This document consists of articles 12-22 published in the electronic journal "Educational Policy Analysis Archives" for the year 2001: (a) "Affirmative Action at Work: Performance Audit of Two Minority Graduate Fellowship Programs, Illinois IMGIP and ICEOP" (Jack McKillip); (b) "School Reform Initiatives as Balancing Acts: Policy Variation and Educational Convergence among Japan, Korea, England, and the United States" (Jaekyung Lee); (c) "Conceptualizing the Process of Education Reform from an International Perspective" (Benjamin Levine); (d) "Calculating the Benefits and Costs of For-Profit Public Education" (Alex Molnar); (e) "Wealth Redistribution, Race and Southern Public Schools, 1880-1910" (Kenneth Ng); (f) "Comments on Ng's Wealth Redistribution, Race, and Southern Public Schools, 1880-1910" (Sherman Dorn); (g) "Thinking out of the Box: One University's Experience with Foreign-Trained Teachers" (Belinda Bustos Flores); (h) "Genero y construcciones de identidad profesional: el caso de la maestra en vías de profesionalización (de los años 50 a los 60 en el franquismo intermedio)" (Sonsoles San Roman Gago); (i) "Transfondo de las diferencias étnicas en la escuela: Un estudio de caso en Soria, España" (Serafin Aldea Munoz); (j) "Impact of Grants-in-Aid on Collegiate Education: Evidence and Implications of a Regional Study in India" (M. R. Narayana); and (k) "La politica universitaria argentina de los 90: Los alcances del concepto de autonomia" (Adriana Chiroleu, Osvaldo Iazzetta, Claudia Voras, and Claudio Diaz).
Education Policy Analysis Archives

(Articles 12 thru 22)

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Education Policy Analysis Archives

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EDUCATION POLICY ANALYSIS ARCHIVES

Volume 9, 2001

Articles 12-22

<table>
<thead>
<tr>
<th>Article</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>22</td>
</tr>
<tr>
<td>13</td>
<td>14</td>
</tr>
<tr>
<td>14</td>
<td>20</td>
</tr>
<tr>
<td>15</td>
<td>21</td>
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<td>19</td>
<td>12</td>
</tr>
<tr>
<td>20</td>
<td>8</td>
</tr>
<tr>
<td>21</td>
<td>36</td>
</tr>
</tbody>
</table>
Adriana Chiroleu, Osvaldo Iazzetta, Claudia Voras, Claudio Díaz:
La política universitaria argentina de los 90:
Los alcances del concepto de autonomía .......................... 10
Affirmative Action at Work: Performance Audit of Two Minority Graduate Fellowship Programs, Illinois' IMGIP and ICEOP

Jack McKillip
Southern Illinois University at Carbondale

Abstract
IMGIP and ICEOP are minority graduate fellowship programs sponsored by the State of Illinois in order to increase the number of minority faculty and professional staff at Illinois institutions of higher education through graduate fellowships, networking and mentoring support. Nearly 850 fellowships have been awarded since 1986. A performance audit examined immediate (areas of graduate study, ethnicity of awards), intermediate (graduation areas and rates), and long-range results (academic job placement). The primary source for the audit was the
database maintained by the programs' administrative office. These data were compared with data sets maintained by the Illinois Board of Higher Education and with national benchmarks (NSF and Ford Foundation Minority Graduate Fellowships). Findings revealed: (a) the IMGIP and ICEOP programs led to major diversification of minority doctoral study in Illinois; (b) a high percentage of all fellows graduated, both absolutely and in relation to national benchmarks, and fellows made up a large percentage of doctoral degrees awarded to minorities by Illinois institutions (e.g., 46% of doctorates in the hard sciences awarded to African Americans from 1988-1998); and (c) fellows made up an important proportion of all minority faculty in Illinois (9%). Most ICEOP doctoral fellows and many other fellows have taken academic positions. The audit revealed outcomes-based evidence of a successful affirmative action program in higher education—evidence that is not otherwise available.

African American, Hispanic Americans, and Native Americans are significantly underrepresented throughout the collegiate education pipeline leading to faculty positions. In addition, minority graduate students have traditionally not done doctoral work in the sciences and humanities but have concentrated in education (Blackwell, 1987, Stamps & Tribble, 1995). Minority students make up a small proportion of students awarded advanced degrees and few minorities hold faculty positions in higher education (Midwest Higher Education Commission, 1995; Sandersen, & Dugoni, 1999).

In the mid-1980s, Illinois initiated two programs aimed at increasing minority faculty in institutions of higher education in the state. These programs, described below, provide graduate fellowships, mentoring, and networking support to African American, Hispanic American and Native American graduate students at institutions within the state who have the career goal of working in higher education in the state. This combination of financial, academic, and networking support has been identified as critical to the success of minority graduate students (Smith & Parker, 2000; Stamps & Tribble, 1995; Willie, Grady & Hope, 1991).

Program Descriptions

The Illinois Minority Graduate Incentive Program (IMGIP) was established in 1985, funded by a Higher Education Cooperation Act (HECA) grant awarded by the Illinois Board of Higher Education (IBHE). HECA funding has continued through the current fiscal year. The purpose of IMGIP is to increase the number of minority faculty and professional staff at Illinois institutions of higher education in the physical sciences, life sciences, mathematics, and engineering. Applicants for the fellowship must be African American, Hispanic
American, or Native American and have been unconditionally accepted into an appropriate Illinois doctoral program. Three-year fellowship awards with an annual stipend of $13,500 are made following statewide competition. Fellows also receive a $1,500 books, supplies and travel allowance, a tuition waiver, and mentoring and networking support, including a yearly, three-day conference of workshops and presentations by current and former fellows, faculty mentors and university officials. Applicants need not be Illinois residents. There is no pay back provision; although, upon graduation, fellows must seek employment at institutions of higher learning in Illinois. A total of 177 fellowships have been awarded since 1986.

The Illinois Consortium for Educational Opportunity Program (ICEOP) was established by state legislation in 1985 by Public Act 84-785. According to the Act, ICEOP awards were established "to implement the policy of encouraging minority students to enroll and complete academic programs at the post-baccalaureate level." The ultimate goal was to increase the number of faculty and staff from minority groups underrepresented in Illinois institutions of higher education and governing boards. Applicants for the fellowship must be Illinois residents, be African American, Hispanic American, Asian American (Note 1), or Native American, have financial need, and have been unconditionally admitted to an appropriate Illinois graduate program. Two-year master's fellowships and four-year doctoral fellowships are made following statewide competition. The annual stipend is $10,000. In addition, most fellows receive a tuition waiver from their university. The administrative office provides orientation and networking support, especially through the yearly fellows' conference that includes IMGIP fellows. Upon graduation, applicants must take a position in Illinois education or payback 20% of their stipend award. A total of 669 fellowships have been awarded since 1987.

In 1988, a central office for both IMGIP and ICEOP was established at Southern Illinois University at Carbondale (http://www.imgip.siu.edu/). Since then, the two programs have been administered jointly by an administrator responsible to the ICEOP Board of Directors (made up of representative from 34 graduate degree granting institutions in the state) and the IMGIP Board of Directors (made up of representatives from 10 doctoral degree granting institutions in the state).

<table>
<thead>
<tr>
<th>Immediate goal</th>
<th>Intermediate goal</th>
<th>Long-range goal</th>
</tr>
</thead>
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<tr>
<td>Minorities in Graduate Study</td>
<td>Advanced Minority Graduates</td>
<td>Increased Diversity of Faculty</td>
</tr>
<tr>
<td>Indicator: Disciplinary diversity</td>
<td>Indicators: Graduation, Disciplinary diversity</td>
<td>Indicator: Job Placement</td>
</tr>
</tbody>
</table>
Figure 1. Logic Model of IMGIP and ICEOP Outcomes

Methodology

Logic Model

This performance audit examined program outcomes following the logic model outlined in Figure 1 (United Way, 1996). The immediate result of state-awarded fellowships (i.e., IMGIP and ICEOP) was expected to be a diversification of the fields of graduate study chosen by minority students. The intermediate result of the minority graduate programs was expected to be increased frequency of advanced degrees being awarded to minority students in the fields of funded study. The long-range goal was expected to be increased employment of minorities in higher education in Illinois.

Performance Audit

The primary source of information for the audit was the database of IMGIP and ICEOP fellows developed and maintained by the programs' administrative office. The database included information on awards (100%), academic progress (90%), job placement (66%), and residential address (98%) for each fellow. An audit of the database by a confirmatory survey of current and former fellows and of university representatives found that the information in the database was up to date and accurate. Data from the administrative database were compared with three data sets maintained by the IBHE: (1) enumeration of graduate students enrolled by institution, academic program, and student ethnicity yearly from 1988 through 1998; (2) enumeration of graduate degrees conferred by institution, academic program, and student ethnicity yearly from 1988 through 1998; and (3) enumeration of faculty by institution, rank and ethnicity for 1997. IBHE data sets are available at http://www.ibhe.state.il.us/

The program audit examined these issues:

1. The ethnicity and areas of academic study of IMGIP and of ICEOP fellows and the impact of the programs on the areas of study of minority graduate students in Illinois.
2. Graduation rates of IMGIP and of ICEOP fellows and impact of the programs on the number of graduate degrees awarded by Illinois universities to minorities.
3. Job placement of IMGIP and ICEOP fellows and the impact of programs on the number of minorities on Illinois faculty, administration, and staff.
Results

Graduate Study-Ethnicity and Areas of Academic Study

African American, Hispanic Americans, and Native American made up 9.3% of Illinois graduate students from 1988 to 1998 (Table 1, Appendix) and 7.2% of Illinois the college faculty (1997, Table 9, Appendix). All IMGIP and ICEOP fellows were minorities.

Based on the National Center for Education Statistics' 2-digit Classification of Instructional Programs (CIP) codes, Figure 2 compares the areas of study for all Illinois' doctoral students, for all minority doctoral students, and for IMGIP fellows, highlighting the areas of primary concentration of IMGIP fellows (see also Table 2, Technical Appendix).

![Figure 2. Areas of Academic Study for IMGIP Fellows and Illinois Doctoral Students](image)

In Illinois, a smaller percentage of minority doctoral students studied in Biological and Life Sciences, Physical sciences, Engineering, and Mathematics than for all doctoral students (12% vs. 28% overall). In contrast, 81% of IMGIP fellowships have been awarded in these areas, increasing academic diversity.

Figure 3 compares the areas of study for all Illinois' graduate students, for all minority graduate students, and for ICEOP fellows, highlighting the areas of primary concentration of ICEOP fellows (see also Table 3 in the Appendix).
Figure 3. Areas of Academic Study for ICEOP Fellows and for Illinois Graduate Students

Both master's and doctoral students are included in the figure. Compared to all Illinois graduate students, minority graduate students were somewhat less likely to enroll in the areas of Social Sciences/History, English Language/Letters, and Visual & Performing Arts (11% vs. 9%, respectively). In contrast, 29% percent of ICEOP fellowships have been awarded in these three areas, increasing academic diversity. In the opposite direction, ICEOP fellowships have tended to intensify minority graduate study in the area of Education. Thirty-two percent of minority graduate students study Education, compared to 20% of all graduate students. Thirty-eight percent of ICEOP fellowships have been awarded in Education.

Together the IMGIP and ICEOP programs have contributed a major diversification of minority doctoral study into the areas of Biological/Life Sciences, Physical Sciences, Engineering, and Mathematics and to additional diversification of minority graduate study into Social Sciences/History, English Language/Letters, and Visual & Performing Arts.

Figure 4. ICEOP/IMGIP and Other Minority Doctoral Graduates as a % of Illinois Doctorates by Fiscal Year

Graduate Study-Degree Completion

Over the 11 years from 1988 to 1998, African American,
Hispanic Americans, and Native Americans received 5.3% of the doctoral degrees awarded by Illinois institutions. (Note 2) Sanderson & Dugoni (1999) report that these minority groups received 9.4% of all PhDs awarded in 1997 by US universities. In Illinois, the percentage of doctorates awarded to minorities has risen gradually from 4.6% in FY 1988 to 6.9% in FY 1998. Over the study period, 15% of the minority doctoral degrees in Illinois have been awarded to IMGIP and ICEOP fellows, rising from 7% in 1988 to 18% in 1998. Figure 4 shows the growth of minority doctoral degrees as a percentage of all degrees over this period and illustrates the increasing importance of the IMGIP and ICEOP fellows to this change.

![Graph showing graduation rates for IMGIP and ICEOP fellows](image)

**Figure 5. Graduations Rates for IMGIP and ICEOP Fellows by Years Post-fellowship Award and for National Benchmarks**

Because of the research on time-to-degree-completion (Bowen & Rudenstei, 1992; Sandere & Dugoni, 1999), graduation rates of IMGIP and ICEOP fellows were examined for three time periods: fellows who started between 1986 and 1990 for whom graduate study should be completed; fellows who started between 1991 and 1995 who should be nearing completion of doctoral work and have completed master's work; and fellows who started graduate study between 1996 and 2000. Results are displayed in Figure 5.

Sixty-nine percent of the IMGIP fellows and 75% of the ICEOP doctoral fellows from 1986 to 1990 finished their degrees (see Table 4, Appendix). By comparison, Bowen and Rudenstein (1992) found that “about half of all entering students in Ph.D. programs eventually obtain doctorates” (p. 105). Doctoral graduation rates for the Ford Foundation Predoctoral Minority Fellowships was 41% after 7 years (Note 3) (National Research Council, 1996). National Science Foundation Minority Graduate Fellowships were also about 41% (Note 4). Illinois’ fellows doctoral graduation rates far surpass these national benchmarks.

Those awarded doctoral fellowships more recently appear to be on track to meet or exceed the experience of other programs with 40% of IMGIP fellows and 47% of the 1991 to 1995 ICEOP doctoral fellows, already having received their degrees. A high percentage of
the ICEOP master's fellows received their degree: 74% and 87% for awards from 1987-1990 and 1991-1995, respectively. The observed graduation rates for fellows may be underestimated because academic status was not available in the administrative database for 13% of IMGIP fellows and 9% of ICEOP fellows.

Graduate Study-Area of Degree

Further evidence of the importance of the IMGIP and ICEOP programs to minority doctoral education in Illinois came from analysis of the proportion of minority doctoral degrees granted by area of study. Figure 6 presents this information for academic areas typical of IMGIP fellowships (top, darker bars) and of ICEOP fellowships (bottom, lighter bars). Overall, fellows received 27% of all doctoral degrees awarded in Illinois to minorities in the areas of Biological/Life Sciences, Physical Sciences, Engineering, and Mathematics over the 11 years from 1988 to 1998 (see Table 5, Appendix). Fellows received 16% of the doctoral degrees awarded to minorities in the areas of Education, Social Sciences/History, Psychology, English Language/Letters, and Public Administration/Services (see Table 6, Appendix). In none of the areas of academic study where ICEOP master's fellowships were awarded did the fellows makeup more than 5% of the degrees awarded to minorities.

Figure 6. Doctoral Degrees Awarded to IMGIP and ICEOP Fellows as a Percentage of Doctoral Degrees Awarded to Minorities in Illinois 1988-1998, Selected Fields

Clearly, at the doctoral level, the IMGIP and ICEOP programs have had a major impact on the field of study and the number of degrees awarded to minority scholars in Illinois. Impact on master's graduations was not as clear.

Job Placement

Known job placements for fellows who have received their degrees are presented in Figure 7. Both programs consider appropriate
job placements to include somewhat more than academic faculty positions in Illinois (Note 5). Seventy-five percent of ICEOP doctoral degree recipients, 43% of IMGIP degree recipients, and 38% of ICEOP master's degree recipients have taken academic jobs (see Table 7, Appendix). Comparably, through 1995 the Committee on Institutional Cooperation (CIC) schools reported that 69% of 137 minority doctoral fellows who had by then received a doctorate in humanities or in social sciences took a faculty position (in any state), as did 45% of the 22 minority fellows who had received a doctorate in sciences (Note 6). The former group would be most comparable to ICEOP fellows and the latter to IMGIP fellows.

Figure 7. Academic Job Placement of IMGIP and ICEOP Graduates

Historically, 33% Illinois minority doctoral graduates have taken academic employment in the Midwest (Midwest Higher Education Commission, 1995). The percentages of fellows in academic jobs in Illinois are 46% (ICEOP, PhD), 10% (IMGIP), and 31% (ICEOP, master's). Illinois job placement of ICEOP doctoral recipients was impressive and that of IMGIP graduates was disappointing. However, because of their disciplinary specialties and non-academic opportunities, appropriate placement of IMGIP graduates may be a matter of severe competition among universities that value a diverse faculty. Job placements of fellows may be underestimated because employment status was not available in the administrative database for 46% of IMGIP fellows and 31% of ICEOP fellows.

Comparing the number of fellows who have taken academic faculty positions in Illinois with the total number of minority faculty in Illinois reveals that almost 9% of the minority faculty in Illinois have been or are ICEOP and IMGIP fellows (Note 7). The rank and type of institution where fellows were placed were not available in the administrative database. Analysis of this information for all Illinois faculty indicate that minority faculty are (1) more likely than other faculty to teach at community colleges (28% vs. 18%), (2) about as likely as other faculty to teach at public universities (43% vs. 41%), and (3) less likely than other faculty to teach at private universities.
(29% vs. 41%, see Table 9, Appendix). Minority faculty are less likely to be tenured (45% vs. 55%) and more likely to be on tenure track than other faculty (29% vs. 20%).

Discussion

As an immediate result, IMGIP and ICEOP have contributed a major diversification of minority doctoral study into sciences and engineering and to additional diversification of minority graduate study into social sciences and humanities. The programs have intensified minority graduate study in Education. As an intermediate result, a high percentage of all fellows finish their degrees, especially when compared to national bench marks. This is particularly clear for ICEOP doctoral fellows. Graduating IMGIP and ICEOP fellows make up a large percentage of doctoral degrees awarded to minorities by Illinois institutions and make an important and increasing contribution to the rising proportion of minority doctoral degrees awarded in the state. Long-term results also are positive. IMGIP and ICEOP fellows make up an important proportion of the minority college faculty in Illinois (9%). Most ICEOP doctoral fellows and many other fellows are taking academic positions. However, for science and engineering graduates (IMGIP), that the percentage of fellows with academic positions is lower and that they are not locating in Illinois is disappointing.

In terms of educational policy, this results-focused program audit revealed Illinois investments in minority graduate fellowship programs are bearing fruit for the state and the nation. Several aspects of the programs would benefit from further investigation. First, both programs, but especially IMGIP, focused on academic areas of graduate study especially infrequently pursued by minority students. Working closely with universities, both programs were able to identify, admit, enroll, and graduate these students. Second, science doctorates and master’s graduates were less likely to take academic positions. Although the mechanisms certainly differ for these groups, both may benefit from additional mentoring and encouragement to pursue academic careers, either through state supported post-docs or teaching internships. Finally, an explicit pay back provision, such as that implemented for ICEOP, may help tip the balance between academic and private sector employment for new PhDs.

As realized in the present report, the performance audit took advantage of an outcome-focused database of program participants and of datasets for the state that allowed development of comparison statistics. The outcome-focus has proven quite popular with the state higher education authority (IBHE) and the state legislature. For both groups issues of clear causal inference are less important that evidence of change in policy related indicators. At the same time, the outcome-focus was much preferred to the more typical process analysis of minority graduate fellowship programs (Smith, & Parker, 2000; Stamps & Tribble, 1995).
Notes

1. Asian Americans have received 12 of 669 ICEOP awards. Because of the small number of awards, this ethnic group was not covered in this study.
2. Computed by author from IBHE graduation data sets.
3. Adapting Tables 1 and 8 (National Research Council, 1996) for the 129 minority fellowships awarded from 1986 to 1988 when studied in 1995 (7 years RTD) yields these percentages:

<table>
<thead>
<tr>
<th>Awarded Degree</th>
<th>Continuing with Studies</th>
<th>Discontinued</th>
<th>Unknown</th>
<th>Total (N=129)</th>
</tr>
</thead>
<tbody>
<tr>
<td>41.1%</td>
<td>15.5%</td>
<td>4.7%</td>
<td>38.8%</td>
<td>100%</td>
</tr>
</tbody>
</table>

4. "By the end of 1988, 41% of the 113 MGFP awardees of 1979-1981 had completed their doctorates" (National Research Council, 1995, p. 3). Alternatively, by calculation from Table A-7 (p. 46), 79 of 190 fellows received their doctorates (41.5%). The authors concluded: "it is unlikely that the number of 1979-1981 fellows completing the Ph.D. will grow appreciably in the future" (p33).
5. ICEOP legislation allows fellows to accept faculty or staff position in Illinois higher education or "as an employee of this State in an education related position" (930/10; 110 ILCS 935/2). TheIMGIP board seeks faculty or staff positions in Illinois higher education for fellows. Both governing boards have recently entered into a reciprocity relationship with the State of Michigan allowing placement in higher education institutions in Michigan as well as Illinois.
7. Includes "all persons whose specific assignments customarily are made for the purpose of conducting instruction, research, or public service as a principal activity" (IPEDS, form S). This can include administrators "if their principal activity is instructional" (see Table 8, Appendix).

References


About the Author

Jack McKillip
Southern Illinois University at Carbondale

Dr. McKillip is a Professor of Psychology, Southern Illinois University at Carbondale, where he has been on the faculty for more than 25 years. His disciplinary specialties are program evaluation, need assessment, professional certification, and secondary data analysis. He has published 2 books and more than 50 articles and has had several large corporate research contacts. Current projects include evaluations of a statewide community college to senior college minority transfer program, of K-12 science educational interventions, and of professional certifications. He also is involved in a multi-university, hierarchical linear modeling study of college student binge drinking. Please address comments to Dr. McKillip at the Department of Psychology, Southern Illinois University, Carbondale, Illinois.
Appendix

Table 1
Ethnicity of IMGIP and ICEOP Fellowship Recipients and Illinois Graduate Students

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>% IMGIP¹</th>
<th>% ICEOP¹</th>
<th>Illinois Graduate Students²</th>
</tr>
</thead>
<tbody>
<tr>
<td>African American</td>
<td>63.3%</td>
<td>78.9%</td>
<td>6.8%</td>
</tr>
<tr>
<td>Hispanic American</td>
<td>32.8%</td>
<td>17.2%</td>
<td>2.3%</td>
</tr>
<tr>
<td>Native American</td>
<td>4.0%</td>
<td>2.1%</td>
<td>0.2%</td>
</tr>
<tr>
<td>Asian American</td>
<td>--</td>
<td>1.8%</td>
<td>4.4%</td>
</tr>
<tr>
<td>N</td>
<td>177</td>
<td>669</td>
<td>862,081</td>
</tr>
</tbody>
</table>

² Source: IBHE data on graduate enrollment in Illinois universities, 1988 though 1998 for graduate students with declared majors (FES88.dat to FES98.dat). Computed by author.

Table 2
Minority and Illinois Doctoral Program Enrollment and IMGIP Fellowships, by Academic Discipline

<table>
<thead>
<tr>
<th>Doctoral Program (2 Digit CIP Code)</th>
<th>% IMGIP¹</th>
<th>% Minority²</th>
<th>% Total³</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biological/Life Sciences</td>
<td>27.7%</td>
<td>4.0%</td>
<td>8.2%</td>
</tr>
<tr>
<td>Physical Sciences</td>
<td>24.3%</td>
<td>2.7%</td>
<td>7.3%</td>
</tr>
<tr>
<td>Engineering</td>
<td>23.7%</td>
<td>4.3%</td>
<td>10.0%</td>
</tr>
<tr>
<td>Psychology⁴</td>
<td>7.9%</td>
<td>13.7%</td>
<td>11.3%</td>
</tr>
<tr>
<td>Mathematics</td>
<td>5.1%</td>
<td>0.7%</td>
<td>2.4%</td>
</tr>
<tr>
<td>Home Economics</td>
<td>3.4%</td>
<td>0.2%</td>
<td>0.1%</td>
</tr>
<tr>
<td>Agricultural Sciences</td>
<td>2.8%</td>
<td>0.6%</td>
<td>1.1%</td>
</tr>
<tr>
<td>Computer &amp; Information Science</td>
<td>1.7%</td>
<td>0.8%</td>
<td>2.8%</td>
</tr>
<tr>
<td>English Language/Letters</td>
<td>1.7%</td>
<td>3.6%</td>
<td>4.4%</td>
</tr>
<tr>
<td>Agribusiness/Production</td>
<td>0.6%</td>
<td>0.4%</td>
<td>0.3%</td>
</tr>
</tbody>
</table>

⁴ Source: IBHE data on graduate enrollment in Illinois universities, 1988 though 1998 for graduate students with declared majors (FES88.dat to FES98.dat). Computed by author.
<table>
<thead>
<tr>
<th>Education</th>
<th>0.6%</th>
<th>30.1%</th>
<th>13.8%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Sciences/History</td>
<td>0.6%</td>
<td>11.2%</td>
<td>11.8%</td>
</tr>
<tr>
<td>All Others (17)</td>
<td>0.0%</td>
<td>27.7%</td>
<td>26.3%</td>
</tr>
<tr>
<td>Total Doctoral Programs</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>


4 The IMGIP board voted to end funding of doctoral study in Psychology in 1997.

Table 3
Minority and Illinois Graduate Program Enrollment and ICEOP Fellowships, by Academic Discipline

<table>
<thead>
<tr>
<th>Graduate Program (2 Digit CIP Code)</th>
<th>% ICEOP(^1)</th>
<th>% Minority(^2)</th>
<th>% Total(^3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>37.7%</td>
<td>31.6%</td>
<td>20.3%</td>
</tr>
<tr>
<td>Social Sciences/History</td>
<td>15.2%</td>
<td>4.7%</td>
<td>5.2%</td>
</tr>
<tr>
<td>Psychology</td>
<td>8.8%</td>
<td>5.2%</td>
<td>4.7%</td>
</tr>
<tr>
<td>English Language/Letters</td>
<td>7.2%</td>
<td>2.3%</td>
<td>2.7%</td>
</tr>
<tr>
<td>Visual &amp; Performing Arts</td>
<td>6.4%</td>
<td>2.4%</td>
<td>3.2%</td>
</tr>
<tr>
<td>Health Professions</td>
<td>4.6%</td>
<td>6.3%</td>
<td>7.0%</td>
</tr>
<tr>
<td>Public Administration/Services</td>
<td>4.6%</td>
<td>9.9%</td>
<td>4.8%</td>
</tr>
<tr>
<td>Business Mgt./Admin. Services</td>
<td>2.1%</td>
<td>18.4%</td>
<td>23.9%</td>
</tr>
<tr>
<td>Biological/Life Sciences</td>
<td>1.9%</td>
<td>1.6%</td>
<td>3.1%</td>
</tr>
<tr>
<td>Philosophy &amp; Religion</td>
<td>1.6%</td>
<td>0.5%</td>
<td>0.7%</td>
</tr>
<tr>
<td>Communications</td>
<td>1.5%</td>
<td>1.7%</td>
<td>1.3%</td>
</tr>
<tr>
<td>Foreign Languages</td>
<td>1.5%</td>
<td>1.0%</td>
<td>1.2%</td>
</tr>
<tr>
<td>Physical Sciences</td>
<td>1.0%</td>
<td>1.0%</td>
<td>2.6%</td>
</tr>
<tr>
<td>Engineering Related Technology</td>
<td>0.9%</td>
<td>0.2%</td>
<td>0.2%</td>
</tr>
<tr>
<td>Engineering</td>
<td>0.7%</td>
<td>2.2%</td>
<td>5.6%</td>
</tr>
<tr>
<td>Home Economics</td>
<td>0.7%</td>
<td>0.2%</td>
<td>0.4%</td>
</tr>
<tr>
<td>Mathematics</td>
<td>0.7%</td>
<td>0.9%</td>
<td>1.4%</td>
</tr>
<tr>
<td>Area/ethnic Studies</td>
<td>0.6%</td>
<td>0.6%</td>
<td>0.2%</td>
</tr>
<tr>
<td>Computer &amp; Information Science</td>
<td>0.4%</td>
<td>1.9%</td>
<td>3.1%</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>---------</td>
<td>---------</td>
<td>-----------</td>
</tr>
<tr>
<td>Protective Sciences</td>
<td>0.4%</td>
<td>1.6%</td>
<td>0.5%</td>
</tr>
<tr>
<td>Divinity</td>
<td>0.3%</td>
<td>2.6%</td>
<td>3.3%</td>
</tr>
<tr>
<td>Architecture</td>
<td>0.1%</td>
<td>0.7%</td>
<td>0.8%</td>
</tr>
<tr>
<td>Law and Legal Studies</td>
<td>0.1%</td>
<td>0.4%</td>
<td>0.5%</td>
</tr>
<tr>
<td>Liberal/General Studies</td>
<td>0.1%</td>
<td>0.7%</td>
<td>0.8%</td>
</tr>
<tr>
<td>Library Sciences</td>
<td>0.1%</td>
<td>0.7%</td>
<td>1.0%</td>
</tr>
<tr>
<td>Parks and Recreation</td>
<td>0.1%</td>
<td>0.3%</td>
<td>0.5%</td>
</tr>
<tr>
<td>All Others (4)</td>
<td>0.0%</td>
<td>0.6%</td>
<td>1.2%</td>
</tr>
<tr>
<td>Total</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>


3 Source: IBHE data on graduate enrollment in Illinois universities, 1988 though 1998 for graduate students with declared majors (FES88.dat to FES98.dat). Computed by author. N=862,081.

**Table 4**

Academic Outcome for IMGIP and ICEOP Fellows by Year Fellowship Began

<table>
<thead>
<tr>
<th>Year</th>
<th>Awarded Degree</th>
<th>Continuing with Studies</th>
<th>Discontinued</th>
<th>Unknown</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMGIP (Doctorate)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>'86-'90</td>
<td>69%</td>
<td>0%</td>
<td>31%</td>
<td>2%</td>
<td>100%</td>
</tr>
<tr>
<td>(n=64)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>'91-'95</td>
<td>40%</td>
<td>7%</td>
<td>32%</td>
<td>21%</td>
<td>100%</td>
</tr>
<tr>
<td>(n=57)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>'96-2000</td>
<td>5%</td>
<td>64%</td>
<td>13%</td>
<td>18%</td>
<td>100%</td>
</tr>
<tr>
<td>(n=55)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ICEOP (Doctorate)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>'87-'90</td>
<td>75%</td>
<td>1%</td>
<td>19%</td>
<td>5%</td>
<td>100%</td>
</tr>
<tr>
<td>(n=110)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>'91-'95</td>
<td>47%</td>
<td>20%</td>
<td>16%</td>
<td>16%</td>
<td>100%</td>
</tr>
<tr>
<td>(n=154)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year</td>
<td>African-Americans</td>
<td>Hispanic-Americans</td>
<td>Native-Americans</td>
<td>Total</td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>-------------------</td>
<td>--------------------</td>
<td>-----------------</td>
<td>-------</td>
<td></td>
</tr>
<tr>
<td>1996-2000 (n=155)</td>
<td>7%</td>
<td>83%</td>
<td>3%</td>
<td>8%</td>
<td>100%</td>
</tr>
<tr>
<td><strong>ICEOP (Master's)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>'87-'90 (n=43)</td>
<td>74%</td>
<td>0%</td>
<td>26%</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td>'91-'95 (n=60)</td>
<td>87%</td>
<td>3%</td>
<td>7%</td>
<td>3%</td>
<td>100%</td>
</tr>
<tr>
<td>'96-2000 (n=142)</td>
<td>49%</td>
<td>35%</td>
<td>6%</td>
<td>10%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Note: 1 IMGIP fellow and 4 ICEOP fellows died before completing their studies. They are omitted from the table as is one student enrolled in a professional degree program. Source: IMGIP/ICEOP administrative database. Coding and computation by author.

