RACE, SEX, AND INCOME INEQUALITY IN THE SOUTHWEST

U.S. society is characterized by a high degree of socio-economic inequality (Heathcote et al., 2010). At the start of the 21st century, the U.S. has one of, if not, *the* highest level of income inequality among industrialized nations (Smeeding, 2005). Numerous studies have demonstrated that socio-economic stratification cuts across race/ethnicity, nativity status, and sex. Specifically, there is strong evidence that racial/ethnic minorities, immigrants, and women tend to earn less than non-Hispanic whites, the native-born population, and men (Avalos 1996; Greenman and Xie 2008). Within the wealth literature on socio-economic stratification, most scholarly work focuses on one dimension of inequality (e.g., race/ethnicity or sex), while ignoring the complex web of intersectional relations between different axes of inequality. Using nationally representative, rich data from the 2011-2015 American Community Survey (ACS), the present study examines inter- and intragroup differences in income by race/ethnicity, nativity status, and sex in the American Southwest.[1]

Our focus on the Southwest is not trivial. This is the most socio-economically dynamic region in the U.S. According to multiple analysts (see, e.g., Doorn and Kelly, 2015; Greenwood, 2014), GDP and employment growth have consistently been highest in the Southwest. In terms of population growth, the Southwest is also the most dynamic region of the nation. According to our calculations based on U.S. Census data from 1970 to 2010, the seven states comprising the region (Arizona, California, Colorado, Nevada, New Mexico, Texas, and Utah) have more than doubled their combined population, while the total U.S. population grew only 51% over the same period. Additionally, this is the only majority-minority region in the U.S. In these seven states combined, non-Hispanic whites constitute a statistical minority population presence.

Given the diversity of the Southwest, as well as its rapid population expansion and continued significance as an immigrant destination, we pose the following questions: 1) how might economic mobility and inequality vary by race/ethnicity and nativity? and 2) to what extent do such patterns (and potential processes) differ by sex? This paper adds to the literature by examining how race/ethnic, nativity and sex effects interact to shape income inequality. Our study bridges several literatures (assimilation, human capital, and intersectionality) to demonstrate the racial/ethnic and nativity-based variations in income within gender and the gendered variation(s) within race/ethnicity and nativity status. Other strengths of the present study include a large, nationally representative sample derived from the ACS and the diversity of race/ethnic groups examined. We focus on ten racial/ethnic groups: whites, blacks, and Native Americans, as well as Chinese, Filipinos, Asian Indians, Vietnamese, Mexicans, Guatemalans, and Salvadorans—groups generally representative of the labor force in the Southwest. To the best of our knowledge, no research has simultaneously examined income inequality between these groups.

DATA AND METHODS

To explore potential inter- and intragroup economic differences, we utilize data from the Integrated Public Use Microdata Series (IPUMS) 2011-2015 American Community Survey 5-year sample (Ruggles et al. 2018). The data are a 5-in-100 random sample of the U.S. population—to which we apply individual-level sample weights to obtain representative estimates. We restrict the sample to persons age 24 to 62 residing in metropolitan statistical areas (MSAs) located in the Southwest.[2] We target individuals of this age because it reflects the foremost period of workforce activity. We also restrict the sample to full-time, full-year workers (i.e., persons that worked 35 hours or more per week for 48 weeks the previous year). Thus, we consider patterns and processes of economic stratification and mobility among those regularly engaged in the labor market.

Our analyses center on ten racial/ethnic groups. This includes non-Hispanic whites, non-Hispanic blacks, and Native Americans, as well as Chinese, Filipino, Asian Indian, Vietnamese, Mexican, Guatemalan, and Salvadoran ethnics. Each group represents a mutually exclusive racial/ethnic classification and category. Importantly, the ten racial/ethnic groups we analyze provide a broad cross-

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[1] We define the Southwest as: Arizona, California, Colorado, Nevada, New Mexico, Texas and Utah.
[2] Our analytic sample of Southwest states includes 68 identifiable MSAs. These large urban areas (and surrounding communities) represent significant local labor markets where a vast majority of the population live and work.

section of populations that reflect quite well the diversity found in Southwestern labor markets. In addition, our inclusion of these groups provides added variation and leverage useful toward disentangling complex dynamics and outcomes—dynamics and outcomes obscured by analyses examining just a handful of groups and those utilizing more aggregate classification schemes (i.e., Asian and Hispanic).

