ETHNICITY IN THE SCHOOL:
A CASE STUDY OF LOS ANGELES UNIFIED SCHOOL DISTRICT

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In population studies ethnicity is generally considered an ascribed variable. Like gender, it is usually regarded as a stable and real characteristic of individuals that can account for some variations within the larger society. It is therefore distinct from achieved variables such as income, occupation, and marital status, which may change and are considered less stable. On the other hand, ethnicity can also be understood as an invention. Sollors (1989) argued that ethnicity is like nationalism, which can be invented, reinforced, and reinvented. For example, just as the Chinese laundryman comes from a country with no laundries, the Koreans in Los Angeles are almost immediately associated with hard working grocery store owners.

In Los Angeles ethnicity is an especially heated issue. It is quite clear that racial conflicts and urban discontent provided the backdrop for the 1992 riots and the episodes arising from the Rodney King incident. The tension between ethnic groups seems to be strong and prevalent. This is apparently an artifact of a unique metropolitan setting, with an increasingly multi-ethnic composition and simultaneously a high degree of segregation.

Segregation implies that a large proportion of the population have, willingly or unwillingly, restricted their activity space so that they do not have any significant degree of exposure to, and interaction with, members of other ethnic groups. The notion that ethnicity is an invention would be most effectively played out in an environment with a high degree of segregation. The school is one such environment. Unlike adults, who have considerable control over their activities, school children have very little say about which schools they attend, and what ethnic groups they will interact with in schools. But years of exposure or

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lack of exposure to members of other ethnic groups will tend to have potential and perhaps perpetual effects on school children’s interpretation of ethnicity.

The literature on school segregation has tended to emphasize the impact of school desegregation policy on residential segregation (Clark 1988a; 1988b; Morrill 1989). The school, however, is where children spend much of their time and energy, and is an important source of information about their ethnicity and about own and other ethnic groups. Based upon the presupposition that the school environment is a key factor for the invention of ethnicity, this research focuses on ethnic composition and exposure in schools. Using Los Angeles Unified School District (LAUSD) as a case study, two separate and related questions are asked: (1) What is the current level of exposure of students to fellow students and staff of different ethnic backgrounds, and how does that compare with the level of exposure in the residential environment? and (2) What are the policy implications of changing ethnic composition in schools, from the point of view of school administrators? The first question highlights the school environment as an important determinant of the presence, absence, and degree of interaction between different ethnic groups. It involves analyses of the current degree of ethnic exposure in schools and in census tracts. The second question puts ethnic interaction into a practical context, by relating problem areas in schools to policy recommendation. Answers to this question are based upon a questionnaire survey of school administrators. The following sections address these two questions.

**Ethnic Composition and Exposure**

**Data.** Two sets of data are used in the analysis of ethnic composition and exposure. The first data set concerns the school environment and was compiled based on the *Ethnic Survey Report Fall 1990* published by LAUSD (1990b). In this research the ethnic categories have been combined and renamed as follows:

<table>
<thead>
<tr>
<th>Ethnic Survey Report</th>
<th>This Research</th>
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</thead>
<tbody>
<tr>
<td>American Indian/Alaska Native</td>
<td>Native</td>
</tr>
<tr>
<td>Asian, Filipino, Pacific Islander</td>
<td>Asian</td>
</tr>
<tr>
<td>Black, not Hispanic</td>
<td>Black</td>
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<tr>
<td>Hispanic</td>
<td>Hispanic</td>
</tr>
<tr>
<td>White, not Hispanic</td>
<td>White</td>
</tr>
</tbody>
</table>
The Asian, Filipino and Pacific Islander categories are combined to form an Asian category. Native Americans constitute less than one per cent of the students and staff in the district, hence in this research the analysis is confined to the Asian (A), Black (B), Hispanic (H) and White (W) populations. The Ethnic Survey Report contains the number of students and staff broken down by ethnicity for each of the more than 600 schools in the district. The analysis in this research includes the 490 elementary and junior high schools in LAUSD, but excludes the senior high schools and schools of choice.

