Diversity Washing

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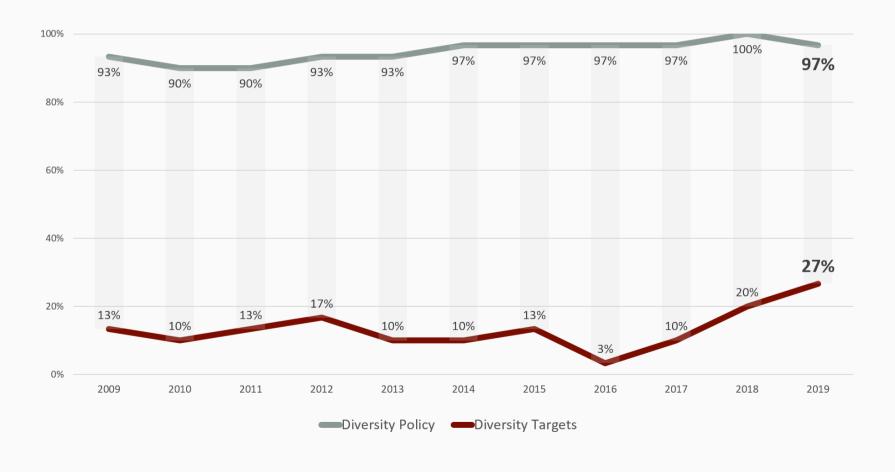
Research Question

Do firms truthfully disclose their commitments to Diversity, Equity, and Inclusion (DEI) in their financial statements?

- Are there market implications for talking more about diversity than is reflected in underlying actions?
- We focus on diversity in this paper given:
 - Prior literature.
 - Recent investor attention and public commentary.
 - Data availability.

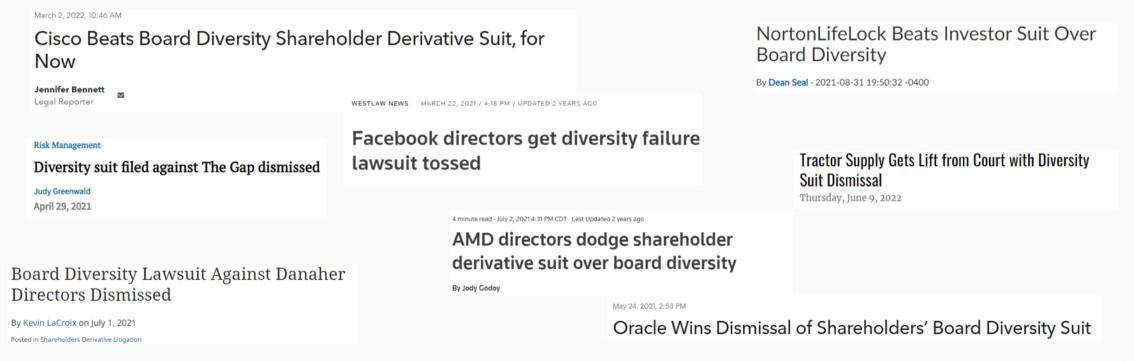
Motivation: Diversity "Policies" and "Targets"

- Disconnect between share of firms with policies and those with actual concrete targets.
 - What do we draw from this?



Motivation: Legal and Regulatory Action

- SEC very interested in standardizing ESG disclosures.
- Around 40 lawsuits filed since 2020 related to diversity washing.
- Many of these suits have centered on public commitments in financial documents.



Diversity Washing

• DEI disclosures are relatively new.

- Little to no regulation or standardization.
- Impossible or costly verification.

Potential benefits to diversity washing:

- Enhanced reputation among stakeholders.
- Capital flow with rise of ESG investing.

Potential Costs:

- Litigation (has historically been very rare).
- Diversity audits (only 8 proposals passed in 2022.)

Our Contribution

We construct measures of underlying firm-level diversity, which we can compare with discussion of diversity in financial disclosures.

Advantages of our approach:

- Allows us to peak "under the hood" at a non-self-disclosed measure of actual diversity.
- Breadth: we can measure diversity along cross-section and time-series.

