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Latino males continue to lag behind their peers in college enrollment and attainment, even as evidence suggests the 2-year public college sector in particular is making some strides to address this inequity. Yet there are few published figures of enrollment trends for Latino males in 2-year public colleges on a national or state-by-state basis to provide context that might informs local policy and practice. Using the most recent available data from IPEDS and the U.S. Census Bureau's Community Population Survey, this study establishes trends over roughly the last decade in enrollment numbers and, through the use of equity indices, gains and losses in equitable representation in relation to relative local demographic changes. Results showed that while there has been overall national growth in Latino male enrollment and equity, the patterns varied widely by state, with some parts of the country and neighboring states experiencing relative successes and shortcomings in addressing inequities. Results provide a more nuanced picture of the status of Latino male participation in this sector with implications for policy, practice, and research.

Keywords: Latino men, demographics, educational equity

More Latina/os are enrolling in higher education than ever before in the American higher education landscape. Unfortunately, Latino males continue to lag behind their female peers in rates of enrollment and completion (Sáenz & Ponjuán, 2009; Sáenz, Ponjuán, & Figueroa, 2016), and the gender gap for Latino males in postsecondary education has become increasingly evident

in the last few decades, manifesting in key disparities in overall educational achievement. For example, when compared with other racial and ethnic groups, Latino males lag behind their Latina and other-male peers on key early childhood achievement indicators, on high school completion rates, and on college enrollment and degree attainment rates (Sáenz & Ponjuán, 2009). These troubling patterns add up to many educational obstacles that may push them into difficult to break trajectories, hence the coining of terms like "school to prison pipeline" or "education debt." Among those 25 years of age and older, just 14.2 percent of Hispanic males had completed a bachelor's degree or higher as of 2014; rates that were lower compared to their female counterparts as well as compared to the general population rate of 31.9 percent (National Center for Education Statistics, 2015). While the rates of Hispanic high school graduates going straight to college are up (Fry & Lopez, 2012), these gains are not yet translating into gains in college degree attainment.

While there is emerging research exploring such gender disparities (Sáenz et al., 2016), most of what we know comes from either national figures or studies in single institutions and often located in just a few places in the country. Yet, Latino enrollment trends among different states vary in important ways overlooked by academics, practitioners, and college planners. Two simple ways with important ramifications explored in this paper are the wide variations among states in Latino population growth and the resulting gender imbalances in population and educational participation (Fry, 2008; Hamann, Wortham, & Murillo, 2015; Vásquez, Seales, & Marquardt, 2008).

Firstly, the systemic challenges of addressing gross inequity in Latina/o student success is regularly masked by a common rhetoric of a Latino demographic wave, combined with greater high school graduation rates, that is ushering in an era of greater participation in higher education, born out by national figures and future projections (Hussar & Bailey, 2016). Nonetheless, if viewed locally rather than nationally, demographic figures also reveal that equitable participation for Latina/os in higher education has actually declined in areas of the country with the fastest growth. Contrary to common understanding of diversity across college sectors, two-year colleges on average trail far behind four-year colleges and public flagship universities in proportional representation of Latina/os in the faculty and executive administrative ranks (Hatch, Mardock-Uman, & Garcia, 2016). This poses challenges to institutional capacity to be responsive to demographic shifts.

Secondly, demographic changes are decidedly gendered due to family and labor dynamics driving inter-state migration and immigration patterns alike (Fry, 2008; Hondagneu-Sotelo, 2013). Unfortunately, the data are often not adequately disaggregated to consider the experiences of males relative to females. Fry (2008) noted that

> The most marked difference [in fast-growing vs. slow-growing Hispanic counties] is in the adult

> gender balance. The slow-growing Hispanic counties have slightly more adult male Latinos than adult female Latinas, 104 men for every 100 women. In contrast, in the fast-growing Hispanic counties there are 120 adult men for every 100 adult women. (p. iii)

Accordingly, research showing that race and ethnicity have a strong influence in college choice (Flores & Park, 2013) leads to the hypothesis that changes in the enrollment patterns of Latino men in college is correspondingly uneven throughout the country. Indeed, given the long-standing and ascendant role of Latina/os in the nation, the experience and success of Latino men has critical implications for the well-being of individuals, families, and communities everywhere (Sáenz et al., 2016). This is not to suggest that the long-term success of Latina students has been ensured and there is no longer a need to study them as well. To be sure, while more Latinas are enrolling in college, we are left to consider how those patterns in turn affect Latino male students. Gender equity is not a zero-sum issue. Rather, the rationale for further research on Latino male enrollment patterns arises from recognizing that educational attainment of all is self-reinforcing insofar as inequities are addressed—in colloquial terms, a rising tide lifts all boats.