**Table 5**

**IMGIP/ICEOP Graduates as a Percentage of all Minority Doctoral Graduates in Illinois 1988-1998, for IMGIP-Targeted Disciplines**

<table>
<thead>
<tr>
<th>All Illinois Doctoral Degrees (FY88-FY98)¹</th>
<th>African Americans</th>
<th>Hispanic Americans</th>
<th>Native Americans</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering</td>
<td>33</td>
<td>41</td>
<td></td>
<td>74</td>
</tr>
<tr>
<td>Biological/Life Sciences</td>
<td>23</td>
<td>39</td>
<td>4</td>
<td>66</td>
</tr>
<tr>
<td>Mathematics</td>
<td>3</td>
<td>6</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>Physical Sciences</td>
<td>22</td>
<td>28</td>
<td>2</td>
<td>52</td>
</tr>
<tr>
<td>Total Doctoral Graduates</td>
<td>81</td>
<td>114</td>
<td>6</td>
<td>201</td>
</tr>
</tbody>
</table>

**IMGIP/ICEOP Doctorates (FY88-FY98)²**

<table>
<thead>
<tr>
<th>All Illinois Doctoral Degrees (FY88-FY98)²</th>
<th>African Americans</th>
<th>Hispanic Americans</th>
<th>Native Americans</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering</td>
<td>7</td>
<td>5</td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>Biological/Life Sciences</td>
<td>10</td>
<td>5</td>
<td>1</td>
<td>16</td>
</tr>
<tr>
<td>Mathematics</td>
<td>4</td>
<td></td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Physical Sciences</td>
<td>16</td>
<td>6</td>
<td></td>
<td>22</td>
</tr>
<tr>
<td>Total IMGIP Graduates</td>
<td>37</td>
<td>16</td>
<td>1</td>
<td>54</td>
</tr>
</tbody>
</table>

IMGIP/ICEOP Doctorates as a % of All Graduates

http://epaa.asu.edu/epaa/v9n12/ 21 6/13/01
<table>
<thead>
<tr>
<th>Engineering</th>
<th>21%</th>
<th>12%</th>
<th>*</th>
<th>16%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biological/Life Sciences</td>
<td>43%</td>
<td>13%</td>
<td>25%</td>
<td>24%</td>
</tr>
<tr>
<td>Mathematics</td>
<td>100%*</td>
<td></td>
<td></td>
<td>44%</td>
</tr>
<tr>
<td>Physical Sciences</td>
<td>73%</td>
<td>21%</td>
<td></td>
<td>42%</td>
</tr>
<tr>
<td>Total Doctoral Graduates</td>
<td>46%</td>
<td>14%</td>
<td>17%</td>
<td>27%</td>
</tr>
</tbody>
</table>

2. Source: IMGIP/ICEOP administrative database, fellows receiving degrees from FY1988 through FY1998. Discipline coding and computations by author. Three African American IMGIP fellows receiving doctoral degrees not included because they were awarded FY1999. 49 doctorates were awarded to IMGIP fellows and 5 to ICEOP fellows.
* IBHE data only identify 3 mathematics doctoral degrees awarded to African American students during the study period while IMGIP/ICEOP data contain 4.

Table 6
ICEOP/IMGIP Graduates as a Percentage of all Minority Doctoral Graduates in Illinois 1988-1998, for Selected Disciplines

<table>
<thead>
<tr>
<th>All Illinois Doctoral Degrees (FY88-FY98)</th>
<th>African Americans</th>
<th>Hispanic Americans</th>
<th>Native Americans</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>390</td>
<td>80</td>
<td>8</td>
<td>478</td>
</tr>
<tr>
<td>Social Sciences/History</td>
<td>70</td>
<td>46</td>
<td>5</td>
<td>121</td>
</tr>
<tr>
<td>Psychology</td>
<td>115</td>
<td>72</td>
<td>7</td>
<td>194</td>
</tr>
<tr>
<td>English Language/Letters</td>
<td>32</td>
<td>12</td>
<td>4</td>
<td>48</td>
</tr>
<tr>
<td>Public Administration/Services</td>
<td>38</td>
<td>10</td>
<td></td>
<td>48</td>
</tr>
<tr>
<td>Total Doctoral Graduates</td>
<td>645</td>
<td>220</td>
<td>24</td>
<td>889</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ICEOP/IMGIP Doctorates (FY88-FY98)</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>58</td>
<td>10</td>
<td></td>
<td>68</td>
</tr>
<tr>
<td>Social Sciences/History</td>
<td>18</td>
<td>7</td>
<td></td>
<td>25</td>
</tr>
<tr>
<td>Psychology</td>
<td>19</td>
<td>7</td>
<td>2</td>
<td>28</td>
</tr>
<tr>
<td>English Language/Letters</td>
<td>13</td>
<td>4</td>
<td></td>
<td>17</td>
</tr>
<tr>
<td>Public Administration/Services</td>
<td>5</td>
<td>1</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Total IMGIP Graduates</td>
<td>113</td>
<td>29</td>
<td>2</td>
<td>144</td>
</tr>
<tr>
<td>ICEOP/IMGIP Doctorates as a % of All Graduates</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>15%</td>
<td>13%</td>
<td>14%</td>
<td></td>
</tr>
<tr>
<td>Social Sciences/History</td>
<td>26%</td>
<td>15%</td>
<td>21%</td>
<td></td>
</tr>
<tr>
<td>Psychology</td>
<td>17%</td>
<td>10%</td>
<td>29%</td>
<td>14%</td>
</tr>
<tr>
<td>English Language/Letters</td>
<td>41%</td>
<td>33%</td>
<td>29%</td>
<td>35%</td>
</tr>
<tr>
<td>Public Administration/Services</td>
<td>13%</td>
<td>10%</td>
<td>13%</td>
<td></td>
</tr>
<tr>
<td>Total Doctoral Graduates</td>
<td>18%</td>
<td>13%</td>
<td>8%</td>
<td>16%</td>
</tr>
</tbody>
</table>

1 Source: IBHE data on doctoral degrees awarded in Illinois universities, 1988 through 1998 for all students (FEZ88.dat to FEZ98.dat). Computed by author.
2 Source: IMGIP/ICEOP administrative database, fellows receiving degrees from FY1988 through FY1998. Disciplines selected because they had graduated at least 5 fellows. Discipline coding and computations by author. Thirteen ICEOP fellows receiving doctoral degrees not included because they were awarded FY1999. 131 doctorates were awarded to ICEOP fellows and 13 to IMGIP fellows.

Table 7
Job Placement of IMGIP and ICEOP Fellows By Academic Outcome

<table>
<thead>
<tr>
<th>IMGIP Fellows¹</th>
<th>Awarded Doctorate (n=70)</th>
<th>Continuing with studies (n=39)</th>
<th>Dis-continued (n=67)</th>
<th>Unknown (n=23)</th>
<th>Total (n=176)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty/Staff-IL</td>
<td>10.0%</td>
<td>4.5%</td>
<td></td>
<td>5.1%</td>
<td></td>
</tr>
<tr>
<td>Faculty/Staff-MP²</td>
<td>1.4%</td>
<td></td>
<td></td>
<td>0.6%</td>
<td></td>
</tr>
<tr>
<td>Faculty/Staff-Other</td>
<td>31.4%</td>
<td>9.0%</td>
<td></td>
<td>14.8%</td>
<td></td>
</tr>
<tr>
<td>Other or Unknown</td>
<td>55.7%</td>
<td>86.3%</td>
<td></td>
<td>100.0%</td>
<td>56.8%</td>
</tr>
<tr>
<td>Continuing</td>
<td>1.4%</td>
<td>100.0%</td>
<td></td>
<td></td>
<td>22.7%</td>
</tr>
<tr>
<td>Total IMGIP</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ICEOP Fellows¹,³</th>
<th>Awarded Doctorate (n=166)</th>
<th>Awarded Master's⁴ (n=153)</th>
<th>Continuing with studies (n=213)</th>
<th>Dis-continued (n=74)</th>
<th>Unknown (n=58)</th>
<th>Total (n=664)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty/Staff/Educ.-IL</td>
<td>45.8%</td>
<td>31.4%</td>
<td>7.0%</td>
<td>9.5%</td>
<td></td>
<td>22.0%</td>
</tr>
<tr>
<td>Faculty/Staff/Educ.-MP²</td>
<td>2.4%</td>
<td>0.7%</td>
<td>0.5%</td>
<td></td>
<td></td>
<td>0.9%</td>
</tr>
<tr>
<td>Faculty/Staff/Educ.-Other</td>
<td>27.1%</td>
<td>5.9%</td>
<td>0.9%</td>
<td>9.5%</td>
<td>1.7%</td>
<td>9.6%</td>
</tr>
</tbody>
</table>

http://epaa.asu.edu/epaa/v9n12/ 23 6/13/01
<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>African American</th>
<th>Hispanic American</th>
<th>Native American</th>
<th>Total Minority</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Illinois Faculty&lt;sup&gt;1&lt;/sup&gt;</td>
<td>1253</td>
<td>45</td>
<td>465</td>
<td>1763</td>
</tr>
<tr>
<td>Number of IMGIP Fellows Employed as Illinois Faculty&lt;sup&gt;2&lt;/sup&gt;</td>
<td>6</td>
<td>3</td>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td>Number of ICEOP Fellows Employed as Illinois Faculty&lt;sup&gt;2&lt;/sup&gt;</td>
<td>117</td>
<td>24</td>
<td>2</td>
<td>143</td>
</tr>
<tr>
<td>Fellows as a % of Illinois Faculty&lt;sup&gt;2&lt;/sup&gt;</td>
<td>Both 123</td>
<td>27</td>
<td>2</td>
<td>152</td>
</tr>
<tr>
<td>Fellows as a % of IMGIP</td>
<td>0.5%</td>
<td>0.0%</td>
<td>0.6%</td>
<td>0.5%</td>
</tr>
<tr>
<td>Fellows as a % of ICEOP</td>
<td>9.3%</td>
<td>4.4%</td>
<td>5.2%</td>
<td>8.1%</td>
</tr>
<tr>
<td>Both Fellows as a % of Illinois Faculty</td>
<td>9.8%</td>
<td>4.4%</td>
<td>5.8%</td>
<td>8.6%</td>
</tr>
</tbody>
</table>

<sup>1</sup> Source: IBHE IPEDS S file on faculty at 138 Illinois institutions in 1997 (line F107, Total Faculty, staff97.txt). Includes "all persons whose specific assignments customarily
are made for the purpose of conducting instruction, research, or public service as a principal activity”. This can include administrators “if their principal activity is instructional.” Computations by author. Minority faculty (African American, Hispanic American, and Native American) make up 7.2% of the total of 24,565 faculty at 138 institutions. Table 9 presents minority faculty rank and type of institution.

2 Source: IMGIP/ICEOP administrative database, Illinois faculty placements only. Coding and computations by author.

### Table 9

**Other and Minority Faculty At Illinois Colleges by Type of School and Faculty Rank, 1997**

<table>
<thead>
<tr>
<th>Type of School</th>
<th>% Other Faculty (n=22,802)</th>
<th>% Minority Faculty¹ (n=1,763)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private (n=80)</td>
<td>41.4%</td>
<td>29.0%</td>
</tr>
<tr>
<td>Community College (n=46)</td>
<td>17.7%</td>
<td>27.9%</td>
</tr>
<tr>
<td>Public (n=12)</td>
<td>40.9%</td>
<td>43.1%</td>
</tr>
<tr>
<td>Total (N=138)</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Faculty Rank</th>
<th>% Other Faculty</th>
<th>% Minority Faculty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tenured</td>
<td>55.0%</td>
<td>45.4%</td>
</tr>
<tr>
<td>Tenure Track</td>
<td>20.4%</td>
<td>28.8%</td>
</tr>
<tr>
<td>Not Tenure Track</td>
<td>24.6%</td>
<td>25.8%</td>
</tr>
<tr>
<td>Total</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Minority Faculty as a % of All Faculty</th>
<th>Tenured</th>
<th>Tenure Track</th>
<th>Not Tenure Track</th>
<th>Total²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private</td>
<td>3.4%</td>
<td>6.5%</td>
<td>6.3%</td>
<td>5.1%</td>
</tr>
<tr>
<td>Community College</td>
<td>9.4%</td>
<td>12.5%</td>
<td>23.5%</td>
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School Reform Initiatives as Balancing Acts: Policy Variation and Educational Convergence among Japan, Korea, England and the United States

Jackyung Lee
University of Maine

Abstract
School reform initiatives during the last two decades in Japan, Korea, England, and the United States can be understood as balancing acts. Because policymakers in England and the United States saw their school systems fragmented and student outcomes mediocre, they focused reform efforts on raising educational standards, tightening curriculum and assessment, and improving academic achievement. In contrast, policymakers in Japan and Korea, who saw their school systems overstandardized and educational processes deficient, focused their reform efforts on deregulating schools, diversifying curriculum...
and assessment, and enhancing whole-person education. While school reform policies were formulated and adopted in response to each country's unique problems, they also were driven by globalization forces that fostered an international perspective. If implemented successfully, such cross-cultural policy variations (i.e., standardization vs. differentiation in curriculum, unification vs. diversification in assessment, and privatization vs. democratization in governance) would make distinctive educational systems more alike. Cultural and institutional barriers to educational convergence between the Eastern and Western school systems are discussed.

While school reforms worldwide during the last two decades have been concerned with similar goals and values (Note 1), their organizational articulation tends to vary between countries. Indeed, education reform in many countries during the last two decades seems to have been shaped by two sets of forces. One is growing public distrust of educational bureaucracies in a climate of rapid political change (Wong, 1994a). (Note 2) The other is growing international competition in the context of the global economy (Kears and Doyle, 1991). Since the consequences of these factors for education policies were also likely to vary between countries with different cultures and institutions, global school reform processes and outcomes would benefit from examination from a comparative perspective.

Building upon this premise, this study examines major school reforms in four selected industrial countries, two (Japan and South Korea) from the East and two (England and the United States) from the West that differ significantly in terms of educational institutions and cultures. Japan and Korea have highly centralized school governance systems and homogeneous educational values. In the United States and England, educational governance is decentralized and educational values are relatively heterogeneous. (Note 3) These four countries were also selected for their contrasting approach to school reform over the last two decades. In England and the U.S., where lack of focus and accountability were identified as major deficiencies of their educational systems, efforts were made to standardize curriculum, tighten assessment practices and introduce market-like competition into their public school systems. (Note 4) Similar political and economic challenges, on the other hand, resulted in policies to differentiate curriculum, diversify assessment, and decentralize school governance in Korea and Japan. In these two countries, uniform control and excessive competition were blamed for the lack of humane education despite their past contributions to academic performance and industrial development. The objective of this study is to understand the variation in school reform policies among those four different countries and to explore their implications for educational convergence. To this end, this paper reviews school reform literature, related government reports and newspaper articles.
Overview of School Reform Initiatives

In the following sections, brief overviews of the four countries' major school reform initiatives during the last two decades are provided.

Japan

In Japan, education has played a critical role in national development. Japan has been successful in providing equal educational opportunity and accomplishing high educational standards. On the other hand, the Japanese school system has neglected children's social and emotional development, paying exclusive attention to academic achievement. Since the 1970s, serious problems have been identified, including high rates of suicide in children, children refusing to attend school, violence in school and homes, and insidious school bullying. There has also been increasing public criticism expressing distrust of schools, teachers, and the education sector as a whole. The educational system in Japan was in a grave "state of desolation" and awareness of these problems has caused nationwide educational reform efforts (Sasamori, 1993).

The National Council on Education Reform (NCER) was established in 1984, as an ad hoc advisory committee to then Prime Minister Nakasone. The Council submitted four reports in which it identified fundamental principles for educational reform: (1) putting emphasis on individuality; (2) putting emphasis on fundamentals; (3) the cultivation of creativity, thinking ability, and power of expression; (4) the expansion of opportunities for choices; (5) the humanization of the educational environment; (6) the transition to lifelong learning; (7) coping with internationalization; (8) coping with the Information Age. The NCER described its mission as nothing less than completing the third great educational reform in modern Japanese history that was begun by the Central Council on Education in 1974 (Linecombe, 1993).

School reform policies that the Ministry of Education actually enforced based on the recommendations from the Council were very limited (Sasamori, 1993). Educational reform lost impetus in the midst of the resignation of Nakasone cabinet and political turnover, and policy adoption lagged. (Note 5) Moreover, most of the recommendations were not implemented because of the passive attitudes of educators and administrators. There were also other barriers to policy implementation such as the increasing cost of education, declining family support for schooling, and highly competitive college entrance examinations. Particularly, college entrance examinations influenced not only the content of courses of study but also the attitudes of students and educators toward the goal of teaching and learning.

Nevertheless, the country hasn't changed its reform goals and revived its reform agenda in the 1990s. For instance, the Curriculum Council, with an inquiry from the Minister of Education in 1996,
comprehensively discussed how to help children's well-balanced development and how to educate them to be sound members of the nation and the society (Japanese Ministry of Education, 1998). The Council again recognized the importance of the emotional and moral education in response to such problematic behavior as bullying among children, their refusal to go to school, juvenile delinquency and children's poor morality and sociality. It recommended changes in teaching and grading methods as well as changes in curriculum and school hours: narrowing the scope of required courses and increasing elective courses.

Korea

Very much like Japan, Korean education has expanded rapidly, elementary and secondary education has become universal and higher education is highly accessible. This remarkable educational development, enabled by national planning efforts and public investments in education, contributed to mass production of human capital and resulting economic growth. However, this growth has been accompanied by serious educational problems such as schooling becoming a tool for college entrance exam passage and excessive government regulation of schools. All of this inhibited development of individual students' creativity, accommodation of differences in student aptitude and interest, and moral and personal development. Moreover, prevailing cramming institutions and private tutoring distorted schooling practices and put excessive economic burdens on parents.

Under these circumstances, the Presidential Commission on Education Reform (PCER) was established in 1994, and has been instrumental in Korean education reform (Gahng, 1988; Si-gan-gwang-gan-sa, 1995). Beginning May 31, 1995, the PCER made four sequential reform proposals. For the reform of K-12 education, the proposals included new curricula for humanities and creativity, creation of autonomous school communities, and a new college admission system. While introducing more authentic student assessment, the reform requested that schools maintain a "comprehensive personal record" for each student, including all personal data and that the record be given substantial weight in the college admissions process. Each school was also required to organize a school council which involved parents and teachers in schoolwide decisionmaking. At the same time, different kinds of high schools and specialized programs were allowed to be established. To hold school districts and schools accountable, the government's administrative and financial support was linked to their performance evaluation results.

The transition of education reform has been smooth despite changes in the government regime (Kim, 1998). The seventh revision of the national curriculum was made in 1997, following the vision and framework of school reform envisioned by the PCER (Iiuh, 1998). Schools could have increased time for activities that are deemed educationally appropriate for their students. However, the extent of
allowed changes was minimal. For example, the number of hours for optional activities at each school's discretion increased from 0-1 hours a week to 2 hours a week in elementary schools and from 1-2 hours to 4 hours a week in middle schools. In addition, differentiated curricula were introduced in which different learning contents and objectives were prepared for different groups of students. However, little effort was made to reduce class size and increase teacher support, which makes it unlikely that this measure alone could reduce the need for private tutoring.

Despite their broad appeal to the public, those reform policies were also under criticism by educators because of their top-down approach and exclusion of teachers (KATO, 1997). While such comprehensive, sweeping school reform efforts have been made; national newspapers have reported so-called 'collapse of classrooms' or 'desolation of education' phenomena across the nation's high schools (Chosunilbo, August 23, 1999; Joongangilbo, October 20, 1999). This includes absenteeism, truancy, resistance to school authority and challenge to teachers, apathy, and other behavioral problems observed in schools and classrooms. It remains to be seen whether the above-mentioned school reform measures can successfully address these challenges.

England

Here the need for educational change arose from concerns about relatively low academic standards and poor student achievement (Pring, 1995). Several reports criticized schools for poor and falling standards. Many also viewed the country's poor economic performance since World War II, relative to that of other competing nations, as due largely to the poor training and inadequate skills of the workforce. Commenting on the origins of the 1988 Education Reform Act, a deputy secretary at the Department of Education and Science (DES) pointed out a growing conviction that economic well-being was being adversely affected by the performance of an education service and a need to reduce and control public expenditure in proportion to GDP and to be more sure about getting value for money (Thomas, 1993). The Education Act of 1988 introduced a national curriculum which was articulated in terms of attainment targets and program of study within a range of core and foundation subjects. Each subject programs of study specified what content needed to be covered for key stages 1-4. The attainment targets in each subject were at ten levels, so that progression in each subject could be established and teacher, child and parent would know how the pupil performed relative to the objectives and to other pupils. This ties in with the national tests that check whether students are meeting these targets.

The 1988 Education Reform Act sought to simultaneously centralize and decentralize control of policy and practice (Thomas, 1993). By introducing national curriculum and assessment systems, the reforms tended to shift the traditional control of local school districts to central governments. By introducing site-based
management system known as the Local Management of Schools (LMS), the reforms also tended to move control over educational resources from school districts to individual schools. The 1988 reform also served to privatize education to some extent and increase school competition, enhancing the power of the client in relation to that of the provider. It introduced grant-maintained schools, which allowed schools to apply for maintenance from the central government and ceased to be maintained by the LEA. (Note 6)

These comprehensive school reform measures were not free from criticisms. The reform took a top-down approach: teachers were excluded from the process of setting the reform agenda because the purpose was to challenge producer interest (Thomas, 1993). It was argued that the country's hasty implementation of a national curriculum and assessment led to an unmanageable curriculum and an ineffective assessment system (Silvermail, 1996). Moreover, the potential of the national curriculum to enhance equity has been questioned since it hardly ensures valuable and relevant learning experiences for working-class students (Burwood, 1992). School governance reform also raised challenges both for schools that may opt out of district control in order to receive the extra money and preserve the status quo and for the central government that deal directly and efficiently with growing numbers of grant-maintained schools (Wholstetter and Anderson, 1994).

United States

Education reform in the U.S. is very difficult to characterize because the substance and structure of reform varies widely across the country. However, most of the reform efforts during the last two decades may be put under the label of standards-based systemic education reform, which was "a uniquely American adaptation of the education policies and structures of many of the world's highly developed nations" (O'Day and Smith, 1993). Adopted school reform policies varied among states but all were aimed at raising academic standards for all students and improving the quality of public school systems.

The 1983 national report, A Nation at Risk, created a crisis atmosphere, connecting U.S. economic decline with relatively poor educational performance and suggesting that educational upgrading would lead to economic revitalization (National Commission on Excellence in Education, 1983). In response to the policy challenge, many states became more active in standards-based education reform during the 1980s: the states increased course credit requirements for graduation, raised standards for teacher preparation, mandated teacher tests for certification, set higher levels for teacher pay, developed state curriculum frameworks or guides, and established new statewide student assessments (Lee, 1997). These policies, which emerged since A Nation at Risk, culminated with the 1989 national education goals (enacted into the Goals 2000 in 1994).

U.S. school governance reform was very slow and diffused. But,
as with England, it may also be characterized by a combination of centralization and decentralization measures along with a privatization trend. State legislatures and state boards of education increasingly set top-down performance standards for local boards and schools. At the same time local boards yielded autonomy to the state, they further lost control of schools through adoption of site-based management practices and local school council. This often led to local-board and central-office “disintermediation” (Wang and Walberg, 1999). Increasing numbers of charter schools in many states increased school choice and competition. At the same time, public vouchers and tax credits for private school tuition strengthened consumer power over education.

While many systemic school reform efforts have been made across the nation, findings from the Third International Mathematics and Science Study (TIMSS) showed that the U.S is far from achieving the national goal of being first in the world in mathematics and science achievement by the year 2000 (NCES, 1996). The TIMSS curriculum study also pointed out the prevailing problem of current U.S. curricula, that is, "a mile wide and an inch deep" characterizing broad, superficial coverage of many topics (Schmidt et al., 1997). While these findings may enhance controversies about the adoption of voluntary national curriculum standards and assessments, their ultimate outcomes remain to be seen. Some have expressed the concern that simply tinkering toward unrealistically high goals would bring endless cycle of educational crisis and new reform (Tyack and Cuban, 1995).

**Similarities and Differences in School Reform Initiatives**

Comparison of school reform initiatives across the four different countries reveals the fact that educational reform policies share common goals and reflect the utopian view that educational reform can change schools and advance society. In each of the four study countries, education reform was initiated primarily to solve their social or economic problems, and gained relatively wide public attention and/or support. During this process, education, specifically public school, was blamed for the broader problems, but at the same time reforming education was seen as a promising solution.

In each of these countries, and regardless of the issues to be addressed, reports/proposals from national commissions or government agencies played catalytic roles by giving momentum and legitimacy for nationwide school reform efforts. In the U.S., the National Commission on Excellence in Education, a prestigious ad hoc panel, issued A Nation at Risk in 1983, which triggered a wave of reform activity in the states (Koppieh and Guthrie, 1993). In England, the Department of Education and Science white papers and ministerial speeches developed the theme of education reform, and some of the proposals shaped the Education Act of 1988 (Pring, 1995). In Japan, the National Council on Education Reform, set up in 1984 as an ad hoc advisory committee to then Prime Minister Nakasone, submitted four reports which provided the principles of educational reform.
(Sasamori, 1993). In Korea, the Presidential Commission on Education Reform, established in 1994, has been instrumental in education reform by producing four sequential reform proposals (Gahng, 1998).

Remarkable similarities are observed in the policies of countries that share cultural and institutional heritages. On the one hand, Japan and Korea were very similar in the nature and scope of their national reforms. While the Japanese government adopted comprehensive reform proposals that included advancement of lifelong education and internationalization of education (Lincicome, 1993), the Korean government followed a similar reform path later utilizing the same catch-phrases (KATO, 1997). This arises primarily from policy imitation as enhanced by the two countries’ proximity and shared problems in education. On the other hand, policy similarity was also observed between England and the U.S., which may be attributed to their common educational issues and mutual learning/problem-solving efforts (Wholstetter & Anderson, 1994; Silvernail, 1996; Levin, 1998).

Table 1 summarizes major school reform themes and policies in the four countries. In response to diversified individual needs for humane development as well as emerging social needs for national competitiveness in a global economy, Japan and Korea attempted to differentiate their national curricula and to decentralize their governance systems during the last two decades. In contrast, a concern with national economic performance was injected into the policy debate on educational standards and school choice in England and the U.S. during the same period. Thus, England established a national curriculum and test, and extended parental choice and market-like school competition. The U.S. promoted national- or state-level educational standard-setting activities along with an increase in school choice programs.

**Table 1**

**Contrast of Major School Reforms in England and the U.S. vs. Korea and Japan**

<table>
<thead>
<tr>
<th>Major School Reform Themes and Goals</th>
<th>England &amp; the U.S.</th>
<th>Korea &amp; Japan</th>
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<tbody>
<tr>
<td>Improving academic standards</td>
<td>Enhancing whole-person education</td>
<td></td>
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<tr>
<td>• academic excellence for all</td>
<td>• personal development for all</td>
<td></td>
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<tr>
<td>• efficiency and accountability</td>
<td>• creativity and humanity</td>
<td></td>
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<tr>
<td>• focus on student outcomes</td>
<td>• focus on schooling processes</td>
<td></td>
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<tr>
<td>• rigor and coherence</td>
<td>• autonomy and diversity</td>
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<tr>
<td>• choice among schools</td>
<td>• choice within schools</td>
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<tr>
<th>Curriculum/Instruction Reform Policies</th>
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<tbody>
<tr>
<td>Standardization/Intensification (England)</td>
<td>Differentiation/Enrichment (Korea and Japan)</td>
<td></td>
</tr>
<tr>
<td>• national curriculum</td>
<td>• curriculum revision toward less requirements and more elective courses (Korea and Japan)</td>
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<tr>
<td>• challenging state curriculum</td>
<td>• ability grouping in core</td>
<td></td>
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<tr>
<td>frameworks; raised course requirements for high school</td>
<td></td>
<td></td>
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<tr>
<td>Assessment/Testing Reform Policies</td>
<td>Graduation (U.S.)</td>
<td>Subjects (Korea)</td>
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<tr>
<td>Unification/Tightening</td>
<td></td>
<td>Diversification/Loosening</td>
</tr>
<tr>
<td>• national tests; performance-</td>
<td></td>
<td>• more diverse/flexible</td>
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<tr>
<td>based accountability (England)</td>
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<td>screening for college</td>
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<td>• voluntary national test</td>
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<td>admissions (Korea and</td>
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<td>proposal; high-stakes state</td>
<td></td>
<td>Japan)</td>
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<tr>
<td>student assessments (U.S.)</td>
<td></td>
<td>• deemphasizing academic</td>
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<td></td>
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<td>records in assessment</td>
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<td></td>
<td></td>
<td>(Korea)</td>
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<tr>
<td>Governance/Finance Reform</td>
<td>Disintermediation/Privatization</td>
<td>Decentralization/Democratization</td>
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<tr>
<td>Policies</td>
<td>• open enrollment; grant-</td>
<td>• election of local school boards;</td>
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<td></td>
<td>maintained schools (England)</td>
<td>school councils (Korea)</td>
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<tr>
<td></td>
<td>• voucher; tuition tax credit;</td>
<td>• abolition of central</td>
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<tr>
<td></td>
<td>open enrollment; charter</td>
<td>government's approval of</td>
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<td></td>
<td>schools (U.S.)</td>
<td>superintendent (Japan)</td>
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Policy Implementation and Educational Convergence

Many educational researchers have observed a global convergence in both educational ideology and educational structure (Meyer et al., 1979; Ramirez and Boli, 1987). These comparative studies focused on the role of integrated transnational organizational apparatus vis-a-vis nation-states, particularly for developing countries, in organizing national education systems in accordance with world educational ideologies, principles, and practices. Recently, the effect of globalization on national educational policy and practice, particularly for industrial countries, has become a special topic for comparative education research (Taylor, 1999). However, little attention has been paid to the divergence of educational policy approaches among countries with different cultures and institutions and the consequences of cross-cultural policy variation for educational convergence.

Given cross-cultural policy variation toward desired educational goals and values, the central question is whether the different reform paths are leading to educational convergence between those Eastern and Western countries. As Ruhlen (1983) pointed out, American education suffers from fragmentation, while Japanese education suffers from "over standardization." In the curriculum and assessment arenas, more uniform curriculum and high-stakes assessment with a focus on academic achievement were expected in England and the U.S., whereas more adaptive curricula and flexible assessments towards whole-person education were expected in Korea and Japan (see Figure 1). Thus, these opposite policy measures, if implemented successfully, would make the two different systems more alike. At the same time, in the school governance arena, increased state power and decreased local district influence was expected in England and the U.S., whereas decreased state power and increased local school board influence was expected in Korea and Japan (see Figure 1).

Combined with curriculum and assessment reforms, school governance reforms are likely to boost educational convergence. Examination of such changes in educational processes and outcomes require more systematic and comprehensive data collection than the current international assessment projects which focus on academic achievement (see Lee, 1999).
Whether such movements lead to expected policy outcomes depends on the culture and institution. The school reform processes in those four countries were not always smooth because of policy implementation challenges. The policy challenge in the U.S. and England is to implement a national curriculum or standards through the states. The goals of accountability, equalization, and global competitiveness have been pushed by economic globalization.

Discussion

Examination of major school reform efforts in England, Japan, South Korea and the U.S. reveals that while school reform policies were adopted by the countries in response to their unique social problems, less successful in all four countries the extent to which these reforms were implemented was limited. While the cases of four selected countries may not be generalized to other industrial countries in the region, the process of school reform is important for understanding and comparing educational systems.

Notes

An earlier version of this article was presented at the 2000 Annual Meeting of the American Educational Research Association.

1. Many countries tried to address similar issues under different labels such as educational excellence.
2. The rise in popular support for conservative coalitions in many industrialized countries during the 1990s.
3. Stevenson and Stigler (1992) also showed differences in education-related attitudes and behavior.
4. Charter schools or schools that opt out of local district control became more prevalent in England.
5. It was March, 1989, some 18 months after the NCER disbanded, that the ministry revised courses.
6. Some argued that grant-maintained schools and schools under LMS should be regarded as institutions.

Burwood, L. R. V. (1992). Can the national curriculum help reduce working-class under-achievement?
Korea Association of Teacher Organizations. (1997). *Comprehensive evaluation of education reform an
Lee, J. (1999). Missing links in international education studies: Can we compare the U.S. with East Asi
Levin, B. (1998). An epidemic of education policy: (what) can we learn from each other? *Comparative
Notebook. 30(8).
O'day, J., & Smith, M. (1993). Systemic reform and educational opportunity. (Ch. 8) In S. Fuhrman (Ec

http://epaa.asu.edu/epaa/v9n13.html


Thomas, H. (1993). The education-reform movement in England and Wales. (Ch. 3) In Beare, H. & Bo;


Wang, M. C. & Walberg, H. J. (December 1, 1999). Decentralize or "Disintermediate"? *Education We *

Wholstetter, P. & Anderson, L. 1994. What can charter schools learn from England's grant-maintained :


Wong, K. K. (1994b). Governance structure, resource allocation, and equity policy. (Ch. 6) In L. Darlin

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Conceptualizing the Process of Education Reform From An International Perspective

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Abstract
A great deal of comparative work on education reform is now being done, but this work often lacks a clearly articulated conceptual frame. This paper, based on a study of change in five jurisdictions in four countries, develops a model of reform based on four interactive elements - origins, adoption, implementation, and outcomes. Within each of these elements, questions and concepts from the relevant literature are developed with the intent of building a more comprehensive approach to the analysis of reform from political, organizational and educational perspectives.
The past twenty years has seen an enormous amount of change in education policy in the industrialized English-speaking countries. In the United States reform has been a constant since at least the publication of A Nation At Risk in 1983, though as Mazzoni (1993) points out, there was also a great deal of state level reform before 1983. Other countries, too, have made significant changes in many aspects of education policy. England and New Zealand had particularly dramatic periods of change during the 1980s and early 1990s. Australian states and Canadian provinces, like U. S. states, have seen significant policy shifts, though, again like the U. S., it is the rare reform that is actually taken up universally.

All of this reform has been the subject of an enormous amount of discussion and analysis (Fowler, 1995). Some of the most controversial reforms, such as increased assessment, decentralized governance and parental choice of school have generated vast amounts of literature. Many case studies of particular reforms have been done, whether at the local, state or national level.

