

Momentum Survey





Naveen Jindal
School of Management

MOMENTUM SURVEY

US Inbound Employees Report - 2015

ABHISHEK BANERJEE: M.S Business Analytics and M.S International Management Studies.

ANN MATHEW: B.S. Global Business and B.S. Information Technology and Systems.

1. **Project Overview:**

Data Source: The Dataset is a first-hand Data of the US Bound Employees in October 2015.

Data Mining Objective: The main objective of mining this data is to minimize the productivity loss of Expatriates by providing cross-cultural, language training and destination services. One of the business challenges in this project is to predict the relationship between the work/productivity impact and the other variables in the dataset using supervised and unsupervised learning methods.

Raw Data & Data Description: This dataset contains the survey of 58 expatriate managers/employees relocating overseas in October 2015. There are 54 independent variables. We will start with these variables and we might drop the irrelevant variables as we proceed with the data analysis and data mining. The Variable Roles mentioned in the Data description may change as per the inferences are drawn from the various modeling techniques to find the best possible model. We have embedded the raw data and data description file the description of each variable with this proposal.

Data Analysis Procedure: We will be using **SAS Enterprise Miner** and **R** for the entire data mining and data analysis process in this project. As a part of preprocessing, we will reject the variables in SAS Enterprise Miner that has minimum importance in our dataset.

2. **Variable Explanation:**

- **Name** – name of the employee
- **Company's Primary Industry** – classified as Nominal Variables from 1-26 categories.
- **Age** – age of the employee at the time of relocation. Classified in categories of 1-6.
- **Family Members:** Family Members that relocated with the employee.
- **How many Children**
- **Home Stature at Original Location-** Nominal Variables of 1 and 2.
- **Employer Status at move initiation-** Nominal Variables of 1 and 2.
- **The purpose of the move** – Nominal Variable with variables 1 and 2.
- **Country of Departure** – Categorical Text Variable.
- **Country of Destination** – Categorical Text Variable
- **First International Move** – Binary Variable Yes or No.
- **Section II Relocation Aspects and effects on Productivity:** Nominal Variables from 1 to 3.
- **Section III Following Benefits:** A mix of ordinal and nominal variables from categories of 1-3 and 1-5.
- **Section IV Overall Relocation Assessment Statements:** Ordinal Variables with categories of 1-5.

3. **Data Preprocessing:**

- Telephone Number has been omitted because it is of minimum importance to the data set
- The Text Data has been transformed into sets of ordinal, nominal and interval variables respectively.

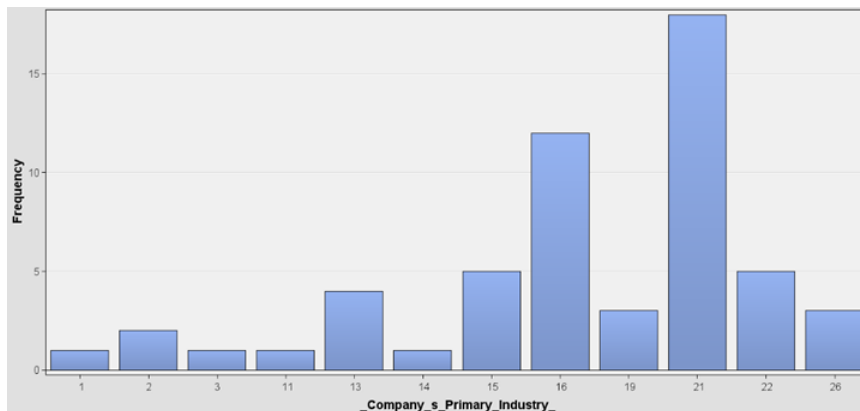
The Final Transformed Data Set is attached:



