

KURT SCHMID

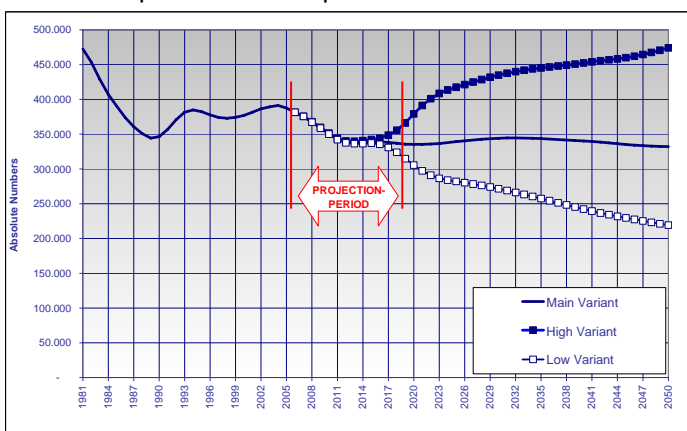
## Projected Education Flow for the Lower Secondary Level – Competition between the Schools for Students Intensifies Trend in the Lower Secondary Level of Higher Secondary Schools

**B**ased purely on demographics, a decrease in the number of students in the lower secondary schools as well as in the lower secondary level of higher secondary schools can be expected should the school selection behavior remain unchanged. However, if one considers trends in school selection and follows the assumption that in the competition between schools for students the higher secondary schools with their greater degree of social attractiveness will be better able to maintain their student numbers in the relevant age groups with decreasing populations, then the number of students in the lower secondary level of higher secondary schools (*AHS-Unterstufe*) should remain at approximately the current level in the future. In contrast, the number of students in lower secondary schools (*Hauptschule*) would decrease noticeably more than would be the case based purely on demographics. This also means however, that the social heterogeneity of the *AHS-Unterstufe* population would increase, which presents a challenge for the current pedagogical didactic and teaching practices (i.e. the limited amount of individualization in the instruction).

### *Basic Data on Demographic Developments*

As can be seen in illustration 1, in the 1980's a marked demographic decrease was noted in the age group of 10 to 13 year-olds relevant for the lower secondary level. Whereas in 1980 there were approximately 470,000 youth in this age group throughout Austria, this number decreased successively in the years up to 1990, falling to approximately 345,000 individuals.

Ill. 1: Population Development of 10 to 13 Year-Olds



Source: ibw analysis of the population extrapolation and projection data from Statistik Austria

Note:

Main variant: average fertility, life expectancy, & immigration

High variant: high fertility, life expectancy, & immigration

Low variant: low fertility and immigration, high life expectancy

However, during the first half of the 1990's, the age cohort once again increased markedly (to approximately 380,000 individuals). After an insignificant temporary decrease in the second half of the 1990's, an increase in the first half of the current decade to approximately 390,000 youth can be noted.

Since 2004 however, a clear downward trend has begun which, according to population projections, will continue into the middle of the next decade. It is predicted that in the year 2015 there will be approximately 335,000 youth between the ages 10 and 13 (that is approximately 42,000 youth less than today).

### Demographic Projection Variants:

What are the influences of the different variants of the population projection? In other words, to what extent does the population of the age group differ when based on the different projection variants?

For this purpose illustration 1 shows the development of the absolute number of 10 to 13 year-olds per year based on the three projection variants together with the analysis for the primary level.

It can clearly be seen that all the projection variants predict a decreasing age cohort until approximately 2015 with virtually no deviation. After this point however, projection "uncertainty" can be noticed, i.e., the expected population levels differ markedly between the three projection variants. According to the main variant, a certain stabilization of the age cohort is to be expected in the time period between 2015 and 2020. The population of

youth between the ages of 10 and 13 would consequently be approximately 336,000 individuals. According to the “high” projection variant, there would once again be a strong growth in the age cohort for this time period that would then reach approximately today’s level in 2020. The “low” projection variant predicts a further strong decrease in the age cohort.