Some look to the two-year public college sector as a bright spot in the potential to achieve better educational equity. Indeed, more than half of all Latina/o students enrolled in postsecondary education are enrolled within this sector, representing roughly one out of every five credit-seeking community college students (National Center for Education Statistics, 2015). But here too, enrollment and completion disparities persist (Crisp & Nora, 2010). While there is evidence of a unique relationship between Latino males and two-year colleges (Harris & Wood, 2013; Núñez, Sparks, & Hernández, 2011; Pérez & McDonough, 2008), it also appears to depend on factors that may vary by geography, such as the proportion of Latina/os in the student body and faculty (Hagedorn, Chi, Cepeda, & McLain, 2007; Núñez et al., 2011), and the number, type, and proximity of institutions (Hillman, 2016), factors that speak to structural inequities of opportunity. Researchers, however, have only just begun to investigate the nuances of Latino male enrollment patterns in this college sector. A fundamental need largely unaddressed in the research literature is to establish baseline data about enrollment patterns for Latino men at a local level that inform the discussion about how to make colleges more equitable institutions wherever they are located. This information matters for pubic two-year and community college policymakers whose duty calls them to account for serving their local constituencies, and for college leaders, planners, and instructors charged with providing access and fostering success among all comers in their local contexts.

Research Questions

To establish baseline information regarding patterns of enrollment for Latino men in the two-year public

college sector in relation to changing demographics of local communities, the research questions guiding this study were: (a) How have enrollment patterns for Latino males developed over time in two-year public colleges in different parts of the country?; (b) How do these changes in proportional representation in the study body reflect gains or losses in terms of equity in relation to local demographic changes?

Related Literature

Determinants and Local Variation of Latina/o Demographic Growth

Demographic studies show that Latina/o population growth comes from multiple sources (Fry, 2008). Foremost, though, it is fundamental to understand that recent Latino growth is mostly due to natural increase of native-born generations (Fry, 2008, p. i) and that immigration rates from all of Latin America have fallen from levels seen in the 1990s and early 2000s (López & Patten, 2015). For instance, data from the Pew Research Center (Gonzalez-Barrera, 2015) showed that in regards to Mexico alone between 2009 and 2014, the U.S. population experienced a net loss of 140,000 residents. Today the primary driving force of Latino population change is predominantly a product of simple generational growth and interstate migration common to people of all origins who seek out new opportunities for themselves and their families. However, Latino immigration, interstate migration patterns, and labor force dynamics have jointly contributed to a remarkable gender imbalance in some parts of the country (Fry, 2008; Parrado & Kandel, 2011), a phenomenon overlooked in much of the social sciences (Hondagneu-Sotelo, 2013). One aspect of this is that in so-called "new Latino destinations" (Vásquez et al., 2008) Latino males, whether native born or foreign born, are more likely to work in service industries and agriculture and have relatively lower educational attainment than those in established Hispanic areas, and are twice as likely to live in poverty than their non-Hispanic neighbors (Fry, 2008).

Geography and Gender Influences on College Choice

These demographic variations across states not reflected in national trends have important implications for the role of public 2-year colleges in Latino male educational equity in light of the primary roles these institutions have in local continuing/adult education, workforce training, and broad college access. This is especially the case when we consider what Hillman (2016) calls the "geography of college opportunity." In his study, Hillman showed how communities with large Latina/o populations tend to have the fewest alternatives to begin with, residing in "education deserts." Education deserts are defined as commuting zones ("statistically derived cluster[s] of counties that share similar labor markets and economic activity to measure the local geographic region where people live, work, and commute" [p. 10]) which either completely lack nearby postsecondary institutions or only have one community college.

Even for Latino males who live in or move to areas with abundant post-secondary institutions (Vásquez et al., 2008), geography continues to shape college-going decisions in ways that highlight the centrality of 2-year colleges for Latinos (Kurlaender, 2006). Indeed, for students of color generally, who tend to work full-time, care for immediate and extended family members, and have close ties to the local community, the cost and proximity of college are some of the foremost factors in college choice and persistence (Nora & Crisp, 2009; Turley, 2009). These are two features that distinguish 2-year colleges in throughout the country, in urban, suburban, and rural settings alike.

Cultural dynamics too contribute to Latino males preferring nearby 2-year colleges (Hurtado, Inkelas, Briggs, & Rhee, 1997). For instance, the concept of *familismo,* which "involves the strong identification and attachment to immediate and extended family…embodied by strong feelings of loyalty, responsibility, and solidarity within the Latino family unit" (Sáenz & Ponjuán, 2011, p. 11), leads Latino males in particular to feel a sense of duty to support their family financially and personally (Ovink & Kalogrides, 2015). Even if qualified to attend more prestigious or selective institutions, nearby 2-year and broad-access colleges offer the opportunity and flexibility to contribute to, and benefit from, familial support (Martinez, 2013).

The centrality of familial networks in the concept of *familismo* aligns with the role of social networks broadly in Latino college-going. For instance, Person and Rosenbaum (2006) and Pérez and McDonough (2008), using a lens of chain migration theory in conjunction with a social capital framework, showed that Latina/o students overwhelmingly depend on social networks of immediate and extended family, high school contacts, and peers for critical college choice information. The extent and type of funds of knowledge transmitted and deployed (Rios-Aguilar, Kiyama, Gravitt, & Moll, 2011) within these social networks depend, naturally, on the experiences Latina/os have in college. Evidence suggests that a critical mass of Latina/o students and Latina/o faculty members—highly variable by geography—can have direct and indirect influences on campus climate, social interaction/integration, and sense of belonging, among other factors of academic persistence and success (Hagedorn et al., 2007; Nora & Crisp, 2009; Núñez, 2014). For Latino males, these dynamics may partly explain the finding of Núñez and colleagues (2011) that, although Latina females outnumber Latino males, being male was positively related to enrolling in a 2-year Hispanic-Serving Institution (HSI) vs. a 2-year non-HSI.