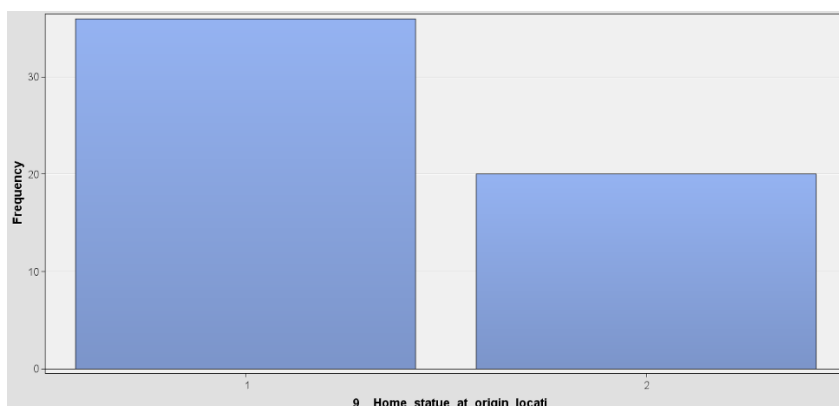
Altair Gobal Final
Dataset.xlsx

4. Exploring the Independent Variables in SAS Miner:

- **Company's Primary Industry:** Out of the Employees surveyed, 32% are from the Software Industry, followed by 22% from the Manufacturing Industry.



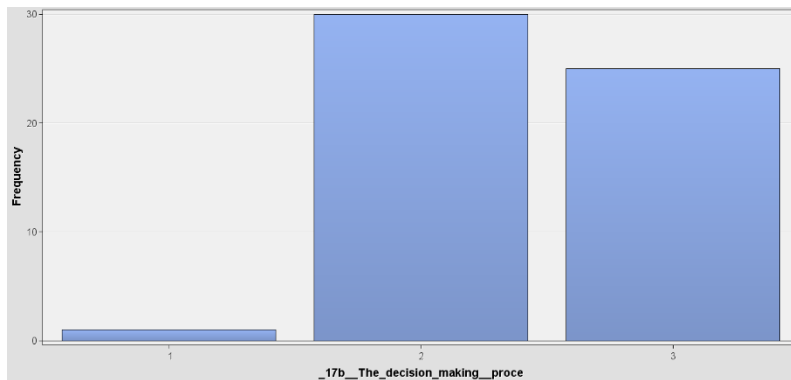
- **Age Range:** Close to 40% of the Employees surveyed are in the age range of 35-44 followed by 27% in the age categories of 25-34 and 45-54.
- **Family Members that have relocated with you:** Out of all the expatriates surveyed, 47% of the employees have children.
- **Home Stature at original location:** 65% of the employees surveyed are homeowners while the rest 35% are renters.



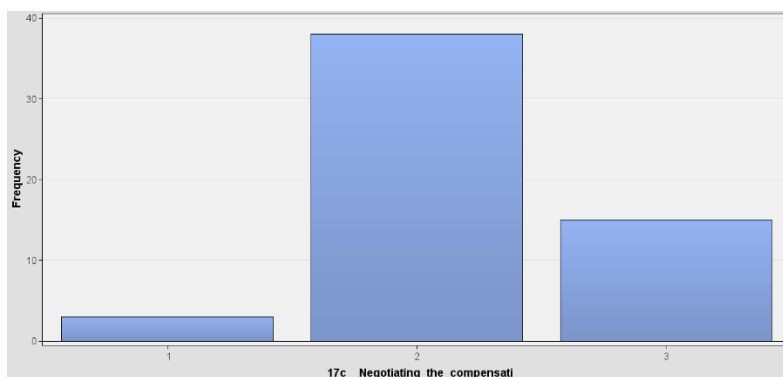
- **Employment Status at Move Initiation:** 87.5 % of the employees surveyed are existing employees while close to 13% of the employees are New Hires or Joiners.
- **What is the Purpose of the Move:** Close to 60% of the employees surveyed are Permanent moves while the rest 40% of the employees are on International Assignment.
- **Country of Departure:** USA leads in this category with 21% of the employees departing from the U.S
- **Country of Destination:** Again, the U.S seems to lead with 35% of the employees.
- **Was this your first International Move:** 53% of the employees responded that this was their first International Move.

