

Gender, Ethnicity, and the Gavel:

Intersectional Pricing in the New York Art Auction Market, 2015–2024

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ABSTRACT

Prior research has documented gender- and ethnicity-associated pricing differentials in art auction markets, but has generally treated these dimensions as independent and additive. This paper applies intersectionality theory to test that assumption directly. Drawing on 68,672 auction transactions at Christie's, Sotheby's, and Phillips in New York from 2015 through 2024, representing approximately \$31.7 billion in hammer value across 2,631 unique artists, we estimate hedonic pricing models with explicit gender-by-ethnicity interaction terms, race-disaggregated specifications, difference-in-differences models anchored to the #MeToo (2017) and Black Lives Matter (2020) movements, and superstar sensitivity tests using cumulative-revenue thresholds. Four findings emerge. First, the relationship between demographics and price is not additive: a Female $\times$ Ethnic Minority interaction of +0.443 ($p < 0.001$) means the net price gap for women of color relative to white male artists is statistically indistinguishable from zero, even though both single-axis main effects are large and negative. Second, 27 superstar artists account for 61.3% of total revenue and are 96.2% male and 98.3% white; their exclusion attenuates or reverses the single-axis main effects while the intersectional interaction remains stable. Third, both cultural movements are associated with statistically significant narrowing of demographic price gaps in the immediate post-event period. Fourth, these gains were not equally distributed: women of color received no statistically measurable price improvement following either movement, a pattern consistent with the intersectional invisibility framework. The paper contributes a large-scale empirical demonstration that intersectional non-additivity holds in a major cultural market, establishes superstar sensitivity testing as a necessary protocol in markets with high revenue

concentration, and offers practitioner-relevant guidance for collectors, auction specialists, gallery directors, and museum acquisition officers operating in markets where aggregate diversity statistics may obscure the experience of multiply-marginalized groups.

Keywords: intersectionality; hedonic pricing; art auction markets; gender; ethnicity; superstar effects; cultural movements; engaged scholarship.

1. INTRODUCTION AND PRACTITIONER MOTIVATION

The global art market is a substantial economic sector. Total sales across all channels reached an estimated \$57.5 billion in 2024, with global public auction revenue at approximately \$23.4 billion (McAndrew, 2025). New York functions as the central price-setting venue: Christie's, Sotheby's, and Phillips together account for approximately half of global public auction turnover, and 36 of the 50 highest-priced lots sold globally in 2024 were offered in New York (ArtTactic, 2024; McAndrew, 2025). For collectors, auction specialists, gallery directors, museum acquisition officers, and the artists themselves, the prices established at these three houses function as authoritative reference points for valuation, consignment strategy, and institutional decision-making worldwide.

A growing body of empirical research has documented systematic pricing differentials associated with artist demographics. Adams, Kräussl, Navone, and Verwijmeren (2021), analyzing approximately 1.9 million transactions across 49 countries from 1970 to 2013, reported that works by female artists sold at prices approximately 42.1% lower than comparable works by male artists. Cameron, Goetzmann, and Nozari (2019) found that female artists have fewer auction sales overall, while Bocart, Gertsberg, and Pownall (2022) documented gender-related barriers at multiple career stages. These studies treat gender and ethnicity as separate, independent dimensions, implicitly assuming that any aggregate pricing differential can be decomposed additively into a gender component and an ethnicity component.

Intersectionality theory, originating in Crenshaw's (1989) legal scholarship, suggests this additive assumption may be inadequate. Individuals who belong to multiple underrepresented groups may experience pricing patterns that differ qualitatively, not merely quantitatively, from what single-axis analysis would predict. Whether such intersectional patterns exist in art market pricing is an empirical question that has not been systematically investigated at scale. The omission matters in practical terms: aggregate diversity statistics published by major institutions (e.g., share of women artists in evening sales, share of artists of color acquired by museums) implicitly assume additivity. If pricing structure is non-additive, those statistics may misrepresent the experience of artists at the intersection of multiple underrepresented identities, leading collectors and institutions to draw incorrect inferences about progress toward equitable representation.

This study addresses three research questions. First, how do gender and ethnicity, jointly and individually, relate to auction pricing outcomes in the New York market? Second, do these relationships exhibit intersectional non-additivity, and in which direction? Third, have these patterns shifted around two major cultural movements—#MeToo (2017) and Black Lives Matter (2020)—and have any such shifts distributed equally across demographic groups? Each question carries distinct implications for engaged practice. Question one concerns whether observed price differences are a real pattern after artwork characteristics are controlled. Question two concerns whether single-axis monitoring of representation is empirically sufficient. Question three concerns whether the institutional responses to recent cultural movements have reached the populations they were nominally designed to benefit.

Two clarifications regarding interpretation are necessary at the outset. First, observed pricing differentials associated with demographic characteristics do not, by themselves, establish intentional differential treatment. Several alternative mechanisms—including unobserved quality differences, homophily in collector preferences, and differential institutional access—could independently or jointly generate the observed patterns. Second, this paper documents associations rather than causal mechanisms. The contribution is to characterize the structure and temporal evolution of pricing differences with sufficient granularity that practitioners and policy-oriented researchers can identify where additive monitoring frameworks may be inadequate.