Widening Participation vs. Equity

Bensimon, Hao, and Bustillos (2006) argued a decade ago that "the mainstream discourse among higher education policy makers and practitioners with regard to educational opportunity for underrepresented groups has been framed much more by the standpoints of affirmative action and diversity than by the standpoint of accountability" (p. 144). This

observation remains true. Diversity and widening participation, though critically important, are not enough. Though increasing numbers of college enrollment and attainment among marginalized groups is essential, it is only a portion of the larger picture. In order to more fully understand the complexities of continuing inequities, the community surrounding institutions must be considered to determine how well institutions reflect the community broadly. This was the premise of the development of the Academic Equity Scorecard (Bensimon et al., 2006) constructed around four perspectives of access, retention, institutional receptivity, and excellence. In this scheme, each area is measured on various fronts (e.g., enrollment rates, persistence, faculty composition, degrees awarded) by using an Academic Equity Index (AEI), explained in more detail below, which is a measure of proportionality in regards to a reference group (e. g. certain disciplines compared to others, or an institution in comparison to the community that it purportedly serves).

Recognizing the power of these kinds of measures to investigate educational systems using existing data, Perna, Li, Walsh, and Raible (2010) utilized equity indices to examine the situation for Latina/os across postsecondary sectors within Florida and Texas. The authors asserted that the use of equity indices combatted three key obstacles in examining the status of Latinos in higher education. Equity indices account for variation in Latina/o population sizes by location and over time. Rather than simply comparing the number of Latina/o students that completed high school to those that enrolled in a postsecondary institution, equity indices provide an avenue to account for these nuances and produce results that researchers can use to make meaningful, contextualized comparisons (Perna et al., 2010). Hatch et al. (2016) extended the use of equity indices to understand changes in equitable participation by Latina/os across the United States and found that patterns in Florida and Texas, along with other states with large and well-established Latino population centers may not be typical of other states in new Latino destinations. As opposed to the findings of Perna and colleagues that elite public flagship institutions were the most inequitable for Latina/os among college sectors, Hatch et al. (2016) found that, while 2-year colleges on average have fared better than other sectors in terms of Latina/o student enrollment equity, 2-year colleges on average actually are relatively less equitable than all four-year public colleges including flagship institutions in terms of faculty and executive managerial ranks. Hatch et al. (2016) also found these trends to be exacerbated in areas of the fastest Latina/o population growth, underscoring how local differences in the degree and kind of demographic changes vis-à-vis higher education participation need to be considered on their own terms.

Method

Analytical Approach

This study uses descriptive analyses to break down the national trends in enrollment for Latino men to the state level over the course of roughly the last

decade. The analyses consider firstly enrollment trends of *widening enrollment*, meaning numeric and proportional composition within institutions, and secondly enrollment trends of *equity*, meaning proportional representation with respect to the composition of the local population. To do so, we leverage the concept of Academic Equity Indices (AEIs) developed by Bensimon and colleagues (2006) and exemplified in studies by Perna and colleagues (2006; Perna, Gerald, Baum, & Milem, 2007; Perna et al., 2010) and Hatch et al. (2016). Equity indices are expressed as a ratio of institutional proportional representation (the numerator) in light of proportional representation among a reference population (the denominator). In this way, they efficiently and effectively summarize equitable participation accounting for contextual changes across space and time (Perna et al., 2010).

The reference group in an enrollment equity index comprises those who are eligible to enroll. For open-enrollment and broad-access 2-year public higher education institutions, this means those with a high school diploma or equivalent. A Latino male enrollment equity index is calculated in this manner:

$$Latino\ Male\ Enrollment\ Equity\ Index = \frac{Latino\ Enrollment_{jk}/Total\ Male\ Enrollment_{jk}}{Latino\ HS\ Graduates_{jk}/All\ Male\ HS\ Graduates_{jk}}$$

Where j represents the state and k represents a given year. An equity index less than 1 indicates inequitable higher education participation. An index of exactly 1 indicates equity. An index greater than 1 indicates greater than numerical equity.

The reference group might in practice comprise the entire adult male population, which would reveal a greater degree of societal inequity in education. By limiting the reference group to high school graduates, the index focuses on "the part of the educational 'pipeline' over which higher education institutions have direct control (i.e., access to college, not preparation for college)" (Perna et al., 2010, p. 151). As a way to take a broad perspective on societal equity and the role of public 2-year colleges, we initially accounted for all high school graduates aged 17 to 65 in our reference group. However the indices calculated with a reference group of all 17–65 year olds were misleadingly inflated and consistently above 1.0 throughout the nation over the last decade, a situation which does not match practical experience and self-apparent observation of higher education enrollments. This over-estimation turned out to be due to older generations having substantially lower high-school graduation rates (thus deceasing the denominator and so unduly weighting the numerator), while at the same time being less likely to enroll in college. As a compromise, we restricted our reference group to the "traditional" age range of 17 to 24 year olds despite the substantial representation of older students in 2-year public colleges. At the same time, this age range appropriately considers the younger Latino population segment which is driving demographic changes and supposedly leading to increasing participation and equity in higher education.

