# Identifying Additional Layers of Diversity at Public Urban Universities by Using Data From the 2000 National Postsecondary Student Aid Study 

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#### Abstract

This paper examines additional layers of cultural diversity beyond the diversity usually measured by the standard racial/ethnic reporting categories for higher education institutions by examining immigration status and language usage variables. It uses data from the 2000 National Postsecondary Student Aid Study (NPSAS: 2000) to compare the populations of public, large city (populations greater than 250,000) higher education institutions to those of public four-year institutions in other locales. Results are reported for U.S. residents only.


This paper grew from an ongoing retention study at a public urban university. The university is a single campus entity that is located at the edge of a city that anchors a metropolitan area. It is a part of a multi-campus state university system within a state higher education system that also includes state and community colleges. Early in the fall 2001 semester, the university began a study of the retention of first-time full-time freshmen entering the university in the fall semester of 2000.

As we analyzed the results, we found that a number of factors theorized to affect retention either had little impact on this group of public urban university freshmen or, in some cases, had an effect that was the opposite. We found, for example, that traditionally underserved minority students, primarily black non-Hispanic and Hispanic students, had better retention rates than white non-Hispanics. We also found a strong inverse relationship between verbal SAT scores and retention. On several questions that measured institutional commitment, the group least likely to indicate that commitment had the highest retention rate.

Language and citizenship information available in our internal study suggested that race/ethnicity and verbal SAT scores might have been acting as proxies for immigration status and the use of a home language other than English. We theorized that this immigration and language status might be an important factor in developing a different model of retention, persistence, and attainment that would be more applicable to our institution.

Key questions arose as to whether this might have been representative behavior for public four-year large city higher education institution populations in general and whether there are differences in those populations that cause this to be so. As a first step, we decided to use data from the 2000 National Postsecondary Student Aid Study (NPSAS: 2000) to compare the populations of public urban (cities with populations greater than 250,000 ) higher education institutions nationwide to those of public fouryear institutions in other locales with particular attention to immigration and language issues to establish whether there was an additional level of diversity at these public large city institutions, and if so, whether there were indications of differences in the behaviors of these populations. International students are not included in this analysis; the results reported are for U.S. residents only.

## Literature Review

Race/ethnicity is often found to be a factor in retention and persistence. Tinto reported six-year BA/BS completion rates among students who entered higher education in 1986 as $29.1 \%$ for white non-Hispanics, $14.8 \%$ for black non-Hispanics, and $11 \%$ for Hispanics (1993). He also reported six-year completion/persistence rates (based on the 1980 High School and Beyond study) for members of these groups who had entered four-year institutions immediately after high school as $60.7 \%$ for white non-Hispanics, $39.6 \%$ for black non-Hispanics and 46.6 for Hispanics. Among the completers/persisters, white non-Hispanics were almost twice as likely to have graduated, as were members of the other two groups. More recently, a report based on data from the Cooperative Institutional Research Program reported national six-year completion rates of $69.4 \%$ for Asian Americans, $52.2 \%$ for African Americans, $53.2 \%$ for Mexican-American/ Chicano/o, $44.3 \%$ for Puerto Ricans, and $61.6 \%$ for whites (Astin and Oseguera, 2002). We expected that our students would exhibit similar patterns. This was not so.

Tinto used combined SAT scores as an indicator of institutional selectivity where institutions with higher mean SAT scores are expected to have significantly higher retention rates (1993). Aitken reported that both verbal and mathematics SAT scores were significantly and positively related to academic performance. The SAT scores were combined with high school class rank in another sub-construct characterized as ability, which in turn is significantly and positively related to retention in his multiequation model of retention (1983). More recently, Astin and Oseguera reported a weighted percentage of students who receive bachelor's degrees within four years, six years and more than years to be perfectly aligned with composite SAT scores. Beginning with the group who scored below 800 ( $18.2 \%$ four-year graduation rate), the graduation percentage of the 100-point grouping above them is higher for each successive grouping through the 1300 and above group ( $62.3 \%$ four-year graduation rate) (Astin and Oseguera, 2002). Our expectation was that our students with higher SAT scores would also be more likely to be retained. This also was not so.