Scholarly work comparing education reform across countries has also developed rapidly in the last few years (e.g. Beare & Boyd, 1993; Carter & O'Neil, 1995; Glatter, Woods & Bagley, 1997; Whitty, 1997; Whitty, Power & Halpin, 1998). It seems clear that such work is likely to grow as states or countries are increasingly interested in policy directions elsewhere (Levin, 1998) and as scholars consider the implications of internationalization.

This comparative work is interesting and important, but much of it lacks a clearly articulated conceptual frame and is therefore relatively a-theoretical. Studies typically do not explain why they have chosen to look at particular features of change, or how these features might be related to each other or to larger frames of reference drawn from the relevant literature. Yet comparative work is particularly challenging conceptually (e.g. Kohn, 1987; Archer, 1989) because of the myriad variables and perspectives that could be used to explore the issues. This paper, which is part of a larger comparative project, develops a conceptual framework for studying education reform across political jurisdictions with the intent of being useful to scholars working in these areas.

The most complete available effort to develop an overall frame of analysis of education reform is, in my view, the work of Stephen Ball (1990) on reform in England. Ball introduces a variety of frames in which to think about education reform. He points out the important differences in thinking about reform from economic, political or ideological perspectives, and describes the different emphases resulting from forms of analysis that focus more or less on structural, interactional or discursive elements. Ball also recognizes the dangers that analysis can lead to an excessive determinism. Many accounts, he suggests

fail to capture the messy realities of influence, pressure,
dogma, expediency, conflict, compromise, intransigence, resistance, error, opposition and pragmatism in the policy process. It is easy to be simple, neat and superficial and to gloss over these awkward realities. It is difficult to retain messiness and complexity and still be penetrating. (p. 9)

In another work (Bowe, Ball & Gold, 1992), the authors develop a tripartite frame for thinking about education reform. They describe education policy as having three phases that are at least partly autonomous from each other – influence, text production and practice. Influence is the process of bringing policy into being, having to do with who shapes the nature of policy. Text production deals with the creation of policy as a product. Bowe, Ball and Gold point out that what gets produced as policy often deviates from at least some of the intentions of its promoters. Third, they note that education practice, while it is influenced by policy texts, also has a degree of autonomy from them. They characterize these three elements as forming a "trajectory of policy."

Ball's work is important and has rightly been frequently cited (though a large body of work on education reform continues to appear without being linked to any explicit framework). However since it appeared there have been relatively few efforts to extend or deepen the framework. In this paper I attempt to develop an approach to thinking about and studying education reform that builds on but also (I hope) provides a fuller basis for both analytical and descriptive work on education policy.

The Research Base

The analysis in this article grows out of a research project that looks at education reform in five different settings—the Canadian provinces of Alberta and Manitoba, the state of Minnesota, and the countries of England and New Zealand. (To be precise, England is neither a country nor a province or state, but a part of Britain. However, because education in England and Wales differs from that in Scotland and Northern Ireland in important respects, my work has been limited to the former.) In each setting I looked at a major reform process from its inception to outcomes several years later.

The study has used a variety of data sources, including official documents (position papers, records of legislative debates, newspaper articles), secondary analysis of data from other studies, and interviews with key participants in several of the settings. The study will be fully described in a forthcoming book (reference deleted for author anonymity).

Stage Theory as a Basic Approach

Every study of policy uses some version of a stage theory. There are many of these (a good overview can be found in Howlett and Ramesh, 1995), all of which involve some series of stages moving
from the identification of a problem through the identification or adoption of particular strategies to issues of implementation and impact. The tripartite analysis of Bowe, Ball and Gold is one example. To an extent, the choice of stages is a matter of personal preference. It is vital to remember that although the division into component parts is useful for analytical purposes, in reality reform is not neatly divided in this way, nor can any set of headings adequately represent the complexities of a reform process. In political analysis, discrete categories and periods are devices of the analyst, not the experience of those directly involved.

The four components I use here are:

1. Origins. Where did particular reform proposals come from? How did they become part of the government agenda, when so many ideas do not? What role did various actors and interests play in the development of reform programs?

2. Adoption. How do policies as finally adopted or made into law differ from those originally proposed? What factors lead to changes between proposals and approval? Who supported and proposed various policies, and to what effect?

3. Implementation. A considerable body of research, in education and other policy fields, lays out clearly the difficulties of moving from policy to practice. What model of implementation, if any, did governments use to move their reforms into practice. What "policy levers" were used to support reforms? How did schools and school systems respond to reforms?

4. Outcomes. Interest here is on the available evidence as to the effects of reforms. Any political action may have a number of results, some of which were intended by policy-makers and others which were not. Because the reforms under study are about education, the study gives particular attention to what may be known about how the reforms have affected student outcomes and learning processes in schools.

This delineation draws more attention to the political process of reform, since it highlights the degree to which policy ideas are subject to modification not only after they are promulgated, but at every step of the process. The framework also gives explicit attention to the process of implementation, which some other analyses tend to underplay.

**Developing the Framework**

Creating four major stages or elements is only the first step towards an adequate conceptual framework for a comparative policy study. It is also necessary to provide much greater specification of the main considerations within each of the four stages, so that general terms such as "adoption" or "implementation" are fully developed conceptually. Each of the elements must also be grounded in the relevant literatures. However before taking up the four main themes in
this way, attention has to be given to two general themes: the overarching importance of context in comparative policy analysis, and the balance between linearity and contingency in thinking about political processes.

A first consideration: The importance of a historical and cultural perspective

Education reform is political work, and political work can only be understood appropriately in a historical and cultural perspective. Reforms necessarily arise in particular social, economic, political and institutional contexts. The way any reform program is conceptualized, developed, defended (and attacked), and implemented will owe a great deal to previous events and practices in a given jurisdiction.

A few examples can illustrate. The legacy of social class distinctions in Britain, including a long history of elitism in education, conditions the way all new reform proposals are seen (Whitty & Edwards, 1998). The debate over such proposals as opting out (grant-maintained schools) or parental choice occurs in a system that for most of its history has provided educational opportunity based largely on class background. In the United States, on the other hand, concerns about race relations have been at least as powerful as class issues in shaping debates about the same kinds of issues. In Canada, with a long history of separate but co-existing institutions based on language and religion, concerns about choice are much more muted. “Separate but equal” means something quite different in Canada than it has in the U. S. The politics of language, religion and ethnicity can have powerful effects on education and are strongly conditioned by unique historical factors in each setting.

Institutions of government and political cultures are also powerful influences on education reform with quite variable effects. Federal states will approach reform differently than unitary states. American political institutions, with their constitutional checks and balances, provide very different political dynamics than do parliamentary majority governments. Jurisdictions, whether countries, states, or provinces, can have very different political cultures and practices depending on whether they have a history of strong or weak executives, a single house or two, a two-party system or a history of multiple parties and coalitions. For example, a two party state with a long history of polarized politics will have quite different political processes than one with multiple parties and a history of seeking central ground.

Even those developments that are seen as having international scope need to be viewed in a historical perspective. The current zeal for reform in education, for example, follows a long period of expansion of educational systems accompanied by a high level of confidence and substantial resourcing. Economic cycles have a strong impact on people's thinking about education; when economic times are good, there tends to be more optimism about education (Krahn, 1996). Increased attention to consultation in policy-making (whether real or
symbolic) and to the role of parents is very likely connected to an increasingly educated populace and growing skepticism in many quarters about the degree of discretion that should be afforded to professionals. One does not have to be a Hegelian to see the influence of dialectic in these developments.

All of this means that the analyst should, in studying reform, pay careful attention to the way that new developments emerge from past events and practices. This is a particular problem in comparative work, in that the more jurisdictions one considers, the harder it is to develop a reasonable degree of familiarity with the requisite background.

The intended and the contingent: Conceptualising reform as a whole.

The common view of reform tends to assume that political or ideological analysis leads to a reform program that in turn leads to changes in practice leading to particular outcomes. Politics is treated as largely an intellectual process embodying a relatively straightforward means-ends rationality. One body of work embodying these assumptions operates at a high level of abstraction, concerned with such matters as the changing role of the state and the impact of globalisation as determining forces in political events (e.g. Ball, 1998; Carter & O'Neil, 1995; Taylor et al., 1997). Education reform in these treatments is often discussed as the implementation of a set of well-defined political views having to do with beliefs in the reduced role of the state or the primacy of markets over public provision. The same line of thinking can be found in many of the analyses and critiques of such recent policies as school choice (e.g. Lauder et al.; 1999).

Reform is certainly driven in some important ways by a linear, means-ends rationality. If there were no sense that an action would produce particular consequences there would be no reason to undertake the action. In politics, careful calculation of consequences is of absolutely central importance, although the consequences that are of interest include personal, partisan and symbolic outcomes as well as substantive policy consequences (Edelman, 1988).

At the same time, it is important not to overstate the degree to which reform is driven by a straightforward rationality. Usually one finds a high level of ambiguity and contingency in every aspect of the political process. At every step, multiple and conflicting influences come to bear, purposes change or are worn down by existing structures and processes, and circumstances change in ways that require modification of plans and actions. As Ball puts it:

National policy making is inevitably a process of bricolage: a matter of borrowing and copying bits and pieces of ideas from elsewhere, drawing upon and amending locally tried and tested approaches, cannibalising theories, research, trends and fashions and not infrequently flailing around for anything at all that looks at though it might work. Most policies are
ramshackle, compromise, hit and miss affairs, that are reworked, tinkered with, nuanced and inflected through complex process of influence, text production, dissemination and, ultimately, re-creation in contexts of practice. (1998, p.126)

The literatures on organization change and on government policy-making support a model that goes beyond a simple means-ends rationality to include attention to the inevitable ambiguity and contingency of the political process. Work in political science (such as Edelman, 1988, and Stone, 1988) remind us that that politics is shaped by many considerations other than policy, including the requirements of staying in office and the vicissitudes of the moment. Symbolic and emotional issues are often at the forefront of political work. Work in politics also emphasizes the degree to which the entire process of policy development and implementation takes place in a short-term context that is constantly changing, multi-faceted, and very difficult to read but is also affected by long-term trends in government and society. Dror (1986) describes this environment as “fuzzy gambling”, in which the rules change while the game is played and “surprise dominates”. Dror is among writers (see also Lindblom, 1990) who also point out that even in the best of circumstances human abilities to understand problems and generate appropriate solutions are limited and often inadequate. Most of the time governments are operating under circumstances that are far from optimal in this regard due to pressures of time, lack of information, and multiple competing issues.

Work under the heading of neo-institutionalism (March & Olsen, 1989; Wilson, 1989) shows the powerful effect that institutional structures have on the political process, constraining the available political choices and also shaping the way in which political decisions are put into effect, not necessarily consistent with the intentions of their originators. Institutions possess considerable ability to resist changes or to reduce their impact significantly. Research on policy effects (e.g. Elmore, 1995) also suggests that in many cases strategies for reform may focus on elements that cannot produce the kinds of changes that are really wanted or, to put it another way, that reforms focus on what can be done instead of on what might really make a difference.

The task of the analyst, then, is to consider the ways in which policies are driven by a particular logic or ideology, but also the ways in which they are shaped by other factors—historical, cultural, institutional, and political—that are far less predictable. At the macro level, long-term changes in societies and the role of the state are important. At the micro level, chance, in the form of individual personalities or unexpected events, is also an important consideration in understanding reform. Neither the importance of means-ends rationality nor the underlying contingency of life can be ignored—both must be accommodated in an adequate theoretical account.

One way of thinking about this balance is to think of the logic of policy—actions leading to particular consequences—as the numerator
in an equation. However the power of this numerator is affected by a denominator that contains all the contingent elements. Sometimes the numerator is larger and policy is driven by careful strategy. Other times the denominator is larger and policy is primarily the result of unforeseeable elements.

**Considering the Four Stages**

With those points in mind, we turn to a fuller discussion of the four elements of the proposed framework: origins, adoption, implementation and outcomes.

**The origins of reform.**

The work of Kingdon (1994) provides a valuable approach to looking at the origins of policy. Kingdon believes that political decisions emerge from the interaction of three streams: political events, problem recognition, and policy proposals. The balance of importance between political events, problem recognition and policy proposals, and the way the three streams interact will vary from setting to setting.

Within each of these streams, additional work has been done in this study to define key elements. Kingdon's framework also needs to be adjusted to take into account the differences between parliamentary systems and the U S governance model of separation of powers.

Political events are often under-emphasized in analyses of education policy because they are so unpredictable. The outcome of political processes, however, can be affected strongly by such factors as stages in the political cycle, the internal dynamics of the governing party, the personalities of important actors, the nature of the relationships among key players, and unanticipated events or crises.

Problem recognition involves a variety of influences bearing on political decision makers and on each other. One important set of influences is found within government itself, including both political and bureaucratic elements. Within-government political sources of problem recognition can include individuals in key roles (such as ministers, governors, or members of a legislature), political parties and their associated bodies, legislatures, and central agencies of government (such as finance units or central policy units). Sometimes policy issues emerge not from the particular policy area but as a result of broader government agendas, such as a focus on reducing expenditure. Problem recognition also emerges from the apparatus of government as various agencies try to convince politicians of the importance of particular issues or problems, or expand their own influence and budget, or manage external pressures.

External influences on the definition of problems are wide ranging. They can arise through various consultative processes as well as formal and informal lobbying efforts by many different interests. An area like education, which involves a great deal of money and affects a large number of people, is the subject of a great deal of
lobbying from many different directions. As Lindblom pointed out many years ago (1980), because of its economic importance business plays a particularly significant role in shaping problem agendas. Research, polling and media reports are also a potential source of problem definition, though typically mediated through some kind of lobbying process.

Policy proposals are often, but not always, connected to problem definition, so many of the same sources are important in developing or promoting policy proposals. Policy proposals have eventually to get the approval or support of political leaders. However the actual ideas can come from many different places. In fact, Kingdon suggests that policy proposals have so many different versions and sources that the search for their origins is a vain task (1994, p. 71).

Wherever they originate, policy proposals may be promoted by individual politicians or civil servants, political parties, government agencies, lobby groups, think tanks, policy entrepreneurs, or from research of various kinds.

The process of policy borrowing—of taking ideas from one jurisdiction and applying them to another—is also relevant to the discussion of both problem definition and policy proposals. Much of the comparative work cited earlier argues that current education reform proposals have moved from one country to another. However careful examination is needed to determine whether referrals to other country's policies are anything more than rhetorical. Similar policy labels—such as "choice"—may hide very great differences in policy content. This is so across states in the U.S. (see Mintrom & Vergari, 1997) and provinces in Canada (Levin, 1998), and even more so across national boundaries (Halpin & Troya, 1995).

The entire process of shaping policy also occurs within a more general context of ideas and policy preferences—what Schon (1971) called "ideas in good currency." These ideas provide a taken-for-granted backdrop to policy discussions, helping to determine the range of ideas that will even be considered, let alone adopted. Changes in dominant ideas about the role of the state, for example, have been important in recent years in many English-speaking countries (Manzer, 1994). Ideas are themselves affected by and affect changing economic and social conditions. There is a constant interaction between changes in material conditions, the way that people name or explain these, and the proposals that may be advanced to address perceived problems.

These more fundamental ideas about policy are often labelled as "ideological." Some argue that all policy is ideological by definition, but if so than the idea loses its analytic value. Others use the term "ideological" as rather meaning the absence of common sense, and apply it to those policies with which they do not agree (e.g. Lawton, 1994). Again, it is not clear how such terminology is very helpful in any analytic sense.

Manzer (1994) distinguishes between ideology as a public justification or rationale for reform, and ideology as an actual constituting element of reform, whether so stated publicly or not. Any combination of these possibilities could exist - that is, reform
programs that are justified and constituted ideologically, programs that are justified ideologically but are in practice more pragmatic, programs that are justified in pragmatic terms but are actually ideologically constituted, and programs that are neither justified nor constituted ideologically. It could also be argued that a policy could have effects that are ideological regardless of either justification or its constitution. There is a danger here of circular argument, in which every policy can be found to be ideological on at least some criterion (for a fuller discussion see Levin, in press).

All of this suggests that discussion of the role of ideology in education reform needs to be well grounded empirically, and that analysts need to be clear about what they mean when they make claims about ideology and policy.

**Adoption**

For purposes of this analysis, adoption is the process of moving from a policy proposal to an approved piece of legislation, regulation, or policy. The literature in this area in regard to education reform is sparse even though policies often change in important ways from inception to final adoption.

In the adoption process several elements collide. What began as a slogan or a concept—school choice, local management, open enrolment, provincial testing, charter schools—must be turned into a detailed scheme in the form of legislation, regulations, or policy guidelines so that it can actually be put into place in a large and complex system. Both administrative and political issues can result. Many important policy initiatives begin as ideas that are not fully developed, so turning them into something workable may involve quite a bit of debate as to what the intentions originally were and how they can best be realised. The debates can be political, in that opponents of a particular reform in and out of government may revisit their concerns as the details are worked out. At other times the issues will be administrative as the system tries to work out detailed procedures for managing large-scale changes. Although all of these processes may be intertwined and often occur simultaneously, they can usefully be considered under the headings of internal political debate, bureaucratic accommodation, and public political debate.

Internal political debate refers to discussion within a government, among contending political factions. These debates can be motivated by substantive disagreements about policies, by arguments over the politics of action (such as whether the timing is right for a particular idea), or just as easily by rivalries and animosities between individuals or organizational units. The development of detailed plans or the requirement to approve budgets or legislative proposals can reopen internal disagreements about how strongly or how far a policy should be pursued, or which part of the bureaucracy should manage it. These debates may continue long after a policy is officially announced, and even after its implementation.

It is not always easy to know which people are going to be key to
a policy's fate. Heads of government are vital, but they are not necessarily the only essential actors. Ministers of finance and their deputies can be especially important if a new policy has financial implications – as they almost always do. Heads of other units may be important if they see a policy as affecting their own programs or plans or if their co-operation is needed to move a proposal forward. In the U.S. system, individual legislators of any party can play a vital role in the adoption process, regardless of the position of the executive.

The political process of adoption often leads to policy proposals that are vague or even contradictory. Politicians are often amateurs in the substantive policy field who may not understand the complexities of existing organization, the impact of other competing agendas, or the difficulties that inevitably arise in the attempt to move from a general idea to a specific set of procedures. Civil servants, on the other hand, as Wilson (1989) points out, are concerned to make the system work as smoothly as possible. They may have no personal commitment to a government's purposes, but they do have to think about the procedures in detail, what could go wrong, who will administer or manage the policy, how exceptions will be handled, what timelines are possible, what resources will be needed—all things that may not be part of an attractive political vision. As a policy proposal moves towards implementation—or, as Fitz and Halpin (1991) describe it in their study of Grant Maintained School policy in England, “from a sketchy policy to a workable scheme”—there will inevitably be a process of limiting and narrowing, of trying to rub off the sharp corners of policy that will create the most difficulty, of trying to make new policies at least partly consistent with existing practices.

Much of this discussion takes place in a public political arena in which conflicts over both intent and implementation are debated. The latter may include the "official" debate in parliament or a legislature as well as the debate that goes on in public, through various consultation processes, the media, and with various interest groups. Through the entire process, all sorts of proponents and opponents of reform are trying to advance their position and counter opposing arguments, so reforms are frequently accompanied by intense political disagreement. In the oppositional world of politics, even groups that rather like an idea may take a critical stance in public.

Public political debate involves an effort to "frame" thinking (Davies, 1999), or to shape discourses (Ball, 1990) about educational issues. The parties to the debate have various devices available to them in their efforts. Governments can use such means as press releases, white papers, speaking tours, legislative committees and hearings, advisory groups and public consultation processes in efforts to mould public opinion. Opposition groups have their own set of devices, such as public rallies and the media's interest in conflict and controversy, to get their views across. Public distrust of government is itself a weapon that can be used by opponents. In Canada and the United States opponents have also sometimes used the courts to attack elements of various reform programs. A number of other devices can be used by any of the parties, such as issuing official statements and press
releases, advertising, polling, research, and the citing of authorities. All sides may appeal to the views of supposedly neutral or objective third parties; research is often used in this way in political debate.

The process of adoption is also influenced by the degree of commitment to a given program. Some reforms may be deeply important to governments, in which case a high degree of conflict may be tolerated before there is any willingness to make changes. Sometimes a government actively seeks conflict on an issue as a way of convincing its supporters of its commitment. In other cases a sponsor may only be willing to expend a small amount of political capital before retreating from a position. These decisions are themselves influenced by the kinds of political events discussed earlier, such as the timing in relation to an election, leadership rivalries, or other competing issues.

The study of adoption is important because it shows the ways in which intentions are modified by political and administrative considerations. Since reforms often end up looking rather different than was originally intended, an analysis of the sources of these changes should be an important part of an overall analysis of reform.

**Implementation**

In contrast to adoption, the literature on the problems of implementation is very large and quite well developed (e.g. Fullan, 1991; McLaughlin, 1987). A whole series of obstacles—some of them generic to policy implementation and others particular to schools—stand in the way of policies being put in place as intended. Although the problems of implementation are well known, governments have tended to give relatively short shrift to these issues in the policy process.

Perspectives on implementation have become more complex over time. While the greatest amount of attention has been given to ways of making implementation more effective, another body of work (e.g. Hargreaves, 1994) takes the view that disputes over change are best thought of as political struggles, and that resistance may be well-justified. More recently there has been increasing interest in ideas about organizational learning, and the need to see change as a process of testing and refining ideas on the basis of evidence about their impact and value.

Factors affecting implementation can be thought of (Fullan, 1991) as pertaining to the change itself, to the setting where implementation is to occur, and to the wider context. The first heading would include the clarity of the change and the degree of difficulty involved in implementation. Political direction for change is often either vague or contradictory because of the need to reconcile divergent interest. Further complexity and lack of clarity occur because education does not have a generally accepted core technology, or way of doing things, but depends greatly on the values and approaches of individual teachers or administrators. Thus almost all policy is subject to extensive interpretation.
The second category includes the degree of understanding of the proposed change, the level of commitment to it by relevant actors, and the various resources allocated to support change. Commitment to change is shaped not only by the skills of those involved, but also by their attitude to a given reform. Attitudes in turn are shaped by educators' views of the practicality of a proposal, and also by its fit with the existing culture of schools. These two elements also reinforce each other, such that culture shapes attitudes to practicality and practicalities of teaching also shape school culture.

The third category includes the other pressures either supporting or inhibiting implementation, such as competing demands and community support or opposition. Not only are education reforms themselves often multi-faceted and sometimes inconsistent, but they take place in a context which is itself changing. Too many reforms happening too quickly may lead to increasing cynicism and resistance in schools. The availability or lack of resources also affects the willingness of schools to adopt particular reforms.

The concept of "policy levers" or "policy instruments" (Howlett, 1991; McDonnell & Elmore, 1987) is an important part of this analysis. Governments have a number of means they might use to promote implementation. The most important of these levers are mandates (such as legislation or regulation), inducements (money, recognition), capacity building (training, professional development, research), system changing (reorganization, governance changes), and opinion mobilization (exhortation, public pressure). However in few cases do governments appear to develop comprehensive strategies to support implementation of their policies.

Implementation cannot be taken for granted. Many reforms end up leaving few lasting marks on the system they were designed to change. Consideration of the ways in which implementation is structured and supported is thus an important part of the overall analysis of reform.

Outcomes

Reform programs are always justified on the basis of the outcomes they will yield. Most reforms, however, are justified on the basis of a number of outcomes, and these are sometimes quite different from one another. Vigorous debate already exists around the outcomes of such changes as more student assessment or increased parental choice of schools. As is always the case in education, the discussion is made more difficult because the purposes of schools are multiple, sometimes mutually contradictory, and often very difficult to assess. Moreover, reforms may yield outcomes quite different from or in addition to those intended by advocates or feared by opponents.

A framework for considering outcomes needs to include impacts on students, impacts on schools, and impacts on the broader society. The most frequently cited reasons for education reform have to do with impact on students, with the most common outcome measure being some form of assessment of students' skill or knowledge in the
various curriculum areas. However a variety of outcome measures beyond academic achievement have also been used to assess the impact of education policies. These include graduation rates, attendance rates, numbers of disciplinary problems, or rates of referral to special education.

Students' assessments of the quality and value of their schools experience are an important, if seldom evaluated outcome indicator, if only because they say something about motivation, which is absolutely critical to all other outcomes. Life-chance indicators are also very important, since the most important purposes of schools often have to do with what happens to students after they leave the institution. These could include such outcomes as post-secondary education rates, employment outcomes, interest in lifelong learning, income, and citizenship indicators (such as propensity to volunteer, voting behavior, or criminality).

A surprisingly large proportion of the research on reform focuses on the impacts on schools rather than students. One of the most frequently assessed aspects of reform is its impact on teachers' work and their attitudes towards their work. Outcomes related to work might include hours, time in and out of the classroom, attention to individual students, professional development activities, skill levels or teaching practices. Indicators in regard to attitude include teachers' sense of effort, satisfaction and stress, among others. Reform is also held to have had different effects on administrators than on teachers, partly because governance changes have altered the work of administrators in important ways. However the relevant measures for administrators are generally similar to those used for teachers.

Greater involvement of parents has been a goal of most reform programs. Parents' active role in school governance and in their children's education as well as their sense of satisfaction with the school and their part in it have been measured.

Some reforms are intended to affect school programs. Curriculum changes or graduation requirements are obvious examples. School choice is also often argued on the basis that it will lead schools to diversify and improve programs. Many reform programs have not given very much attention directly to teaching and learning practices per se, with the possible exception of efforts to extend the use of educational technologies. However improved teaching and learning practices are clearly central to the achievement of all school outcomes and so should be a key part of assessing any reform. Although changes in school organization such as devolution of authority, are usually argued as means to achieve other more important ends, they could also be considered as outcomes in themselves.

The larger social impact of reform has also been an important subject of debate. Economic, equity and social cohesion outcomes are all potentially important. Insofar as reform has frequently been justified on economic grounds—that is, on the contribution of schooling to national economic success—societal economic outcomes would be important indicators of the success of reforms. Such outcomes could include labor force participation rates, employment
rates, earnings, and productivity growth, not only for students but more generally.

Many critics and some proponents of reform have been concerned about the potential of reform to increase inequity in society. An important outcome measure is thus the extent to which reforms act either to reduce or to increase the gaps in outcomes in society that are due to socioeconomic status, ethnicity, gender, or other demographic factors. A related issue is the degree to which reforms serve to build or reduce an overall sense of community among people. Efforts to assess social cohesion have included measures of ethnic segregation, citizen participation, or of attitudes such as tolerance.

Many of these outcomes are clearly very difficult to assess. The assessment is made more difficult because policies are not the only factors that produce outcomes—indeed, the evidence in education is that the most important shapers of many outcomes lie outside the school system. Reforms themselves may have a variety of unintended consequences, and because many reform programs are multifaceted, interactive effects are common such that developments in one area have strong effects on other elements.

All of this suggests that analysts need to pay careful attention to their choice of outcomes and need to justify these in relation to the particular reforms under study.

Conclusion

The elements of reform sketched here are, as mentioned earlier, highly interactive rather than discrete. Considerations of implementation and outcomes may shape original intentions, just as perceptions of outcomes may modify policies and their implementation. Each of the four elements is important to understanding reform, but complex in its own right.

Doing such analysis on a comparative basis is even more difficult. The study of education reform is complicated even in a single setting, so trying to make comparisons across settings is fraught with additional difficulties. One inevitably risks drawing comparisons without full knowledge of local circumstances, and seeing as similar what would, with closer analysis, look quite different. In these conditions researchers need to be especially careful to be clear about their presuppositions and the frameworks within which they are assembling data and deriving findings. My hope is that this paper will contribute to that process.

Acknowledgments

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http://epaa.asu.edu/epaa/v9n14.html  60  6/13/01
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61

6/13/01
Calculating the Benefits and Costs of For-Profit Public Education

Alex Molnar
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Abstract
As a policy initiative, for-profit operation of public schools has not lived up to the claims of its proponents. An examination of issues such as teaching methods, academic achievement, autonomy, local control, and the image and influence of for-profit public schools suggests that "for-profits" are unlikely to succeed in the long term in improving the overall quality of public education. They do, however, seem capable of harming public schools.

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Often referred to as Education management organizations (EMOs) for-profit firms have promised that their schools would be laboratories for educational innovation, offer alternatives to rigid public school bureaucracies, and produce gains in student achievement far outpacing those of regular public schools. The evidence suggests that they have not delivered on their promises, and logic suggests that they cannot do so.

**Introduction**

The last decade has given birth to a new industry that seeks to turn the publicly funded task of educating the nation's children into a source of private wealth. Education management organizations (EMOs) and their supporters argue that, driven by the incentive of a potential profit, EMOs can use public dollars to provide children with a better education than they receive in conventional public schools at no greater cost to the taxpayer. They have promised to be laboratories for educational innovation, to offer nimble and flexible alternatives to rigid public school bureaucracies, and, freed from many of the so-called constraints presented by those bureaucracies, to produce gains in student achievement far outpacing those of regular public schools. And they have promised they can do all those things and still make money for investors.

The evidence suggests that they have not delivered, and logic suggests that they cannot do so. As a group, for-profit EMOs have not been true laboratories of educational innovation. They have not produced promised gains in academic achievement. With a few exceptions, they have not even managed to return a profit.

As operators of charter schools for-profit EMOs have turned a core selling point for the charter school reform on its head. Where promoters of charters envisioned grass-roots, flexible alternatives to top-down schools ruled by distant, rigid, public school bureaucrats, the typical EMO-run charters appear instead to have substituted a private bureaucracy with all the characteristics of a public one, except for public accountability.

The for-profit EMOs have at times shown a willingness to bend facts over matters ranging from the seemingly innocuous, such as how many schools they operate, to core issues, such as student test scores. And despite important questions about their efficacy, they have managed to win political friends and influence, at times writing the very laws that grant EMOs access to millions of dollars of taxpayers' money. Where they have operated, they frequently have tended to focus on serving those students whose education costs less while leaving to the existing public schools the cost of teaching those students whose backgrounds, family situations and living conditions demand the most resources.

They have done all these things while managing to persuade politicians, editorialists, civic leaders and some members of the public precisely the opposite: that they are innovative, creative and bold institutions that have succeeded in significantly advancing
achievement for the students they serve.

The weight of evidence to date strongly suggests that for-profit companies cannot fulfill the important public task of educating children to serve as free and responsible citizens in a democratic society and as participants in a complex and changing economy, certainly not for less than we are already spending. EMOs cannot help but add to the expense of properly educating our nation's children, for two reasons. First, at some point, they will need to provide a return on shareholders' investment, money that would otherwise be available to enhance the educational system. Second, they will inevitably require an additional layer of oversight to ensure that public dollars are not improperly diverted to private gain. By their very nature, EMOs would seem to result in a more expensive—and no more effective—alternative to conventional public schools with which they say they seek to compete.

Size and Scope of the Industry

For-profit management of public schools takes two general forms: the management of explicitly public schools by for-profit entities under contract to local school districts, and the operation of public charter schools by for-profit companies, either holding the charter directly or under contract to outside organizations holding those charters. While there are examples of for-profit firms contracting to manage regular public schools, it is the rise of charter schools and the opportunities they have provided for-profit companies to market their services as charter-school managers that largely appear to be driving the industry's growth.

The exact size of the for-profit, charter-school management industry is not definitively known. The Center for Education Research, Analysis, and Innovation (CERAI) has identified a total of 21 major companies managing 285 schools across the nation. Of those 285 schools, 213 are identified as charter schools operated under contracts with public school districts (Molnar, Morales, Vander Wyst, 2000). Silber, senior vice president and research analyst for Gerard Klauer Mattison in New York, estimates that for-profit companies manage 15% to 20% of the nation's charter schools (personal communication, February 1, 2001). Silber tracks the activities of Edison Schools and other publicly held education companies, and also watches firms that are considered likely candidates to go public. The pro-charter Center for Education Reform has counted 2,073 charter schools enrolling 518,609 students nationwide (Center for Education Reform, 2000); based on Silber's estimate, that would put the number of schools run by for-profit companies at between 300 and 400 nationwide. In one state, Michigan, with an extensive charter school program, for-profit companies operate or hold contracts with 72% of charter schools, evaluators of that state's program report (Horn & Miron, 2000) The evaluators estimate that the for-profit schools account for 80% of charter school enrollment in the state. The same study, and various news reports, also estimates that 10% of charter schools nationwide
have contracts with for-profit school management companies. The precise source of these data points, however, is not clear.

In a widely circulated 1999 forecast, Merrill Lynch predicted that for-profit companies may control as much as 10% of public funds used for Kindergarten through 12th-grade education within 10 to 15 years (Moe, 1999). Silber considers that a "very aggressive" forecast, and acknowledges many obstacles to achieving it. His own forecast might be considered equally aggressive: Silber predicts that by 2005, 4% of public school children in Kindergarten through Grade 12 will be enrolled in schools with for-profit management (personal communication, February 1, 2001). The foundation for these forecasts is unclear, however, and their reliability is questionable for reasons to be explained below.