The remainder of the paper is organized as follows. Section 2 develops the theoretical framework. Section 3 describes data and methods. Section 4 reports findings. Section 5 discusses implications for engaged scholarship and practice. Section 6 acknowledges limitations and identifies future research directions.

2. THEORETICAL FRAMEWORK

2.1 Intersectionality Theory and Its Empirical Implications

Intersectionality theory holds that multiple marginalized identities may produce experiences differing not merely in degree but in kind from those associated with any single identity dimension (Crenshaw, 1989; Collins, 1990). Crenshaw distinguished intersectionality from earlier multiple-jeopardy frameworks (Beale, 1970; King, 1988), which treat compounding as additive. For empirical research, the distinction is sharp: additive models predict that the pricing differential for

an artist who is both female and from an underrepresented ethnic group equals the sum of the separate gender and ethnicity coefficients, while intersectional models predict that the combined differential may differ from this sum in either direction. As McCall (2005) and Hancock (2007) argue, the standard econometric implementation of intersectional analysis involves explicit interaction terms between demographic indicators, with the interaction coefficient testing the non-additivity prediction directly.

The direction of any significant interaction is a genuine empirical question that the theory does not constrain to a single sign (Bauer et al., 2021). A negative interaction would indicate compound disadvantage: artists with multiple underrepresented identities face larger price differences than additivity would predict. A positive interaction would indicate partial offset: the intersectional combination is associated with smaller differences. Both outcomes are consistent with the core non-additivity prediction, and both are theoretically informative.

2.2 Economic Mechanisms in Cultural Markets

Three economic frameworks suggest why pricing patterns may emerge along demographic lines in cultural markets specifically. Becker's (1957) taste-based framework proposes that some market participants have preferences over the demographic characteristics of producers; in the art market, such preferences need not reflect animus but may instead reflect homophily, since the collector population has historically been disproportionately male and white (McAndrew, 2024). Arrow's (1973) statistical framework proposes that when individual quality is difficult to observe, decision-makers may use group membership as a proxy. Art markets, where aesthetic quality is inherently subjective, are precisely where this framework predicts the strongest demographic associations. Akerlof's (1970) information asymmetry framework highlights the role of intermediaries—gallery dealers, auction specialists, art advisors—as quality validators in uncertain markets, with their assessments potentially becoming self-reinforcing as historical price data feeds back into future valuations (Ashenfelter & Graddy, 2003, 2006).

Cultural markets are also characterized by extreme revenue concentration. Rosen's (1981) superstar framework documents that a small number of producers capture a disproportionate share of market returns, and Adler (1985) extended this analysis to settings where superstar status is partly endogenous to consumption decisions. Topaz et al. (2019), analyzing 18 major U.S. museum collections, found that approximately 85% of represented artists were white and 87% were men.

If superstar status in the auction market is correlated with prior institutional validation, and if institutional validation has been demographically concentrated, then aggregate demographic pricing coefficients may partly reflect the compositional asymmetry of the superstar stratum rather than market-wide differential treatment.

2.3 Cultural Movements as Temporal Markers

Cultural change theory (Sunstein, 1996) holds that periods of heightened public attention to specific equity issues can shift social norms in ways that influence market behavior. The #MeToo movement, which gained global prominence in October 2017, and the national intensification of Black Lives Matter following the death of George Floyd in May 2020, provide useful temporal markers for examining whether pricing patterns shifted during periods of heightened cultural attention to gender and racial equity respectively. The near-simultaneous occurrence of these two movements—each focused on a different demographic dimension—creates a natural opportunity to test whether pricing changes distributed equally across intersectional groups or were concentrated among each movement's primary constituency.

Purdie-Vaughns and Eibach's (2008) intersectional invisibility framework provides a direct prediction. Because women of color sit at the intersection of two underrepresented identities, they may be less salient as a target of either gender-focused or race-focused institutional response. Empirically, this predicts that price improvements following each movement should accrue disproportionately to single-axis groups (white women after #MeToo; minority men after BLM) and less so to women of color. This prediction is testable through triple-interaction terms in difference-in-differences specifications.

2.4 Hypotheses

Four formal hypotheses are tested. H1 (Intersectional non-additivity): The pricing differential for artists who are both female and from an underrepresented ethnic group differs significantly from the sum of the gender and ethnicity main effects. H2 (Temporal variation): Demographic pricing differentials exhibit statistically significant changes around the #MeToo and BLM event windows. H3 (Differential convergence): Single-axis groups experience faster price convergence than intersectional groups following each movement. H4 (Superstar robustness): Group-level coefficients in small intersectional cells may be sensitive to the inclusion or exclusion of dominant

individual artists, and this sensitivity must be tested explicitly to distinguish market-wide patterns from single-artist phenomena.