• Real-world relevance:

- Firms have been accused of diversity washing, but evidence so far consists of anecdotes.
- Can provide evidence on the implications of diversity washing for firms and fund flow.

Data

- Sample: All Firms in Compustat-CRSP File from 2008 to 2021.
- Variety of data sources:
 - **Revelio Labs**: Firm-year level diversity measures.
 - EDGAR Filings (WRDS SEC Analytics Suits): Raw text of 10Ks, DEF 14As, 8Ks.
 - Additional Data Sources: Compustat, CRSP (securities prices and mutual fund holdings),
 Sustainalytics, Thompson Reuters (13-F holdings and Refinitiv), Goodjobsfirst, Twitter,
 Corporate Register.

Revelio Labs: Diversity Data

- Aggregates measures of firm diversity at firm-year level.
 - o Compiles data from hundreds of millions of online public profiles and resumes.
 - Prediction-based algorithm to assign gender and race/ethnicity from name and location.
 - Trained on Census and voter registration data.
- Caveats:
 - Data is imperfect. But
 - Firm has done analyses to validate its accuracy.
 - Sample may be biased towards professionals.
 - 90% correlation for females when compared to sample of disclosing firms (Liang et al. 2022,
 WP)

DEI Related Disclosures

- Difficult to observe all possible disclosure channels.
- Focus on EDGAR documents:
 - Coverage: All publicly traded firms have to file.
 - **Increasingly essential avenue** for firm communication about ESG-related activities and commitments.
 - **Firms have recently come under scrutiny for false or misleading commitments** to diversity in their financial disclosures.
 - SEC currently has proposals for ESG disclosures under review.
 - **Representative** of external stance on DEI.

Dictionary Based Approach

• Build upon dictionary-based approaches commonly used in finance.

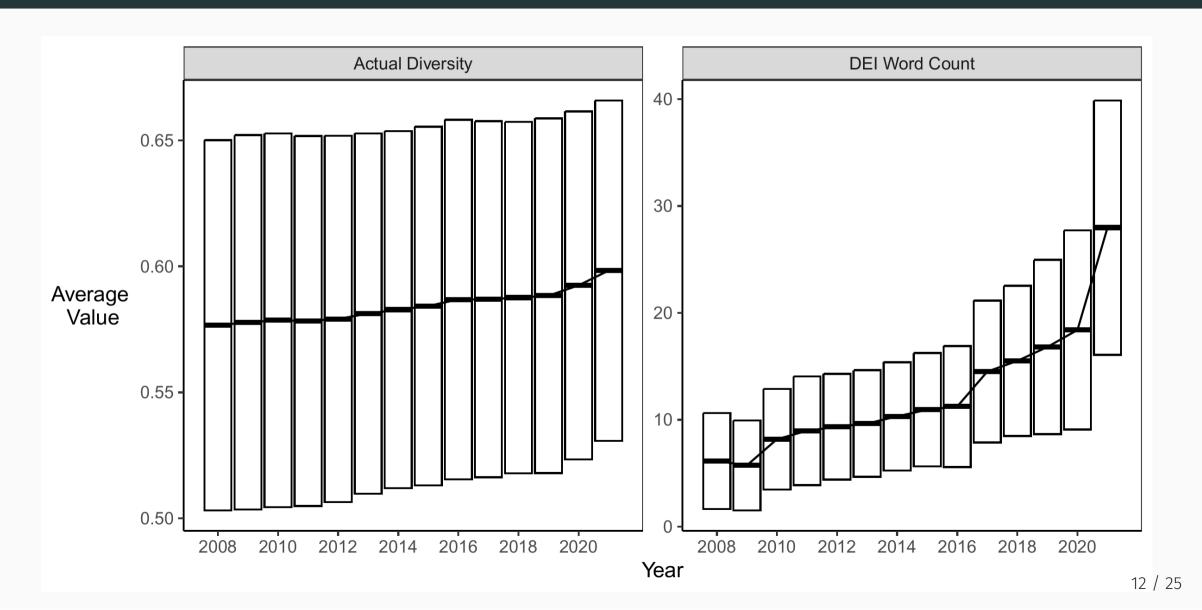
• Steps:

- Assemble a dictionary of key DEI-related words from online DEI dictionaries.
 - e.g. "Equal Pay", "Affirmative Action", "Sexual Orientation"
- Remove terms that have alternative meanings in financial documents (e.g., equity)
 - replace with bigrams where possible (e.g. "pay equity")
- Count DEI terms across SEC filings.
- Summary: Measure the extent of DEI discussions in financial statements.

