

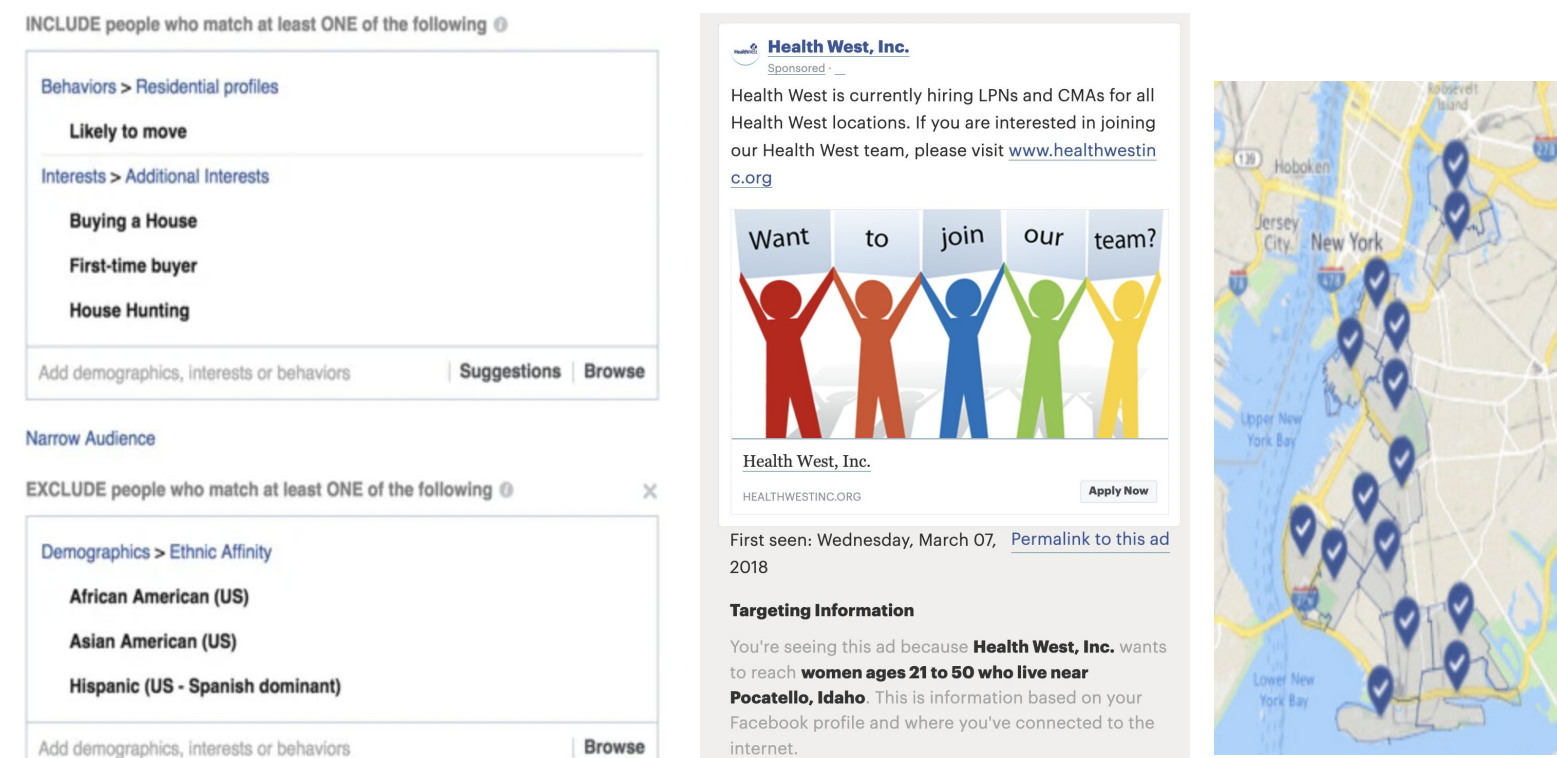
An Audit of Images Used by Job Advertisers on Facebook

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MOTIVATION

- Facebook's **ad targeting, audience selection tools**, and **ad delivery algorithm** shown to be discriminative.
- Lawsuits from ACLU to EEOC, HUD;
 - Title VII, Section 230 of CDA, FHA
- June 2022 DoJ settlement with Meta



OUR HYPOTHESIS

- Deliberate choice of images** - circumvent disabling of targeting and audience selection.



