

# Data Analysis: Discovering the Relationship Between Government Fundings & Undergraduate Students Studying Abroad

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[Author]

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[Programming Language]

Python 3.6.5

# [1/ Introduction]

## [Goals of this analysis]

- 1/ To find out whether the so-called "top universities" do have their values.
- 2/ To find out whether the investment and fundings of the governments for the colleges do reflect the effects on the undergraduate students' desire of learning, if studying abroad can be seen as a standard of desire of learning.
- 3/ To find out the top funding items in a single university.

## [2/ Sources]

[The sources of the data]

url: <https://data.gov.tw/>

I choose the open data platform of the government as sources of the data, and the main reason of the choice is the **reliability** and the **veracity** for those targets I chose.

The platform offers datas from central institutes such as Ministry of Education and Ministry of the Interior. My analysis puts emphasis on items related to high education and fundings and sponsorship, so I choose to collect data from the platform.

[abroad\_fund\_analysis]

# [3/ Influences]

[The influences and usage of the analysis]

The diagrams below put emphasis on 2 statistics:

A/ The fundings of 4 top universities in Taiwan

B/ Numbers of students that have studied abroad in their undergraduates

**If A & B are positively related:**

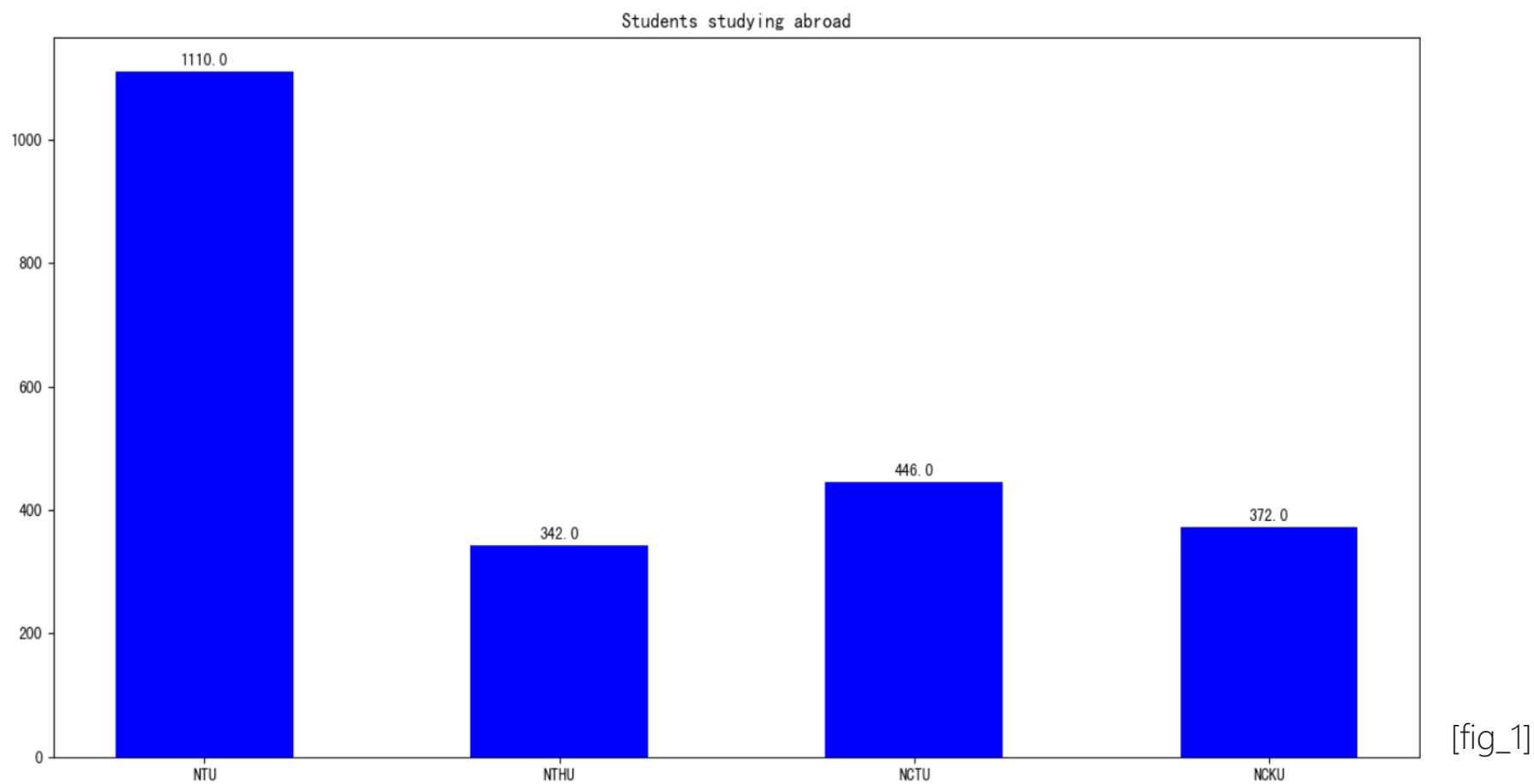
The funding from the government is effective, students who get more resources may have more desire to study abroad in order to broaden their horizons