Institutional commitment has been found to be a key variable in a number of previous retention studies (Bean, 1979; Brower, 1992; Cabrera et al, 1993). Indeed, it was a key factor in both Tinto's model of student integration and in Bean's model of student
attrition (Bean, 1979; Tinto, 1975 and 1993). We expected that students who demonstrated higher levels of institutional commitment would be more likely to be retained. This also was not so.

Tinto's student integration model proposed that retention and persistence is related to the ability of the student to leave his or her previous life and become integrated into the academic and social life of the higher education institution with allowances for differences by race/ethnicity and ability $(1975,1993)$. A competing model was Bean's student attrition model, which proposed that students leave school for many of the same reasons that employees leave work organizations (1980). Bean found institutional commitment to be the primary factor for both men and women. In his model, institutional commitment was an intervening variable arising from satisfaction with the higher education institution. The institution itself was an intervening variable arising from the student's background characteristics, organizational characteristics as perceived by the student such as the quality of the institution and practical value of the education, and the degree to which the student felt fairly treated by the institution. Bean's model dealt more explicitly with background characteristics such as prior academic performance measured by ACT scores and/or high school GPA, and socioeconomic status.

Cabrera et al. did not find these two theories to be incompatible (1992). However, they believe that institutional commitment meant somewhat different things in the two theories and that while Tinto supposed a commitment to the institution based upon competent social and intellectual membership in the community of the specific institution, Bean's concept of institutional commitment might have been better characterized as institutional fit.

A major problem with both theories was that they dealt only with traditional four-year institution students. Indeed, Bean tested his model with a sample that was made up exclusively of white non-Hispanic U.S. citizens under the age of 22 who were single, first-time full-time freshmen in their first semester. He also biased the sample toward higher achieving students as measured by ACT scores, with only $2 \%$ from the lowest quartile. This would not be typical of a large city four-year public higher education institution population.

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The large city populations may require a different model in which immigration and language status should play a large part. Where Tinto saw a feeling of competent citizenship in a particular institution and Bean's view may be characterized as institutional fit, institutional commitment may be strongly related to proximity to family and community for immigrant populations, particularly if the language used in the family is not English. Portes and Rumbaut noted that the ability of immigrant youth to maintain contact, goals, and values with parents was more likely to lead to consonant acculturation by which both generations could develop a sense of
assimilation into the new culture rather than to dissonant acculturation. Dissonant acculturation may be marked by role reversal between parents and children as the children outstrip their parents' knowledge of the U.S. culture and loss of the immigrant culture as they more rapidly assimilated. The ability to simultaneously maintain contact not only with family but with a sizeable community of co-ethnics may lead to an even more positive outcome: selective acculturation in which these youths develop a sense of acculturation into the new culture without abandoning the old. Both consonant and selective acculturation imply and are more likely to allow these immigrants and their children to avoid downward assimilation in which immigrant students identify with an existing underclass (Portes and Rumbaut 2001; Portes 1995).

The fact that high proportions of the immigrant populations are members of minority groups also complicates the assimilation process. Portes and Rumbaut asserted that selective acculturation with maintenance of contact with a sizeable co-ethnic culture could help insulate immigrant youth from the effects of discrimination. In discussing West Indian immigration into the United States, Waters noted, "For today's second generation, staying 'ethnic' and resisting certain kinds of Americanization can be the key to upward social mobility" (Waters, p. 197). Gray et al also noted that for immigrants, peer support might help alleviate acculturative stress (1996). This means that Tinto's student integration model simply didn't work for immigrant and secondgeneration populations. The cost of leaving family and community behind to establish oneself in the academic community is simply too high. Institutions that serve large populations of immigrants and their children need to adapt to this.

## Data and Methodology

The National Postsecondary Student Aid Study Data Analysis System was used to extract data from the NPSAS: 2000 database. The data analysis system allowed production of two-way tables that reported mean values for different variables. Standard errors also were calculated for each mean so it could be determined if any differences were statistically significant. We are applying for use of the restricted data sets that provide unit record data so that we may do cross tabulations and create additional interactive variables that would be useful in regression analysis. Data analysis system output will suffice for this paper, which is exploratory in nature. However, the restricted data is desirable for more detailed work in the future.

