

# School problems among immigrant students

## *Studio multicentrico italiano sui problemi scolastici del bambino immigrato*

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### Summary

**Objectives.** Although the number of immigrant children in Italian schools is increasing, the problems that these students may face have not yet been evaluated. The aim of this study was to investigate school performance and possible problems experienced by immigrant children.

**Methods.** During the school year 2001-2002, a multicentre national-cross-sectional study on 24,398 students attending 52 primary and secondary schools in 1,245 classes was carried out. Of these, 1,205 (4.9%) were immigrants. A structured questionnaire was employed inquiring on their parents' native continents, the students' ages and countries of birth, immigration time, school performance in relation to their ethnic groups, knowledge of the Italian language, as well as social integration and intercultural initiatives of teachers' boards. A total of 1,009 immigrant students took part in the study (study group).

**Results.** Parents of children in the study group were from Eastern Europe (43.6%), Africa (27.7%), Asia (15.8%), and Latin America (12.7%). Immigrant students lived mostly in Northern Italy (793, 78.6%), but also Central-Southern Italy (216, 21.4%). Overall, 60.4% (609) attended primary school and 39.6% (400) secondary school; 338 (33.4%) of them did not attend the class corresponding to their age and were thus older than their classmates (137, 22.5% in primary school and 201, 50.2% in secondary school). This delay seemed related to some risk factors: birthplace in their parents' home country, recent migration to Italy, language difficulties, delayed age of admission to school, socio-cultural disadvantages. Many immigrant students were well integrated with their school-mates, although 184 (18.2%) had opposite behaviours. The intercultural initiatives concerning school integration were more frequent in Northern Italy than in Central-Southern Italy.

**Conclusions.** The leading problem of immigrant students is their poor performance at school, seemingly related to delayed admission to class birthplace in their parents' country, recent migration to Italy, language problems and socio-cultural disadvantages. Specific school policies are warranted to reduce these risk factors and improve the integration of immigrant students in school.

### Key words

Immigration • School

### Parole chiave

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### Riassunto

**Obiettivi.** In questi ultimi anni è considerevolmente aumentata la presenza nelle scuole italiane di bambini immigrati. L'obiettivo di questo studio è di conoscere i problemi scolastici correlati all'immigrazione.

**Metodi.** Lo studio, condotto durante l'anno scolastico 2001/2002, è stato multicentrico e trasversale interessando, in 7 città italiane, 52 scuole medie ed elementari, con 1.245 classi frequentate da 24.398 studenti. 1.205 di questi (4,9%) erano immigrati. È stato redatto un questionario per la raccolta dei dati anagrafici della famiglia dell'alunno immigrato, dei dati sulla conoscenza della lingua italiana per la comunicazione e l'apprendimento, sulla scolarizzazione, sui processi di socializzazione e sulle iniziative didattiche interculturali della scuola. È stato valutato anche il profitto scolastico in relazione ad alcuni fattori di rischio (gruppo etnico di appartenenza, epoca di immigrazione, luogo di nascita, età al-

*l'iscrizione scolastica, conoscenza della lingua italiana). 1.009/1.205 alunni stranieri, 793 nel Nord Italia e 216 nel Centro-Sud, hanno aderito allo studio.*

**Risultati.** *I genitori dei bambini provenivano dall'Europa dell'Est (43,6%), dall'Africa (47,7%), dall'Asia (15,8%), e dall'America Latina (12,7%). Il 60,4% (609/1.009) degli alunni frequentava le scuole elementari e il 39,6% (400/1.009) le medie. 338/1.009 (33,4%) studenti immigrati presentavano ritardo scolastico (201/400, 50,2% nelle medie e 137/609, 22,5% nelle elementari), con percentuali significativamente più alte rispetto agli studenti italiani. Il ritardo era maggiore negli alunni stranieri nati all'estero e si poneva in relazione al loro recente arrivo in Italia, alle gravi difficoltà linguistiche, all'iscrizione non conforme all'età anagrafica e allo svantaggio socio-culturale. La socializzazione con i compagni era complessivamente buona, ma elementi di conflittualità erano presenti in 184/1.009 (18,2%) studenti immigrati. La programmazione da parte della scuola di progetti finalizzati all'integrazione scolastica degli alunni immigrati era più frequente nelle scuole del Nord rispetto a quelle del Centro-Sud Italia.*