Section II: Relocation Aspects and their Effects on Productivity:

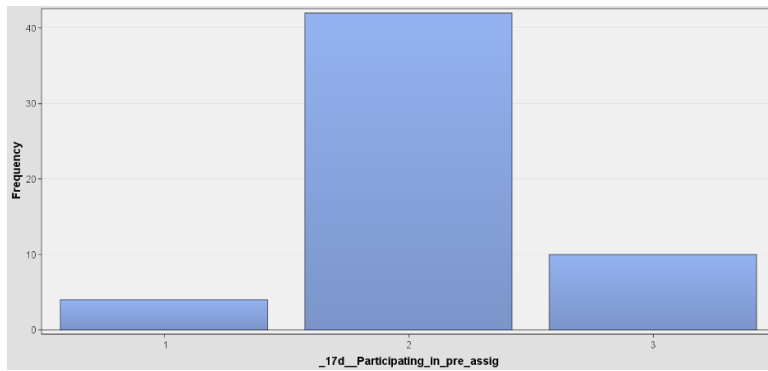
- **The decision-making process related to accepting or declining the assignment:** 53% of the employees classified this as Low Impact whereas, 45% of the respondents illustrated it as High Impact



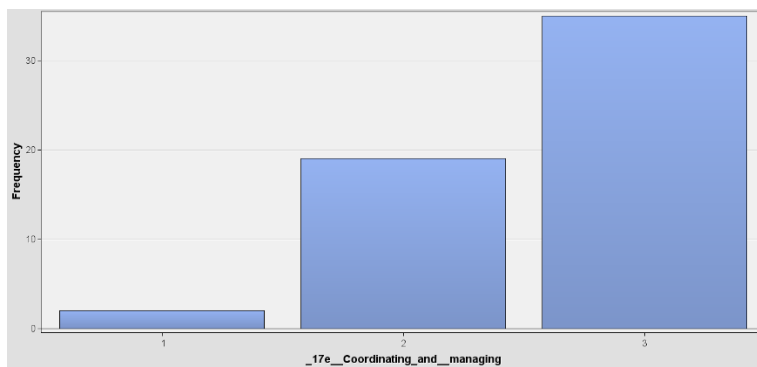
- **Negotiating with Compensations:** 68% responded as Low Impact whereas 26% classified it as High Impact



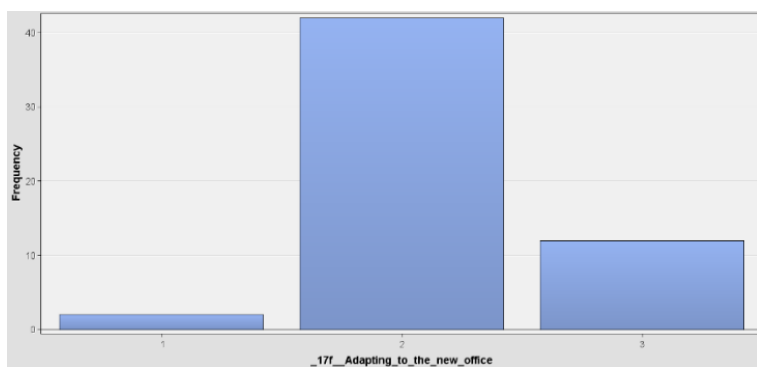
- **Participating in Predeparture Orientations:** 75% thought to participate in pre-departure Orientations as low impactful whereas 18% choose it a High Impact.



