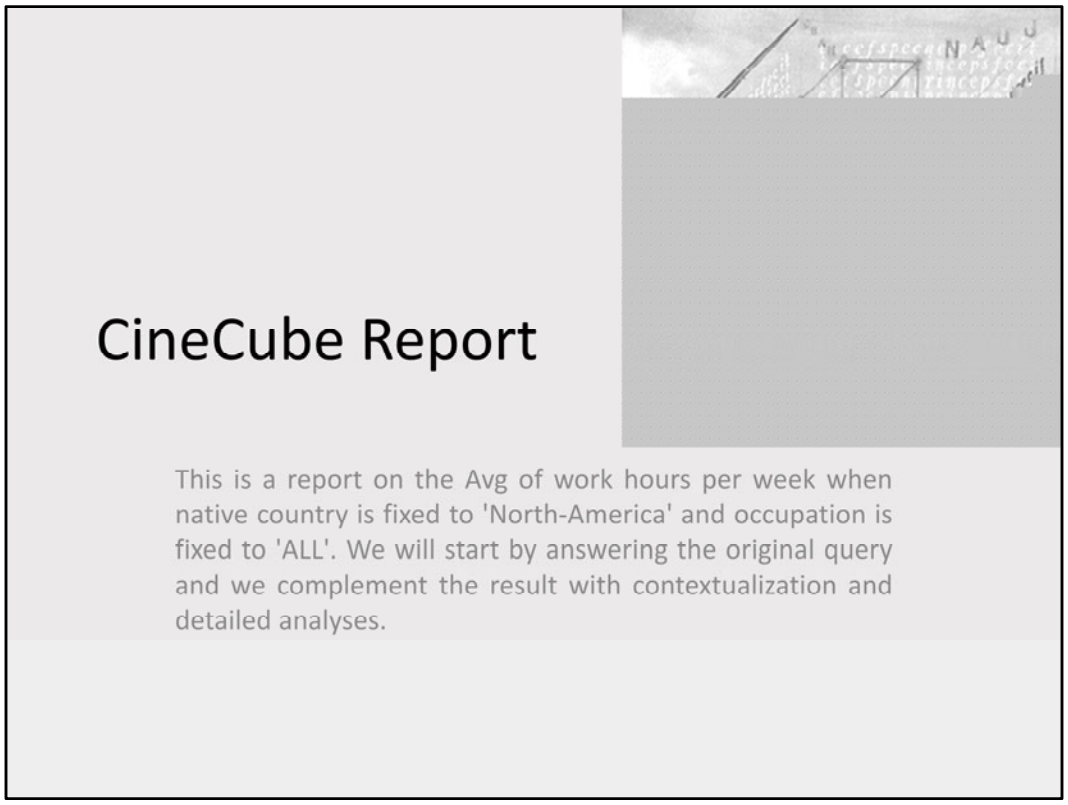
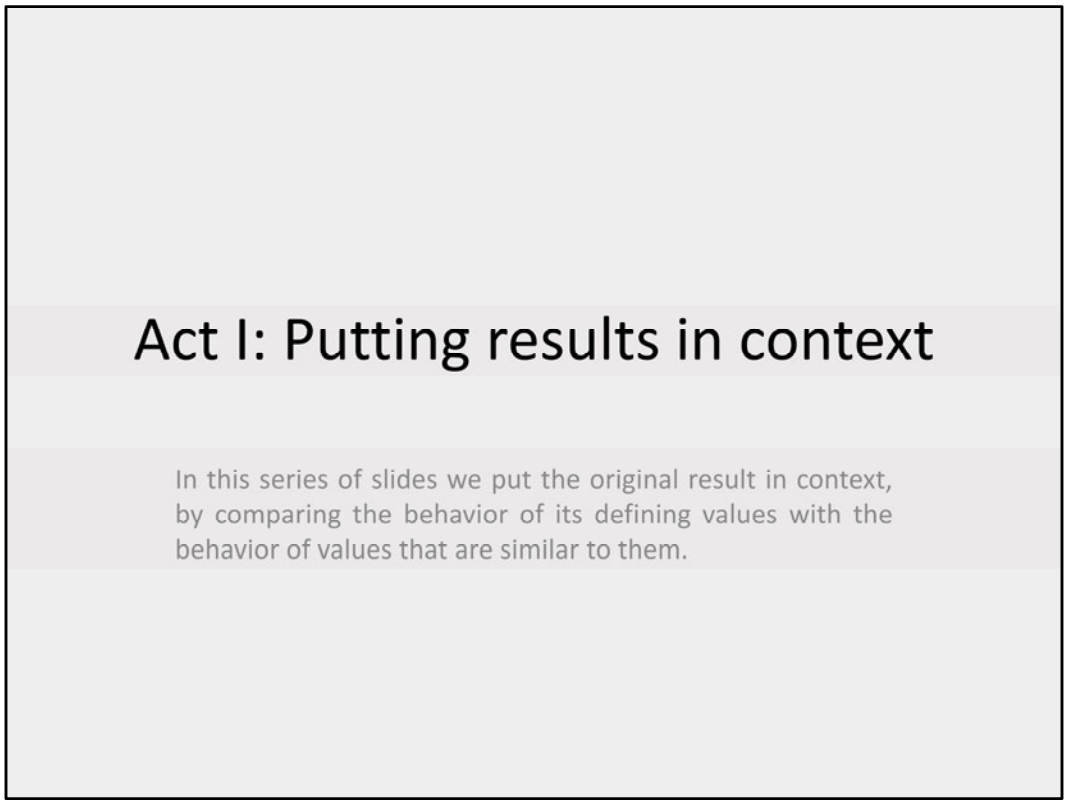