Data Sources

The Integrated Postsecondary Education Data System (IPEDS) provided enrollment numbers for all U.S.-based and Title IV-participating institutions in the 2-year public sector (Phipps, Shedd, & Merisotis, 2001). Because IPEDS data come from obligatory census counts instead of survey estimates, the counts are highly reliable and thus useful for local trends analysis where relatively small populations are poorly estimated (Ginder, Kelly-Reid, & Mann, 2014; Hatch et al., 2016). The Community Population Survey (CPS), sponsored jointly by the U.S. Census Bureau and Bureau of Labor Statistics, is a nationally-representative monthly survey that allowed for estimates of population characteristics at the state level.

The availability of comparable data over time delimited the scope of our study. At the time of our analysis, IPEDS variables have been relatively stable since 2003. Colleges are not required to report all data points every year, making data from even years drastically reduced for some states. Complete data were available in odd years through 2013. The CPS, though detailed and very stable over time, sometimes lacks sufficient sample sizes for estimates of some subpopulations in some areas. To mitigate this limitation we, like Flores (2010), relied on the CPS's merged outgoing rotation groups (MORG) which are compiled on a yearly basis and contain three times as many observations as quarterly CPS records. Nonetheless, we opted to use estimates starting only in 2005 since before this time there were fewer than 35 states with reliable estimates of the number of college-eligible Latino men for a comparison group (fewer than 3,000 individuals). Because of volatility in year-to-year estimates from CPS data, we calculated three-year weighted rolling averages for the population reference estimates, bringing our baseline year to 2007, even though the analysis effectively accounts for 9 full years from 2005 to 2013, inclusive.

Limitations

Some technical limitations of this study have already been outlined above in regards to data availability. One consequence is that the time period of this study brackets very closely the duration of the Great Recession that uniquely and perhaps permanently affected 2-year colleges (D'Amico, Katsinas, & Friedel, 2012). The trends noted here may look quite different in decades leading up to this time frame and since the Great Recession technically ended and immigration trends have changed. Another consequence is that the CPS MORG data, though containing hundreds of thousands of individual cases per year surveyed using advanced sampling techniques, still only provide representative estimates at the state level at best. Despite the improved detail in this study over most research, varying intrastate contexts of these community-focused institutions remain hidden. This study is limited to the question of enrollment, and so focuses on access instead of arguably more important measures of success. Lastly, to speak of education equity in terms of students is narrowly

construed in its own way as equity is best considered in holistic terms of the institution, including faculty, leadership, and oversight bodies, notions explored in our larger research agenda. Indeed, educational equity entails how a college is an integral extension of the community, not merely of how an institution is "serving" certain groups.

Results

Enrollment Changes

IPEDS data reveal that among public 2-year colleges, enrollment for Latino men increased from 361,691 in 2005 to 591,450 in 2013, a 63.5% increase. Some of these gains were due to increasing numbers of institutions, as there was also a 6% increase in public 2-year colleges represented in the data set, from 966 to 1,024. But even an adjusted rate (63.5% / 1.06) of 60.0%, or 6.7% annual growth in enrollments, outpaces the overall postsecondary enrollment increase of 2.5% annually between 1998 and 2012 (Hussar & Bailey, 2016). In light of 2.2% to 3.4% annual growth over the same period among the Latino population broadly (Krogstad & Lopez, 2015), one could reasonably classify this kind of growth in 2-year public college participation by Latino men as remarkable and conclude that at a minimum inequities in access are narrowing at a rapid pace. Broadly speaking, this may be the case and is indeed good news. However, this national picture often constitutes the extent of the conversation, and deserves some unpacking in light of variations by state.

At the state level, the nine-year rate of change in Latino male enrollment is also remarkable in the magnitude of variation. A few outlier states aside with peculiar situations (such as Indiana's public community colleges all reported as one institution to IPEDS, and Florida's decade of massive reshuffling of college categorizations that confounds an interpretation of enrollment change there [Petry, 2006]), the mean percentage growth in enrollments among Latino men, making the same adjustment as above for the number of colleges, was from a minimum of 24.3% for Illinois to 283.5% for Idaho. The mean was 93.5% and standard deviation of 53.1 percentage points (Figure 1).

These figures show striking variation in enrollment patterns among states, yet is limited to the question of widening participation within institutions, which is a necessary component of, but not the same as, the issue of equity. The notion of proportional composition for Latino men among all enrolled men constitutes the numerator in an equity index. In the next section we combine this view with the contextual demographic picture.