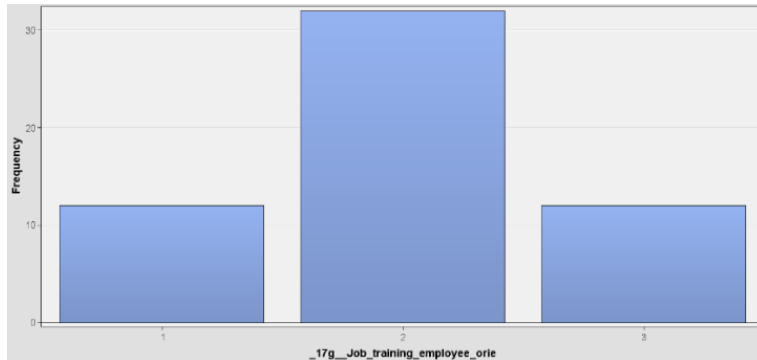
- Coordinating with and Managing the Immigration Process:** Close to 60% rated Globe Service Providers as Highly Impactful while 35% though it was not of significance impact.



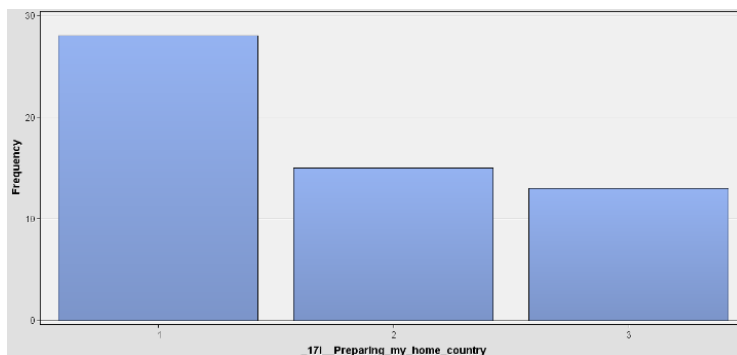
- Adapting to the new office/ work environment:** 75 % found it to of a Low Impact.



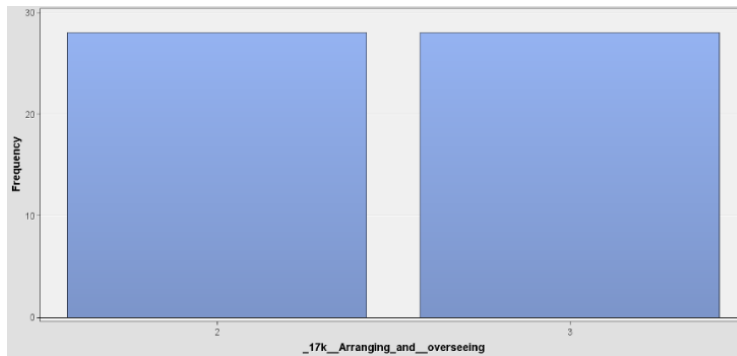
- **Job Training / Employee Orientation / Professional Development:** 57% thought employee orientation and job training to be of low impact whereas 20% rated it highly impactful.



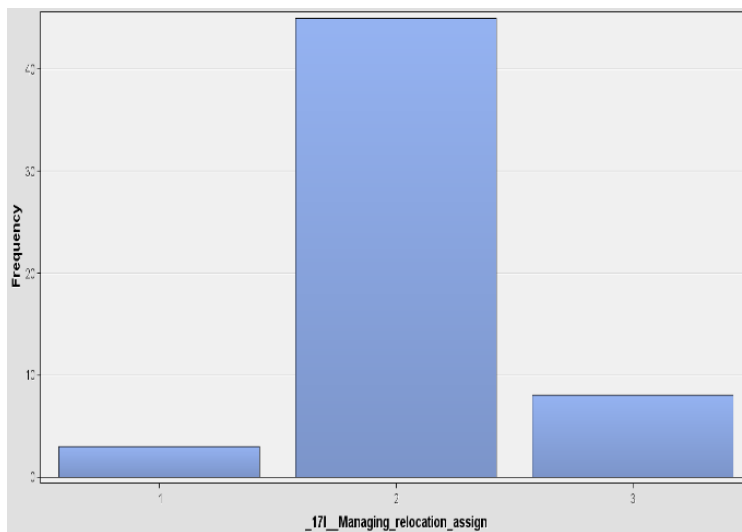
- **Preparing my home country:** 50 % of the employees thought it to be non-applicable followed by 26% with low impactful.