3. DATA AND METHODS

3.1 Data Sources and Sample Construction

Transaction data are drawn from the ArtNet Price Database, providing hammer price, artwork characteristics, artist identification, auction house, sale date, and pre-sale estimates for Christie's, Sotheby's, and Phillips in New York. Data extraction covers sales from January 2015 through December 2024, a ten-year window providing a sufficient pre-treatment baseline before the #MeToo movement (October 2017) and extending through multiple post-treatment years for both events. The full candidate pool comprises 72,838 transactions by 2,631 unique artists. After exclusion of records with missing artwork dimension data and application of arm's-length transaction and demographic verification criteria, the analytical sample is 68,672 transactions, representing approximately \$31.7 billion in total hammer value.

Artist demographic data are constructed using a multi-source verification protocol requiring confirmation from at least two independent sources before any classification is assigned. Primary sources are museum exhibition catalogs from the Museum of Modern Art, Whitney Museum, Metropolitan Museum of Art, and Guggenheim Museum, which prepare biographical materials with artist input. Academic sources serve as secondary verification; gallery biographical pages provide tertiary confirmation where available. Artists whose demographic characteristics cannot be verified across at least two independent sources are excluded. Of the 72,838 transactions in the candidate pool, 4,166 (5.7%) were excluded on demographic verification grounds. Three principles govern classification: only publicly disclosed information is used; gender is operationalized as binary because non-binary cell sizes are insufficient for reliable estimation; and ethnic categories reflect social power structures rather than biological frameworks, consistent with intersectionality scholarship.

3.2 Variables

The dependent variable is the natural logarithm of hammer price before buyer's premium, Winsorized at the 1st and 99th percentiles after log transformation. Log transformation addresses the severe right skew of art prices (mean \$434,799 vs. median \$30,000), aligns with semi-

logarithmic specifications standard in art-market econometrics (Renneboog & Spaenjers, 2013), and yields coefficients interpretable as approximate proportional price effects. Demographic variables include a binary female indicator, a binary ethnic minority indicator (with secondary specifications distinguishing Black, Hispanic, Asian, and other groups), and gender-by-ethnicity interaction terms. Controls include medium (painting, works on paper, photography, sculpture), log surface area (or volume for sculpture), creation date, auction house indicators, sale-year-month indicators, and the pre-sale estimate midpoint as a control for pre-sale information available to bidders. Genre-level data are unavailable in the source database—a recognized constraint in large-scale art-market research—and are excluded from all specifications. Career-achievement variables (exhibition history, museum collection presence, gallery tier) were evaluated but excluded due to systematic data gaps that would have introduced selection bias.

3.3 Econometric Specifications

The baseline hedonic model regresses log Winsorized hammer price on demographic main effects and full controls in a semi-logarithmic OLS specification, following Rosen (1974) as adapted by Ashenfelter and Graddy (2003). The intersectional specification adds a multiplicative Female $\times$ Ethnic Minority interaction term. Race-disaggregated specifications interact gender with detailed ethnic categories to test whether intersectional patterns differ across Black, Hispanic, and Asian women. Cultural movement effects are estimated through difference-in-differences specifications anchored to October 2017 (#MeToo) and Summer 2020 (BLM), each with a symmetric two-year window centered on the event date. Triple-interaction terms (Female $\times$ Ethnic Minority $\times$ Post-event) test the differential-convergence hypothesis. Heteroskedasticity-robust HC3 standard errors (White, 1980) are reported throughout.

Superstar sensitivity analyses identify dominant individual artists using cumulative career revenue thresholds over the study period and re-estimate the primary specifications on subsamples that exclude these artists. The primary threshold classifies the top 1% of artists by cumulative revenue as superstars; alternative thresholds at 2% and 5%, transaction-based thresholds, and a superstar-control-dummy specification are reported as robustness checks. This protocol is designed to distinguish group-level coefficients that reflect market-wide patterns from those driven by individual artist dominance in small demographic cells.

4. FINDINGS

4.1 Sample Composition and Descriptive Patterns

The female share of transactions increased monotonically from 13.1% in 2015 to 19.7% in 2024, a relative increase of approximately 50%. The minority share rose from 16.0% to 19.3% over the same period. Despite these compositional shifts, revenue concentration remains substantially asymmetric: male artists account for 90.7% of total sample revenue, and white artists for 87.9%, both well above their respective participation shares. Within the four intersectional cells, white male artists account for 69.8% of transactions, white female for 13.3%, minority male for 14.1%, and minority female for 2.8%.

A descriptive pattern that motivates the formal analysis: at the raw, unconditional level, the mean log price for minority female artists (10.71) is the highest of the four intersectional cells, and the median price (\$40,000) exceeds all other groups. This raw pattern indicates that the practical prediction of straightforward compound disadvantage is not supported even before controls are applied. The hedonic regression models below decompose this pattern into its constituent parts and trace its dependence on a small number of high-value transactions.