Equity Changes

Variation across states in college enrollment changes for Latino men in numerical or percentage terms raises important questions about why such differences occur. A place to begin, naturally, is an understanding of the demographic changes that are working in the background. This approach of contextualizing changing rates of participation within institutions turns our

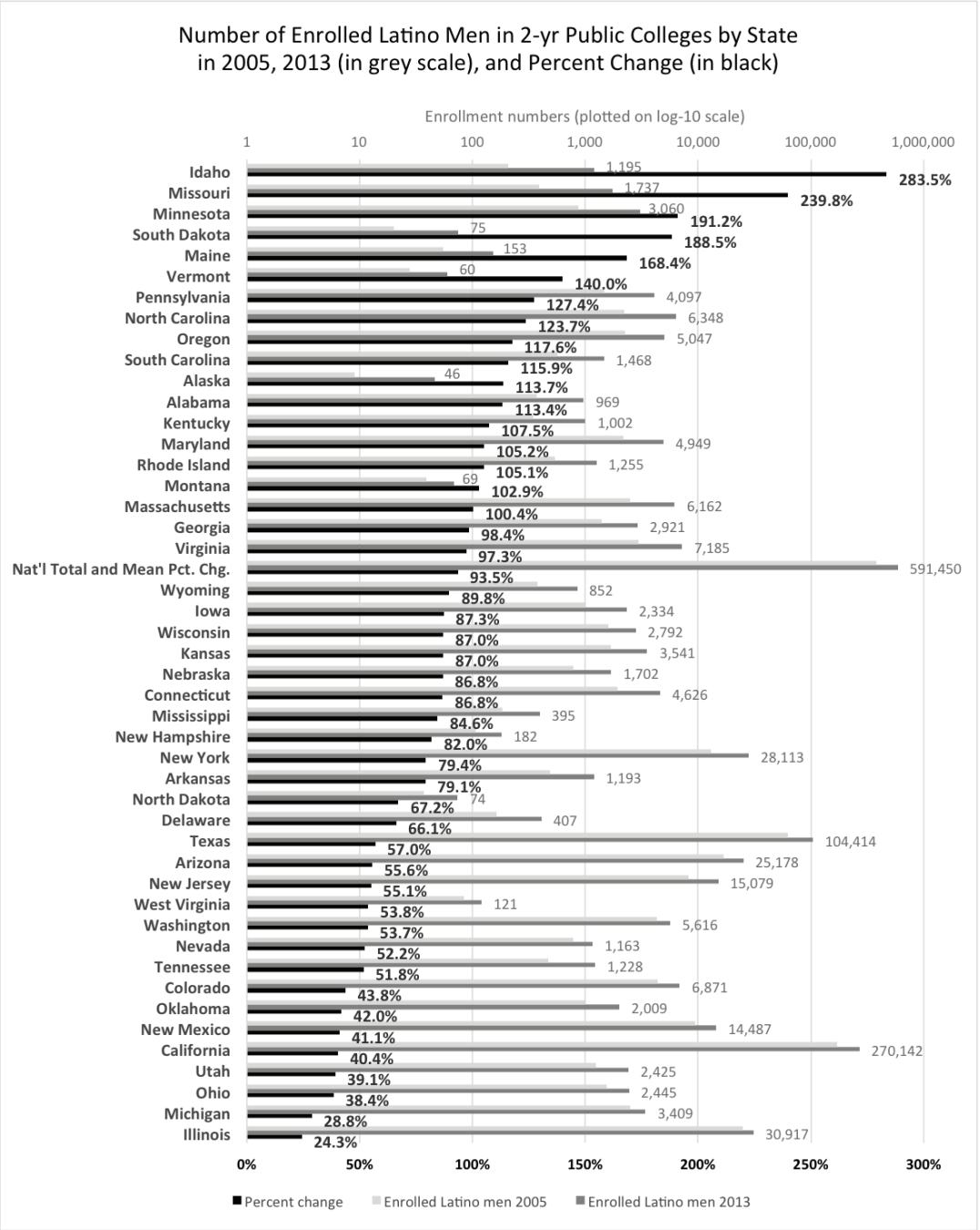

Figure 1. Number of enrolled Latino men in 2-yr public colleges by state in 2005, 2013 and percent change.

attention to the broader issue of educational equity since it situates the college within its local community and proportional demographic composition among those who live there.

The denominator of local demographic change. Estimates about general demographic changes available through the CPS MORG data confirmed that—perhaps not surprisingly —the rate of Latino demographic changes have been drastically different across states. The data also revealed that the patterns are decidedly gendered, in agreement with the literature (Fry, 2008). There were 36 states with sufficient sample sizes to allow for estimates of both the growth rate of Latina/os together and disaggregated by sex. We found that, on a state-by-state basis, there was an average 55.1% (SD = 33.1 percentage points) increase from 2005 to 2013 in the number of all Latina/os 17–24 years old with a high school education, and so eligible to enroll in 2-year public college. But if we look at Latino males alone, the average state growth was considerably higher: a 62.4% increase, but with much more variability (SD = 50.1 percentage points). Although the growth for Latina/os broadly and Latino men specifically are, unremarkably, highly correlated on a state-by-state basis ($r = 0.86$, $p < .01$), there are notable outliers that show how different the situation can be. In Connecticut, for instance, the general Latina/o population of young adult high school graduates increased by 19.7% while Latino males alone decreased by 7.3% over the same time. Similarly, the high-school educated population of young adult Latina/os in Minnesota overall increased by 5.7%, while the number of high-school educated Latino young men fell by 8.7%. Such gender disparities are likely due to numerous factors, from public education, marginalization or social inclusion, college outreach, migration, immigration, and labor market forces to name just a few.