Whether the industry can make money over the long term is also still not clear. In Minnesota, which 10 years ago became the first state to authorize charter schools, more than one in five charter schools are running "significant deficits" (Drew & Lonetree, 2001). At the same time, costs continue to rise for oversight of charter schools in the state, even as demands for oversight have risen (Drew & Lonetree, 2001). Among for-profit companies operating charters, Edison Schools Inc., the largest player, continues to lose money, although its losses have decreased; Edison lost $36 million on revenues of $224 million in FY 2000, after losing $49 million on revenues of $132 million in FY 1999, as was stated in a corporate press release on August 23, 2000. The company isn't expected to turn a profit until 2005, according to research analyst Silber (personal communication, February 1, 2001).

Advantage Schools, which considers going public as one of several options before it to raise additional money, also is not yet consistently profitable, although the privately held company reports that it made a small operating profit in its first quarter ending September 30, 2000, while posting an expected loss in the next quarter. Advantage's chief executive officer Wilson says the company expects to post a loss for the full fiscal year 2001, ending June 30, but expects to be profitable in FY 2002 (personal communication, February 7, 2001).

In CERAI's own survey of for-profit education management companies, which is not limited to charter school operators, five of the 21 were identified as profitable (Molnar, et al., 2000). For four of those five, however, the CERAI survey relied on the privately held companies' own assertions of profitability, without being able to independently verify those claims. Moreover, four of the five—Helicon, Nobel, SABIS and White Hat—are either smaller companies or are companies for which EMO business is only a small part of their overall operations. Smaller EMO companies, or those focused on one geographic region, might be expected to have an easier time achieving profitability than would companies, such as Edison Schools or Advantage Schools, whose business plans call for an aggressive, nationwide expansion policy. Companies for whom EMO business represents only a small part of an overall revenue stream might choose to subsidize a money-losing EMO segment for a long time for other
business reasons, and therefore cannot be considered reliable indicators of the industry's profit potential. Additionally, only two of the 21 companies—money-losing Edison and money-making Nobel—are publicly traded; the rest are privately held and their financial data are not publicly disclosed and therefore not verifiable.

The EMO industry's ability to inspire continued bullishness by analysts, regardless of continued losses, was evident during a teleconference conducted February 7, 2001, by Edison Schools Inc. with Wall Street analysts, who found shrinking losses and higher-than-expected revenues to be sufficient cause to praise the company. Silber, interviewed before the Edison teleconference, generally shares the enthusiasm of other observers. With the inauguration of George W. Bush as President, and the evidence that Bush already is retreating from pressing for a widespread voucher program of any kind, Silber believes charter schools will continue to grow, offering investment opportunities for for-profit management companies. Less certain, he acknowledges, is whether they will make money in the long run, calling that "the sixty-four-thousand-dollar question." So far, he says, where charter school operators have claimed to be profitable, they appear to be located in districts that already spend on education more per pupil than average (J. Silber, personal communication, February 1, 2001).

Finally, while charter school companies routinely emphasize that they are working with the same funds per student available to their conventional public school counterparts, such claims omit the fact that most are additionally subsidized with millions of dollars in start-up costs, such as the $1.8 million grant that Edison used to pay for the computers it provided to children in its San Francisco charter school ("The Edison Question", 2001), and the $25 million that Gap stores founder Donald Fisher promised to encourage Edison to enter the California market (Byron, 1999). The irony of a business relying on such gifts has not gone unnoticed, however. "What exactly is this business that is attempting to sell stock on Wall Street while simultaneously holding itself out to be the moral equivalent of a public charity?" asked Byron, writing for the on-line financial publication TheStreet.com (Byron, 1999, para. 25).

A recent report by the Dallas Public Schools on the Dallas-Edison Partnership Schools reported a "pervasive view within the District that the Edison Agreement has very subtle points that directly or indirectly shift the burden of inefficiency on the District and that the agreement should never have been approved" (Dallas Public Schools, 2001, p. 43). The financial impact of the Edison agreement on the rest of the schools could be substantial. From the District's perspective, Edison costs approximately $12 million extra for the seven schools it runs (p. 43).

The absence of profits so far has not discouraged investors, who managed to double Edison's stock price in 2000 despite the company's losses. In Silber's analysis, "There's definitely an appetite from an investment perspective" (personal communication, February 1, 2001). However, recent large sales of stock by company insiders—Chris

http://epaa.asu.edu/epaa/v9n15.html
Whittle, 650,000 shares worth nearly $16 million, March, 2001 (Wyatt, 2001); Paul Allen, 250,000 shares worth $7.5 million in December 2000 ("Vulcan Ventures to Sell", 2000); Thomas McLarty, 1,047 shares worth $29,970, October 2000 (Reuters, Nov. 2, 2000); various shareholders, 2.6 million shares in a follow-on offering, August, 2000 (Corporate Press Release, PR Newswire, Aug. 3, 2000)—raise the question of whether some close to the company are losing enthusiasm about Edison's long-term prospects.

Teaching Methods

A central justification for charter schools is that they will foster innovation in curricula and teaching methods. Some innovations claimed by charter school operators, however, are in fact available to, and used by, other schools. Other innovations offer questionable results, at least as they are practiced. For example, a number of charter schools—such as in New York City—offer Direct Instruction (DI) programs. To be sure, Direct Instruction has demonstrated its ability to raise, for instance, reading test scores (Winerip, 1998; personal communication, February 14, 2001).

The use of DI in local schools enforced by a distant, centralized corporation has also at times alienated families of charter schools—to create schools that are freed from the heavy hand of public school bureaucrats. It is also clear that charter schools, whether operated by for-profit or non-profit organizations, shall own all copyright and other proprietary rights to all instructional materials, training materials, and software. Such a sweeping assertion of rights would appear to eliminate any possibility that Edison's charter schools will train students who are not "good enough" to be admitted to public schools.

Educational Results

The yardstick by which public schools are measured today is almost always test scores, and EMO companies have emphasized test scores as evidence of their success. On March 28, 2001, Advantage Schools posted a news release indicating its students had gained 9.1 percentile points on average in test scores across the 1999-2000 school year for its entire national system of schools (Advantage Schools, 2001). Such self-interested claims have been routinely and uncritically reported.

Independent studies, however, have not tended to confirm such reports. Among the most extensive studies of charter schools is one conducted in Michigan by the Evaluation Center at Western Michigan University. The study, by Horn and Miron, looked at the performance of state achievement tests by students from charter schools and non-charter schools, and compared the performance of charter schools operated by EMOs and those not run by EMOs. Overall, charter schools showed no net increase in their students' pass rates—the percentage of students in a school who passed those tests—from the 1995-96 school year to the 1999-2000 school year, while public school districts where those charters were based saw their pass rates rise from 49.4% in 1995-96 to 68% in 1999-2000 (Horn & Miron, 2000, p. iv.). EMO charter schools and non-EMO charter schools had
similar pass rates over the four-year period, Horn and Miron found. Edison considered questions about its data serious enough to hire the RAND Corp. to provide an independent analysis of its scores. "There have been accusations that they were cherry-picking better-performing schools to include in their analysis," Silber says (personal communication, February 1, 2000). In San Francisco, where a new school board philosophically opposed to privatizing public schools has threatened to cancel Edison's contract to operate a charter elementary school, the fact that 35% of the school's fifth-graders scored at national averages on reading tests in the spring of 2000—up from 24% the year before—has been widely publicized as evidence of the school's success. But more complex, and more ambiguous, findings at the very same school have been less widely publicized. In the spring of 2000, under Edison, 28.5% of the school's fifth graders scored in the top two quartiles on reading tests. The previous year, before Edison took over, the figure was 17.7%, making the operation's results seem particularly impressive. Yet in the year before that, the number scoring in the top two quartiles was 29.2%—higher than what Edison has to date accomplished (Woodward, 2001). Moreover, demographic data for the school showed that the post-Edison improvement occurred as the school's population was shifting, with a decline in the number of students qualifying for free or reduced-price lunches—a standard indicator of poverty—and a decline in the number students with limited English proficiency, both factors that may explain by themselves an increase in test scores (Roth, 2000). An investigation of the San Francisco school by the city's superintendent of schools produced a number of allegations against the company, including questionable financial procedures (Ackerman, 2001). The same investigation also raised questions about whether Edison discriminated against African-American students and those requiring special education in composing the school's student body. Ackerman also reports that test-score gains at the Edison school were matched by gains at other district schools that were not in the charter program, and cited evidence suggesting that the school's gains were an artifact of demographic changes including an increase in the number of students from higher-income and English-speaking families and a decrease in the number from lower income, non English speaking families.

Parents in New York City also apparently have doubts about Edison's potential for success. Parents of children at all five of the schools eligible for conversion to Edison run schools appeared to reject the opportunity to have Edison run these schools—a majority of them did not even vote. Those parents who did participate in the vote that ended on March 30, 2001, in effect, voted against the conversion (Wyatt, April 1, 2001; Wyatt & Goodnough, 2001). The New York parents had cause for concern. For example, while Edison was lobbying to run schools in New York City, trouble was brewing in the Edison-run Inkster, Mich., schools. Despite hiring Edison, the Inkster schools failed to meet state academic standards. As controversy erupted between school board and representatives of Edison schools, Arthur Ellis, Michigan's state schools superintendent, indicated the
state will step in if Edison Schools requests help ("Inkster Schools," 2001).

A San Francisco group opposed to Edison's operation of the school has found further discrepancies between what the company claims it has accomplished and what other institutions report. In recent press releases dated February 12, 14, and 19 of 2001, the organization, Parents Advocating School Accountability (formerly San Francisco Parents for Charter School Accountability), reported that:

- While Edison claims on its web site that at its San Francisco school, 79% of students qualified for free or reduced-price lunches in the 1999-2000 school year, the San Francisco Unified School District data for the same school put the number much lower, at 58.2%. The lower figure would suggest a lower proportion of students living in poverty, a well-known risk factor for lower educational achievement.
- Edison's claims that in the 1999-2000 year 95% of the school's students in grades 2 through 5 took the California STAR test, the statewide test used to measure student achievement, were contradicted by data that showed only 247 of 322 students in those grades were tested, or 73.5%. Similarly, in the 1998-'99 school year, Edison reported that 86% of students in grades 2 through 5 were included in STAR testing, but the real figure was 210 of 284 students, or 72.5%. Deliberately excluding students who might be thought to score lower on tests can inflate a school's test scores overall.
- Edison has benefited from the release of a wildly erroneous statistic that, prior to its takeover, just 2% of the school's 5th graders scored at or above the national average in reading. (The correct figure is 35%.) The company has denied being the source of the datum, which nonetheless found its way into editorial columns in The Wall Street Journal and The Economist criticizing plans by the newly elected majority on the San Francisco Unified School Board to revoke the school's charter.

Finally, a recent examination of test scores for 10 Edison schools that were opened in 1995 or '96 sharply contradicted the company's own assertions about its schools' performance. The paper, published by The Evaluation Center at Western Michigan University, found that:

- On norm-referenced tests, the Edison students' achievement gains were consistent with grade level advancement, but did not consistently exceed grade level expectations, contrary to Edison claims (Miron & Applegate, 2000, p. xxii.).
- criterion-referenced tests, students often lagged behind district performance and almost always behind state performance, with Edison students in nearly half of the examined trends making smaller gains than comparison groups. In another 40% of trends, Edison students' gains were similar to those of local districts and
other comparison groups, while in only 10% did they make
gains larger than those of comparison groups (p. xxiii.).

The results, the authors say, suggest "that the expectations of
district and charter school boards that contract with Edison as well as
the expectations of parents who enroll their children in an Edison
school are not being met" (p. xxiv.).

Edison Schools is not the only for-profit firm being challenged
by school boards. Trustees of Mosaica Academy Charter School in
Bensalem, Pa., voted April 18, 2001, to end their contract with
Mosaica Education, Inc. They explained their action: "As a public
agency entrusted with the responsibility of spending public funds
wisely, we did not think we were receiving any value from our
relationship with [Mosaica Education]." trustees President Kathleen
Harr said. (Yanoshek, 2001 [b]) In a twenty-eight page report issued
in April, the school board reported concerns about a curriculum that
included inappropriate lessons for some grade levels, inadequate
computer systems, and mishandled payments to vendors (Yanoshek,
2001 [a]). School officials stressed that the school would not close if
it separates itself from Mosaica Education.

**Autonomy and Local Control**

The for-profit EMO industry is still early in its development, but
already some companies are losing contracts even as they gain new
ones. Advantage has lost four contracts: in Malden, Mass., Albany,
N.Y., Chicago, and one of its first, the Rocky Mount, N.C. charter
school that Advantage salespeople had used as a showcase when
selling their services to parents in Jersey City (Winerip, 1998). The
loss of the New Covenant School contract in Albany was due to many
things, says New York State Assemblyman Steve Sanders, who chairs
the assembly's education committee, among them the rush by local
founders to start the school and the lax oversight of the State
University of New York Board of Trustees and the state Board of
Regents. But Advantage was remiss in not urging its local partners to
slow down and take their time, Sanders says. "They should have made
an indication that this just wasn't ready" (personal communication,
January 26, 2001).

The circumstances surrounding the termination of the Rocky
Mount contract were the subject of a sealed, out-of-court agreement
between the company and the school's founders that binds both parties
to secrecy (R. Mauldin, personal communication, February 7, 2001).
The existence of such an agreement at all involving an entity that is
spending public funds contradicts the very notion of open and
accountable operation that is at the heart of good government, and is
further evidence that the charter and for-profit alternatives to public
schools are being held to a lower standard of accountability than the
public institutions for which they purport to be setting an example.

While bound by the agreement not to discuss details, it is clear
from their general discussions the two parties have rather different
views of why the contract was terminated—views that cannot be evaluated for accuracy or completeness without access to the sealed record. Advantage CEO Steve Wilson blames the loss of the contract on a dispute over rebuilding the school in the aftermath of Hurricane Floyd, which flooded out the school building (personal communication, February 7, 2001). Mauldin, chairman of the school's board, suggests the issues were larger, however: "Our basic difference with Advantage was that when we entered into an agreement with them to be our manager, we looked at them more as advisors, [while] they looked at us as just being an operator of one of their schools." The school has continued to operate with largely the same personnel under the direct supervision of its board (R. Mauldin, personal communication, February 7, 2001).

In Michigan, Horn and Miron note, the tendency of national EMOs to assert authority over local charter schools violates the very reasons for establishing charter schools in the first place:

Although charter schools are intended to have their own boards with decisions made locally, the growing involvement of EMOs has had an impact on the local control. Edison advertises itself as the first national school system. National Heritage Academies, Beacon Education Management, Advantage, and others are also establishing national networks/systems of charter schools. This movement results in local governance being replaced by decisions made halfway across the country. This is clearly not what was intended when charter schools were legislated in Michigan or in other states. (Horn & Miron, 2000, p. 48)

In their influential book Politics, Markets, and America's Schools, Chubb and Moe (1990) speculated that because private schools have more autonomy than public schools they are more likely to have higher student achievement. Glass, however, challenged this speculation. In a study comparing the autonomy of public and independent college preparatory schools Glass found that:

The feelings expressed by both public and private school participants in this study testify to equally high degrees of autonomy. Issues that emerged from data analysis in this study which mitigate and shape autonomy include the following: conflicting and contradictory demands, shared beliefs, layers of protection, a system of laws, funding constraints and matters of size of the institution. These issues challenge oversimplified assertions that differences of any importance exist between the autonomy experienced by professionals in public and private high schools. (Glass, 1997, para. 2)
With such a spotty history, both for investors and for the communities whose children they proposed to educate, why have EMOs managed to grow so swiftly, attracting both investment dollars and new contracts to operate schools?

One reason may be the success that industry participants have had in exaggerating their own accomplishments. Such exaggeration has already been shown in the preceding discussion of test scores. It is also reflected in other ways, particularly in their efforts to draw more capital from prospective investors. Edison Schools, for instance, has been criticized by the financial press for inflating the reported number of schools it manages and for the way in which it has calculated the profitability of individual schools (Greenberg, 2000). Edison isn't alone. In reporting Advantage's quarterly profit for the first quarter of FY 2001, Wilson at first indicated that such was "a first for the education management organization industry." When it was pointed out to him that five other such companies have been reported, either by themselves or by outside observers, to be profitable, he acknowledged that he had misspoken (S. Wilson, personal communication, February 7, 2001).

The industry has a financial stake in perpetuating an image of success if it is to continue to win additional contracts. For that reason, unverified claims of the EMOs' financial gains and prospects should be regarded with great skepticism. Unfortunately, outside observers to whom the public and investors might turn for an unbiased assessment of the industry also stand to gain or lose from public impressions. For example, Merrill Lynch—the firm that predicted for-profits will within the next 15 years manage 10% or more of the funds to educate public school students—has managed offerings of Edison's stock ("Edison Schools Announces", 2000), a fact that demands that the claims of Merrill Lynch analysts about the industry's future be closely questioned. Any analyst whose company has a stake in advancing the inevitability of a commercial trend appears to have an unavoidable conflict of interest, and for-profit EMOs are no exception. The fallout from the dot-com stock crash is instructive. As The New York Times recently observed, some securities analysts have appeared to be little more than cheerleaders for the companies whom their investment-banking colleagues were financing: "The fact is, although brokerage firm stock gurus are still called analysts, their day-to-day pursuits involve much less analysis and much more salesmanship than ever before" (Morgenson, 2000).

In addition to their success at burnishing their image for investors and for the casual reader of test scores, EMOs have repeatedly demonstrated their ability to write the rules under which they operate and get access to the public purse. They have done so, moreover, while enjoying a relative lack of scrutiny for their actions.

EMOs have benefited from close relationships with government. Before founding Advantage Schools in 1996 to operate charter schools in Massachusetts and other states, Wilson helped write the Massachusetts charter school law as an aide to former Gov. William
Weld (Wilson, personal curriculum vitae). In Milwaukee, the administration of Mayor John Norquist—an outspoken proponent of vouchers and charters—threw its political weight behind a $12.1 million tax-exempt bond issue for the Edison-run Milwaukee Academy of Science, despite the school's short tenure (five months) and high turnover in staff and students: the school has had three principals in its short history as well as losing a third of its teaching staff and hundreds of students ("Panel Backs Bonds", 2001). The bond issue required only the approval of city agencies controlled by the mayor; by contrast, public school districts seeking similar financing are required under Wisconsin law to seek the approval of district voters in a referendum.

A central tenet of democratic institutions is that they be held accountable to those whom they serve and those who pay the bill. In the case of publicly funded schools, accountability should not stop with the parents whose children attend them, but ultimately rests with all taxpayers who contribute financially to their operation and have a stake in their success. In particular, opportunities to profit privately from the public sector demand strict scrutiny, as the administration of President George H. W. Bush learned nearly a decade ago. As the administration prepared to leave office in December 1992, The New York Times, recounting a study for the Office of Management and Budget, reported that "after years of effort to transfer Government work to private companies, the White House acknowledged...that contractors were squandering vast sums" (Schneider, 1992). A year later, evidence emerged that for-profit trade schools were enriching themselves on federal grant money that they were to have used to educate their students (Winerip, 1994).

The literature on charter schools run by for-profit EMOs offers plenty of evidence that they lack accountability, however. We have already noted the secrecy with which a contract was terminated in the case of at least one charter school. There are other signs as well.

The review of California charter schools—both for-profit and non-profit—discussed earlier found that the state had not lived up to its goal of clear accountability for charter school outcomes. "We see little evidence that the student outcome side of the accountability equation is playing out the way proponents have claimed," the authors of that report wrote. (Wells, 1998)

In Ohio, the founder and CEO of Akron-based White Hat Management, David Brennan, contributed $1 million to Republican legislators and other office holders and has seen White Hat benefit repeatedly from exceptions in the laws and policies governing charter schools in that state, according to the Akron Beacon Journal (Oplinger & Willard, 1999). Yet White Hat's method of operation has landed the for-profit company in trouble with the US Internal Revenue Service. The IRS denied tax-exempt status to purportedly non-profit schools managed by White Hat on the grounds that the company's contracts with the schools "appeared to benefit White Hat to the detriment of the nonprofit school," the Beacon Journal reported (Oplinger & Willard, 2000).
In Michigan, Horn and Miron found "a number of questionable practices in the financial management of some of the schools or groups of schools" (Horn & Miron, 2000, p. 49) operated by EMOs, including:

- Sale or resale of land to the school, or leasing property to the school at above market rates
- Using operational costs to pay for private facilities/property
- Fees for school founders/leaders for special services (legal, consulting, etc.)
- Self-employment and employment of family and friends (nepotism)
- Making purchases for the private company through the school board to take advantage of tax-exempt status (p. 49).

In Massachusetts, the state Inspector General reviewed a contract between the Somerville Charter School's board of trustees and SABIS Inc. and concluded that the board had given SABIS too much control, in the process limiting the board's own ability to control the public funds for which it was responsible and limiting as well its ability to oversee SABIS's performance (Danseyar, 2001). The inspector general's report recommended that the trustees hire their own staff to oversee the school's business operations, including the contract with SABIS, and recommended as well either not renewing the contract when it expires in 2001, or putting it up for competitive bid, and in the process giving the board greater control over school resources and operations (Danseyar, 2001).

Some state authorities may be exercising a bit more skepticism about the promises that for-profits are making when charter schools are proposed. For example, in Worcester, Mass., the Massachusetts Department of Education denied a charter to a school that would have been run by Beacon Education Management. The denial came after it was pointed out that the community's regular public schools already offered the programs that exceeded what was promised for the charter, and that Beacon's fees amounted to 12% of the school's revenues and were, under terms of the proposal, slated to double over a two year period, reaching $377,303 in 2004 (McFarlane, 2001).

These and other examples only reinforce the sensible conclusion that prudence demands that if we turn over some portion of the publicly funded education system to private profit, we must have strict and thorough oversight. Yet to provide such oversight will require an expensive and potentially unwieldy new bureaucracy. This was pointed out by Levin, writing about a system of publicly funded school vouchers:

If schools are to be accredited for vouchers on the basis of meeting the requirements for producing public benefits, a monitoring agency will be required. Even in the absence of these provisions, the cost of record-keeping will rise as a central agency must keep track of student attendance,
voucher eligibility, and redemption of vouchers on a statewide basis. ... In summary, educational vouchers would promote higher efficiency at the school site, but the costs of infrastructure to support such a system would be considerably higher than that of the present system. (Levin, 2000, p. 19-20)

Indeed, some dissatisfied school districts have already reported that for-profit managers may cost money, rather than saving money as promised. When the Sherman, Texas school district officials decided not to renew Edison's contract to run Washington Elementary School there in June 2000, they cited $4 million in "hidden costs" arising from the company's operation of Washington and another Sherman school. The district's assistant superintendent for administration and instruction said those costs included two layers of administration—Edison's plus the district's—as well as expenses for which the company allegedly failed to reimburse the district, including education services for handicapped students (Fox, 2000, p.1).

Finally, however, there are critical internal contradictions in the premise of a for-profit company purporting to be able to operate a public school and do so more efficiently than a not-for-profit entity: simply put, the corporation must be able to extract enough money from the system to provide shareholders with a return on their investment.

A for-profit education management organization that did succeed in operating long enough to demonstrate true success for students in terms that might be universally agreed upon could not survive in the long term. Public schools who observe its operation and its techniques would be expected to replicate them and deliver them without having to pay shareholders, thereby either saving taxpayers money or delivering an even more enriched education. Given those circumstances, logic dictates that for-profit education can only succeed if it has managed to put not-for-profit education out of business or else sufficiently hobbled it—for instance, by offloading onto the public sector the task of educating the most difficult and challenging of school populations—so that the non-profit schools cannot compete.

There's some indication that that is precisely what is going on. The relatively poor test scores of Michigan charter schools relative to public schools that Horn and Miron found would appear to suggest that, contrary to the fears of some, the charters are not siphoning off higher-achieving students. The Michigan study did suggest, however, various ways in which for-profit companies target their enrollment efforts at students who are less costly to teach. "While the students are clearly from the public domain, the selection processes and the mechanisms in place to structure learning communities can often resemble practices in private schools," Horn and Miron write, pointing to a drop in the proportion of minorities enrolled in charters as well as indications that charters are gravitating to the suburbs (Horn & Miron, 2000, p. 48). The researchers also found that a number of the charters' students—typically those requiring special education services—end up
returning to their home districts. Yet when that happens, the charters come out ahead, because the money that followed those students to the charters stays with the charters rather than returning to the home districts with the students (Horn & Miron, 2000). They add:

Many of the more efficient EMOS seem to be keenly aware of the characteristics of the students, parents, staff, and board members they wish to involve/include in the school. The ability level of students and their readiness to learn will affect both overall costs as well as overall performance of the school on standardized tests. The level of involvement of the students' parents and the resources these parents can bring to the school are also important and can affect the school's resources negatively or positively. (p.48)

In his 1998 New York Times report, Winerip put it a different way. After observing several elementary schools in Jersey City, where charter schools were enrolling parents eager to improve their children's schooling, he concluded: "The poorest, most troubled parents aren't running around looking for charters. The mother of the boy in [an inner-city, public school third-grade classroom] who hasn't answered 17 notes home isn't shopping for charter schools. [Another family who was] being evicted from the projects isn't shopping for charters. That is precisely one of the attractions of charters for motivated parents" (Winerip, 1998). For-profit companies, in short, appear to be doing what they can to avoid serving the children of the families he describes—the most costly to educate because of the severe challenges they face in their home lives.

Cobb and Glass provide additional evidence of biased selection processes in charter schools. In their 1999 study of the ethnic composition of charter schools in Arizona, they found that, "Although Arizona's charter schools are required to admit all students for whom they have room, there is some degree of selectivity" (Cobb & Glass, 1999). The selectivity was expressed in such practices as requiring charter-initiated parent contracts and the need for parents to provide transportation. As a result of such practices, nearly half of the charter schools studied exhibited evidence of substantial ethnic separation. Enrollment in these schools reflected a greater proportion of white students compared with the nearby traditional public schools (Cobb & Glass, 1999).

As an education policy initiative, the for-profit operation of public schools is an idea that has not proven itself to be economically viable or academically important. Indeed, the inherent characteristics of the enterprise and the track record so far strongly suggest that for-profit management companies are unlikely to ever succeed in improving the overall quality of public education. The for-profits do, however, seem quite capable of harming existing public schools.
References


Guthrie, J. (2001, January 5). S.F. School Board may move to yank Edison's charter: Test scores have soared but majority of teachers left last year. *San Francisco Chronicle*.


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Alex Molnar is a Professor of Education in the University of Wisconsin-Milwaukee School of Education, in the Department of Curriculum and Instruction. He has a B.A. in history, political science, and education, two Masters degrees, one in history and one in social welfare, a Specialist's Certificate in educational administration, and a Ph.D. in urban education. Molnar, currently the director of the Center for Education Research, Analysis, and Innovation (CERA1) (http://www.educationanalysis.org/) and the Center for the Analysis of Commercialism in Education (CACE) (http://www.uwm.edu/Dept/CACE/), has been a professor in the School of Education at UWM since 1972. Previously he taught social studies at a high school in the Chicago area. From 1993 to 1995, Professor Molnar served as chief of staff for the Wisconsin Department of Public Instruction's Urban Initiative, a project that resulted in the creation of Wisconsin's Student Achievement Guarantee in Education (SAGE) program. The statewide SAGE program is designed to increase the academic achievement of low-income children in grades K-3 by reducing class size, reforming the curriculum, providing professional development, and opening schools to morning and evening activities. Molnar is a member of the SAGE evaluation team.

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EPAA Editorial Board
Wealth Redistribution, Race 
and Southern Public Schools, 1880-1910

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Abstract
This article measures the wealth redistribution effected by southern public schools and the taxes which supported them. It extends and contributes to the existing literature on this subject in three ways. First, the measurement is based on a larger sample of southern states and over more years than previous efforts. Second, this article establishes that from 1880 to 1910 throughout the South the public schools were a conduit for a consistent and significant flow of resources from whites to blacks. Blacks did not
pay enough taxes to fully finance black public schools even at the lower levels dictated by white controlled school boards. Third, the establishment of segregated schools and the disenfranchisement of southern blacks did not eliminate this transfer but only moderately reduced it. The effect of Plessy v. Ferguson and the establishment of segregated schools was not as large as previously thought.

Introduction

Black educational achievement in the 50 years following emancipation was substantial. Black literacy increased from 10% in 1880 to 50% in 1910. (Note 2) Robert Higgs writes:

But even if the true literacy figure a half century after emancipation reached only 50 percent, the magnitude of the accomplishment is still striking, especially when one recalls the overwhelming obstacles blocking black educational efforts. For a large population to transform itself from virtually unlettered to more than half literate in 50 years ranks as an accomplishment seldom witnessed in human history. (Note 3)

Increasing black literacy becomes even more striking when placed in historical context. The 50 years following emancipation saw the establishment of an oppressive racial code in the South, the elimination of blacks from the political process, and the establishment and subsequent constitutional validation of a "separate but equal" black school system. (Note 4)

Measuring the contribution of the public schools and their supporting taxes is a historically relevant and interesting exercise for two reasons. First, any history of black achievement must include not only an account of black accomplishments, such as the rise in black literacy in the postbellum era, but a careful description of the environment in which these accomplishments occurred. Given the central importance of literacy and education to effective participation in the political process and the improvement (or lack of improvement) in absolute and relative black incomes, a careful description of the assistance (or lack of assistance) provided by government is crucial.

Second, assessing taxes to support the public schools and allocating funds between racial groups was effected if not determined by the perceived and actual movement of resources between racial groups. Although the constitution does not recognize separate classes of citizens who should be responsible for paying for their own schools, southern whites did think of the world as divided into two groups: black and white. Many southern whites did hold to the normative position that blacks taxes should pay for black schools and white taxes should be reserved for white schools. To thoroughly understand white resistance to publicly supported black schools, the forces driving segregation, and changing support levels for black education, an
understanding of the actual redistribution of wealth effected by the public schools and the taxes which supported them is paramount. (Note 5)

Although measuring the contribution of public schools and their supporting taxes is a historically interesting and relevant question, any assessment of the contribution of southern public schools to black educational achievement requires a careful distinction between two counterfactuals. First, did educational segregation retard black achievement, or stated more precisely, if the public schools had spent equal amounts on black and white children and the tax system supporting the public schools remained unchanged, would blacks have been better off? Obtaining a yes answer to these questions is trivial (being obvious from the question being asked) although a quantitative estimate of the exact decrease in black educational resources would be interesting as would an estimate of the effect of such a decrease on black educational achievement. (Note 6)

This first counterfactual has formed the basis for the condemnation of southern public schools. White dominated school boards used the doctrine of "separate but equal" to divert resources from black to white schools, thus increasing the quality of white education without being forced to impose higher taxes. This diversion along racial lines, combined with the generally lower level of educational expenditures in the South has led scholars such as Harlan, Myrdal, Key, Ransom and Sutch, Higgs, Margo, and Kousser to condemn the southern public school system and specifically the white dominated local school boards which allocated resources between black and white schools. (Note 7) To quote Robert Higgs, "ramshackle and poorly equipped school houses, incompetent teachers, and half taught pupils and in many districts not even this much -characterized the black's portion of the public schools." (Note 8)

This article does not address the normative question of the "just" level of support for black children, and, therefore, does not question this traditional criticism of the public schools. Instead a second counterfactual is answered, did the public schools, despite educational segregation, advance black educational achievement or stated more precisely, did the public schools and the taxes which supported them redistribute wealth from whites to blacks? Black would have been better off if school boards had allocated resources equally between black and white children but did blacks benefit overall from public schools despite educational segregation? In addition, the related question is addressed, how did the disenfranchisement of blacks, the constitutional validation of the doctrine of "separate but equal", and the establishment of segregated schools alter the redistribution of wealth effected by the public schools and their supporting taxes.

Speculating on the actual redistribution of wealth effected by the public schools has a long historical tradition. The most famous treatment is probably Du Bois who argued that black taxes paid for black schools. (Note 9) In recent years, Morgan Kousser and Jonathan Pritchett measured the wealth redistribution effected by public schools in North Carolina. (Note 10) This article improves on recent work by
drawing on a larger number of southern states and a greater number of
years. Expanding the cross section of states is important because North
Carolina, the basis for most previous calculations, is not very
representative of the South as a whole. (Note 11) In North Carolina,
Kousser found that whites subsidized blacks before 1910, but by 1910
the subsidy had been virtually eliminated.

Looking at a larger number of states, a different result emerges.
Southern public schools and their supporting taxes were a conduit for a
significant and continuous flow of resources from whites to blacks.
The flow would have been much larger if per child expenditures were
equalized but black schools received some funds in excess of the taxes
paid by blacks. Further, by 1910, when the system of segregated
schools had been firmly established, this flow had not been eliminated
but only reduced by about 1/3rd. The effect of black
disenfranchisement and segregation throughout the south was not to
eliminate the black subsidy but to only moderately reduce it. In other
words, the effect of disenfranchisement and segregation on black
education may not have been as severe as previously thought.

These estimates are the consequence of several factors. First and
foremost is the primary source of school funding-the property tax.
During the period, primarily due to their emancipation without
property, blacks owned significantly less property than whites. In
relative terms, blacks owned only 3.6% as much property as whites in
1880 and 7.4% as much property in 1910. (Note 12)

Using the 1880 census, Nancy Virts and I have recently shown
that income was much more evenly distributed than property. (Note
13) Southern per capita black income in 1880 was 53% of white
income. More importantly, because school spending was a local
decision, per capita black labor income in agricultural areas, where the
vast majority of blacks lived and went to school, was 79% percent of
white labor income. Adjusting for larger black families, black per
worker labor income was 90% of white labor income in agricultural
areas. It is obvious from these numbers that a property tax would tax
blacks very little relative to whites with equal incomes. In other words,
inherent to any property tax financed school system was a
redistribution from property owners to non-property owners-i.e. from
whites to blacks.