Dependent Variable

Total income is our primary outcome of interest. This measure reflects the total pre-tax personal income (and losses) of respondents from all sources during the previous 12 months and is key for assessing financial achievement and inequalities. All values are inflation-adjusted to 2015 dollars and we log-transform total income in our analytic models to correct for the positive skew of the data. In addition, to obtain positive logged values for all cases, including persons with negative total incomes, we add the absolute value (plus one) of the largest income deficit in the sample to the total income of every respondent (see Painter and Qian 2016). This strategy allows us to take into account full-time, full-year workers experiencing a financial shortfall and fully maximize our sample.

Independent Variables

Race/ethnicity, nativity, and sex are central to our analyses and serve as core predictors for modeling income. We include each racial/ethnic group noted above and draw a distinction between foreign-born and U.S.-born respondents.[3] Simultaneous consideration of race/ethnicity and nativity—as well as comparison of divergent outcomes among and between the foreign- and native-born—can shed valuable light on group-specific assimilation and inequality processes. Likewise, acknowledging the unique challenges and experiences confronting men and women in the economy, we analyze each group by sex.

In addition to race/ethnicity, nativity and sex, we include a number of measures associated with assimilation and human capital. These include U.S. citizenship, English proficiency, education, work experience, self-employment status, and occupation in our modeling. Such factors are commonly linked to economic inequality and mobility (Alba and Nee 2003; McCall 2001). We also introduce several measures of family and household structure. Specifically, we control for marital status, extended household family membership, and number of own children in household—measures associated with social capital and economic status (Nee and Sanders 2001; Tolnay 2004). Lastly, we include dichotomous measures for each MSA to standardize for local metropolitan context.

ANALYTIC STRATEGY

Our analyses proceed in two steps. First, we use ordinary least squares regression to estimate racial/ethnic- and sex-specific differences in logged income (Table 1). Model 1 serves as a baseline for examining potential income gaps and group hierarchies, holding occupation and MSA constant. In Models 2 and 3, respectively, we introduce key background characteristics, including nativity, citizenship, education, and work experience. Model 4, in turn, incorporates family and household controls. Comparison of Models 1 through 4 highlights the extent to which assimilative and human capital attributes may offset or sustain racial/ethnic- and sex-based inequalities.

In the second step of our analyses, we distinguish each racial/ethnic group by nativity and examine income disparities between the foreign-born and their U.S.-born counterparts (Table 2). We estimate and report separate regression models for men and women. We also report interaction results by group and sex (*t* for M-W) based on a single pooled model utilizing the full sample. Such an approach permits us to: 1) assess the impact of race/ethnicity, nativity, and other predictors on income; and 2) draw direct comparisons between men and women. Thus, we are able to more fully engage and explore patterns and processes at a crossroads of race/ethnicity, nativity, and sex.

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[3] *Foreign-born white*, in this instance, consists exclusively of non-Hispanic white Europeans, while *foreign-born black* is comprised of non-Hispanic black Africans. Given the diversity (and to a certain extent, ambiguity) of groups clustered into U.S. Census race categories, we attempt to preserve a degree of focus and precision among foreign-born whites and blacks for comparative purposes with other race/ethnic groups. *Native American*, as can be expected, does not present a foreign-born equivalent for comparison.

PRELIMINARY FINDINGS
Our analyses reveal discernible group-level inequalities suggestive of depressed mobility, closure, and race/ethnic- and sex-based hierarchy—patterns that highlight the embedded character of assimilation and economic outcomes within contexts of constraint. Yet we also find heterogeneity across race/ethnicity and sex. Such findings will be elaborated upon in light of their broader empirical and theoretical implications toward understanding patterns and processes of group inequality and economic stratification.