**Conclusioni.** *Il problema principale per i bambini immigrati che frequentano la scuola è costituito dal ritardo scolastico che appare correlato alla ritardata iscrizione scolastica, alla nascita nella nazione dei genitori, al recente arrivo in Italia, a svantaggi socio-culturali. Sono quindi necessari adeguati programmi di politica scolastica per attenuare questi fattori di rischio e facilitare l'integrazione del bambino immigrato.*

## Introduction

Italy experienced a massive emigration at the beginning of the 20<sup>th</sup> century, which continued – albeit to a much lesser extent – until about 25 years ago. In the last two decades, instead, it has turned into a nation with an increasing migration flow from developing countries. By 31 December 2001, about 1,360,000 immigrants were living in Italy with regular residence permits, mainly in Northern Italy, where there are better employment opportunities and higher wages. On the other hand, the migratory scheme that was, at first, transitory and arranged on an individual basis (mainly by single men), has turned in the last few years into a definitive design, involving females as well. The consequence is a permanent community of immigrants, who will likely intermarry and have children; in addition there are also children who come from their native countries to join the parents<sup>1,2</sup>.

As a consequence, the number of immigrant children living in Italy has risen, especially in these last years. By the end of December 2001, there were about 326,000 children, representing 24% of all the immigrants and 2% of the whole Italian paediatric population<sup>1-3</sup>.

One of the most important consequences is the fact that these children are becoming part of our society, with consequent social problems, closely linked to their integration with the native population<sup>2,3</sup>. Much of the socializa-

tion and cultural integration occurs during childhood and in school; in fact, an increasing number of immigrant students has been recently observed in Italian school (Tab. I), mainly in the primary schools in Northern Italy<sup>2,5-7</sup>.

We are not familiar with the problems related to school and social integration of immigrant students, nor with their related risk factors. So, in order to obtain a picture of this situation and to have an indispensable premise for any future intervention on immigrant students, the Gruppo di Lavoro Nazionale per il Bambino Immigrato, affiliated to the Italian Society of Pediatrics, has performed a multicentre study on immigrant children attending Italian schools.

## Methods

A multicentre cross-sectional pilot study was carried out in 7 Italian cities (Vicenza, Novara, Modena, Roma, Napoli, Catania, Palermo). This survey was performed during the school year 2001-2002. Students of both sexes attending primary or secondary schools represented the target population. The overall eligible population consisted of 24,398 students (both Italian and immigrant). Fifty-two schools, 36 in Northern Italy and 16 in Central-Southern Italy, with 1,245 classes adhered to the study, and 1,205 immigrant children were recruited. These schools were selected according to the environmental heterogeneity of each city involved.

A structured and standardized questionnaire concerning immigrant students was specifically prepared in Vicenza in collaboration with a staff of teachers, the headmaster, and the researchers. It consisted in three sections (A, B, C) and was employed in the same way in each participant school with the help of one of the researchers.

Age, gender, parents' native continents, students' country of birth and whether they were born in Italy or had joined their family, were requested in section A, which was filled in based on the students' school entry forms. Performance in the leading activities (history and geo-

**Tab. I.** Number of immigrant students in Italy (Source: 3° Rapporto Nazionale sulla condizione dell'infanzia e dell'adolescenza. Eurispes, 2002).

Year	Immigrant students	% of the students' general population
1995/96	50,322	0.6
1997/98	70,657	0.81
1999/2000	119,679	1.47
2000/2001	147,406	1.87
2001/2002	181,767	2.31

graphy, arithmetical and logical skill, artistic and musical talent, physical training), school delay, attendance, school delay in relation to age and place of birth as well as to time since their arrival in Italy, knowledge of the Italian language, relationships with schoolmates and teachers, integration and socialization outside the school environment and parental concern over their children's achievement were investigated in section B. This information was collected jointly by the whole teachers' boards of each immigrant student. To this regard, a score concerning each item in section B, ranging from 0 (no abnormality) to 4 (severe abnormality) had been prepared a priori and was used for each immigrant student, in order to collect the items in the same standardized manner and using the same objective criteria.