Senior high schools and schools of choice were omitted from the analysis for two reasons. First schools of choice include many magnet schools, which are special learning centers focusing on a particular subject specialty, such as computer science, performing arts, or using a special teaching approach, such as alternative, gifted, or fundamental. Criteria for student selection depend on the type of school, and may range from the ethnic composition of resident schools to the student’s current classroom achievement and scores. Because there are specific criteria for enrollment in these schools, and because enrollment in schools of choice (31,268) accounted for a relatively small percentage (5.04%) of the district enrollment (620,447), they were omitted from the study. Second, in order to conduct a questionnaire survey its design and administration have to be approved by LAUSD, which strongly discourages sending out more than 100 questionnaires. To generate a sample that is more representative (larger in size) of the population, I decided to include only elementary and junior high schools.

School staff are categorized as certified staff and classified staff. Certified staff include teachers and teachers who have become administrators. Classified staff are other administrators and staff in schools, including, for example, clerical staff.

The second set of data involves ethnic composition in census tracts to represent the residential environment. One can either study all of Los Angeles County, or only those census tracts in which LAUSD schools are located. Both approaches were explored and the patterns revealed are very similar. Conceptually, studying the entire county is more desirable, because student residence is not restricted by the boundaries of LAUSD, and many students commute. Therefore this research reports findings based on the entire county. Total population and population in the four ethnic categories (A, B, H, WA) for each of the 1,652 census tracts were extracted from the 1990 census PL94-171 tape.
Ethnic Composition. According to the 1990 census, the “minority” populations of Asian, Black, and Hispanic constitute almost sixty per cent of the population in Los Angeles County. Figure 1 shows that among the minority populations, Asians have increased from 6.1 per cent in 1980 to 10.3 per cent in 1990; the Hispanic population has grown from 27.0 per cent to 37.9 per cent; while Blacks have declined from 12.7 per cent to 10.6 per cent.

![Figure 1. Ethnic Composition in Los Angeles County](image)

The growth in Asian and Hispanic populations is also reflected in school enrollment. Figure 2 shows that in LAUSD, the percentage of Asian students increased from 3.9 per cent in 1966 to 7.6 per cent in 1990; the percentage of Hispanic students steadily increased from 18.6 per cent in 1966 to 63.3 per cent in 1990. On the other hand, both White and Black proportions have declined, from 56.1 per cent to 13.6 per cent and from 21.4 per cent to 15.2 per cent respectively.

The ethnic composition of school staff is considerably different from the student population. Figure 2 shows that White staff remains the largest ethnic group, followed by Hispanic, Black, and Asian staff. A closer look at the breakdown reveals drastic differences between the certified and classified personnel. Figure 3 shows that among the certified staff, 60.7 per cent are White and only 12.3 per cent are Hispanic. On the other hand, 50.1 per cent of the classified staff are Hispanic, followed by 22.8 per cent Black, 20.2 per cent White and 6.4 per cent Asian. Because teachers are certified staff, students in the district are more likely to have White teachers than teachers of other ethnic groups; and parents are more likely to meet White teachers and administrators in schools.
Measuring Ethnic Exposure and Segregation. Two of the indexes that have been widely used to measure segregation are the dissimilarity index and the exposure index. They are often used to evaluate residential segregation in a two-group situation typically Whites and Blacks or Whites and non-Whites. In Los Angeles a two group approach is inadequate. This paper extends the concept and methodology of the indexes to highlight the multi-ethnic character of the study area.
A third approach used the entropy index. It is widely used in ecological studies for investigating species diversity, and has its origin in information theory (Pielou 1969; Shannon and Weaver 1949). In population studies the entropy index has been used to measure the extent of ethnic diversity when more than two ethnic groups are involved (Allen and Turner 1989; Turner and Allen 1990). However, the detailed relationships between pairs of ethnic groups are masked when one addresses a number of ethnic groups simultaneously. In the following I will report findings based on variants of the dissimilarity and exposure indexes, that are constructed specifically to deal with a multi-ethnic setting.

**Dissimilarity index.** The computation of the dissimilarity index \( D \) is based on the difference between the proportion of one ethnic group and the proportion of another ethnic group. For example, when only two ethnic groups of Blacks and Whites are concerned:

\[
D = \frac{1}{2} \sum_{i=1}^{n} \left| \frac{b_i}{B} - \frac{w_i}{W} \right| 
\]

where \( w_i \) = number of Whites in a subunit \( i \);
\( b_i \) = number of Blacks in a subunit \( i \);
\( W \) = number of Whites in study area;
\( B \) = number of Blacks in study area.

