

# The Nobility of Nobel Prize for World Science: An Analysis of Awards

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## Introduction

It is strange that Nobel Prize awarded for the past 105 years since its inception in 1901, went unnoticed without any fanfare on completing 100 years. In this context this paper presents an analytical study of the Sweden based Nobel Foundation for outstanding work in Physics, Chemistry, Physiology/Medicine. The first Nobel Prizes were awarded in 1901 to carry out the final wishes of Swedish chemist and inventor Alfred Nobel, who as per his wish wanted to recognize people whose work conferred "the greatest benefit on mankind". The annual awards in the sciences, literature and the promotion of international peace are among the most prestigious in the world. Alfred Nobel born in 1833 in Stockholm, Sweden, the best-known technical genius of Sweden's 17th century era was a great power in northern Europe. Nobel invented dynamite in 1866 and later built up companies and laboratories in more than 20 countries all over the world.

## History

The first distributions of prizes were made on Dec 10, 1901, the fifth anniversary of the death of Nobel. The Nobel Prizes for physics, chemistry, and physiology or medicine have generally been the least controversial, while those for literature and peace have, by their very nature, been the most exposed to critical differences. The prize initially in 1901 consisted of a medal, personal diploma, and prize amount of 150,782 Swedish Crown, which now has been raised to a sum of 10,000,000 Swedish Crown in 2004. The festival day of the Nobel Foundation is on the 10th of December, the anniversary of the death of the testator. A Nobel Prize is given either to one person, or divided equally between two person, or shared by three persons.

## Contents

The paper presents an analytical study of the general trend for the subject areas of Physics, Chemistry and Medicine, in regard to the shift in individual benefit to collaborative benefit in Nobel Prize. In doing so an attempt has been made to show the sharing has emerged in awards. This is reflected in three periods

i.e. Pre World War period; Between World War I and World War II; and Post World War II period. In these periods a study of the beneficiary nations in the three field of science i.e. Physics, Chemistry and Medicine have been analyzed. It is understood that organizations in which the recipients belong have a major role in the development of World Science. Hence we have classified the recipient's affiliations in three categories namely: Universities /Colleges; institutes; and Industry and studied the contribution of these organizations. The aim of the study is "Who have benefited and have not, from the Nobel Prize our analyses may provide valuable lead. The study reveals that European nations that were dominating the Noble Prize awards in the pre World War period have been sidelined. The trend is visible in all the fields of science. The post War period saw the emergence of USA and its allied forces. This shift could also be as result of migration of intellectuals from Europe, Asia Africa and other continents to USA during and after World War II, which needs further exploration.

## Key Findings of the Study

1. The analysis has indicated that during pre world war era in all fields of science Germany has the supremacy followed by France & Netherlands. United Kingdom was the next. This was the period when Hitler was consolidating his powers. USA was way behind.
2. In all fields of sciences during the period of 1914-45, other countries have also made their presence like Canada, Denmark, India, Italy, and Sweden. But, still the major share was with European countries, eg UK, Denmark and Germany. USA was also catching up. But in post war era, USA came as a superpower in research arena, and most of the total Nobel prizes were bagged by the American institutions.
3. An analysis has also been done to explore the type of organizations involved in research activities leading to Nobel Prize. It seems major share went to Universities in all the 3 eras. But

the study reveals that, gradually the research institutions and industries have also joined in. In post war era, Universities came down; whereas research institutes became more visible with an increase, more than two folds.

4. The trend of more than one person getting the prize also increased with the passage of time. In earlier years, recipients of individuals were more, whereas later on it changed from 27% (1901-13) to 71% (1946-04)- Physics; 23 % to 62%- Chemistry and 31% to 82% in Medicine. The analysis indicated that more & more people were coming together and sharing the prize money over the years.

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**Figure 1: Distribution of Noble Prizes (1901 - 2004)**