Educational and intercultural initiatives taken by the teacher's boards for immigrant students (debates on the problems faced by the children, specific didactic plans, specific Italian language courses, teachers' committees on students' problems, initiatives to welcome immigrant students and their families, update courses for the teachers, presence of a cultural-intermediary in the school) were investigated in section C by means of an open, structured and standardized questionnaire. Section C had to be filled in by the school headmaster.

Informed consent was obtained from the parents of immigrant students. Statistical analysis was carried out with the Statistical Package for Social Science program, using the Chi-square test with Yates' correction and Fisher's exact test. Two-tailed  $p$  value  $< 0.05$  was accepted as statistically significant.

## Results

A total of 1,205/24,396 (4.9%) pupils were immigrant, and data regarding the overall eligible students' population and its geographical distribution are reported in Table II.

There were 1,009/1,205 questionnaires completed

(study group). The remaining 196 were not completed because informed consent was not obtained by parents of the immigrant students. The study group had a mean age of 7.4 years (range 5.5-12.5) and comprised 558 (55.3%) boys and 451 (44.7%) girls.

Table III shows the participants' geographical distribution in Italy among primary and secondary schools. There were 333 (33%) who were born in Italy (17 from mixed marriage), and 676 (67%) in their parents' native countries; 521 (77.1%) had come to Italy to join their families or had immigrated with the parents (155/676, 22.9%); 218 of them had immigrated three or more years before, 321 one-two years before, and 137 had been living in Italy for less than one year.

The prevalence of immigrant students born in Italy was significantly ( $p < 0.0001$ ) higher in primary school than in secondary school, both in Northern and in Central-Southern Italy. On the contrary, the prevalence of the immigrant students born in their parents' native countries was significantly ( $p < 0.0001$ ) higher in secondary school, in both Northern and Central-Southern Italy (Tab. IV).

As regard the places of origin of the study group ( $n = 1,009$ ), the parents' native continents were Eastern Europe (440, 43.6%), Africa (280, 27.7%), Asia (160, 15.8%), and Latin America (129, 12.7%).

As many as 338 immigrant pupils (33.4%) were older than their classmates generally for a delayed or postponed age of admission to school (263/338, 77.8%), less frequently, with statistically significant differences ( $p < 0.0001$ ), because they had been left back for an overall poor performance (75/338, 22.2%). The rates of immigrant students with this delay and of immigrant who had been left back were significantly ( $p < 0.0001$ ) higher in secondary than in primary school (Tab. V) and also significantly ( $p < 0.0001$ ) higher compared to the overall Italian student population, in both primary and secondary school (Tab. V).

The severity of the delay (1, 2, 3 or more years of school-age) was mainly of 1-2 years for both primary and secondary school (Tab. VI). It was shorter (1 year)

Tab. II. Overall eligible student population and its geographical distribution.

Town	Classes (n)	Eligible Students	Immigrant Students	% of immigrant Students
Vicenza	638	11,914	675	5.6
Novara	35	611	35	5.7
Modena	187	4,065	233	5.7
<b>Northern Italy</b>	<b>860</b>	<b>16,590</b>	<b>943</b>	<b>5.7</b>
Roma	53	782	31	3.9
Napoli	94	2,080	25	1.2
Catania	148	3,226	49	1.5
Palermo	90	1,720	157	9.1
<b>Central-Southern Italy</b>	<b>385</b>	<b>7,808</b>	<b>262</b>	<b>3.4</b>
<b>Total</b>	<b>1,245</b>	<b>24,398</b>	<b>1,205</b>	<b>4.9</b>

**Tab. III.** Geographical distribution among primary and secondary school of the studied group (1,009/1,205 eligible immigrant students).

Centre	Primary school (number of students)	Secondary school (number of student)	Total
Vicenza	318	243	561
Modena	112	91	203
Novara	29	0	29
<b>Northern Italy</b>	<b>459</b>	<b>334</b>	<b>793</b> (78.6%)
Rome	30	0	30
Naples	10	12	22
Catania	33	15	48
Palermo	77	39	116
<b>Central-Southern Italy</b>	<b>150</b>	<b>66</b>	<b>216</b> (21.4%)
<b>Total</b>	<b>609 (60.3%)</b>	<b>400 (39.75)</b>	<b>1,009</b>

**Tab. IV.** Distribution among primary and secondary school of the 333 immigrant students born in Italy and of the 676 immigrant students born in parents' native country.