Table 1. Transaction Distribution and Pricing by Intersectional Group

Group	N Trans.	% of Total	Median Price (\$)	Mean Price (\$)
White Male	50,840	69.8%	27,500	500,944
White Female	9,684	13.3%	25,200	244,910
Minority Male	10,239	14.1%	37,500	318,710
Minority Female	2,075	2.8%	40,000	273,196
Total	72,838	100.0%	—	—

Notes: Transactions at Christie's, Sotheby's, and Phillips in New York, January 2015 through December 2024. Source: Author's calculations from ArtNet Price Database.

4.2 Hypothesis 1: Intersectional Non-Additivity

Table 2 reports the central test of H1. Column (1) shows the unconditional gender gap (Female main effect = -0.090 , $p < 0.001$). Column (2) shows the unconditional ethnicity gap (Minority main effect = $+0.150$, $p < 0.001$ in the raw data, before artwork controls). Column (3) reports the full hedonic specification with the Female $\times$ Ethnic Minority interaction. Three results stand out. First, after controls, the Female main effect is -0.097 and the Ethnic Minority main effect is -0.276 ; both are negative and statistically significant. Second, the Female $\times$ Ethnic Minority interaction is $+0.443$ ($p < 0.001$), large and positive. Third, the implied net price gap for minority

women relative to white men is approximately -2.5% , statistically indistinguishable from zero. The two negative main effects do not compound; instead, they are offset by a large positive interaction. The additive prediction is rejected at $p < 0.001$.

Table 2. Hedonic Regression of Log Sale Price on Demographic Variables

Variable	(1) Gender Only	(2) Minority Only	(3) Full Hedonic + Interaction
Constant	10.484*** (0.008)	10.465*** (0.008)	10.421*** (0.022)
Female	-0.090*** (0.020)	—	-0.097*** (0.018)
Ethnic Minority	—	+0.150*** (0.024)	-0.276*** (0.025)
Female $\times$ Ethnic Minority	—	—	+0.443*** (0.054)
Artwork & sale controls	No	No	Yes
Observations (N)	72,810	72,810	68,672
R ²	0.0008	0.0046	0.359

Notes: Dependent variable is log Winsorized hammer price (1st/99th percentile). HC3 robust standard errors in parentheses. Column (3) controls include medium, log artwork area, creation date, auction house, sale year-month, and pre-sale estimate midpoint. *** $p < 0.001$.

An alternative analytical approach—the Delta decomposition—provides an independent test of non-additivity. The additive prediction derived from the pooled gender gap ($\beta = -0.090$) and minority gap ($\gamma = +0.150$) is $+0.060$ log points. The directly estimated combined gap for minority female artists relative to white male artists ($\Delta = +0.219$) differs significantly from this additive prediction by $+0.159$ log points ($SE = 0.049$, $p = 0.001$). Both the interaction-term approach and the decomposition approach reject the additive model. H1 is supported.

4.3 Race-Disaggregated Gender Gaps

The pooled interaction in Table 2 obscures substantial heterogeneity across ethnic subgroups. Table 3 reports race-specific gender gap estimates within each ethnicity subgroup. The direction of the gender gap reverses across subgroups: female White artists' works sell at approximately 12.5% lower prices than male White artists' works, female Black artists' works at approximately 51.9% lower prices than male Black artists', female Asian artists' works at approximately 157.2% higher prices than male Asian artists', and the Hispanic gender gap is statistically indistinguishable from zero. A formal F-test of joint equality of the three race-by-gender interaction terms strongly rejects the null of a uniform gender gap ($p < 0.001$). There is, in this market, no single gender gap. Pooled minority categories conceal directionally opposite patterns across constituent ethnic groups.

Table 3. Estimated Gender Price Gap by Race/Ethnicity

Race/Ethnicity	Combined Coef. (β)	Implied Gap (%)	p-value	N
White	-0.134	-12.5%	<0.001	60,524
Black	-0.732	-51.9%	<0.001	3,316
Asian	+0.945	+157.2%	<0.001	3,691
Hispanic	+0.092	n.s.	0.170	5,279

Notes: Within-group OLS regressions of log sale price on Female. Implied gap computed as $100 \times (\exp(\beta) - 1)$. HC3 robust standard errors. Joint F-test of equality across groups: $p < 0.001$.

4.4 Hypothesis 4: Superstar Sensitivity

The 27 artists in the top 1% by cumulative career revenue collectively account for 61.3% of total sample revenue (\$19.4 billion of \$31.7 billion). Their demographic composition is strikingly homogeneous: 96.2% of their transaction value is attributed to male artists, and 98.3% to white artists. This compositional asymmetry shapes how aggregate demographic coefficients should be interpreted, because the white-male reference group is substantially elevated by artists whose pricing dynamics are qualitatively distinct from the broader market.