The second factor, almost as important, was the
disenfranchisement of blacks through the use of the poll tax. As black
literacy rates rose in the late nineteenth century, literacy tests as a
device to exclude black voters, became less effective. Gradually, the
poll tax replaced the literacy test as the primary barrier to black (and
also poor white) voter participation. The effectiveness of the poll tax is
evidenced by the steady decline in black voter participation from 63%
in 1880 to less than 10% in 1910. (Note 14)

However, unlike the literacy test the poll tax had an important
effect on public school financing. The poll tax while excluding blacks
from voting also excluded blacks from contributing to public school
financing. The dramatic fall in black voter participation and the
consequent fall in taxes collected from blacks transformed the poll tax
from a device facilitating a flow of funds from blacks to whites in 1880 to one which transferred funds from whites to blacks in 1910.

The third factor and the one which has drawn the most concentrated attention from scholars is the establishment of segregated schools. Once segregated schools were established, it was a simple matter for white dominated school boards to allocate more resources per child to white schools than black schools. (Note 15)

It is important to note that consideration of this third factor in isolation from the other two factors is a meaningless exercise. To illustrate this point, consider hypothetical southern public schools forced by the courts to provide truly separate but equal schools- equal defined here as spending equal amounts per child regardless of race. It is not inconceivable to imagine white dominated school boards making a simultaneous adjustment of spending, increasing spending per black child, and taxes, increasing black taxes, so that the average black family, on net, is no better off in truly equal schools than they were in segregated and unequal schools.

I use the available quantitative evidence and examine how these three factors, the property tax, disenfranchisement and the poll tax, and so called "separate but equal" schools, combined to affect the educational resources available to black and white children.

My basic result is that the favorable aspects of property tax financing and poll tax financing, where blacks did not vote, made the public schools an institution which on net provided a continuous and significant flow of resources from white taxpayers to black children. It would have been larger if expenditures were equalized but remained positive in the face of hostile white southern politicians, racist institutions, and fixed elections. Stated another way, white dominated school boards allocating educational resources unequally between black and white schools were unable to overcome the favorable aspects of property and poll tax financing. The effect of segregation was a reduction but not elimination of the white subsidy of black schools.

This result necessitates a restatement of the traditional condemnation of southern public schools. A non-segregated school system would have aided black educational efforts more than the "separate but equal" system that arose, but it is incorrect to view segregated southern schools as a device by which whites extracted wealth from blacks. When both taxes and expenditures are considered the separate but equal school system appears to have provided a net transfer to black students.

**Computing the Real Subsidy per Child**

Conceptually, computing the net resource flow in the public schools is straightforward; simply subtract taxes paid from the value of education received. (Note 16) Since school funds had two sources, property and poll taxes, the subsidy per child by race can be computed using equation 1. (Note 17)

\[
\text{Subsidy} = \text{Expenditures} - \text{Propy} - \text{Poll Taxes} \quad (1)
\]
Unfortunately, the historical record does not provide precise data on the relative importance of property and poll taxes in school funding. Because of this limitation, the educational subsidy is computed in three stages. First, the real subsidy, if property taxes were the sole source of school funds, is computed. Second, the real subsidy, if poll taxes were the sole source of school funds, is computed. Proceeding in this manner allows the inherent advantages and disadvantages for whites and blacks in each source of school financing to be delineated. Finally, the real subsidy, under a range of reasonable assumption about the relative importance of property and poll taxes in school funding, is computed.

The real subsidy in a property tax financed public school system can be measured by first computing the tax rate needed to support historic levels of spending.

\[ t_{property} = \frac{E_{black}C_{black} + E_{white}C_{white}}{P_{black} + P_{white}} \]  

(2)

where:
- \( t_{property} \) = tax rate required to support historic levels of spending
- \( E \) = expenditures per enrolled child by race
- \( C \) = enrolled children by race
- \( P \) = taxable property by race

The required tax rate is computed by dividing the total spent by the amount of taxable property. (Note 18) Once the required tax rate is known, the real subsidy in a property tax financed public school system can be computed.

\[ S_{black} = \frac{E_{black}C_{black} - t_{property}P_{black}}{C_{black}} / W \]  

(3)

\[ S_{white} = \frac{E_{white}C_{white} - t_{property}P_{white}}{C_{white}} / W \]  

(4)

where:
- \( S \) = real subsidy per child in a property tax financed public school system by race
- \( W \) = Warren Pearson wholesale price index, (1880 = 1)

The real subsidy is computed by subtracting the taxes paid by race from the total spent on education by race and dividing by the number of enrolled children by race.

Equations 2, 3, and 4 require three pieces of information: levels of assessed property by race, enrollment by race, and spending by race. Assessed property by race is given in Table 1. Enrollments and spending are given in Table 2. These numbers were extracted from
data collected by J. Morgan Kousser from state level school reports. (Note 19) The Kousser dataset contains detailed county level statistics on school expenditures, property levels, and other assorted statistics pertaining to the public schools plus statistics related to local politics. The Kousser dataset is the most comprehensive collection of data on southern public schools. (Note 20)

Levels of assessed property, given in Table 1 (See Appendix), follow the pattern established by Higgs and Robert Margo. (Note 21) In 1880, the average black owned a fraction of the taxable property held by the average white. Blacks accumulated property continuously and at a faster rate than whites, but by 1910 black property levels remained substantially below white property levels. In 1880, the average black owned 3.6% as much property as the average white; by 1910 the average black owned 7.4% as much property as the average white.

Spending and enrollment by race are given in Table 2 (See Appendix). Real spending per enrolled child follows the often noted historical trend. (Note 22) In 1880, the public schools spent roughly the same per child regardless of race. From 1880 to 1910, spending per white child increased while spending per black child remained roughly constant or fell. The racial spending differential increased substantially from 1880 to 1910. Enrollment followed a similar trend. (Note 23) Black and white enrollments grew substantially from 1880 to 1910. However, white enrollment grew faster than black enrollment. The white proportion of enrolled children grew from 1880 to 1910.

The required tax rate, given in Table 3 (See Appendix), increased dramatically from 1880 to 1910. Higher enrollments and higher spending levels, at least for white children, increased the required property tax rate. The increase in the value of taxable property only partially offset the effect of higher enrollments and spending. The public school expansion, often associated with progressivism, substantially increased the burden of taxation on property owners. Given prevailing white racial attitudes and traditional southern aversion to expanding the role of government, it is easy to see why the redistribution of wealth through the public schools system was politically potent. (Note 24)

The real black and white subsidy from a property tax financed public school system, given in Table 3, establishes two important points. First, property tax financing provided a significant subsidy to black children. In 1880, blacks paid only $.08 in property taxes and received $1.28 in education. This implies a subsidy rate of 94%; for each dollar of education received blacks paid $.06 in property taxes. In 1910, blacks paid $.88 in property taxes and received $2.35 in education. This implies a subsidy rate of 63%. Second, the increase in white enrollment relative to black enrollment and the increasing racial spending differential reduced but did not eliminate the subsidy inherent in a property tax financed public school system. Despite segregation, blacks received more than $2 of education in 1910 for each $1 in property taxes paid.

The other source of school funds was the poll tax. The real
subsidy in a poll tax financed public school system can be measured by first computing the poll tax needed to support historic spending.

\[ t_{\text{poll}} = \frac{E_{\text{black}}C_{\text{black}} + E_{\text{white}}C_{\text{white}}}{\beta_{\text{black}}N_{\text{black}} + \beta_{\text{white}}N_{\text{white}}} \]  

(5)

where:

- \( t_{\text{poll}} = \) required poll tax
- \( \beta = \) voter participation rates by race
- \( N = \) eligible voters by race

The required poll tax is equal to total expenditures divided by votes cast. Once the required tax rate is known, the real subsidy can be computed.

\[ S^{'\text{poll}}_{\text{black}} = \left[ \frac{E_{\text{black}}C_{\text{black}} - N_{\text{black}}\beta_{\text{black}}t_{\text{poll}}}{C_{\text{black}}} \right] / W \]  

(6)

\[ S^{'\text{poll}}_{\text{white}} = \left[ \frac{E_{\text{white}}C_{\text{white}} - N_{\text{white}}\beta_{\text{white}}t_{\text{poll}}}{C_{\text{white}}} \right] / W \]  

(7)

where:

- \( S^{'\text{poll}} = \) real subsidy in a poll tax financed public school by race

The real subsidy per enrolled child in a poll tax financed public school is computed by subtracting black poll taxes from total expenditures on black children and dividing by enrolled children.

Equations 5, 6, and 7 require two additional pieces of information. The number of eligible voters and the participation rate by race. Eligible voters were computed as half the population over 21 years old. Voter participation rates are averages of participation rates from presidential and gubernatorial elections occurring within each 5-year period reported by Kousser. (Note 25) When no elections are reported by Kousser within a 5-year period, participation rates were taken as those in the nearest reported election.

The voter participation rates in Table 3 show the trends reported by Kousser. The sharp fall in black voter participation reflects the disenfranchisement of blacks. The mild fall in white voter participation reflects the conversion of the South to a one-party system.

The increasing required poll tax is caused by two factors. First, spending levels and enrollments increased substantially. More enrolled children and more spending per child, required higher taxes to support the public schools. Second, the disenfranchisement of blacks and the reduction in white voter participation pursuant to conversion of the...
South to a one party system reduced the number of votes cast. Fewer votes cast required higher taxes per vote to raise a given amount of revenue. (Note 26)

The pattern of real subsidy in a poll tax financed public school varied widely from state to state. Two forces reduced the real black subsidy; rising white enrollments and increased spending per white child. If total spending on both races is constant, the larger the white portion of enrolled children the less each black child would receive. Likewise, the higher white per child expenditures, the lower black per child expenditures. Lower black voter participation increased the black real subsidy. As blacks (and some whites) were steadily disenfranchised, blacks comprised a smaller portion of the voting electorate. The fewer black votes cast relative to total votes cast, the smaller portion of each dollar raised from a poll tax was paid by blacks. The varying wealth redistribution inherent in a poll tax financed public school system was determined by the extent of black disenfranchisement, relative black and white enrollments, and the difference in black and white per capita spending.

Measuring the actual real subsidy requires one additional piece of information: the relative importance of the property and poll tax in school financing. If this were known, the real subsidy could be computed.

\begin{align}
S_{\text{black}} &= \eta S_{\text{prop}} + (1 - \eta) S_{\text{poll}} \\
S_{\text{white}} &= \eta S_{\text{prop}} + (1 - \eta) S_{\text{poll}} \\
\text{where:} & \\
S &= \text{real subsidy by race} \\
\eta &= \text{proportion of school finances raised from property tax} \\
(1 - \eta) &= \text{proportion of school finance raised from poll tax}
\end{align}

The real subsidy is a weighted average of the subsidies inherent in property and poll tax financed school systems where the weights are the portion of school funds raised from poll and property taxes.

Unfortunately, only fragmentary evidence survives about the relative importance of poll and property taxes. Table 5 (See Appendix) shows the limited information contained in the Kousser dataset. In Arkansas, Florida, Mississippi and Louisiana, property taxes accounted for roughly 80-95% of school revenue. In Virginia and North Carolina, the property tax accounts for roughly 50-75% of school revenue. North Carolina was unique in raising a significant portion of school revenue from an income tax. (Note 27)

Combining fragmentary evidence from Table 5, the required poll tax from Table 4 (See Appendix), and evidence on the size of poll taxes indicates poll taxes were a minor source of school funding. Although there has been no comprehensive compilation of actual poll taxes, there is evidence that poll taxes were in the neighborhood of $1 to $2. (Note 28) Since the poll tax required to support all school spending varied between $3.68 and $13.43 from 1890 to 1910 and
elections did not occur every year, the poll tax probably provided less
than 25% of school funds.

Table 6 (See Appendix) shows the real subsidy computed under
a variety of reasonable assumptions about the relative importance of
property and poll taxes. Two features of the public schools are evident.
First, the public schools provided a continuous and substantial net
subsidy to blacks. Under reasonable assumptions about the relative
importance of property and poll taxes and in every state in which the
historical record allows computation, whites subsidized black schools.
(Note 29) The source of the subsidy is the primary source of school
funds; the property tax. Because blacks had little property to tax, most
school funds were raised from white taxes. Second, racial spending
differentials only moderately reduced the white subsidy of black
schools. Although the black subsidy declined steadily from 1885 to
1910, blacks paid roughly 1/2 the value of education received in 1910
compared to roughly 1/3rd in 1885.

The size of the black subsidy can be given some perspective by
comparing it to black income in 1880. Black per capita income in the
South is 1880 was $41.81. (Note 30) The average subsidy declined
from a peak of $1.38 to $1.82 in 1885 to $1.18 to $1.36 in 1910. This
means the average subsidy declined from 3.3-4.4% of black per capita
income in 1885 to 2.8-3.3% in 1910—a reduction of 0.5 to 1.1% of
black income. While the effect of segregated schools was not trivial,
the magnitude of the reduction in the public school subsidy of blacks,
when compared to black income, was quite small.

These two results suggest a reconsideration of the literature which
has examined the rise of public schools in the South. In the standard
treatment of the progressive movement and education, the public
schools are depicted as "making education available to the common
man." (Note 31) Some authors, have argued that rather than benefiting
the common man, the educational system benefited the middle class
white man. (Note 32) The calculations in this research do not shed
much light on intra-racial wealth redistribution. However, the
calculations do illuminate the pattern of inter-racial redistribution. The
public schools, despite differences in the black and white spending per
enrolled child, were a conduit for a flow of resources from white
families to black school aged children.

The distributional aspects of the public schools imply that if the
public schools and the taxes which supported them were abolished,
whites could buy more education with moneys saved from abolished
taxes than they received "free" from the public school system.
Conversely, if blacks were forced to buy education privately from
moneys paid in taxes, they would be unable to purchase the same
amount of schooling received "free" in the public schools. The
southern public school system increased the educational resources of
black children while reducing white educational resources.

Of course, the public schools redistributed wealth in a more
complex pattern than just subsidizing black children with white taxes.
Among whites and blacks there were certainly poor whites and rich
blacks whose net flow of resources from the public schools was
different than the "average" white or black family. These differences could possibly account for the continued political support for the public schools in a white dominated political process. Given the existing data on income distributions, wealth distributions and race, measuring the net flow of resources between individuals with different income and wealth levels is nearly impossible. In addition, expenditures were not equal across urban and rural areas nor were they equal from county to county within a state. However, the net flow of resources across racial groups is clear.

These two results also highlight the peculiar logic of concentrating attention on equalizing expenditures while ignoring the source of school funding. One common vision of "social justice" demands that expenditures on black and white children be equalized. While equalizing expenditures across racial groups would increase the net flow of resources to blacks in the South, as the two points made here show, this would lead to a larger but still positive net resource flow to blacks. It is difficult if not impossible to argue the level of subsidy implied by equal expenditures on black and white children, given the relative reliance on the poll and property tax, the voter participation rates of blacks and whites, and the level of black and white taxable property is superior to another level of subsidy implied by different levels of expenditure. In fact, if variations in taxable property and voter participation across states and time are considered, equalizing expenditures across race would lead to different levels of net subsidy across states and over time. It is difficult to see how the particular pattern of subsidy implied by equal expenditures is "best."

Conclusion

In the first half century following emancipation, most blacks lived in the South. This resulted from the productivity of slave labor in cotton production and the suitability of the South for growing cotton. In the South, educational expenditures were well below those of the North. This was largely the result of lower income in the South (roughly half the level in the North), the hostility of Southerners toward government expenditures of any type, and white indifference toward black welfare. (Note 33) These factors alone meant blacks on average received less public schooling than whites.

Within the South, educational funds were allocated unevenly among black and white children. Previous research into black public education has concentrated almost solely on this racial differential in southern expenditures. The racial differential has been used to portray the southern public school system as one which exploited blacks for the benefit of whites. Bond argued that if the total amount of taxes available to the public school system was fixed, each dollar taken from black schools was a dollar that could be spent on white schools. (Note 34) Other historians have used racial differentials in school expenditures to argue that the general movement toward larger expenditures on public schools did not substantially benefit blacks. (Note 35)
This article supports a modified condemnation of Southern public schools. By applying tax rules equally across race and maintaining and increasing a differential in black/white per pupil expenditures, whites drained resources from black education and enhanced white education. This research measures the extent of that drain.

The effects of racism, hostile institutions, and rigged elections on black education were severe but were not pushed to the reactionary extreme. The public schools were the conduit for a small but significant flow of resources from white taxpayers to the average black child. For the average white family, eliminating the public schools would have increased the funds available for education.

In addition, I have shown that the effect of segregation and the exclusion of blacks from the political process in the postbellum South may not have been as severe as previously argued. In the late nineteenth and early twentieth century, the wealth redistribution effected by southern public schools was reduced but not eliminated. The net black subsidy was reduced in absolute terms by about one-third. This represented a reduction in average black per capita income of 0.5% to 1.1%. While the magnitude of this reduction should not be trivialized, it is not as large as some previous accounts have suggested.

Given these facts, the condemnation of southern public schools in the first 50 years after emancipation requires a slight modification. This article has shown that despite racial differentials in public school expenditure, blacks were net gainers from the establishment of public schooling in the South and whites were net losers. Based on this finding, public schooling in the South should be considered a positive contributing factor to black educational achievement. If expenditures per pupil across race had been equalized, black public schools could have contributed so much more.

Notes

1. Morgan Kousser (1980b) and Jonathan Pritchett (1989) consider the division of public school moneys in a single state, North Carolina. Pritchett further restricts his analysis to a single year, 1910. Prior conclusions about the racial division of public school moneys have generalized the quantitative analysis from a single state and, in the case of Pritchett, a single year to the whole South. Ng (1990) shows that North Carolina is atypical of other southern states and that 1910 is atypical of earlier years. In particular, the division of school benefits was more favorable to whites in North Carolina in 1910 than in any other southern state in the postbellum period.

2. Robert Higgs (1977, p. 120). See also Roger Ransom and Richard Sutch (1977, p. 30).

3. Higgs (1977, p. 120).

4. This obstacles facing black progress were at least partially ameliorated by the striking increase in black incomes and welfare following emancipation and the subsequent increase in
absolute black incomes. See Ng & Virts (1989, 1993).

5. See Harris (1985) for a study of how white's perceptions of the redistribution of wealth between races affected the division of public resources between black and white schools.


10. Kousser examines the net benefits to blacks from the public schools in North Carolina, Kousser 1980b. Kousser concludes that whites subsidized black schools from 1880 to 1910 but by 1910 the subsidy was insignificant in North Carolina. Kousser also examines net subsidies in the Richmond public schools, Kousser (1980c pp. 26-27), and argues that whites subsidized black schools when only expenditures on teachers is examined but if expenditure figures for buildings and maintenance were available the subsidy would be greatly reduced or eliminated. On a related point, Kousser argues the tax regime in North Carolina was regressive when the percentage of wealth paid in taxes is examined across racial groups, Kousser (1980b, p. 174-76). Recent work on estimating black and white income from the manuscript returns of the 1880 census (Ng and Virts 1989a and 1989b) shows average wealth levels do not reliably indicate income levels. While black wealth per capita was 3.5-7.5% of white wealth, average black worker income was 90% of white worker income. While the North Carolina tax system may appear regressive when percentage of wealth paid in taxes across race and wealth levels is considered, when percentage of income paid in taxes is considered the tax system was probably quite progressive.


12. See Table 1.


14. See Table 4.

15. See Harris (1985) for a detailed examination of how this was accomplished in the Birmingham school district.

16. The calculations in this article ignore the possibility of property taxes being passed from predominantly white property owners to black renters in the form of higher rents. While this is an important issue which may alter the wealth redistribution from the public schools computed here, it is also an intractable measurement problem. Jonathan Pritchett tries to measure the amount of "pass through" for a single state and year, North
Carolina 1910 (chosen presumably because the data for such a calculation are most readily available), and can only conclude that it is "plausible" that blacks' taxes, indirect and direct, paid fully for black schools. Of course, his estimates also indicate that it is possible that blacks' taxes, direct and indirect, did not pay full for black schools. Pritchett does not address tax incidence in other states and years nor does he discuss the representativeness of North Carolina. See Pritchett 1989 and, also, Smith 1973. The measurement of indirect taxes is discussed in Ng (1990). In Ng (1990), I also point out several material errors in Pritchett's methodology which if corrected would reverse his conclusion. Because property taxes were imposed within small geographic areas, it is likely that the little if any of the property tax was passed through to renters in the form of higher rents.

17. Fees for various publicly provided goods and services, such as transferring title to property, were also a source of school funding, but there is no evidence that the amount raised was significant. See Margo (1985, pp. 71-74) and Kousser (1980a, pp. 400-1).

18. Strong evidence indicates tax rules were applied equally. There is little evidence that black and white property was taxed at different rates (Higgs, 1984 pp. 778-80).


20. To this author's knowledge, this is the first published use of the Kousser dataset.


24. This point is made by Thornton (1982) and Bullock (1958, p. 53-61).


26. Because all eligible voters, not just those who chose to vote, were legally required to pay poll taxes, it is possible that the assumption inherent in equations 5,6, and 7, that only those voting paid poll taxes, is incorrect. However, Kousser writes, "The poll tax limited rather than expanded the suffrage after 1870 because those in power made every effort not to collect the tax from men they deemed undesirable voters. There is no record of prosecution of a poll tax delinquent." Kousser (1974, p. 63). This point is supported by Tipton Snively (1916, p. 41).

27. North Carolina's constitution limited the property tax to 30 cents per $100 of property in the 1890's. Harlan (1958, p. 62).


29. If 75% of school revenue in Louisiana came from the property tax, Table 6 indicates blacks would have provided a small subsidy to whites. However, Table 5 indicates that more than 90% of school revenue in Louisiana came from the property tax.
35. Kousser (1980b) and Harlan (1958).
36. Losers in the narrow sense that white expenditures on public education exceeded the value of services received.

References


Higgs, Robert, *Competition and Coercion, Blacks in the American..."


About the Author

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Northridge, CA 91330
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## Appendix

### Table 1

**Population and Real and Total Per Capita Property by Race**

<table>
<thead>
<tr>
<th>State</th>
<th>White Per Capita Property</th>
<th>White Population</th>
<th>Black Per Capita Property</th>
<th>Black Population</th>
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<td><strong>Black</strong></td>
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### Table 2

Data for Table 2 is not provided in the image.
## Enrollment and Total Real Per Capita Expenditures on Teacher's Salaries by Race (1880 Prices)

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Notes: Enrollment and expenditure figures compiled from county level statistics extracted from state school reports by J. Morgan Kousser.

## Table 3

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<th>Required Tax Rate and Real Net Subsidy per Enrolled Child Inherent in a Property Tax Financed Public School System (1880 prices)</th>
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http://epaa.asu.edu/epaa/v9n16/
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</table>

Notes: (1) For states without data on taxable property, taxable property estimated as population times average per capita taxable property a states with reported data. (2) Required tax rate computed using equation 2. Black and white subsidy computed using equations 3 and 4.

Table 4

Voter Participation Rates, Real Poll Tax Required per Enrolled Child, and Real Subsidy Inherent in Finishing the Public with Poll Taxes

(1880 prices)

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http://epaa.asu.edu/epaa/v9n16/ 102 6/13/01
### Table 5
Sources of School Financing
(1880 prices)

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<th>State</th>
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Notes: (1) Poll and property taxes computed by aggregating county level estimates collected from annual school board reports collected by Kowser.
### Table 6
Real Net Subsidy per Enrolled Child in the Public Schools

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<th>75%</th>
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Notes: Real net subsidy computed using equations 8 and 9.

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Comment on Ng's
Wealth Redistribution, Race, and Southern Public Schools, 1880-1910

Sherman Dorn
University of South Florida

Abstract
Wherein the author raises criticisms and advances qualifications to the conclusions reached by Kenneth Ng is his article "Wealth Redistribution, Race and Southern Public Schools, 1880-1910."
Kenneth Ng has argued, in his article published as issue 17 of volume 9 of *Education Policy Analysis Archives*, that Bullock, Fishlow, Harris, Kousser, and Margo have incorrectly assumed that segregation allowed whites to draw off Southern Black tax contributions to support public education. This argument, like many in social history, is as much about current conditions as the past. As Ng wrote just before the conclusion,

> It is difficult if not impossible to argue the level of subsidy implied by equal expenditures on Black and white children, given the relative reliance on the poll and property tax, the voter participation rates of Blacks and whites, and the level of Black and white taxable property is superior to another level of subsidy implied by different levels of expenditure. In fact, if variation in taxable property and voter participation across states and time are considered, equalizing expenditures across race would lead to different levels of net subsidy across states and over time. It is difficult to see how the particular pattern of subsidy implied by equal expenditures is "best."

In other words, Ng is arguing that, if the history of segregation did not lead to a net subsidy of white children's education by Black children's, the whole notion of equalizing funding per child is irrational. Ng's claim acquires particular salience because the historical arguments over school funding in the South often *did* focus on whether school funding was in proportion to taxes paid. This argument requires examination of the historical evidence used, Ng's interpretation of public funding in the context of Southern education in the pre-Brown years, the consequences of segregation for public education more broadly, and the broader question of fairness in funding.

**Use of Evidence**

Ng is inadvisable in presenting both spending and revenue data for schools. Table 2, which is the basis for Ng's analysis, captures only teachers' salaries. Today, when direct instruction only occupies about half of full-time-equivalent staffing in public schools, no one would imagine using classroom salaries as a proxy for total spending. In the pre-Brown era, public schools spent disproportionately on white schools not only for teachers but also for supplies, supervision, and capital construction. Southern schools forced Black schools to use second-hand books (commonly passed on from white schools), had less publicly-funded supervision of Black teachers (for the most visible supervisors of Southern Black schools were the privately-funded Jeans teachers), and scrimped on construction of schools (Anderson, 1988). Ironically enough, in one of the sources Ng uses (Kousser's 1980 article on the *Cumming v. Richmond* case in Augusta, Georgia), Kousser makes clear that the data used for comparative purposes, teacher salaries, underestimates the disproportionate funding
for white schools and that, if all costs (including the value of schools) were available, any net subsidy for Black schools would certainly be reversed (Kousser, "Separate but not Equal," pp. 24-26).

Ng's use of revenue data is similarly incomplete. He uses voter participation as a proportional proxy for poll tax revenues from Southerners. Many tax collectors were inconsistent before disfranchisement, and many after disfranchisement laws collected the poll tax from Black residents, secure that other barriers would prevent them from voting. In addition, Ng ignores other potential sources of financial support for schools. Educational funding was idiosyncratic in the segregationist South. Some jurisdictions relied on the poll and property taxes, but in other areas, indirect taxes on utility and landlord property—some part of which certainly was passed on to renters—also contributed to schools (which Kousser estimates as 12 percent in North Carolina, in one of the articles cited by Ng). Some schools charged tuition. Many communities raised funds voluntarily. Absent a careful analysis of support state-by-state, the conclusions Ng can draw from the data presented here are merely speculative. (The fact that Kousser, adding in estimates of indirect taxation, concludes that any net subsidy of Black schools in North Carolina shrank dramatically in the same time period Ng covers should make readers extremely cautious about any statement about subsidies.)

**Historical Context of Segregation and School Expenditures**

Ng's statistical analysis is removed from the context of historical school politics in the South. Two facets of that history are important to understanding the consequences of segregation for educational opportunities in the South. First, segregation made public education safe for white politicians. Many white politicians, including John Harlan before he became Justice Harlan (the dissenter in Plessy and the author of the Cumming v. Richmond decision leaving demonstrably unequal education alone in Augusta), struggled with how to frame the educational debates after Reconstruction. In some cases, equal funding (often framed as "proportionate" funding) was explicitly debated. After the disfranchisement of most African-American and many white voters, as well as the codification of segregation, white politicians could expand schooling for whites without incurring any political cost. Unlike the immediate post-Civil War era, when public schooling was politically radical, the expansion of schooling, especially high schools, was tame and fit within the caste system of the South because of the newly-confirmed capacity to provide unequal opportunities. In other areas of the country, and in the South at other times, I would suspect that any "school subsidy" analyzed in the same way would be far greater than what Ng describes here. By failing to make such comparisons, Ng is suggesting that any subsidy is fair in the context of the political environment of the time.

The second key context is the crucial use of the high school, which used relatively little funding compared to elementary schools at
the time, in creating unequal educational opportunities. The Southern high school was largely for "whites only" in the first third of the twentieth century and still unavailable to African-Americans in many parts of the rural South as late as 1960 (Anderson, 1980). Aggregating all expenditure hides the effect of different funding on secondary schooling. By analyzing all educational expenditures, Ng has effectively ignored how white students had demonstrably unequal access to secondary education.

Public Programs without Net Subsidies?

Ng suggests that a funding scheme that is dramatically unequal in direct spending can still be fair. His measure of fairness, net subsidy, flies in the face of all government public-good spending practices. Spending on any service or good accessible to the general population (or a segment of it, such as schoolchildren) is necessarily redistributive on some basis, since the elimination of subsidies would require an accounting scheme that limits spending to individual disbursements. The purpose of spending for fire, police, health, and schooling is to provide services judged necessary for the whole population. Police and fire services subsidize some geographic areas at the expense of others. Public health programs subsidize the unhealthy. Schooling subsidizes the young.

Ng's argument is not unique, though it has appeared more commonly in the philosophical arguments about intergenerational transfers of wealth involved in Social Security's "pay as you go" system. Ng is raising the ghost of the net subsidy argument, which Southern white politicians used and rejected more than a century ago. What is notable is why white politicians rejected the argument. They certainly were both comfortable with and had reasons to encourage unequal funding. However, shrewd politicians like North Carolina Governor Charles Brantley Aycock knew that white school boards had sufficient legal discretion at their disposal, after disfranchisement, to spend school funds as they wished. Adding a legal mandate for unequal spending would merely draw attention to a fact that they wished would remain undiscovered (Kousser, "Progressivism"). So, too, politicians today are trying mightily to avoid the issue of unequal funding. They should not take any comfort from the history of school spending in the segregationist South.

References


First Decision on Racial Discrimination in Schools. *Journal of Southern History*, 46, 17-44.

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Sherman Dorn is Assistant Professor in the Department of Psychological and Social Foundations at the University of South Florida. He received his Ph.D. in history at the University of Pennsylvania in 1992 based on his work on the history of dropout policies. He is currently looking at the history of special education in Nashville, Tennessee, from 1940 to 1990.

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112

6/13/01
Thinking Out of the Box:
One University's Experience with Foreign-trained Teachers

Belinda Bustos Flores
University of Texas—San Antonio

Abstract
Texas like many states is facing a teacher shortage. The author suggests that the teacher shortage should be considered in light of the diverse school population. Across states there is a need for well-prepared teachers to work with linguistically and culturally diverse school populations. Thus, areas such as bilingual education continue to be critical shortage areas. While different attempts are currently underway to increase the number of preservice bilingual educators, another way districts have addressed this issue is to employ foreign-trained teachers as paraprofessionals or as teachers. Recently, Texas
passed a regulation that would allow legally residing foreign-trained teachers to become certified Texas teachers upon passing the appropriate teacher competency exams and demonstrating English proficiency. The passing of this "fast-track" regulation appears to demonstrate that the state board is thinking out of the box by tapping into a community's resources and acknowledging that immigrants can offer the community services beyond menial tasks. However, the researcher cautions that such actions may not increase the number of teachers and may not assure teacher quality. To support this notion, the researcher offers an analysis of a university's experience with the integration of legally residing foreign-trained Mexican teachers in their bilingual education teacher preparation program. The researcher posits that increasing the number of qualified teachers does require for entities to think out of the box, such as tapping into a community's natural resources; nevertheless, any plan of action should be critically examined and deliberated.

Texas is facing many challenges in standardizing teacher certification. On the one hand, there is a To alleviate the critical shortage for bilingual education teachers and the lack of academic language. Another factor to consider is that the demographic trends for minority teachers, and ultimately bilingual education teachers, are changing. Even if Unz and the "English-only" movement were to be successful in their mission to eradicate bilingual education, a recent recruitment strategy has been to replenish the pool of bilingual education teachers with better-trained individuals. A more recent strategy for increasing the number of bilingual educators has been to certify legally residing foreign-trained teachers. Early this spring, another teacher recruiting strategy was conceived when a new regulation was approved. In light of Texas' new regulation that allows fast-track certification for foreign-trained teachers, the University of Texas at San Antonio's Project Alianza acknowledged that the normalistas are well-prepared in their normalistas' role.

To assume that teacher preparation merely adds pedagogy to an existing identity is take a very simplistic view. The faculty would agree that not only have normalistas been well prepared as normal teachers, the list of factors that must be considered includes:

- Language Dominance
- Psychosocial Factors
- Datedness of Pedagogical and Content Knowledge
- Degree Equivalence and Program of Study
- Support Structures

**Language Dominance**

In recruiting legally residing normalistas for Project Alianza, the committee conducted informal interviews with teachers who responded to the call for bilingual teacher candidates. These interviews provided insights into the challenges faced by bilingual educators.