	Primary school	Secondary school
Immigrant Students Born in Italy (n = 333)	Northern: 190/459 (41.4%) Central-Southern: 67/150 (44.6%) Total: 257/609 (42.2%)	Northern: 59/334 (17.7%) Central-Southern: 17/66 (25.7%) Total: 76/400 (19%)
Immigrant Students Born In parents' Country (n = 676)	Northern: 269/459 (58.6%) Central-Southern: 83/150 (55.3%) Total: 352/609 (57.8%)	Northern: 275/334 (82.3%) Central-Southern: 49/66 (74.2%) Total: 324/400 (81%)

**Tab. V.** School delay and students who get left back in the study group and in in the Italian student population.

	School Delay among immigrant student	School Delay among italian students*	Immigrant Students left back	Italian Students left back*
Primary School	137/609 (22.5%)	58,970/2,563,946 (2.3%)	22/609 (3.6%)	17,947/2,563,946 (0.7%)
Secondary School	201/400 (50.2%)	175,238/1,637,740 (10.7%)	53/400 (13.2%)	72,060/1,637,740 (4.4%)

\* Italian student population for the year 2001-2002 (Source: 3° Rapporto Nazionale sulla condizione dell'infanzia e dell'adolescenza. Eurispes 2002).

in primary school with statistically significant differences ( $p < 0.0001$ ), and longer (3 years or more) in secondary school, with a non statistically significant difference – as a result of the number of students failing in

secondary schools (53/75, 70.7%).

The rates of school delay were significantly lower among immigrant pupils born in Italy than among those born in their parents' native countries [(39/333

**Tab. VI.** Immigrant students and number of years of delay in primary and secondary school.

Years of School Delay	Primary School	Secondary School
1	110/137 (80.29)	128/201 (63.6%)
2	21/137 (15.3%)	55/201 (27.4%)
3 or more	6/137 (4.4%)	18/201 (8.9%)

(11.7%) vs. 299/676 (44.2%),  $p < 0.0001$ ]. In the same way, they were significantly ( $p < 0.0001$ ) lower among immigrant students who had moved to Italy more than 3 years before, than among those who had arrived more recently (respectively 43/218, 19.7% and 256/458, 55.9%). Instead, the difference in delay was not statistically significant in relation to the native continents of the immigrant students (Eastern Europe: 150/440, 34%; Africa: 92/289, 31.8%; Asia: 57/160, 35.6%; Latin America: 39/129, 30.2%).

As many as 86.4% of the cases (872/1,009) including the 333 children born in Italy, the 218 students immigrated since 3 years or more, and the 321 children immigrated since 1-2 years) spoke Italian sufficiently well to take conveniently part in class activities. The rest (137 students), had language problems: 89 (8.8%) could hardly speak and understand their classmates and teachers, while 48 (4.7%) had nearly no knowledge of the Italian language. None of these students had been born in Italy, but had immigrated between 3-4 months (48 children with nearly no knowledge of our language) and 8-10 months (other 89 of them) before.

Most of the immigrant student population took satisfactorily part in leading school activities: history and geography (857, 84.9%), arithmetical and logic skills (892, 88.4%), artistic and musical talent (934, 92.6%) and physical training (955, 94.6%). Only in a few cases (mainly in students immigrated since less than 1 year) were there severe difficulties or extremely poor achievement in these leading activities.

Protracted absences (longer than 3 weeks) were observed only in 41 (4.1%), and in 471 cases (46.7%) the pa-

rents were concerned with their children's school performance.

Most of the immigrant students (825, 81.8%) socialized with their fellows (both Italian and immigrants) and had adequate and friendly relations with both peers and teachers. Only 184 (18.2%) had hostile or opposite behaviours, with non statistically significant differences between primary (116/609, 19%) and secondary (68/400, 17%) school.

There were 315/1,009 immigrant students (31.2%) who took part in extra-didactic activities, significantly more in secondary school than in primary school [158/400 (39.5%) vs. 157/609 (25.8%),  $p < 0.0001$ ].

Table VII shows that the initiatives of the teachers' boards for immigrant students were less frequent in Central-Southern Italy than in Northern Italy.

## Discussion

This is the first Italian multicentre study on immigrant students; the main finding is that our schools are quickly becoming multiethnic. Indeed, during the school year 1995/96<sup>8,9</sup> the immigrant students in Italy were only 50,322 (0.6% of the overall student's general population), while in the period of our study (2001/2002), namely, after only 6 years, they were 181,767 (2.3% of the whole student population)<sup>1</sup>.