Table 4 reports superstar sensitivity across eight specifications. The Female main effect declines from -9.7% in the full sample to a small positive effect when superstars are excluded; the Ethnic Minority main effect also attenuates substantially. By contrast, the Female $\times$ Ethnic Minority interaction remains positive and statistically significant in seven of eight specifications. The interaction collapses only at the top-2% revenue threshold (S2), and that collapse is attributable to a specific compositional artifact: the exclusion of one artist (Yayoi Kusama) whose 300 transactions represent 51.1% of all Asian female transactions in the dataset. Two single-artist concentration effects parallel each other: the Black male main effect reverses sign upon Basquiat's exclusion (from +26.5% to -8.8%), and the Female $\times$ Asian interaction collapses only when both Basquiat and Kusama are excluded. The market-wide intersectional structure, however, is robust. H4 is confirmed.

Table 4. Superstar Sensitivity: Demographic Coefficients Across Specifications

Spec.	Threshold	N	Female Effect	Min. Effect	Interaction
S0	Full sample	68,672	-9.7%	-27.6%	+54.8%***
S1	Top 1% revenue (orig.)	54,915	+11.7%	-6.4%	+33.0%***
S2	Top 2% revenue	49,316	+22.8%	+13.2%	-0.1% n.s.
S3	Top 5% revenue	39,038	+17.6%	+21.4%	+15.7%***
S4	Top 1% transactions	50,985	+14.3%	+1.1%	+20.8%***

S5	Top 5% transactions	33,019	+20.9%	+5.1%	+23.3%***
S6	Min 100 transactions	32,825	+21.2%	+5.3%	+23.3%***
S7	Superstar control dummy	68,672	+7.6%	-6.6%	+31.6%***

Notes: Each row reports demographic coefficients from the full hedonic specification on a different sample. "Female Effect" and "Min. Effect" are main effects from the interaction specification. *** $p < 0.001$; n.s. = not significant.

4.5 Hypotheses 2 and 3: Cultural Movements and Differential Convergence

Table 5 reports the difference-in-differences estimates for both cultural movements. For the #MeToo window (October 2016 through September 2018, $N = 13,821$), the Female $\times$ Post-MeToo coefficient is +0.199 ($p < 0.001$), corresponding to approximately 22.0% narrowing of the gender price gap in the twelve months following October 2017 relative to the twelve months prior. For the BLM window (Summer 2019 through Spring 2021, $N = 11,614$), the Minority $\times$ Post-BLM coefficient is +0.115 ($p < 0.001$), corresponding to approximately 12.2% narrowing of the ethnicity price gap in the twelve months following Summer 2020. Both effects are robust to superstar exclusion. H2 is supported.

The triple interaction terms confirm H3. The Female $\times$ Ethnic Minority $\times$ Post-MeToo coefficient is -0.260 ($p = 0.005$), and the Female $\times$ Ethnic Minority $\times$ Post-BLM coefficient is -0.248 ($p = 0.003$). In both windows the net price change for minority women is approximately zero. Following #MeToo, the gender price gap narrowed for white women but did not narrow for women of color. Following BLM, the ethnicity price gap narrowed for minority men but did not narrow for women of color. Both movements were associated with measurable improvements for their primary single-axis constituency, but neither extended those improvements in equivalent measure to the intersectional group.

Table 5. Difference-in-Differences Results: #MeToo and BLM Windows

Movement	N	Primary Coef. (% effect)	Triple Interaction	Net Change for Women of Color
#MeToo (Oct 2017)	13,821	Female $\times$ Post: +0.199*** (+22.0%)	-0.260** (p=.005)	$\approx 0\%$ (not significant)
BLM (Summer 2020)	11,614	Minority $\times$ Post: +0.115*** (+12.2%)	-0.248*** (p=.003)	$\approx 0\%$ (not significant)

Notes: Difference-in-differences specifications with full hedonic controls and HC3 robust standard errors. Net change for women of color computed as Triple Interaction + Primary Coef. + relevant minority/female main effect. *** $p < 0.001$; ** $p < 0.01$.

An important interpretive limitation applies to the BLM window: the COVID-19 pandemic reached the United States in March 2020, approximately three months before the Summer 2020 event date that defines the pre/post boundary. The pandemic and the BLM movement are

temporally inseparable within the two-year window, so the estimated Minority $\times$ Post-BLM coefficient should be understood as reflecting the combined influence of both concurrent events rather than the movement's effect in isolation. The #MeToo window (October 2016 through September 2018) predates the pandemic and does not carry this confound; the #MeToo estimates therefore stand on firmer interpretive ground, and the BLM results are reported as evidence of temporal price variation coinciding with a period of heightened cultural and public health disruption.

4.6 Price Segment and Robustness Analyses

Demographic pricing differences are concentrated in the high-value segment of the market. Stratified estimation by price tercile shows that none of the demographic coefficients are statistically significant in the low ($< \$13,800$) or mid ($\$13,800$ – $\$68,800$) price tiers. In the high-value segment ($> \$68,800$), all three demographic parameters are large and highly significant: Female at -0.173 , Ethnic Minority at -0.451 , and the Female $\times$ Ethnic Minority interaction at $+0.449$ (all $p < 0.001$). This concentration is consistent with evidence from other asset markets that pricing differences cluster where information asymmetry and subjective valuation are most consequential (Ashenfelter & Graddy, 2003), and it overlaps structurally with the superstar concentration documented in Section 4.4.