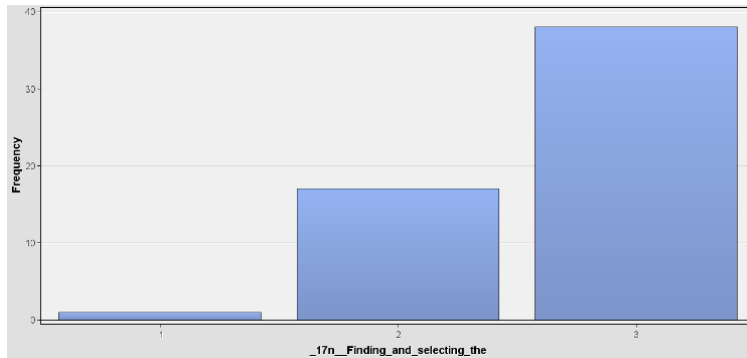
- **Arranging and Overseeing my household goods transportation:** 50% of the respondents thought it to be Highly Impactful and the rest 50% classified it of Low Impact.



- **Managing Relocation:** Managing Relocation had negligibly impacted close to 80% of the employees with 10% highly impacting the rest.

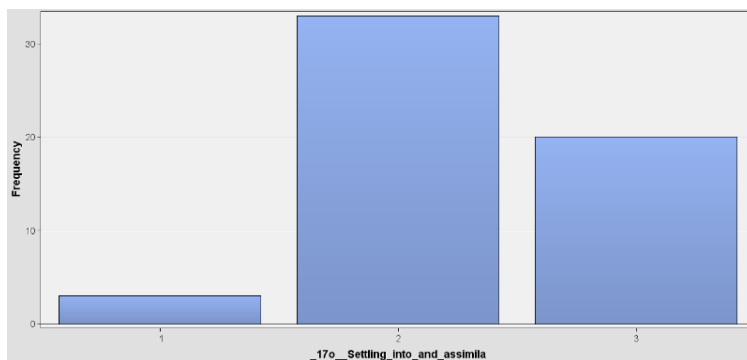


- **Finding and Selecting the appropriate residence/home:** 67% of those surveyed felt that selecting an appropriate home highly impacted their work performance.

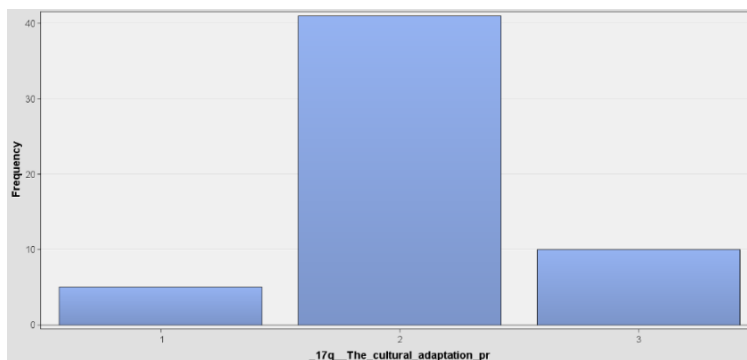


- **Settling into and Assimilating to the new community:**

60% felt that settling into a new community lowly impacted their overall work performance whereas 35% thought it to be Highly impactful.

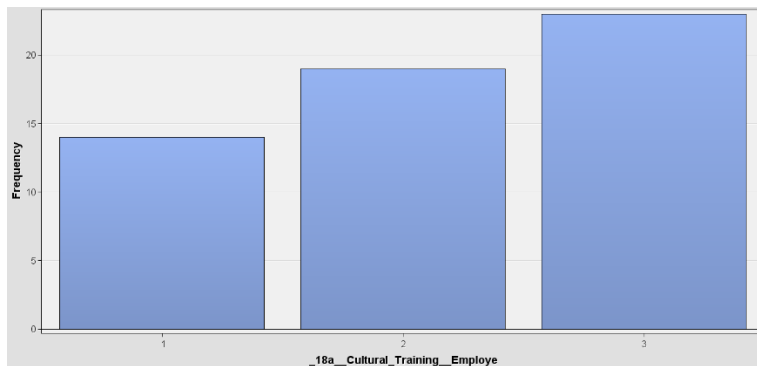


- **The cultural adaptation process:** 73% of the Employees were lowly impacted by the cultural adaptation change and 6% were highly impacted