A comparative example of state-level gains and losses. To what extent have these changes in the proportional makeup of eligible Latino male students in states come to be reflected in the proportional makeup of the student body of public 2-year colleges? To find out, we bring to bear the concept of an enrollment equity index on a state-by-state basis. Before looking at the national sample, consider the example of just two states that illustrate the power of equity indices to make sense of multiple moving data points. Minnesota, mentioned above, and its Great Plains neighbor, Nebraska, are two new Latino destination states that share many historic, geographic, and demographic characteristics. Whereas we see above that Minnesota's population of college-eligible Latino males is estimated to have fallen by 8.7% over the time period tracked, the estimates for Nebraska show very rapid growth, up 128.6%. Concurrently, the number of Latino males enrolled in both states' 2-year public colleges have risen from 2007 to 2013, in Minnesota up 196.4% and in Nebraska up 92.3%. But all of these figures are only point-to-point count differences on two measures in different geographic contexts. It becomes extremely challenging to keep track of these trends for just two states, let alone for other state comparisons.

Table 1

Equity Indices and Constituent Parts for Enrollment of Latino Males in Public 2-year Colleges in Two Selected States

	State	2007	2009	2011	2013
Each cell shows:		(1,051)	(1,509)	(2,770)	(3,060)
(Num. of Latino males enrolled in 2-year public colleges statewide)	MN:	$\frac{.019}{.048} = .41$	$\frac{.025}{.045} = .55$	$\frac{.045}{.054} = .84$	$\frac{.053}{.049} = 1.07$
$\frac{Proportion\ CC\ enrolled\ males\ who\ are\ Latino}{Proportion\ area\ males\ with\ HS\ ed.\ who\ are\ Latino} = Equity\ index$		(911)	(1,090)	(1,415)	(1,702)
	NE:	$\frac{.049}{.074} = .66$	$\frac{.053}{.073} = .72$	$\frac{.067}{.123} = .54$	$\frac{.089}{.166} = .54$

But this is just what is accomplished through equity indices, shown in Table 1, along with their constituent parts to illustrate how they work.

Minnesota is a more populous state than Nebraska, so perhaps not surprisingly it also has greater numbers overall of Latino males enrolled in the state's 2-year public colleges; though in 2007 Minnesota only had 140 more than Nebraska. By 2013, the number in Minnesota (3,060) was nearly double that of Nebraska's (1,702), even as both states saw numerical growth. Both states also saw different trends in proportional terms, within and outside of colleges. In Minnesota, the proportion of males with a high school education who are Latino stayed mostly unchanged: from 4.8% to 4.9%. (Notice how this slight relative growth in proportional terms differs from the numerical loss indicated previously. This shows the efficiency of equity indicators and their parts to account for relative surrounding demographic changes.) In Nebraska, the proportion more than doubled from 7.4% to 16.6%, so that by 2013 roughly 1 out of every 6 high-school educated males in the state was Latino. Concurrently, both states saw important gains in Latino males enrolling in their 2-year public colleges, as indicated by the increasing proportions in the numerators. However, in Nebraska, the population changes outpaced the enrollment changes resulting in a net loss in overall equity. Minnesota saw enrollment of Latino males achieve and just surpass numerical equity by 2013 according to these estimates, whereas it was behind Nebraska on this measure in 2007.

Nationwide state-level gains and losses. These are just two examples from across the United States. Figure 2 shows relative gains and losses in equity

indices for all states with available data. In Figure 2 we see that in 2013, the mean was 0.89 (*SD* = 0.26), ranging from 0.54 in Nebraska to 1.88 in the case of Connecticut (numbers in greyscale). But more importantly beyond this snapshot, we can calculate the degree of change over time for these indices to get a sense of how different states have fared in realizing equitable participation in their public 2-year institutions, or alternately fallen further behind. These gains or losses (net change) between 2007 and 2013 are show in black print in Figure 2. The average net change for enrollment equity was 0.09 index points. In practical terms, this would be equal to, for example, a situation with a local population of 10% of college-eligible men being Latino, where the proportion of enrolled undergraduate men in the local college changes from 8.0% to 8.9% being Latino. While most states had made some gains toward greater equity, 12 states had lost ground over time, including New Mexico and Texas which are two of the five states where the majority of HSIs are located (Núñez, Hurtado, & Calderón Galdeano, 2015). The other three, Arizona, California, and Florida saw gains at about the national average, despite having relatively lower rates of growth in the population of Latinos who are qualified to enroll in college, compared to very fast-growing parts in the interior of the country and areas without traditionally large Latino populations.

Conversely, there is not necessarily a close correlation of equity gains with gains in raw enrollment numbers, just as seen in the case of Minnesota and Nebraska. Comparing Figure 1 and Figure 2, one can see that only seven states with the largest gains in enrollment numbers (Idaho, Minnesota, North Carolina, South Carolina, Maryland, Georgia, and Virginia) also are above the national average in equity gains. Missouri, Pennsylvania, Oregon, and Rhode Island all saw below-average equity gains despite above-average numerical enrollment growth. This disparity underscores just how wide the equity gap can be in some parts of the country. Massachusetts in particular, which saw 100% growth in the number of Latino males enrolled in its 2-year public colleges, experienced a 0.38 point loss in equity measures, down from 1.46 in 2007 to 1.08 in 2013, just above the break-even point of a 1.0 equity index value.