The National Postsecondary Student Aid Study (NPSAS) is a comprehensive nationwide study designed to determine how students and their families pay for postsecondary education, and to describe some demographic and other characteristics of those enrolled. The study is based on a nationally representative sample of students in postsecondary education institutions including undergraduate, graduate, and first-professional students. NPSAS website: http://nces.ed.gov/surveys/npsas/overview.asp

We used data from the 2000 study for this paper. That survey has questions about the locale of the institution, respondents' race/ethnicity, language spoken at home as a
child, and the immigration status of respondents and their parents. This information was used to determine if there was an additional level of diversity based on immigration and language status within the recognized diversity of race/ethnicity when comparing the populations of public urban four-year institutions to other public fouryear institutions.

We restricted our analysis to undergraduate students at public four-year institutions. We used the NPSAS variable LOCALE to identify urban institutions and set up a variable for "large city" that includes all of the institutions located within the boundaries of cities with populations of 250,000 or more. According to data from the Integrated Postsecondary Data System, there are approximately 100 of these institutions nationwide. They vary considerably, from the Massachusetts College of Art to the University of California Los Angeles to schools with self- defined urban missions such as Portland State University. This is somewhat problematic since the populations of specialized institutions such as the Massachusetts College of Art and highly selective institutions such as UCLA are likely to be quite different from institutions that primarily see themselves as having an urban mission. Nevertheless, the responses of students at all of the large city institutions are compared to those of students at the public four-year institutions that are outside the boundaries of these large cities.

We used the NPSAS variable IMMIGR to construct the variable immigrant, by which we meant students who are resident aliens, foreign-born citizens, or citizens with foreign-born parents. We compared these to all other citizens. We did not include international students in any of the analyses or report them in any of the summary tables. We only reported on permanent U.S. residents.

We used the NPSAS variable NBLANG to construct a variable that identified English language usage. The NPSAS question asked what language was spoken most often in the student's home when he or she was a child. We compared those who spoke English in the home as children to all other language speakers. However, we eliminated all of the students who indicated American Sign Language or another sign language (a single response category in the DAS) as the language used most often in the home from the analysis because we could not tell the cultural base for the sign language.

## Results

The Portrait of Universities with Metropolitan Alliances (PUMA) is an organization that attempts to define a set of characteristics that describe urban and metropolitan universities with urban missions. One of those characteristics is the diversity of the students at those institutions. One potential indicator of that diversity is the "Racial/Ethnic distribution of students, faculty, and staff relative to service region and other public state universities"(PUMA website
http://www.imir.iupui.edu/puma/key.htm). We explored whether this holds true for public four -year large city institutions in general by examining the degree of racial/ethnic diversity in the large city institutions compared to all others by using the NPSAS RACE1 variable, which has Hispanic/Latino as a separate category. We found
that the large city publics really are more racially/ethnically diverse than other public four-year institutions, as may be seen in Table 1.

Table 1: Racial/Ethnic Groups as a Percentage of Undergraduate Populations*

| Race/Ethnicity | Large City | Other Locale |
| :--- | :---: | :---: |
| White, non-Hispanic | $52 \%$ | $76 \%$ |
| Black, non-Hispanic | $18 \%$ | $9 \%$ |
| Hispanic or Latino | $13 \%$ | $9 \%$ |
| Asian | $13 \%$ | $4 \%$ |
| Other | $2 \%$ | $1 \%$ |

* Native American and Hawaiian/Other Pacific Islanders are not reported because of small cell size.

We then looked at the immigrant status of the various racial/ethnic populations by city size to determine whether there was an additional level of diversity that was more pronounced for large city institutions, aside from the racial/ethnic diversity of the standard reporting categories. We found that students at the large city institutions were much more likely to be immigrants. We conducted simple tests on the significance of difference on the percentage of immigrants in each category and for the group overall by city size. We found that the differences were significant at the $95 \%$ confidence level for every group except the Asians. The results are presented in Table 2.

Table 2: Mean Percentage of Immigrants by Race/Ethnicity and Locale

| Race/Ethnicity | Large City | Other Locale |
| :--- | :---: | :---: |
| White non-Hispanic | $12 \%$ | $6 \%$ |
| Black non-Hispanic | $26 \%$ | $9 \%$ |
| Hispanic or Latino | $68 \%$ | $50 \%$ |
| Asian | $93 \%$ | $91 \%$ |
| Other | $77 \%$ | $50 \%$ |
| All | $34 \%$ | $14 \%$ |

We then looked at English language usage by city size as a separate issue from immigration. Again, we found that the students at the large city institutions were much more diverse by language than were students at the other public four-year institutions. The mean percentages for all of the racial/ethnic groups are presented by city size in Table 3.