\( D \) measures to what extent population of an ethnic group is evenly distributed across some spatial units or subunits such as census tracts or schools. In this research the study area with respect to census tracts is Los Angeles County, and the study area with respect to schools is LAUSD. \( D \) also gives the minimum proportion of Blacks or Whites who would have to move from one subunit to another in order to obtain an even distribution of that ethnic group across all subunits (i.e. \( b_i/B = w_i/W \) for all \( i \)). The theoretical range of \( D \) is from 0 (no segregation) to 1 (complete segregation). Suppose \( D \) is subtracted from 1:

\[
S = 1 - D 
\]

\( S \) is a “similarity index”. It ranges from 0 to 1, 0 meaning complete segregation and 1 meaning no segregation. \( S \) is preferred to \( D \) for the purpose of this research, since greater (smaller) “similarity” between groups is associated with greater (smaller) interaction and exposure.

The four ethnic groups in this research generate six similarity pairs. Figure 4 shows that in both schools and tracts, the pair of highest simi-
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Similarity is Asian-White, followed by Asian-Hispanic and Black-Hispanic. Asian-Black and Black-White have the lowest levels of similarity. In all cases the similarity in schools is less than the similarity in tracts, suggesting that the exposure to people of other ethnic backgrounds is smaller in the school than in the residential environment.

Exposure index. The exposure index measures the degree of potential contact between members of different ethnic groups. Assuming a two-group situation:

\[
E = 1 - P = 1 - \frac{\sum_{i=1}^{n} b_i w'_i}{BW'}
\]

where \(b_i\) = number of Blacks in a subunit \(i\);
\(w'_i\) = proportion of Whites in a subunit \(i\);
\(B\) = number of Blacks in study area;
\(W'\) = proportion of Whites in study area.

\(E\) in this case measures the degree of exposure of Blacks to Whites. The theoretical range of \(E\) is from 0 to 1: 0 indicates complete balance, when Blacks would encounter Whites at a rate equal to the city- or dis-

![Figure 4. Similarity Indexes in Schools and in Tracts](image)
strict-wide level; 1 indicates complete isolation, when Blacks would tend toward contact only with other Blacks.

The second term on the right, $P$, warrants some explanation. The denominator of $P$ is the number of Blacks times the proportion of Whites in the study area, which is an indicator of the rate of Blacks’ exposure to Whites as suggested by the number of Blacks and the proportion of Whites in the study area. The numerator is the sum of rates of exposure for all subunits. Maximum exposure of Blacks to Whites would occur when numerator = denominator, so that $P = 1$ and $E = 0$. If $b_iw'_i = 0$ for all $i$, either $b_i = 0$ or $w'_i = 0$; accordingly $P = 0$ and $E = 1$, which indicate complete isolation of Blacks from Whites.

It has been shown elsewhere that the theoretical range of $P$ and $E$ is 0 to 1 only if the population consists of two ethnic groups (Fan, in progress). In a multi-ethnic setting $P$ may be greater than 1 and $E$ may be less than 0. In the literature, however, there is a tendency to employ the formulation in (3) as well as the theoretical range of 0 to 1 regardless of the number of ethnic groups involved. To accommodate a larger range and to emphasize the concept of exposure, a more desirable measure is:

$$P^* = P - 1 = -E$$  \hspace{1cm} (4)

The interpretation is as follows: $P^* < 0$ indicates less than predicted level of exposure; and $P^* > 0$ indicates more than predicted level of exposure. The theoretical minimum of of $P^*$ is -1, which implies no exposure between the two groups involved. The positive value of $P^*$ evaluates the magnitude at which exposure is more than the predicted level. For example, $P^* = 2$ suggests that exposure is two times more than the city-wide or district-wide level. Some degree of segregation exists of $P^*$ for own ethnic group is positive and $P^*$s for other ethnic groups are negative.

Figures 5 through 8 report the $P^*$ index, which evaluates the exposure of students to students and staff of different ethnic groups, and the ethnic exposure across census tracts in Los Angeles County. Figure 5 shows the exposure of Asians. $P^*$ is positive for Asian students, certified and classified staff, and Asians in tracts. It is particularly high for Asian students in schools, much more than for Asians in tracts, suggesting that the level of exposure of Asians to other Asians is greater in the school than in the residential environment. The difference in school and residential exposures suggests that on one hand, Asians have a rather diffused geographic distribution across census tracts; and on the other hand, there are certain schools of particularly large Asian student populations, resulting in high exposure as well as segregation.
Figure 5. Exposure of Asians in Schools and in Tracts

$P^*$ is also positive for White students and staff, but slightly negative for Whites in tracts. This confirms the relatively high level of exposure of Asians to Whites in schools as suggested by the similarity index shown earlier. However, the exposure in tracts is less than predicted. That is, an Asian is more likely to encounter Whites in the school than in the residential environment. $P^*$s for Blacks and Hispanics are negative in both schools and tracts, which is consistent with the similarity index results.

