

The Politics of Access to Advanced Education In Late Imperial Austria

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For Austria's peoples and the government, the development of advanced education during the late nineteenth century offered challenges as well as opportunities. Popular aspirations for secondary and higher education grew as modern class structures and an industrial market economy replaced the old corporate society. Study in *Gymnasien*, *Realschulen*, universities, and technical colleges opened the doors for entry into the growing sectors of white-collar and technical employment, the learned professions, and government service. For the hitherto dominant German-speaking elements in the Alpine and Bohemian lands and for the Poles in Galicia, assuring their continued leadership in a changing social structure required maintaining privileges in secondary and higher education. Conversely, as the historically disadvantaged Czechs, Slovenes, Ukrainians, and South Slavs developed political programs for group advancement, they demanded increased educational opportunities for their peoples in their own languages. The Protestant, Jewish, and Eastern Orthodox religious minorities, of whatever nationality, also pushed for an end to the historic discrimination against them in the Catholic-dominated state educational institutions. The disadvantaged national and religious groups had to break the old dominant groups' hold on the educational institutions if they were to prevent the perpetuation of their old subjugation in the emerging new society.

The Austrian state saw benefits in the development of secondary and higher education, but it soon faced challenges as well in the growth of advanced schooling. Emerging from the great crisis of the late 1840s, the government recognized that decades of conservatism and stagnation in public policy had allowed enormous gaps to develop between state and society and had almost fatally weakened the government's ability to assure its own power. During the 1850s the new authorities of the neo-absolutist regime undertook major reforms at all levels of education to produce the well educated public servants and professionals and the more loyal and productive citizenry that were needed to build a strong state resting on a healthy and prosperous society. The German Liberal ministers and bureaucrats of the 1860s and 1870s continued that process of reform and development, albeit with an even greater emphasis on cultivating a productive and responsible citizenry to be led, they hoped, by a largely German-speaking middle class of property and education.

The German Liberal officials and, even more so, their conservative successors of the 1880s and early 1890s also tried to channel and control the growth of advanced education. The government authorities feared the rise of ethnic strife over educational opportunities, and, enthusiastically or not, they presided over the expansion of secondary and higher-level instruction in Czech, Polish, and eventually Romanian, Slovene, and Serbo-Croatian. The ministerial officials also began to fear that the burgeoning popular appetite for secondary and higher education would outstrip the ability of the economy to absorb the growing numbers of educated young people, and they took various measures to stem that growth.

Growth in Enrollments during the Late Nineteenth Century

The Austrian educational reformers of the 1850s and 1860s could hardly have anticipated the expansion in the total numbers of students and in the resulting pool of the educated and semi-educated that actually occurred during the second half of the nineteenth century. Austria experienced unprecedented growth in the numbers of students enrolled in academic secondary schools, universities, and technical colleges after the 1850s. Enrollments in the *Gymnasien* and *Realschulen* increased from 25,630 in 1851 to 65,935 in 1880 and 140,545 in 1910 [See Table 1].⁽¹⁾ In roughly the same period, the number of matriculated university students in Austria quadrupled, expanding from 5,646 in 1850-51 to 23,068 in the winter semester of 1909-10, while the number of matriculated students in the technical colleges increased by nearly the same ratio from 2,799 to 10,110.⁽²⁾ Enrollments in secondary and higher education grew significantly faster than did the total population during that period so that relative access, or the inclusiveness of academic education, increased as well. In 1851, there were only 1.46 *Gymnasium* and *Realschule* students per 1,000 in the total population (male and female); but by 1910, the number had grown to 5.03 per thousand. Over the same six decades, the university enrollments expanded from 0.32 per 1,000 in the total population, to 0.82 per 1,000 [See Table 1].⁽³⁾

Measured against the prime age groups, the growth in enrollments in Austrian secondary and higher education during the late nineteenth century was equally striking. Austria in

1870 had 14.09 *Gymnasium* and *Realschule* students per 1,000 in the age group eleven through eighteen years, male and female. By 1910 the expansion of academic secondary education had more than doubled that number to 30.57 per 1,000 people in the prime age group [See Table 2].⁽⁴⁾ Relative to the total population, male and female, aged nineteen to twenty-two, enrollments in the various university faculties also more than doubled, from 5.53 matriculated students per 1,000 in winter 1869-1870 to 12.1 in winter 1909-10. The numbers of students in the Cisleithanian technical colleges grew even faster than in the universities, quadrupling from 1.02 matriculated technical college students per 1,000 youth, male and female, aged eighteen to twenty-two, in winter 1869-70 to 4.19 per 1,000 in 1909-10 [See Table 2].⁽⁵⁾ By the winter semester of 1910-11, in fact, all enrollments in Cisleithanian higher education, matriculated and non-matriculated, surpassed the level in Germany, with 1.47 per 1,000 in the total Austrian population compared to 1.32 per 1,000 in the total German population.⁽⁶⁾ Considering only the matriculated university students, the Austrian enrollments in winter 1909-10 of 12.1 per 1,000 in the nineteen-to-twenty-two age group closely approximated Germany's figure in 1911 of 12.4 per 1,000 in the twenty-to-twenty-three age group there.⁽⁷⁾ Indeed, the growth of Austrian higher education was so strong during the last decades of the Monarchy that just before World War I, Austria had the highest rate of enrollment relative to the total population of any major European country. Compared to the total population, Austria in winter 1910-11 had a rate of attendance in all higher education thirty percent higher than for France, seventy-five percent higher than for England, nearly twice that of Italy, more than double for Hungary, and more than three times that for Russia.⁽⁸⁾

As the institutional networks of secondary and higher education grew in Austria after the mid-nineteenth century, nearly all the ethnic and religious groups eventually benefitted from the increasing educational opportunities. Overall, the enrollments in Austrian secondary and higher education between the late 1850s and 1914 showed a pattern of continuing, although steadily declining, overrepresentation of the German elements, as measured by the students' declarations of mother tongue. With regard to opportunities for advanced education, the German elements obviously benefitted from their historic leadership role in Austrian government and society and from the long predominance of German-language instruction. Beginning, though, with the Czechs in the 1850s and 1860s and then the Poles, some of the non-German groups made rapid gains, whether by attending German-language institutions or after 1860 by enrolling in the growing number of schools that taught in their respective mother tongues. With regard to religion, at least seventy to eighty percent of all the students in Austrian secondary and higher education throughout the period from the 1850s to 1914 were Catholic, but from the late 1850s onward the Catholics' participation was actually noticeably less than their ninety percent share of the total population.

The advantages in enrollments of the German, or more precisely the German-speaking, elements over the other ethnic groups in Austrian secondary education eroded steadily during the late nineteenth century. Relative to their total population, the German-speaking elements, of all religions, did have higher secondary enrollments than any other major nationality group in Austria until after 1900 [See Table 3].⁽⁹⁾ Nonetheless, the representation of Czechs made significant gains after the late 1850s, nearly reaching the

Czech-speakers' 23 or 24 percent share of the total population by 1870, while the Polish enrollments also increased significantly. Not surprisingly, the German-speaking share of the secondary enrollments declined most rapidly during the great growth period of Austrian secondary education after the 1890s, when nearly all of the Slavic groups made significant absolute and relative gains. In 1909-10, the German elements' enrollments in secondary schools relative to their population, at 5.88 per 1,000 inhabitants, still significantly exceeded the rate of attendance for the Czechs and was nearly double the rate for the Slovenes and more than double the rate for the Ukrainians. The huge growth in Polish-language secondary education in Galicia after the early 1890s had resulted, though, in the Polish-speaking elements having an even higher rate of enrollment in *Gymnasien*, *Realgymnasien*, and *Realschulen* in 1909-10 than the German elements, with 6.05 students per 1,000 in their total population [See Table 3b]. The German-speaking elements still accounted for nearly 42 percent of all the secondary enrollments in Cisleithania, but their share of all the *Gymnasium* students in 1909-10, 37.4 percent, was barely larger than the 35.6 percent of the Cisleithanian population which reported German as their language of "everyday use" in the 1910 census.

