America and Sweden: Two Tales of School Choice

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Abstract
The purpose of this paper is to make a policy recommendation regarding federal school choice in the United States based on the example of school choice reform in Sweden. My methods include literature review of existing studies on the effects of national school choice in Sweden and of local school choice policies in America as well as comparison of the two countries using population data from each country’s national census bureau. The results of this analysis show that the benefits of school choice programs for overall educational quality are marginal. However, the segregative consequences of school choice in both Sweden and America are significant and concerning. Therefore, based on the evidence presented, this paper recommends that American policymakers not implement a federal school choice program in the United States at this time.
The contemporary debate in the United States regarding school choice and the practical implementation of various school choice reforms is contentious and frequently discussed among citizens, elected representatives, and presidential candidates. The overarching concept of school choice has largely resolved itself into three kinds of models: public school choice, which allows for student enrollment in public schools regardless of the student’s residential proximity; private school choice, which involves the use of school vouchers or tax credits to pay for schooling at private schools by means of government funding; and the existence of independent schools, including magnet and charter schools.1 Conservative politicians typically advocate for school choice using arguments that champion individual liberty and that highlight the supposed efficacy of market competition in raising the quality of both independent and public schools, benefitting all students regardless of their exercise of choice during school enrollment.2 Alternatively, liberal politicians often caution the implementation of school choice models based on concerns that competition between independent schools and public schools will drain the public school system of financial and intellectual resources through the relocation of high-ability students and teachers, ultimately contributing to the further segregation of students by academic ability, class, and ethnicity.3 Thus, both sides of the political aisle are convinced that their perspective on school choice is, at least theoretically, the most equitable and beneficial option for all students. Additionally, the issue of school choice combines a variety of political, cultural, and sociological considerations, all of which must be addressed by any educational policy suggestion.

Various contemporary American politicians often compare American federal programs to successful programs in other countries, suggesting that America would do well to base its own social and economic policies on the examples of these international models. One country that has recently implemented significant, rapid, and national policy reform regarding its school choice structure is Sweden. Furthermore, Sweden is regularly lauded for the high quality of its education system and for its students’ levels of educational attainment.\textsuperscript{4} Thus, in its first section, this paper will describe the public school system in Sweden, focusing specifically on its recent policy changes regarding school choice. The second section will analyze the success of Sweden’s education policies based on the successes of public school students after the implementation of school choice options and on the effects of these options on segregation among schools. The paper’s third section will provide an overview of the history of American school choice ideology and policies. Finally, the paper will consider the wisdom of modeling future American school choice policies after Sweden’s. For the purpose of this paper, the policy comparison will focus primarily on considerations of school segregation in order to focus on the effects of school choice as a social policy. Based on these considerations, this paper will show that both national school choice options in Sweden and local school choice programs in America have led to increased socioeconomic and racial segregation among schools in each country. Given its comparatively high racial diversity compared to Sweden, the risk of severe school segregation is particularly high and dangerous in the United States. Thus, at this time, American policymakers should not endeavor to create a federal school choice policy in order to avoid the corresponding segregative effects.

School Choice in Sweden: Description

Despite the consistently high international rankings of American institutions of higher education, the federally funded American public school system is frequently criticized both domestically and internationally for its failure to succeed on a variety of fronts. American public schools typically fail to attract and retain high-quality teachers due to low financial incentives and poor working conditions and frequently produce underachieving students due to mediocre school curriculum and understaffed classrooms.5 Additionally, and perhaps most significantly, the public school system frequently contributes to the class stratification of American society by the funding of public schools through local tax revenue.6 The combination of these factors, among others, had led to widespread domestic dissatisfaction with the American public school system, which fails to match the success of American higher education and to reflect the high GDP of the overall American economy. Long-term consequences of mediocre public education include underqualified domestic workers and an internationally uncompetitive American labor force.7 In a shrinking world of offshored and downsized industries, the future success of the American macroeconomy and labor market depends in an immediate way on the rapid improvement of American primary education.