Table 1. OLS Regression of Logged Total Income on Race/Ethnicity, Sex, and Background Attributes, ACS 2011-15

	Model 1			*Model 2*			*Model 3*			*Model 4*		
	b	s.e.	p	b	s.e.	p	b	s.e.	p	b	s.e.	p
Men[a]												
Chinese	-.142	(.007) ***	.87	-.107	(.006) ***	.90	-.119	(.006) ***	.89	-.111	(.006) ***	.89
Filipino	-.270	(.005) ***	.76	-.265	(.005) ***	.77	-.227	(.005) ***	.80	-.214	(.005) ***	.81
Vietnamese	-.252	(.007) ***	.78	-.241	(.007) ***	.79	-.173	(.007) ***	.84	-.160	(.007) ***	.85
Asian Indian	-.004	(.007)	1.00	.042	(.007) ***	1.04	-.002	(.007)	1.00	-.006	(.006)	.99
Mexican	-.324	(.002) ***	.72	-.274	(.002) ***	.76	-.147	(.002) ***	.86	-.143	(.002) ***	.87
Guatemalan	-.461	(.007) ***	.63	-.365	(.007) ***	.69	-.217	(.007) ***	.81	-.198	(.007) ***	.82
Salvadoran	-.398	(.006) ***	.67	-.325	(.006) ***	.72	-.185	(.005) ***	.83	-.171	(.005) ***	.84
Black	-.243	(.004) ***	.78	-.245	(.004) ***	.78	-.206	(.003) ***	.81	-.193	(.003) ***	.82
Native Amer.	-.178	(.012) ***	.84	-.185	(.012) ***	.83	-.132	(.011) ***	.88	-.118	(.011) ***	.89
Women[a]												
White	-.237	(.002) ***	.79	-.231	(.002) ***	.79	-.217	(.002) ***	.81	-.206	(.002) ***	.81
Chinese	-.273	(.006) ***	.76	-.241	(.006) ***	.79	-.233	(.006) ***	.79	-.221	(.006) ***	.80
Filipino	-.326	(.005) ***	.72	-.317	(.005) ***	.73	-.300	(.005) ***	.74	-.283	(.005) ***	.75
Vietnamese	-.378	(.007) ***	.69	-.352	(.007) ***	.70	-.260	(.007) ***	.77	-.245	(.007) ***	.78
Asian Indian	-.215	(.008) ***	.81	-.184	(.008) ***	.83	-.198	(.008) ***	.82	-.202	(.008) ***	.82
Mexican	-.467	(.002) ***	.63	-.428	(.002) ***	.65	-.299	(.002) ***	.74	-.287	(.002) ***	.75
Guatemalan	-.529	(.009) ***	.59	-.465	(.009) ***	.63	-.323	(.008) ***	.72	-.299	(.008) ***	.74
Salvadoran	-.522	(.006) ***	.59	-.456	(.006) ***	.63	-.311	(.006) ***	.73	-.289	(.006) ***	.75
Black	-.371	(.003) ***	.69	-.368	(.003) ***	.69	-.324	(.003) ***	.72	.299	(.003) ***	.74
Native Amer.	-.371	(.010) ***	.69	-.367	(.010) ***	.69	-.294	(.010) ***	.75	-.271	(.010) ***	.76
Assimilation/Human Capital												
U.S.-Born				-.026	(.002) ***	.97	.031	(.002) ***	1.03	.044	(.002) ***	1.05
U.S. Citizen				.127	(.002) ***	1.14	.078	(.002) ***	1.08	.072	(.002) ***	1.07
Speaks English				.133	(.002) ***	1.14	.110	(.002) ***	1.12	.112	(.002) ***	1.12
< High School[b]							-.438	(.003) ***	.65	-.432	(.003) ***	.65
High School[b]							-.355	(.002) ***	.70	-.344	(.002) ***	.71
Some College[b]							-.254	(.002) ***	.78	-.248	(.002) ***	.78
Graduate Degree[b]							.218	(.002) ***	1.24	.211	(.002) ***	1.24
Work Experience							.032	(.0002) ***	1.03	.028	(.0002) ***	1.03
Work Exp-squared							-.0005	(4e-06) ***	1.00	-.0004	(4e-06) ***	1.00
Self-Employed							-.070	(.003) ***	.93	-.075	(.003) ***	.93
Family/Household Structure												
Married										.076	(.001) ***	1.08
Children										.018	(.001) ***	1.02
Extended Family										-.059	(.001) ***	.94
Constant	11.326	(.003)		11.093	(.004)		10.855	(.004)		10.843	(.004)	
R^2	.342			.351			.453			.461		
N	870,028			870,028			870,028			870,028		

Note: Standard errors are reported in parentheses. "p" represents the proportion of logged total income earned by a given group relative to white men. All models control for occupation and MSA (results not shown).
[a] Reference category = white male.
[b] Reference category = bachelor's degree.
*p < .05; **p < .01; ***p < .001 (two-tailed tests)