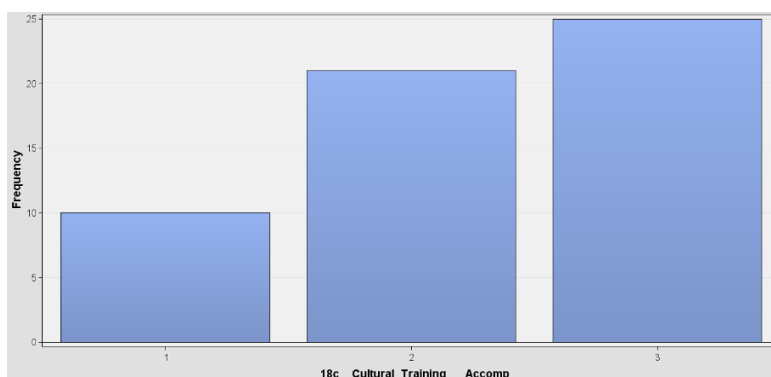


Section III: Please identify below if the following services/benefits that were offered/provided to you:

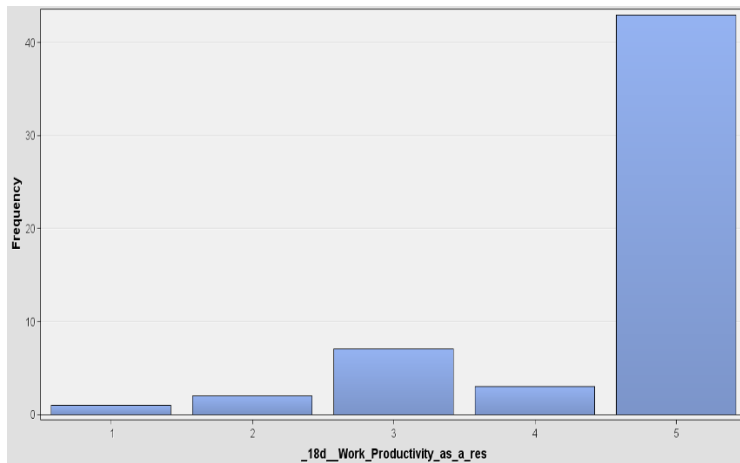
- **Cultural Training - Employee:** 41% of the employees were never offered any cultural training, 33% did not participate and the remaining 26% participated.



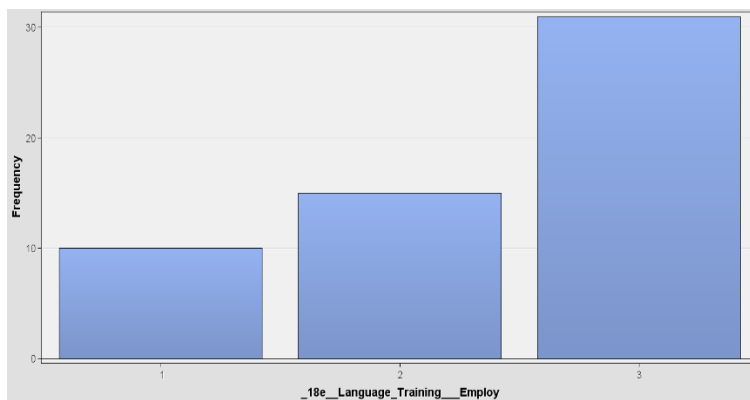
- **Work Productivity because of the service/assistance:** 75% thought it to be not applicable while 10% of the employees work productivity was moderately improved.
- **Cultural Training – Accompanying Family:** 45% of the employee's family was never offered any cultural training, whereas less than 6% participated in the cross-cultural training.