In comparison, the public school systems of other wealthy, developed countries have often been acclaimed for their success in providing quality education to students while also equalizing opportunity across socioeconomic classes and racial demographics. In this section, the paper will describe the educational policies of one of these successful countries, Sweden, in light of its relatively recent and structurally significant reforms to its school choice policies. Currently,

the Swedish public education system includes public schools, which are funded by municipal, or local, tax revenue; private schools, which are primarily funded by fees and tuition paid by students’ parents; and “independent schools,” which are funded entirely by school vouchers.8 Prior to 1990, independent schools rarely received government funding; and public schools, though formally under the jurisdiction of municipal governments, were financed by federal taxes and adhered to a national curriculum.9 In 1990, education reforms assigned both curricular and financial responsibilities entirely to municipal governments.10 Then, in 1992, Sweden’s current education system was established through education reforms that provided government funding for independent schools and abolished the “proximity principle,” which had previously assigned students to certain public schools based on the location of their residence.11 The removal of this policy allowed students’ parents to apply to send their children to a variety of public and independent schools regardless of their address relative to the schools’ locations.12 Thus, the Swedish school reforms instituted a combination of public and private school choice options while also facilitating an increase in the popularity of independent schools.

In accordance with the 1992 reforms, Swedish independent schools must be funded by the local municipality government on a per student basis equivalent to 85% of a public school’s cost to school a student.13 After an independent school is approved by the National Agency for Education, only two additional restrictions are placed on their operation: they must not charge students fees or tuitions above the value of students’ school vouchers, which limits the possibility for price differentiation and competition among independent and public schools; and

10 Ibid.
11 Ibid., 356.
they must not discriminate in their acceptance of students, including on the basis of physical
disability, religion, or ethnicity.\textsuperscript{14} No other limitations have been placed on independent schools,
which allows for the existence of for-profit and religious schools that are publicly funded.\textsuperscript{15}
Independent schools in Sweden demonstrate high rates of success in attracting enrollment from
students of compulsory school age (ages 7 to 15): as of 2009, 10\% of Swedish children in this
age category were enrolled in independent schools.\textsuperscript{16}

**School Choice in Sweden: Analysis**

Sweden has emerged as a particularly useful case study for analyzing the effects of
school choice models due to the high percentage of students currently enrolled in independent
schools and the quick rate at which independent schools have gained prominence across Sweden
since 1992.\textsuperscript{17} Additionally, though religious and for-profit independent schools can legally exist,
the majority of independent schools is non-denominational and, therefore, competes with public
schools for the same demographic of students, especially regarding the religious, racial, and
socioeconomic composition of public schools’ student populations.\textsuperscript{18} For precisely these reasons,
a number of studies have been conducted on the effects of the Swedish school choice reforms on
a variety of considerations that are also relevant to the current American school choice debate.
These considerations include the competitive effects of school choice on the performance of
public school students and of students enrolled in independent schools as well as the effects of
school choice on the segregation of students along socioeconomic and ethnic lines.

\textsuperscript{14} Ibid.
\textsuperscript{15} Sandström and Bergström, “School Vouchers in Practice,” 352.
\textsuperscript{16} Lindbom, “School Choice in Sweden,” 615.
\textsuperscript{17} Ibid., 617.
\textsuperscript{18} Sandström and Bergström, “School Vouchers in Practice,” 352.
For example, Sandström and Bergström conducted a study in 2004 on 28,000 Swedish ninth graders from the academic year 1997/1998 in order to analyze the competitive effects of independent schools on the educational achievement of students in public schools and, particularly, to consider whether competition among schools disproportionately disadvantages low-income or low-ability students.\(^{19}\) In their study, the authors used sample selection models to account for the fact that students who self-select into independent schools are not a random sample of the student population – that is, high-ability students might represent a disproportionate percentage of independent school enrollment. Additionally, the authors noted that independent schools can be a function of the quality of local public schools and adjusted for this possibility by incorporating several political variables into the model, which accounted for local government’s support for or resistance to independent schools. Sandström and Bergström also considered the educational attainment of public school students to be a function of the percentage of local students attending independent schools in addition to the municipalities in which public schools are located, the public schools themselves, and a number of other variables reflecting characteristics of individual public school students.\(^{20}\) Based on data from the National Agency for Education that compares students in independent schools to those in public schools, some of these explanatory variables include sex; immigrant background, which reflects the racial composition of schools’ student populations; and levels of parent income and education.\(^{21}\) Additional school-related considerations include the population density of the school’s municipality; the average cost to school a student in that municipality; and the political