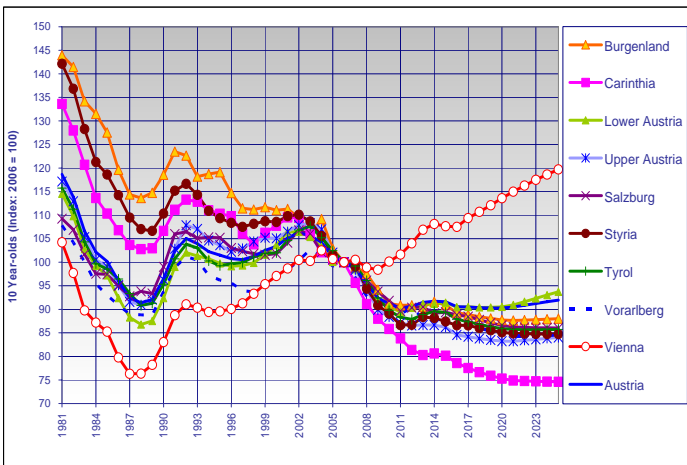
Based on these numbers, one can measure how strongly the demographics will influence the number of students in the lower secondary level. Accordingly, a relatively “certain” population decrease of approximately 11% (based on the current population levels) can be assumed until 2010. After that, the predicted number of students is clearly dependent on the individual population projection variant used for the estimate.

Based on illustration 1, it becomes clear that a very specific population development can be expected for a majority of the projection period with which this study is concerned (until 2020). Therefore the projected student flow for the lower secondary level is based on the main variant of the population projection from Statistik Austria.

Province-specific Developments:

The demographic development in Austria is however also marked by very different regional trends. Based on the index development (2006 = 100) it becomes clear that development in the different regions has varied greatly in the past, and will most likely continue to do so particularly in the future (cf. III. 2).

III. 2: Population Development for 10 Year-olds According to Province (Index: 2006 = 100); Main Variant of the Population Projection



Source: ibw analysis of the population extrapolation and projection data from Statistik Austria

It can be seen that the Province of Lower Austria lies close to the average value for Austria as a whole. Burgenland, Tyrol, Upper Austria, Vorarlberg, Salzburg Styria are somewhat below the Austrian average. Carinthia shows a clear, constant decrease in the age cohort.

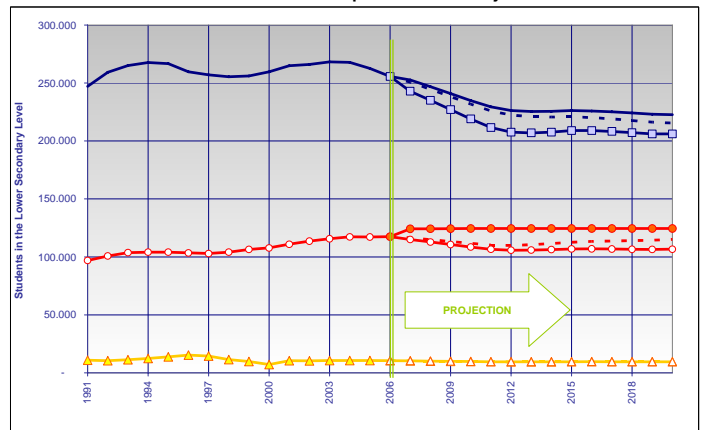
The only province to expect middle- and long-term growth in the population of 10 year-olds is Vienna. A

clear decrease in the age cohort is projected for all the other provinces until 2010. Afterwards (2011 to 2021) the relevant age cohort in these provinces will remain stable.