This is a report on the Avg of work hours per week when native country is fixed to 'North-America' and occupation is fixed to 'ALL'. We will start by answering the original query and we complement the result with contextualization and detailed analyses.

Answer to the original question

	Post-Secondary	Without-Post-Secondary
17-36	39.78	39.03
37-56	44.43	42.26
57-76	39.43	37.01
77-96	32.46	28.07

Here, you can see the answer of the original query. You have specified native country to be equal to 'North-America', and occupation to be equal to 'ALL'. We report on Avg of work hours per week grouped by education at level 3, and age at level 3 .
You can observe the results in this table. We highlight the largest values with red and the lowest values with blue color.
Row 37-56 has 2 of the 2 highest values.
Row 77-96 has 2 of the 2 lowest values.

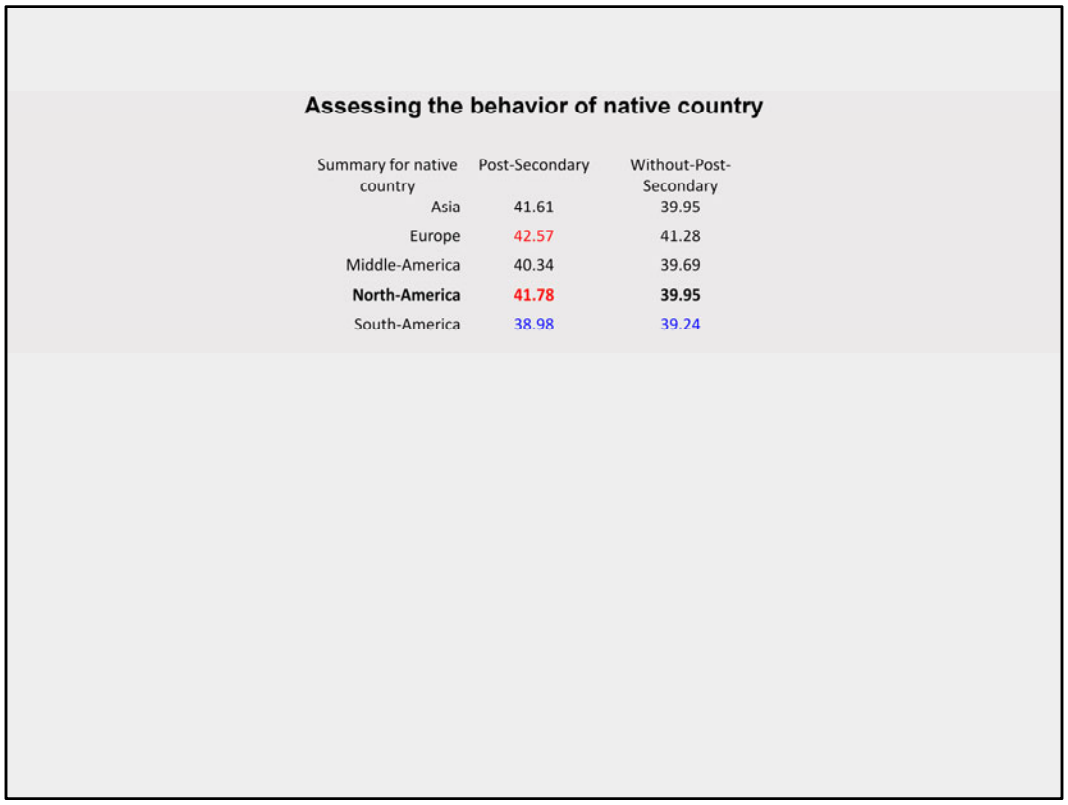


Act I: Putting results in context
In this series of slides we put the original result in context, by comparing the behavior of its defining values with the behavior of values that are similar to them.