Throughout the era from the 1860s to World War I, German-speaking elements were represented even more strongly in the *Realschulen* compared to Austria's Slavic groups than in the *Gymnasien* or *Realgymnasien*. This represented no less respect among the Germans for classical *Gymnasium* education than among the other ethnic and national groups but rather the greater demand among some of the German elements for *Realschule* education. *Realschulen* developed most rapidly and remained most highly concentrated in larger cities, and among the various provinces they were most numerous in the economically more advanced Alpine and Bohemian lands. Czechs, not surprisingly, also generated a strong demand for *Realschule* education; and in 1870 and again in 1900 and 1910, the Czechs had even stronger representation in those schools compared to the Poles, Ukrainians, or South Slavic groups than they had in the *Gymnasien*.⁽¹⁰⁾

In relative terms, the representation of the Jewish and Protestant minorities during the late nineteenth century among students in secondary schools, universities, and technical colleges significantly exceeded their shares of the Austrian population. The removal of Austria's last remaining discriminatory laws against religious minorities as a result of the 1848 revolution and the constitutional reforms of the 1860s along with the general growth in educational opportunities thereafter led to strong increases in the secondary school enrollments of Jews and Protestants. Indeed, by the end of the 1860s, the Jews' 10 percent share of total enrollments in Austria's *Gymnasien* and *Realschulen* was twice as large as their share of the total population [See Table 4].⁽¹¹⁾ By 1879-80 Jewish students accounted for nearly 15 percent of all academic secondary enrollments, and their share remained at around that level up to World War I. Protestants comprised only a little more than 2 percent of all Austrian inhabitants at the end of the period, but after the 1870s they, too, were overrepresented in the academic secondary schools with 2.7 percent of the students in 1879-80 and 3.5 percent in 1909-10.

The Eastern Orthodox and Uniate minorities were significantly underrepresented in the Austrian *Gymnasien* and *Realschulen* throughout the late nineteenth century. This was

true even with the inclusion in the totals of students who were citizens of Hungary, Moldavia and Wallachia, or Bosnia-Herzegovina. In 1910 Eastern Orthodox youth, compared to the total Orthodox population, enrolled in the secondary schools at only seven-tenths the rate of all Catholics; and the Uniates (or Greek Catholics), at only one-half the rate of the Latin-rite Catholics.⁽¹²⁾ Much of Austria's Eastern Orthodox and Uniate populations were concentrated, of course, in regions that remained the poorest and relatively least developed of the Austrian lands: eastern Galicia, Bukovina, and Dalmatia. The Eastern Orthodox share of the total secondary enrollments rose from 0.85 percent in 1856-57 to 1.5 percent in 1909-10, still noticeably below their 2.3 percent of the total population [See Table 4]. Attendance in the academic secondary schools by Uniates, who in Cisleithania were overwhelmingly Ukrainian, increased from 4.5 percent of the total enrollments in 1856-57 to only 5.5 percent in 1909-10, still far below the Uniates' 12 percent share of the total population in the latter year.

Many of the trends in representation for the various ethnic and religious groups found in the secondary schools during the second half of the nineteenth century were repeated in Austria's universities and technical colleges despite the considerable winnowing out of students that occurred along the way [See Tables 5, 6, 7 and 8].⁽¹³⁾ There can be no mistaking the advantaged position of Austria's German or German-speaking elements in the universities and technical colleges throughout the late nineteenth century, even with allowances for the presence of foreign students in Austrian higher education. As late as the early 1880s, around 10 percent of the students in Austrian higher education came from Hungary and Croatia, and German-speaking students accounted for a significant portion of those students. After the 1890s, however, the numbers of Hungarian citizens among Austria's students declined substantially; and no more than one or two percent of all the students in Austrian institutions at any time throughout the late nineteenth century were citizens of Germany and Switzerland. In Austrian higher education, as in the secondary schools, the representation of historically disadvantaged ethnic and religious groups made significant gains during the second half of the nineteenth century. The Czechs' university enrollments began to approach parity with their share of the total Austrian population by the late 1880s [See Table 5]. The Czechs' enrollments in technical colleges considerably exceeded their share of the total population already by the late 1870s [See Table 7]. Nonetheless, as late as the winter semester 1909-10, the German-speaking elements' representation in the universities relative to their total population (1.12 students per 1,000) was still 60 percent higher than the Czechs' rate (0.702) [See Table 5]. In the technical colleges during that same semester, however, the Czech rate of enrollment relative to their total population (0.517 students per 1,000) slightly exceeded the German elements' rate, irrespective of religion (0.467) [See Table 7].⁽¹⁴⁾

As in the case of Polish representation in secondary schools, Polish enrollments in the universities grew to exceed their share of the total population after 1900 although the hundreds of students from the Russian Empire and the smaller numbers from Germany who attended the universities of Krakow and L'viv each year inflated somewhat the totals of ethnically Polish university students in Cisleithania.⁽¹⁵⁾ Including the foreign students, the representation among Austria's university students in 1900 of individuals with Polish mother tongue relative to the Polish-speaking population of Cisleithania lagged slightly

behind the ratio for the German elements (0.70 students per 1,000 Polish-speakers in the population compared to 0.872 students per 1,000 German-speakers). By winter 1909-10, however, the Polish elements' rate of enrollment in the universities at 1.35 students per 1,000 in the total population exceeded the German elements' rate of 1.12 per 1,000 [See Table 5]. With respect to higher technical education, though, throughout the late nineteenth century Austria's Polish-speaking population generated much less demand than did the Germans and Czechs. Even with the inclusion of foreign students, as late as winter 1909-10 the Polish elements' rate of enrollment in technical colleges relative to their population was more than one-fifth lower than the German elements' rate and thirty percent lower than the Czechs' rate [See Table 7].

Low as it was, the Polish representation among the technical college students relative to their total population in Cisleithania at the end of the period still exceeded that for the Ukrainians, Slovenes, Romanians, Serbs, and Croats. As in secondary education, the rate of enrollment in all higher education for most of these latter groups improved at the end of the nineteenth century but still lagged far behind the rates for the German, Czech, and Polish elements; and their representation relative to the leading ethnic groups was much weaker among technical college students than in the universities [See Tables 5 and 7].⁽¹⁶⁾

For the most part, trends in the religious composition of Austria's university and technical college students paralleled those found in secondary school enrollments. Catholics accounted at all times for at least 70 percent of all university and technical college students, but this was much less than their 91 percent of the Cisleithanian population [See Tables 6 and 8]. In relative terms, the numbers of Jews who reached institutions of higher education, particularly the universities, increased with even greater speed than the growth of Jewish secondary enrollments after the middle decades of the century. In winter 1869-70, for instance, 4.03 percent of the Cisleithanian population was Jewish, but at that time Jews already comprised 12.6 percent of all the matriculated and non-matriculated university students and 9.7 percent of all the technical college students, compared to their 10.0 percent of all the academic secondary students in spring 1870. Between the late 1870s and 1910, Jewish students, including citizens of Hungary and foreign countries, accounted for between around 15 and 20 percent of all Austrian university enrollments and between around 14 and 20 percent of all the technical college students. This generally exceeded the Jews' 13 to 15 percent share of all academic secondary enrollments in the same period [See Table 4].

The Protestant and Eastern Orthodox believers who enrolled in the Austrian universities and technical colleges during the late nineteenth century included sizable foreign contingents, which makes it difficult to gauge the actual representation of those religious minorities from within the Austrian population. Nonetheless, Austria's Protestants around 1900 apparently enrolled in Austrian higher education at significantly higher rates relative to their population than did Austria's Catholic majority. If one reduces the total Protestant enrollments in Austrian higher education reported for winter 1899-1900 by one-fifth to remove the students who were not Austrian citizens, the Protestants' rate of 0.92 university students per 1,000 in the population and 0.53 technical college students per 1,000 still exceeded significantly the representation of Catholics among the students

relative to the total Catholic population in Cisleithania, even without reducing the figures to exclude foreign Catholic students (0.56 university students per 1,000, and 0.17 technical college students per 1,000) [see Tables 6 and 8].