Table 3: Mean Percentage Who Spoke a Language Other than English as
Children by Race/Ethnicity and City Size Children by Race/Ethnicity and City Size

| Race/Ethnicity | Large City | Other Locale |
| :--- | :---: | :---: |
| White non-Hispanic | $5 \%$ | $2 \%$ |
| Black non-Hispanic | $5 \%$ | $2 \%$ |
| Hispanic or Latino | $52 \%$ | $48 \%$ |
| Asian | $65 \%$ | $58 \%$ |
| Other | $45 \%$ | $39 \%$ |
| All | $21 \%$ | $8 \%$ |

Overall, the large city publics are more diverse by race/ethnicity, immigration, and childhood language spoken. They educate a disproportionate number of these students. The large city schools had about $22 \%$ of the four-year public institution students in the sample, but they had $42 \%$ of the all of the students who spoke a language other than English as children, $41 \%$ of all of the immigrants, and $46 \%$ of all of the immigrants who spoke a language other than English as children.

This is interesting, but it becomes important only if we can demonstrate that there are actual differences in the behavior or backgrounds of these students that may affect how they relate to higher education institutions. NPSAS has a number of variables that allow us to examine in-school behavior, out-of-school behavior, some academic measures, and quite a number of measures related to the students' families.

We found that the differences began even before entry into higher education. On average, the immigrant group was significantly more likely to delay entry into postsecondary education. What was particularly striking was the fairly large and statistically significant difference between large city and other locale immigrants ( $31 \%$ to $23 \%$ ). Details are presented in Table 4.

## Table 4: Percentage Who Delayed Entry to Postsecondary Education by Immigration and Locale

|  | Immigrants | Other Citizens |
| :--- | :---: | :---: |
| Overall | $26 \%$ | $19 \%$ |
| Large City | $31 \%$ | $22 \%$ |
| Other Locale | $23 \%$ | $19 \%$ |

We then looked at SAT scores. We found small but statistically significant (95\% confidence level) differences between the immigrants and the other citizen groups on the math SAT with the immigrant group tending to score higher than other citizens. We also found a larger and statistically significant difference in the verbal SAT scores, with the other citizens' group mean significantly above that for the immigrant group
( $95 \%$ confidence level). There were also significant differences in mean verbal SAT scores between immigrants in the large cities and immigrants in the other locales. The immigrants in large cities had significantly lower verbal SAT scores than any other group. Details of the mean scores are presented in Table 5.

Table 5: Mean SAT Scores by Immigration and Locale

| Mean Math SAT Scores | Immigrants | Other Citizens |
| :--- | :---: | :---: |
| Overall | 522 | 510 |
| Large City | 518 | 511 |
| Other Locale | 524 | 510 |
| Mean Verbal SAT Scores |  |  |
| Overall | 512 | 532 |
| Large City | 499 | 532 |
| Other Locale | 534 | 520 |

We found a number of significant differences in the rates of taking various remedial courses as freshmen or sophomores. The data analysis system does not allow us to construct a variable for how many remedial courses each student took. However, it is obvious that not only were the immigrants more likely to take each type of remedial course, but that they seem to be taking more of them. While $21 \%$ of the large city immigrants had taken any remedial course, a subtotal of the percentages taking each type added up to $50 \%$. The $16 \%$ of large city other citizens who took any remedial course only had a subtotal of $23 \%$ when the various types of courses were added together. Table 6 presents the percentage of students who reported taking each type of remedial course as freshmen or sophomores.

