Gender Targeting in U.S. Newspaper Ads: 1940-2000

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March 26, 2026

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Abstract

We evaluate employers' usage of gendered language in job ads using digitized text from three major metropolitan newspapers over the 1940-2000 period. We measure shifts in the frequency of words indicating a preference for male or female workers during the decades surrounding major Civil Rights Era anti-discrimination legislation. We find that explicit gender targeting was modestly present at equal levels for both males and females in the early part of our sample but rapidly declines in use over the 1960s. Using census data, we show that gender targeting indeed correlates with employment shares within occupations. We also find that male-targeted ads tend to be for more skilled jobs, while female-targeted ads tend to be for less skilled and lower paying jobs. With these measures, we then gauge whether gendered language before and during the Civil Rights Era correlates with gender convergence within occupations over the next 30 years. We find that 4-digit occupations with greater explicit male targeting in job ads prior to 1970 showed slower convergence of women working in those occupations and suggestive evidence that wage gaps were slower to narrow. We furthermore show that these jobs showed elevated usage of gendered "code-words" over the latter half of the 20th century. Together these results provide suggestive evidence of a set of hold-out occupations that had persistent barriers to gender integration that were also more likely to explicitly target when it was legal to do so.

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1 Introduction

Up to the 1960s, explicit gender targeting was not only legal, but a common feature of the U.S. labor market. Following the landmark anti-discrimination policies of the 1960s, explicit targeting in job ads did eventually fade, albeit gradually. Potentially, however, employers could use other cues – such as gender-coded language or emphasizing certain job amenities or characteristics – to target certain demographic groups. Over the latter half of the 20th century the labor market saw unprecedented gender integration. However, even today, barriers to women remain strong in many hold out occupations. To what extent is this evolution captured in the explicit targeting of men in the pre-Civil Rights Era and associated with the usage of gendered code words in the later period?

In this paper, we provide the first systematic look at explicit gender targeting in the U.S., when it was legal to do so. We further assess the extent to which gender targeting persisted implicitly in the decades following the major pieces of anti-discrimination legislation, using the prevalence of gender-coded adjectives. Then, using census data, we correlate both explicit and implicit gender targeting with the evolution of gender employment and wage gaps in occupations over the latter half of the 20th century.

Our main dataset comes from a sample of digitized newspaper text, which was published originally in the *Boston Globe*, *New York Times*, and *Wall Street Journal* between 1940 and 2000. This dataset was first used by Atalay et al. [2020] to measure changes in demand for skill over the 20th century. From this dataset, we identify ways in which employers may explicitly signal a preference for job applicants of a particular gender. We capture gendered pronouns and nouns (e.g., "we are looking for a gal Friday;" or "help wanted–male accountant"), quantify their prevalence over time, and correlate their usage with job characteristics.

5 percent of the ads in the 1940s, and 3 percent in the 1950s and 1960s, explicitly mention a preference for male workers, with a similar magnitude explicitly mentioning a female preference.[1] Explicit gender targeting is positively correlated with occupation-level employment shares, suggesting the coding we identify is picking up meaningful differences across jobs. In addition, a stronger female preference is associated with significantly lower occupational wages and posted wages. A female preference is correlated with lower skill requirements, while a male preference is correlated with higher skill requirements, on average, compared to ads with no preference. These correlations prevail within occupations and within job titles.

By 1980, few if any ads include a specific request for applicants from one gender or another. However, in response to legislated changes, employers can potentially use gender-coded language to implicitly signal a target of one gender or another. We categorize words that might be used to substitute for explicit gender preference, focusing on gendered adjectives. We draw on the taxonomy in Williams and Best [1977] then use natural language processing techniques to choose

[1] During this time period, newspapers also had segregated pages for female versus male help wanted ads. We also quantify the prevalence of segregated pages and find rates that are much higher than the rates of explicit targeting (which is based on the text of the ad itself). This prevalence could be one reason why explicit targeting is less strong, since the de facto page targeting could express the same thing. Still, we do not focus on page targeting since it was the norm and so less clearly reflects employer preferences.

from a larger set of adjectives that are closely related to these but might be more prevalent, in practice, in the classifieds. During the pre-Civil Rights Era, usage of these implicit gender targets behaves similarly to explicit targets: it correlates with occupation-level employment outcomes and ad-level rates of explicit targeting. Male implicit targeting is associated with higher wages, and skill requirements, while female implicit targeting shows the opposite pattern. Furthermore, these correlations hold for the use of implicit targeting through 2000.

Finally, we correlate the baseline usage of explicit targeting to occupation-level employment outcomes and rates of implicit targeting throughout the post-Civil Rights period. We are interested in whether the types of jobs that were slow to show gender integration signaled that exclusion even as far back as the 1950s and 60s. We indeed find that, even controlling for gender gaps in the 1960s, jobs with higher explicit gender targeting show slower rates of occupational desegregation and also persistent usage of implicit targeting. Naturally, many push and pull factors differ across occupations that could generate differences in gender convergence and employer-driven targeting. Still, we show that the intangibles driving more overt expressions of gender discrimination in the pre-Civil Rights Era are predictive of how occupations would evolve over the remainder of the 20th century.

Our paper contributes to the extensive literature chronicling the declining, but still substantial, salience of gender in the labor market [Goldin, 2006, 2014; Blau and Kahn, 2017]. There are a number of explanations for the (partial) convergence in female and male labor market outcomes.[2] What is still unclear is the role that anti-discrimination legislation played in increasing the opportunities for women to participate and succeed in market work. Somewhat puzzlingly, the ratio of full-time female to male earnings did not increase between 1960 and 1980, the period in which anti-discrimination policies were put into place. We contribute to this work by isolating somewhat intangible factors that could have impacted gender convergence and are picked up in the language of classified ads.

Our paper also contributes to a smaller literature that quantifies the prevalence of gender targeting in job ads and its impact on labor market outcomes. As part of a larger survey on discrimination in the labor market, Darity and Mason [1998] present some examples of job ads from 1960 in which employers expressed gender- or race-based preferences. Goldin, in Goldin [1986] and other works, explores a 1940 Bureau of Labor Statistics survey of firms capturing personnel practices regarding occupational segregation among clerical workers. More recently, Kuhn and Shen [2013, 2020] quantify modern day gender discrimination in Chinese and Mexican vacancy postings, drawing on a sample of ads from an online job message board. Also, using a dataset of job ads and

[2] A far from exhaustive list of factors includes: i) increased college attendance and graduation for women, relative to men, ii) convergence in lifetime labor market experience between male and female workers, iii) shifts in attitudes, among both men and women, about the division of household chores [Fernandez et al., 2004], iv) the introduction of oral contraceptives [Goldin and Katz, 2002; Bailey, 2006] v) shifts in the occupational structure, away from jobs emphasizing manual strength towards jobs emphasizing cognitive and interpersonal tasks [Welch, 2000], vi) the introduction of personnel practices that increase work schedule flexibility [Goldin and Katz, 2016]. Previous research has studied how these forces interact with one another, and how they contribute to increased female labor force participation, increased female representation in previously-male dominated occupations [Pan, 2015; Blau et al., 2012], and decreases in the gender pay gap.

applications in India, Chaturvedi et al. [2025a] identify job ad keywords correlated to employers' explicit gender preferences, then document that these words shape which ads workers apply to. Both Card et al. [2024] and Helleseter et al. [2020] explore job applications and/or employment following a legal ruling that outlaws gender targeting in modern day Austria and China, respectively.[3]

We extend this literature along a number of dimensions: We construct (and disseminate) measures of explicit gender targeting in job ads over a long time horizon, a period spanning the introduction of anti-discrimination policies. Furthermore, we are the first to explore the substitution between implicit gender targeting in job ad text in response to legislation prohibiting explicit targeting. We provide the first analysis of how employers adapted to the legal transition in the United States, focusing on the landmark Civil Rights Era. We show that intangibles, which can be picked up from the text of classified ads, are predictive of how gender gaps would evolve over the remainder of the 20th century. These results lend credence to the idea that some jobs had greater hostility towards gender integration and these differences mattered for outcomes.

This paper proceeds as follows: we review the relevant historical and legal background for our study (Section 2) and describe the data sources in section 3. We examine trends in explicit gender targeting in our newspaper database in Section 4. In Section 5, we measure the propensity of gender-coded adjectives in job ads, and link the usage with ad and occupation-level outcomes. In section 6 we correlated baseline rates of explicit targeting with subsequent implicit gender targeting and occupation-level gender employment outcomes. We conclude in Section 7.

2 Legal and Institutional Background

In this section, we briefly review changes to the legal and regulatory environment related to gender-based discrimination in the labor market. We focus, in particular, on newspapers', employers', and employment agencies' discriminatory behavior in the course of placing and formatting newspaper job ads.[4]

Even before the introduction of federal legislation on employment discrimination in the 1960s, changes at the state level or by non-governmental entities eased restrictions on female and minority labor supply. Goldin [1991] chronicles the rise and fall of "marriage bars". Introduced in the late 1800s and concentrated in public schools and office environments, firms and school districts maintained policies of (i) refusing to hire married women, and/or (ii) firing already-employed women upon marriage. These marriage bars declined in frequency in the 1940s and were abandoned by the 1950s.