Discussion

In terms of enrollment, the number of Latino men that entered colleges and universities nationwide and state-by-state has increased substantially, a positive indicator of widening participation. Yet the percent growth varied widely between states with a minimum growth percentage of 24.3% and maximum growth of 283.5%, pointing to the important role of context and geography in this dynamic. Differences also existed among states in regard to those eligible to enter college. While the average state growth in Latino males with a high school education increased by 62.4%, some states experienced growth to a greater or lesser degree or even a decline in the case of Minnesota, for instance, which experienced an 8.7%

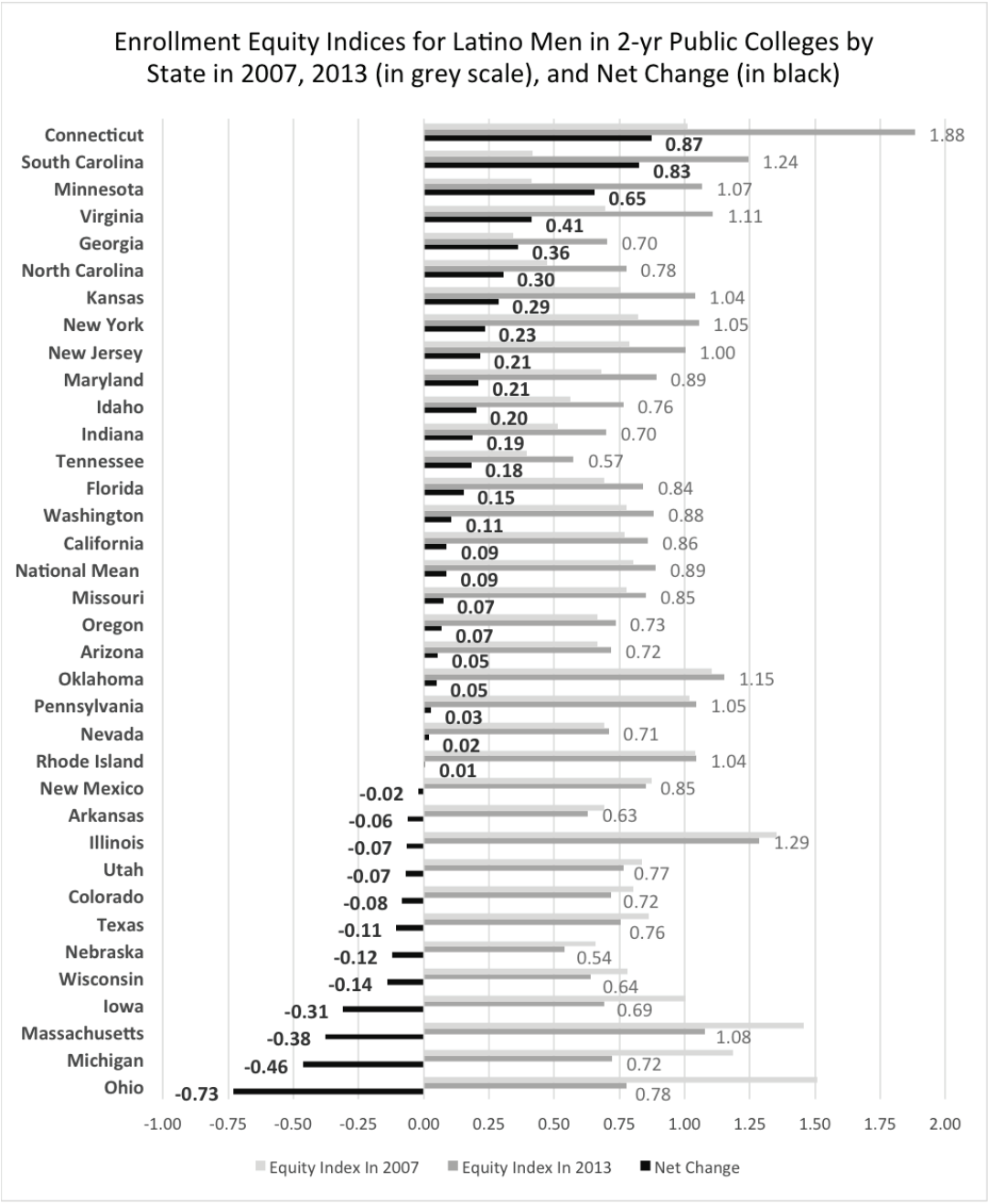

Figure 2. Enrollment equity indices for Latino men in 2-year public colleges by state in 2007, 2013, and net change.

decrease over the same time period. In regard to enrollment equity, of the 38 states with available data, the average equity index was 0.89 with an average net change of 0.09 index points. Though equity within most states experienced growth, there were others that dropped. Notable among this group were New Mexico and Texas. Given the substantial Latino population and presence of HSIs within these states, one might expect equity growth here, yet clearly that is not the case.

Throughout the findings there are few clear patterns as to which states have made gains in enrollment equity. Hillman's (2016) mapping of educational deserts may have some relation. Most education deserts are located in the Midwest and Great Plains states, and indeed 6 out of 12 states that saw equity losses are located here (Illinois, Nebraska, Wisconsin, Iowa, Michigan, and Ohio), with only 4 Midwestern and Great Plains states (Minnesota, Kansas, Indiana, and Missouri) experiencing gains of any kind. Conversely, Hillman found the fewest educational deserts in Mid-Atlantic and New England states and these states are found throughout the ordered lists in Figures 1 and 2. Similarly, other regions of the country include states with widely divergent trends among them: For instance, Arizona gaining some ground, New Mexico losing ground; Oklahoma gaining, Texas losing; Idaho making gains, while Utah and Colorado fell behind, and so on.