Table 6: Mean Percentage Taking Remedial Courses as Freshmen or Sophomores

| Remedial <br> Course <br> Type | All <br> Other <br> Citizen | All <br> Immigr. | Other <br> Citizen <br> Large City | Immigr. <br> Large <br> City | Other <br> Citizen <br> Other Locale | Immigr. <br> Other <br> Locale |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| English | $4 \%$ | $8 \%$ | $2 \%$ | $9 \%$ | $5 \%$ | $7 \%$ |
| Math | $12 \%$ | $16 \%$ | $13 \%$ | $14 \%$ | $12 \%$ | $17 \%$ |
| Reading | $4 \%$ | $10 \%$ | $3 \%$ | $12 \%$ | $4 \%$ | $9 \%$ |
| Writing | $6 \%$ | $14 \%$ | $5 \%$ | $15 \%$ | $6 \%$ | $13 \%$ |
| Any Remedial | $16 \%$ | $21 \%$ | $16 \%$ | $21 \%$ | $16 \%$ | $22 \%$ |

The differences between the large city immigrants and large city other citizens were especially pronounced in the remedial courses related to language. The high rates of remedial course taking by the immigrant group, particularly in the large cities, are bound to delay the progress of these students towards graduation as they take these nocredit remedial courses. English as a second language (ESL) courses are not included in the remedial category, and NPSAS does not identify them. This delay in progress that the remedial and, possibly, ESL courses cost the immigrants may have been compounded by the fact that there were small but significant differences in attendance intensity overall between the immigrants and other citizens. These differences are almost entirely concentrated in the large cities where about $69 \%$ of the immigrants attend full-time compared to $73 \%$ of the other citizens.

Part of the difference may be related to family income. The immigrants are considerably poorer than the other citizens. Dependent student immigrants had mean family incomes of less than $\$ 60,000$ compared to more than $\$ 70,000$ for other citizens overall. In the large cities, dependent immigrants had mean family incomes of $\$ 57,537$, compared to $\$ 70,442$ for other citizens. In the other locales, it was $\$ 60,263$ compared to $\$ 70,473$. The differences between the immigrants and the other citizens are statistically significant overall and within each locale ( $95 \%$ confidence level). The difference between the large city and other locale immigrants' mean family income is not statistically significant. Another way of looking at this is $22 \%$ of the large city immigrants and $21 \%$ of the other immigrants had adjusted personal or family incomes at or below the 1998 federal poverty line. This compares to $14 \%$ of the large city other citizens, and $14 \%$ of the other locale other citizens.

The delay in first attendance that was discussed earlier may be used to save some money toward the cost of education. Immigrant students seemed less likely to accept loans as part of their financial aid packages. For example, while both the immigrant and other citizen groups in the two locales had roughly the same amount of unsubsidized loans if they had any at all (compared within locale), the immigrants were significantly less likely to have unsubsidized loans than the other citizens. There are significant differences between the locale rates also. Immigrants and other citizens outside the large cities are significantly more likely to have unsubsidized loans than are their counterparts within the large cities. The ratio of loans to total financial aid and loans to student budget are also significantly different for immigrants and other citizens at both locales. All of the differences discussed were found to be significant at the $95 \%$ confidence level. Details of some of the financial aid variables are presented in Table 7.

Table 7: Mean Financial Aid Measures by Immigration and Locale

|  | Other Citizen, <br> Large City | Immigrant, <br> Large City | Other Citizen, <br> Other Locale | Immigrant, <br> Other Locale |
| :--- | :---: | :---: | :---: | :---: |
| Average ( $>0$ ) <br> Unsubsidized <br> Student Loans | $\$ 4,535.20$ | $\$ 4,605.82$ | $\$ 4,233.74$ | $\$ 4,271.01$ |
| Percent with <br> Unsubsidized <br> Loans | $23 \%$ | $14 \%$ | $28 \%$ |  |
| Ratio of <br> Loans to <br> Total Aid | $72 \%$ | $63 \%$ |  | $19 \%$ |
| Ratio of <br> Loans to <br> Student Budget | $47 \%$ | $42 \%$ | $70 \%$ | $64 \%$ |

We also found a number of differences in the personal lives of the immigrant group when compared to the other citizens. Both dependent and independent immigrant students were significantly more likely ( $95 \%$ confidence level) to live with their parents while enrolled in school. Other language-speaking immigrants outside the large cities were much more likely than their primarily English-speaking counterparts in the same areas to be living with their parents. This may be an indication that the students are staying at home in order to provide language support for the family. The difference was statistically significant at the $95 \%$ confidence level. Details are presented in Table 8.