Furthermore, certain states enacted anti-discrimination legislation before the federal government, though with a greater emphasis on race-based rather than sex-based discrimination. Of particular relevance for this paper, in 1945 New York state passed the Ives-Quinn Act. The first state-level legislation of its type, the law established a commission with the power "to eliminate and

[3]Bem and Bem [1973] and Gaucher et al. [2011] provide experimental evidence that male adjectives (and language more generally) within a job ad discourage female workers from applying.

[4]For additional background, see Donohue III [1994] and Pedriana and Abraham [2006].

prevent discrimination because of race, creed, color or national origin either by employers, labor organizations, employment agencies or other persons" [Lichtash, 1945, p. 170].

The federal government instituted substantial legal restrictions on employment discrimination beginning in the 1960s with several Acts enacted over that decade. Most notably, Title VII of the 1964 Civil Rights Act prohibited discrimination against individuals or segregation of employees on the basis of the individuals' race, color, religion, sex, or national origin.[5]

The 1964 Civil Rights Act also provided for the creation of the Equal Employment Opportunity Commission (EEOC), an agency tasked to prevent unlawful employment practices. Founded the following year, the EEOC initially had limited resources and power to enforce Title VII of the Civil Rights Act. Between 1965 and 1972 the EEOC's primary authorities were to "investigate, and conciliate charges of discrimination, to make technical studies and provide technical assistance to employers, but not the authority to sue employers who failed to comply with Title VII" [Occhialino and Vail, 2005, pp. 672-673]. Following the Equal Employment Opportunity Act of 1972, the EEOC had additional authority to litigate against discriminating employers. In an early victory for the EEOC, in 1973 AT&T agreed to file back pay to women it had previously been underpaying, reduce occupation-based gender segregation within its workforce, and alter its advertising and recruiting materials to include only gender-neutral language [Bem and Bem, 1973].

Newspapers were also subject to increased scrutiny beginning in the 1960s. As we will document in the following section, up to the 1960s newspapers commonly organized pages of job ads according to gender. Most pages would include, as a header: "Help Wanted: Female," "Help Wanted: Male," "Situations Wanted: Female," or "Situations Wanted Male."[6] In 1968, the National Organization of Women sued the EEOC, prompting it to issue revised guidelines that would prohibit these gender-segregated classifications of job ads [Endres, 2004].[7] Between 1968 and 1973 many newspapers voluntarily desegregated pages of job ads; the *New York Times* did so in December 1968. But segregation of job ads continued in certain newspapers until 1973, when the Supreme Court ruled — in Pittsburgh Press Co. v. Pittsburgh Commission on Human Relations [413 U.S. 376, 1973] — that newspapers' decisions on how to format job ads was not protected under the First Amendment's freedom of speech or freedom of the press clauses.

In sum, 1964 Civil Rights Act and other Acts at that time, along with the 1965 establishment of the EEOC were key turning points in firms' and newspapers' ability to legally target workers on the basis of gender. However, (i) enforcement of these new pieces of legislation gradually and unevenly

[5] Initial drafts of the 1964 Civil Rights Act did not include sex within this list. "Sex" was added in an amendment by civil rights opponent Howard W. Smith. While perhaps a simplification, the primary interpretation is that Smith introduced sex in an effort to scuttle the entire Civil Rights Act from passing. See Freeman [1991] for a more complete account.

[6] "Help Wanted" refers to advertisements posted by employers or employment agencies, searching for potential employees. In contrast, the much less common phrase "Situations Wanted" refers to advertisements posted by individuals searching for employment opportunities.

[7] As Kerman [1974] recounts, Section 1604.5 of the EEOC guidelines was amended to indicate that "[t]he placement of an advertisement in columns classified by publishers on the basis of sex, such as columns headed "Male" or "Female," will be considered an expression of a preference, limitation, specification, or discrimination based on sex" and, as such, are a violation of Title VII of the Civil Rights Act [Equal Employment Opportunity Commission, 1968].

strengthened throughout the mid-to-late 1960s and early 1970s (this accords with the EEOC's own characterization of the 1965-1971 period as one in which the commission was a "toothless tiger."[8]), and (ii) the legal and institutional environment was already evolving, towards greater equity in the labor market, in the 1940s and 1950s.

3 Data

This section introduces the main datasets used in this paper.

3.1 Job Ads from 1940-2000

The main dataset is constructed from a sample of 9.2 million job ads which were published in the *Boston Globe, New York Times,* and *Wall Street Journal*; see Atalay et al. [2018, 2020]; Atalay and Sarada [2020]. The *Times* ads are available from 1940-2000; the *Journal* from 1950-1998, and the *Globe* from 1960 to 1983. In those earlier papers, the authors obtained raw text files from ProQuest, identified which pieces of text constituted job ads, and defined the boundaries between ads. They used both display ads and regular classifieds sections, which we pool for the most part. See appendix A.2 for additional details.

The earlier papers extracted the job title for each ad and mapped these to detailed SOC occupation codes using a *continuous bag of words* model; we use their mapping.[9] They also searched the ad text for education and experience requirements, as well as tasks, skills, and technologies used on the job. We make use of their education and experience requirements codings as well as their mapping of skills onto the Spitz-Oener [2006] classification. Compared to those papers, we focus on the content of these ads as they pertain to gender preferences. We describe the types of gender targeting that we explore, below.

Atalay et al. [2020] discuss the representativeness of the newspaper job ad data. In terms of occupational composition, there are more job ads in white- and pink-collar occupations—Sales, Business and Finance, Architecture and Engineering, Sales, and Office and Administrative Support—and fewer ads in blue-collar occupations than in the workforce.[10]

3.2 Census Data

We also bring in population-level data from the decennial censuses for the period of overlap with our classified ads (1940-2000). We obtain these censuses from IPUMS [Ruggles et al., 2025]. We use these extracts to calculate employment characteristics at the 4-digit SOC occupation code level.

[8] See: https://www.eeoc.gov/eeoc/history/35th/1965-71/index.html , accessed May 14, 2018.

[9] The method associates job titles together that tend to be found nearby similar sets of words using the full text of the job ads plus supplemental corpora, and in so doing, matches each job title to the closest in a list of O*NET titles, which then yields an O*NET SOC occupation code.

[10] These differences largely reflect differences across occupations in how job seekers find employment: In the latter set of occupations, workers are more likely to contact the employer directly or find work through friends and relatives. A second factor is that the data in Atalay et al. [2020] concentrate on Boston and New York labor markets.

We restrict observations to the employed ages 16-64, excluding self-employed and those living in institutionalized group quarters.[11] See appendix A.1 for additional details.

We focus our comparisons on the U.S. as a whole, even though the classifieds overrepresent jobs in the northeast. Atalay et al. [2020] find slightly stronger correlations between ad quantities and employment when focusing on the northeast but generally that the job and task mix is fairly similar. In future drafts, we will also explore relationships between gender targeting and occupation employment outcomes when restricting to the northeast.

3.3 Gender targeting

We search ad text for words and phrases indicating an explicit preference for men or women. Male preferences include works and phrases relating to (i) young men ("young boy," "young man," "young men"), (ii) elderly men ("elderly man," "elderly men," "mature man," "mature men"), (iii) experienced men, ("experienced man," "experienced men") (iv) the phrase "guy friday," (or "man friday") or (v) the miscellaneous phrases ("boys boy," "boy men," "boys men," "boys-men," "male position").[12] For women, we search for a corresponding set of phrases, as well as an additional category of words referring to being a wife: "housewife," "housewive," "housewives." Finally, we search for words and phrases explicitly indicating no gender preference.[13] We then define an ad as including a preference for male applicants if it both (a) included a phrase indicating a preference for men, and (b) did not include a phrase indicating no gender preference. We define an ad as including a preference for female applicants similarly.

Given these definitions, Figure 1 depicts the trends in the explicit gender targeting in the sample. At the beginning of the sample, in the 1940s, approximately 5 percent of ads mentioned a preference for male applicants; 4 percent of ads include a mentioned preference for female applicants. In the 1950s, these rates both average around 3.5%. Similar to studies focused on gender targeting in modern-day China, Mexico, and Austria, we also find that, conditional on having a gender preference, it is roughly equally likely that the preference will be for a woman as for a man [Kuhn and Shen, 2013; Helleseter et al., 2020; Card et al., 2024].

The figure also indicates with vertical lines the passage of the 1964 Civil Rights Act (CRA) and the EEOC 1968 guideline revision for segregated pages, both mentioned above. Gender targeting declines beginning in the 1950s, long before major employment discrimination legislation, and the declines are rather gradual. Still, even by 1970, five years after the foundation of the EEOC, a sizable fraction of ads mentioned an explicit gender preference. By 1980, however, essentially zero ads include an explicit gender preference.