Despite the increasing rate of enrollment in academic secondary schools by Austria's Eastern Orthodox minority during the late nineteenth century, the representation of the Orthodox Christians in higher education advanced only slowly, if at all. Even including foreign students, the Eastern Orthodox share of all university students oscillated around 3 percent after 1880 while their proportion of all technical college students stood at 2.7 percent in 1889-90 and only 1.7 percent in 1909-10. Again, if foreign students are included, the rate of enrollment by Eastern Orthodox students in Austria's universities and technical colleges relative to their total population in Cisleithania appears to have increased by nearly two and one-half times between 1880 and 1910 [See Tables 6 and 8]; but, in fact, the majority of those Orthodox Christian students throughout the period from the 1860s to World War I appear to have come from the Hungarian crown lands and other East European lands beyond the Austrian borders.

The growth in attendance of secondary and higher education relative to Austria's total school-aged population after 1850 indicates that advanced education was becoming more *inclusive* in absolute terms. But what opportunities did lower-class youth have, and was advanced education becoming more *progressive* by providing increased access to students from the lower socio-economic strata? It is difficult to determine precisely the trends in this regard during the nineteenth century, but the growing representation in Austrian secondary and higher education of some of the historically disadvantaged ethnic and religious groups strongly suggests an increasing progressiveness in educational opportunities that is in part confirmed by what is known about changes in the occupational origins of students.

Academic secondary and higher education in late nineteenth-century Austria was more open to youth from lower-middle-class and laboring strata than the conventional image of elitist advanced education in Central Europe would grant. One can generalize that throughout the period from the 1860s to World War I the *Gymnasien*, *Realgymnasien*, and *Realschulen* in Austria's Alpine and Bohemian provinces tended to recruit students rather broadly, particularly in the beginning classes. The majority of the students in the academic secondary schools apparently came from the lower middle classes although relatively few of the students were children of wage laborers or of poorer peasants from more remote communities. Offspring of the propertied and educated upper middle and upper strata comprised larger shares of the university students, particularly among matriculated German Christians in the Vienna and Prague universities, of whom they accounted for half or more between 1860 and 1910. Even among the German Christian students, though, between one-third and one-half of all the matriculated came from the lower middle classes [See Table 9].⁽¹⁷⁾

The lower middle class enjoyed strong representation throughout Austrian secondary and higher education during the second half of the nineteenth century. Among all Jews and the Czech Christians matriculated in the Vienna and Prague universities after 1860,

typically 60 to 70 percent derived from the lower middle class. Only a small fraction of the matriculated university students in Vienna and Prague, between 4 and 10 percent of the total in each institution between 1860 and 1910, were the offspring of wage-laborers; but this figure still exceeded significantly the less than one percent of the total that was typical of Prussian universities during the same period. Even larger percentages of the matriculated technical college students in Vienna and Prague, irrespective of ethnicity or religion, were the offspring of individuals in lower-middle-class and working class occupations [See Table 10].⁽¹⁸⁾ In Vienna the share of the matriculated students from lower-middle-class and working-class backgrounds increased slightly from 50.5 percent of the total in the University in winter 1879-80 to 53.7 percent in 1899-1900, and in the Technical College from 61.4 percent in 1879-80 to 67.6 percent in 1899-1900. Among Czech Christian students in Prague, the corresponding share of the matriculated university students remained steady at around 72 or 73 percent of the total between 1860 and 1910 while the percentage of all the matriculated students in the Czech Technical College from lower-middle-class backgrounds after 1880 fluctuated between 80 and 85 percent. The share of students in the universities and technical colleges drawn from the "old" lower middle class of independent craft production, small business, and, particularly among the Czechs, peasant farming remained high through the second half of the nineteenth century. Increases in the segment from the "new" lower middle class of public and private white-collar and technical employees more than compensated for any decline in the old lower middle-class element after the 1880s and 1890s.

A complex of forces caused the growth of Austria's academic secondary schools, universities, and technical colleges and of their enrollments during the second half of the nineteenth century, including population increase, economic development and new employment opportunities, urbanization, government policies, and changing public attitudes about the utility of advanced education. The unevenness of growth in the total enrollments over the period and the uneven increases in the various segments of the educational system suggest that no one causal factor had primacy. Expansion of the school-aged population over the whole era between 1850 and World War I was an obvious prerequisite for significant growth in enrollments throughout Austrian education, but the increasing share of that population which now pursued secondary or higher education resulted also from qualitative changes in popular values and behavior. Simply by opening new schools and expanding and modernizing old ones, officials in the central government, the crown lands, and municipalities encouraged more people to seek advanced education, particularly in the 1860s and early 1870s and after the early 1890s. One can hardly say, though, that the central government intended or even managed to control the magnitude of expansion that actually occurred. Much of the initiative in opening or expanding secondary schools was taken by elected community councils and voluntary associations, and increases in actual student numbers often greatly exceeded the rate of growth in the numbers of institutions during the periods of greatest expansion.

Efforts to Limit Access to Advanced Education

Access to secondary and higher education became a political question of considerable moment in Austria after the 1850s. As has often been noted in political histories of the Monarchy, Czech, Polish, Slovene, Ukrainian, Croatian, and Italian nationalists all made the expansion of education in their mother tongues a major political goal. German nationalists, for their part, tried to fend off such demands in ethnically mixed areas; and there were heated struggles over higher education in Prague and over secondary schools in Carniola and southern Styria. Historians have devoted much less attention, however, to the concerns of some politicians and the educational bureaucracy about the overall growth of enrollments in secondary and higher education and to the repeated efforts of the ministerial authorities after 1870s to limit those increases.

Throughout Western and Central Europe in the late nineteenth and early twentieth century, many observers considered the increasing enrollments in advanced education and the apparent broadening of access to the ranks of the educated and semi-educated as signs of progress, but others were less sanguine. In Austria already by the 1870s and increasingly in the 1880s and 1890s, conservative politicians, bureaucrats, and educators along with many moderates warned against the dangers of producing larger numbers of people prepared for learned or semi-learned professions than society actually needed. Representatives of German and Polish elite elements voiced their own concerns about the rising enrollments of the formerly subordinate ethnic groups and the increasing competition from them for positions in the learned professions and government employment.

Critics of the expansion of Austrian secondary and higher education feared the raising of misplaced hopes among the lower classes for upward social mobility. In 1899 one well-informed anonymous observer voiced such worries in particularly somber terms:⁽¹⁹⁾

This aiming high above one's status, often notwithstanding all conditions, is, in fact, a dark side of our social conditions, for it corresponds to a basic misjudgment of the value and importance of an educated agricultural and craft element, a sad delusion about the good fortune of becoming something "better," a mistake, which often must be paid for with the bitterest disappointment, with a mongrel life, and dire circumstances of pressing occupational responsibility and an increasing struggle for survival, and which raises up that multifarious proletariat in official garb that is worse off than the proletariat with the calloused hands of labor.

Others went on to argue that too many members of the lower middle classes and working classes who were being educated would fail to have careers up to their expectations and might then contribute to political radicalism and social unrest.