\(^{19}\) Ibid., 353.  
\(^{20}\) Ibid., 357.  
\(^{21}\) Ibid., 359.
inclination of the local voting population towards non-socialist parties, which could imply greater local support for school choice options.\textsuperscript{22}

After accounting for all of the exogenous variables enumerated above, Sandström and Bergström proceeded to measure educational attainment by means of students’ average grades across school subjects and through various national standardized tests.\textsuperscript{23} A variety of regression analyses all showed a significant positive relationship between educational achievement by public school students and the local percentage of students attending independent schools, implying that competition between independent and public schools can benefit the students who remain in public schools.\textsuperscript{24} Other results are unsurprising: girls perform better than boys; and children from households with above-average income and levels of parental education perform better than other students, regardless of the type of school in which they are enrolled.\textsuperscript{25} Additional analyses focusing specifically on the effects of school competition on public school students from immigrant backgrounds or from households with low levels of parental education showed very low and insignificant rates of correlation between competition among schools and these students’ levels of academic achievement. However, these focus studies also did not imply that competition between independent and public schools negatively affects these students’ educational attainment.\textsuperscript{26}

In addition to consideration of the effects of school competition on the success of public school students, an analysis of any school choice model must also consider the effects of school choice on the segregation of students along socioeconomic and ethnic lines. Sandström and Bergström’s analysis implies that public school students from low-income households and with

\textsuperscript{22} Ibid.
\textsuperscript{23} Ibid., 361.
\textsuperscript{24} Ibid., 369.
\textsuperscript{25} Ibid.
\textsuperscript{26} Ibid., 375.
immigrant backgrounds are not negatively affected by competition among independent and public schools, but this does not guarantee that these students are not disproportionately “left out” of enrollment in independent schools and the improved educational attainment they may offer their students. Should this prove true, the result would be immediate increased student segregation along ethnic and socioeconomic lines. Additionally, should sociologically disadvantaged students be left behind in low-quality public schools, segregation by academic ability will also emerge. Addressing these issues, Martin Söderström and Roope Uusitalo published a study in 2010 using data from upper secondary schools in the Stockholm municipality following a comprehensive change in these schools’ admissions requirements. Before 2000, students living in the municipality were allowed to apply to any Stockholm school; but, if too many students applied to a given school, preference in admissions was given to students who lived nearby. After 2000, a policy reform abolished any consideration of students’ residence in the admissions process for secondary schools. Instead, admissions are now based entirely on students’ prior grades and, therefore, on their academic ability.

Söderström and Uusitalo examined the segregation of student enrollment in Stockholm schools two years before and two years after the 2000 reforms went into effect. They examined student populations based on three characteristics: academic ability; family background, which includes parental income and education; and immigrant status, which implies a student’s status as an ethnic or racial minority. Söderström and Uusitalo measured student ability based on grades achieved in primary school, which is also the measure used by Stockholm schools in the reformed admissions process. Using a percentile ranking of the former grades attained by

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28 Ibid., 55.
29 Ibid., 57.
students enrolled in the city’s schools, the authors found that, in 1998, 30.4% of variation among students’ primary school grades could be explained by the quality of the upper secondary school they were attending. However, in 2001, this figure rose to 58.3%. That is, a significantly higher percentage of grade variation among students could be attributed only to the quality of school in which the students were currently enrolled, implying that segregation by academic ability increased significantly after the 2000 reforms. The authors considered and accounted for a variety of other factors in addition to the school choice reforms that could also explain increased segregation by ability, including increased residential segregation, increased student enrollment in private and independent schools, and increased segregation among public primary schools. However, residential and primary school segregation in the years surrounding 2000 did not change significantly, and the increase in students not attending public schools was not sufficiently statistically significant to explain the observed increase in segregation by ability. The authors’ results are further emphasized upon comparison with a sample group of schools from municipalities surrounding Stockholm that did not reform their admissions process in 2000. Between 1999 and 2000, the segregation by ability in Stockholm schools increased by up to 15% more than segregation increased among the comparison schools, which is a statistically significant difference. Thus, the school choice reforms of 2000 remain primarily responsible for the observed increase in segregation by academic ability.