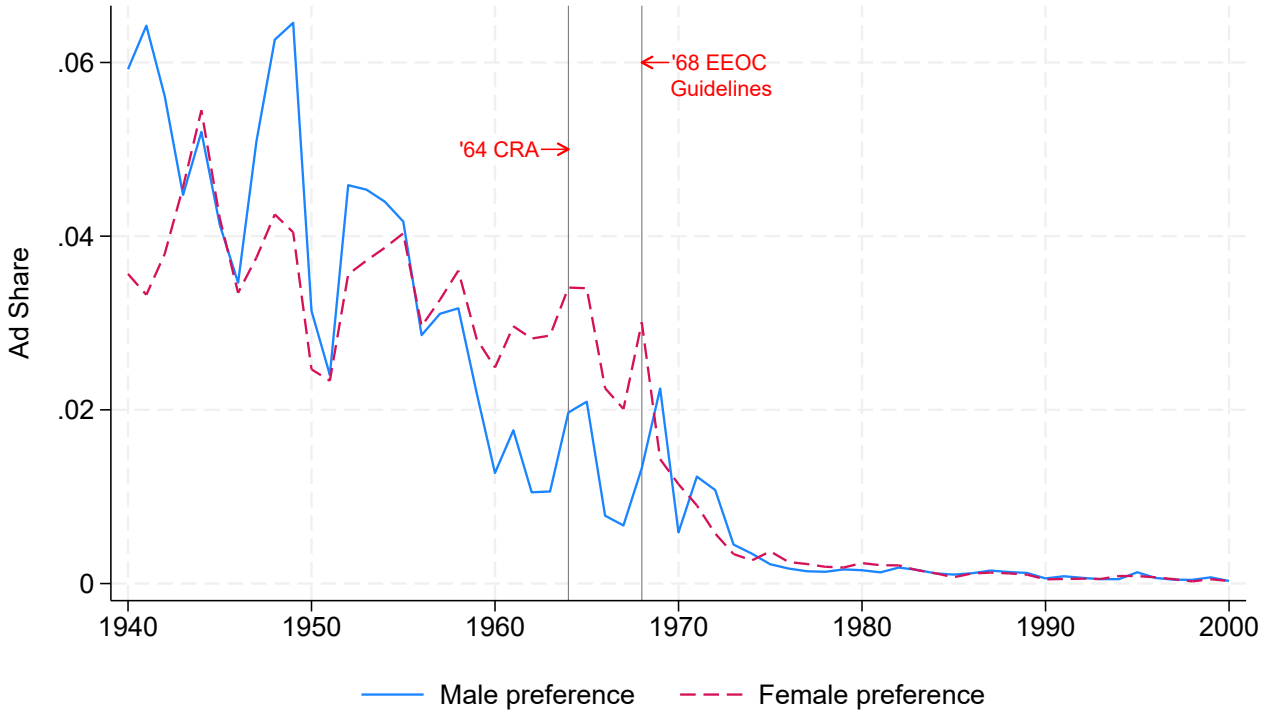
Appendix figure A.2 reports these trends separately by newspaper and ad type (classifieds versus

[11] For the 1940 and 1950 Censuses, we limit to the sample-line respondent – those answering the detailed questions on employment and education – and use sample line weights. For all other censuses, we use person weights.

[12] In the 1950s and 1960s, the phrases "Girl Friday," "Gal Friday," and "Guy Friday" (and its variations) referred to positions mainly centered around administrative tasks, typing, and work with a dictaphone.

[13] These strings include "man woman," "man or woman," "or man," "men or women," "guy gal," "gal guy," "man gal," "men and women," "man and woman," "male female," "men women," "men-women."

Figure 1: Trends in explicit gender targeting



Notes: This figure plots the share of ads with an explicit male or female preference, by year. Keywords indicating gender preferences are listed in appendix table A.2. The passage of the 1964 Civil Rights Act (CRA) and the 1968 EEOC guideline revision on segregated pages are indicated with vertical lines. See appendix figure A.2 for separate trends by newspaper and type of ad.

display ads). Explicit gender targeting was present across all sources and shows a similar decline over this period. Male preferences were much larger in the *Wall Street Journal* and also more pronounced among *New York Times* display ads, both likely due to occupational mix.

The decline in gender targeting exhibited in figure 1 might in part be due to trends in demand for skill or other changes in the occupation structure over this time period. Appendix figure A.3 decomposes the change in explicit targeting from the baseline time period into within and between occupation components. We allow changes in ad shares across 4-digit SOC occupation codes to drive changes in gender targeting, separately from within occupation changes in explicit targeting behavior. Interestingly, we find that the entire decline is due to within occupation changes in explicit targeting.

Next, Table 1 lists the job titles with the highest gender targeting rates.[14] The lists of titles align fairly well with stereotypical male and female roles. The jobs most likely to have an explicit male preference tend to be in sales and blue collar professions. The female jobs include secretarial-related fields, nursing, teaching, and textile production. One job, "x ray technicians" is overlapping

[14]We have cleaned these job titles to regularize the text, but there is still quite a bit of noise stemming from typos or especially detailed job titles. To cut out some of that noise we restrict our attention to titles with at least 200 ads.

across the two.

Table 1: **Top 20 most gender targeted job titles: 1940-1970**

Rank	Explicit Male Targeting		Explicit Female Targeting	
	Title	Share targeted	Title	Share targeted
1	window trimmer	0.21	tutors private instruction	0.65
2	shipping stock clerk	0.20	gal guy fri personnel	0.63
3	window cleaner	0.19	typist gal guy fri	0.61
4	trimmer	0.18	secretary gal guy fri	0.60
5	collector salesperson	0.17	testy sales	0.50
6	career salesperson	0.16	clerical s trainee	0.43
7	sales position	0.16	companion housekeeper	0.36
8	crew manager	0.15	phone clerk	0.32
9	boss	0.13	companion nurse	0.29
10	welder	0.13	tutor	0.25
11	writer	0.13	general office worker	0.21
12	truck salesperson	0.13	receipt trainee	0.21
13	watchman	0.13	long distance telephone operator	0.21
14	grocery salesperson	0.13	seamstress	0.16
15	telephone salesperson	0.13	chambermaid waiter	0.16
16	office boy messenger	0.12	clerical s	0.16
17	x ray technician	0.12	wrapper	0.15
18	textile salesperson	0.12	model trainee	0.14
19	junior salesperson	0.12	weaver	0.14
20	salesperson trainee	0.12	x ray technician	0.14

Notes: Here we list the job titles where explicit gender targeting was most common during the 1940-1970 period. Explicit gender targeting is defined in appendix table A.2. After regularizing job titles for consistency, we further restrict to those with at least 200 postings to clean out some additional noise in the text.

Goldin [1986] explores a 1940 Bureau of Labor Statistics (BLS) survey of firms employing office workers in 5 U.S. cities (Houston, Kansas City, Los Angeles, Philadelphia, and Richmond) asking about personnel practices. She finds that the majority (63%) of large firms in her sample have explicit occupation-segregation policies for both genders (and 72% have explicit policies regarding at least one gender). Women's jobs were mid-level clerical positions such as stenographers, typists, switchboard operators, etc. Many of the same jobs we find to have a high preference for female workers in table 1. Men's jobs were both high level positions such as accountants and managers, but also many menial positions such as messengers. Our analysis, which also includes non-office positions, shows also that manual jobs are more likely to require men.

In addition to explicit gender targeting, ads may be placed on segregated pages targeted at either Male or Female job seekers. Where available, we retrieve the header on each page of job ads. We do this by searching within the first ad of each page for the following strings: "Help Wanted—Male," "Help Wanted—Female," and "Help Wanted —Male Female." As best as possible, we undo any

transcription errors induced by ProQuest's digitization of the newspaper text.

Appendix Figure A.4 plots trends in the fraction of ads which are in these three gender-based categories. Up to November 1968, a large fraction of ads appeared in sections distinguished by gender. In the early years, roughly 30% of ads posted on male pages and a similar share posted on female pages, though the instance of female pages declined to roughly 20% in the 1960s. Beginning in 1969, almost none of the ads appeared on targeted pages.[15] This stoppage was the direct result of a lawsuit filed by the National Organization of Women against the *New York Times*. The EEOC ruled in August 1968 that segregated pages violated the Civil Rights Act. The *New York Times* announced that it would begin compliance in December. In the few years after 1968, a substantial fraction of ads appeared on pages with "Help Wanted—Male Female" as the header, though the phrase seems to have subsequently been dropped from use.

From here on out, we focus on explicit gender targeting both because the language itself more likely reflects the choice of the firm posting the ad – page targeting was likely the default – and because we found some measurement error with page targeting.