Figure 6 shows the exposure levels for Whites. Again, like Asians, their exposure to Blacks and Hispanics in schools as well as in tracts is less than predicted, particularly in schools. The exposure of White students to other White students is very high, about two times more than the predicted level, and is higher than the residential level. So again, like Asians, White students are more likely to encounter other Whites in the school than in the residential environment. Their exposure to Asians in schools is also higher than predicted, although this is not true for tracts. Overall, it seems that Asians and Whites are more exposed to one another in schools than to other groups, and both ethnic groups tend to be more segregated in the school than in the residential environment.

The exposure levels for Blacks are reported in Figure 7. The very high $P^*$s for other Blacks are quite striking. In particular, the exposure
to Blacks at the census tract level is extremely high—three times more than the predicted level. The exposure to Blacks in schools is somewhat less, but is still almost two times more than predicted. Also, the exposure to Black staff is strongly positive. On the other hand, P*’s for all other ethnic groups are negative, in schools as well as in tracts. Noticeable is the very low exposure to Whites in tracts. It seems that, unlike Asians and Whites, segregation of Blacks, and thus isolation and lack of exposure to other ethnic groups, is stronger in the residential environment than in schools.

Figure 8 shows the exposure levels for Hispanics. Although P*’s are positive for exposure to Hispanics and negative for exposure to all other ethnic groups, the deviations from the predicted levels tend to be small. Noticeable among them is the higher P* for exposure to Hispanics in tracts, and the lower P* for exposure to Whites in tracts. Like Blacks, residential segregation of Hispanics seems to be greater than school segregation, but the difference is small compared with Blacks.

The above figures yield some disturbing facts. First, both in the school and in the residential environment, Los Angeles is very segregated. This research does not involve comparative studies, but it is clear that the current level of segregation is substantial. A high level of segregation means limited exposure and personal interaction with members of other ethnic groups. The residential segregation of Blacks is par-
particularly alarming. Second, the deviation in exposure between schools and tracts is quite large. The case for Asians and Whites is particularly problematic. Their exposure to Blacks and to Hispanics is very low in schools. Their segregation in schools is more severe than residential segregation, although the latter has received greater attention in the
literature. For students who are at an age of intense learning and absorption of new facts and materials, their knowledge about other ethnic groups would have to come from other sources, typically the media, instead of in schools where they spend a good proportion of time and energy, and where they may have access to personal interaction. On the other hand, for Blacks and Hispanics, residential segregation is greater than school segregation. It is likely that desegregation policy and programs such as PWT (Permits With Transportation) (LAUSD 1990a) have greater impacts on Black and Hispanic students, so that they are more likely to encounter members of other ethnic groups in schools than in the residential environment.

**Questionnaire Survey**

The questionnaire surveyed school administrators for information about problems associated with changes in the students' ethnic composition, the school's response, and policy recommendations for better serving a rapidly changing school population.

The questionnaire was evaluated by LAUSD, and revised according to LAUSD's suggestions. It was sent to 127 schools in the fall of 1991. The sample, which represents about 1/4 of all elementary and junior high schools in the district, was generated by selecting randomly approximately 1/4 of elementary and junior high schools from each of the eight administrative regions of the district, to ensure a representative geographic coverage. I received 51 completed questionnaires, for a response rate of forty per cent. Most of the respondents are school principals.

The questions in the questionnaire can be collapsed into three separate headings: bilingual teachers, curriculum and textbooks, and interaction with parents. The results are summarized below.

**Bilingual Teachers.** There is a strong feeling among school administrators that bilingual teachers are very important, regardless of the respondents' ethnicity, the ethnic composition in the school and in the school's neighborhood, and the ethnic composition of school staff. On the other hand, in schools with predominantly White students, respondents indicate that increasing the number of bilingual teachers is not considered an important issue.