- Second language acquisition and development
- English language skills development throughout the program of study
- Procurement of professors that understood needs of second language learners

http://epaa.asu.edu/epaa/v9n18.html 115 6/13/01
Supplemental instruction throughout the project

In order to immediately address the need for second language acquisition, the normalistas receive.

Therefore, it was evident that the Project Alianza participants would require continued second lan
Their experiences as a combined group allowed for reciprocal learning to occur. At times, the not
Initially, in the classes in which English was used as the means of instruction, several instructors

Datedness of Pedagogical and Content Knowledge

An issue confronted was the datedness of the normalistas' preparation; for the most part they
have these instruments professionally translated.

An experienced translator, educated in Mexico and familiar with the area of education, translated

Given that the pretest assessed all the qualified applicants, the committee decided to give another
qualifying comprehensive exam available is the one administered for all teachers; one has yet to be dev
As the normalistas proceed in their program of study, they have confirmed and revealed how a pa
Noteworthy, although the current state regulation would allow foreign-trained teachers to simply

Psychosocial Factors

Apparent in the initial interviews with the normalistas was that our bilingual education teacher pr
These expressed beliefs were also verified in formal studies conducted with normalista applicants.
Clark and Flores (2000b & 2000c) also revealed that while the majority of the normalistas had a
In another study, Clark and Flores (2000a) noted a high degree of academic language use and pro
Therefore, the program advisors determined that although the normalistas had a strong sense of n

Degree Equivalence & Program of Study

One of the most difficult issues encountered was determining a program of study based on the de

- Foundations of Bilingual Education including sociocultural, historical, and political topics
- Bilingual content methodology including native language and second language instruction theory
- Dynamics of language and culture, specifically sociolinguistics, communicative competence
- Field experiences and student teaching

Despite the fact that the normalistas had taught in Mexico, the committee conceded that the field

Support Structure

One of the most important components in this project has been the ability to provide a support str
Navigating the university is often a complicated and cumbersome process that often discourages
Prior to attending UTSA, most of the normalistas had been under-employed in menial jobs; neve
In sum, from this university's experiences, minimal support structures include: (a) guidance and n

Conclusion

This preliminary analysis reveals that a university can assist in the integration of foreign-trained t
The normalistas face challenges as proud individuals. Their professionalism has earned them ad
The faculty has noted that the normalistas are very competitive, but that this competitiveness is t
Therefore, thinking out of the box to alleviate the teacher shortage requires much more than a sta
The message that comes from these fast-track certification trends is that anyone can be an effective

Note

1. Project Alianza is funded by the W. R. Kellogg Foundation and is a collaboration of Intercultural and

Berliner, D. C. (1987). Ways of thinking about students and classrooms by more and less experienced t.
Clark, E. R. (work in progress) Metamorfosis/Metamorphosis.


Flores, B. B. (1999). Bilingual teachers' epistemological beliefs about the nature of bilingual children's
Guerrero, M. D. (1997). Spanish academic language proficiency: The case of bilingual education teach
Crítica, COLUMA: Reflexión Universitaria.
Quezada, M. S. & Inzunza-Franco, G. Project Alianza: A model teacher preparation and leadership dev
Pease-Álvarez, & Winsler, A., (1994). Cuando el maestro no habla español: Children's bilingual langua
Texas Education Agency (1994, May) Teacher supply, demand and quality (Policy research project. Te


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http://epaa.asu.edu/epaa/v9n18.html

119

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Género y construcción de identidad profesional:
el caso de la maestra en vías de profesionalización (de los años 50 a los 60 en el franquismo intermedio)

Sonsoles San Román Gago
Universidad Autónoma de Madrid

Resumen

Mi propósito en este artículo es profundizar, mediante el análisis de testimonios vivos de maestras en edades comprendidas entre 65 y 70 años, en los elementos básicos, discursos ideológicos y representaciones simbólicas, que constituyen la identidad de una generación de maestras situadas en un contexto histórico

http://epaa.asu.edu/epaa/v9n19.html 122 6/13/01
clave para la historia de mi país: el franquismo intermedio, que tiene lugar en el proceso de la modernización que se produce en el paso de los años 50 a los 60. Con la intención de introducir al lector en el tema, comenzará por señalar los antecedentes de la profesión de maestra en España. Una vez explicadas las circunstancias que propiciaron la línea ascendente hacia la profesionalización de la maestra, y después de señalar los obstáculos que debió vencer hasta conseguir su equiparación profesional con el maestro, pasará a contextualizar e interpretar, en términos culturales, las actitudes, imágenes y motivaciones que han ido apareciendo, cargadas de valor simbólico, en la marcha del discurso de las maestras. Este artículo, que viene así a cubrir una laguna de investigación en España, enfocada además en un período muy particular y determinante, pretende invitar al lector a reflexionar sobre un fenómeno social de máxima actualidad: el de la feminización docente, visible en la mayoría de los países, que salpica, más allá del espacio educativo, a los ámbitos económicos, políticos, religiosos y culturales de un país.

Abstract

It is my aim in this article to carry out a thorough examination of the basic elements, ideology and symbolic representations which constitute the identity of a generation of schoolmistresses belonging to a crucial period in Spanish history: that of the intermediate Francoism, during the process of modernization which took place at the end of the 1950s. The investigation is based on live testimonies of schoolmistresses between the ages of 65 and 70. First, I will point out the antecedents of the profession of schoolmistress in Spain and show how circumstances made her role gradually and increasingly more important. Then I will reveal what kinds of opposition and obstacles schoolmistresses came up against and had to overcome in order to obtain professional equality with male colleagues. Finally, I will contextualize and interpret, in cultural terms, the attitudes, images and motivations, which turned out to be very symbolic, that arose during the interviews with these women. This article, which fills a large gap in research on this subject, concentrates on a very particular and decisive moment. It is my intention to invite the reader to reflect on a social phenomenon of great importance today: that of the feminization of teaching, which can be seen in most countries and whose influence can be observed, not only in a country’s educational system, but in the economic, political, religious and cultural spheres as well.
1. El contexto histórico: la larga marcha de la profesionalización de la maes

Por las desventajas de su género, el reconocimiento de la profesionalización de las maestras:

En consonancia con las exigencias de modernización, a finales del siglo XIX se produjeron
Para comprender los modelos de maestra en el camino hacia la profesionalización resulta n

1.1. Primera fase de incorporación: La maestra analfabeta (1783-1838)

Como todos los procesos de modernización, el pleno desarrollo de la dialéctica entre progr
Entiendo por maestra analfabeta una mujer de quien no se exigen conocimientos elementa

1.2. Segunda fase de incorporación: la maestra maternal (1838-1876)

A partir de 1833, el proceso iniciado en 1830 tiende a profundizarse, abriendo la etapa fí

Con el proceso de relativa radicalización que supuso la etapa progresista, en coincidencia c

En 1838, el legislador obligó a abrir la Escuela Normal de Maestros de Madrid. Después de

Montesino encuentra una solución que, además de ser cómoda, va a resultar económicamente
Instrucción Primaria Elemental, de 26 de Noviembre de 1838, inspirado en las ideas de Mo

Así, frente a la maestra analfabeta, y como superación de la misma figura, se proponía el m
Esta propuesta alcanzaba su máxima percepción ideal en el caso de los maestros casados (b

Muy conveniente sería que los maestros, por medio de sus mujeres unos, y otros vali

La R.O. de 11 de enero de 1853 - declarada vigente en todas sus partes por otra de 11 de m

El problema de la formación de las maestras no era tanto económico, cuanto social y moral
político era también mucho más explícito y profundo en el caso de la profesionalización de l

dotación de las escuelas (y, en caso de ejercer) (...) no es en ellas una carrera como en los h

El modelo de maestra maternal no se modificó de manera sustancial con la promulgación de

Todas estas circunstancias condujeron a la promulgación de la Ley Moyano en 1857. Un aí

1.3. Tercera fase de incorporación: maestra racional intuitiva (1876-1882)
Con el paso del tiempo, a medida que los cambios políticos acaecidos durante el siglo XIX así, en la medida en que la mujer es reclamada para entrar a formar parte en la obra del procreación y desarrollo físico e ideológica general, este modelo se inscribía en el desarrollo de la sociedad.

Por otra parte, la situación que provocó en nuestro país la revolución industrial exigía de la mujer su participación activa.

La exigencia de racionalidad que emana del contexto social alcanzó no sólo al modelo de nacer. Las cosas habían cambiado, pero, al igual que hubiera sucedido en la configuración de los años anteriores, así lo hubiera sido también en la educación femenina.

Después de 1881, con la llegada al poder del partido liberal, la educación nacional recibió una nueva orientación. Las maestras de 1880 (todavía) no aprendían, ni, por tanto, enseñaban, y la cultura geográfica y social estaba en manos de los hombres. Así a principios del XX se puede hablar ya de equiparación, que no de igualdad profesional.

Como en el caso de la propia cultura científica, la importancia en términos cualitativos de la enseñanza en el sistema educativo femenino es evidente. La maestra comienza así una andadura profesional, en la cual deberá vencer serios obstáculos.

2. La maestra en el franquismo intermedio

"o", Orense. Patio de recreo. Fotografía cedida por Marisa Sobrino, alumna del centro de EDUCACIÓN FÍSICA. Los aspirantes a maestro en esta imagen son 9, todas las demás mujeres. En el margen izquierdo se puede ver la enseñanza de Magisterio en España no nació feminizado, como en el caso de Argentina, dejó de ser, com
2.1. Situación histórica de referencia

En 1936 tuvo lugar una crisis que dio lugar a una revolución social basada en un modelo de Tras la fase del integrismo nacional católico de los años 40, la salida de la dictadura franquista hacia la incorporación al modelo latinoamericano de la enseñanza, la profesionalización... durante las últimas décadas los maestros españoles creo que han encarnado y agud

En los años 50 se vuelven a replantear todos los problemas entre mujer y magisterio. Una d

2.2. Tradicionalismo versus progresismo en el proceso de profesionalización: Polos idé

La composición del grupo de discusión estuvo estructurada desde la hipótesis de una reprot
allida la Sociologi, "Cada fenómeno social es expresión particular, pero unitaria, de la vida social". Su estudio nos pone siempre "en presencias estructuras significativas de cualquier fenómeno social": la totalidad histórica que es la sociedad, la totalidad biográfica y personal que es cada individuo"[22]. Dos totalidades cuya "ley estructural y genética" hay que comprender y desvelar. Sólo desde este "doble enfoque" -subraya- podrem
fenómeno". Según esta perspectiva metodológica, a la que llama enfoque motivacional, no se

Este grupo de discusión -en el que participan cinco maestras en edades comprendidas entre núcleo moderno afirma la prioridad del conocimiento, la articulación de la vocación profesic

El estímulo inicial, que se centró en la cuestión de la elección de la profesión, fue introduci

Dentro de la fracción de maestras católicas tradicionales, que comenzó a ejercer en los año:

... nos consideran como niñas (...). Mis hijos, a veces, dicen: "mamá, por favor, parec

Así, mientras que para la mujer el ejercicio de la profesión de maestra no suponía ninguna valió para hacer otra cosa se quedaba en maestro,
algún caso había
también".

La otra postura, que adopta una actitud democrática y ofrece una visión del proceso educati
deal el que no vale para ir a la Universidad ha ido a la Escuela Normal'; lo cual es absolv
erróneo porque depende de donde vivimos y de los medios. Yo siempre he defendido que ha habido una selección en sentido positivo para magisterio, porque en la familia campesina el chico que valió para los estudios o se iba al Seminario o se iba a la Normal; luego era el que valió para los estudios..."

Después de describir como profesiones femeninas: "maestro, más que ninguna,
enfermería, farmacia y toda la gama de 
Filosofía y letras", el grupo enlaza con la actualización de la cuestión. Una cuestión frente a 
en enseñanza privada, en una ciudad como Madrid, la proporción de mujeres ha subi
De este modo, la profesionalización de la mujer maestra sigue apareciendo en la mentalidad 
Mientras las maestras católicas del bloque tradicional, que aducían que los motivos de su e
condición social femenina e imagen profesional.

El grupo trata de describir las posibles causas que han producido la fuerte feminización de 
val como una cosa 
más femenina, y se 
suponía que el hombre 
debía ser cabeza de familia". Lo que no obsta para que de forma implícita afirmen, ademá

En el grupo de discusión comienza a anudarse con fuerza el componente social y biográfico 
posición progresista, al contrario, defiende que la naturaleza diferencial de los géneros es pu 
pocas 
más autoritarias. El hombre 
tenía un papel y la mujer se consideraba menos en ese papel. Es importante tener ambos ser 
profesión". De este modo, la profesionalización del magisterio aparece unida a la superación 

El bloque de las maestras católicas tradicionales, en desacuerdo con tal consideración, aduc

-yo he visto que tenían ellos un carácter muy poco femenino.

-... en el colegio hemos tenido dos. Los destinaron a párulos y no aguantaron 

-no tenían carácter para los niños 

Así, mientras creen que afirmar mejor la condición femenina, están contribuyendo a profun 

-No tenían capacidad de paciencia, de soltura 

-Es una cuestión un poco de paciencia, también de orden. Hay que tener ordenado to 

-...la mujer está más capacitada 

Desde la perspectiva progresista, en cambio, la maestra no cree "que el profesor sea más 

Añígo en sus esquemas". Y, consciente de la influencia de los factores sociales en la elección 
diyo". Así, más que como una condición biológica, la asociación, supuestamente connatu 

Ahora bien, situándose una vez más en la posición tradicional, las maestras católicas, que de 
elegir por pura 
vocación": "te tienen que gustar los 

niños". Lo que supone tanto como proclamar un integrista vocacional biológicamente cond 

Una vez más, de forma contradictoria, la contestación de la maestra de posición progresista
El desacuerdo entre las dos posiciones que aparecen en el grupo vuelve pronto a manifestar

    Lo fundamental es el amor a los niños. Al niño le das amor y lo entiende enseguida. 

    La actitud (amorosa) es un error. El maestro más joven quiere complacer demasiado.

Su argumento acaba de tirar por tierra la hipótesis de que el amor a los niños sea un sentimiento
    además, es posible sentir el mismo amor hacia un niño que hacia un adolescente".

El grupo sigue debatiendo. Se interrumpe la discusión para preguntar si habría un momento
    matemáticas de otra forma, el lenguaje....". Es, nuevamente, la postura progresista la que ve
    legislación, aunque parece que no, 
    se cambia las cosas. La Ley del 70, que era una Ley que hasta cierto punto 
    nació muerta, porque no 
    contiene apoyo 
    económico (....) no fue una maravilla, ni tampoco dio la 
    preparación adecuada para el magisterio, pero 
    significan cambio que 
    provocan 
    reacción de cierta inquietud en el profesorado. (...) lo mismo digo con la L.O.G.S.E.. (...) au

Por último, la posición básica del bloque tradicional puede considerarse que arraiga, precis

En una regresión colectiva, en la marcha del debate, las maestras del bloque tradicional rec

    Un día -cuenta una maestra- me dice el criado del patrón que si le daba clases a los n

Aunque las maestras de posición conservadora muestran su agrado con aquellos tiempos er
    religiós. (...) Yo me acuerdo que antes ibas a misa con los 
    niños,
    tenían como una 
    participación, (...) 
    hacías muchas cosas con el sacerdote", no dejan de reconocer que la práctica religiosa "era 
    obligación". Las maestras, que comparten entre sí las mismas creencias religiosas, son cons
    algún problema. Me 
    comprometí con un trabajo y, luego, ellos no 
    respondían. A

    dice: 'Prepare usted a los mozos que les voy a confesar tal 
    día. (...) Claro en aquellos pueblos en que 
    habían tantas nevadas, irte con todos ellos a Barco, y que el sacerdote no se acordara de ir".

Profesionales como maestras, y dependientes como mujeres, estas maestras católicas tradi

    -Teníamos que hacer hasta de sacerdotes

    -Yo, en la primera escuela era el veterinario, el médico, ponía inyecciones, (...) pasab
La actitud de sumisión y amorosa complacencia de la maestra responde, cuando menos, a un

Al bajarme del caballo había alguien que me ayudaba. Si era un hombre siempre me

La maestra, gran madre del pueblo, se convierte en ese objeto de deseo, cuya intensidad cree

pidí que me fuese con ella,

así

hasta

compañía

Un día me dice el maestro: 'Ten cuidado de cerrar bien, bien, la ventana cuando te vayas a

jóvenes, de mozos que

está en la ventana puestos para ver si te ven desnudar (...). Otra vez, un

señor que

conocía a mi padre, me

amenazó con decírle que le

diá que mi novio me

escribió todos los

dí. El cartero me llevaba la carta. Se conoce que a

esto le

pareció mal, y me dijo: 'Mira, yo, sí sigue

escribió dote tu novio todos los

díoy o

dearse lo a tu padre. (...) 

Siguió

escribió dote, y se lo dijó a mis padres (...). Mi padre no me puso muy buena cara". Detrás

En último término, la ambigua experiencia de evolución de estas maestras tradicionales, ¿o

3. Consideraciones finales

En la actualidad han saltado a la prensa las quejas de las maestras que, conscientes de las ai

Detrás de este debate está el despertar de unas mujeres que exigen derechos profesionales;

Es evidente que las mentalidades se producen en contextos que dirigen sus expectativas pr

Endnotes

[1] San Román, Sonsoles: "La justificación teórica de la maestra analfabeta en la obra de R

feminización del magisterio; las actas de este congreso, que han sido publicadas, recogen la:

enseñanzas

domésticas: El arte de ser maestra rural en el Valle del Mezquital,

México, CIESAS, 2001, y de Gustavo Fischman, Imagining Teachers, New York, Rowman


feminización docente en

http://epaa.asu.edu/epaa/v9n19.html 129 6/13/01


[5] En 1773, Carlos III firmó un Real Decreto, que significó el primer reconocimiento lega

[6] El objetivo político perseguido por Carlos III era conseguir una mujer productiva capaz

[7] Andy Green intenta mostrar en qué medida el control del estado sobre el sistema educat

[8] El artículo 11 de la Real Cédula de 1783 expresa el deseo del monarca de examinar, a l;

[9] Político progresista, emigró a Inglaterra tras la vuelta de Fernando VII a España en 182

[10] En 1836 se abrió la primera Escuela Normal de maestros de Madrid, pero hasta 1857 r


[12] "Uno de los defectos que ha tenido mi dirección, debo confesarlo, ha sido el de no hab


[15] En 1882 tuvo lugar la España la reorganización de los estudios de maestra en la Escue

[16] Menéndez Ureña, Enrique, "Orígenes del krausofrelismo y masonería", en *Historia

[17] Véase el bloque temático V de mi libro: *Las primeras maestras..., opus cit.*


[20] Ortí, Alfonso, "Jesús Ibañez, debelador de la catacresis (La sociología crítica como au *Ibañez, *

*Sociología crítica de la cotidianidad urbana. Por una sociología desde los márgenes*, en *Anthropos*,

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número 113, 1990.


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132

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Transfondo de las diferencias étnicas en la escuela: Un estudio de caso en Soria, España

Serafin Aldea Munoz
Escuela Universitaria de Educacion de Soria

Resumen
El presente artículo, pretende recoger los conceptos relacionados con el binomio igualdad—diferencia, que cada vez aparecen con más frecuencia en nuestras escuelas. El respeto a las minorías étnicas, la integración, y la necesidad de afirmar determinados valores y actitudes democráticas forman parte de los derechos de los niños y de las personas. Sin embargo, la evidencia, pone de manifiesto la distancia que separa en las aulas la teoría de la realidad, según podemos comprobar en este trabajo. Se insiste, también, en la dificultad de llegar a un acuerdo...
sobre lo que se ha de entender por tolerancia o por igualdad, que debe de traducirse en una concreción didáctica, a través de comportamientos y acciones que exceden el recinto educativo reglado o la mera información sobre la problemática mundial.

Abstract
This article attempts to compile those concepts relating to the duality equality-difference, which appears with increasing frequency in our schools. Respect for ethnic minorities, integration, and the need to affirm certain values are part of the rights of children and of all persons. Nevertheless, this work provides evidence of the gap between theory and reality in the classroom. We also examine the difficulty of reaching an agreement as to what should be understood as tolerance or equality, which must be translated into didactic practice through behaviors and actions which go beyond the typical educational treatment or mere information about this worldwide problem.

Introducción
Vivimos en un mundo en que los conflictos relacionados con el binomio igualdad - diferencia.

La necesidad de hacer explícitos determinados valores y aptitudes que en unas sociedades

Frente a esta preocupante situación, se insiste en las necesidades de promover diferentes prácticas.

Por una parte, se afirma de manera optimista que la escuela educa por sí misma en favor de los valores. Finalmente, está el problema de la concreción didáctica de los valores, es decir cómo enseñar.

Interculturalismo
Se denomina “interculturalismo en el aula”, no a la situación en que el profesor establece el ambiente cultural en el aula.

Al hablar del interculturalismo conviene referirnos al “Programa de educación compensatoria de las minorías étnicas con dificultades de aprendizaje”.

Este programa educativo está diseñado para: minorías étnicas con dificultades de aprendizaje.

Los colegios públicos que llevan a cabo el programa disponen de una serie de recursos pedagógicos.

En la provincia de Soria varios colegios e institutos de educación secundaria llevan a cabo programas de interculturalidad.

Interculturalidad, tolerancia y solidaridad

La tolerancia y la solidaridad deben trabajarse en el aula sobre todo dentro del área de las ciencias sociales. Tolerancia y solidaridad afectan directamente al problema de la educación en valores, cuya
La conversión de la tolerancia y la solidaridad en un proceso educativo transversal, no afec

**Estrategia de trabajo frente a la diferencia**

La tolerancia como contenido de aprendizaje se enfrenta a diario con una serie de conflictos:

La existencia de alumnos de diversa procedencia cultural que no sólo conviven entre sí, sino

En nuestro tiempo, tratamos de favorecer y reforzar la convivencia entre las distintas cultur

Cada uno de estos modelos se reproducen hoy tanto dentro como fuera de las aulas, aunque

**Educación multicultural**

El término “educación multicultural” no es unívoco. Mientras unos autores utilizan la expr

Se contemplan dentro del apartado de educación multicultural todos aquellos programas ed

**Racismo**

Conceptualmente definido, el racismo considera válida y objetiva la desigualdad entre “raz

Como tal, el racismo surge en Europa durante la edad moderna. Tuvo un primer núcleo de

Como se sabe, el racismo fue uno de los fundamentos ideológicos del nazismo, al amparo 

La escuela sigue siendo un agente relevante en la socialización de creencias, actitudes y val

Es indudable que los agentes, que hoy socializan a los niños dentro de una sociedad comple

Un talante abierto en los maestros, respetuosos de otros pueblos y culturas incluidas las mí

En la educación de la tolerancia y respeto a la diferencia étnico-racial, la escuela no debiere

**Etnocentrismo**

Es una pauta social resultante de los contactos directos o indirectos entre las culturas. Para

En la perspectiva etnocéntrica, la humanidad esa en las fronteras de la tribu, del grupo ling

Situados entre la doble tentación de condenar las experiencias con que tropieza afectivame

Todas estas especulaciones se reúnen de hecho, en una sola fórmula que el término falso ev

**La Europa multicultural y pluriétnica**

Veinte millones de inmigrantes viven en los países europeos, siendo ya muchos de ellos cit
En la CEE. habitan oficialmente trece millones de inmigrantes, lo que representa un 5,37% Se está desatando una incipiente y peligrosa epidemia de racismo, xenofobia y tolerancia a España se ve afectada también por estos nuevos fenómenos europeos. Como país emisor de Los medios de comunicación nos revelan frecuentemente la hostilidad frente a colectivos d Una democracia es el triunfo de las mayorías pero la verdadera sociedad democrática es el:

El curriculum en una escuela integrada para todos

Las necesidades especiales se han asociado inmediatamente a nuevos recursos, a una respuesta Juarcz (1997) ha identificado cuatro corrientes entre los partidarios del desarrollo de un currículum: La cuarta de éstas corrientes entendería que una educación democrática debe educar democ

¿A quién debemos de enseñar?

Es importante también repetirlo una y otra vez “a todos” y asimilarlo. Este punto de partida Para Malguenimi y Cols. (1997), es necesario que los profesores sean conscientes del clima. Estas recomendaciones no sólo deberían dirigirse hacia los profesores de educación general:

¿Cómo enseñar?

A partir de estas premisas, necesarias en el planteamiento de los objetivos curriculares, dos Se han empezado a considerar insuficientes las explicaciones basadas en el aprendizaje con

Enseñar respetando las diferencias

Una de las preguntas que frecuentemente plantean los profesores, una vez se encuentran con Una de las primeras soluciones a este problema de mantener en clase a niños con necesidad

Un estudio de caso sobre tolerancia, recelo y rechazo étnico en los profesores

Una cosa es soñar con la ilusión de viajar a países extraños y exóticos, o incluso pensar en Para conocer las actitudes de tolerancia y prejuicio social en esta clase, planteamos un repe Las seis relaciones interétnicas, que planteamos para cada grupo son las siguientes:

1. Vivir en el mismo barrio.
2. Tenerlos como amigos íntimos.
3. Tenerlos como compañeros de clase.
4. Casarse con uno de ellos.
5. Tenerlos como alumnos de clase.
6. Que sus hijos/as se casen con uno de ellos.

Ante cada grupo y ante cada una de estas relaciones interétnicas plantamos tres posibles respuestas:

1. “Qué les daría lo mismo”.
2. “Qué les molestaría algo”.
3. “Qué les molestaría mucho”.

Aquellas personas que respondieron “qué les daría lo mismo” los tipificamos, en principio, en valores como porcentajes de cada ítem.

Aplicamos cien cuestionarios a cien estudiantes de Escuela Universitaria de Educación, de origen originario y ciudadano español.

Síntesis de resultados Los resultados más destacados y significativos son los siguientes:

1. En cuanto a los ingleses hay que decir que son aceptados con normalidad. Los rusos
2. Los gitanos, es el grupo étnico en el que más problemas se observan; hay porcentajes
3. La actitud hacia los portugueses es de mediana aceptación: sólo a un 13% les molesta
4. Las actitudes hacia el grupo étnico judío es de mucho mayor rechazo que en todos los otros.

Hay que decir que todos estos datos reflejan actitudes, por supuesto entre actitudes y prácticas.

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Impact of Grants-in-aid on Collegiate Education: Evidence and Implications of a Regional Study in India

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Abstract
This article estimates the impact of grants-in-aid (GIA) and other variables on students' performance (in terms of pass percentages) in aided private degree colleges, using panel data from sample colleges in Bangalore district of Karnataka State (India) from 1991-92 to 1997-98. In addition, sensitivity of a reduction in GIA on the estimated pass percent of students in the individual colleges and feasibility of financing a reduction in GIA through proposed changes in students' fees are analysed. The results show that (a) the impact of GIA is positive and significant in all estimations; (b) the estimated pass...
percentage of students does vary remarkably, especially if GIA is reduced by 50 percent or more; and (c) the proposed fee revisions can finance a reduction in GIA to all colleges by about 12 percent. The framework of analysis and implications of empirical results above are of relevance for other regions in India as well as for other developing countries in assessing the policy impact of a reduction in public financing of higher education.

1. Introduction

Collegiate education in Karnataka State (India) comprises degree colleges which offer courses leading to the award of the Bachelor’s degree in Arts/Science/Commerce/Education/Law by the University with which they are affiliated. The degree colleges include Government colleges and private aided and unaided colleges. An aided (or unaided) college is defined as that college which receives (or does not receive) grants-in-aid (GIA) from the State government. At present, the GIA is given only as a teaching/maintenance grant in the form of cent per cent reimbursement of salary for teaching and non-teaching staff. (Note 1)

The main objective of this article is to examine whether or not the current GIA policy has influence on educational performance of aided colleges, if that educational performance can be proxied by pass percentage of students in aided courses? If so, what are the compulsions for the State Government to reducing the GIA? Whether or not a size reduction in the current GIA to colleges in the State is feasible? If feasible, how to implement such a policy of reduced GIA, without affecting the quality of education, through students’ fee revision? (Note 2)

In this article, a simple and general policy framework for empirical analysis of the nature and magnitude of determinants of performance of collegiate education, with special focus on the GIA, is developed. Second, the empirically framework is implemented for data on sample colleges in Bangalore Urban district (in brief, Bangalore district). Third, alternative policy scenario are generated by the technique of econometric policy simulation as to how a reduction in the GIA can influence the changes in the performance of collegiate education in the sample colleges. In addition, the implications of financing a reduction in GIA through a revision in students’ fee are analysed.

The Bangalore district is one of the developed districts in the State. (Note 3) Following the methodology of the UNDP in its human development reports, the Government of Karnataka (1999: p.218) has recently constructed the HDI by districts. For the year 1991, the value of HDI for Bangalore Urban district (or for the State as a whole) is 0.601 (or 0.470) with the value of life expectancy index of 0.680 (or 0.618), education index of 0.773 (or 0.596) and income index of 0.352
(or 0.196). Of the 20 districts, the rank of Bangalore Urban district is 2 in the value of HDI and in real GDP per capita (PPPS). This implies that the level of development of the district is above the State level and most of the districts in the State. And, this good performance of the district is largely contributed by education index. Thus, a study and role of educational sector is of special importance for the development of Bangalore district in the State. And, collegiate education is and cannot be an exception for it.

The main result of this article shows that the GIA policy has a positive and significant impact on educational performance of students in aided colleges. And, this result is valid for all estimated models of panel data. Surprisingly, college-specific effects are found to be positive and statistically significant for individual colleges, but not jointly significant for all colleges. Further, a cut in the size of GIA is shown to have differential impact on students' performance in different colleges. Hence, a uniform cut in GIA for all colleges may not be a plausible policy in the State. Finally, a proposed revision in the students' fee by the State government is shown to finance a reduction in GIA of only about 12 per cent. Thus, students' fee cannot be a single instrument for financing of entire reduction in the GIA.

The results above are obtained from a particular sample of colleges within a region in India. However, the framework of analysis and nature of problem are of general applicability for evaluation of regional education policy in other countries, especially if such countries are constrained to reducing public financing of their higher education, at present or in future. (Note 4)

The rest of the article is organised as follows. Section 2 gives a brief review of literature. Section 3 outlines a framework for empirical analysis. In section 4, data and variables for estimation are detailed. Section 5 presents the estimation results. In section 6, the results of econometric policy simulation analysis are discussed and major implications of financing a reduction in the GIA by revisions in students' fee are derived. Section 7 concludes the article with implications.

2. Review of literature

There exists a vast literature on the determinants or correlates of student achievement (or performance or attainment) in schools, if not in colleges, in India and in other countries. This literature provides a very useful information on various determinants and the nature and magnitude of effects of those determinants on student performance in schools. These information are helpful as general guidelines for current and future studies on determinants of student performance in schools in particular and in colleges in general.

In the context of India, Padma (1991) provides a neat and
comprehensive review of studies between 1983-88 on correlates of achievement. Broadly, the review divides the studies into variable-wise, educational level-wise and subject-wise. For instance, the variable-wise review of studies show both multiplicity and diversity of variables used, such as, inherent variables (e.g. intelligence, personality, anxiety, feeling of insecurity, self-concept, motivation, academic interest, aptitude, habits and attitude), sociological variables (e.g. socio-economic status and environment) and other variables (e.g. age at admission, language ability, medium of instruction, homework and dropout). On reviewing studies under subject-wise, Padma observes that: "Each of the subjects is unique by itself. It is common experience to find a student achieving high in one subject of study while not doing so in some other. It is therefore necessary to study achievement in different scholastic subjects" (p.813).

Most recently, Duraisamy and Subramanian (1999) have estimated the determinants of higher secondary school attainment by courses and by management of schools, using the sample survey data from Chennai metropolitan area. Using the framework of attainment production function, the authors estimate, among others, the effects of child's sex and birth order, father's education, mother's education and family income, caste of the child, teacher's experience and sex, student-teacher ratio and management of school (i.e. whether private aided or unaided or public) on student attainment in English and Mathematics separately. The estimation results, for instance, in regard to attainment in English showed statistically significant effects of all variables except sex of student and teacher, student-teacher ratio. In particular, the positive and significant results in regard to management dummy variable implied that "achievement scores of students from the private aided and unaided schools are much higher than those from the public schools" (p.45). In addition, the authors make sample separation between public, private aided and private unaided schools, and estimate the effects of the same set of determinants above for the respective courses. The results show remarkable differences in the nature and magnitude of determinants between schools by management.

Outside India, educational attainments are proxied by variables, such as, graduation rates (e.g. percent population graduated from high school) and scores in standard achievement tests (e.g. Scholastic Aptitude Test). The broad group of determinants is as follows. First, the school inputs or resources (e.g. pupil-teacher ratio, level of teachers education, length of teachers education, expenditure per pupil, class size, administrative inputs and facilities at schools). Second, family and/or parental background of students (e.g. parents income and educational level). Third, political and policy factors of the national and sub-national levels of governments (e.g. criteria for financing public schools).