This appears to be a consequence of the recent permanent settling in Italy of immigrant families, with an increased number of infants born in Italy from immigrant parents and children coming from their native Countries to join their parents<sup>1,8</sup>. From a demographic point of view, this increasing trend reduces the decline in the number of students observed in our school in recent years, linked to the fall in birth rates among the Italian population<sup>8</sup>. Consequently, in the next few years the number of immigrant students in our school is likely to rise, reaching 4-6% of the general students' population<sup>10,11</sup>.

The data observed cannot represent the national situation of immigrant students in Italy as the study was cross-sectional, does not refer to the overall population of immigrant students, and was not evenly distributed across Italy. Consequently, even if the number of im-

**Tab. VII.** Teachers' boards initiatives for immigrants students in schools of Northern and Central-Southern Italy.

	Northern Italy	Central Southern Italy
Debates in teachers' board on immigrant students' problems	28/36 (77.7%)	7/16 (43.7%)
Specific didactic programs for immigrant students	17/36 (47.2%)	3/16 (18.7%)
Italian language courses for immigrant students	23/36 (63.8%)	3/16 (18.7%)
Institution of teachers' committees to deal with problems of immigrant students'	16/36 (44.4%)	4/16 (25%)
School initiatives to welcome immigrant students and their families	24/36 (66.3%)	6/16 (37.5%)
Courses for the teachers on the immigration	18/36 (50%)	4/16 (25%)
Cultural-intermediary in the school	9/36 (25%)	1/16 (6.2%)



migrant students examined was large (1,009) and, as expected, higher in primary than in secondary school as a consequence of a recent regular setting of the immigrant families, our results need to be confirmed by perspective and evenly distributed studies across Italy.

School delay among immigrant students seems mainly linked to some risk factors, such as birth in parents' native country, recent migration to Italy and consequent inadequate knowledge of the Italian language, and postponed admission to school in the new country. These data suggest that the main difficulties of the immigrant students are likely related to time of immigration and the poor knowledge of the new language.

On the other hand, a school-age child who migrates to Italy, requires about 1-2 years to acquire an adequate knowledge of the Italian language and to have personal relations<sup>12</sup>. In this regard, the most frequent school delay observed was 1 year, with more severe language difficulties mainly among students who migrated recently. On the contrary, the students immigrated at least 3 years before had adequate knowledge of the Italian language and low rates of severe difficulties concerning the leading school activities (history, geography, arithmetical and logical skill, artistic and musical talent). These findings also emphasize that the duration of their stay and the inadequate knowledge of the Italian language are important risk factors for the delay in immigrant students.

Immigrant students, irrespective of their ethnic group, are at greater risk of poor achievement and of being left back compared to Italian students, the risk increasing with higher grades (namely, from primary to secondary schools). To this regard<sup>4,6,13-15</sup>, the risk of school delay and of failing are closely related to low socio-cultural conditions, which are usually present among immigrant families, irrespective of their ethnic groups<sup>3,15-19</sup>. Our data seems to underline these socio-cultural disadvantages.

Immigrant children who attend school have different backgrounds and culture, with consequent educational disadvantages that may delay a full integration with the

host society and consequently at school. Indeed, integration in school is quicker and more intense when the native culture is preserved<sup>12</sup>. In addition, children who join their parents (67% in our study) leave the traditions of their birthplaces, where they have known the first phases of socialization and have to establish new socio-cultural and family relations, with consequent emotional disadvantages<sup>20</sup>. The difficulties encountered by immigrant students might also reflect these emotional disadvantages.

The data of this study underline that immigrant students and their families have a propensity to socio-cultural integration, whereas schools do not appear ready. Indeed, most immigrant students attended class quite steadily, socialized, and had good relations with their schoolmates and teachers. Furthermore, their parents were adequately concerned over the children's school performance. On the contrary, only in some cases, more frequently in Northern Italy than in Central-Southern Italy, did the teachers' boards undertake educational and intercultural initiatives to favour integration whereas, according to Italian laws, immigrant children attending school should have the same rights as Italian students.