How Do Firms Talk about DEI (in progress)

- Extract the sentences with DEI words.
- Use word2vec and kmeans to identify topics.
- Have RAs label topics and classify them into categories:
 - o Community engagement, governance, employee characteristics, legal concerns, etc.
- Measure the tone of the sentences with DEI words and correlate it with our washing measure.

Underlying Diversity vs. DEI Discussions

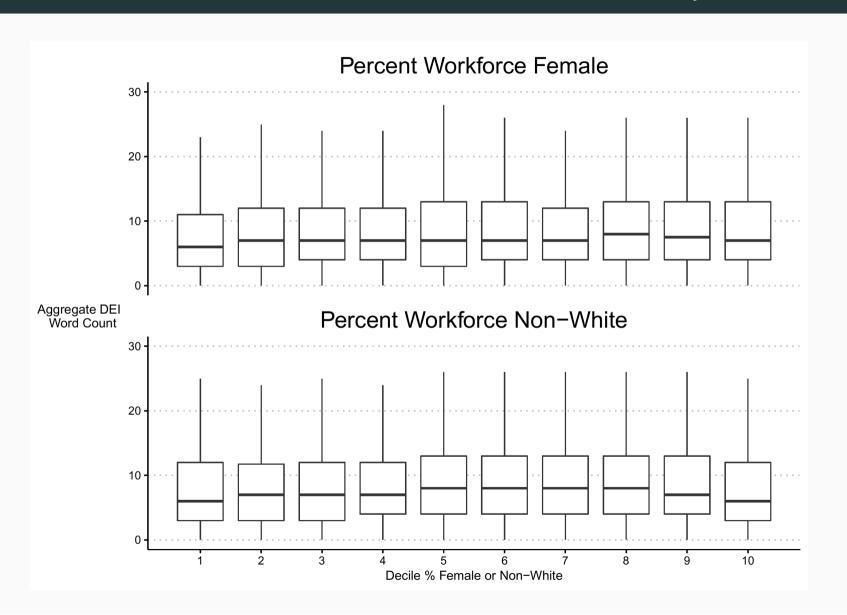


DEI Disclosures and Diversity

- We document a **positive but weak** relationship in aggregate between DEI disclosures and underlying diversity.
 - Consistent with prior work.
 - Results slightly stronger without FEs, but remain economically very small
 - \circ Incremental R^2 only on order of 0.1-0.7%.

Panel B: With Industry and year FEs					
	DEI Words ^{Agg.} (1)	DEI Words ^{10-K} (2)	DEI Words ^{DEF14A} (3)	DEI Words ^{8-K} (4)	
% Female % Non-White	0.157** (2.083) 0.435*** (6.134)	0.296*** (3.075) 0.563*** (6.505)	0.104 (1.095) 0.449*** (4.975)	0.074 (0.660) 0.131 (1.102)	
Year fixed effects Industry fixed effects	Yes Yes	Yes Yes	Yes Yes	Yes Yes	
Pseudo R ² Observations	0.186 46,384	0.124 46,371	0.215 46,384	0.029 46,384	

DEI Disclosures and Diversity



Empirical Measure of Diversity Washing

- 1) Diversity Washing Level = η_{DEI} $\eta_{Diversity}$
- 2) Diversity Washers = $1(\eta_{DEI} > \eta_{Diversity})$

- Disparity between DEI word count and underlying diversity.
 - Assumption being that these measures should be correlated.
- Similar rationale to prior studies using **abnormal textual measures** (e.g. Teoh et al. 2014, Bushee et al. 2017)