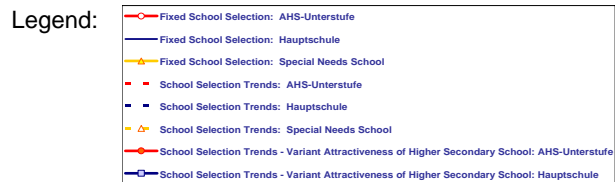
*Fixed School Selection & School Selection Trends*

If one extrapolates the current distribution of students after the school reform for the future (i.e. it is assumed that the school selection behavior will remain unchanged in the future), and relates these school attendance quotas to the projected population development in the future (cf. III. 3: **Fixed School Selection**), the influence of the demographic development on the future education flow becomes evident.

III. 3: Projected Education Flow for Austria; Scenarios: Fixed School Selection & School Selection Trends Based on the Main Variant of the Population Projection



Source: ibw projected education flow



The number of students in the *Hauptschule* is currently already on the decline. This trend will continue with approximately the same dynamics until 2012. A total of approximately 226,000 lower secondary school students can be expected for 2012. Afterwards they should remain at approximately the same level.

In the *AHS-Unterstufe* a decrease in the absolute number of students to approximately 106,000 individuals in 2012 is presumed. Afterwards they should remain at this level. Currently there are approximately 117,000 students in this school type. A somewhat lower number of students are predicted for the lower secondary level in special needs schools.

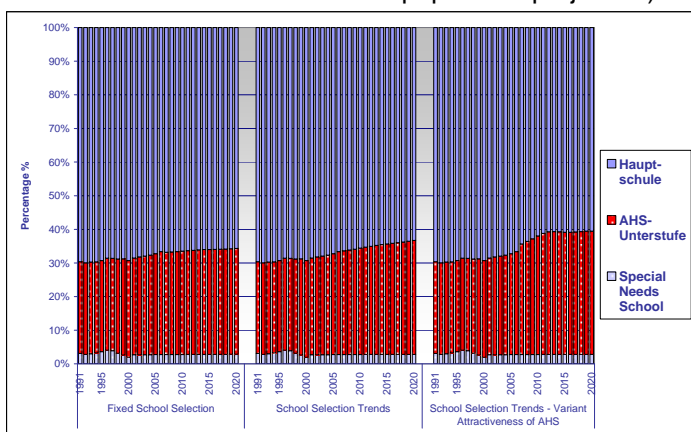
Of course instead of simply assuming that the school attendance quotas will remain the same, it is also possible to extrapolate the developments in student distribution trends over the past years (cf. III. 3: **School Selection Trends**)<sup>1</sup>. Compared to the fixed school selection variant, the lower secondary level could expect slightly

lower student flows in the *Hauptschule*, and higher student numbers in the *AHS-Unterstufe*. This reflects the already long observed trend towards increased attendance of higher secondary schools that is above all largely predominate in metropolitan areas.

If one assumes that when the age cohort decreases, the competition between the schools for students will increase and that due to the greater social attractiveness of the *AHS-Unterstufe* that this school type will have a recruiting advantage over the *Hauptschule* (cf. III. 3: **School Selection Trends Considering the Attractiveness of Higher Secondary School**), then the number of students in the *AHS-Unterstufe* should lie at approximately 124,000 each year. In contrast, it could come to a still more pronounced decline in the number of students at *Hauptschule*, dropping to approximately 208,000 by 2012. Afterwards, the number of students at *Hauptschule* should remain at approximately the same level due to demographic developments.

If one compares the flow of students in III. 3 it becomes evident that the major influence on the future student numbers in the lower secondary level will primarily be demographical developments, and secondly school selection trends. Given the high social attractiveness of the *AHS-Unterstufe* however, notable shifts between both lower secondary level school types are still to be expected. The *Hauptschule* are most likely to feel the primary pressure for a change due to the declining age cohort. The *AHS-Unterstufe* is expected to be able to “hold” their student numbers. This will lead to a shift in the relations between the students at *Hauptschule* and *AHS-Unterstufe* (cf. III. 4).