The intersectional interaction is robust across alternative Winsorization thresholds (0.5%/99.5% and 2.5%/97.5%), within-medium z-score size standardization, the high-value subsample, and both superstar-excluded and superstar-control-dummy specifications. Across all eleven robustness specifications tested, the Female $\times$ Ethnic Minority interaction remains positive and statistically significant. Neither the existence of the non-additivity result nor its directional sign is sensitive to specification choices within the bounds tested.

5. DISCUSSION AND IMPLICATIONS FOR ENGAGED PRACTICE

5.1 Theoretical Implications

The principal theoretical contribution is empirical confirmation that intersectional non-additivity holds in a major cultural market. The Female $\times$ Ethnic Minority interaction is positive, large, and robust across specifications, rejecting the additive model that prior single-axis art-market research has implicitly assumed. The positive direction departs from the compound-disadvantage

hypothesis that has motivated much of the empirical intersectionality literature (Collins, 1990), but is consistent with the theory's core non-additivity prediction, which Bauer et al. (2021) note does not constrain the sign of the interaction. The disaggregated estimates further reveal that the aggregate positive interaction reflects strong offset effects for Hispanic and Asian female artists but not for Black female artists, with the Asian female result substantially driven by a single artist. The market does not produce a single intersectional pattern; it produces a structure in which the direction and magnitude of intersectional effects vary across constituent ethnic subgroups.

The second contribution is methodological. The superstar sensitivity protocol developed here—identifying dominant individual artists using cumulative-revenue thresholds, reporting parallel estimates for full and superstar-excluded samples, and classifying coefficients along a robustness spectrum—provides a replicable framework for other cultural markets characterized by high revenue concentration. Two specific concentration effects identified here (the Basquiat-driven Black male premium and the Kusama-driven Asian female premium) illustrate the practical importance of the protocol: without it, both single-artist phenomena would be misreported as group-level patterns, with consequent implications for how diversity progress is communicated and interpreted.

The third contribution is temporal. Both cultural movements were associated with statistically significant pricing shifts within their two-year windows, but the asymmetric distribution of those shifts—accruing to single-axis groups but not to the intersectional group of women of color—provides quantitative support for the intersectional invisibility prediction (Purdie-Vaughns & Eibach, 2008). This asymmetry has not previously been documented in art-market pricing data, and it suggests that institutional responses framed in single-axis terms may produce single-axis effects without necessarily reaching the multiply-marginalized populations whose underrepresentation initially motivated the response.

5.2 Implications for Practitioners and Engaged Scholarship

Several implications follow for the practitioner audience served by engaged management scholarship. For auction-house specialists and gallery directors, the finding that aggregate gender and ethnicity coefficients are partly attributable to a small superstar stratum implies that diversity statistics presented in aggregate terms (e.g., share of women in evening sales, share of artists of color across a season) may obscure the structural concentration that produces those aggregates. A

more informative monitoring framework would report representation and pricing metrics with and without the contribution of the small number of dominant artists who shape the aggregate, parallel to the superstar-excluded specifications presented in Section 4.4.

For museum acquisition officers, gallery program directors, and institutional collectors, the finding that single-axis institutional responses to cultural movements were associated with single-axis pricing improvements—but not with equivalent improvements for women of color—suggests that monitoring frameworks designed to capture progress on gender or race separately may miss the experience of multiply-marginalized populations entirely. The finding that the female share of transactions rose from 13.1% to 19.7% over the study period is encouraging in single-axis terms, but it tells the practitioner nothing about whether the women whose participation increased are distributed across ethnic groups in a manner consistent with the underlying artist population. Disaggregated monitoring at the intersection of gender and ethnicity is necessary to answer that question.

For collector advisors and art-market analysts, the concentration of demographic pricing differences in the high-value segment (above \$68,800) implies that the segment in which most transactions occur—the low and mid-value tiers, accounting for two-thirds of transactions in our sample—shows essentially no statistically significant demographic pricing differences once observable artwork characteristics are controlled. The pricing patterns documented in this paper are real and substantively meaningful, but they apply primarily to the segment where information asymmetry and subjective valuation are most consequential. This has direct relevance for advisors counseling collectors at different price points and for analysts framing aggregate market commentary.

For DBA students and scholar-practitioners working in cultural industries, the most direct contribution is methodological. The combination of intersectional interaction terms, race-disaggregated specifications, superstar sensitivity testing, and difference-in-differences anchored to identifiable cultural events provides a template that can be adapted to other cultural markets where transaction-level data are available—music streaming and licensing, film box-office returns, sports endorsements, publishing advances, and design commissions all share structural features (subjective valuation, intermediary gatekeeping, revenue concentration) that make them candidates for analogous analysis. The methodological protocols are transportable; the substantive

findings reported here are, by design, specific to the New York auction market and the 2015–2024 window.