**If A & B aren't positively related:**

The funding from the government may not reflect its influence well on the students' desire of learning. Maybe we should discover other directions or items of the school to find out the true value of the return of the investments.

[abroad\_fund\_analysis]

## [4/ Statistics-1]

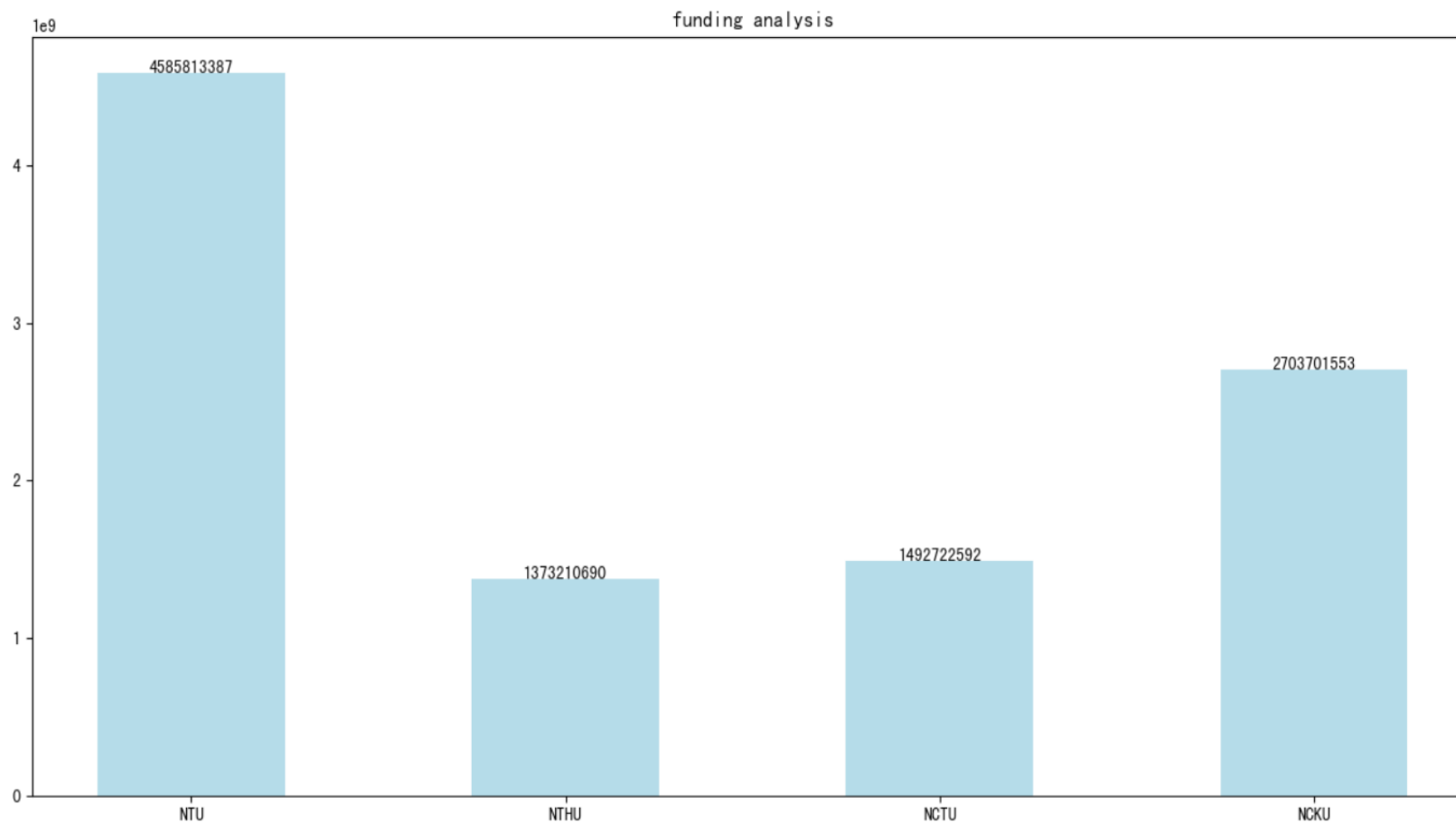


**[Numbers of students that have studied abroad in 2014]**

Results : NTU(1110) > NCTU(446) > NCKU(372) > NTHU(342)