III. 4: Projected Education Flow for Austria: Distribution of Lower Secondary Level Students (different scenarios based on the main variant of the population projection)

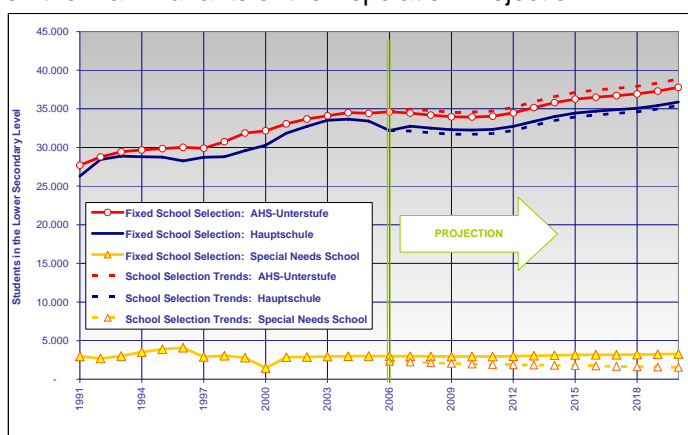


Source: ibw projected education flow

Currently approximately one third of all lower secondary level students attend *AHS-Unterstufe*. According to the fixed school selection variant, this will still be 31% in 2020. According to the variant school selection trend it will be 34%, and according to the variant school selection trend considering maximal use of the higher secondary school resources it will even reach 37%.

Completely different trends are expected for **Vienna** due to the expected rise in the age cohort. As of 2012, the existing school capacities will presumably not be sufficient to accommodate the increasing age cohort (cf. III. 5). Depending on how the expansion of the school locations effects the existing relation between the *Hauptschule* and the *AHS-Unterstufe*, the number of students will be distributed accordingly among both these school types (in III. 5 it was assumed that as of approximately 2012 the locations for both the *Hauptschule* as well as the *AHS-Unterstufe* will be appropriately expanded to accommodate the expected trends).

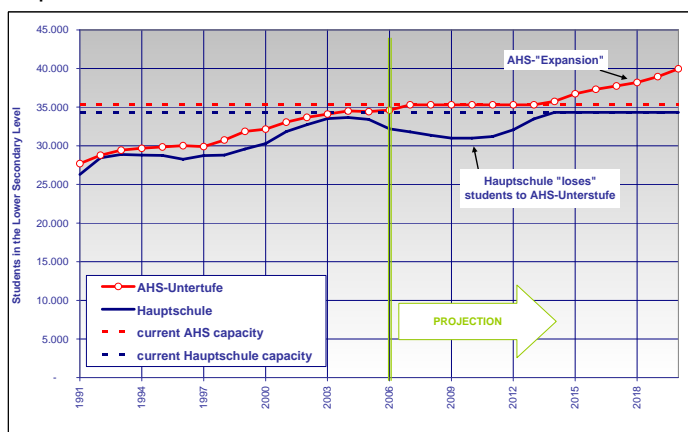
III. 5: Projected Education Flow for Vienna: Scenarios: Fixed School Selection & School Selection Trends Based on the Main Variants of the Population Projection



Source: ibw projected education flow

If one assumes that as of this time primarily new locations for *AHS-Unterstufe* will be created (and respectively the existing *AHS-Unterstufe* locations will be expanded), then the school selection trends projection variant results in the following student flows (attractiveness of higher secondary schools) (cf. III. 6):

III. 6: Projected Education Flow for Vienna: Scenarios: School Selection Trends (attractiveness of higher secondary schools) and Expansion of the *AHS-Unterstufe* Capacities as of 2012



Source: ibw projected education flow

In the short term, (until approximately 2012) a decrease in the number of *Hauptschule* students is expected and the number of *AHS-Unterstufe* students should remain at approximately the current level since the AHS locations should be able to maintain their student numbers as a result of the temporary demographic fall in the age cohort in this time period.

After 2012, the age cohort will exceed the existing school capacities. Therefore the line representing students at the *Hauptschule* remains at a level of approximately 34,000 students each year and all the additionally required school capacities will be offered as *AHS* school locations. The number of *AHS* students will therefore increase to approximately 40,000 by 2020.