Fair Housing Act - *Ragin v. New York Times* (1989); Is it Time to End the Use of Models in Housing Advertisements

- Inspired by:
 - Social science theories - persuasive influence of images on job applications.
 - Case law - images discourage minorities from seeking housing opportunities.
 - Statutory parallels and shared objectives between employment and housing law.



Job Ad Images of NYPD_Recruit and Nurse_Recruiter on Facebook Ad Library

METHODS AND FINDINGS

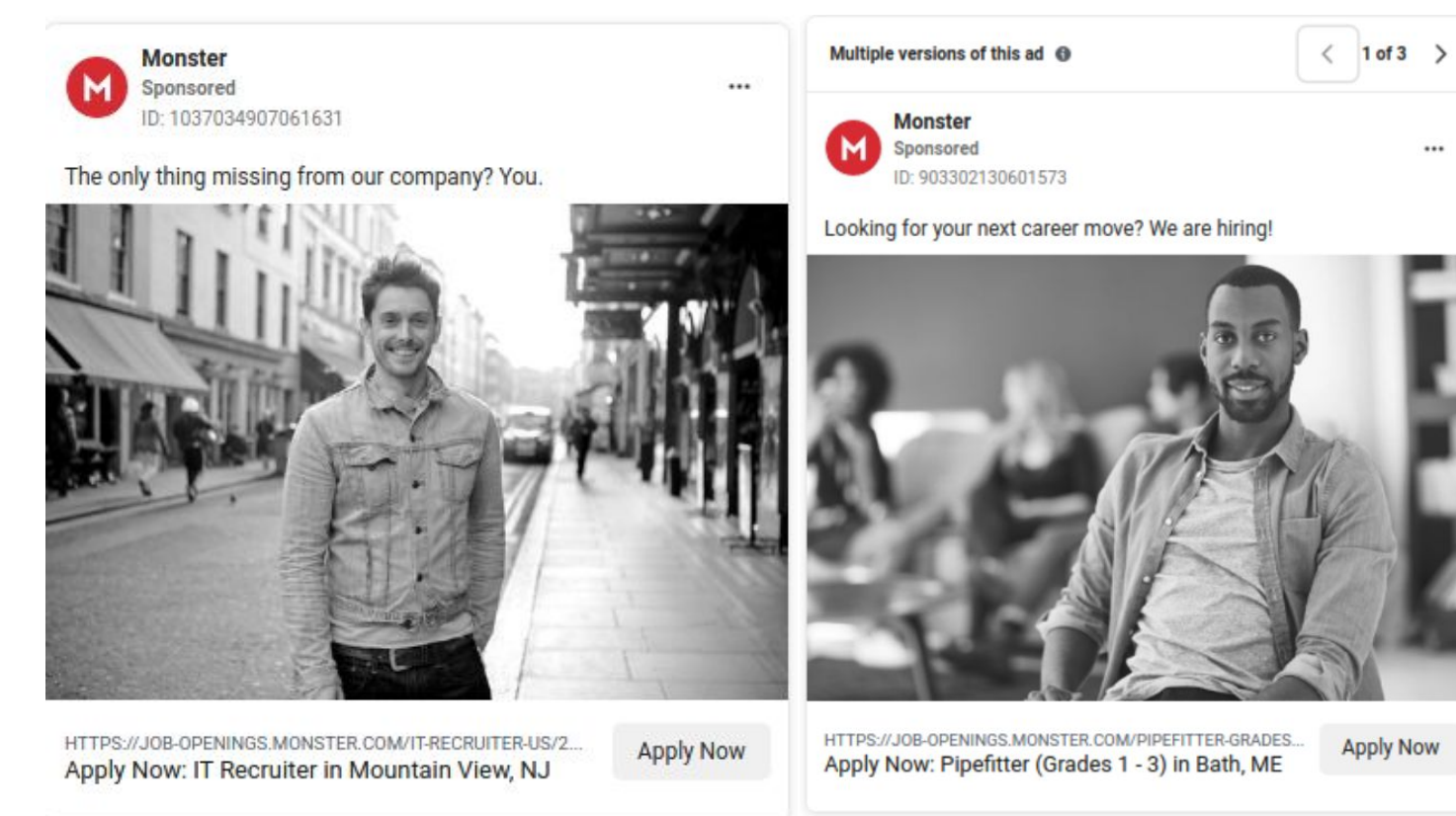
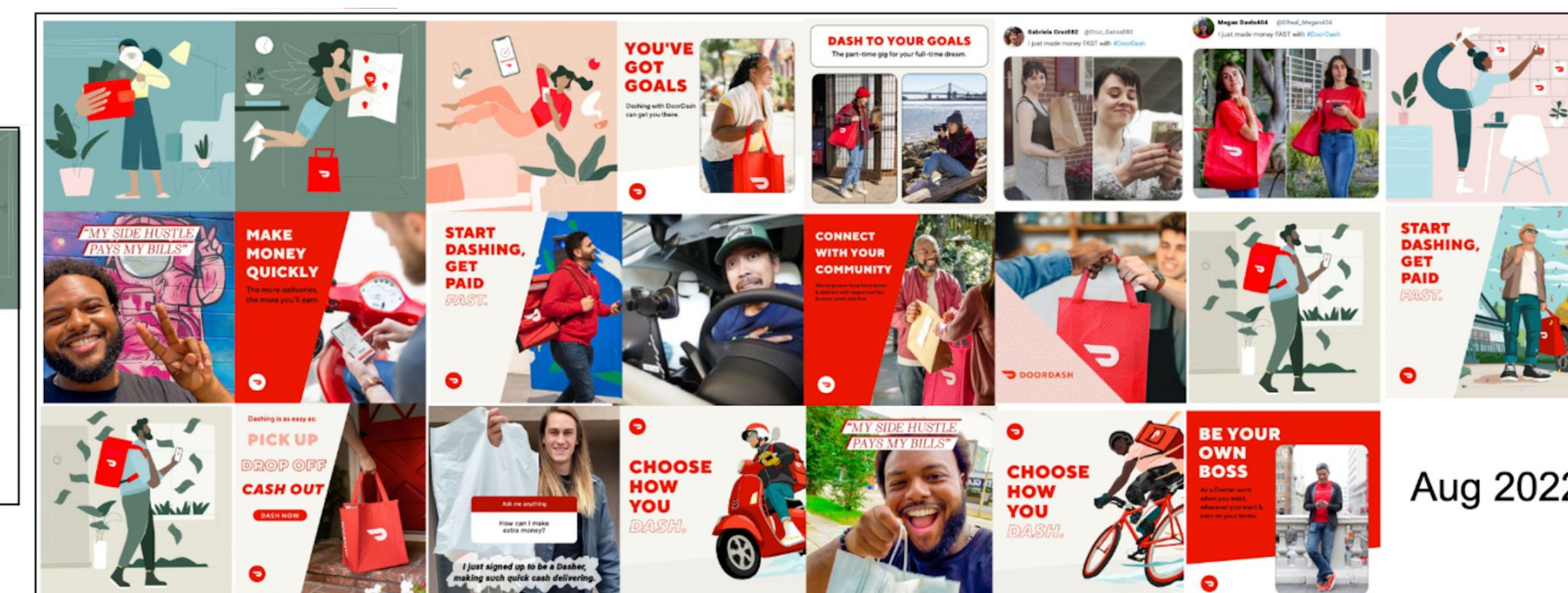
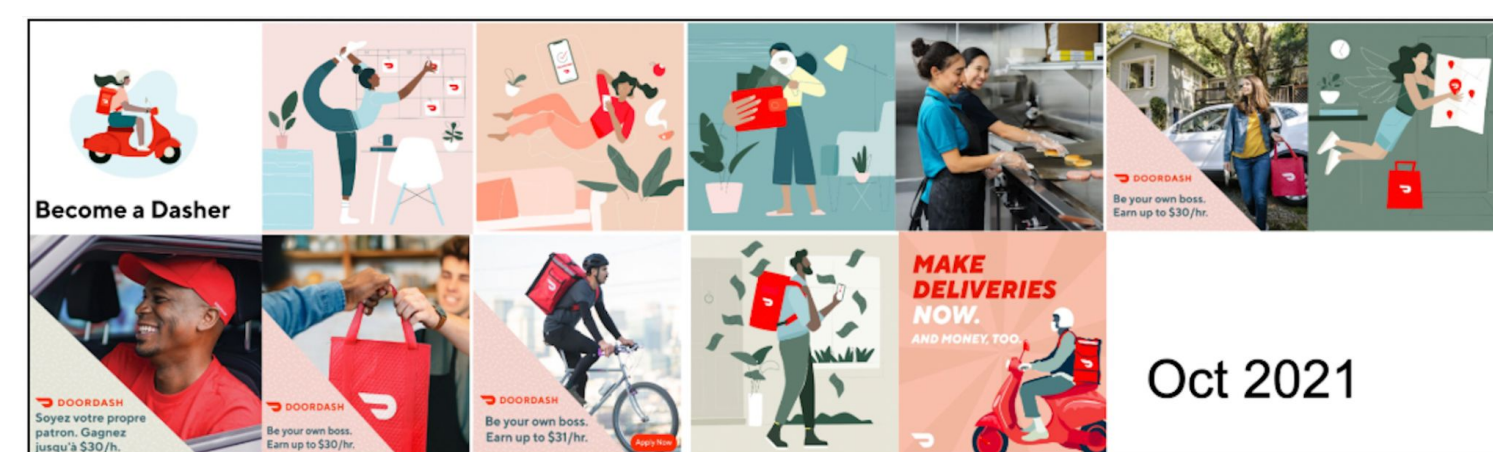
- Audit job ad images on Facebook Ad Library.
- If *rate of representation* of gender and race of people in the images - *statistically significantly differs* from that of the *U.S. workforce* for that occupation => **deviation in representation**