4 Correlates of Explicit Gender Targeting

We next explore covariates associated with demand for male or female applicants. We focus on the 1940-1970 period, when the practice of explicit targeting was most prevalent.[16]

Appendix table A.3 provides summary statistics of the job ads by whether the ad had an explicit gender preference over this restricted time period. Ads where we can identify an explicit gender preference are naturally wordier, as they have more complete information. For instance, male targeted ads average 107 words, while female targeted ads average a similar 104, and non-targeted ads average only 52 words. As such, ads with gender preferences are also more likely to have skill requirements and additional information. Within targeted ads, we find that the male targeted tend to have more skill requirements than female targeted ads. We will show below these differences in skill requirements persist, even controlling for ad length, meaning they are not slowly driven by the fact that gender targeted ads are wordier.

Also, male ads are more likely to have a preference for a married worker, while female ads are more likely to specify an attractive worker. We also define a collection of keywords that indicate the schedule is regular.[17] To indicate that a schedule is irregular or lacking in flexibility, we use whether the ad indicates weekend work, overtime work, travel or night work (without the word "no" in front). Female targeted ads are twice as likely as male targeted ads to specify a regular

[15] It should be exactly zero but for measurement error.

[16] Even though explicit targeting declined over this period, it was still largely unregulated in practice until the early 1970s. Still our ad-level data will heavily weight the earlier part of this time period, when explicit targeting was most prevalent. Hence other logical time restrictions within this window produce very similar results to those shown next.

[17] We code regular schedule to equal 1 if the ad mentions any of the following: no weekend work, weekly hours falling between 30 and 40, days per week being less than 6, or specific time of day ranges. Specifically, we search for the phrases "no weekend", "no Saturday," "no Sunday", "no evening", "X hours per week" for values of X in 30, 35, 37, 40, "X days per week" for X in 4, 5, 2-4, 3-4, "8:30-4:30", "8:45-4:30", "9:30-4:30", "9:30-5:30", "8:00-3:00", "8:00-4:00", "9:00-3:00", "9:00-4:00", "9:00-5:00", "10:00-6:00", "7:00-3:00", "7:00-4:00", "9:00-5:30".

schedule, while male ads are twice as likely to specify an irregular schedule compared to female ads.

We also provide summary statistics for which newspaper the ad is drawn from and whether or not the ad was on the classifieds page or is a larger display ad. Our sample is dominated by the *New York Times* and by classified ads. There are few gender distinctions across ad source except male ads are more likely to come from the *Wall Street Journal* – likely reflecting the mix of fields that post there – and more likely than female ads to be full displays.

We bring in census data from 1960 to compare ad characteristics to the employed population at the occupation level.[18] Appendix table A.3 shows that male targeted ads are in more male occupations, while female targeted ads are in less male occupations and also in lower paying ones. Figures 2 and 3 offer more granularity on these relationships.

Figure 2 summarizes the relationship between gender targeting and male employment shares at the occupation level. Based on the share of annual hours worked in the 1960 Census, we find that male occupations with a higher male share are more likely to explicitly target men (left) and less likely to explicitly target women (right). We also plot the best fit line across occupations when weighting by total employment. The positive correlation of 0.34 and negative correlation of -0.82 when weighting by employment are significant at conventional levels. Traditionally male jobs such as those in construction, protective services, transportation, installation maintenance and repair, and management have both a high fraction male hours in the census and are more likely to explicitly target males in their job ads. For women, health, office administration, education, personal care, and food and serving related occupations have a high fraction female hours and are more likely to explicitly target women in their job ads. Appendix table A.3 shows that on average male ads are in 4-digit occupations with 72% of annual work hours performed by men, compared to 52.1% for female targeted ads. These results are reassuring that stated requirements in job ads are linked to employment outcomes.

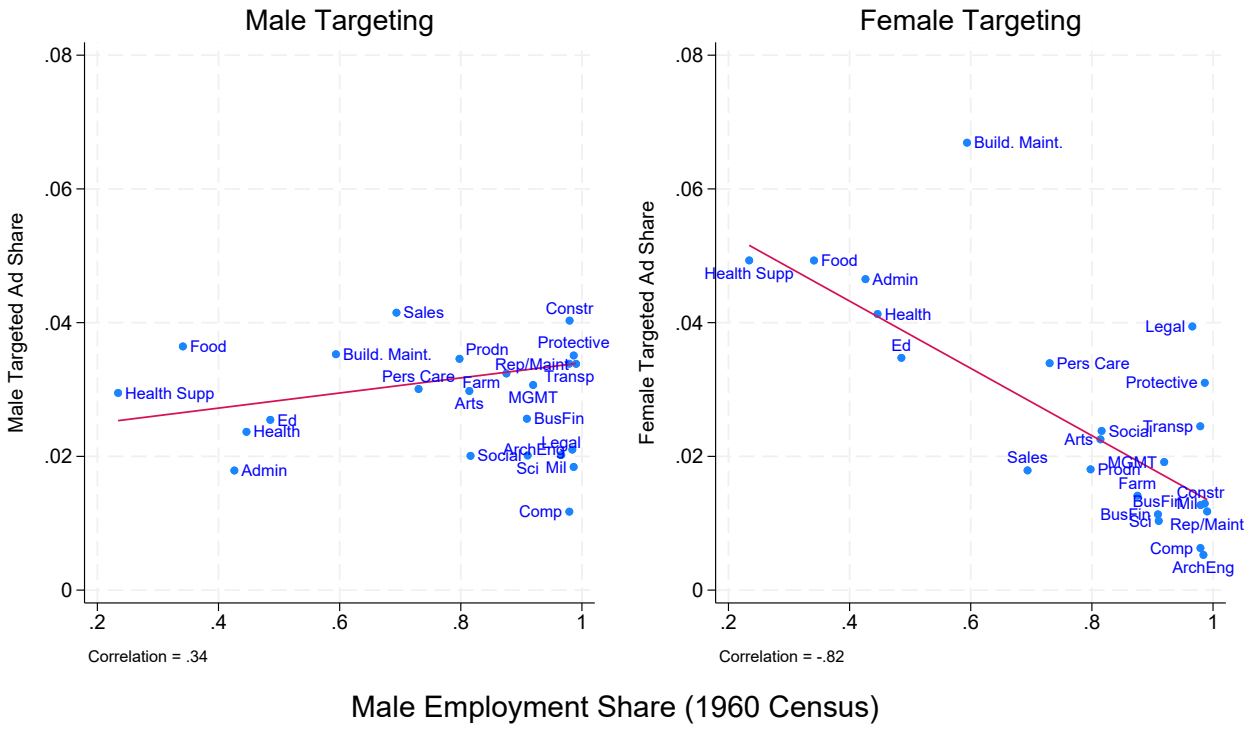
Next, figure 3 summarizes the relationship between gender targeting and average wages at the occupation level. While there is little relationship between wages and male targeting, there is a strong negative relationship for female targeting. Higher paying occupations are significantly less likely to target female workers, while lower paying occupations are more likely to. From appendix table A.3 female targeted ads have a mean occupational wage of $11.82 in 2000 dollars, while male targeted and untargeted ads have means of roughly $13 (these comparisons are at the more disaggregated 4-digit occupation level).

Because ads with gender targeting are different in other ways, most notably they are wordier, we explore these correlations with regression analysis. We estimate equation 1 for the outcome D_a^{gender} – an indicator equaling 1 if ad a explicitly targets the indicated *gender*.

$$D_a^{gender} = \beta_0 + S_a \cdot \beta_1 + X_a \cdot \beta_2 + \varepsilon_a \tag{1}$$

[18] We prefer using the 1960 Census, rather than in combination with the 1940 and 1950 Censuses because employment variables for the latter are only available for the sample-line subset of respondents.

Figure 2: Explicit Gender Targeting and Occupational Employment Share



Notes: We relate explicit gender targeting to male hours-weighted employment shares at the 2-digit SOC occupation level. Employment shares are measured in the 1960 Census and weighted by annual hours. The y-axis plots the share of ads with explicit male (left) or female (right) preference at the 2-digit SOC occupation level, aggregated from 1940-1970. We also plot best fit regression lines across the points when weighting by occupation employment as measured in the census and indicate the correlation based on the same weighting.

We explore coefficients on a vector of skills variables S_a, summarized in table 2. Dependent variables are multiplied by 100 so coefficients are easier to read and so they can be interpreted as percentage point impacts. Additional controls (X_a) include a cubic in ad length (# of words), and fixed effects for year and source (newspaper-by-ad type). Standard errors are clustered at the 4-digit occupation level.

The first column in each panel confirms that the relationships in figure 3 hold with these controls and when occupation is measured at a more granular 4-digit level. Occupational pay is not predictive of male targeting but ads in higher paying occupations are significantly less likely to target females. Each log point increase in the occupational wage is associated with a 3 percentage point reduction in the rate of female targeting, which is the same magnitude as the mean.

A small subset of ads post a salary – roughly 4% – and posted salary is negatively correlated with either type of gender targeting.[19] The negative relationship is much stronger for female targeting:

[19]The pay rate typically is also posted with a pay frequency – hourly, weekly, monthly or yearly. Before including posted log salary in this regression, we residualize it on pay rate frequencies so that levels are meaningful across the different listings.