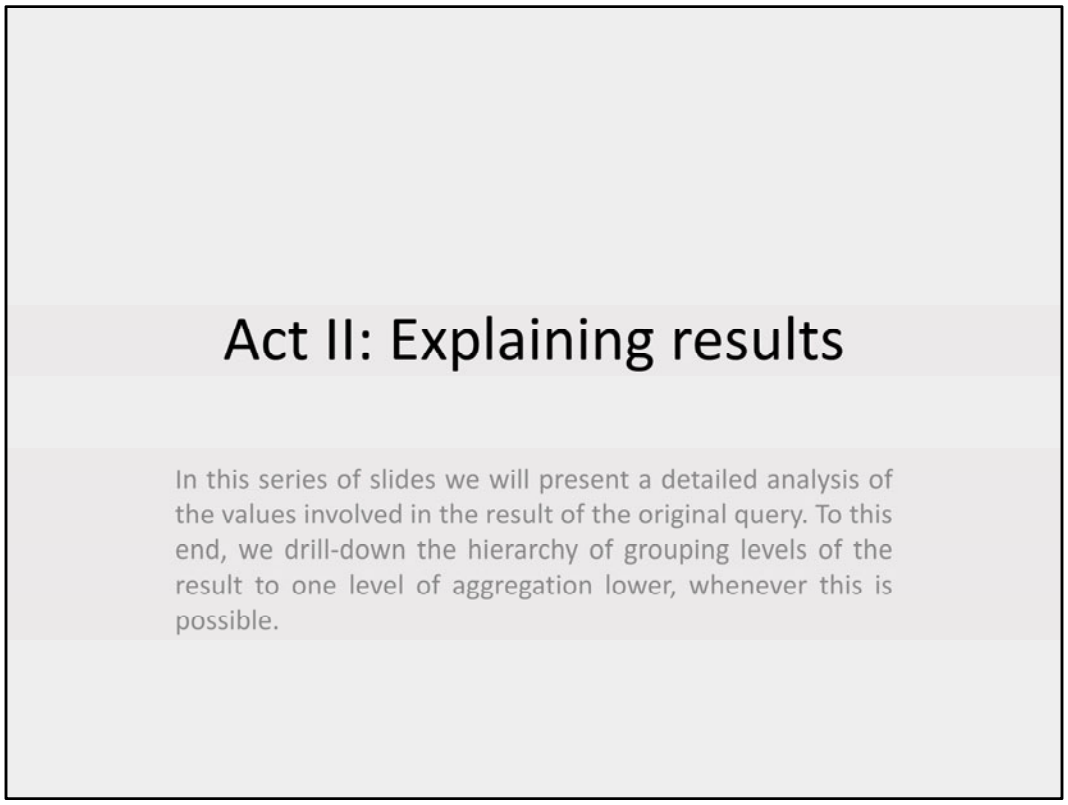
Assessing the behavior of native country

Summary for native country	Asia	Europe	Middle-America	**North-America**	South-America
17-36	38.74	41.55	39.69	**39.44**	39.35
37-56	44.03	44.91	40.28	**43.55**	39.95
57-76	40.70	35.97	38.39	**38.13**	34.44
77-96	30.00	16.20	40.00	**30.06**	38.00