- 1) Diversity Washing Level = η_{DEI} $\eta_{Diversity}$
- 2) Diversity Washers = $1(\eta_{DEI}>\eta_{Diversity})$

	Diversity-Wa	ashing Level	Diversity	Washers
	(1)	(2)	(3)	(4)
Constant	-37.590*** (-19.872)		0.089*** (4.215)	
log(Market Cap.)	5.969*** (22.882)	5.053*** (20.308)	0.065*** (23.113)	0.056** (19.376
Asset Growth	-2.983** [*]	-0.860* (-1.646)	-0.030*** (-4.311)	-0.007 (-1.085)
log(Book-Market)	(-5.396) 5.379*** (11.168)	5.070*** (10.735)	0.059*** (10.802)	0.058** (10.295 -0.109** (-5.042) -0.011* (-2.196)
Return on Assets	-3.371* [′] (-1.808)	-10.012*** (-5.302)	-0.040* (-1.919)	
Ann. Return	-1.820*** (-4.980)	-1.025*** (-2.672)	-0.020*** (-4.232)	
Ann. Volatility	6.438*** (5.736)	1.606 (1.479)	0.073*** (5.580)	0.018 (1.363)
Industry fixed effects Year fixed effects	No No	Yes Yes	No No	Yes Yes
R ² Observations	0.078 43,721	0.238 43,721	0.058 43,721	0.164 43,721

Diversity Washers are conditionally larger

(1)	ashing Level (2)	(0)	Washers
	` '	(3)	(4)
-37.590***		0.089***	
(-19.872) 5.969*** (22.882)	5.053*** (20.308)	(4.215) 5.053*** 0.065***	
-2.983***	-0.860*	-0.030***	-0.007
5.379** [*] 5.070** [*]	5.070* <i>*</i> **	0.059* <i>*</i> *	(-1.085) 0.058***
-3.371* [′]	-10.012* [*] *	-0.040* [′]	(10.295) -0.109***
-1`.820* <i>*</i> *	-1`.025***	-0.020* <i>*</i> *	(-5.042) -0.011** (-2.196)
6.438*** (5.736)	1.606 (1.479)	0.073*** (5.580)	0.018 (1.363)
No No	Yes Yes	No No	Yes Yes
0.078	0.238	0.058	0.164 43,721
	(-19.872) 5.969*** (22.882) -2.983*** (-5.396) 5.379*** (11.168) -3.371* (-1.808) -1.820*** (-4.980) 6.438*** (5.736) No	(-19.872) 5.969*** (22.882) (20.308) -2.983*** -0.860* (-5.396) (-1.646) 5.379*** 5.070*** (11.168) (10.735) -3.371* (-1.808) -1.820*** (-4.980) 6.438*** 1.606 (5.736) No Yes No Yes 0.078 0.238	(-19.872) 5.969*** (22.882) (20.308) (23.113) -2.983*** (-5.396) (-1.646) 5.379*** (11.168) (10.735) (-1.808) (-1.820*** (-4.980) (-4.980) (-4.980) No Yes No (5.736) (4.215) 0.065*** (23.113) (23.113) (23.113) (-0.030*** (-4.311) 0.059*** (10.802) (-1.802) (-1.919) (-1.919) (-1.820*** (-4.980) (-2.672) (-4.232) (-4.232) (5.736) No Yes No No No Yes No No No O.078 0.058

Diversity Washers are conditionally less profitable and have lower growth

	Diversity-Washing Level		Diversity Washers		
	(1)	(2)	(3)	(4)	
Constant	-37.590*** (-19.872)		0.089*** (4.215)		
log(Market Cap.)	5.969** [*]	5.053***	0.065***	0.056***	
Asset Growth	(22.882) -2.983*** (-5.396)	(20.308) -0.860* (-1.646)	(23.113) -0.030*** (-4.311)	(19.376) -0.007 (-1.085)	
log(Book-Market)	5 379***	5 070***	0 059***	0 በ58** [*]	
Return on Assets	(11.168) -3.371* (-1.808)	(10.735) -10.012*** (-5.302)	(10.802) -0.040* (-1.919)	(10.295) -0.109** (-5.042)	
Ann. Return Ann. Volatility	-1.820*** (-4.980) 6.438*** (5.736)	-1.025*** (-2.672) 1.606 (1.479)	-0.020*** (-4.232) 0.073*** (5.580)	-0.011** (-2.196) 0.018 (1.363)	
Industry fixed effects Year fixed effects	No No	Yes Yes	No No	Yes Yes	
R ² Observations	0.078 43,721	0.238 43,721	0.058 43,721	0.164 43,721	