5.3 Comparison with Prior Literature

Adams et al. (2021) reported a gender pricing differential of approximately 42.1% across approximately 1.9 million global transactions from 1970 to 2013. Our estimate of approximately 9.7% for the New York market in 2015–2024 is considerably smaller. The gap reflects three differences: more comprehensive artwork controls, geographic restriction to a single market, and the compositional effect of the superstar stratum that elevates the white-male reference group in the New York data. The smaller estimate is not inconsistent with the prior literature; it reflects different scope and a more complete conditioning set. Cameron, Goetzmann, and Nozari (2019) found that institutional selection accounts for a substantial portion of gender price differences, consistent with our superstar finding: if elite institutional representation generates the quality signals supporting high auction prices, and if institutional representation has been demographically concentrated, then demographic concentration in the high-value tier follows structurally.

Bocart, Gertsberg, and Pownall (2022) document that gender pricing differences are larger at higher price points, consistent with our segment analysis. LeBlanc and Sheppard (2022) document ethnicity-gender interactions not fully captured by additive models in a smaller sample. The present study extends that work through a substantially larger analytical sample (68,672 transactions versus prior samples typically in the thousands), through formal disaggregation of ethnicity into Black, Hispanic, and Asian subgroups, and through the superstar sensitivity protocol that distinguishes market-wide patterns from single-artist phenomena. The intersectionality finding extends Browne and Misra's (2003) labor-market results into a cultural-market setting, while the asymmetric movement-effect pattern provides quantitative evidence for the intersectional invisibility framework that has previously been examined primarily through qualitative and legal scholarship.

6. LIMITATIONS AND FUTURE RESEARCH

Several limitations constrain the inferences that can be drawn. First, the analysis is observational. The hedonic regression framework controls for observable artwork characteristics but cannot account for unobservable quality dimensions, selection effects in which artists enter the auction

market, or omitted variables correlated with both demographics and price. Causal identification would require experimental or quasi-experimental designs not available in the present setting. Second, demographic classification, although based on a multi-source verification protocol, is subject to misclassification error for artists whose characteristics are not prominently documented; future research should report formal inter-rater reliability statistics as a standard element of demographic classification methodology. Third, binary operationalization of gender was required by statistical power constraints and necessarily misclassifies artists who do not identify within that scheme. Fourth, the absence of Heckman-type selection corrections (Heckman, 1979) means that estimates may be conservative if underrepresented artists face higher barriers to auction-market entry.

The geographic restriction to New York limits generalizability. Although New York represents approximately half of global public auction turnover and accounted for approximately 73% of sales value for works exceeding \$10 million in 2024, the U.S.-specific institutional response to #MeToo and BLM may not replicate in markets where those movements had less institutional resonance. Restriction to the public auction segment excludes primary market gallery transactions, which represent approximately \$34.1 billion of the estimated \$57.5 billion global art market in 2024 (McAndrew, 2025) and where pricing dynamics may differ. Genre-level data and artist career-achievement variables (exhibition history, museum collection presence, gallery tier) are unavailable in the source database and could not be incorporated as controls; their omission is a measurement limitation. The BLM window coincides with the COVID-19 pandemic, and causal attribution to the movement specifically is not warranted.

Five future research directions are most productive. First, application of the same analytical framework to the London and Hong Kong markets would address the geographic generalizability constraint and allow comparison across institutional contexts. Second, linking auction transaction records to gallery representation data and museum acquisition histories would allow supply-side selection effects to be modeled directly. Third, audit-style designs that randomize artist demographic information presented to collectors or specialists could identify demand-side preference effects causally, in the spirit of Bertrand and Mullainathan (2004). Fourth, panel data models with artist fixed effects would enable estimation of within-artist price trajectories and assessment of whether demographic characteristics predict the rate of price appreciation net of artist-specific baseline effects. Fifth, extension of the superstar sensitivity protocol developed here

to other cultural markets—music, film, sports, publishing—would test whether the structural pattern documented in art markets generalizes to other domains characterized by subjective valuation and revenue concentration.

The core empirical finding is that pricing differentials associated with artist demographics in the New York auction market are not additive. The pricing pattern for women of color differs substantially from what would be predicted by summing the independent gender and ethnicity effects, and aggregate single-axis monitoring is empirically inadequate for characterizing the experience of intersectional groups. Both major cultural movements of the study period were associated with measurable pricing shifts, but those shifts distributed asymmetrically and did not reach the intersectional group of women of color in equivalent measure. For practitioners working in cultural markets and for the engaged-scholarship community more broadly, the implication is that diversity monitoring frameworks designed in single-axis terms will continue to miss the populations whose underrepresentation most directly motivated the design of those frameworks. Disaggregated, intersectional monitoring—paired with explicit superstar sensitivity testing in markets characterized by high revenue concentration—is necessary to characterize, communicate, and act on the patterns that matter.