However, this result is unsurprising, since the reforms enacted an admissions process across Stockholm schools that is based only on student ability as measured by grades earned in primary school. Segregation based on ability, then, is an expected if undesirable consequence of

30 Ibid., 67.
31 Ibid.
32 Ibid.
33 Ibid.
the policy reforms. More startling and concerning are Söderström and Uusitalo’s other findings. The second characteristic by which the authors analyzed students – family background – was further subdivided into two separate considerations: level of parental education and level of parental income. To measure student segregation according to each of these factors, the authors considered the $R^2$ index for each variable to determine the extent of the correlation between that variable and observed segregation among Stockholm schools. In 1998, two years before the admissions reforms in Stockholm were enacted, the $R^2$ index for student segregation with respect to levels of parental education was 10.4%. In 2001, after the reforms, the $R^2$ index increased to 13.9%, which represents a statistically significant increase. Meanwhile, the comparison group demonstrated a statistically insignificant increase from 10.0% to 10.1% over the same time period. The correlation between student segregation and levels of parental income demonstrated the same qualitative result: the $R^2$ index increased significantly from the years before the admissions reform to the years immediately after, while the comparison group demonstrated no significant difference. Thus, segregation by both family income and education increased after the implementation of a school choice policy that, at least explicitly, only sorted students by academic ability.

To examine student segregation by the third variable under consideration – immigrant background, which includes both first- and second-generation immigrant students – the authors employed the Duncan index, which is a measure of socioeconomic inequality. The Duncan index in 1999 indicates that, for that year, 13.0% of immigrant students enrolled in Stockholm schools would need to be moved to other schools within the municipality in order to achieve an even ethnic distribution of students across the school system. However, in 2001, after the

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34 Ibid., 70.
35 Ibid., 69.
admissions reforms were enacted, the Duncan index leaped to 19.6%, which is a statistically significant difference from the index in 1999. For the same years, there is no definitive pattern of changes in segregation by immigrant background within the group of comparison schools. As represented by Lindbom in 2010, a typical counterargument to the data presented by Söderström and Uusitalo argues that increased segregation within Stockholm schools is representative of increased residential segregation by race and was not directly caused by the school choice reforms of 2000. However, Söderström and Uusitalo note that the Duncan index for residential segregation across parishes within Stockholm only increased from 28.2% to 30.9% during the time period in question, which is a statistically insignificant difference. The authors also point out that, in the year before the admissions reforms were enacted, residential segregation by race increased across Stockholm while school segregation decreased. Thus, there seems to be no causation or even definitive correlation between residential and school segregation in this case, which further suggests that the significant increase in racial segregation within Stockholm schools between 1999 and 2001 was, in fact, due to the educational reforms of 2000.

To conclude their study, Söderstöm and Uusitalo examined the levels of expected increased segregation by family background and immigrant background based on the sorting of students by academic ability. That is, the authors attempted to assess whether increased school choice was, in this case, correlated with a disproportionate increase in student segregation or whether the observed increased segregation by socioeconomic variables was entirely explained by academic sorting. Söderström and Uusitalo found that the increased segregation by level of parental education can be completely explained by the admissions reforms’ explicit segregation by academic ability. This is unsurprising, since parental education is an expected predictor of the

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38 Ibid., 73.
educational attainment of children. However, only half of the increase in segregation by level of parental income and by immigrant background can be directly explained by the reforms.\(^3\) That is, a significant portion of the increased ethnic and socioeconomic segregation in Stockholm schools after 2000, though a result of the admissions reforms, is not correlated to student ability. Instead, this form of segregation is an unintended consequence of the school choice reforms.

Thus, while Sandström and Bergström found that the expansion of school choice did not directly impede the educational attainment of minority and disadvantaged public school students, Söderström and Uusitalo’s work suggests that these students are disproportionately “left behind” in public schools that are plagued by low levels of educational ability and attainment, while students with greater academic ability and from privileged backgrounds transfer out of traditional public schools.

Some scholars have argued that Sweden’s school segregation is simply a result of increased residential segregation in cities across the country (see, for example, Lindbom and Almgren 2007). However, Söderström and Uusitalo’s own work, though only concerned with the Stockholm municipality, addresses and refutes this claim through the use of Duncan indices, as seen above. More powerfully, a number of other studies on the effects of Swedish school choice reforms have corroborated Söderström and Uusitalo’s conclusions.\(^4\) For example, in 2007, one scholar estimated that national increases in school segregation outstripped increases in residential segregation by 30% in the years between 1990 and 2004.\(^5\) Thus, recent nationwide increases in the segregation of Swedish schools by family background and by immigrant background can be at least partially attributed to the unintended effects of Sweden’s school choice reforms alone.