Green implies statistically significant values with $p < 0.05$ and Red implies values not statistically significant

Company	Women			Company	White			Black		
	%	Δ%	Count		%	Δ%	Count	%	Δ%	Count
Doordash	71.54	24.74	44	BestBuy	50.88	-27.82	374	27.72	15.22	204
Eataly	34.91	16.91	18	Doordash	30.89	-47.81	19	40.65	28.55	25
Geico	62.50	12.40	20	TSA	45.45	-29.05	18	49.35	29.95	19
HopSkipDrive	70.92	12.42	130	Geico	34.38	-45.52	11	43.75	32.95	14
Instacart	90.91	44.11	10	HopSkipDrive	42.12	-30.88	78	0.00	-21.50	0
Lyft	76.86	30.06	134	Lyft	38.57	-40.13	68	19.71	7.61	34
Nurse_Recruiter	91.46	17.06	112	NJS_Education	68.35	-13.65	108	23.42	13.42	37
NYPD_Recruit	48.28	31.18	7	NYPD_Recruit	17.24	-67.76	2	65.52	54.62	10
TSA	77.92	54.32	30	Safeway	16.67	-55.53	3	66.67	48.07	12
UPS_Jobs	50.98	30.48	13	Eataly	44.34	-20.86	24	20.75	6.05	11
BestBuy	49.12	-12.18	362	Uber	42.67	-36.03	16	9.33	-2.77	4
NJS_Education	62.03	-11.47	98	UPS_Jobs	62.75	-9.45	16	27.45	8.85	7
Safeway	38.89	18.39	7	Instacart	72.73	-5.97	8	9.09	-3.01	1
NJS_IT	23.81	-1.39	5	Nurse_Recruiter	82.11	6.51	101	11.79	-0.31	14
Uber	36.00	-10.80	14	NJS_IT	71.43	6.03	15	11.90	2.80	2

Evidence of Overrepresentation of Women

Evidence of Over-representation of Black People and Under-representation of White People



Evidence of Proactive and Stereotypical Advertiser Image Choices by Doordash (top), Monster.com (bottom left) and Instacart (bottom right)