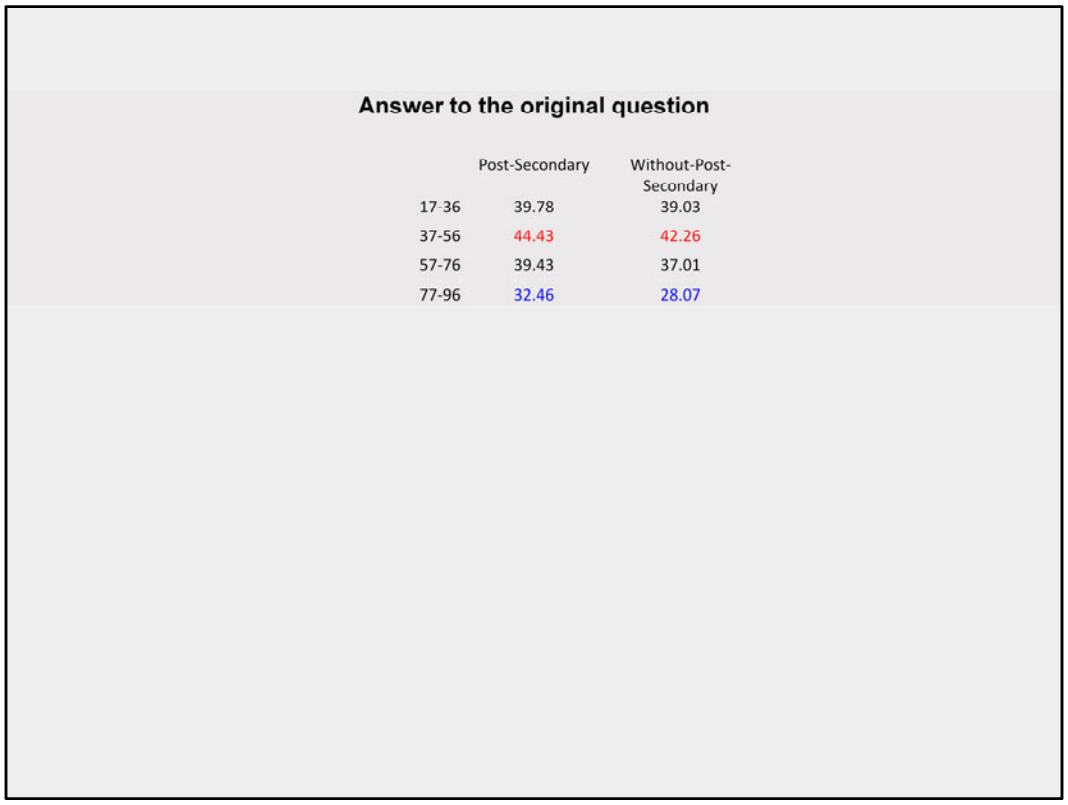
In this graphic, we put the original request in context by comparing the value 'North-America' for native country at level 2 with its sibling values. We highlight the reference cells with bold, the highest values with red and the lowest values with blue color. We calculate the Avg of work hours per week while fixing native country at level 3 to be equal to ''ALL'', and occupation at level 2 to be equal to ''ALL''.
Compared to its sibling we observe the following:
In 2 out of 4 cases North-America has higher value than Asia.
In 2 out of 4 cases North-America has lower value than Asia.
In 2 out of 4 cases North-America has higher value than Europe.
In 2 out of 4 cases North-America has lower value than Europe.
In 1 out of 4 cases North-America has higher value than Middle-America.
In 3 out of 4 cases North-America has lower value than Middle-America.
In 3 out of 4 cases North-America has higher value than South-America.
In 1 out of 4 cases North-America has lower value than South-America.



In this graphic, we put the original request in context by comparing the value 'North-America' for native country at level 2 with its sibling values. We highlight the reference cells with bold, the highest values with red and the lowest values with blue color. We calculate the Avg of work hours per week while fixing native country at level 3 to be equal to ''ALL'', and occupation at level 2 to be equal to ''ALL''.
Compared to its sibling we observe the following:
In 1 out of 2 cases North-America has a higher value than Asia.
In 1 out of 2 cases North-America has an equal value to Asia.
In 2 out of 2 cases North-America has a lower value than Europe.
In 2 out of 2 cases North-America has a higher value than Middle-America.
In 2 out of 2 cases North-America has a higher value than South-America.



Act II: Explaining results
In this series of slides we will present a detailed analysis of the values involved in the result of the original query. To this end, we drill-down the hierarchy of grouping levels of the result to one level of aggregation lower, whenever this is possible.



In this slide we remind you the result of the original query.
Now we are going to explain the internal breakdown of this result by drilling down its grouper dimensions.
In the first of the following two slides we will drill-in dimension age at level 3. Then we will drill-in dimension education at level 3.

Drilling down the Rows of the Original Result

		Post-Secondary	Without-Post-Secondary
17-36			
	17-26	34.53 (3069)	34.99 (2805)
	27-36	43.63 (4183)	42.55 (3207)
37-56			
	37-46	44.41 (4345)	42.34 (2602)
	47-56	44.46 (2481)	42.15 (2055)
57-76			
	57-66	41.03 (1028)	39.06 (1163)
	67-76	32.82 (250)	29.33 (311)
77-96			
	77-86	28.36 (39)	24.66 (53)
	87-96	41.33 (18)	39.38 (16)

In this slide, we expand dimension age by drilling down from level 3 to level 2. For each cell we show both the Avg of work hours per week and the number of tuples that correspond to it in parentheses. We highlight the 4 lowest values in blue and the 4 largest in red color. Some interesting findings include:
Column Post-Secondary has 3 of the 4 highest values.
Column Post-Secondary has 2 of the 4 lowest values.
Column Without-Post-Secondary has 2 of the 4 lowest values.