Perhaps equally important is the lack of empirical clarity regarding the effects of the school

\(^{3}\) Ibid., 74.
\(^{4}\) Bunar, “Choosing for Quality or Inequality,” 9.
\(^{5}\) Ibid.
choice reforms on the overall quality of education in Sweden. Though some research, including that by Sandström and Bergström, suggest that school choice options are positively correlated with an increase in educational attainment for some public school students, scholars have been unable to determine either causation or a national trend in any direction from available data on student success.\(^4^2\) Thus, the Swedish example stands as a warning to other countries considering comprehensive and national school choice policies: the potential benefits in quality of education provided by school choice may be significantly outweighed by the consequences of inequity and increased segregation in a nation’s public schools.

**The History of American School Choice Policy**

Milton Friedman is often cited as the father of market-oriented school choice thought and is particularly well known for his support of a voucher payment system for primary education. In his seminal 1962 book *Capitalism and Freedom*, Friedman distinguished between two responsibilities assumed by the federal government in administering primary education in the United States: funding and administration. Friedman concedes that the federal government may justify its subsidization of public education by the argument that a lack of education among any subset of the American population would impose disproportionate costs and negative social effects on the remainder of Americans. Additionally, supporters of public education may reasonably contend that federally subsidized education is made necessary by the inability of some American families to pay for their children’s education. However, Friedman argued that the administration of education through government bureaucracy is unnecessary on any grounds and ultimately provides more inefficient and lower quality education than programs created and run by a free market system. Instead, Friedman suggested that “governments could require a

\(^{4^2}\) Ibid., 13.
minimum level of education which they could finance by giving parents vouchers redeemable for a specified maximum sum per child per year if spent on ‘approved’ educational services.’’43 These educational services could, according to Friedman, be either for-profit or non-profit and either parochial or secular. Additionally, government regulation would only be necessary in order to ensure that minimum levels of academic and social education were being provided. The results of this market-oriented school system would include increased efficiency and quality of education by means of direct competition among schools; lowered educational costs to parents; and increased opportunity for disadvantaged students by the government subsidization of the costs of enrollment in high-quality schools.44

Modern supporters of Friedman’s school choice ideology have continued his arguments against the inefficiency of government bureaucracy and in favor of the beneficial effects of competition among schools. These scholars have also expanded arguments in favor of the effects of school choice options on socioeconomic amelioration. For example, the effects of residential segregation by class and ethnicity on the quality of local schools might be counteracted by the ability of students to enroll in any school regardless of residential proximity.45 However, other modern economists, while positively influenced by Friedman’s criticisms of government inefficiency in the administration of public schools, have remained wary of the ability of the free market to achieve true equity of educational attainment among students.46 In 1994, one of these economists, Jeffrey Henig, articulated a fear that persists in today’s conversations on school choice: “In a strange twist, the shift away from democratic processes and institutions [through the implementation of school choice reforms] is defended by reference to values we associate

44 Ibid.
45 Bunar, “Choosing for Quality or Inequality,” 3.
46 Ibid., 4.
with democracy,” like social integration and equality of opportunity. Thus, the theoretical effects of school choice options on the segregation of schools and on the equity of educational opportunities for students from diverse backgrounds remains unclear among school choice proponents, to say nothing of corresponding empirical results (some of which will be discussed in the final section of this paper).

The history of the practical implementation of school choice policies in America began in the 1960s with a collaborative effort among teachers and parents to establish urban alternative schools in a number of cities around the country. These “free schools” were intended to improve the educational options and success of disadvantaged students around the country who were predominantly poor and non-white and who had been disproportionately underserved by the contemporary public school system. During the same time period, other independent schools were established in white, rural communities as a countercultural alternative to the formalized and uniform education provided by the public school system. However, these “free schools” were not funded by government tax revenue and most refused to charge tuition from their students. As a result of the ensuing budget deficits that many of these schools experienced, proposals for a tuition voucher system began to circulate. Under this school choice model, which echoed Friedman’s contemporary work, students would be given tax-funded vouchers that would pay for their tuition in the school of their (and their parents’) choice, whether that school is a private “free school” or a public school. However, in the 1970s, the civil rights movement and a number of lawsuits against public school districts by disadvantaged students caused significant

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47 Ibid. 3.
48 Amy Stuart Wells, Time to Choose, 31.
49 Ibid., 32.
50 Ibid., 38.
reforms within the public school system, including the creation of public “alternative schools.”51 These schools continued the pedagogical and social goals of the “free schools” with the support of government-funded budgets.