Figure 3: Gender Targeting and Occupational Wages



Notes: We relate gender targeting to average wages at the 2-digit SOC occupation level. Wages are measured in the 1960 Census as annual wage and salary income divided by annual hours. Outcomes are the the share of ads with explicit male (left) or female (right) preference at the 2-digit SOC occupation level, aggregated from 1940-1970. We also plot best fit regression lines across the points when weighting by occupation employment as measured in the census and indicate correlations based on the same weighting.

each log point higher posted salary is associated with half a percentage point lower likelihood of targeting males and a full percentage point lower likelihood of targeting females.

In order to compare other covariates in the table using the full sample, we include ads with missing salary information by adding a value of zero to posted salary when missing and also including the indicator variable. Ads with missing salary information are significantly more likely to post an explicit female target.

We also explore three broad summaries of skill requirements. Whether the ad specifies any education or experience requirement are the most standard skill measures used. We also include an indicator for whether we can identify a Spitz-Oener skill requirement (aggregating across all the different categories to simplify). Generally, we find that more skilled ads are significantly more likely to target men and significantly less likely to target women. Ads with an education or specific skill requirement increase the rate of male targeting by a third of a point. Ads with education or experience requirements decrease the rate of female targeting by a full point.

The second and third columns in each panel control for 4-digit occupation and job title fixed effects, respectively. These controls do not change the relationships with the skills variables and

gender targeting. Within a given job title, ads with more skill requirements are more likely to target men and less likely to target women. In addition, the (adjusted) R-squares at the bottom of the table show that occupation fixed effects account for little additional variation in gender targeting beyond the baseline controls, while job title fixed effects do increase the explanatory power by 50% for male and 100% for female targeting. Still there is substantial variation remaining even in this latter highly saturated model.

Table 2: **Explicit Gender Targeting and Job Skill**

Dep var:	Male Targeting (mean = 2.7%)			Female targeting (mean = 3.0%)		
	(1)	(2)	(3)	(4)	(5)	(6)
Occupational log wage	0.258			-2.917***		
	(0.319)			(0.532)		
Posted log salary	-0.417***	-0.481***	-0.271*	-0.894***	-0.681***	-0.432***
	(0.115)	(0.102)	(0.147)	(0.124)	(0.090)	(0.128)
Missing salary	-0.143*	-0.048	-0.016	1.269***	0.981***	0.810***
	(0.085)	(0.079)	(0.108)	(0.138)	(0.105)	(0.124)
Education Requirement	0.289***	0.315***	0.300**	-0.982***	-0.826***	-0.687***
	(0.098)	(0.087)	(0.131)	(0.162)	(0.113)	(0.136)
Experience Requirement	0.012	0.080	0.072	-1.048***	-0.840***	-0.672***
	(0.132)	(0.104)	(0.132)	(0.183)	(0.129)	(0.143)
Any Skill Requirement	0.329***	0.317***	0.326***	-0.159	0.050	0.175
	(0.120)	(0.083)	(0.103)	(0.153)	(0.111)	(0.127)
Observations	4,929,529	4,929,529	4,929,529	4,929,529	4,929,529	4,929,529
Adjusted R2	0.030	0.033	0.048	0.023	0.033	0.084
Basic controls	X	X	X	X	X	X
Occ FEs		X			X	
Job title FEs			X			X

Notes: Standard errors in parentheses clustered on 4-digit occupation. $^{*}p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. The sample is restricted to ads posted between 1940 and 1970. We summarize ad-level regressions where the outcome is 100 times an indicator for whether the ad explicitly targets men (columns 1-3) or women (columns 4-6). Basic controls are included in all specifications and consist of a cubic in ad length (# of words) and controls for year, source (newspaper)-by-ad type (display or classified) fixed effects. Occupational log wage is at the 4-digit SOC occupation level and is obtained from the 1960 Census. Log(salary) has been residualized on pay frequency (hourly, weekly, monthly, or annually); we dummy out missing observations with a zero and include an indicator for missing salary. Education (experience) requirement equals 1 if the ad indicates any education (experience) is required for the position. The second column includes 4-digit occupation fixed effects, while the third includes job title fixed effects.

Overall, we find that explicit targeting was prevalent in the early part of our sample – though at much lower levels, compared to the BLS survey. Explicit targeting in job ads may be obscured by the presence of page targeting, which may have been sufficient for employers who wanted to explicitly target. Still these patterns could be important for understanding gender gaps in the labor market. We provide evidence that female targeted jobs are lower paying and lower skilled, while male targeted jobs are higher skilled. In section 6, we explore how explicit targeting in this early

period correlates with the evolution of occupational segregation and pay gaps over the remainder of the 20th century.

5 Implicit Gender Targeting

While explicit gender targeting declines steadily during and after the civil rights movement, employers may not have been so quick to let go of long-held gender stereotypes. In this section, we exploit other information in the text of the ads to better understand any implicit gender targeting.

5.1 Defining Implicit Targeting

We use personal adjectives found in the ads to measure implicit gender targeting. We restrict our attention to personal adjectives since these are likely less directly related to the core tasks of the job, compared to, say required skills or schedules. We begin with adjectives listed in the Williams and Best studies [1977, 1990]. Their work used human coders to identify the degree to which an adjective was a sex stereotype and, among other things, whether individuals view "male" or "female" traits as favorable. Since these words may or may not be common in the job ads, we look for close similarities among a set of 500 additional adjectives.

Specifically, we begin with Table 1 of Williams and Best [1977]. We obtain a larger set of adjectives from Garg et al. [2018], a paper designed to illustrate the use of word embedding machine learning tools to assign and recognize gender and ethnic stereotypes.[20] We then use word embedding tools to select which of these adjectives are conceptually similar to the Williams-Best adjectives.

The complete set of male and female adjectives used is listed in appendix table A.4 along with frequencies with which they appear in our data. We indicate with an asterisk those words that are not from the Williams-Best lists.

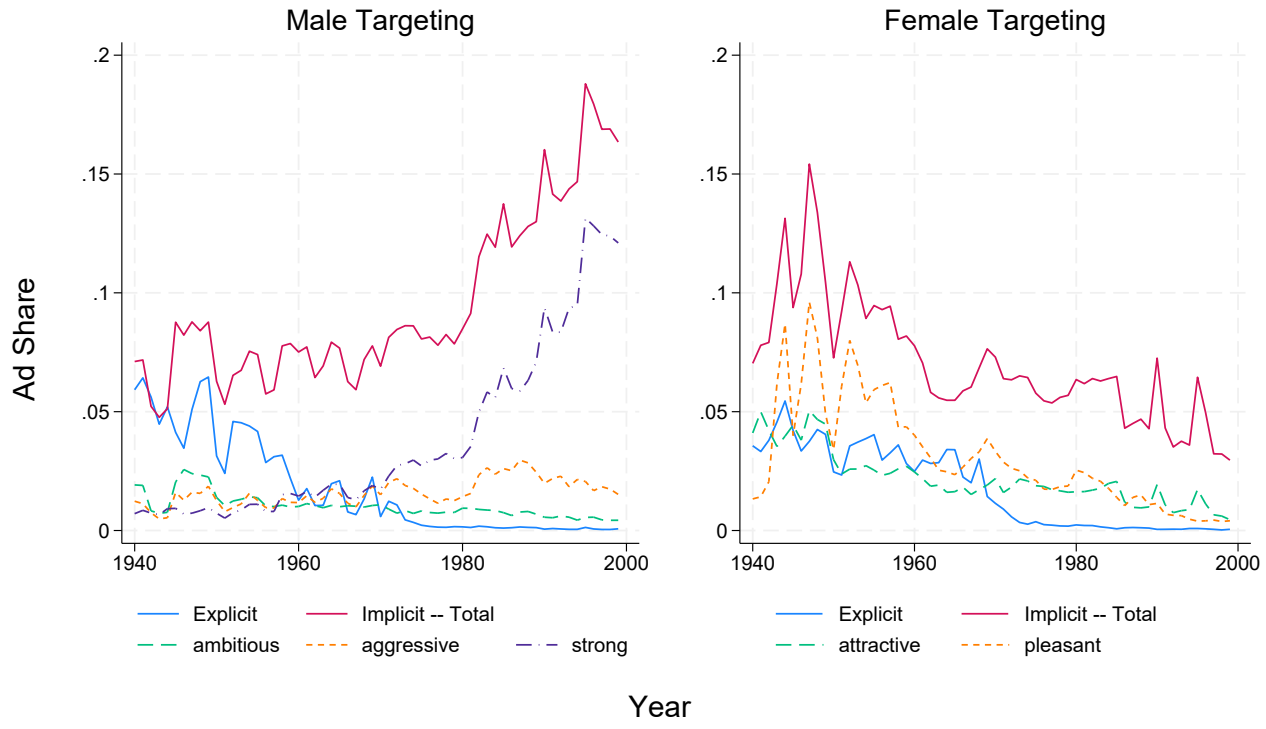
5.2 Summarizing Implicit Targeting

Figure 4 provides time series for our measures of implicit gender targeting, as well as time series for a select set of adjectives that are especially common. For comparison, we also show the explicit gender targeting series summarized above.