Recently, Hanushek (1996) and Card and Krueger (1996) provided an
excellent review of micro and macro studies on the effects of the school resources and family background on student performance in school in the context of USA. For instance, Hanushek's review summarizes, among others, the effects of teacher-pupil ratio and expenditure per pupil on student performance from 277 and 163 studies respectively. Surprisingly, of the studies using teacher-pupil ratio, only 15% (13%) of studies report statistically significant positive (negative) effects, whereas 27% (25%) of studies report statistically insignificant positive (negative) effects and 20% of studies do not report signs of the statistically insignificant coefficient. In the same way, of the studies using expenditure per pupil, only 27% (7%) of studies report statistically significant positive (negative) effects, whereas 34% (19%) of studies report statistically insignificant positive (negative) effects and 13% of studies report effects with unknown signs. An important conclusion of Hanushek's extensive review is that spending and commonly used resources of schools are not good measures of school quality and, hence, merely adding such resources may not bring significant improvement in student performance. Thus, "the challenge is to identify the characteristics that make certain schools and teachers better, remembering that these characteristics don't seem to have much to do with standard inputs, and then figure out how worse schools can take on these positive characteristics" (p.18).

Further, Hanushek's review makes a useful analysis of the specification bias in using teacher-pupil ratio and expenditure per pupil when data on them are used at spatially aggregated levels. For instance, of the 277 studies in which teacher-pupil ratio is used, 157 studies were single State samples with 12% of them reporting statistically significant and positive (negative) sign. The remaining 120 studies constituted multiple state samples with 109 studies which incorporate variation within each State. And, 14% of these studies report statistically significant and positive effect of teacher- pupil ratio. In the same way, the positive and statistically significant estimates of expenditure per pupil is shown to be disproportionately contributed by studies employing data from inter-state samples and data aggregated at state level.

Of late, Hammond (2000) has come out with a detailed review and a strong evidence for the role of school variables (i.e. teacher quality) in determining student achievement. The review of studies on teacher quality includes measures of academic ability, years of education, years of teaching experience, subject matter and teaching knowledge, certification status, and teaching behaviour in classroom. Using a large sample survey data at the state level in USA, a multiple-regression model is formulated to estimate the effects of teacher quality and other variables on student achievement scores in mathematics and reading separately. The results show, among others, that the percent of well-qualified teachers has a positive and highly significant effects on the achievement scores in all the subjects and grades included in the
estimations.

From the literature review above, the evidence for the role and importance of policy and non-policy factors in influencing student performance in schools is clearly mixed. Further, the evidence is relevant for particular socio-economic context, educational level, institutional setting and data availability in the respective countries. These evidence have two implications. First, empirical analysis on the determinants of student performance needs to be continued, as the available evidence (either supporting or confronting) are not conclusive. Second, unless the socio-economic context, educational level and institutional setting are comparable, a replication of previous studies may not be relevant for a current or future study. Third, there exists no econometric study on the impact of GIA on collegiate education in Karnataka State, or in other states of India, especially as they are related to the issues in the GIA policy above. (Note 5) In the same way, no published study on this topic of educational finance seems to be available outside India. Thus, an empirical analysis of effects of college resources on student performance in Karnataka needs a new framework, as no previous study exists on this topic to fill in these research gaps.

3. A framework for empirical analysis

We consider that the ultimate and sole objective of a college is to turn out the students with a successful graduation. Since passing the final examination, given that all other/previous examinations had been successfully passed, is a precondition for graduation, it is plausible to consider that the number of students passing the final year examination as a proxy for the number of graduates. From this viewpoint, a college should aim at achieving a 100 percent graduation of its students. Note that within the graduated students, there exists heterogeneity in terms of passing the degree examination with a I Class or II Class or III Class. Since class distinctions are not essential to obtain a degree, they are ignored throughout.

Let \( P_{it} \) be the total number of students who have passed the final year examination as a percentage of total number of students who appeared for that examination in the i-th college for the t-th year. Throughout, this percentage will be referred to as the pass percentage and would be the sole indicator of educational performance of a college.

We consider that \( P_{it} \) is a function of GIA and non-GIA variables. And, denote the non-GIA variables as \( (X_{1it}, \ldots, X_{mit}) \) and the GIA variable as \( GIA_{it} \). If data on \( P_{it}, (X_{1it}, \ldots, X_{mit}) \) and \( GIA_{it} \) are available for \( N \)-number of colleges and \( T \)-number of years, the following panel data model may be formulated.
\[ P_{it} = f[X_{i1}, \ldots, X_{it}, GIA_n], \]
\[ i = 1, 2, \ldots, N; t = 1, 2, \ldots, T \]

\[ (1) \]

where the total number of observations equals to \( NT \). (Note 6)

The panel data thus generated in (1) can be employed for estimation of alternative models, such as, a pooled regression model and fixed effects model. Assuming \( P_{it} \) is linear in both variables and parameters, a pooled regression model can be formulated as follows.

\[ P_{it} = \beta_0 + \beta_1 X_{i1} + \ldots + \beta_s X_{in} + \lambda GIA_n + \mu_\tau + \epsilon_{it} \]
\[ i = 1, 2, \ldots, N; t = 1, 2, \ldots, T \]

\[ (2) \]

where both the intercept (\( \beta_0 \)) and slope (\( \beta_j \)'s) coefficients are presumed to be constant, both across colleges and over time, and \( \mu_\tau \) is the random disturbance term. It is assumed that the model in (2) satisfies all the standard assumptions of a multiple (linear, ordinary and normal) regression model. Hence, (2) is estimable by the technique of ordinary least squares.

In a fixed effects model (FEM), the coefficients (i.e. intercept coefficients) are considered to be non-random or fixed but unknown. And, the unknown parameters are to be estimated. A simple framework for estimation and testing of a FEM is as follows.

\[ P_{it} = \alpha_0 + \alpha_1 X_{i1} + \ldots + \alpha_s X_{in} + \phi GIA_n + \epsilon_{it} \]
\[ i = 1, 2, \ldots, N; t = 1, 2, \ldots, T \]

\[ (3) \]

This model allows for the intercept to vary across colleges but not over time. And, the slope coefficients are assumed constant, both across colleges and over time. (Note 7)

In essence, the fixed effects in (3) are presumed to account for those omitted variables that are specific to individual-colleges. One possible explanation for the omission of such variables is lack of information on them for a researcher, such that they become totally unobserved. These
unobserved variables might include dedicated teaching and non-
teaching staff, commitment for learning on the part of the students,
opportunities for professional inter- action and growth, and existence
of benevolent college management.

In estimating the model in (3), we follow the least- square dummy-
variable approach, where separate dummy- variables are introduced for
each of the N-colleges. Thus, the total number of coefficients to be
estimated in equation (3) is N-dummy coefficients + number of slope
parameters.

In the ultimate analysis, the formulation above involves a choice
between the pooled regression and fixed effects model. For this
purpose, we adopt the following test in Green (1997). Let the estimated
coefficient of determination or \( R^2 \) in (3) be denoted by \( R^2 (FEM) \) and
\( R^2 (PRM) \) be the estimated \( R^2 \) in (2). Let \( M^* \) be the number of
explanatory variables excluding the intercept. Then, null hypothesis of
whether the fixed effects are the same for all colleges can be tested by
the following F-test

\[
F = \left[ \frac{\{ R^2 (FEM) - R^2 (PRM) \}}{/(N - 1)} \right] / \left[ \frac{/(1 - R^2 (FEM))}{/(NT - N - M^*)} \right].
\]

\( ....(4) \)

4. Data and variables for estimation

4.1. Data for estimation

Collegiate education in Karnataka includes general degree colleges, law
colleges and education colleges. (Note 8) This study, however, is
focused only on general degree colleges which are aided.

The panel data on the colleges for 7 years, from 1991- 92 to 1997-98,
were collected by developing and canvassing a structured questionnaire
to aided colleges in Bangalore district. (Note 9) According to
Government of Karnataka (1998), there were 44 aided degree colleges
in the Bangalore Urban district and 4 in Bangalore Rural district during
1997-98. In total, 35 colleges were randomly selected. Over a period of
four months and by the end of December 15, 1998, the completed
questionnaires were received from 30 colleges in Bangalore Urban
district and 1 college in Bangalore rural district. Thus, the sample
colleges essentially belong to Bangalore Urban district only. In
addition, the sample comprises colleges of all types of private
management in the district, viz., 2 SC/ST colleges, 9 Minority colleges
and 20 other colleges (i.e. neither SC/ST nor Minority colleges).
4.2. Variables for estimation

To start with, from the sample survey of colleges above, the following variables are listed for consideration of estimations. Throughout, unless stated otherwise, by courses we mean only the aided courses and by colleges we mean only the aided colleges.

4.2.1. Dependent variable

The dependent variable in all estimations is the pass percentage of students in all courses (PASS%) in a college. This is defined as the total number of students in the courses who have passed the final year examination in B.A. B.Sc and B.Com as a percentage of total students in the final year of the B.A. B.Sc and B.Com.

In principle, pass percent of students in a college may be defined in two alternative ways. The notations to be used in these definitions are as follows. Let $P_{jit}$ be the total number of students passing the final year examination of the $j$-th course in the $i$-th college and in the $t$-th year. And, $S_{jit}$ be the total number of students in the final year of the $j$-th course in the $i$-th college and in the $t$-th year, and $T_{it}$ is the sum of students in all courses [i.e. $T_{it} = \sum_{j} (S_{jit})$]. Throughout, $j=1,2,3; i=1,2,...,31; \text{and} t=1,2,...,7$.

First, the pass percent of student by courses $(P_{jit})$

\[
(PASS\% \ jit) = \left[ \frac{P_{jit}}{S_{jit}} \right] \cdot 100.
\]

\[\ldots\ldots(5)\]

Second, the pass percent of student for all courses in a college $(PASS\%)_{it}$

\[
(PASS\% \ it) = \left[ \sum_{j=1}^{j} \frac{P_{ jit} \ \ \ \ / \ T_{it} }{T_{it}} \right] \cdot 100.
\]

\[\ldots\ldots(6)\]

In general, $(PASS\%)_{jit} \neq (PASS\%)_{it}$, unless $j=1$. Further,

\[
\left[ (S_{jit} / T_{it}) \cdot (PASS\%)_{jit} \right] = \sum_{j=1}^{j} \left( S_{jit} / T_{it} \right) \cdot \left( P_{jit} / S_{jit} \right) \cdot 100 = (PASS\% \ it)
\]

\[\ldots\ldots(7)\]

Hence, $(PASS\%)_{it}$ is the weighted sum of $(PASS\%)_{jit}$, where the weight is the ratio of final year students in a course to total number of
final year students in all courses in a college.

In my estimations, the dependent variable is (PASS%)_{it} in (6) rather than (PASS%)_{jit} in (7). This is due to the following institutional factors and data problems.

4.2.1.1. Institutional factors

In Karnataka State, colleges impart education leading to the award of Bachelor's degree in Arts, Science and Commerce (B.A. B.Sc and B.Com respectively) by the University with which they are affiliated. For instance, colleges in Bangalore districts are affiliated with Bangalore University. The major functions of the Universities include the preparation of common syllabus, conduct common examination and evaluation and award degrees for successful students in different courses.

Each of the degree course contains different subjects. For instance, B.A. course contains all subjects under humanities and social sciences, such as, languages, history, economics, political science, philosophy and sociology.

Each of the subjects contains different papers. The number of papers in different subjects may be uniform within a course. The minimum marks to pass in a subject may be set by the University to a common level (e.g. 35%). Thus, to pass in a subject the minimum marks to be obtained is 35% in all subjects, and to graduate (or, to obtain a degree), the minimum marks to be obtained is 35% in all subjects. In short, the minimum marks for graduation is uniform for all courses within a college and in the University.

Consequently, my article has presumed that efforts to pass is uniform across papers, subjects and courses. Accordingly, pass percent of students for all courses (or graduation rate) in a college is considered to be a plausible specification of the dependent variable in my estimations.

Here I might add the fact that, as compared to collegiate education, school education is simpler in structure and uniform throughout the State. For instance, high school education in the State is a three year course, starting from the 8th standard and ending with 10th standard. In the 10th standard, State level public examination is held with all students preparing for the same number of papers with common syllabus, and common examination and evaluation held at the same time throughout the State. There is no difference between a paper and subject in high school education, as each subject has only one paper. Thus, studies on determinants of student performance in Indian schools have used data by courses rather than for all courses together [e.g., Duraisamy and Subramanian (1999)].
4.2.1.2. Data problems

First, of the 31 sample colleges, only 9 colleges have all the three degree courses. In the remaining 22 colleges, B.A. course is given in 19 colleges, B.Com in 22 colleges and B.Sc in 9 colleges. Further, in many colleges, different courses are observed to have been started in different years. Thus, course-wise information on student performance is not constructable for all 7 years and for all colleges.

Second, the sample survey did not attempt to collect information on student performance by courses. Hence, course-specific determinants are not possible to be estimated from the information in my sample survey of colleges.

4.2.2. Independent variables

The independent variables include the GIA and non-GIA (in the form of qualitative and quantitative) variables.

(i) Year of starting a college (START): Colleges in Bangalore district have been started in different years and some of them have been in existence over 25. Such old colleges may have developed better infrastructure as compared to colleges which have been started more recently. To capture the impact of different years of starting of colleges on PASS%, START is introduced as a dummy variable [-1 (or 0), if the college is started in or before 1970 (or if started after 1970].

(ii) Composition of students in a college (COM): Colleges are different in regard to the composition of students. For instance, there are women's colleges, men's colleges and co-education colleges. There is a presumption that, other things being equal, pass percentage of students is higher in women's colleges than in other colleges. To test the validity of this presumption, COM is introduced as a dummy-variable [-1 (or 0), if the college is a women's (or men's/co-education) college].

(iii) Courses offered (COURSE1): The nature and number of aided courses (apart from unaided courses, if any) differ between colleges. For instance, a college may offer only B.A. and B.Com courses, and another college may offer B.A. B.Com and B.Sc courses. Since the dependent variable is the pass percentage of students in all aided courses, it makes a difference whether or not a college has all the three aided courses. To capture the same, COURSE1 is introduced as a dummy variable. Its value is equal to 1 (or 0) if a college offers B.A., B.Sc. and B.Com courses (or if it offers only one or two of the three degree courses).

(iv) Course offered (COURSE2): The presence of B.Sc. course is often presumed to be a major contributory factor for the overall pass percentage of students in a college. To test this presumption,
COURSE2 is introduced as a dummy variable. Its value equals to 1 (or 0) if a college offers B.Sc. and/or B.A., and/or B.Com courses (or if offers B.A. and/or B.Com course.

(v) Year of GIA (YGIA): As in the case of the year of starting of colleges, there is a considerable variation in the year of bringing the colleges under the GIA. If a college had been brought under the GIA before 1977, it might have been better endowed with teaching and non-teaching staff and facilities than colleges, which have been brought under the GIA since 1977. This is because of the fact that before 1977, the GIA was also given for assisting the non-staff requirements (e.g. purchase of site, construction of buildings and purchase of equipment) of the colleges. To capture the effects of difference in the year of receiving the GIA, YGIA is introduced as a dummy variable [=1 (or 0), if the year of bringing the college under GIA is in or before 1977 (or after 1977).

(vi) Ratio of final year students to first year students (RSFFY): This variable is defined as the number of students in the final year B.A. B.Sc and B.Com as a ratio of total number of students in the first year B.A. B.Sc. and B.Com course in a college. This variable is intended to capture the nature and magnitude of the impact of retention of students on the PASS% in the colleges.

(vii) Student-teacher ratio (STR): This is the ratio of total number of students studying in I, II and III year of B.A. B.Sc and B.Com course to the total permanent teaching staff who are involved in these courses. In short, STR is the total number of degree students per permanent teacher in the aided courses of a college. The STR is intended to capture the availability of per teacher services for students, which is a vital input for students' performance, in the colleges. (Note 10)

(viii) Amount of standardized GIA (SGIA): This is the amount of nominal GIA in the standardized form. That is, the actual observations on the nominal GIA are subtracted from its arithmetic mean and the resultant value is divided by the standard deviation of the GIA. The basic purpose of the standardisation is to convert the GIA into a dimensionless quantity such that it does not vary along with its unit of measurement.

This type of standardization is especially relevant since the observed values of the total GIA to individual college vary considerable in cross-section and time series data. These variations are accountable for many factors (e.g. number of aided courses and teachers, years of experiences of the teachers, allowances related to inflation and number of any part-time or temporary staff). Thus, using the absolute amount of the GIA may not be plausible. Further, any attempt to express the GIA in different units of measurement (e.g., in thousand or lakh of rupees) would result only in different magnitude for the estimated coefficient for the variable. Thus, it is necessary to standardize the variable such that its value does not vary with the unit of measurement.
(ix) Amount of standardized non-salary and wage expenditure (SNTE): This is the amount of nominal expenditure on non-salary and wages in a college and the nature of standardization is the same as explained in (viii) above. In addition, non-salary and wage expenditure per student (NTEPC) is considered as an alternative variable for SNTE.

It is important to note that not all the quantitative and qualitative variables above are included in the final estimations. For instance, the variables which are dropped from the final estimations, and the main reason for the same, are given below. First, there exists a perfect colinearity between START and YGIA. Thus, estimations including both the dummy-variables in the same equation is not possible. Second, inclusion (either separately or in combination) of PCNTE and SNTE did not improve the qualitative aspects of the trial estimation results and, hence, dropped from further estimations. Consequently, the following independent variables are chosen for final estimations: COM, COURSE1 or COURSE2, YGIA, RSFFY, STR and SGIA.

At the very outset, the inclusion of both STR and SGIA in the same equation may mean the double counting of the effects of GIA on the PASS%. This is due to the fact that a part of total permanent teachers in the aided colleges/courses are paid salary from the GIA. However, in our estimations, this problem of double counting is avoided by aiming to capture separate effects of STR and SGIA on the PASS% as explained below.

First, given the number of students, STR merely depends and varies between colleges on the number of teachers. Hence, it does not distinguish the quality of teachers in terms of their higher qualification and longer experience. Thus, if two colleges have equal number of total students and teachers, except that in one college there is a large number of experienced teachers, the STR will be equal between colleges although the quality of teaching may differ between colleges.

Second, the SGIA is intended to capture the incentives for and quality of teachers in a college as contributed by the GIA policy. For instance, apart from the basic salary, it captures the incentives (e.g. pay revisions) and compensations (e.g. inflation-linked DA payments) for the teaching staff. Thus, if two colleges have the same number of teaching staff but different amount of GIA, then a college, which has a larger GIA, may comprise more number of experienced staff. These effects of the GIA policy, however, would remain uncaptured if GIA were not included as a separate explanatory variable.

4.3. Predictions

First, we predict the sign for the coefficient for RSFFY to be negative. This result may be interpreted that, other things being equal, a decrease in the number of students in the final year as a percentage of students in
the first year would have a negative effect on the pass percent of students in the final year examination. This is plausible since a decrease in RSFFY may be contributed by a higher number of good performing science students, who might have left the degree course to joining professional courses.

Second, we predict the sign of the coefficient for STR to be positive. This result may be interpreted that, other things being equal, an increase in the number of teachers would have a positive impact on pass percent of students in a college. This is plausible since, for a given number of students, an increase in the number of teachers means a greater amount of teaching time for and interaction with the students.

Third, we predict the sign of the coefficient for SGIA to be positive. This result may be interpreted that, other things being equal, an increase in one standard deviation of the GIA would have a positive impact on the pass percentage of students in aided courses. Such a result would clearly demonstrate that the present GIA policy is positively contributory for the educational performance in the colleges.

In regard to three dummy variables [COM, COURSE1 or COURSE2 and YGIA], the interpretation of estimated results depends on their assigned values (i.e. 1 or 0). Accordingly, the expected or mean value of the PASS% may be interpreted, either individually or for a combination of these dummy variables. For instance, the estimated coefficient for COURSE1 shows the extent by which the mean PASS% in a colleges, which offers all the degree courses, differs from the mean PASS% in college which offers one or two of the degree courses. Further, if COM=1; YGIA=1; and COURSE1=1, and other things being equal, we obtain the mean PASS% in a college, if that college were be a women's colleges, offering all the degree courses and brought under the GIA before 1977.

5. Results of estimation

5.1. Descriptive statistics

The descriptive statistics for the quantitative variables (i.e. PASS%, RSFFY, STR and SGIA) are given in Table 1. By definition, the mean and standard deviation of the SGIA is 0 and 1 respectively. Hence, coefficient of variation cannot be computed.
First, the largest variation (in relative terms) is evident for STR and the least variation is evident for RSFFY. Second, the range of STR is wide as the maximum (or minimum) value is about 165 (or 7). Most importantly, the range of values of SGIA is smallest among all the variables. This is the outcome of the standardization applied for the absolute GIA for sample colleges. Note that the minimum value for the SGIA is negative. This is possible if grants-in-aid to a college are less than the average value of grants-in-aid for all colleges.

Next, the simple correlation coefficients show the nature and degree of linear relationships between variables. For instance, the PASS% is positively (or negatively) correlated with STR and SGIA (or RSFFY). In fact, the correlation coefficient between PASS% and SGIA is the highest among all the positive coefficients. And, SGIA is negatively correlated with STR and RSFFY.

5.2. Estimation results of the pooled regression model

Table 2 summarizes the estimation results of pooled regression model. The estimation results with COURSE1 show that the estimated coefficients of RSFFY, STR and SGIA have predicted signs and are statistically significant at 5 percent level. In addition, the estimated coefficient of the dummy variable, COM, is positive and highly significant. Thus, the mean pass percentage of students in women's college differs from the mean pass percentage of students in a men's or co-education college by 15.73 percent. Further, the explanatory power in terms of $R^2$ is about 32 percent. This indicates that about 32 percent of variations in the PASS% are explained by the included variables in the model. This is supported by the highly significant F-statistic in the estimation.

Table 2

Estimation Results of the Pooled Regression Model
<table>
<thead>
<tr>
<th>Dependent Variable :</th>
<th>PASS%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model 1</td>
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<tr>
<td>Independent Variables :</td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
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</tr>
<tr>
<td></td>
<td>(8.579)*</td>
</tr>
<tr>
<td>COM</td>
<td>15.73</td>
</tr>
<tr>
<td></td>
<td>(5.521)*</td>
</tr>
<tr>
<td>COURSE1</td>
<td>0.58</td>
</tr>
<tr>
<td></td>
<td>(0.199)</td>
</tr>
<tr>
<td>COURSE2</td>
<td></td>
</tr>
<tr>
<td>YGIA</td>
<td>3.92</td>
</tr>
<tr>
<td></td>
<td>(1.241)</td>
</tr>
<tr>
<td>RSFFY</td>
<td>-17.36</td>
</tr>
<tr>
<td></td>
<td>(3.240)*</td>
</tr>
<tr>
<td>STR</td>
<td>0.16</td>
</tr>
<tr>
<td></td>
<td>(2.072)*</td>
</tr>
<tr>
<td>SGIA</td>
<td>8.66</td>
</tr>
<tr>
<td></td>
<td>(5.178)*</td>
</tr>
<tr>
<td>R-Square</td>
<td>0.32</td>
</tr>
<tr>
<td>Standard Error of Regression</td>
<td>18.27</td>
</tr>
<tr>
<td>F</td>
<td>16.49*</td>
</tr>
<tr>
<td>Number of Observations</td>
<td>217</td>
</tr>
</tbody>
</table>

Note: [1] Figures in the parentheses are the absolute t-ratio.  
[2] * significant at 5 percent level.

Interestingly, the estimation results above are qualitatively and quantitatively different when COURSE1 is replaced by COURSE2 as an explanatory variable. Thus, the presence or absence of B.Sc course does make a difference in the mean PASS% of students. Nevertheless, the estimated coefficient for COURSE1 or COURSE2 is not statistically significant in both the estimations.

Further, in both the estimated equations, the coefficient of the YGIA remains insignificant. Thus, the year of the GIA in/before 1977 or after makes no difference for the pass percentage of students. Further, it is important to note that the estimated intercept term is positive and significant. To capture the variation in this coefficient between colleges is the focus of the following estimation of FEM.

### 5.3. Estimation results of fixed effects model

The results of the FEM in Table 3 show that the estimated coefficient for COM, RSFFY, STR and SGIA are significant. In addition, the estimated fixed effects are positive and significant for each of the 31 colleges. The magnitude of the estimated fixed effects is clearly different between colleges. This result offers evidence for the importance of college-specific effects (unobserved, however) on the pass percentage of students.

Table 3

**Estimation Results of the Fixed Effects Model**
As in the case of pooled regression, the estimated coefficient for RSFFY, STR and SGIA are significant and possess predicted sign. However, the magnitude of the estimated coefficient for RSFFY and STR (or SGIA) are smaller (or larger) in case of FEM. In the same way, the sign and magnitude of the estimated coefficient for COURSE2 is different between the pooled regression model and FEM. In particular, the estimated coefficients for COURSE and YGIA remain insignificant in both the estimation models. In addition, the $R^2$ for the FEM is 0.40, which is higher than the $R^2$ for the pooled regression model ($0.32$). Thus, the explanatory power of the FEM is higher than the pooled regression model.

Using the framework in equation (4) above, we test whether or not the fixed effects are the same for all the colleges. The computed value of F-statistic is 0.79. Since the 5 percent critical value of $F(30, 180)$ is about 1.46, we do not reject the null hypothesis that fixed effects are the same at the 5 percent level of significance. Thus, on empirical grounds, college-specific effects are individually significant but not jointly for all the aided colleges. This implies that the estimators of pooled regression in Table 2 are efficient as compared to the estimators of FEM in Table 3.

It should be emphasised that the impact of SGIA is positive and significant in the estimations above. This result offers empirical evidence for the positive role of the GIA policy on the educational performance of aided colleges in Bangalore district. Since the basic objective of the GIA policy is to improve the educational performance of colleges, the estimation results offer unambiguous evidence in
favour of accomplishing this objective of the GIA policy in aided colleges of Bangalore district. (Note 11)

6. Impact of a reduction in GIA

A reduction in GIA may influence the PASS% in two important ways. First, by affecting STR through a reduction in the number of permanent teaching staff or number of teacher hours for a given number of students. Second, by affecting the quality of teaching through a reduction in incentives to work due to loss of regular salary and benefits as well as job security. However, if the teaching staff on the GIA is all permanent staff, then a reduction in GIA may not automatically translate itself into a reduction in number of staff or reduction in teaching work. Rather, it may affect those staff who are temporary or part-time basis and are paid by the college management. In this situation, a reduction in the GIA may not affect the STR as the denominator of the STR comprises only the permanent staff. Thus, in what follows, we attempt to capture the impact of a reduction in GIA only in terms of changes in SGIA but not through changes in STR.

The impact analysis below is framed as a simulation exercise to answering the following policy question. What would have been the pass percentage of students from 1991-92 through 1997-98, if the values of the SGIA were to be less than what were observed in those years and given the value of other independent variables as they were observed? In particular, we determine the impact on the estimated PASS% if the SGIA to the colleges were to be reduced by 10 percent or 25 percent or 50 percent or 100 percent. This analysis helps in identifying the impact of SGIA on PASS%, separately for individual colleges. (Note 12)

The framework for the simulation analysis is as follows. First of all, we have the following estimated equation from the FEM, wherein the capped coefficients are the estimated coefficients from Table 3; and the capped $P_{it}$ the estimated mean PASS% of students in the i-th college for the t-th year.

$$
\hat{P}_{it} = \alpha_1 + \alpha_2 (COM)_{it} + \alpha_3 (COURSE)_{it} + \alpha_4 (YGLA)_{it} + \alpha_5 (RSFY)_{it} + \alpha_6 (STR)_{it} + \hat{\phi} (SGIA)_{it}
$$

$$
i = 1, \ldots, 31.\ldots\ldots.(8)
$$

Thus, for each of the 7 years, the estimated PASS% may be computed for each of the 31 colleges.

It should be noted that the nature of changes in PASS% due to a reduction in SGIA depends on whether the actual GIA is above or below the arithmetic mean of the GIA to the colleges. For those
colleges where the actual GIA is less (or greater) than the arithmetic mean of the GIA for all colleges, the value of SGIA is invariably negative (or positive). Hence, the impact of an increase or decrease in SGIA is negative (or positive) respectively. In view of this, the simulation results should only be considered for understanding the sensitivity of changes only in the absolute magnitude of PASS%.

6.1. Simulation results

Table 4 presents the simulation results for the year 1991-92, 1994-95 and 1997-98. Given the estimated coefficients and observed values of independent variables, the estimated PASS% is obtained. And, alternative values of estimated PASS% are obtained depending on the extent of assumed changes in SGIA. The major results and implications of the analysis are as follows.

Table 4
Impact of Changes in the GIA on PASS% During Select Years: Results of Econometric Policy Simulation Analysis

<table>
<thead>
<tr>
<th>Colleges</th>
<th>Estimated PASS%</th>
<th>Estimated PASS% if GIA were to be reduced by 10%</th>
<th>Estimated PASS% if GIA were to be reduced by 50%</th>
<th>Estimated PASS% if GIA were to be reduced by 100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>41.564</td>
<td>41.794</td>
<td>41.144</td>
<td>43.724</td>
</tr>
<tr>
<td>2</td>
<td>42.229</td>
<td>42.877</td>
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<td>3</td>
<td>26.334</td>
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<tr>
<td>4</td>
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<td>31</td>
<td>45.268</td>
<td>45.743</td>
<td>46.456</td>
<td>47.644</td>
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</table>

Standard deviation 11.91 11.20 10.68 9.71 9.00

http://epaa.asu.edu/epaa/v9n21/ 160 6/13/01
Table 4 (Continued)
Impact of Changes in the GIA on PASS% During Select Years:
Results of Econometric Policy Simulation Analysis

<table>
<thead>
<tr>
<th>Colleges</th>
<th>Estimated PASS% if SOIA were to be reduced by 10%</th>
<th>Estimated PASS% if SOIA were to be reduced by 25%</th>
<th>Estimated PASS% if SOIA were to be reduced by 50%</th>
<th>Estimated PASS% if SOIA were to be reduced by 100%</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>49.74</td>
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<td>47.12</td>
<td>45.78</td>
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<td>10</td>
<td>45.73</td>
<td>45.15</td>
<td>44.47</td>
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<tr>
<td>11</td>
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<td>32.92</td>
<td>32.23</td>
<td>31.50</td>
</tr>
<tr>
<td>12</td>
<td>27.67</td>
<td>27.06</td>
<td>26.36</td>
<td>25.60</td>
</tr>
<tr>
<td>13</td>
<td>61.83</td>
<td>60.59</td>
<td>59.25</td>
<td>57.35</td>
</tr>
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<td>14</td>
<td>54.54</td>
<td>53.32</td>
<td>51.99</td>
<td>50.04</td>
</tr>
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<td>15</td>
<td>46.12</td>
<td>44.94</td>
<td>43.65</td>
<td>42.00</td>
</tr>
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<td>16</td>
<td>32.89</td>
<td>31.84</td>
<td>30.79</td>
<td>30.00</td>
</tr>
<tr>
<td>17</td>
<td>36.70</td>
<td>35.49</td>
<td>34.34</td>
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</tr>
<tr>
<td>18</td>
<td>29.96</td>
<td>29.32</td>
<td>28.72</td>
<td>28.00</td>
</tr>
<tr>
<td>19</td>
<td>20.33</td>
<td>20.00</td>
<td>19.56</td>
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<td>21</td>
<td>17.06</td>
<td>16.19</td>
<td>15.38</td>
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<tr>
<td>22</td>
<td>37.39</td>
<td>36.33</td>
<td>35.38</td>
<td>34.50</td>
</tr>
<tr>
<td>23</td>
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<td>45.44</td>
<td>44.65</td>
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<td>38.43</td>
<td>37.75</td>
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<td>25</td>
<td>31.44</td>
<td>30.88</td>
<td>30.26</td>
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<td>26</td>
<td>28.30</td>
<td>27.63</td>
<td>27.00</td>
<td>26.35</td>
</tr>
<tr>
<td>27</td>
<td>69.64</td>
<td>67.95</td>
<td>66.26</td>
<td>64.60</td>
</tr>
<tr>
<td>28</td>
<td>31.69</td>
<td>30.76</td>
<td>30.00</td>
<td>29.30</td>
</tr>
<tr>
<td>29</td>
<td>50.19</td>
<td>50.71</td>
<td>51.40</td>
<td>52.00</td>
</tr>
<tr>
<td>30</td>
<td>35.22</td>
<td>34.85</td>
<td>34.50</td>
<td>34.00</td>
</tr>
<tr>
<td>31</td>
<td>46.55</td>
<td>45.97</td>
<td>45.42</td>
<td>44.80</td>
</tr>
</tbody>
</table>

Standard deviation: 1.257
11.93 11.06 5.87 8.90

Table 4 (Continued)
Impact of Changes in the GIA on PASS% During Select Years:
Results of Econometric Policy Simulation Analysis

<table>
<thead>
<tr>
<th>Colleges</th>
<th>Estimated PASS% if SOIA were to be reduced by 10%</th>
<th>Estimated PASS% if SOIA were to be reduced by 25%</th>
<th>Estimated PASS% if SOIA were to be reduced by 50%</th>
<th>Estimated PASS% if SOIA were to be reduced by 100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>43.59</td>
<td>42.61</td>
<td>41.63</td>
<td>40.65</td>
</tr>
<tr>
<td>2</td>
<td>50.07</td>
<td>49.20</td>
<td>48.16</td>
<td>47.12</td>
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<tr>
<td>3</td>
<td>45.94</td>
<td>45.18</td>
<td>44.28</td>
<td>43.30</td>
</tr>
<tr>
<td>4</td>
<td>50.76</td>
<td>49.82</td>
<td>48.86</td>
<td>47.90</td>
</tr>
<tr>
<td>5</td>
<td>51.43</td>
<td>50.58</td>
<td>49.64</td>
<td>48.68</td>
</tr>
<tr>
<td>6</td>
<td>47.39</td>
<td>46.51</td>
<td>45.67</td>
<td>44.72</td>
</tr>
<tr>
<td>7</td>
<td>54.24</td>
<td>53.07</td>
<td>51.92</td>
<td>50.80</td>
</tr>
<tr>
<td>8</td>
<td>44.87</td>
<td>43.80</td>
<td>42.73</td>
<td>41.65</td>
</tr>
</tbody>
</table>

http://epaa.asu.edu/epaa/v9n21/ 161
First, the estimated PASS% differs between years and between individual colleges. The maximum (or minimum) estimated PASS% is 71.13 (or 19.74) during 1991-92, 69.64 (or 17.06) during 1994-95 and 64.72 (or 19.44) during 1997-9. However, the estimated PASS% does not differ in absolute deviations. For instance, the value of the standard deviation is about 12 for estimated PASS% for all the select years. This implies that the absolute variation in the estimated PASS% remains the same, whether or not there are any individual variations in the SGIA.