[abroad\_fund\_analysis]

## [4/ Statistics-2]



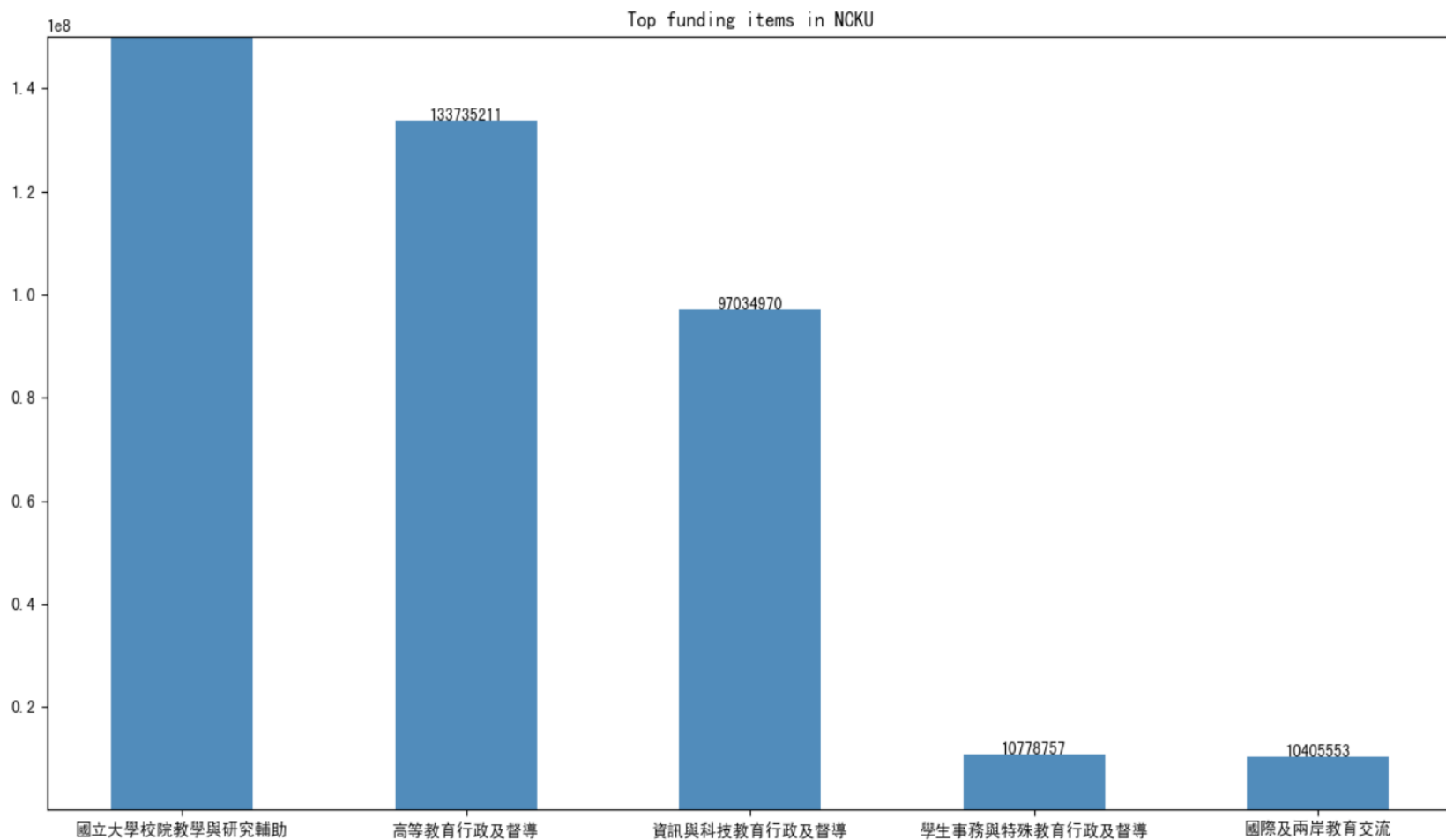
[fig\_2]