In the 1980s, school choice expanded across America through increased government funding for magnet schools, which are public schools that specialize in particular academic programs.52 Magnet schools first gained popularity among educators and government officials alike during the late 1960s and early 1970s as a means of desegregating public schools without reassigning students to new public schools against their parents’ will.53 In the late 1970s and early 1980s, a number of bills passed Congress that increased federal funding to magnet schools, which in turn increased the number of magnet schools and the number of students enrolled in them.54 In the early 1990s, charter schools also gained prominence as a government-funded alternative to traditional public schooling and as an opportunity to both decrease segregation and create educational programs that fulfilled certain pedagogical goals.55 These charter schools differed from the earlier magnet schools in that they specialized less heavily in individual academic fields, could not regulate their admissions process on the basis of discrimination by academic ability or any other student characteristic, and were started by members of the local community, including both teachers and parents.56

Finally, in the late 1980s and early 1990s, a new kind of school choice model began to emerge. This model included statewide policies that affected entire public school districts instead of focusing on the creation of individual independent schools. Though these new comprehensive

51 Ibid., 39.
52 Ibid., 37.
53 Ibid., 76.
54 Ibid., 78.
55 Ibid., 122.
56 Ibid.
laws also provided for the spread of charter schools, their true innovation was in the creation of “open enrollment” programs, through which public school students could apply to attend a variety of schools regardless of their residential proximity to those schools.\textsuperscript{57} The goal of open enrollment was highly ideological: conservative policymakers sought to create a competitive environment among public schools in order to increase the quality of the entire public school system.\textsuperscript{58} If free markets for other goods and services succeeded in better serving consumers than did nationalization, the logic went, markets could do the same for public school students. In 1987, Minnesota became the first state to implement a statewide open enrollment program. Within 6 years, Arkansas, California, Idaho, Iowa, Massachusetts, Nebraska, Ohio, Utah, and Washington all followed suite with varying statewide programs of their own.\textsuperscript{59} As of 2013, 31 states had given public school districts the option to allow students to transfer to another school within the same district, and 46 states had given public school districts the option to allow inter-district transfers.\textsuperscript{60}

Thus, American educational history contains examples of each type of school choice model discussed in this paper’s introduction: the existence of independent schools, including “free schools” and magnet schools; the ability of students to apply for enrollment in schools that are not geographically closest to them (or, public school choice); and the ability of students to pay for education in non-public schools with government funding (or, private school choice). Today, the decision to implement school choice models in America is still relegated to state and local governments, while no comprehensive federal school choice policy exists.\textsuperscript{61} The policy

\textsuperscript{57} Ibid., 96.
\textsuperscript{58} Ibid., 97.
\textsuperscript{59} Ibid., 113.
\textsuperscript{61} Stein, “Public School Choice,” 599.
consideration at stake, then, is whether America should implement a comprehensive, national school choice reform program similar to the Swedish reforms of the early 1990s. Specifically of concern for this paper are the potential social consequences of a federal American school choice policy, especially regarding school segregation. However, before any conclusions can be drawn from the Swedish example, certain comparisons between the two countries must be made in order to assess their similarity.