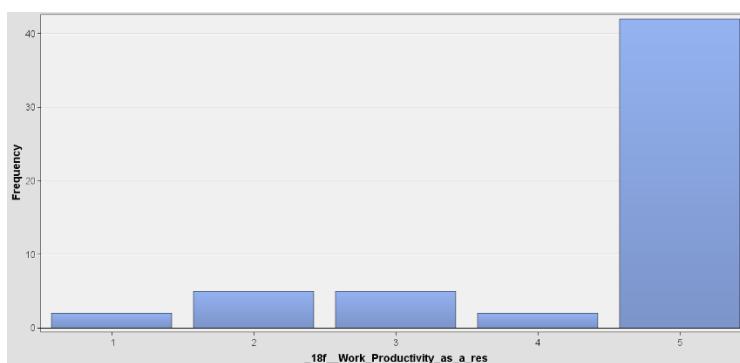
- **Work Productivity because of the service/assistance:** Close to 80% choose Not Applicable.



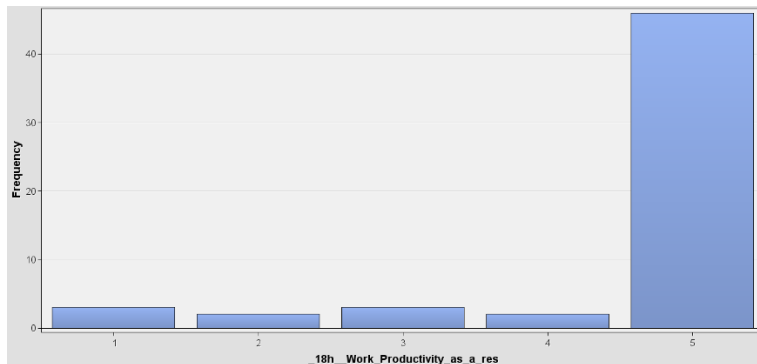
- **Language Training – Employee:** 55% of the employees were not provided with any Language Training.



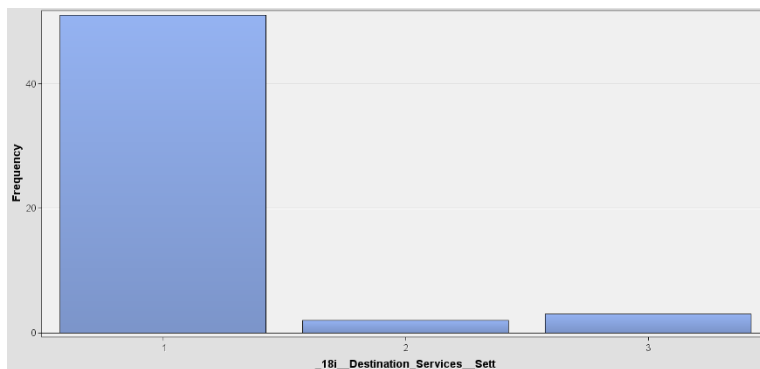
- **Work Productivity because of the service assistance:** 2-3 % of the employees work productivity was improved because of the language training.



- **Language Training – Spouse/Partner:** Close to 60% of the Employee’s Spouse or Partners were not provided with any Language Training
- **Work Productivity because of this service:** 82% of the employees found it to be Not Applicable.



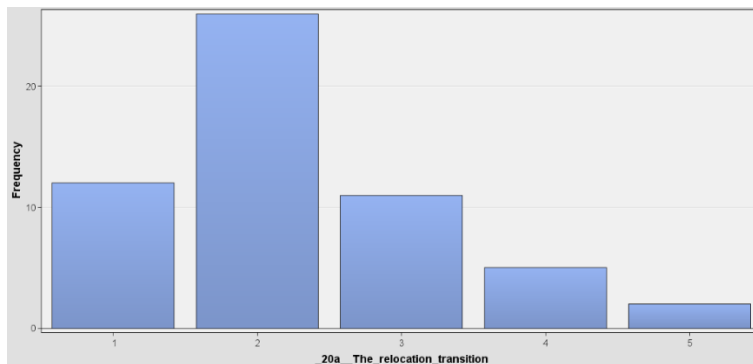
- **Destination Services in the new location:** Almost 91% of the employees participated in Destination Services/Setting in Assistance in the New Location.