Worried by signs of excessive growth in secondary and higher education, the Austrian Ministry of Religion and Instruction made repeated efforts after 1870 to gain greater control over enrollments and to reduce the numbers. As early as the end of the 1860s, the Ministry began considering measures to limit secondary school admissions as part of the German Liberal government's larger educational program. Officials in the Ministry were concerned about whether the now greatly increased number of *Gymnasien* were fulfilling

the basic educational goals laid down by the reforms of the 1850s, and they worried that too many youth were entering the *Gymnasien* without adequate preparation or a real intellectual commitment to advanced learning.⁽²⁰⁾ Up to this time, the majority of these schools had accepted new students simply on the basis of adequate grades after four years of primary school. In mid-March 1870, the Ministry of Religion and Instruction issued new regulations for admission to the first year of all state-recognized *Gymnasien*, *Realgymnasien*, and *Realschulen* which required oral and written examinations in basic arithmetic and religion and in reading, writing, spelling, and grammar in the principal language of instruction.⁽²¹⁾ Later in 1870, a ministerial review commission for *Gymnasium* education also agreed that the *Gymnasien* should stop admitting nine-year-olds and strengthened their curriculum in the natural sciences and mathematics.⁽²²⁾

These new admissions regulations along with several curricular reforms reaffirmed the fundamentally elitist character of academic secondary education as most Austrian state officials and educators had conceived of it since the late 1850s. Such measures did not cause, however, any great reduction in student numbers. First-year enrollments in Austria's *Gymnasien* and *Real-Gymnasien*, for instance, continued to grow through the 1870s without interruption.⁽²³⁾

While the German Liberal ministers during the late 1860s and 1870s generally worked to extend primary education for the population and to improve and expand secondary education, conservative political forces during the Taaffe era (1879-1893) tried to reduce some aspects of public educational services. Conservative political thinkers in Austria thought that the state had gone too far in broadening access to secondary schools, which only worked to divert some of the ablest youth away from important farming and artisanal work. Extra schooling, conservatives argued, would only arouse aspirations for entry into learned professions and the officialdom among many who would not succeed and might only lead them into unproductive, frustrated lives. Accordingly, in August 1880, the Ministry of Religion and Instruction ordered all directors of *Gymnasien* and *Realschulen* to report in detail on the results of each year's admissions examinations and to try to reduce enrollments by counseling the parents of new students, particularly those with the least academic ability and poorest financial situations, to pursue alternative vocational education. The ordinance asserted that the educational authorities had "the obligation to counteract the tendency of the population to deprive agriculture and the crafts of some of the best talents and to create an unproductive and dissatisfied proletariat of unemployed educated persons (*Gebildeter*)."⁽²⁴⁾

The responses of secondary school directors to the August 1880 decree demonstrated how difficult it was for the central authorities in Vienna to change significantly popular aspirations regarding advanced education or even to alter how the local school officials dealt with the public. Many school directors reported that it was extremely hard to dissuade parents from enrolling their sons in the local *Gymnasium* or *Realschule* when the youths at age ten were not sure what career they wanted pursue. Many parents thought that their sons would learn more during a few years at an academic secondary school than in the last two years of a *Volksschule* or in a *Bürgerschule*, and they asked

why should their children not have the chance to try a *Gymnasium* or *Realschule* for a year or two and then decide whether that was the right school.⁽²⁵⁾

Under the Taaffe government, the Ministry of Religion and Instruction pursued an ostensibly straightforward purpose in trying to reduce attendance of the academic secondary schools by students whom it thought unlikely to enter eventually into an educated profession and to direct them instead into vocational schools. That policy ran up against the realities of existing institutional arrangements and popular preferences for attendance in *Gymnasien* and *Realschulen*, even if only for a few years, which all resisted the government's initiatives for change. The ministerial directives focused on the role of the *Realschulen* and *Gymnasien* in producing academic elites through completion of the full seven or eight-year programs and underestimated the much broader and more diverse functions actually served by the first four years of study in these schools. Still, the central government continued through the 1880s to look for ways to stem the growth in secondary school enrollments. In June 1887, the Ministry of Religion and Instruction issued new regulations to tighten the requirement that applicants for admission to the academic secondary schools had to complete their tenth year of age during the calendar year in which their first semester of enrollment began.⁽²⁶⁾

Dr. Paul Baron von Gautsch zu Frankenthurn, a career official in the Ministry of Religion and Instruction who became Minister in November 1885, added a new approach to the efforts to limit the growth of secondary education. Citing low enrollments, Baron Gautsch ordered in July and August 1887 the closing of a *Realschule* in Steyr, Upper Austria; *Gymnasien* in Bozen and Roveredo, Tirol; a *Gymnasium* in Krainburg, Carniola; a *Realschule* and *Gymnasium* in Kotor (Cattaro), Dalmatia; and an *Untergymnasium* in Sereth, Bukovina. On budgetary grounds, the Ministry revoked the state subventions for the communally-operated Czech secondary schools in áslav and Nový Bydov, eastern Bohemia, stopped plans to expand a number of existing state schools, and declared its opposition to requests to put any additional communal or provincial secondary schools on the central state budget.⁽²⁷⁾

Baron Gautsch's initiatives provoked considerable outcry in the effected communities and from their representatives in the Reichsrat. Czechs expressed particular outrage because the Taaffe government was reneging on earlier commitments to expand several existing schools and to include others in the state budget. The emperor himself tried to reassure Czech politicians that the government's school policies were not directed against Czechs, but he repeated his own concerns about the academic secondary schools attracting excessive numbers of students.⁽²⁸⁾ In the end the Taaffe government retreated on some of the orders to close schools but tried to press forward with others. Most of the schools in the Alpine lands that had been targeted for closure by the Gautsch ordinances survived, in fact.

During the 1880s and 1890s, the Austrian ministerial authorities made the point of entry into the academic secondary schools the primary focus for their efforts to limit growth in enrollments for both secondary and higher education. Any attempt to make the *Gymnasium* and *Realschule* curricula more difficult would have been beside the point:

attrition rates were already high, and the disproportion was already too great between the high enrollments in the lower forms and typically lower enrollments in the upper forms. Perhaps the Ministry could have tried to pressure the provincial school councils and their school inspectors to make the *Matura* examinations more stringent and to increase the rate of failure, but it would have been extremely difficult to force any significant changes in this regard on school directors and professors who knew the students personally and had to face them and their parents. As it was, Austrian educators were already confronting rising public complaints about the heavy burdens of the classical *Gymnasium* curriculum and the rigors of the *Matura*.

Trying to explain why something did not happen goes against the logic of historical reasoning, but one can infer why the Austrian educational authorities did not attempt to change significantly the admission requirements to higher education even when they tried repeatedly to tighten admissions to secondary schools. First of all, establishing additional requirements for admission to the universities and technical colleges beyond successful completion of the appropriate secondary school and passing the *Matura* would have contradicted the basic principle that the *Gymnasien* and *Realschulen* were supposed to prepare students adequately for higher education. Secondly, by the 1870s, if not already in the 1860s, the *Matura* from a *Gymnasium* or its equivalent from a *Realschule* had acquired an almost sacred status in Austrian academic culture, parallel to the *Abitur* in Germany, as the essential entrance requirement for higher education. Following the Prussian model, the Austrian government intended the *Matura* to serve that function when it first instituted the examination in 1849. Over the succeeding decades, the Austrian public came to consider as a legal entitlement admission to a university or technical college on the basis of successfully graduating from a *Gymnasium* or *Realschule* and passing the appropriate examination.

The legalistically-minded state officials apparently respected that notion of entitlement throughout the late nineteenth century. The established laws and regulations allowed few mechanisms for limiting enrollments in Austrian higher education. Students in the universities and technical colleges were generally promised freedom in selecting courses and instructors, but on an ad hoc basis individual professors could impose numerical limits for particular lecture courses, seminars, and clinics.⁽²⁹⁾ In response to the overcrowding of facilities, the educational authorities could also act on an emergency basis to limit total enrollments for particular institutions. Otherwise, demanding any additional general requirements for admission to the universities or technical colleges would have broken the implied contract with the public regarding the functions of the *Gymnasien* and *Realschulen* and their examinations. Under these circumstances any efforts by the ministerial authorities to control the growth in enrollments in higher education, other than emergency measures, would be difficult indeed.

Nonetheless, there was still much discussion of overcrowding in Austrian higher education after the 1880s, particularly in the medical faculties and, after 1900, in the technical colleges. The Ministry of Religion and Instruction changed requirements for degrees or state examinations which raised the standards in some areas, but, more often than not, the needs of the various professions and intellectual advances precipitated those

modifications rather than any conservative social politics. Even if conservative ministerial officials would have liked to control the growth in enrollments, they faced powerful resistance to any radical changes from the professors, professional groups, various political parties, and the general public. Politically, the Ministry of Religion and Instruction often found it prudent to compromise with the various interests rather than fight them, particularly after the mid-1890s as Austrian cabinets faced rising threats to their ability to govern or even to survive for very long.

