Higher Education Attributes — Description of the Modifications

For the description of attributes please refer to the following document:
http://vedranavidulin.files.wordpress.com/2010/11/higher-education-attributes.pdf

1. Deleted Attributes

The attributes that differentiate between female and male students were deleted, considering that better status of females in higher education is more a consequence of better economic welfare, than a possible cause. In total, 20 attributes were deleted:

1. Gross enrolment ratio. ISCED 5 and 6. Male
2. Gross enrolment ratio. ISCED 5 and 6. Female
3. Gender parity index for gross enrolment ratio. Tertiary
4. Percentage of female students. ISCED 5A
5. Percentage of female students. ISCED 5B
6. Percentage of female students. ISCED 6
7. Percentage of female students. Total
8. Gross completion rate. ISCED 5A. Male
9. Gross completion rate. ISCED 5A. Female
10. Gender parity index for gross completion rate. ISCED 5A
11. Percentage of female graduates in tertiary education
12. Female tertiary graduates as percentage of all graduates in education
13. Female tertiary graduates as percentage of all graduates in humanities and arts
14. Female tertiary graduates as percentage of all graduates social sciences, business and law
15. Female tertiary graduates as percentage of all graduates in science
16. Female tertiary graduates as percentage of all graduates in engineering, manufacturing and construction
17. Female tertiary graduates as percentage of all graduates in agriculture
18. Female tertiary graduates as percentage of all graduates in health and welfare
19. Female tertiary graduates as percentage of all graduates in services
20. Female tertiary graduates as percentage of all graduates in unspecified programs

2. Constructed Attributes

Attributes were constructed with the aim to make interesting relations between attributes more explicit. Functions, such as sum, max and min, were applied to two or more attributes, resulting in 9 new attributes.

ATTRIBUTE	DESCRIPTION
Theoretical/practical orientation of the majority of students	Constructed from the attributes "Distribution of students (%). ISCED 5A" and "Distribution of students (%). ISCED 5B". If more students in a country study in the theoretically-oriented 5A programs than in the practically-oriented 5B programs, the attribute receives the value "theoretical". In contrast, if there are more students attaining 5B than 5A programs, the attribute receives the value "practical".
GER–Total + GOER	Constructed by summing the attributes "Gross enrolment ratio. ISCED 5 and 6. Total" and "Gross outbound enrolment ratio". Indicates both the number of enrolled students and students that study abroad.

ATTRIBUTE	DESCRIPTION
Popularity of a country for mobile students	Constructed from the attributes "Inbound mobility rate" and "Outbound mobility ratio (%)". If more foreign students came to a given country to study than there are students from that country that left to study abroad, the attribute receives the value "popular", and vice versa (the value "unpopular").
Field of study completed by the most students	Constructed from the nine "Percentage of tertiary graduates" attributes by taking the name of a field containing those programs completed by the majority of students within a country. Accordingly, the attribute can take one of the nine values, e.g., education, humanities and arts, science.
Field of study completed by the least students	Constructed from the nine "Percentage of tertiary graduates" attributes by taking the name of a field containing those programs completed by the least of students within a country.
EXPENDITURES — HIGHER EDUCATION	
The main source of investment in tertiary education	Constructed from the two attributes "Total expenditure on educational institutions and administration as a % of GDP. Tertiary" – Public sources and Private sources. If the higher education sector is mostly financed from the public sources, the attribute received the value "public", and vice versa ("private").
EXPENDITURES — ALL LEVELS (INCLUDING HIGHER EDUCATION)	
The level of education in which country invests the most	Constructed from the three attributes "Public expenditure per pupil as a % of GDP per capita" – Primary, Secondary and Tertiary. Indicates the level of education that is financially most supported by the country. Accordingly, it can take one of the three values: "primary", "secondary" and "tertiary".
COMBINED	
GER-Total + PE-GNI	Constructed by summing the two attributes "Gross enrolment ratio. ISCED 5 and 6. Total" and "Public expenditure on education as % of GNI". Indicates both the number of enrolled students and level of investment in education.
GER-Total + CE-GNI	Constructed by summing the two attributes "Gross enrolment ratio. ISCED 5 and 6. Total" and "Current expenditure on education as % of GNI". Indicates both the number of enrolled students and level of current expenditures on education.