Why Schools Have Difficulty Staffing Their Classrooms with Qualified Teachers?

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Figure 1: The Source of Data

The Schools and Staffing Survey with the Teacher Follow-up Survey

- Conducted by the Census Bureau for the U.S. Department of Education
- The largest source of information on teachers:
  - Sample: 55,000 teachers
  - Representing all 50 states
Figure 2: Trends in Percent Secondary Schools Reporting Serious Difficulties Filling Teaching Vacancies, by Field
Figure 3: Percent Secondary Schools with Teaching Vacancies and with Serious Difficulties Filling those Vacancies, by Field

- Mathematics: Vacancies 54, Hiring Difficulties 22
- Science: Vacancies 56, Hiring Difficulties 18
- Special Educ: Vacancies 45, Hiring Difficulties 18
- Foreign Lang: Vacancies 37, Hiring Difficulties 16
- Music/Art: Vacancies 34, Hiring Difficulties 9
- English: Vacancies 54, Hiring Difficulties 5
- Social Studies: Vacancies 47, Hiring Difficulties 2

Figure 4: Percent of Math and Science Teachers Newly Hired in the School System, by Supply Source

- Newly Qualified with only Education degrees, 20%
- Newly Qualified with both Education and Noneducation Degrees, 7%
- Newly Qualified with only Noneducation Degrees, 26%
- Reserve Pool, 47%

Figure 5: Number of Elementary and Secondary School Teachers and Students, 1987-88 to 2011-12

Number of Teachers (millions)

Number of Students (millions)
Figure 6: Percent Increase in Students and Qualified Employed Teachers, by Field from 1987-88 to 2007-08

Figure 7: Ratio of New Supply of Teachers to Retirement, by Field

Figure 8: Ratio of New Supply of Teachers to Retirement and to All Leavers, by Field

New Supply / Retirement

- All Teachers: 8.6
- Science: 5.7
- Math: 3.6

New Supply / All Leavers

- All Teachers: 2.1
- Science: 1.03
- Math: 1.02

Figure 9: Attrition in Teaching is Higher Than in Many Occupations

Secretaries: 79%
Child Care Workers: 49%
Paralegals: 49%
Correctional Officers: 45%
TEACHERS: 30%
Police: 28%
Architects: 23%
Nurses: 19%
Lawyers: 19%
Engineers: 16%
Pharmacists: 14%

Figure 10: Schools Suffer from a Revolving Door

(Numbers of Teachers in Transition Into and Out of Schools Before and After 2007-2008 School Year)

Hires 589,786

Teaching Force 3,894,230

Turnover 626,679

At Beginning of School Year  During School Year  After End of School Year

Source: Ingersoll, R., original analyses of Schools and Staffing Survey /Teacher Followup Survey
Figure 11: Beginning Teachers Leave at Highest Rates

(Cumulative Percent Teacher Attrition, by Years of Experience: 1993-2003)

Figure 12: Schools Vary in Teacher Turnover
(Percent Annual Public School Teacher Turnover, by Selected School Characteristics)

Source: Ingersoll, R., original analyses of 2000-2001 Teacher Followup Survey
Figure 13: 45% Of All Public School Turnover Occurs In Just 25% Of Schools

Figure 14: Job Dissatisfaction a Leading Factor Behind Turnover
(Percent Public School Teachers Reporting that Various Reasons Were Important for their Turnover)

- Retirement: 15.1%
- School Staffing Action: 16.7%
- Family or Personal: 34.3%
- To Pursue Other Job: 34.1%
- Dissatisfaction: 47.8%

Figure 15: Teachers’ Working Conditions are Important  
(Of Those Public School Teachers Who Moved From or Left Their School, Percent Reporting Various Sources of Dissatisfaction)

<table>
<thead>
<tr>
<th>Source of Dissatisfaction</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Too little prep time</td>
<td>64</td>
</tr>
<tr>
<td>Too heavy teaching load</td>
<td>57</td>
</tr>
<tr>
<td>Poor salary or benefits</td>
<td>54</td>
</tr>
<tr>
<td>Class sizes too large</td>
<td>54</td>
</tr>
<tr>
<td>Student behavioral problems</td>
<td>52</td>
</tr>
<tr>
<td>Lack of faculty influence</td>
<td>50</td>
</tr>
<tr>
<td>Too little parental support</td>
<td>40</td>
</tr>
<tr>
<td>No opportunities for prof. adv.</td>
<td>39</td>
</tr>
<tr>
<td>Too little collaboration time</td>
<td>38</td>
</tr>
</tbody>
</table>

Source: Ingersoll, R. & Perda, D. forthcoming. How High is Teacher Turnover and is it a Problem?  
Consortium for Policy Research in Education, University of Pennsylvania
President Obama has Proposed Recruitment of 10,000 New Math/Science Teachers per year for 10 years.

But, between 2004 and 2005 alone…..

- 26,400 Math/Science Teachers Left Teaching
  - Of them:
    - 7,000 Retired
    - 14,000 left due to dissatisfaction or to pursue another job
  - 25,000 Moved to Other Schools
    - Of them:
      - Four times as many moved to affluent as to poor schools
We examined 15 best empirical studies, since the 1980s

three sets of outcomes:
- teacher commitment and retention
- teacher classroom instructional practices
- student achievement

Most of the studies reviewed showed positive impacts

For Further Information

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