A massive new wave of growth in enrollments after the early 1890s put enormous new strains on Austrian secondary and higher education. The educational authorities and the individual institutions could hardly keep up with rates of expansion that caused a two-thirds increase in the number of *Gymnasium* students between 1895 and 1910 and a near doubling of *Realschule* students. The universities found their resources stretched by a seventy-five percent increase in the number of matriculated university students during the same fifteen-year period, and the quadrupling of the matriculated students in the technical colleges had a nearly catastrophic impact.

The Austrian Ministry of Religion and Instruction and the other educational authorities in the various crown lands were hard pressed to respond to the rapidly increasing public demand for advanced education as well as varied calls for curricular reform. In December 1895, the Ministry under Baron Gautsch fell back on old methods of trying to combat excessive growth in enrollments by issuing yet another decree that called for stricter standards in the admissions examinations for all secondary schools.⁽³⁰⁾ The minister issued these directives, according to the ordinance, in the interests of excluding "immature elements" and of raising the quality of the instruction. As before, however, such measures to stem the growth in secondary school attendance at the point of admission failed.⁽³¹⁾

Indeed, as Helmut Engelbrecht has pointed out, the ability of Austria's central authorities to set the tone and direction of educational policy gradually declined after the mid-1890s.⁽³²⁾ The Ministry of Religion and Instruction still retained great power in regulating secondary schools, universities, and technical colleges; and the ministerial officials could block or at least impede unwelcome changes. Nonetheless, partisan politics in the Reichsrat and the provincial diets and the rising public discussion of educational issues now exerted great pressure on the ministerial officials and reduced their freedom of action. None of the largest mass political parties at the turn of the century treated education as a major concern, but partisan considerations began to affect personnel matters at all levels as well as decisions about the funding of individual institutions.⁽³³⁾ The Christian Social movement in the Alpine lands did not work out a full-fledged educational program before World War I, but it and the older Catholic conservative forces consistently pushed to increase the influence of the Catholic Church over primary education.⁽³⁴⁾ The Social Democrats called for equality of access to free, secular public education, but they focused primarily on elementary education.⁽³⁵⁾ The German nationalists and the German Liberals, for their part, still pursued the defense of German-language instruction against the inroads of non-German education while the nationalist parties of the Czechs, Slovenes, Ukrainians, and the smaller ethnic groups all campaigned

aggressively after the late 1880s for more secondary and higher education in their respective mother tongues.

More often than not, the ministerial officials at the turn of the century found it expedient to bow to the pressures to expand the educational system, at least at the primary and secondary levels, provided that the government could find the necessary funds and avoid getting caught in any partisan cross fire. The example of the fall of the Windischgrätz cabinet in June 1895 after it agreed to open a Slovene *Untergymnasium* in the town of Celje (Cilli) in southern Styria stood as a warning of the perils of educational politics in Austria. Whatever the sentiments of some of the more conservative permanent officials against the rapid growth of secondary and higher education, they could find little political support for stringent measures to limit further expansion. After the fruitless effort in 1895 to stiffen the admissions examinations for the public *Gymnasien* and *Realschulen*, the ministerial authorities tried no further direct measures to reduce access to secondary education before the outbreak of World War I.

The powerful growth of enrollments in the universities and especially the technical colleges after the mid-1890s evoked much worry among professors and state officials about overcrowded facilities, the high attrition of students, and the possible oversupply of graduates in some fields. As in the 1880s, though, neither the educators nor the ministerial officials were eager to break with the traditions of guaranteed admission to higher education and of freedom in choosing the faculty or institution for all those who passed the appropriate *Matura*. Although some bureaucrats talked about the need to put limits on university enrollments, in practice they generally tried to accommodate the growing numbers of students. The Ministry stretched its budgetary resources to establish new professorial chairs, institutes, and laboratories;⁽³⁶⁾ and between 1893 and 1903 the Ministry also approved measures to shorten students' period of enrollment in the universities by streamlining examinations and degree requirements in a number of fields. In 1893 the Ministry adopted reforms in the law faculties' curriculum and examination system, in 1897 a new examination system to accelerate the certification of *Gymnasium* and *Realschule* teachers, and in 1899 new requirements for the doctorate in the philosophical faculties that would facilitate more rapid completion of degrees. Medical studies were also streamlined by various reforms of the state examination system enacted between 1899 and 1903.⁽³⁷⁾

Many of the technical colleges proved unable to keep up with the huge increases in student numbers. Where it could, the Ministry augmented the teaching personnel and facilities; and it adopted in 1900 a new format for state examinations that reduced the required periods of study in several areas of engineering.⁽³⁸⁾ After the total number of matriculated and non-matriculated students in the Vienna Technical College reached 2,525 in 1901-02, the Ministry of Religion and Instruction, however, took the extraordinary step in 1902 of ordering a numerical limit on enrollments there. The total registrations for the Vienna Technical College declined somewhat for the next two years, but enforcement then slackened so that the matriculated and non-matriculated enrollments reached 3,239 in 1910-11. The Ministry imposed similar restrictions on enrollments for the German Technical College of Prague in 1905 and again in 1913, for

the Technical College of Graz in 1906 and 1908, for the German Technical College of Brno in 1912, and again for the Vienna Technical College in July 1913.⁽³⁹⁾

In the meantime, the Ministry responded slowly and hesitantly to a growing debate among educators and segments of the public after 1900 about the organization and curricula of the academic secondary schools. Finally, after a conference on secondary education in January 1908, the Ministry acted to simplify the *Matura* examinations for the *Gymnasien* and *Realschulen*, to reduce the reliance on graded class recitation, and to modernize somewhat the curriculum of the classical *Gymnasium*. The central authorities also sanctioned a new type of school, an eight-year *Realgymnasium* with enhanced science instruction, Latin, and a required modern language instead of Greek.⁽⁴⁰⁾ The ministerial authorities also dragged their feet regarding the granting of equal opportunities to women in public secondary education. Women first gained admission as matriculated students in the Austrian philosophical faculties in 1897-98 and in the medical faculties at the end of 1900, but the Ministry only permitted them to complete a full secondary education and to take the *Matura* in their own schools after 1910, when the existing six-year *Mädchenlyzeen* began to be converted into eight-year institutions modeled after the *Realgymnasium*.⁽⁴¹⁾

Even if the Austrian educational authorities responded hesitantly and sometimes grudgingly, they were forced to accept some significant changes in secondary and higher education after the mid-1890s and to bow to the pressure of the growing popular appetite for advanced education. In secondary education the curricular reforms, the creation of the new *Realgymnasium*, and the new institutions for girls represented major innovations. The Ministry also authorized the technical colleges to grant doctoral degrees after 1902 and enacted major reforms in the doctoral and state examinations for a number of university and technical college programs. With such measures, the ministerial officials and educators in the various institutions accepted changes in some of the basic principles of Austria's secondary and higher education as they were originally conceived by the reformers of 1848-49 and the 1850s.

Austria's government authorities and educators undertook these structural and curricular changes while they were simultaneously struggling to accommodate rapidly growing enrollments. While the state officials and educators were altering some of the basic intellectual and pedagogical principles, they also accepted compromises in their old assumptions about secondary and higher education being targeted to a highly select, male intellectual elite. Austria's mid-century educational reformers recognized no universal right to either *Gymnasium* or university education, but by the mid-1890s Austrian secondary school teachers, university professors, and ministerial officials alike had to come to grips with a fundamental change in popular expectations that had occurred as the demand grew for advanced education.