Diversity Washers have conditionally lower returns and higher volatility

	Diversity-Washing Level		Diversity Washers	
	(1)	(2)	(3)	(4)
Constant	-37.590*** (-19.872)		0.089*** (4.215)	
log(Market Cap.)	5.969** [*]	5.053***	0.065***	0.056**
	(22.882)	(20.308)	(23.113)	(19.376
Asset Growth	-2.983** [*] *	-0.860*	-0.030** [*]	-0.007
	(-5.396)	(-1.646)	(-4.311)	(-1.085
log(Book-Market)	5.̀379** ^{′*}	5.070** [*] *	0.059** [/] *	0.058**
	(11.168)	(10.735)	(10.802)	(10.295
Return on Assets	-3 371*	<u>-10 012***</u>	-0.040*	<u>-0 109**</u>
Ann. Return	(-1.808)	(-5.302)	(-1.919)	(-5.042)
	-1.820***	-1.025***	-0.020***	-0.011*
	(-4.980)	(-2.672)	(-4.232)	(-2.196)
Ann. Volatility	6.438** [/] *	`1.606´	0`.073** [*] *	`0.018
	(5.736)	(1.479)	(5.580)	(1.363)
Industry fixed effects	No	Yes	No	Yes
Year fixed effects	No	Yes	No	Yes
R^2	0.078	0.238	0.058	0.164
Observations	43,721	43,721	43,721	43,721

Diversity Washing and Employment Violations

Diversity Washers have more employment and discrimination-related penalties (number and dollar amount)

	Employment Penalty		Discrimination Penalty	
	(1)	(2)	(3)	(4)
Diversity-Washing Level	0.003***		0.005**	
, o	(2.690)		(2.187)	
Diversity Washers		0.129		0.263^*
		(1.631)		(1.825)
Controls	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes
Pseudo R ²	0.150	0.149	0.187	0.187
Observations	15,979	15,979	14,899	14,899
Panel B: Total dollar amo	ounts of penaltie	\mathbf{s}		
Panel B: Total dollar amo		S Penalties)	$\log(1 + \$ \text{ Pena}$	${ m llties}^{ m Discrimination})$
Panel B: Total dollar amo			$\log(1 + \$ \text{ Pena}$ (3)	$\operatorname{lties^{Discrimination}}$
Panel B: Total dollar amo	$\log(1+\$$	Penalties)		
	$\log(1+\$$ (1)	Penalties)	(3)	
Diversity-Washing Level	$\log(1 + \$ $ (1) 0.004^{***}	Penalties)	(3)	
Diversity-Washing Level	$\log(1 + \$ $ (1) 0.004^{***}	Penalties) (2)	(3)	(4)
Diversity-Washing Level Diversity Washers	$\log(1 + \$ $ (1) 0.004^{***}	Penalties) (2) 0.245***	(3)	0.132***
	$\log(1 + \$)$ (1) 0.004^{***} (3.311)	Penalties) (2) 0.245*** (2.708)	(3) 0.002*** (3.222)	(4) 0.132*** (3.077)
Diversity-Washing Level Diversity Washers Controls	$\log(1 + \$)$ (1) 0.004^{***} (3.311) Yes	Penalties) (2) 0.245*** (2.708) Yes	(3) 0.002*** (3.222) Yes	(4) 0.132*** (3.077) Yes
Diversity-Washing Level Diversity Washers Controls Year fixed effects	log(1 + \$ (1) 0.004*** (3.311) Yes Yes	Penalties) (2) 0.245*** (2.708) Yes Yes	(3) 0.002*** (3.222) Yes Yes	(4) 0.132*** (3.077) Yes Yes