**[The fundings of 4 top universities in Taiwan in 2014]**

Results : NTU(4.5) > NCKU(2.7) > NCTU(1.4) > NTHU(1.3) (unit:1e9 nt dollars)

[abroad\_fund\_analysis]

## [4/ Statistics-3]

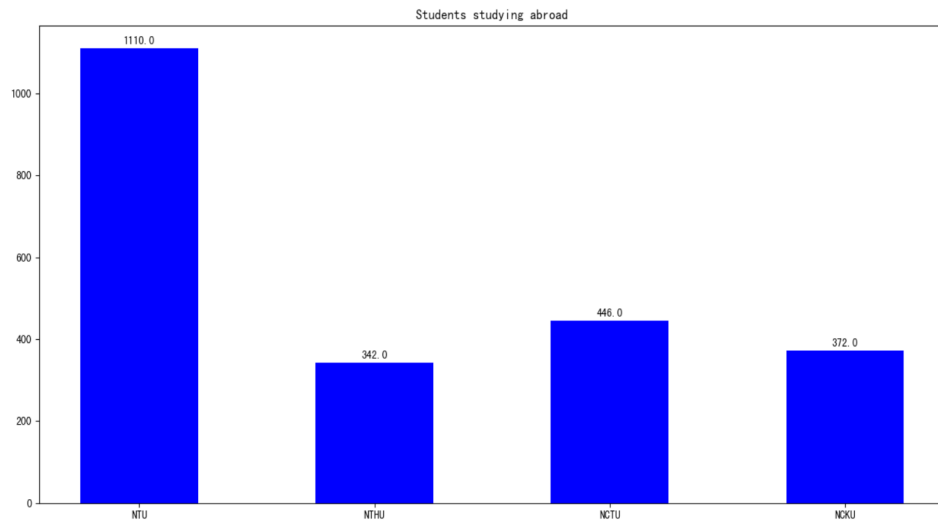


[fig\_3]

[Top funding items in NCKU in 2014]

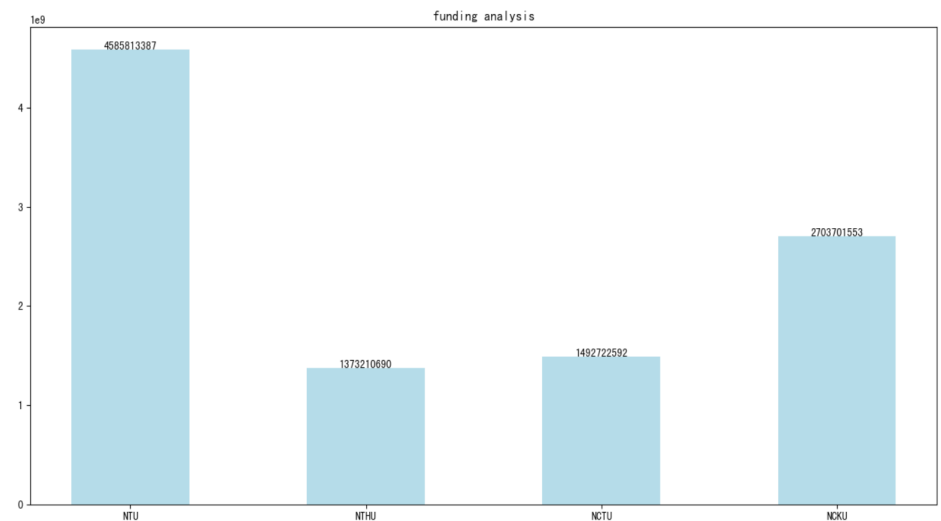
[abroad\_fund\_analysis]

## [5/ Analysis -1]



[Numbers of students that have studied abroad in 2014]

Results : NTU(1110) > NCTU(446) > NCKU(372) > NTHU(342)



[The fundings of 4 top universities in Taiwan in 2014]

Results : NTU(4.5) > NCKU(2.7) > NCTU(1.4) > NTHU(1.3) (unit: 1e9 nt dollars)

**$r = 0.90094$  (highly related)**

1/The funding from the government is effective, students who get more resources may have more desire to study abroad in order to broaden their horizons.