IMPLICATIONS

Legal and Ethical Debates:

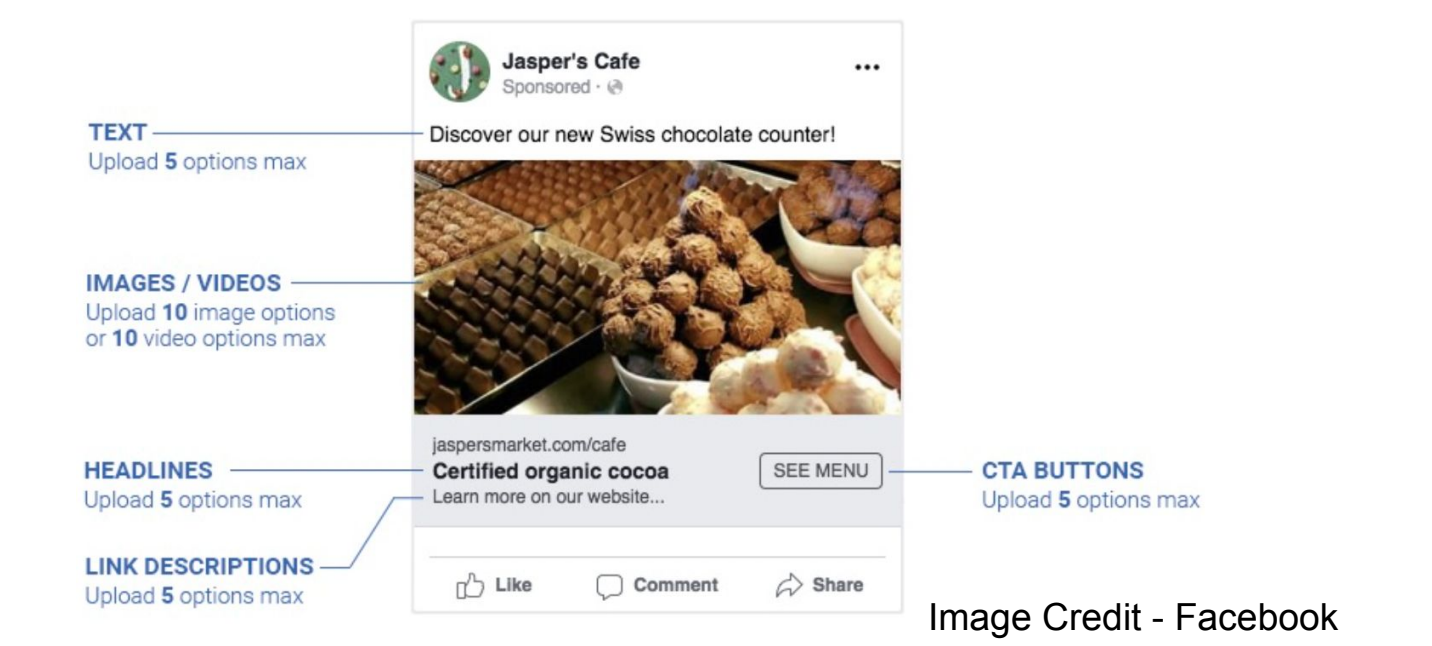
- Exclusionary use of images:
 - Possibly discriminatory under Title VII and Section 230 of CDA
 - Case law under broader FHA - discourage minorities from applying to housing opportunities.
- Inclusive use of images:
 - Ethically desirable
 - But conflict with affirmative action - reverse discrimination law suits by White Males.
- We do not take a normative position on the legality and ethics of image types.*

Transparency Limitations:



- Prior work - transparency limitations of the **Ad API** and the **Ad Library for Political Advertising**.

- Assume API access
- Not present for job ads
- Challenges we encountered in the **Ad Library for Job Ads**, motivated by the desire for:
 - Completeness and comprehensiveness
 - Impact of advertiser choices
 - Covert studies
 - Easy access to bulk data
 - Study of advertiser - platform interaction



Cannot Study the Algorithmic Personalization of Dynamic Ad Creatives and Carousel Ads