Study in the *Gymnasien* and *Realschulen* was still nominally intended for a qualified elite and subject to admissions standards, but growing numbers of the public seemed determined to treat access to secondary schools as a general right. The educational authorities could already see this vividly during the 1880s in parents' resistance to the

ministerial efforts to restrict admissions to the academic secondary schools and to divert youth to vocational schools. A *Gymnasium* director in Graz reported the frank response of one parent in 1880 to the attempts to discourage less promising youth from enrolling: "I pay taxes, too, and therefore like others have the right to an education in a state *Gymnasium* for my son."⁽⁴²⁾

On the eve of World War I, Austria and the rest of Central Europe were still a long way from the development of mass secondary education that occurred later in the twentieth century. In simple numerical terms, advanced education still remained the province of an elite: in spring 1910, only 3.06 percent of the total eleven-to-eighteen-year-old population, male and female, throughout Austria was attending academic secondary schools. In winter 1909-10, only 1.2 percent of the nineteen-to-twenty-two-year-olds, male and female, were matriculated students in all the universities with only 0.42 percent of all the eighteen-to-twenty-two-year-olds matriculated in the technical colleges [See Table 1]. Nonetheless, those rates of attendance represented more than two-fold gains for the secondary schools and universities over the rates in 1870 and a quadrupling of the rate of attendance in the technical colleges. The rapid expansion in enrollments after the mid-1890s appeared to be unremitting. Some of the highest ministerial authorities during the last decades before 1914, like Baron Gautsch or Count Karl Stürgkh, together with some of the educators might personally oppose the rapid increases in enrollments and the opening of advanced education to new audiences such as women, but they were unable to reverse the general trends.

No one should have been surprised that there was so much conflict in Austria at the turn of the century between established academic institutions and the changing requirements of contemporary society. European education had faced such crises before during periods of rapid economic, social, and cultural development. The dilemma was particularly acute in this case because the concurrent forces of population increase, economic transformation, and the expansion of public and private bureaucracy during the middle and late nineteenth century caused a significant broadening of popular demand for advanced education and encouraged the rapid emergence of many new academic disciplines and specialties, particularly in the natural sciences, technology, and the health sciences. Those developments challenged Central Europe's highly regulated state systems of secondary and higher education to try to adjust much more quickly than their organization and traditions prepared them for. In Austria, the ministerial authorities and many educators might try to resist the forces of change emanating from society, the economy, and advancing science and technology; and the institutional structures and the established culture of secondary and higher education provided some buffers against those pressures. Nonetheless, the bureaucrats and educators could not deny for long the demands of the population, professional groups, business and industry, or the needs of the state itself.

TABLES

Table 1
Enrollments in Austrian Secondary and Higher Education
1851-1910

Gymnasium, Realgymnasium and Realschulen

At the end of the academic year	Total Enrolled (matriculated and private)	Per 1,000 in total pop.
1850-51 [*]	25,630	1.46
1860-61 ^{*†}	36,262	1.99
1869-70 [*]	43,734	2.15
1879-80	65,935	3.03
1889-90	71,295	3.04
1899-1900	95,914	3.74
1909-10	140,545	5.03

Universities and Technical Colleges

At end of the Winter Semester	Total Matriculated in Universities	Per 1,000 in total pop.	Total Matriculated in Technical Colleges	Per 1,000 in total pop.
1850-51 [*]	5,646	0.32	2,799	0.16
1860-61 ^{*†}	4,796	0.26	2,341	0.13
1869-70 [*]	7,904	0.39	1,841	0.09
1879-80	8,114	0.37	2,988	0.14
1889-90	12,421	0.53	1,608	0.069
1899-1900	14,331	0.56	4,843	0.19
1909-10	23,068	0.82	10,110	0.36

*SOURCES: Mittheilungen aus dem Gebiete der Statistik, 7(1858)1. & 4. Heft
Statistisches Jahrbuch für das Jahr 1879; Statistische Monatsschrift, 3(1877);
Österreichische Statistik, 28, 4. Heft (1892); 68, 3. Heft (1903); N. F., 7, 3. Heft (1913);
P. Urbanitsch, in Wandruszka and Urbanitsch, eds., Die Habsburgermonarchie, III, 1: 38,
table 1.*

* The 1851, 1857, and 1869 censuses included only the civil population in the statistics on the total population.

† Total population statistics used from the 1857 Austrian census.

Table 2
Enrollments in Austrian Secondary and Higher Education Relative to Age Cohorts
1870-1910
Gymnasium, Realgymnasium & Realschulen

At the end of Academic Year	Total Enrolled (matriculated and private)	Per 1000 in 11-18 yr Cohort		
1869-70	43,734	14.09		
1879-80	65,935	19.52		
1889-90	71,295	19.04		
1899-1900	95,914	23.41		
1909-10	140,545	30.57		
Universities and Technical Colleges				
At End of Winter Semester	Total Matriculated in Universities	Per 1,000 in 19-22yr Cohort	Total Matriculated in Technical Colleges	Per 1,000 in 18-22yr Cohort
1869-70	7,904	5.53	1,841	1.02
1879-80	8,114	5.15	2,988	1.53
1889-90	12,421	7.59	1,608	0.79
1899-1900	14,331	7.81	4,843	2.16
1909-10	23,068	12.08	10,110	4.19

SOURCES: *Statistisches Jahrbuch für das Jahr 1879; Bevölkerung und Viehstand der im Reichsrathe vertretenen Königreiche und Länder nach der Zählung vom 31. December 1869*, 3. Heft; *Statistische Monatschrift*, 3(1877); *Österreichische Statistik*, 2, 1. Heft (1882); 28, 4. Heft (1892); 32, 1. Heft (1892); 63, 3. Heft (1903); 68, 3. Heft (1903); N.F., 1, 3. Heft (1914); N.F., 7, 3. Heft (1913).

NOTES

1. Gustav A. Schimmer, "Statistik der Lehranstalten des österreichischen Kaiserstaates für die Studienjahre 1851-1857," pt. 2, in *Mittheilungen aus dem Gebiete der Statistik*, 7, 4. Heft (Vienna, 1858): 20-21, 78-79; K. K. Statistische Central-Commission, *Statistisches Jahrbuch für das Jahr 1879* (Vienna, 1882), 84-117; *Österreichische Statistik*, N.F., 7, 3. Heft (1913): 40-87. All totals for secondary enrollments include the "Privatisten" as well as the "ordentliche" students. Schimmer's statistics are apparently from the end of the spring semester of each year. All statistics reported here on secondary enrollments from after 1870 are from the end of the summer semester of the year in question.

2. Gustav Schimmer, "Statistik der Lehranstalten," pt. 1, in *Mittheilungen aus dem Gebiete der Statistik*, 7, 1. Heft (1858): 26-27, 125; *Österreichische Statistik*, N. F., 7, 3. Heft (1913): 2, 14. The 1851 statistics do not include any of the institutions in the northern Italian territories which Austria lost due to the unification of Italy in the late 1850s and 1860s.

3. The Austrian enrollment statistics derive from the sources listed in notes 1 and 2 above and from *Österreichische Statistik*, 28, 4. Heft (1892): 2-17, 30-43; 68, 3. Heft (1903): 2-19, 32-49; N.F., 7, 3. Heft (1913): 2-17, 40-87. For population totals, see Peter Urbanitsch, "Die Deutschen in Österreich. Statistisch-deskriptiver Überblick," in Adam Wandruszka and Peter Urbanitsch, eds., *Die Habsburgermonarchie, III: Die Völker des Reiches*, 2 pts. (Vienna: Öster. Akademie der Wissenschaften, 1980), pt. I: 38, table I.

4. Statistics on the age stratification of the Austrian population derive from *Bevölkerung und Viehstand der im Reichsrathe vertretenen Königreiche und Länder nach der Zählung vom 31. December 1869*, 3. Heft: *Bevölkerung nach dem Alter* (Vienna, 1871), 14-461; and *Österreichische Statistik*, 2, 1. Heft (1882): 530-65; 32, 1. Heft (1892): 178-83; 63, 3. Heft (1903): 14-33; N.F., 1, 3. Heft (1914): 2-39.

5. See sources in notes 1, 2, 3, and 4 above. Since during the late nineteenth century the Austrian *Realschule* curriculum was a year shorter than that for the *Gymnasien*, eighteen to twenty-two-year-olds were the prime age group for students in the Austrian technical colleges.

6. Hugo Freiherr von Haan, "Statistische Streiflichter zur österreichischen Hochschulfrequenz," *Statistische Monatsschrift*, N.F., 22 (1917): 159.

7. The number for Germany derives from Fritz K. Ringer, *Education and Society in Modern Europe* (Bloomington and London: Indiana Univ. Press, 1979), 291-92.