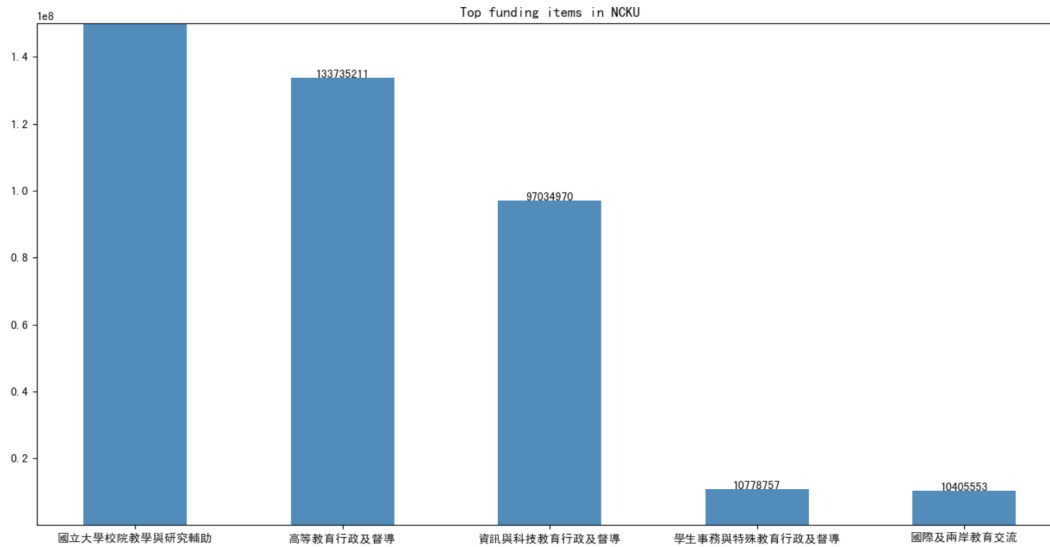
2/ NTU received the most fundings and had most undergraduate students studied abroad.

3/ NCKU received second high fundings among the 4 schools, but less students tend to study abroad in their undergraduates.

[abroad\_fund\_analysis]



## [5/ Analysis-2]



[Top funding items in NCKU in 2014]

### Ranking:

- 1/Research and teaching
- 2/Administration
- 3/Informations and technology
- 4/Student affairs
- 5/International exchange

By sorting out the fundings of NCKU, we may discover that "International exchange" receive less fundings among the 5 main funding items.

And as the trend goes, "information and technology" related programs receive the more fundings than other discipline.

# [6/ Conclusion]

## **1/ The fundings from the government is effective**

Students who get more resources may have more desire to study abroad in order to broaden their horizons

## **2/ The value of top universities**

NTU is the best university in Taiwan, and it receives the most fundings and also has most undergraduate students tend to study abroad.

On the other hand, NCKU, which is our school, receives lots of fundings but doesn't really reflect on the desire of students studying abroad. And look deeper into the items of fundings, "International exchange" program receives less fundings among the 5 main items, which should be improved in the following future.

## **2/ The trend of technology & information**

"Information and technology" related programs receive the more fundings than other discipline in NCKU, and can be seen as the trend that the government tends to put more emphasis on this aspect.

# [7/ Appendix]

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3	103		1 私立	一般大學	1001	東海大學	340408	國際經營與貿易	學士班(日間)	中國大陸	南開大學	Nankai University	1		0
4	103		1 私立	一般大學	1001	東海大學	340408	國際經營與貿易	學士班(日間)	中國大陸	復旦大學	Fudan University	1		1
5	103		1 私立	一般大學	1001	東海大學	340408	國際經營與貿易	學士班(日間)	中國大陸	復旦大學	Fudan University	1		0
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大專院校名稱

	A	B	C	D	E	F
1	大專院校名稱	補助計畫	補助計畫摘要	補助經費		
2	國立高雄餐旅大學	師資培育與藝術教育	國立高雄餐旅大學	15,250		
3	輔仁大學	國際及兩岸教育	103歐盟官員華語	462,112		
4	台北市政府臺北市	高等教育行政及	103年度教育部補	2,100,000		
5	國立中正大學	終身教育行政及	以行政協助方式	200,000		
6	高雄市立空中大學	終身教育行政及	教育部補助大學	288,000		
7	高雄市立空中大學	終身教育行政及	補助102學年度樂	57,600		

[original csv for fig\_2]

[abroad\_fund\_analysis]