Table 8: Mean Percent of Students Living with their Parents While Enrolled

| Student Type by Locale | Dependent <br> Students | Independent <br> Students |
| :--- | :---: | :---: |
| All Locales |  |  |
| All Other Citizens | $24 \%$ | $9 \%$ |
| All Immigrant | $37 \%$ | $16 \%$ |
| Large City | $35 \%$ | $14 \%$ |
| Other Citizen, Large City | $51 \%$ | $16 \%$ |
| English Primary, Immigrant Large City | $57 \%$ | $20 \%$ |
| Other Language, Immigrant Large City |  |  |
| Other Locale | $22 \%$ | $9 \%$ |
| Other Citizen Other Locale | $20 \%$ | $12 \%$ |
| English Primary, Immigrant Other Locale | $37 \%$ | $15 \%$ |
| Other Language, Immigrant Other Locale |  |  |

Even those immigrant students who lived on campus tended to live closer to home than other citizens, with about $50 \%$ of large city and $28 \%$ of other locale immigrants attending school within 30 miles of home compared to $35 \%$ of the large city other citizens and $21 \%$ of the other locale other citizens. About $62 \%$ of the large city immigrants who spoke a language other than English and lived on campus attended school within 30 miles of home. This may indicate that the choice of a school for immigrants is more strongly related to being able to be close to family than it is for other citizens. While this choice may have a cultural basis, the fact that a higher proportion of the other language speakers (at least at schools outside the large cities) than primary English-speaking immigrants stay close to home, suggested that it may have something to do with providing English language assistance to other members of the family.

We found that the on average, the parents of the large city immigrants arrived in the U.S. more recently than the parents of the other locale immigrants. The mean arrival year for the mothers of large city immigrants was 1977.4 compared to 1973.9 for the other locale immigrants. For fathers, the large city group had a mean arrival of 1975.6 compared to 1972.7 for the other locale immigrants. There was no difference in the mean time of arrival for the students who were foreign born. The more recent arrival of these parents may impact the language skills of the students as measured by the Verbal SAT, and may influence whether the student lives at home with the parents or at least in close proximity.

We found a number of other differences in the household/family structures of the Immigrants compared to the Other Citizens. This indicates that the family responsibilities for these students are even more pronounced than for other citizens at the large city institutions. While independent student immigrants in the large cities were as likely as other citizens in those locales to have dependent children, immigrants outside the large cities were significantly less likely than the other citizens to have dependent children. Independent students with their own dependents were more likely to have dependents other than children in both locales. The differences between the immigrants and other citizens are significant at the $95 \%$ level for comparisons both inside and outside the large cities for having dependents other than children and parents as dependents. Details are presented in Table 9.

## Table 9: Types of Dependents for Independent Students with Their Own Dependents

| Types of <br> Dependents | Other Citizen <br> Large City | Immigrant <br> Large City | Other Citizen <br> Other Locale | Immigrant <br> Other Locale |
| :--- | :---: | :---: | :---: | :---: |
| Dependents Other <br> than Children | $11 \%$ | $29 \%$ | $9 \%$ | $17 \%$ |
| Parent Was Dependent | $3 \%$ | $15 \%$ | $2 \%$ | $11 \%$ |
| Other Relative <br> Was Dependent | $5 \%$ | $10 \%$ | $3 \%$ | $6 \%$ |

## Discussion and Implications for Future Research

This paper is meant to be exploratory in nature. However, we believe that we have demonstrated that not only are the public four-year institutions in the large cities more racially/ethnically diverse than other public four-year institutions, but that there is an additional layer of diversity within the racial/ethnic categories we usually use for reporting. The immigration and language status of students at the large city institutions has a number of impacts on how they interact with the institutions and probably should be reflected in how the institutions interact with them.

Language issues are extremely important. Based on mean verbal SAT scores, we can see that immigrants at the large city institutions come to the institution with less facility in English. This is reflected in the comparatively high proportions of students who take language related remedial courses. English as a second language courses may add another layer of noncredit course work that delays the students' progress. With retention and persistence rates under discussion as primary accountability measures for public higher education, this is an area that deserves further attention because it is quite likely to seriously impact time to degree.