8. H. v. Haan, in *Statist. Monatsschrift*, N.F., 22 (1917): 157, 169.

9. The statistical sources for Table 3 and the following discussion of enrollments in secondary and higher education are: G. A. Schimmer, in *Mittheilungen aus dem Gebiete der Statistik*, 7, 1. Heft (1858): 32-33; and 4. Heft (1858): 32-37; *Statistisches Jahrbuch für das Jahr 1869*, 334-87; *Statistisches Jahrbuch für das Jahr 1879*, 11-117; *Österreichische Statistik*, 28, 4. Heft (1892): 2-43; 68, 3. Heft (1903): 2-49; and N.F., 7, 3. Heft (1913): 2-87. Comparisons to the ethnic composition of the total Cisleithanian population are based on Austrian census statistics reported by Peter Urbanitsch, "Die Deutschen in Österreich," in A. Wandruszka and P. Urbanitsch, eds., *Die Habsburgermonarchie*, vol. 3, pt. 1: 38-39, 54-55, tables 1 and 5; and *Öster. Statistik*, 32, 1. Heft (1892): XVII-XIX; 63, 1. Heft (1902): XXXII-XXXIII. The Austrian census of 1869 included no formal measure of nationality or language, but from 1880 to the end of the Monarchy, Austrian censuses included a question of the "language of everyday use" (*Umgangssprache*), which was popularly considered a measure of ethnic or national loyalty. Heads of household filled out the census questionnaires and anyone with minimal

competence in a language was free to report it as the "language of everyday use" regardless of his or her origins or religion. See discussions of this in G. B. Cohen, *Politics of Ethnic Survival: Germans in Prague, 1861-1914* (Princeton, N.J.: Princeton Univ. Press, 1981), 88-91; and Emil Brix, *Die Umgangssprachen in Altösterreich zwischen Agitation und Assimilation* (Vienna, Cologne, and Graz: Böhlau, 1982), *passim*.

10. See the statistical sources cited in n. 9 above. P. Urbanitsch also discusses this point in "Die Deutschen in Österreich," in A. Wandruszka and P. Urbanitsch, eds., *Die Habsburgermonarchie*, vol. 3, pt 1: 88-89.

11. This calculation includes only those students who reported Jewish religion in their registration forms. The statistics on enrollments derive from the sources cited in n. 9 above. Statistics on the religious composition of the total population derive from *Öster. Statistik*, 32, 1. Heft (1892): XVII-XIX, 130-31; 63, 1. Heft (1902): XXXII-XXXV; and P. Urbanitsch, "Die Deutschen in Österreich," in A. Wandruszka and P. Urbanitsch, eds., *Die Habsburgermonarchie*, vol. 3, pt. 1: 54, table 5.

12. No statistics are available on the age stratification of the various religious groups, but if we assume a lower birthrate and slightly older population in the late nineteenth and early twentieth century for the more urbanized Austrian Jews and Protestants compared to the Latin-rite Catholics, then the overrepresentation in secondary education of these Jewish and Protestant minorities was even greater than what is suggested by the comparison to their total populations. For a summary of statistics on natural increase in Cisleithania by province between 1871 and 1913, see Peter Urbanitsch, "Die Deutschen in Österreich," in A. Wandruszka and P. Urbanitsch, eds., *Die Habsburgermonarchie*, vol. 3, pt. 1: 42-43, table 3.

13. See n. 9 above for the sources of the statistics on enrollments in higher education.

14. No corrections can be made for the presence of foreign students in these statistics, which are based on the published aggregate enrollments, but the inclusion of German-speaking students from Germany or Hungary or of Slovaks from Hungary, who may have registered as Czech-speakers, should have had only a small effect on the representation of the German and Czech elements in 1910 given the relatively low foreign enrollments in that year. The numbers of university and technical college students in Austria at the end of the century who were recorded according to mother tongue as Czechs, or *Czecho-Slaven* in the German-language registries, always included some Slovaks from the Kingdom of Hungary, but the Slovak numbers were so small that we can accept the statistics on the growth of Czech enrollments in higher education as a fair indication of the Czechs' representation.

15. In the winter semester 1879-80, for instance, the 1,057 matriculated and non-matriculated students in the University of L'viv (Lemberg) included 14 students who were citizens of the Russian Empire, and the University of Krakow's 707 students included 30 Russian citizens and 13 citizens of Germany [*Statistisches Jahrbuch für das Jahr 1879*, 18-19]. In the winter semester 1909-10, the University of L'viv had 15

students who were German citizens and 174 Russian citizens out of the total of 4,710, and the University of Krakow had 37 German citizens and 639 Russian citizens out of its total of 3,250 [Öster. Statistik, N. F., 7, 3. Heft: 2-5]. Neither of these universities had more than a handful of students who reported their mother tongue as German, so one can safely assume that the great majority of these students from Germany and Russia were Polish Catholics, Ukrainians, and Jews, with perhaps a few Russians. The published Austrian statistics did not include any totals for the numbers of students with Russian mother tongue.

16. In the winter semester 1909-10, for instance, after the decline in numbers of students from the Hungarian crown lands experienced during the preceding several decades, only 837 of the matriculated and non-matriculated students in the Austrian universities were registered with Serbian or Croatian mother tongue. Probably more than half of these were foreign citizens: of all the university students in Austria in that semester, 312 were citizens of Croatia-Slavonia, 145 of Bosnia-Herzegovina, and 127 of Serbia, although we cannot assume that all of these students had Croatian or Serbian as their mother tongue. In the Austrian technical colleges in winter 1909-10, 238 matriculated and non-matriculated students were enrolled who reported Serbian or Croatian mother tongue; 116 of all the technical college students in that same semester were citizens of Croatia-Slavonia, 31 of Bosnia-Herzegovina, and 10 of Serbia [Öster. Statistik, N.F., 7, 3. Heft: 2-4, 14-16].

17. These statistics were compiled from samples of the registration records for the Vienna and Prague universities. These samples were drawn systematically from the whole alphabetic runs of the *Katalogen der Hörer* or *Nationalen*, found in the Archiv der Universität Wien, Vienna, and the Archiv Univerzity Karlovy, Prague, with the non-matriculated (*außerordentliche/mimoádný*) students excluded. The various occupations are grouped here in broader social categories following those used by Konrad H. Jarausch in *Students, Society, and Politics in Imperial Germany* (Princeton, N.J.: Princeton Univ. Press, 1982). Registration records for four discrete semesters taken at ten- or twenty-year intervals were selected to make possible time-series analysis rather than making one sample of registrations for each institution over a longer period of years as Jarausch did. Within their respective eras, the years 1879-80, 1899-1900, and 1909-10 do not appear to have been atypical for Austrian demography or the educational system. Austrian university enrollments during the 1850s were erratic, and 1859-60 may reflect some of the aftereffects of the "Hungry 'Forties," the economic difficulties of 1857-58, and the war in northern Italy during the spring of 1859.

18. These statistics were compiled from samples of the registration records for the technical colleges in Vienna and Prague. The samples were drawn systematically from the whole alphabetic runs of the *Katalogen der Hörer/Katalogy poslucha* or *Nationalen/Nationaly* found in the Archiv der Technischen Universität Wien and the Archiv eského vysokého uení technického, Prague. Registration records could not be located for the German Technical College in Prague in 1879-80, and the use of a new format different from earlier decades for recording student registrations in the Vienna Technical College for 1909-10 preclude the presentation of any data from that year.