For males (left), implicit targeting is fairly flat in the first half of the time period, but increases from the 1980's onwards. This pattern is quite distinct from explicit targeting, which declines steadily over the first half of the sample period and then is non-existent by 1980. The increase in the later period is evident in two of the most common male adjectives, strong and aggressive. Ambitious, another most common word, is more prominent in the early period and then falls out of use.

[20] Garg et al. [2018] use their list of adjectives to measure changing gender stereotypes over the course of the 20th century. Of the 502 words used in Garg et al. [2018], we drop two: "grand" and "mature." In the New York job ads, "grand" appears frequently within the phrase "Grand Central," while "mature" is one of the words we use to identify a preference for male or female applicants.

Figure 4: Trends in implicit gender targeting



Notes: We plot time series for implicit gender targeting for men (left) and women (right). We also provide time series for a select set of specific adjectives, as well as the explicit targeting series reported in figure 1. See appendix table A.2 for the set of keywords used to define explicit targeting and appendix table A.4 for the set of personal adjectives used to define implicit targeting. The latter are the set of gender stereotyped adjectives used in Williams and Best [1977] augmented by other words deemed to be closely related using a word embedding exercise.

For females (right), implicit targeting was quite prominent during the pre-Cvil Rights era – about double or triple the rate of explicit targeting. However, the prevalence of implicit targeting wanes throughout the remainder of the time period. We highlight the two most prevalent adjectives, attractive and pleasant. These account for quite a bit of the trend and fluctuations.

What explains the decrease in female language and the long-run increase in male words? On the one hand, changes in the occupational composition of the economy, and in particular a long-run shift away from brawny skills and towards white color skills may have a disparate impact across "male" and "female" occupations [Beaudry and Lewis, 2014]. This trend would probably push in the opposite direction of what we find and goes especially against an increase in the prevalence of strong and aggressive in the job ads. On the other hand, gendered codewords that do not have to do with the tasks performed in the job might show up at any point (e.g., a request for a worker with "strong character").

To better understand how compositional changes drive trends in gendered adjectives we perform the same decomposition as above, splitting the change in implicit targeting into a component driven by changes in between 4-digit occupation ad shares and a component driven by within occupation

movement. The decompositions are summarized in appendix figure A.5. We find that the increase in male implicit targeting and the decrease in female implicit targeting are both largely driven by within-occupation movements. In addition, there is also a role for shifts towards occupations that tend to implicitly target men in the later time period (the "between" occupation effect), though the impact on the overall trend is small.

To build more intuition for these implicit target measures, we offer similar regression analyses to above in appendix table A.5. We find that higher skilled ads are more likely to include male adjectives and less likely to include female adjectives. The table also shows the ad-level relationship between explicit and implicit targeting. We find strong positive relationships with same gender explicit targeting and strong negative relationships with opposite gender explicit targeting that hold even within 4-digit SOC occupation or job title.

5.3 Implicit Targeting and Labor Market Outcomes

We next explore the relationship between contemporaneous implicit targeting and job characteristics at the 4-digit occupation level. In equation 2, we regress occupation (o) - level outcomes measured in each decennial census on rates of implicit targeting in the classifieds in the same time period, t. In practice, we associate each decennial census with job ads that occur within a plus or minus 5 year window surrounding the year of measurement. Because occupations could be changing rapidly over this time period, we also control for 2-digit occupation fixed effects (I^{broad}). This control also helps lend credence to our goal of choosing gendered words that are independent of tasks performed on the job. By estimating this regression separately for each census wave, we allow all coefficients to vary flexibly with time. Regressions are weighted by annual work hours in the occupation.

$$Y_{ot} = \beta_0^t + \alpha^t Implicit_{ot}^{male} + \beta^t Implicit_{ot}^{female} + I^{broad(ot)} + \varepsilon_{ot} \tag{2}$$

Figure 5 plots coefficients $beta_1^t$ and $beta_2^t$ for four outcomes. From the top panel, we find that implicit male targeting is correlated with significantly higher male employment; implicit female targeting is correlated with significantly lower male employment. Though, within the 2-digit occupation, we see no difference in gender pay gaps among 4-digit occupations that use more implicit targeting. From the bottom panel, we find that occupations with more implicit male targeting are also more skilled, with positive correlations for both wages and average education. There is little relationship with either of these outcomes and female targeting, except perhaps in the most recent years.

The coefficients for male employment share, average wages, and average education are for the most part fairly stable over time. At any point during the second half of the 20th century, jobs with more implicit male targeting are also those that employ more men and are generally better/higher skilled positions.

Figure 5: Implicit gender targeting and occupation-level outcomes



Notes: We estimate equation 2 for four outcomes measured in the census and plot coefficients on implicit male and implicit female targeting. See appendix table A.4 for the set of personal adjectives used to define implicit targeting. We average implicit targeting rates in the classifieds dataset at the 4-digit occupation level in the plus or minus 5 year window surrounding the year of census measurement. Regressions are estimated separately by census wave and control for 2-digit occupation fixed effects. Male employment share in the upper left panel is the share of work hours in the 4-digit occupation performed by men. The gender pay gap is the difference in log wage of men working in the occupation minus the log wage of women. Log hourly wage is the average log hourly wage in the occupation, and education is average years schooling among those employed in the occupation. 95% confidence bars on robust standard errors are shown.

It is worth noting that because we control for 2-digit occupation fixed effects and because limit our attention to personal adjectives, it is unlikely that implicit targeting relates to the core tasks or skills required on the job. Instead, these correlations likely pick up intangible factors about jobs that drive gender differences. In addition, other evidence shows that job applicants respond to both explicit and implicit cues when deciding whether to submit an application [Kuhn and Shen, 2023; Chaturvedi et al., 2025b]. We see here that even controlling occupational outcomes in 1960, the continued use of implicit male targeting is associated with more desirable jobs along wage and skill dimensions and jobs that remain persistently more male.

6 Gender targeting and labor market outcomes

In this section, we explore the relationships among explicit and implicit targeting and labor market outcomes. We cannot observe labor market outcomes at nearly the same level of detail afforded by the classified ads. However, as in the previous subsection, we use census data to measure labor market outcomes at the 4-digit occupation level. Over the second half of the 20th century, there was a great deal of gender convergence both within and between occupations. Our question in this section is whether explicit gender targeting before and during the Civil Rights Era is predictive of these patterns.

To build intuition, figure 6 relates changes in male employment shares within broad occupation categories between 1960 and 2000 to the rate of explicit male targeting in the period when it was used. We focus on male targeting because it is positively correlated with the skill level of the job, and barriers to female convergence in the labor market are more relevant over this time period. (There may have been barriers to men entering jobs with stronger explicit female targeting but the men may not have been inclined to pursue these positions, regardless.) There was a great deal of convergence over this time period, such that almost every broad occupation category saw reductions in the male employment share (as indicated by nearly all data points having negative y-axis values). We measure explicit targeting using the full 1940-1970 period as above since the EEOC was "toothless" surrounding gender convergence through this period. As seen above, occupations had different rates of explicit gender targeting during that period.

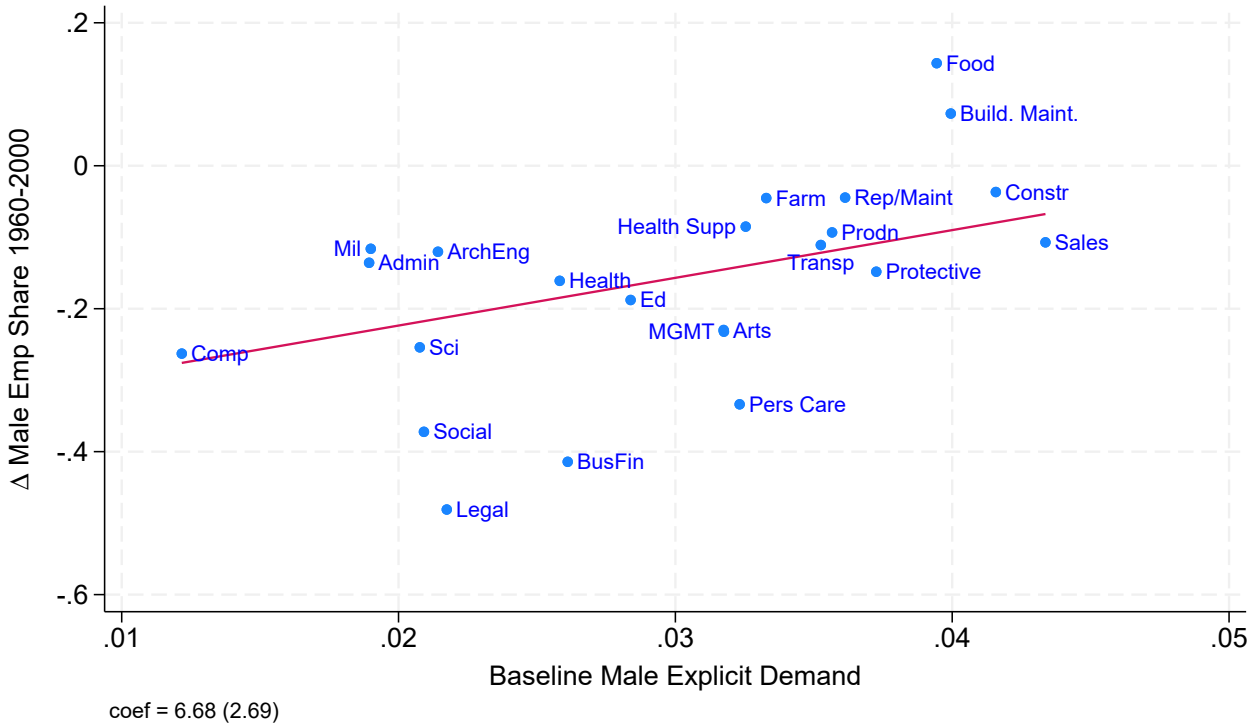
We find a positive relationship at this broad 2-digit occupation level between changes in male employment shares and baseline explicit targeting. That is, the rate of explicit male targeting is correlated with a lack of gender convergence over the subsequent 40 years (a larger value on the y-axis indicating a smaller reduction in male employment share or slight widening). Computer, legal, and health occupations saw relatively low levels of explicit targeting in the baseline period, as well as fairly large reductions in male employment shares. In contrast, sales jobs, along with a range of blue collar professions had high rates of explicit gender targeting but comparatively lower rates of convergence.