American and Sweden: A Racial Comparison

Preliminary statistics regarding the composition of Sweden’s and America’s populations are necessary before any policy recommendation regarding school choice in the United States can be made. As seen in the studies discussed above, measures of segregation in Swedish schools define ethnic minorities according to students’ immigrant backgrounds, which is reflective of the relative ethnic homogeneity of the Swedish population.62 Thus, the first point of comparison between the populations of the two countries is the relative size of each country’s foreign-born residential population. As of 2012, the residential population of Sweden was 9,555,893, while the number of foreign-born persons living in Sweden between 2005 and 2012 is recorded in the table below:63

<table>
<thead>
<tr>
<th></th>
<th>2005</th>
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<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
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<tbody>
<tr>
<td>Men</td>
<td>538,490</td>
<td>564,431</td>
<td>593,026</td>
<td>620,084</td>
<td>648,426</td>
<td>673,083</td>
<td>694,815</td>
<td>717,303</td>
</tr>
<tr>
<td>Women</td>
<td>587,300</td>
<td>610,769</td>
<td>634,744</td>
<td>661,497</td>
<td>689,539</td>
<td>711,846</td>
<td>732,481</td>
<td>755,953</td>
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Thus, in 2012, the total of foreign-born persons living in Sweden was 1,473,256 and, consequently, the percentage of the total Swedish population that was foreign-born was 16.78%.

In comparison, as of 2012, the residential population of the United States was 313,354,770.64

The number of foreign-born persons (including both naturalized citizens and non-citizens, following the United States Census Bureau’s definition) living in America between 2005 and 2012 can be found below, with numbers in thousands:65

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<th>2005</th>
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<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>17,816</td>
<td>18,010</td>
<td>18,765</td>
<td>18,677</td>
<td>18,285</td>
<td>18,758</td>
<td>18,990</td>
<td>19,617</td>
</tr>
<tr>
<td>Women</td>
<td>17,398</td>
<td>17,649</td>
<td>18,514</td>
<td>18,587</td>
<td>18,465</td>
<td>18,849</td>
<td>19,235</td>
<td>20,359</td>
</tr>
</tbody>
</table>

Thus, the 2012 total of foreign-born residential persons in the United States was 39,976,000, which is 12.76% of the total population for that year. The difference between the percentages of each country’s populations that was foreign-born in 2012 is significant with p < 0.05. However, the total of foreign-born residential persons in the United States is significant in relation to the overall American population. Therefore, the analysis of school segregation in Sweden by students’ immigrant background can be considered at least qualitatively relevant to analogous considerations in the United States, even if a quantitatively significant difference exists between the two populations. Further research on the concentration of immigrant students, the accommodation they receive in public schools, and their experience in independent schools in each country would facilitate more specific comparisons between the two countries in this respect.

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65 Ibid.
Of additional pertinence to conversations about the composition of student populations in America are considerations regarding students who are both racial minorities and American nationals. In 2012, 39,696,000 Americans were categorized as “black only,” while 195,148,000 Americans were “white only” (that is, not Hispanic) and the remainder of the population (73,984,000 Americans) were categorized as neither “black only” nor “white only”. Thus, “black only” Americans accounted for 12.85% of the American population in 2012, while other racial minorities accounted for 23.96% of the population. Of the “black only” population, 35,761,000 (91%) were native-born Americans. Thus, unlike Sweden, the modern American population contains significant communities of both foreign-born residents and racial minorities with little overlap between the two communities, at least when considering only black Americans. Therefore, the possibility of increased racial and ethnic segregation resulting from the implementation of national school choice policies must be very carefully considered in a country with the racial diversity of the United States.

The combination of both national and racial heterogeneity in the American population has already raised concerns about the effects of existing local school choice options on student segregation, echoing research on the effects of Sweden’s school choice reforms on the composition of its schools. For example, a study published in August 2015 analyzed the correlation between school choice options and racial sorting in Indianapolis, Indiana. Indiana first authorized charter schools in 2001, with the first charter schools in Indianapolis opening the following year. By 2015, the city has chartered a total of 25 schools. Stein’s methodology identified a sample of students called “switchers” who had previously attended another school in Indianapolis before “switching” enrollment to one of the city’s charter schools. Focusing on the

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66 Ibid.
67 Ibid.
68 Stein, “Public School Choice,” 606.
2006/2007 academic year, Stein identified 1,022 students who met this criterion, 73% of whom had previously attended a traditional public school within the Indianapolis Public School district.69 59.6% of the full sample of “switchers” was black students, while white students accounted for another 30.7% of the sample, a racial distribution that is closely paralleled in the Indianapolis Public School district overall.70 Stein then calculated a diversity index for switchers’ previous and current schools, which gives the probability that two random students selected from a school’s student population will be of different races or ethnicities.71 Thus, a higher diversity index indicates a greater level of racial and ethnic diversity within a school. To analyze the effects of school choice options on the racial diversity or segregation of Indianapolis schools, Stein compared the diversity indices for the schools attended by a “switcher” both before and after her school transfer. That is, if a switcher attended a traditional public school during the 2005/2006 school year and then transferred to a charter school for the 2006/2007 school year, the diversity index of the first year would be compared to the diversity index of the second year to achieve a picture of the racial experience of that single switcher student.