Thus, the descriptive findings here, while revealing many divergent trends across the country, raise at least as many questions as to why and how the situation has been so different in neighboring states. Therefore, whereas the literature clearly shows that family ties and social networks matter to college-going for Latino males (Martinez, 2013; Núñez et al., 2011; Pérez & McDonough, 2008), this research corroborates the notion that geographic variations in the number, type, and proximity of institutions (Hillman, 2016; Hurtado et al., 1997) play a substantial role in (in)equitable participation rates. In areas with many HSIs, these trends speak to the "elusive role" of this designation (Flores, Horn, & Crisp, 2006, p. 74). The results here point to yet other structural forces such as differences in state policies, governance, and nature of civic institutions (Flores et al., 2006).

Conclusion and Implications for Policy, Practice, and Research

While trends in national enrollment, particularly within public 2-year colleges, shows how participation patterns have increased overall, results of this study provide a more nuanced look into the uneven distribution of enrollment and equity across geographical areas. Parsing out and examining the variation in Latino college student enrollment and equity by geography matters for a few reasons. Rather than rely on statistics that reflect national trends which may substantially differ by state context, the results of this study provides practitioners and policymakers a clearer picture of the status of Latino equity within their own state and the extent to which public 2-year institutions are

effectively recruiting and enrolling Latino students.

Results of this study provide evidence that equity gains and losses that have taken place over time may be gendered, due to different family and migration patterns in established vs. "new" Latino destinations. This finding entails different policy emphases to better serve Latino males who face different kinds of barriers that are in many ways a function of geography. For instance, the discrepancy between the number of Latina and Latino high school graduates in states such as Connecticut and Minnesota underscore the need for some states to take a closer examination to this portion of the educational pipeline. As reflected by Hatch et al. (2016), for some Latinos, college enrollment decisions can be shaped by experiences as early as grade school, thus it is imperative for states to critically examine how educational opportunities are afforded to men throughout the pipeline, including the critical link of 2-year colleges that are a bridge between secondary, post-secondary, and workforce education. As shown in these findings, the results that some states have within the same region can be drastically different, begging the question of what some are doing relatively better or worse than their neighbors to serve Latino men in either place.

Because this study is only descriptive in nature, policy and practice implications are limited. Instead, the findings underscore the need for comparative studies to determine the source of the enrollment and equity patterns observed. For instance, few previous studies on Latina/o college enrollment have investigated policy factors. Núñez and Kim (2012) found few differences in school-level or state-level influences in their 3-level multicontextual model of Latina/o college enrollment. Instead of state-level variables of state support for colleges as expected, differences in college enrollment were found to differ due to secondary school variables of absenteeism and the percentage of free school lunch, and state averages of educational attainment of teachers and average teacher salaries. Flores (2010) in her study focusing on foreign-born non-citizen Latina/os, found that if states have Dream acts, there has been a corresponding increase in the likelihood of college enrollment for these individuals. Notably, the effect was stronger for males than females in the 18–24 year age range. She found that affirmative action policies, on the other hand, reduced the odds for females to enroll, but not males. Whether these trends extend to native-born and/or citizen Latina/os was not the aim of her study. Yet the gender differences in enrollment associated with state policies warrants exploration.

Due to the wide variety of state contexts, though, and the challenge in operationalizing state policy factors nationwide (Núñez & Kim, 2012) we argue that most immediately, future research might take up comparative studies between states, in light of the saliency of education deserts (Hillman, 2016) and marked differences in neighboring states that this current study reveals. Given the role that proximity and type of institutions plays in relation to Latino male enrollment, this may be

a promising way in to unpacking the effects of variations in state policies, tuition, funding, governance models, and the extent of coordination throughout the educational pipeline, among other poorly understood external influences (Flores et al., 2006).

Even more fundamentally though, intersectional frameworks for understanding contextual differences of Latino educational equity are critically important to advancing theory and deriving transformative practices and policies. Núñez (2014) makes a detailed and compelling case for why and how to break through the monolithic treatment of Latina/os in higher education by considering intersecting identities of (a) national origin, (b) immigrant status, (c) class, (d) gender, (e) sexuality, (f) religion, and (g) language fluency, among others. Indeed, Latina/o migration studies (Fry, 2008; Hamann et al., 2015) show that many of these characteristics vary, sometimes substantially, across geographic location, just like gender, a dimension we have explored here only in binary terms. Given that maleness (or at least masculinity), is an intersectional identity that is privileged not oppressed (Cabrera, Rashwan-Soto, & Valencia, 2016), Núñez's admonition is important to not only consider individual differences, but broader domains of power that can keep families, communities, and civic institutions disjointed through cultural differences, or present discontinuities among educational institutions and sectors. For instance, suppositions about male roles, their educational aspirations, and institutional missions to achieve them, even if aspirational and progressive, can narrowly proscribe policy and interventions. Or those domains of power can be critically questioned to rethink what is possible to advance Latino male educational success and that of everyone else's too.

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