We explore these results in more granularity with regression analyses. Our key outcomes are rates of gender convergence from a baseline of 1960 at the 4-digit occupation level.

$$Y_{ot} = \beta_0 + \alpha^t \overline{Explicit_o^{\text{male}}} + \beta^t \overline{Explicit_o^{\text{female}}} + \gamma^t Y_{o1960} + \varepsilon_{ot} \tag{3}$$

In equation 3 we regress a labor market outcome for occupation, o between census year t and 1960 on average rates of male and female explicit targeting in that occupation from 1940-1970. We include the 1960 level of the outcome as a control. Occupations are measured at the 4-digit SOC level. We estimate this regression separately for each census wave from 1940-2000. Regressions are weighted by the contemporaneous total work hours in the occupation. Coefficients α^t and β_t can thus be interpreted as the correlation between pre-Civil Rights explicit gender targeting and the

Figure 6: Occupational Gender Convergence and Pre Civil Rights Explicit Targeting



Notes: We relate explicit gender targeting in the 1940-1970 period on the change in male hours-weighted employment shares from 1960-2000 at the 2-digit SOC occupation level. Employment shares are measured in the 1960 and 2000 censuses and weighted by annual hours. We also plot best fit regression lines across the points when weighting by occupation employment in 2000 and correlations (and standard errors) based on the same weighting.

evolution of employment shares and gender pay gaps within the occupation, holding constant the gender make-up of the occupation in 1960.

Figure 7 plots coefficients on explicit male and female targeting for the outcome: the change in log male employment shares. (We use logs because occupations had very different levels of male employment shares in the baseline time period and we wish to estimate proportional responses.). We find that holding constant the level of occupational segregation in 1960, explicit male targeting is predictive of delayed convergence. We do not see a relationship with female targeting.

Consider lawyers and salespeople. Both were overwhelmingly male in 1960 but sales jobs had much larger levels of explicit targeting. Sales also had slower rates of convergence across genders in employment shares over the next 40 years. Figure 7 shows that this pattern holds systematically.

Next, figure 8 summarizes regressions for the gender pay gap within occupations. For explicit male targeting, this outcome will necessarily be less precisely measured in the higher explicit demand occupations, since fewer women tend to go into those (with a widening difference over time). Still we see rough evidence of less convergence in pay gaps as well. In contrast, we see stronger convergence in gender pay gaps in occupations that had more explicit female targeting in the earlier

Figure 7: Changes in log male employment shares and Pre Civil Rates Explicit Targeting



Notes: We estimate equation 3, separately by census wave, for the outcome: the change in log male employment share in the 4-digit occupation. We plot coefficients α^t and β^t on average explicit targeting during the 1940-1970 period. Regressions also control for the log male employment share in the occupation in 1960. 95% confidence intervals on robust standard errors are plotted as well. Regressions are weighted by the contemporaneous total work hours in the occupation.

period.

These analyses provide suggestive evidence that occupations' trajectories of gender convergence between 1960 and 2000 are related to rates of explicit gender targeting in the pre-Civil Rights period. These hold controlling for the 1960 gender mix and pay gap in the occupations. We do acknowledge that effects are noisy. Were we to control for additional characteristics of occupations such as average education level or 2-digit occupation fixed effects, the standard errors widen substantially. So the correlation we do find could be driven by broader trends that vary across occupations for other reasons than demand-side targeting.

Still, to gain some further intuition for demand-side responses, we next examine the relationship between baseline explicit targeting and evolving implicit gender targeting. We have shown above that when both are possible in the pre-Civil Rights Era, firms do leverage both in their job ads. We are also interested in how firms adapt to the restrictions on explicit gender targeting. Implicit gender targeting may serve as a way of masking explicit gender targeting once the latter is no longer legal. In that case, we may see more prolonged implicit targeting among the types of jobs that previously would have explicitly targeted.

Figure 8: Changes in gender pay gaps and Pre Civil Rates Explicit Targeting



Notes: We estimate equation 3, separately by census wave, for the outcome: the change in log male wages minus log female wages in the 4-digit occupation. We plot coefficients α^t on average explicit male targeting during the 1940-1970 period. Regressions also control for the gender pay gap in the occupation in 1960. 95% confidence intervals on robust standard errors are plotted as well. Regressions are weighted by the contemporaneous total work hours in the occupation.

To answer these questions we explore regressions of the following form for ad a in year t:

$$Implicit_{agt}^{\text{gender}} = \beta_0 + \alpha^t \overline{Explicit_g^{\text{male}}} + \beta^t \overline{Explicit_g^{\text{female}}} + X_{at} \cdot \gamma^t + \varepsilon_{agt} \tag{4}$$

In equation 4, we relate the rate of implicit targeting for a given gender in time period t to the rate of explicit targeting present before and during the Civil Rights Era. Since we cannot measure whether a given ad in the post period would have used explicit targeting if they could have, we aggregate slightly to the group, g, level. In practice groups are occupations or job titles. $\overline{Explicit_g^{\text{gender}}}$ then measures the average rate of explicit targeting for ads belonging to group, g, over the years 1940-1970. We allow the relationship between implicit targeting and average explicit targeting to vary over time by estimating the regression separately for 5-year groupings – aggregating from yearly regressions for precision. Regressions also include ad-level controls (X_{at}), the impact of which is allowed to vary in each 5-year bin.[21]

[21]Specifically, controls include a cubic in ad length (# of words), newspaper source fixed effects, the log occupational

Estimates for years during the early period answer the question of whether implicit targeting is used alongside explicit targeting when both are possible. These complement the ad-level correlations shown in appendix table A.5. Estimates for years following the Civil Rights Era help us understand whether the types of jobs that previously showed the strongest explicit targeting see more long-lasting implicit targeting.

Figure 9 summarize the relationship between baseline explicit targeting and implicit targeting at the 4-digit occupation level. Mirroring the regression analyses, we find a strong positive relationship in the early part of the sample when explicit demand is measured. We see this correlation persists in the later years only decaying in the 1990s.

Thus in the 1970s and 1980s, an occupation that had strong explicit preferences for a given sex in the pre-Civil Rights Era, was more likely to post implicit preferences (indicated by adjectives) for the same gender. These are only correlations at the occupation level and could be driven by a variety of factors. However, we control for a range of ad-level characteristics (X_{at}) to rule out certain drivers. Specifically, by controlling for the same variables as in table 2 – the occupational wage, the posted salary when available, skill requirements, a cubic in ad length, and source fixed effects – we rule out that these persistent correlations emerge simply because ads within an occupation are likely to be similarly wordy or because higher skilled occupations have stronger male preferences both explicit and implicit. We also include the occupational log male share of hours worked in 1960. Thus we rule out that jobs simply being more male or more female drives the persistence in the relationship between implicit and explicit targeting.

Appendix figure A.6 shows results hold when using explicit demand measures defined at the job title level (still averaging over 1940-1970). These produce very similar and significant patterns though much smaller correlations. There are fewer observations within each job title (compared to the number in each 4-digit occupation) so the key regressor is likely measured with more noise.

Note that the correlations are highest during the pre-Civil Rights Era and we do not control for the baseline rates of implicit targeting. This means implicit targeting does converge across groups, but the levels remain significantly different into the 1990s. Groups that had high versus low explicit targeting rates at baseline do not completely converge in implicit targeting until the end of the time period.