19. *Die vor- und nachmärzliche Mittelschule Österreichs* (Vienna: A. Pichler, 1889), 31-32; also quoted by Helmut Engelbrecht, "Zur Organisation der österreichischen Sekundarschulen in der zweiten Hälfte des 19. Jahrhunderts," *Jahresbericht des Bundesgymnasiums Krems 1975/76* (Krems, 1976), 45.
20. See the issues raised by Dr. Adolf Ficker, the director of administrative statistics for the Ministry of Religion and Instruction, in his memorandum to the Minister dated 8 August 1870, published in *Verhandlungen der Gymnasial-Enquête-Commission im Herbste 1870* (Vienna: K. K. Ministerium für Cultus und Unterricht, 1871), 3-14.
21. "Verordnung des Ministers für Cultus und Unterricht vom 14. März 1870," Z. 2370, in *Verordnungsblatt für den Dienstbereich des Ministeriums für Cultus und Unterricht Jahrgang 1870* (Vienna: K. K. Hof- und Staatsdruckerei, 1870), 173, 230-31. A modification of the ordinance issued on 7 April 1878 (Z. 5416) provided for merely an oral examination in religion, which would be waived if the student presented a grade in that subject of "good" or better from the *Volksschule*.
22. *Verhandlungen der Gymnasial-Enquête-Commission im Herbste 1870* (Vienna: K. K. Ministerium für Cultus und Unterricht, 1871), 27-54.
23. Gustav A. Schimmer, "Der Gymnasial-Besuch in Vergleichung zu den Jahres-Generationen und den Maturitäts-Prüfungen," *Statistische Monatsschrift*, 5 (1879): 356-58.
24. Ministerium für Kultus und Unterricht [hereafter KUM], Ministerial-Erlaß, 20 Aug. 1880, no. 12050; published in the *Wiener Zeitung*, 28 August 1880.
25. These points were made repeatedly in reports from the provincial governor's office in Trieste; from the directors of the *Staatsgymnasien* in Innsbruck, Tirol, and in Bielitz and Opava (Troppau), Silesia; from the director of the second *Staatsgymnasium* in Graz, Styria; and from the director of the Czech *Akademický Gymnasium* in Prague, Bohemia; Allgemeines Verwaltungsarchiv [hereafter, AVA] Wien KUM, in gen., Z. 17460/1880, Z. 17623/1880.
26. KUM Ministerial-Erlaß, 3. Juni 1887; discussed in Anton Malfertheiner, *Vergleichende Statistik des Unterrichtserfolges der österreichischen Gymnasien* (Vienna: A. Pichler, 1897), 23.
27. Karel Kazbunda, "Krise eské politiky a vídeňská jednání o t. zv. punktace roku 1890" [The Crisis of Czech Politics and the Vienna Negotiations for the so-called *Punctation* of 1890], *eský asopis historický* 40 (1934): 88-89, 94-96.
28. K. Kazbunda, "Krise eské politiky," *eský asopis historický* 40 (1934): 94-96.
29. Ernst Fuchs, *Wien ein Augenarzt die Welt sah. Selbstbiographie und Tagebuchblätter*, ed. Adalbert Fuchs (Vienna: Urban und Schwarzenberg, 1946), 85.

30. AVA Wien KUM 10 D 1 in gen, Z. 30011/1895, 16 Dec. 1895.
31. Helmut Engelbrecht, *Geschichte des österreichischen Bildungswesens*, 5 vols. (Vienna: Österreichischer Bundesverlag, 1982-88), 4: 177-178.
32. Ibid., 4: 30. As for so many issues of Austrian domestic politics and administration between 1897 and World War I, there is only limited historical literature on developments in educational policy and administration in the period.
33. See the overview in H. Engelbrecht, *Geschichte des öster. Bildungswesens*, 4: 16-18, 29-31, 177-78.
34. On the Christian Socials' educational politics through the late 1890s, see John W. Boyer, *Political Radicalism in Late Imperial Vienna* (Chicago: Univ. of Chicago Press, 1981), 149-54. Educational policies are hardly mentioned in the otherwise thoughtful work of Reinhold Knoll, *Zur Tradition der Christlich-Sozialen Partei* [Studien zur Geschichte der Österreichisch-ungarischen Monarchie, vol. 13] (Vienna, Cologne, and Graz: Böhlau, 1973).
35. H. Engelbrecht, *Geschichte des öster. Bildungswesens*, 4: 16-18. On the Austrian Social Democrats' educational policies, see Josef Weidenholzer, *Auf dem Weg zum 'Neuen Menschen.'* *Bildungs- und Kulturarbeit der österreichischen Sozialdemokratie in der Ersten Republik* [Schriftenreihe des Ludwig Boltzmann Instituts für Geschichte der Arbeiterbewegung, vol. 12] (Vienna, Munich, Zürich: Europaverlag, 1981), 40-51; and Kurt W. Rothschild, "Bildung, Bildungspolitik, und Arbeiterbewegung," in Gerhard Botz, Hans Hautmann and Helmut Konrad, eds., *Geschichte und Gesellschaft. Festschrift für Karl R. Stadler* (Vienna, 1973), 339-41.
36. See H. Engelbrecht, *Geschichte des öster. Bildungswesens*, 4: 232-4; and F. Kavka, ed., *Struné djiny University Karlovy* [Outline History of the Charles University] (Prague: Universita Karlova, 1964), 222-42, 248-52, passim.
37. See the summary of the reforms in university curricula and examination systems at the turn of the century in H. Engelbrecht, *Geschichte des öster. Bildungswesens*, 4: 232-34.
38. The new ordinance adopted for the technical colleges in March 1900 continued the requirement of four semesters of study for the first state examination and reduced from six to five the minimum number of additional semesters required for the second examination in general engineering and civil engineering. The new ordinance also continued the old requirement in mechanical and chemical engineering of a minimum of four semesters between the first and second examinations. See Franz Stark, ed., *Die k. k. deutsche technische Hochschule in Prag 1806-1906* (Prague, 1906), 236-41, 257; and Václav Lomi and Pavla Horská, *Djiny eského vysokého uení technického* [History of the Czech Technical College] (Prague: eské vysoké uení technické v Praze, 1973-78), I, pt. 2: 262-66.

39. For the ministerial ordinances, see Wilhelm Jähnl, *Vorschriften für die Technischen Hochschulen Österreichs* (Vienna, 1916), 433-37. See the discussion of enrollment trends in the Austrian technical colleges and the introduction of restrictions on enrollments in Rudolf Wurzer, "Die Stellung der Technischen Hochschule Wien im Ablauf ihrer Geschichte," in Heinrich Sequenz, ed., *150 Jahre Technische Hochschule Wien*, 3 vols. (Vienna: Technische Hochschule Wien, 1965-67), 1: 48-66, 78, 83-87. Wurzer offers no insights into the academic and ministerial machinations that led to invoking the extraordinary limits on enrollments.

40. See the detailed discussion of the *Mittelschul-Enquête* of 1908 in H. Engelbrecht, *Geschichte des öster. Bildungswesens*, 4: 182-185; and accounts of the proceedings in Salomon Frankfurter, *Verlauf und Ergebnisse der Mittelschulenquête des Unterrichtsministeriums 21.-25. Jänner 1908 and andere Beiträge zur Geschichte der österreichischen Mittelschulreform* (Vienna, 1910); and Franz Drtina, *Aus der Mittelschulenquête. Separatabdruck aus der "echischen Revue"* (Prague, 1908), as cited in Engelbrecht. The new *Realgymnasium* was sanctioned by the Ministerial-Verordnung of 8. August 1908, Z. 34180; see Jan afránek, *Reálné Gymnasium. Obraz jeho vzniku, vývoje a osud* [The *Realgymnasium*: A Portrait of Its Origins, Development, and Fortunes] (Prague, 1913), 3-4.

41. On secondary and higher education for women in Austria, see H. Engelbrecht, *Geschichte des öster. Bildungswesens*, 4: 278-94; Martha Forkl and Elisabeth Koffmann, eds., *Frauenstudium und akademische Frauenarbeit in Österreich* (Vienna and Stuttgart: W. Braumüller, 1968); Waltraud Heindl and Marina Tichy, eds., *"Durch Erkenntnis zur Freiheit und Glück . . ." Frauen an der Universität Wien (ab 1897)* (Vienna: WUV-Universitätsverlag, 1990); and Anna Lind, "Das Frauenstudium im Österreich, Deutschland und in der Schweiz" (Vienna Univ., Diss. der Rechts- und Staatswiss. Fakultät, 1961).

42. AVA Wien KUM 10 D₁ in gre. Z. 17460/1880, K. K. Statthalter von Steiermark als Vorsitzender des Landesschulrats, Graz, nr. 6877, 12 Nov. 1880; Bericht des K. K. 2. Gymnasiums in Graz an den Landesschulrat, nr. 5935, 4 Oct 1880.