Based on this trend towards the *AHS-Unterstufe* which has already been observed in metropolitan areas in the past, **it is also expected that the developments in the provinces will also vary between rural and urban areas.** According to the population projection, the urban population will also increase in the provinces. In contrast, demographic developments in the rural communities are expected to remain stable or even decline (see in this regard ÖROK 2004: "Stärkstes Wachstum in den städtischen Agglomerationen. Periphere Räume verlieren an Bevölkerung.")

This means however that **in urban areas there will be a tendency towards trends similar to those in Vienna.** Unfortunately it is not possible to carry out such individual regional analyses and student flow projections with the available data. It can be presumed however that as of 2010 the urban offering of schools in many areas will be insufficient and that it will therefore be necessary expand the school capacities<sup>2</sup>. The form that the new offering of schools will take for both the *Hauptschule* and the *AHS-Unterstufe* however cannot be projected since this is an (often regional) educational political decision.

### *Educational Political Consequences*

It must also be stated that there is a long-term and clear trend towards the *AHS-Unterstufe*. Thus, currently throughout Austria only a good quarter (28%) of all the lower secondary school students go to school in a school district where the percentage of *AHS* students is less than 15%. In comparison, 40% of all the students attend school in a school district in which the percentage of *AHS* students is at least 30%.

The original concept for the *AHS-Unterstufe* as a comprehensive closely conceived segment to fulfill a supplier function for higher education (university studies) is in reality becoming continually less suitable in ever fewer school districts due to the shift in education flows. Wherever an *AHS-Unterstufe* was established, it was met with

acceptance by the population, or as SERTL<sup>3</sup> expressed it: "The lack of a conversion [into an *AHS-Unterstufe* in rural areas] is primarily due to the lack of an offer."

And this process does not appear by any means to be finished. For even if nothing changes in the current offering of schools, the expected decrease in the age cohort will presumably lead to an increased competition between the schools for students. Thus, in the future there may indeed not necessarily be a greater number of students at *AHS-Unterstufe* than at present, but their percentage of the student numbers in the lower secondary level and the social heterogeneity of their student population will continue to increase. This however also presents a challenge for the current pedagogical didactic and teaching practices, for the higher secondary school in its current form (i.e. with a limited amount of individualization in the instruction) does not appear to be capable of fulfilling the demands of a heterogeneous student population.

This article is predominately taken from the ibw study listed below. The study contains further information and results from the ibw projected education flow for the primary school sector as well as the upper secondary level. Furthermore, all the projections were carried out on a provincial level.

Schmid Kurt: "ibw-Bildungsstromprognose. Kurzkomentar & Hauptergebnisse" (ibw Projected Education Flows. Short Commentary & Main Results), ibw-Bildung & Wirtschaft No. 43, 2007

Available for download free of charge under: <http://www.ibw.at/html/buw/BW43.pdf>

<sup>1</sup> This model therefore shows the influence of both the demographic development and school selection trends (by extrapolating the trends observed in the last 15 years) on the future education flows.

<sup>2</sup> In rural districts the opposite may be true and the existing school offering could exceed the total demand. In those areas where the provincial districts have established *AHS* schools, these schools will according to the assumptions also have an advantage in student recruitment over the *Hauptschule*.

<sup>3</sup> Sertl, M.: "Vom 'Bildungsprivileg' über die 'Ausschöpfung der Begabungsreserven' zur sozialen 'Restschule'? – Soziologische Aspekte der Mittelstufenproblematik." In: Weidinger, Walter – Hrsg. (2000): "Wieso 'Haupt'-Schule. Zur Situation der Sekundarstufe I in Ballungszentren." öbv&htp Vienna.

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ibw – Institut für Bildungsforschung der Wirtschaft  
Rainergasse 38, A-1050 Vienna  
Tel.: +43/1/545 16 71-0, Fax: +43/1/545 16 71-22  
E-Mail: [info@ibw.at](mailto:info@ibw.at), Homepage: [www.ibw.at](http://www.ibw.at)