Language and immigrant status also seems to have an impact on the students' living relationships. In general, more of them live with their parents and even those who live on campus tend to live closer to home than the other citizen group. We also found that while independent immigrant students are as likely to have children as dependents, they are much more likely to have dependents other than children, including parents as dependents. While this acts in opposition to the concept of student integration and should adversely affect retention and persistence that may not be so. We think that retention and persistence may in fact be better for these students compared to other citizens because they are more firmly anchored to a given area in order to provide language and other types of support to their families.

We also found that the immigrant populations tend to come from much poorer backgrounds yet fewer take on unsubsidized loans and they have lower ratios of loans to total student need. This may have implications for structuring financial aid packages that rely more on grants and work-study in order to make them more palatable. Financial aid packages that rely less on loans may also encourage immigrants to avoid delaying entry to postsecondary education.

While we suspected that the large city institutions would have higher proportions of immigrants and their children, the magnitude of it was surprising. The large city public four-year institutions are serving a disproportionate number of immigrants and their children compared to the other four-year publics. We did not suspect that we would find the differences that we did between immigrants at the large city institutions and immigrants at the other locales. The immigrants in the large cities seemed to have less facility with English, are poorer, and have even more pronounced levels of family responsibilities. This bears further attention.

Although we still have much work to do, we believe that SAT scores and race/ethnicity really are measuring different things at the large cities compared to the other locales. The large numbers of immigrants and other language speakers at public four-year institutions in the large cities really makes for very different populations compared to other institutions. In the large cities, the verbal SAT score seemed to be a marker for the immigration and language status of the students rather than any kind of measure of ability.

These findings have a number of serious implications. For instance, they mean that retention and persistence studies that examine the effect of race/ethnicity at public urban institutions may not be measuring what the analysts think they are measuring. Especially at these large city institutions, African American and black non-Hispanic cannot be used interchangeably, because a public urban with relatively high black nonHispanic retention rates (when compared to white non-Hispanics as a base) may in fact still be under serving their Afro-American populations if black non-Hispanic immigrant populations are driving the higher rates. When Astin and Oseguera report on African Americans, the overwhelming majority may actually be of African American descent. At the public four-year large city institutions, the group may well have a majority of immigrants from Haiti, Africa, Brazil, and the English-speaking Caribbean. These students would have very different backgrounds from what is usually defined as African American and need quite a different set of services.

Further, if current immigration and assimilation theory is correct, rather than encouraging students to break away from parents and the old neighborhood in order to become fully integrated into the life of the institution, institutions that serve immigrant populations should be encouraging them to maintain those ties, because they are in the students' best interest (Portes 1995; Portes and Rumbaut 2001; Gray et al, 1996; Waters 1999). Indeed, these institutions should consider offering some levels of service to the families of these students such as English as a secondary language or citizenship classes targeted for them. This would allow the students to become more integrated into the life of the institution while, at some level, sharing the experience with family.

The U.S. is experiencing immigration at levels unseen since early in the 20th century. At that time, public education at the primary and secondary levels was considered a major factor in integrating diverse peoples into a common society. This may not be so now because of fairly high levels of de facto segregation in the cities. Students in public urban elementary and secondary schools may well be going to school with a majority of other immigrants and/or students from an American underclass background. The integration and assimilation effects of the public urban elementary and secondary schools may no longer exist in many areas. Indeed this is one of Portes and Rumbaut's concerns regarding segmented or downward assimilation.

However, because of high concentrations of minority and immigrant populations in urban areas and the ability of public urban universities to attract not only these populations but populations from wealthier less de facto segregated suburbs and school systems, public urban universities may be uniquely positioned to assist immigrant
populations integrate into the larger society and make the larger society more comfortable with its newer members by providing an arena in which both groups meet and work together as equals. This can be facilitated if the public large city institutions are aware of how diverse their populations really are. In fact, Choy's recent report for the American Council on Education identified understanding the recent explosion of diversity in college populations as essential to the appreciation of access and attainment in higher education (2002).

Additional research is planned to further define differences in urban institution populations compared to other institutions and to further explore differences in the backgrounds and behaviors of students at these schools that might impact retention, persistence, and time to degree. Use of unit record data from NPSAS and from the Beginning Postsecondary Student Longitudinal Study when it is acquired, will facilitate the analysis of a number of key variables, and will allow much more sophisticated statistical analysis of the factors affecting the retention, persistence, and attainment of immigrants and other language speakers at public large city four-year higher education institutions.

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