In this regard, socio-cultural prevention in school is needed and the following policies should be adopted: 1) specific courses on immigration for teachers, in order to help them identify and deal with the problems of immigrant children in school; 2) specific Italian language courses for immigrant students, to avoid the poor language skills that seemingly are a critical risk-factor in school delay; 3) didactic programs specifically addressed to immigrant children, to give them the same learning opportunities of Italian students; 4) specific meetings among teachers, Italian and immigrant families to discuss cultural differences and evaluate different social values, habits and lifestyles, in order to promote integration; 5) in agreement with Italian laws<sup>21</sup>, to encourage collaboration with cultural mediators in the school, to help immigrant students overcome the language, socio-cultural, educational and emotional disadvantages.

## References

- <sup>1</sup> CARITAS. *Immigrazione Dossier Statistico 2003*. Edizioni Antetrem, Roma.
- <sup>2</sup> ISTAT. *Rapporto annuale 2002*.
- <sup>3</sup> Salvioli GP, Sandri F. *Immigrazione come fattore di rischio sanitario*. In: Bona G. (a cura di) *Il bambino Immigrato*. Edizioni Editeam 2003, pp. 1-7.
- <sup>4</sup> Pacchin M. *I diritti dei minori e il disagio sociale e scolastico. Il rischio di devianza*. In: Bona G. (a cura di) *Il bambino Immigrato*. Edizioni Editeam 2003, pp. 121-143.
- <sup>5</sup> Frighi L, Colosimo F, Marino G, Mazzetti M. *Minori stranieri e Scuola*. Atti IV Congresso Nazionale della Società Italiana Medicina delle Migrazioni, Palermo, 25-28 Maggio 2000;(Suppl):76-82.
- <sup>6</sup> Gentile M. *L'inserimento e l'integrazione scolastica*. In: Lo Giudice M. (a cura di) *Etnopediatria – Bambini e salute in una Società multietnica*. Edizioni Medico Scientifiche 2003, pp. 68-78.
- <sup>7</sup> Ministero dell'Istruzione. *Alunni con cittadinanza non italiana: anno scolastico 2001-2002*. EDS – Scuola/Luiss, Roma.
- <sup>8</sup> *3° Rapporto Nazionale sulla condizione dell'infanzia e dell'adolescenza* (2002). Edizioni Eurispes.
- <sup>9</sup> CARITAS. *Immigrazione. Dossier Statistico 1997*. Edizioni Antetrem, Roma.
- <sup>10</sup> Fondazione Cariplo-ISMU. *Insieme a scuola. La presenza degli allievi stranieri in Lombardia*. Quaderni ISMU 7/1997.
- <sup>11</sup> Ministero dell'Istruzione. *Le trasformazioni della scuola nella società multiculturale*. 2000/2001.
- <sup>12</sup> Favaro G. *Insegnare l'italiano agli alunni stranieri*. La Nuova Italia 2002, pp. 75-80.
- <sup>13</sup> Ministero dell'Istruzione. *La dispersione scolastica*. 2000, pp. 73-81.
- <sup>14</sup> Schulpen TWJ. *Migration and child health. The Dutch experience*. Eur J Pediat 1996;155:351-6.
- <sup>15</sup> American Academy of Paediatrics. *Committee on Community Health Services. Health care for children of immigrant families*. Pediatrics 1997;100:153-6.
- <sup>16</sup> Salvioli GP. *Il bambino immigrato: una nuova realtà per il pediatra*. Rivista Italiana di Pediatria 1994;20:299-310.

- <sup>17</sup> Viviano GG, Dessi A, Benedetto CP. *The health and social problems of immigrant children*. Ped Med Chir 1996;18:289-93.
- <sup>18</sup> Bona G, Zaffaroni M, Cataldo F, Sandri F, Salvioli GP. *Infants of immigrant parents in Italy. A national multicentre case control study*. Panminerva Med 2001;43:155-9.
- <sup>19</sup> ISTAT. *Rapporto sulla situazione del Paese*. 1999:349-355:425-454.
- <sup>20</sup> Zincone G. *Secondo rapporto sulla integrazione degli immigrati in Italia*. Bologna: Il Mulino 2000:243-77.
- <sup>21</sup> Decreto del Presidente della Repubblica 31/8/99 n° 394 (articolo 45). Supplemento ordinario. G.U. n° 258 del 3 Novembre 1999, Serie Generale.

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