Second, the reduction in SGIA does matter for the changes in the PASS% for individual colleges. This is reflected in the absolute difference between the estimated PASS% and estimated PASS% under alternative reduction in SGIA in all the years. In particular, in many colleges, the estimated PASS% does vary remarkably when the SGIA is reduced by 50 percent or more. These colleges include No.3, 4, 5, 17 and 27 during 1991-92; No.4,5,8,9 and 13 during 1994-95; and 4,5,8,13,14 and 22 during 1997-98. These colleges, however, may not be subject to a reduction in the GIA as the reduction may not be effected without compromising on the quality of education, or students' performance, in them.

6.2. Financing the reduced GIA by students' fee revision

The first report of Human Development in Karnataka 1999 [Government of Karnataka (1999)] has various agenda for future action in education in Karnataka. For instance, the agenda for Colleges and Tertiary education includes: "Make colleges more self-financing by enhancing fees". In fact, the need for fee revision in colleges/higher education has been argued frequently in Karnataka. For instance, the State Planning Board's paper on An Approach to Subsidies in...
Karnataka in 1997 has clearly noted: "It is estimated that hardly 1/5th of the Government expenditure on higher/university education in the country is recovered by way of fees etc. This means 80 per cent of the cost of the higher education is subsidized. It should be possible to reduce the extent of subsidy in higher education without affecting the services. It is therefore necessary to aim at revising upwards the fees and other payments for higher education in such a way that at least 75 to 80% of the cost of the services are recovered in the long run which can be attempted in phases" (pp.26-27). In the arguments above, there is an implicit assumption that self-financing is equivalent to full cost recovery through students' fee revisions, and such self-financing should ultimately aim at replacing State's budgetary support to higher education. However, the validity of this assumption is not tested with conclusive evidence. In what follows, we test this hypothesis by considering a case for financing of a reduction in GIA through students' fee revisions, as proposed by the State government, in the colleges. (Note 13)

The Government of Karnataka [Annexure to G.O.No.ED-123-UEC-97, dated 21.06.1997] has proposed the following revisions to students' fee, as applicable from the academic year 1997-98, for both aided and unaided colleges. These rates are called proposed rates below as they are yet to be implemented. Figures in the parentheses are the current rates, [revised in and implemented since 1993-94]. (i) Application fee Rs.10 (Rs.5); (ii) Admission fee Rs.100 (Rs.10); (iii) Tuition fee Rs.600 (Rs.180); (iv) Laboratory fee Rs.400 (Rs.80); (v) Reading room fee Rs.100 (Rs.30); (vi) Sports fee Rs.100 (Rs.30); (vii) Library fee including binding changes Rs.100 (Rs.5); (viii) Mid-term examination fee Rs.100 (Rs.5); (ix) Students Welfare Fund Rs.10 (Rs.5); (x) Teacher's Welfare Fund Rs.10 (Rs.5). In principle, the tuition and laboratory fee is permitted to be doubled. And, to lessen the burden of payment all fee at once, the total fee of Rs.1530 is to be paid in two installments. The first installment (Rs.1030) is at the time of admission. The second installment (Rs.500) is in October/November of the year.

In terms of the existing policy, tuition fee is totally exempted for SC/ST students. Further, there is no laboratory fee for students of B.A. and B.Com course. Hence, according to current rates (or proposed rates) the following total fee is applicable for students. First, according to current minimum rates, Rs.95 (or Rs.275) for SC/ST (or other) students in B.A. or B.Com; Rs.175 (or Rs.355) for SC/ST (or other) students in B.Sc. Second, according to proposed minimum rates, Rs.530 (or Rs.1130) for SC/ST (or other) students in B.A. or B.Com; Rs.930 (or Rs.1530) for SC/ST (or other) students in B.Sc.

In Table 5, a simple calculation is presented for the amount of fee income to the sample colleges, if they were to implement the revised rates at the minimum of tuition and laboratory fee during 1997-98. Column 2 through column 7 present the basic data on the number of
SC/ST and other students, admitted to degree courses by individual colleges. These data are essential since the total fee collection depends on the number and nature of students by courses (especially non-SC/ST students in B.Sc. course).

### Table 5
Financing of the Reduced GIA through Fee Revision: Some Alternative Policy Scenarios for 1997-98

<table>
<thead>
<tr>
<th>College</th>
<th>Number of students admitted to 1 year during 1997-98</th>
<th>Total GIA to the College (in Rs. at current prices)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SC/ST students</td>
<td>Other students</td>
</tr>
<tr>
<td>---------</td>
<td>----------------</td>
<td>----------------</td>
</tr>
<tr>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
</tr>
<tr>
<td>1</td>
<td>6</td>
<td>49</td>
</tr>
<tr>
<td>2</td>
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<td>13</td>
<td>81</td>
</tr>
<tr>
<td>5</td>
<td>43</td>
<td>222</td>
</tr>
<tr>
<td>6</td>
<td>10</td>
<td>88</td>
</tr>
<tr>
<td>7</td>
<td>18</td>
<td>191</td>
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<td>10</td>
<td>46</td>
</tr>
<tr>
<td>9</td>
<td>60</td>
<td>255</td>
</tr>
<tr>
<td>10</td>
<td>4</td>
<td>33</td>
</tr>
<tr>
<td>11</td>
<td>16</td>
<td>82</td>
</tr>
<tr>
<td>12</td>
<td>55</td>
<td>203</td>
</tr>
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<td>13</td>
<td>36</td>
<td>152</td>
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<td>16</td>
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<td>22</td>
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<td>192</td>
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<td>29</td>
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<td>24</td>
<td>0</td>
<td>66</td>
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<td>25</td>
<td>0</td>
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<td>31</td>
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<td>21</td>
</tr>
<tr>
<td>32</td>
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<td>21</td>
</tr>
<tr>
<td>Total</td>
<td>519</td>
<td>2758</td>
</tr>
</tbody>
</table>

Table 5 (Continued)
Financing of the Reduced GIA through Fee Revision: Some Alternative Policy Scenarios for 1997-98

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### Table 5 (Continued)

**Financing of the Reduced GIA through Fee Revision: Some Alternative Policy Scenarios for 1997-98**

<table>
<thead>
<tr>
<th>College</th>
<th>Total fee income (TFI) based on admissions to I, II &amp; III year B.A., B.Sc. and B.Com. during 1997-98</th>
<th>TFI as a % of total GIA at proposed rates, based on total admissions to I, II and III year B.A., B.Sc. and B.Com during 1997-98</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>At current minimum rates</td>
<td>At proposed minimum rates</td>
</tr>
<tr>
<td>(1)</td>
<td>(16)</td>
<td>(17)</td>
</tr>
<tr>
<td>1</td>
<td>207900</td>
<td>432160</td>
</tr>
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</tr>
<tr>
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<td>23915</td>
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</tr>
<tr>
<td>R</td>
<td>427945</td>
<td>427945</td>
</tr>
</tbody>
</table>

Total 2688415 11390610 334.96 1.65 7.01 7.89 7.96
The total collectable fee income from admission to 1 year of all aided courses are presented in column 9 and 10, when the tuition and laboratory fee are at the minimum. Note that in these computations, the SC/ST students are exempted from the tuition fee by the colleges. These exemptions account for foregone fee income for the colleges and not reimbursed by the Government. If reimbursed, the total fee income to the colleges would be higher than what have been reported in column 9 and 10.

Next, the increase in total fee income for colleges in moving from the current rates to the proposed rates is remarkable, as shown by the numbers in column 11. However, there exists a wide variation in the absolute amount of total fee collectable by the individual colleges for differences in the number of courses and students.

Further, as a percentage of the GIA, total fee income under different rates shows considerable variations as reported in column 12 through column 15. The highest (or lowest) percentage is 12.84 (or 0.44) according to the current rates. For the proposed rates, three cases are considered. Case 1 is when the tuition and laboratory fee is at the minimum. Case 2 is when the tuition fee is doubled (or at the maximum). Case 3 is when both tuition and laboratory fee are doubled.

In the analysis above, the proposed fee were to be applicable only for new admissions during 1997-98. But for students who are already in II year and III year aided courses, the existing fee is applicable. Thus, the total fee collectable from the entire aided courses equals to the sum of (a) fee
collectable according to the proposed rate from the I year students and (b) fee collectable according to the existing rates from II year and III year of the aided courses during 1997-98.

If, for the sake of simplicity, the number and composition of students is the same in all the three years of the course, then the total fee collectable from all students in all aided courses are given in column 16 through column 21. These figures indicate the upper limit for collectable fee as they are calculated by charging fee for all students and by assuming zero dropouts from the courses. Thus, the proposed rates, even if were to be totally implemented, cannot totally fill in the resource gap, except in case of college no.12, if such a gap is created by complete withdrawal of current GIA to the colleges.

Nevertheless, the figures in column 16 through column 21 indicate the extent to which the current GIA to colleges can be withdrawn in varying amount under the proposed rates, but to leave the colleges resource-neutral or quality-neutral. For instance, the sum of reduced GIA to all sample colleges equals to about Rs.80.41 lakh (1 lakh=100000) according the current rates; Rs.167.51 lakh under Case 1, Rs.181.72 under Case 2 and Rs.182.84 lakh under Case 3 of the proposed rates. As a ratio to total GIA for all sample colleges (=Rs.1624 lakh), the reduced GIA accounts for 4.95 percent according to current rates; 10.31 percent under Case 1, 11.19 percent under Case 2 and 11.26 under Case 3 of the proposed rates. Thus, if the revised rates are implemented under Case 2 or Case 3, about 12 percent of the current size of GIA can be reduced to the sample colleges.

It should be emphasized that total collectable fee and the amount of GIA vary between colleges. This, in turn, implies that the ability of individual colleges to finance a reduction in GIA by fee revision also varies between colleges. Hence, a uniform cut in GIA for all colleges may not be practicable. Second, at present, only GIA net of tuition fee is distributed to colleges. However, the entire analysis above takes both tuition and non-tuition fee as instruments of financing a reduction in the GIA. Interestingly, according to the current (proposed) rates, the tuition fee accounts for about 65 (50) percent of annual total fee for B.A. and B.Com courses, and 53 (39) percent of total fee for B.Sc course. From this viewpoint, the impact of fee revision on financing GIA will be far less than the figures in the Table 5.

7. Conclusions and implications

This article has developed alternative empirical frameworks for estimating the impact of GIA and non-GIA variables on the pass percent of students in all aided courses, viz., a pooled regression model and a fixed effects model. Further, a policy simulation framework is developed for assessing the impact and sensitivity of a reduction in GIA on the estimated pass percent of students in the individual aided colleges. In addition, impact of financing the reduced GIA within the framework of
existing and proposed policy changes in regard to the students' fee in
degree colleges is analysed.

The frameworks thus developed are estimated for data from 31 sample
aided colleges in Bangalore districts. The estimation results show that,
regardless of the nature of estimation in terms of pooled regression and
FEM, the impact of COM, RSFFY, STR and SGIA on the PASS% is
significant. Second, the impact of SGIA is positive and significant in all
estimations. Given that one of the objectives of the GIA policy is to
improve the educational performance of colleges (e.g. in terms of
improving the pass percentage of its students), this result offers
unambiguous evidence in favour of accomplishing this basic objective of
the GIA policy in the State. Third, the college-specific effects are positive
and significant for individual colleges but not jointly for all aided
colleges.

The results of the econometric policy simulation analysis show that the
estimated PASS% differs between years and between individual colleges
in the State. And, these estimated PASS% do vary remarkably with
variations in the SGIA, especially when the SGIA is reduced by 50 per
cent or more. However, in many colleges, the variations are considerable.
Such colleges are underlined to be sensitive to reduction in the GIA.
Thus, a uniform cut in GIA for all colleges is not a realistic approach to
reducing the GIA.

It is demonstrated that if the proposed fee revision is implementable, the
GIA to a college can be cut proportionate to the increase in fee income. In
this case, a reduction in GIA shall not affect the quality of education in
the aided colleges. However, the proposed fee revisions can finance a
reduction in GIA to all colleges only to the extent of about 12 percent.
Thus, students' fee cannot be a single instrument for replacing GIA in the
State. This suggests a need for exploring additional sources of financing
the colleges, especially private funding for colleges. (Note 14)

Other things being equal, and if the present GIA is continued, there exists
a lesser compulsion for the aided colleges to implementing the revised fee
structure, provided the aided colleges have the complete freedom in
implementing the revised fee. Rather, if the present GIA is to be
gradually reduced, there may exist a natural compulsion for the aided
colleges to implementing the revised fee, at least to recover the losses
arising out of reduced GIA. From this viewpoint, a reduction in GIA can
be an instrument for implementing the revised fee above.

The entire policy analysis in this article has been based on the supply side
factors, given the demand for collegiate education including that all
students are equally willing and capable of paying the proposed rates. In
the absence of this assumption, effects on demand and distributional
implications of implementing the proposed fee may have to be carefully
worked out (especially, access to collegiate education for the poor
students), before any revision to the current rates is effected. (Note 15)
In reality, many external effects may influence students' performance in a college. First, when a class comprises both merited and less merited students, there are external effects on each other within a class. Second, the presence of unaided courses along with aided courses in aided colleges may generate external effects on each other within a college. Third, presence of several colleges in close proximity may generate external effects on students' performance between colleges within an urban area. Exploration of these external effects is an interesting extension of this article. (Note 16)

The framework of analysis and nature of problem in this article are of general applicability for other developing countries where the governments are constrained to reducing public financing of higher education. If studies in other countries are undertaken, alternative evidence (either supporting or confronting) can be established for the hypotheses tested here.

Notes

An early version of this article was presented for South Asian Conference on Education, held at Delhi University [Delhi: November 14-18, 1999]. Thanks are due to Professor J.B.G. Tilak and other participants for helpful comments. In the same way, thanks are due to: the Department of Education, Government of Karnataka (Bangalore) for sponsoring this research with full financial assistance under the ISEC's Project No.IX/QAU/10; participants of a seminar at ISEC for helpful comments and suggestions; and Mr Jayakrishna for technical assistance. However, the author is solely responsible for all views expressed here and any errors.

1. According to the GIA code of Karnataka's collegiate education [as detailed in Murthy (1993: pp.217-244)], the basic objective of GIA is to encourage private enterprise in higher education or to total cost of providing collegiate education for the State government, especially as compared to a hypothetical situation where all the aided colleges are to be totally established and run as government colleges. Further, because of GIA, the teaching and non-teaching staff is paid at par with the staff in government colleges, apart from equal service conditions and benefits. Thus, private management can attract the best of qualified and experienced staff for their colleges, which, in the ultimate analysis, is a critical input for improving the quality of education or students' performance in the colleges.

2. It might be added here that these policy issues are relevant at the national level as well. This is evident in discussions on the recommendations of the Report of the Committee of Funding of Institutions of Higher Education [Chairman: Justice K. Punnayya: 1995] and All India Council of Technical Education's Report on Mobilisation of Additional Resources for Technical Education.
[Chairman: D. Swaminadhan: 1995]. See, for instance, Tilak (1995) for a summary of discussion on these reports in a seminar on Funding of Higher Education [January 23-24, 1995: National Institute of Educational Planning and Administration (New Delhi)]. Further, the policy concerns are evident in discussions on Government of India's (1997) paper on Government Subsidies in India.

3. Up to 1986, Karnataka comprised only 19 districts. In 1986, Bangalore district was split into Bangalore Urban and Rural districts. From 1996-97, seven new districts have been created. Thus, at present, Karnataka has 27 districts. For a recent inter-district comparison of levels of economic development, see Government of Karnataka (1999).

4. For a discussion of public financing of higher education in developed countries, see Dolton et al (1997) for U.K. and Government of Ontario (1996) for Canada. And, the papers in the symposium on economics of higher education, especially as they are related to USA, in Journal of Economic Perspectives (Vol.13. No.1, 1999). For studies on developing countries in general, see World Bank (2000), and for specific countries, see World Bank (1997a) for China and World Bank (1997b) for Vietnam.

5. This does not mean that studies on collegiate education in India are ignorant of the role of GIA. This is evident in Mathew (1991) and Azad (1988). For instance, Azad (1988) provides with a comparison of GIA in four States (i.e. Andhra Pradesh, Gujarat, Haryana and Orissa), underlines the desirable objectives of GIA in terms of quantitative expansion and qualitative development of colleges, and lists the criteria (i.e. equity, specificity, adequacy, elasticity, promotional, efficiency and administrative freedom) for evaluation of GIA. However, these studies do not assess the impact of GIA.

6. We are aware of alternative ways of assessing the impact of GIA on collegiate education. First, if the GIA is considered as a form of public investment in higher education for generation of human capital, then the impact of GIA is defendable if the returns to it are positive and its continuation is defendable if the returns are positive and increasing over a period of time. For recent empirical studies on estimation of returns to investment in education, see Psacharopoulos and Mattson (1998) and Neville and Saunders (1998). And, for an excellent global review of studies in returns to investment in education, see Psacharopoulos (1994). Second, impact of GIA in aided colleges may be assessed in comparison with students' performance in unaided private colleges and Government colleges, provided that comparable data from both Government and private colleges are available. In this case, GIA is defendable if students' performance in aided private colleges is higher than in unaided private colleges and Government colleges. Recently, Duraisamy and Subramaniam (1999) have done such a study for estimating the factors affecting students' performance at higher secondary level, using sample survey data from Chennai.
7. For alternative estimation models for panel data, see, for instance, Chapter 2 and 3 in Hsiao (1995).
8. For a recent description of current status of collegiate education and GIA by districts in the State, see Narayana (1999).
9. A copy of the questionnaire is available from the author upon request.
10. It should be emphasised that the number of permanent staff included in the denominator for calculating STR in colleges refers to the number of full-time working staff, but not the number of sanctioned permanent full-time staff on GIA. If a sanctioned post is vacant due to factors, such as, retirement or death or resignation, it may take sometime before it is fill up. In the meanwhile, subject to the availability of workload and permission from the Government, one or two temporary staff may be appointed on GIA. Inclusion of these temporary staff might have made little difference to STR for their number is considered to be negligible.
11. A reformulation of the FEM above is a Random Effect Model (REM) where intercept coefficients are considered to be random and unknown as given below.

\[ P_{it} = \alpha + \omega_i + \beta_1 X_{it} + \ldots + \beta_k X_{kt} + \lambda GIA_{it} + \varepsilon_{it} \]

\[ i = 1, 2, \ldots, n; t = 1, 2, \ldots, T. \]

As compared to the formulation in (3), the REM above allows for the intercept to vary across colleges but not over time, such that the variation is random as characterised by the random disturbance \( \omega_i \) for the \( i \)-th observation. Given the standard assumptions, among others, on and between \( \omega_i \) and \( \varepsilon_{ij} \), we may follow the two-step Generalised Least Square approach for estimation of parameters in the REM above, as given in Hsiao [(1995), 32-38]. Further, following Green [(1997), Chapter 14], the presence of random effects [i.e. variance of the random effects, \( \omega_i \), does not equal to zero] can be tested using a Lagrange Multiplier (LM) test; and a choice between a FEM and REM (in terms of testing whether or not the individual effects are uncorrelated with other regressors; if correlated the evidence is in favour of a FEM; if not, the evidence is in favour of a REM) can be made using the Hausman’s test based on the Wald criterion.

Although a detailed analysis of the REM is beyond the scope of this article, we report only the result of the LM test and Hausman’s test. That is, the computed value of the LM statistic is 0.925. Since the 5 percent critical value from the Chi-square distribution with one degree of free is 3.842, the LM statistic is insignificant at 5 percent level. Thus, the evidence in favour of a random effect
model is absent. On the other hand, Wald statistic for the Hausman's test is 3.746. Since the 5 percent critical value from the Chi-squared distribution with 6 degrees of freedom is 11.07, the null-hypotheses that the individual/fixed effects are uncorrelated with the regressors (i.e. COM, COURSE, YGIA, STR AND RSFFY) is not rejected. Thus, on empirical grounds, the evidence is not in favour of the REM, or the FEM is preferable to the REM.

12. One important reason for a reduction in the size of GIA is to contain the growth government deficit. For instance, as reported in RBI (1999), the revenue deficit of the Government of Karnataka has increased from Rs.78.9 crore during 1990-91 to Rs. 116.4 crore during 1993-94 and to Rs.151 crore during 1998-98 (BE). And, the GIA as a percentage of revenue deficits was 70 during 1990-91, 75 during 1993-94 and 33 during 1997-98. From this view, the revenue deficit is substantially contributed by expenditure on the GIA over the years. However, the recent decline in the share of GIA in revenue deficit can explained by the following policy changes in the GIA. First, all new colleges, started during or after 1987-88, have been allowed only on permanently non-GIA basis. Second, since 1991-92, no new courses have been sanctioned on GIA. These changes have reduced the expenditure on GIA. And, given the increasing size of absolute revenue deficit, the ratio of GIA to revenue deficit has come down since 1991-92.

13. Apart from the State government, the degree colleges in Karnataka State are guided by the agencies below in regard to charging different fee. First, the University, with which the college is affiliated, in regard to (i) registration fee; (ii) examination fee; and (iii) sports development fee. Second, the concerned colleges in regard to students union; cultural activities; college magazine; and for issuing identity card of college/library.

14. For a discussion on private funding of higher education in India, see Mathew (1996).

15. The issue of access to higher levels of education in the context of private funding of education is recently raised in Mundle (1998: p.664). And, a framework for analysis of income distribution issues in financing education is in Fernandez and Rogerson (1998).

16. A related paper in this regard is by Rothschild and White (1995) wherein an analytical framework is developed to financing higher education wherein students are considered not only as standard outputs but also as inputs. This framework helps in relating students' fee to the amount of human capital received and in internalising the external effects of students on each other within a class/college.

References


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La política universitaria argentina de los 90: 
Los alcances del concepto de autonomía

Adriana Chiroleu
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Resumen
Aunque la autonomía universitaria fue aparentemente preservada durante el gobierno de Carlos Menem (1989-1999), en la práctica, experimentó cambios sustanciales, pergeñándose desde el Poder Ejecutivo, dispositivos de “intrusión” que limitaron sus alcances. De todas formas estas modalidades de intervención estatal asumieron un carácter menos explícito que en el pasado, y se asociaron al
establecimiento de un régimen de premios y castigos que supedita el financiamiento de las universidades a sus "rendimientos" evaluados según los parámetros definidos por los organismos multilaterales de crédito. En el presente trabajo abordaremos el modo en que esta tensión se manifestó bajo el gobierno de Menem, contrastando los alcances atribuidos a la idea de autonomía por el gobierno y las instituciones públicas adoptando como punto focal, la postura asumida por la Universidad Nacional de Rosario. (Nota 1)

Abstract
Although university autonomy was apparently protected during Carlos Menem's government (1989-1999), actually it was gradually undergoing substantial changes. "Intrusive" devices had been prepared by the executive power, thus causing the restriction of its objectives. This kind of state participation was less explicit than in the past, being now associated with the establishment of a system of "punishment and reward," in which financing is subordinated to "performance," evaluated according to the parameters of multilateral credit organizations. In this work, we analyse the way in which this conflict took place under Menem's government, contrasting the meanings given to the idea of autonomy by the government and by the public institution; attention focuses on the case of the National University of Rosario.

Introducción
Si bien la universidad argentina conoció etapas de fuerte cercenamiento de su autonomía (e
Frente al temor de quedar identificados con el pasado autoritario, los gobiernos de la etapa
Durante la década siguiente, representada en los dos gobiernos del justicialista Carlos Men
De todas formas estas modalidades de intervención estatal asumieron un carácter menos ex
Existe por tanto, un sistema de "doble condicionalidad" que somete a las universidades: los
Dichos ajustes invocan una supuesta "racionalidad técnica" que, sorteando la "espuria inter
Aunque, por las razones expuestas inicialmente, ningún gobierno democrático se atreve a d
En el presente trabajo abordaremos el modo en que esta tensión se manifestó bajo el gobie
Nuestra hipótesis de trabajo sugiere que el concepto de autonomía asumido por el gobie
Se trata de un tema que sólo ha merecido hasta el momento, análisis unidimensionales; en "

**La política universitaria del gobierno de Carlos Menem**

A mediados de 1989 se inicia en Argentina el primer gobierno de Carlos Menem en un con
Se registraba entonces un enorme desequilibrio fiscal, masiva fuga de capitales y rápida de:
La reforma del estado y administrativa formaban además parte de condicionalidades -explic
Por su parte, el estilo político del gobierno de Menem muestra tempranamente ciertos rasgo
Sin embargo, el gobierno logra paulatinamente reunir una considerable capacidad de gobie
En el ámbito universitario, en 1989, la mayoría de las instituciones nacionales era conduci
Desde los primeros discursos oficiales se aprecia, en cambio, cierta desconfianza hacia la it
Para cumplir con el primer objetivo, se crea la Secretaría de Políticas Universitarias (1993)
Sin embargo, una lectura integral de la gestión, permite apreciar que la temática universitar
En el Informe elaborado sobre Argentina en 1988, este organismo multilateral definía como
La incidencia y predicamento del Banco Mundial en la esfera oficial se torna evidente cuan
**Gestió y**
**Coordinació**
**Universitaria** que, con financiamiento de aquel organismo de crédito, procuraba elaborar u
De todas maneras, una vez asumidos estos lineamientos estratégicos, el gobierno va gradua
El pasaje entre las dos etapas coincide aproximadamente con el ingreso al Ministerio de Ed
La racionalidad tecnocrática sin embargo, actúa a menudo como un dispositivo de legitima
Se autorizó además el funcionamiento de nuevas universidades privadas, lo cual no ocurria
Por otra parte, la *eficiencia* que se reclama a las instituciones, está en buena medida relacio
En la documentación oficial aparecen permanentes referencias al tema desde distintos abon
Es decir, la obtención de un financiamiento superior estaría ligado a la consecución de la ej

- En materia de *financiamiento*, se alienta la participación de aportes privados como un
- El *rendimiento* se mediría en la relación ingreso-egreso, duración real de las carreras.
- La *calidad académica* sería evaluada a partir de criterios uniformes para todas las instituciones con un sesgo
En lo que respecta a la política de financiamiento universitario establecida por el gobierno:
A partir de 1993, en una segunda parte de la gestión, el proyecto de modificación del régimen
La concepción de la educación superior predominante está relacionada con la idea de que la

**Los nuevos alcances de la autonomía**

La revisión de los documentos oficiales da cuenta de que el encuadre general de las políticas
Es así como, por una parte se proclama la plena vigencia del principio de autonomía, mient
En el orden jurídico por su parte, especialmente en los primeros años de la gestión dos decí
Por su parte, el *Decreto 160/91* establece la obligación de todas las universidades nacionales
En estos decretos parece pues plantearse un recorte particular del concepto de autonomía; s
Existen sin embargo, otros mecanismos de intervención en las universidades públicas como

**El caso de la Universidad Nacional de Rosario: defensa y ejercicio de la autonomía**

Desde 1983, y durante el periodo analizado, la Universidad Nacional de Rosario (U.N.R.) (U
Una de las formas de reconstruir las posturas asumidas por la U.N.R. frente a los lineamientos
Entendemos por agenda del C.S. de la U.N.R. (Nota 19) al conjunto de problemas, demand
Las Actas del C.S. engloban cuestiones y planteos vinculados a aspectos más rutinarios del
La clasificación propuesta reconoce cuatro grandes líneas o ejes en la conformación de la

1. **Temas generales**: se vinculan con declaraciones, homenajes, comunicaciones sobre el
2. **Temas de funcionamiento del cuerpo**: son aspectos relacionados con el funcionamiento
3. **Temas rutinarios**: en este ítem encontramos temas relacionados con el mundo estudiar
4. **Problemas particulares**: definimos así aquellos temas que recurrentemente vuelven

Sobre este último aspecto nos detendremos a analizar, desde el concepto de autonomía univ
1- El C.S. asume, en distintas ocasiones, posturas tendientes a señalar sus profundas discrep
Estas posturas permiten visualizar una noción de autonomía mucho más abarcativa que la co
La U.N.R. delinea dos caminos de acción para diferenciarse explícitamente de las medidas
Como expresiones de la primera alternativa destacamos la Resolución C.S. N° 235/92 que
La Resolución siguiente, N°236/92, cuestiona aquellos aspectos que definimos como de 
La reinvindicación de autonomía formulada por la U.N.R. también se amalgama con el recl 
En este mismo sentido, se delinearon otros instrumentos que trascienden el ámbito de la U.
El otro sendero que adopta la U.N.R. como respuesta a la política universitaria nacional prc
2- Si contrastamos aquellas posturas analizadas en el primer registro con el ejercicio efectiv 
Las indefiniciones en cuestiones que resultan medulares en la vida académica de la instituc 
Debió transcurrir algo más de una década para que esta norma obtuviera una reglamentació
Este ejemplo, especialmente asociado a un tema tan caro al ideario reformista, ilustra acerc

A modo de cierre

Mediante el análisis de la experiencia de la U.N.R. intentamos ilustrar sobre ciertas limitac:
La gestión justicialista de Carlos Menem se caracterizó por el abismo existente entre el pla
Frente a este avance, ejecutado de manera sostenida e incremental durante una década, la u
La universidad asumió una postura meramente reactiva ante las iniciativas reformistas “exc
Nada indica que, concluido ya el gobierno de Menem, cesen las tentaciones por coaccionar

Notas
1. Este trabajo forma parte de un proyecto de investigación en curso financiado por la S
4. Para una ampliación y profundización de este tema puede consultarse Chiroleu, 1996
5. Una profundización de este tema puede hallarse en Chiroleu, A. (1999), El ingreso a
7. Sobre este punto pueden consultarse entre otros, Cano, 1995, 1996 y 1999, Chiroleu,
8. La metodología de evaluación propuesta en el Informe final del Proyecto fue rechaza
9. Un buen ejemplo de esta situación puede darlo la inauguración de nuevas unidades d
10. Al respecto, señala Jorge Balán que tanto en el caso de la creación de la Universidad
11. Así surgen las Universidades Nacionales de Quilmes, Formosa, La Matanza, General
12. En Septiembre de 1990 comienza a funcionar en el Ministerio de Cultura y Educación
13. A fines del 91 renuncia José Luis de Imaz; para entonces se percibe como convenien
14. Durante esta gestión se repite en distintos planos de la órbita oficial este mismo recur
15. La relación universidad-mercado se ha visto transformada en los últimos años a parti
16. La Corte sostiene que el principio de autonomía no supone que esté prohibido el con
17. En 1983, la UNR contaba con casi 20.000 alumnos; entre 1984 y 1985 se produce un
18. Con la Reforma del Estatuto de la UNR en 1988, el Consejo Superior pasó a contar c
19. Esta temática ha sido ya abordada en el marco de una investigación más extensa sobre la temática. Entre esos documentos se destacan "Listado de funciones, dimensiones y variables,"


BALÁN, J. (1993), "Políticas de financiamiento y gobierno de las universidades nacionales: Políticas comparadas de Educación Superior en América Latina, Santiago de Chile, FLACSO.


D. (1999), "Comparar: la opción entre 'comprender' y 'compeler'", Prólogo a Adriana Chircu

CHIROLEU, A. (1999), El ingreso a la Universidad. Las experiencias de Argentina y Brasil.


CHIROLEU, A. e IAZZETTA, O. (coord) (1998), "Consejo Superior de la Universidad Na


VANOSI, Jorge (1976), La universidad y sus problemas, Buenos Aires, de. Macchi.

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