Stein’s results show that, at a high level of aggregation, students are not moving to schools whose racial compositions are significantly different from those of the public schools where they were initially enrolled.72 However, Stein’s data also show that both black and white students are moving to charter schools with a relatively high percentage of students of their own race. Specifically, black switchers enrolled in charter schools that were, on average, 9% “more black” than the public schools from which the students transferred. Similarly, white students transferred to charter schools that were simultaneously 14% more white and 13% less black than

69 Ibid., 608.
70 Ibid., 610.
71 Ibid., 611.
72 Ibid., 612.
their original public schools. This trend of increased racial segregation is particularly alarming when compared with the experiences of students who transferred to other traditional public schools within Indianapolis. For these students, the differences between the diversity indices of their first and second schools were marginal: for black students, the change in diversity was statistically insignificant, while white students actually experienced a statistically significant but slight increase in diversity.

Thus, the implementation of school choice options in Indianapolis provides a case study for the effects of local school choice on the racial composition of schools in America. Echoing the observed effects of school choice in Sweden, Stein’s study shows that school choice has had a direct effect on increased racial segregation and decreased diversity within charter schools in Indianapolis, especially when compared to the racial compositions of traditional public schools across the city. A final observation that merits additional study in American case studies of school choice involves the racial demographics of students who are transferring into charter schools. In Sweden, scholars expressed concern that students from low-income households and foreign backgrounds were being disproportionately left-behind in increasingly segregated and poor public schools. In the Indianapolis study, however, we see instances of black students transferring from traditional public schools into charter schools and, therefore, theoretically benefitting from the increased quality of education that independent schools are intended to provide. However, despite this possible increase in the quality of education received by students from racial minorities, black students are still sorting into increasingly segregated schools as a consequence of school choice policies. Thus, in considering a federal school choice policy,
American policymakers may be facing a decision between increased quality of education for some students or equality of opportunity for all.

**Conclusion**

The Swedish school choice reforms of the early 1990s have proved instructive on the primary points of importance in discussions about school choice policies. As argued by proponents of school choice, the introduction of school choice options into the Swedish education system seems to have been positively correlated with the average performance of those students “left behind” in public schools. However, the benefits of competition among schools seem to have had no effect on the performance of the most disadvantaged public school students. Additionally, the comprehensive effects of school choice reform on the quality of education in Sweden remain a subject of research and discussion; and the available data cannot be used to argue for a definitive causal link between the institution of national school choice options and the quality of educational attainment in Sweden. The second issue at the heart of the contemporary school choice conversation – the potential segregation of schools along ethnic and socioeconomic lines – is both more empirically evident across Swedish schools and has garnered more conclusive support among scholars of Swedish school choice. Particularly concerning are instances in which students from households with low incomes and with immigrant backgrounds have been disproportionately left behind in low quality public schools at rates that must be at least partially explained by the segregative effects of school choice policies.

America’s own school choice options are currently relegated to state and local policymakers, with no extant federal policy on the issue. Current American debates over the implementation of a comprehensive federal school choice policy have centered heavily on the
issues discussed in this paper, including both the quality and the equity of primary education.
The possibility that national school choice would increase student segregation in American schools is particularly concerning given the high combined rates of foreign-born persons and racial minorities in America. While the size of Sweden’s foreign-born population outstrips that of the United States, America represents a greater overall racial and ethnic diversity. Research on the implementation of American school choice programs at state and local levels supports the application of Sweden’s experience to the United States: case studies of school choice in America show causal relationships between these policies and significant increases in racial and socioeconomic segregation in both independent and public schools. Given the examples of increased segregation in Swedish schools after the implementation of national reforms, and in light of America’s highly diverse population and the American case studies discussed above, federal policymakers in the United States would do well to be wary of the negative social effects likely to result from the implementation of a federal school choice policy.
Bibliography