REFERENCES

- Adams, R. B., Kräussl, R., Navone, M., & Verwijmeren, P. 2021. Gendered prices. *Review of Financial Studies*, 34(8): 3789–3839.
- Adler, M. 1985. Stardom and talent. *American Economic Review*, 75(1): 208–212.
- Akerlof, G. A. 1970. The market for "lemons": Quality uncertainty and the market mechanism. *Quarterly Journal of Economics*, 84(3): 488–500.
- Arrow, K. J. 1973. The theory of discrimination. In O. Ashenfelter & A. Rees (Eds.), *Discrimination in labor markets*: 3–33. Princeton, NJ: Princeton University Press.
- Ashenfelter, O., & Graddy, K. 2003. Auctions and the price of art. *Journal of Economic Literature*, 41(3): 763–787.
- Ashenfelter, O., & Graddy, K. 2006. Art auctions. In V. A. Ginsburgh & D. Throsby (Eds.), *Handbook of the economics of art and culture*, vol. 1: 909–945. Amsterdam: Elsevier.
- ArtNet. 2024. ArtNet price database. New York: ArtNet Worldwide Corporation.
- ArtTactic. 2024. Art market report 2024. London: ArtTactic Research.
- Bauer, G. R., Churchill, S. M., Mahendran, M., Walwyn, C., Lizotte, D., & Villa-Rueda, A. A. 2021. Intersectionality in quantitative research: A systematic review of its emergence and applications of theory and methods. *SSM – Population Health*, 14: 100798.
- Beale, F. 1970. Double jeopardy: To be Black and female. In T. Cade (Ed.), *The Black woman: An anthology*: 90–100. New York: New American Library.
- Becker, G. S. 1957. *The economics of discrimination*. Chicago: University of Chicago Press.
- Bertrand, M., & Mullainathan, S. 2004. Are Emily and Greg more employable than Lakisha and Jamal? A field experiment on labor market discrimination. *American Economic Review*, 94(4): 991–1013.
- Bocart, F. Y. R. P., Gertsberg, M., & Pownall, R. A. J. 2022. An empirical analysis of price differences for male and female artists in the global art market. *Journal of Cultural Economics*, 46(3): 543–565.
- Browne, I., & Misra, J. 2003. The intersection of gender and race in the labor market. *Annual Review of Sociology*, 29: 487–513.
- Cameron, L., Goetzmann, W. N., & Nozari, M. 2019. Art and gender: Market bias or selection bias? *Journal of Cultural Economics*, 43(2): 279–307.
- Collins, P. H. 1990. *Black feminist thought: Knowledge, consciousness, and the politics of empowerment*. Boston: Unwin Hyman.

- Crenshaw, K. 1989. Demarginalizing the intersection of race and sex: A Black feminist critique of antidiscrimination doctrine, feminist theory and antiracist politics. *University of Chicago Legal Forum*, 1989(1): 139–167.
- Hancock, A.-M. 2007. When multiplication doesn't equal quick addition: Examining intersectionality as a research paradigm. *Perspectives on Politics*, 5(1): 63–79.
- Heckman, J. J. 1979. Sample selection bias as a specification error. *Econometrica*, 47(1): 153–161.
- King, D. K. 1988. Multiple jeopardy, multiple consciousness: The context of a Black feminist ideology. *Signs*, 14(1): 42–72.
- LeBlanc, A., & Sheppard, S. 2022. Women artists: Gender, ethnicity, origin and contemporary prices. *Journal of Cultural Economics*, 46(3): 439–481.
- McAndrew, C. 2024. *The art market 2024*. Basel: Art Basel & UBS.
- McAndrew, C. 2025. *The art market 2025*. Basel: Art Basel & UBS.
- McCall, L. 2005. The complexity of intersectionality. *Signs: Journal of Women in Culture and Society*, 30(3): 1771–1800.
- Purdie-Vaughns, V., & Eibach, R. P. 2008. Intersectional invisibility: The distinctive advantages and disadvantages of multiple subordinate-group identities. *Sex Roles*, 59(5–6): 377–391.
- Renneboog, L., & Spaenjers, C. 2013. Buying beauty: On prices and returns in the art market. *Management Science*, 59(1): 36–53.
- Rosen, S. 1974. Hedonic prices and implicit markets: Product differentiation in pure competition. *Journal of Political Economy*, 82(1): 34–55.
- Rosen, S. 1981. The economics of superstars. *American Economic Review*, 71(5): 845–858.
- Sunstein, C. R. 1996. Social norms and social roles. *Columbia Law Review*, 96(4): 903–968.
- Topaz, C. M., Klingenberg, B., Turek, D., Heggeseth, B., Harris, P. E., Blackwood, J. C., Chavoya, C. O., Nelson, S., & Murphy, K. M. 2019. Diversity of artists in major U.S. museums. *PLOS ONE*, 14(3): e0212852.
- White, H. 1980. A heteroskedasticity-consistent covariance matrix estimator and a direct test for heteroskedasticity. *Econometrica*, 48(4): 817–838.