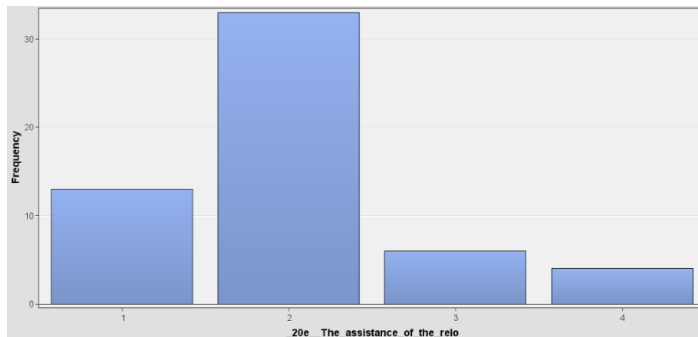
- **Work Productivity because of this service/assistance:** Almost 35% of the employees work productivity was highly improved because of this assistance.

Section IV: Overall Relocation Assessment Statements-

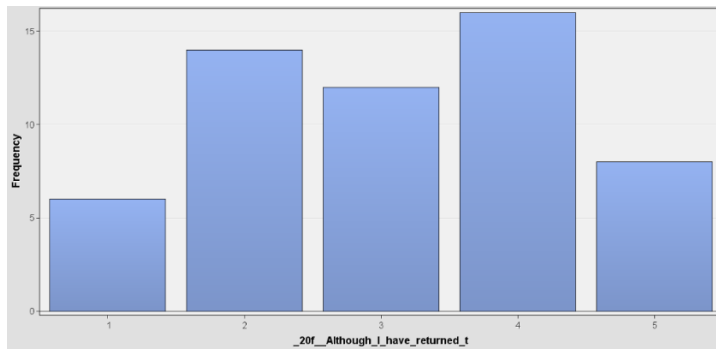
- **The Relocation /transition assistance I received enabled and enhanced my productivity:**
Almost 50% of the employees agreed to this.



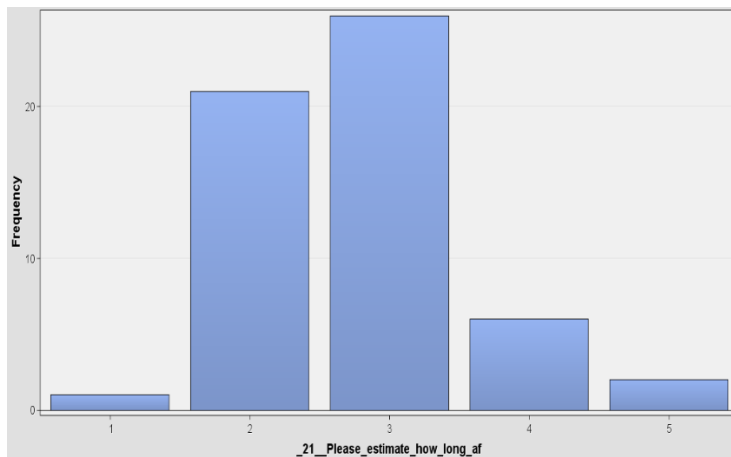
- **Assisted my Family:** Almost 60% agreed.



- **Although I have returned to optimal productivity at work:** 30% Disagreed in this point whereas 25% Agreed.



- **Please estimate how long after your household goods were delivered to your permanent residence:**
46% responded 2-3 Months and 37.5 % responded 1 Month.



- **To further assess productivity impact and gain additional understanding: 58% answered Yes and the rest 42% answered No.**