Drilling down the Columns of the Original Result

		17-36	37-56	57-76	77-96
Post-Secondary					
	Assoc	41.29 (1065)	42.42 (978)	39.53 (133)	19.33 (3)
	Post-grad	44.38 (433)	46.09 (1143)	42.30 (225)	38.36 (11)
	Some-college	36.86 (3402)	43.59 (2373)	37.75 (493)	27.45 (20)
	University	42.47 (2352)	45.31 (2332)	39.82 (427)	35.70 (23)
Without-Post-Secondary					
	Elementary	41.97 (119)	41.79 (216)	36.35 (204)	25.56 (18)
	Preschool	25.20 (5)	32.75 (8)	10.00 (2)	-
	Secondary	38.98 (5888)	42.30 (4433)	37.16 (1268)	28.96 (51)

In this slide, we expand dimension education by drilling down from level 3 to level 2. For each cell we show both the Avg of work hours per week and the number of tuples that correspond to it in parentheses. We highlight the 6 lowest values in blue and the 6 largest in red color.
Some interesting findings include:
Column 37-56 has 4 of the 6 highest values.
Column 77-96 has 4 of the 6 lowest values.

Summary

- Concerning the original query, some interesting findings include:
  - Row 37-56 has 2 of the 2 highest values.
  - Row 77-96 has 2 of the 2 lowest values.
- First, we tried to put the original result in context, by comparing its defining values with similar ones.
  - When we compared North-America to its siblings, grouped by native country and age, we observed the following:
    - In 2 out of 4 cases North-America has higher value than Asia.
    - In 2 out of 4 cases North-America has lower value than Asia.
    - In 2 out of 4 cases North-America has higher value than Europe.
    - In 2 out of 4 cases North-America has lower value than Europe.
    - In 1 out of 4 cases North-America has higher value than Middle-America.
    - In 3 out of 4 cases North-America has lower value than Middle-America.
    - In 3 out of 4 cases North-America has higher value than South-America.
    - In 1 out of 4 cases North-America has lower value than South-America.
  - When we compared North-America to its siblings, grouped by education and native country, we observed the following:
    - In 1 out of 2 cases North-America has a higher value than Asia.
    - In 1 out of 2 cases North-America has an equal value to Asia.
    - In 2 out of 2 cases North-America has a lower value than Europe.
    - In 2 out of 2 cases North-America has a higher value than Middle-America.
    - In 2 out of 2 cases North-America has a higher value than South-America.
- Then we analyzed the results by drilling down one level in the hierarchy.
  - When we drilled down age, we observed the following facts:
    - Column Post-Secondary has 3 of the 4 highest values.
    - Column Post-Secondary has 2 of the 4 lowest values.
    - Column Without-Post-Secondary has 2 of the 4 lowest values.
  - When we drilled down education, we observed the following facts:
    - Column 37-56 has 4 of the 6 highest values.
    - Column 77-96 has 4 of the 6 lowest values.

In this slide we summarize our findings.
Concerning the original query, some interesting findings include:
Row 37-56 has 2 of the 2 highest values.
Row 77-96 has 2 of the 2 lowest values.

First, we tried to put the original result in context, by comparing its defining values with similar ones.
When we compared North-America to its siblings, grouped by native country and age, we observed the following:

In 2 out of 4 cases North-America has higher value than Asia.
In 2 out of 4 cases North-America has lower value than Asia.
In 2 out of 4 cases North-America has higher value than Europe.
In 2 out of 4 cases North-America has lower value than Europe.
In 1 out of 4 cases North-America has higher value than Middle-America.
In 3 out of 4 cases North-America has lower value than Middle-America.
In 3 out of 4 cases North-America has higher value than South-America.
In 1 out of 4 cases North-America has lower value than South-America.
When we compared North-America to its siblings, grouped by education and native country, we observed the following:

In 1 out of 2 cases North-America has a higher value than Asia.
In 1 out of 2 cases North-America has an equal value to Asia.
In 2 out of 2 cases North-America has a lower value than Europe.
In 2 out of 2 cases North-America has a higher value than Middle-America.
In 2 out of 2 cases North-America has a higher value than South-America.

Then we analyzed the results by drilling down one level in the hierarchy.
When we drilled down age, we observed the following facts:

Column Post-Secondary has 3 of the 4 highest values.
Column Post-Secondary has 2 of the 4 lowest values.
Column Without-Post-Secondary has 2 of the 4 lowest values.
When we drilled down education, we observed the following facts:

Column 37-56 has 4 of the 6 highest values.
Column 77-96 has 4 of the 6 lowest values.