A majority of respondents from schools that are predominantly Hispanic recommend strongly that more resources be allocated to provide language train for non-English speaking students.
Curriculum and Textbooks. The general feeling about textbooks is that the emphasis on culture is inadequate. This is particularly the case for respondents from schools that are predominantly Hispanic, and less so for respondents from schools that are predominantly White. Respondents were also asked which subjects are most lacking of textbooks with culturally relevant materials. The most frequently mentioned subject is social studies, followed by science, literature and history. Other subjects that are mentioned include mathematics, art, physical education and music.

There are many comments and recommendations about curriculum and textbooks. They tend to concern three areas. First, there is a perceived need for books written in languages other than English, particularly Spanish. Second, respondents indicate that publishers have been responding to the needs of a diverse student composition, so that current textbooks are more culturally relevant than previous ones. Third, it is suggested that in addition to emphasis on culture, textbook materials should include contributions of women and minorities, and social responsibility.

Interaction With Parents. Most respondents indicate that there are no significant difficulties in parent-teacher or parent-administrator interactions. Among those that indicate difficulties, the majority are from schools that are predominantly Hispanic. The reasons that are suggested, in order of importance, include language barriers, cultural barriers, parents not willing to interact, and lack of resources.

Some anecdotal evidence illustrates the range of perception among respondents in different school environments. One principal in a predominantly White school, which is located in a prestigious and predominantly White neighborhood, complains that minority parents rarely participate in school activities. An Asian principal, in a school that is predominantly Black, which is located in a neighborhood that is also predominantly Black, indicates that Black parents are not willing to interact because they want a Black administrator. These two cases depict ethnicity as a major factor in parents' role in school; they are also examples of how ethnicity is being constructed, how the image of certain ethnic groups is being formed, in the school environment.

The comments on parent participation highlight two areas that are of concern. First, language barriers are major obstacles to interaction. Some respondents indicate a need for hiring more bilingual staff, and some respondents comment that schools have been responsive to such need through programs such as language training for staff. Second, availability of the parents is another major issue. Some respondents
suggest that the difficulty is related to apathy, poverty, and distance, especially for students who are transported long distances to school.

Recommendations that do not fall under the three headings above are less common, but nevertheless worth attention. Two respondents suggest counseling and self-esteem workshops for minority students, and more resources for extra-curricular activities. Others indicate a need for training programs for parents, including language, parental skills, and other social services.

In summary it seems that language is perceived as a major factor in teaching as well as interaction with students and parents. A number of problems seem to be more severe in schools that are dominated by minority students. It is quite clear that both schools and publishers have been responding to changes in the ethnic composition of students. Nevertheless, ethnicity continues to be an important underlying factor that contributes to defining the nature and magnitude of difficulties facing students, parents, teachers and administrators.

Conclusion

The findings in this research further underscore the severity of segregation in Los Angeles. In particular, the level of segregation in the schools is higher than residential segregation for Asians and Whites. For Blacks, both school segregation and residential segregation are high, and unlike Asians and Whites, they are more segregated in the residential environment than in the school. Although Hispanic students are not as segregated as the other ethnic groups, their sheer number in LAUSD schools seems to have contributed to greater awareness and concern on the part of administrators of difficulties in teaching and increasing parent participation.

To policy makers, the findings emphasize the importance of ethnicity in the school environment. Policy makers have at least two means to create an environment that is more conducive to interactions between different ethnic groups. Desegregation programs have been experimented with for many years and continue to be controversial. There is evidence that desegregation measures such as busing have no significant effects on residential segregation, and that school desegregation has led to White flight to private schools (Clark 1988; Morrill 1989). The second option involves more fundamental changes, along the lines of training teachers and administrators in languages, cultures and the concept of ethnicity. School administrators surveyed in this research also recommend efforts to diversify the ethnic composition of staff, and to train teachers for overcoming barriers associated with ethnicity.
Recent evidence indicates that the economic gap in the U.S. has tended to widen. Inasmuch as ethnicity is also intertwined with poverty as dividing lines in society, policy makers need to address seriously issues of inequality, and the distribution of, and access to, resources such as education, jobs, and transportation.

There are many questions which are not within the scope of this research but are indeed important issues related to ethnicity in schools. Among them are academic performance of different ethnic groups, ethnicity in private schools, and students' perception of their own and other ethnic groups. One limitation of this research is that only broad ethnic groups are studied. Future research should investigate breakdowns within these groups since they are very diverse in, for example, geographic origin, duration of stay, generation, and class.

References


Fan, C.C. In progress. Some comments on the Application of Dissimilarity, Exposure and Entropy Indexes in a Multi-ethnic Setting.