Table 2. OLS Regression of Logged Total Income on Race/Ethnicity and Background Attributes by Sex (with Race/Ethnic-by-Sex Interactions), ACS 2011-15

	Men[a]			Women[b]			t for M-W[c]
	b	s.e.	p	b	s.e.	p	
White							
Gen. 1	.017	(.006) **	1.02	-.026	(.006) ***	.97	3.97 ***
Chinese							
Gen. 1	-.161	(.007) ***	.85	-.078	(.007) ***	.92	-10.43 ***
Gen. 2	-.071	(.010) ***	.93	.023	(.011) *	1.02	-7.13 ***
Filipino							
Gen. 1	-.263	(.006) ***	.77	-.119	(.005) ***	.89	-20.82 ***
Gen. 2	-.153	(.010) ***	.86	-.066	(.009) ***	.94	-7.57 ***
Vietnamese							
Gen. 1	-.206	(.007) ***	.81	-.078	(.007) ***	.92	-12.75 ***
Gen. 2	-.127	(.019) ***	.88	-.047	(.017) **	.95	-3.22 ***
Asian Indian							
Gen. 1	-.049	(.007) ***	.95	-.030	(.009) ***	.97	-2.83 **
Gen. 2	.007	(.027)	1.01	.010	(.022)	1.01	0.06
Mexican							
Gen. 1	-.185	(.003) ***	.83	-.131	(.003) ***	.88	-13.28 ***
Gen. 2	-.128	(.002) ***	.88	-.089	(.002) ***	.92	-14.00 ***
Guatemalan							
Gen. 1	-.229	(.008) ***	.80	-.161	(.010) ***	.85	-7.00 ***
Gen. 2	-.149	(.020) ***	.86	-.109	(.017) ***	.90	-2.37 *
Salvadoran							
Gen. 1	-.201	(.006) ***	.82	-.137	(.006) ***	.87	-8.39 ***
Gen. 2	-.170	(.013) ***	.84	-.129	(.012) ***	.88	-3.24 ***
Black							
Gen. 1	-.294	(.011) ***	.75	-.132	(.011) ***	.88	-9.88 ***
Gen. 2	-.175	(.004) ***	.84	-.100	(.003) ***	.90	-16.14 ***
Native Amer.	-.103	(.011) ***	.90	-.080	(.010) ***	.92	-2.42 *
Assimilation/Human Capital							
U.S. Citizen	.073	(.003) ***	1.08	.068	(003) ***	1.07	.77
Speaks English	.110	(.003) ***	1.12	.100	(.004) ***	1.11	.89
< High School[d]	-.437	(.004) ***	.65	-.407	(.004) ***	.67	-3.25 ***
High School[d]	-.345	(.003) ***	.71	-.329	(.003) ***	.72	-2.19 *
Some College[d]	-.250	(.002) ***	.78	-.237	(.002) ***	.79	-3.31 ***
Graduate Degree[d]	.218	(.003) ***	1.24	.192	(.003) ***	1.21	6.27 ***
Work Experience	.031	(.0003) ***	1.03	.026	(.0003) ***	1.03	11.73 ***
Work Exp-squared	-.0005	(5e-06) ***	1.00	-.0004	(5e-06) ***	1.00	-7.04 ***
Self-Employed	-.080	(.004) ***	.92	-.080	(.005) ***	.92	1.75
Family/Household Structure							
Married	.112	(.002) ***	1.12	.031	(.002) ***	1.03	33.90 ***
Children	.021	(.001) ***	1.02	.005	(.001) ***	1.00	15.31 ***
Extended Family	-.067	(.002) ***	.93	-.049	(.002) ***	.95	-7.15 ***
Constant	10.833	(.006)		10.751	(.006)		
R2	.461			.444			
N	501,733			368,295			

Note: Standard errors are reported in parentheses. "p" represents the proportion of logged income earned by a given group relative to U.S.-born whites. All models control for occupation and MSA (results not shown).
[a] Reference category = U.S.-born white male.
[b] Reference category = U.S.-born white female.
[c] t-scores and p-values reflect interactions by group and sex based on a single pooled model utilizing the full sample. Reference category = U.S.-born white male.
[d] Reference category = bachelor's degree.
*$p < .05$; **$p < .01$; ***$p < .001$ (two-tailed tests)