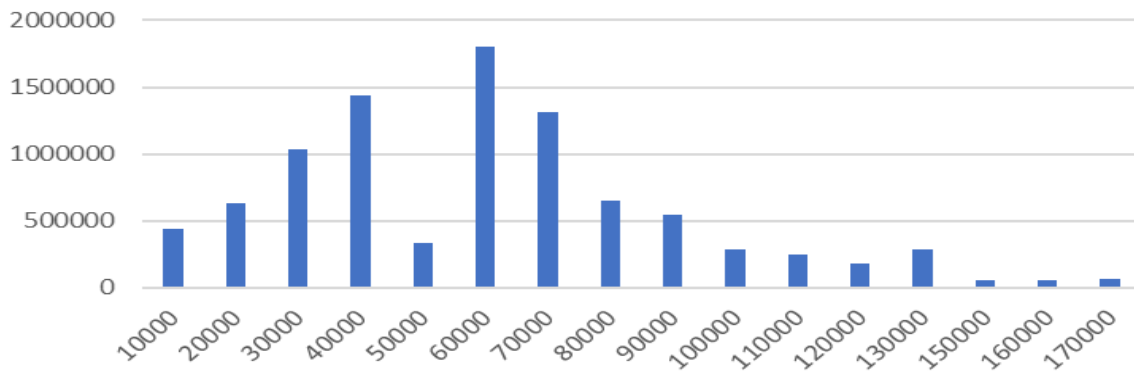


e. Annual Income of Purchaser



Sum of AvgSales\$Amount

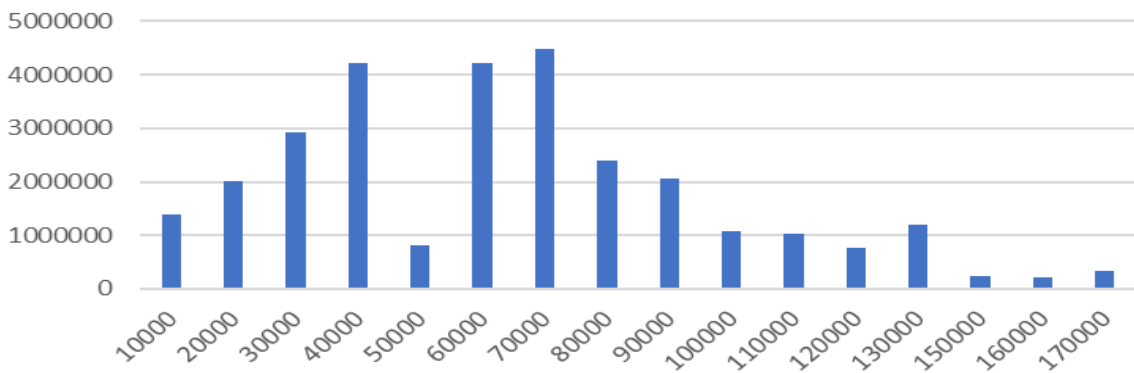
Average Sales Amount and Annual Income



YearlyIncome ▾

Sum of Total\$Sales

Total Sales Amount and Annual Income



YearlyIncome ▾

f. Extra Graphs  
Figure 1

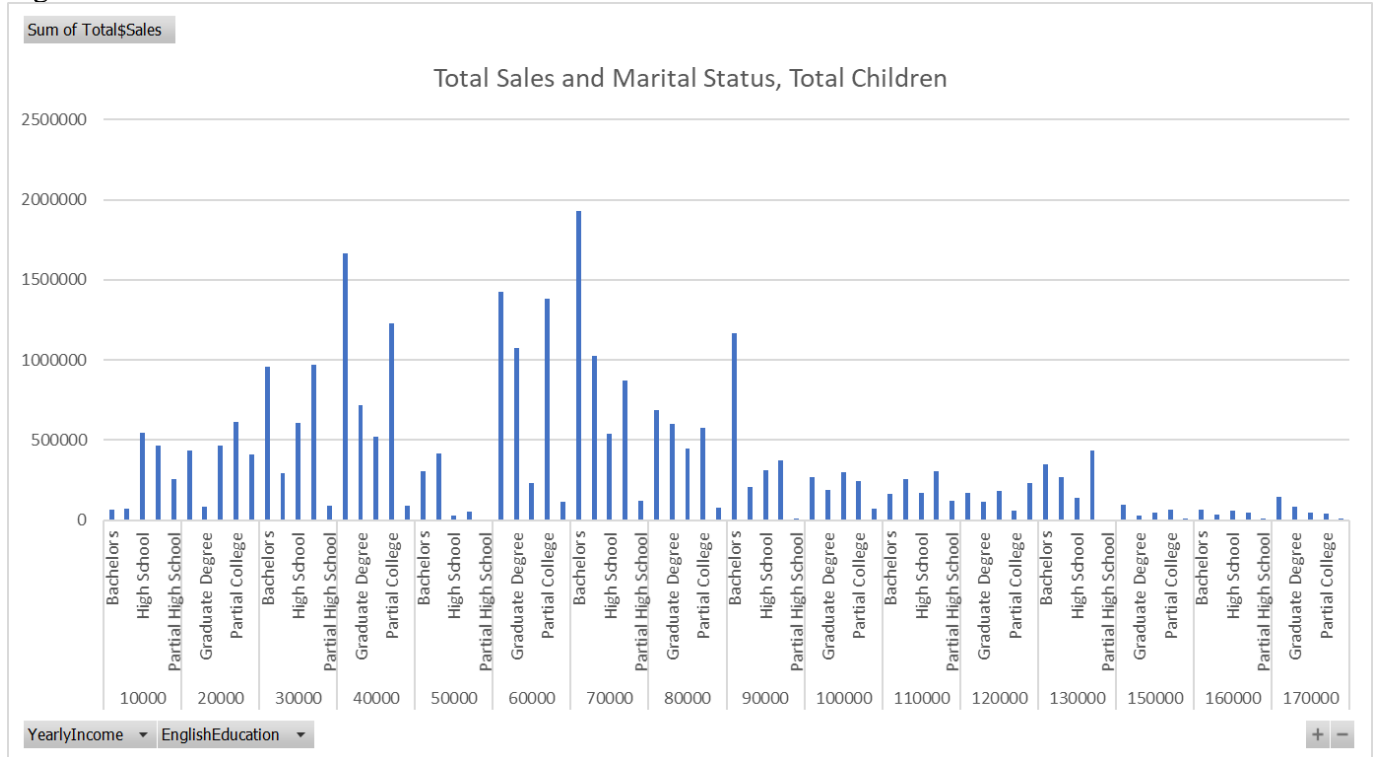


Figure 2