Diversity Washing and Questionable ESG Policies

Diversity Washers have more questionable ESG policies:

Lack quantifiable targets

Table 6 Diversity washing and questionable ESG policies: "Policies" vs. "Targets"								
Panel A: Diversity and e	nergy							
	Questionab	le Diversity Policy	Questionable Energy Policy					
	(1)	(2)	(3)	(4)				
Diversity Washing Level	0.002***		0.003***					
v G	(2.671)		(2.741)					
Diversity Washers	, ,	0.083	, ,	0.153^{**}				
		(1.393)		(2.460)				
Controls	Yes	Yes	Yes	Yes				
Year fixed effects	Yes	Yes	Yes	Yes				
Industry fixed effects	Yes	Yes	Yes	Yes				
Pseudo R ²	0.060	0.059	0.127	0.127				
Observations	19,268	19,268	19,127	19,127				

Diversity Washing and ESG Ratings

- ESG rating agencies rely heavily on firm disclosures.
 - "... a default value of 0 is assigned... when no relevant data is found in the public disclosure of companies." Refinitiv Methodology guide.
- Diversity washers have 2-13% higher ESG ratings than other firms.

Tables 9, Panel A: Refinitiv								
	ESG Sco	ore ^{Refinitiv}	Social Sc	ore ^{Refinitiv}				
	(1)	(2)	(3)	(4)				
Diversity-Washing Level	0.001*** (10.339)		0.001*** (8.853)					
Diversity Washers	(10.000)	0.050*** (8.720)	(0.000)	0.042*** (7.177)				
Controls	Yes	Yes	Yes	Yes				
Year fixed effects Industry fixed effects	Yes Yes	Yes Yes	Yes Yes	Yes Yes				
\mathbb{R}^2	0.555	0.552	0.512	0.508				
Observations	19,053	19,053	19,053	19,053				

Diversity Washing and ESG Ownership

- Firms might use opportunistic DEI disclosures to attract investors.
 - Socially-responsible capital could be misallocated as a result.
 - The SEC is very concerned with this question.
- Diversity washers have approximately 10% Higher ESG fund ownership than could be expected.

	ESG Ownership ^{US SIF} (bps) (1) (2) (3)					
	(1)	(2)	(3)	(4)		
Diversity-Washing Level	0.098*** (4.740)	0.080*** (4.048)				
Diversity Washers	(4.7 40)	(4.040)	6.652*** (4.598)	5.272** [*] (3.761)		
Controls Year fixed effects	Yes No	Yes Yes	Yes No	Yes Yes		
Industry fixed effects	No	Yes	No	Yes		
R ²	0.064	0.087	0.063	0.087		
Observations	43,721	43,721	43,721	43,721		

Diversity Washing as an Aspiration

- Could DEI disclsoure channel signal aspiration to become more diverse?
 - No evidence of future increases in diversity hiring.
 - Similar results focusing on senior employees.

Table 7, Panel B: Changes in diversity							
	% Δ Div (1)	versity _{t+1} (2)	% Δ Div	versity $_{t+2}$ (4)	% Δ Div (5)	versity $_{t+3}$ (6)	
Diversity Washing Level	-0.006**		-0.001		-0.004		
Diversity Washers	(-2.143)	-0.397** (-2.197)	(-0.221)	-0.054 (-0.293)	(-1.445)	-0.104 (-0.558)	
Controls Year fixed effects	Yes Yes	Yes Yes	Yes Yes	Yes Yes	Yes Yes	Yes Yes	
R ² Observations	0.121 38,977	0.121 38,977	0.067 33,932	0.067 33,932	0.039 29,296	0.038 29,296	

Conclusion

- We provide large-sample evidence consistent with:
 - Weak correlation between discussion of DEI and actual underlying diversity.
 - Aggregate correlation masks large underlying disparity between disclosed commitments to DEI and hiring practices.
 - This disparity is correlated with ESG ratings and fund flows, similar to worries about misallocated capital with unverifiable disclosures.