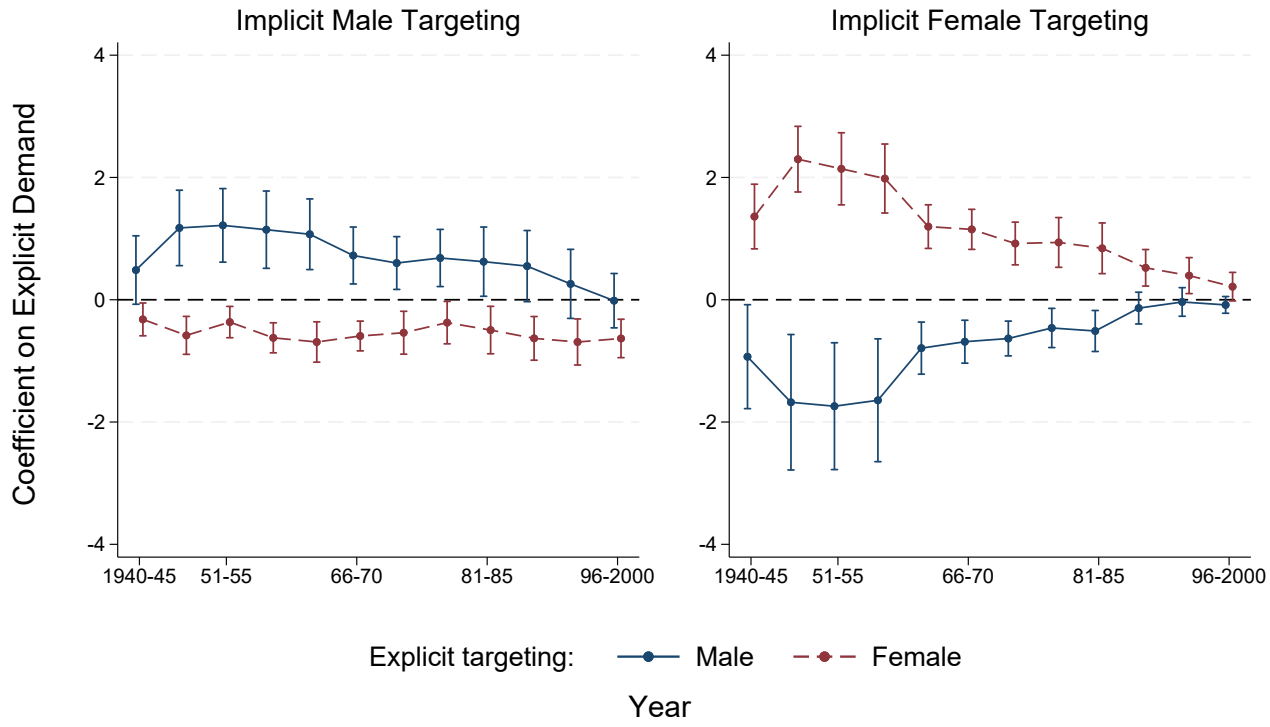
The results in this section point to a set of "hold out" occupations made heavy use of explicit male targeting before the Civil Rights Era and had persistently high degrees of occupational segregation and implicit targeting throughout the second half of the 20th century.

Gender targeting could be picking up a wide range of push and pull factors that result in delays in occupational gender desegregation. Despite controls for baseline levels of occupational segregation, gender wage gaps, and evolving skill levels within occupations, it is difficult to say much more when our comparisons must be made at such an aggregated level.

In ongoing work with Russell Weinstein, we are linking gender targeting in the classifieds to

wage in 1960, the log posted salary after residualizing on pay frequency, along with an indicator for missing salary, and whether the ad has an education, experience or additional skill requirement. We also control for the log male share of work hours in the occupation in 1960.

Figure 9: Persistent Impacts of pre-Civil Rights Explicit Targeting on Implicit Gender Targeting



Notes: We estimate regressions summarized in equation 4, separately by 5 year groupings. The left panel reports the coefficient on average explicit male targeting from 1940-70 for the 4-digit occupation, where the outcome is the rate of implicit male targeting in the occupation for that 5-year grouping. The right panel summarizes these relationships for the outcome: implicit female targeting. Regressions also control for log occupational wage in 1960 and log share of hours worked by men in the occupation in 1960 (both measured in the census), the residualized posted log salary residualized on pay frequency – dummied out for missing salary information and including an indicator for missing, whether the ad has an education, experience or skill requirement, a cubic in ad length, and source fixed effects. 95% confidence bars are shown, with standard errors clustered at the 4-digit occupation level.

firms' EEO-01 filings. Beginning in 1966, all firms with at least 100 employees and federal contractors with at least 50 employees are required to report to the EEOC their employment mix across broad occupation groups by gender, race, and ethnicity. Ashenfelter and Heckman [1974] found the initial filings contained quality data. We have obtained these filings for the years 1966-1993, which will enable us to link gender targeting to actual employment outcomes and at a much more granular level.

7 Conclusion

This paper provides the first extensive, large scale characterization of gendered language in job advertisements in the United States over last six decades of the twentieth century. Between 1940 and 2000, differences in male and female labor market outcomes have converged considerably, albeit incompletely and unevenly. We show that employers' explicit targeting was present in the 1940s and

1950s and was equally common for male and female workers. Such targeting decreased in the period prior to the 1964 Civil Right Act, with accelerating declines thereafter. However, even up to the 1970s, mentions of an explicit preference for male or female workers were not uncommon. We also demonstrate that gender-specific personal adjectives were common even after 1970. Occupations which explicitly targeted female (or male) applicants, when it was legal to do so, continue to use gendered adjectives in the 1970s and 1980s. They also saw slower gender convergence.

These empirical patterns are consistent with (at least) two interpretations. According to the first, firms have preferences over the gender of the workers they will hire. Explicit gender targeting, (when it was legal) and gendered adjectives (when it was not) signal firms' preferences, influence applicants' behavior over which job ads to respond to, and, ultimately, reinforce existing gender differences in pay and occupational mix. According to a second interpretation, gendered language merely reflects societal attitudes over different demographic groups' suitability for different types of work. Employers post ads with gendered language not to signal their own preferences, but instead to conform with norms existing in the labor market (and in society, more broadly). If these attitudes are slow to change, the prominence of gendered language in job ad text may be slow to fade (even after large-scale changes in policy.)

Given the data available, we have not attempted to distinguish between these two stories. Instead, our aim has been to demonstrate that gender stereotypes – whereby women and men are associated with different types of work – manifests in the language that firms use to find workers. Moreover, these stereotypes were highly persistent and help account for the slow convergence between male and female labor market outcomes in the decades following major anti-discrimination legislation.

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Appendix

A Data Appendix

A.1 Censuses

We obtain decennial census data for the years 1940-2000 from IPUMS [Ruggles et al., 2025]. Most years are 5% samples; for 1970 we use both 1% state form samples. 1940 and 1950 are 1% samples which we further limit to the sample-line respondents. In these waves, detailed employment and education information is only asked to one member of the household, the sample-line respondent. As such, these waves have much smaller samples and require the use of sample line weights. All other samples use person weights. We restrict to those currently employed for wage and salary income (non self-employed) living outside institutionalized group quarters ages 16-64. We furthermore exclude allocated occupation and income measures.

We harmonize weeks and hours worked across censuses as follows. We use the available numeric measures for 1940, 1950, and 1980-2000.[22] For other years, only interval-coded measures are available. We convert these to numeric values by assigning the mean within each interval, calculated from the 1980 Census when both variables are available.

Wages are annual wage and salary income divided by annual weeks worked times hours worked per week. We replace topcoded values with 1.5 times the top code and CPI adjust to 2000 dollars.[23]

We calculate the male employment share as the sum of person weights times annual hours worked (weeks times hours) among males divided by the sum amount all workers. Occupation-level weights are the annual hours-weighted person weights in each occupation in the employed sample (with our additional restrictions).

These variables are defined at the Census 1990 occupation level or the 1950 Census occupation codes for 1940, which we crosswalk to SOC occupation codes using the 2000 Census. We keep all 1990 or 1950 codes associated with a given 2000 SOC code and use the 2000 Census of employed person to generate weights within each SOC code. We then merge these into the classifieds at the 4-digit SOC level where possible and if not we use the 3-digit.

A.2 Newspaper Data

Additional Details on Processing the Job Ad Text

We rely heavily on the earlier work using this dataset of ProQuest Newspaper text. See appendices in Atalay et al. [2018, 2020] and Atalay and Sarada [2020] for details.

[22] The weeks measure is annual weeks worked in the previous year. Hours refer to hours worked last week in all years except 2000, when we use usual hours worked.

[23] Income corresponds to the previous calendar year so we CPI adjust to that year as well. Topcoded income values for 1990 and 2000 are already replaced by the median or mean of topcoded values in the state, so we make no further adjustments.

In order to identify gender targeted pages, we search as follows. We look for the specific string "help wanted male" occurring either (i) in the first ad of the page or (ii) at least twice in the body of at least two ads.[24] Since the digitization process is imperfect, we apply a list of string substitutions before searching for this particular string.[25] We similarly search for "help wanted female" in assigning pages of ads as those with a female header and "help wanted male female" in assigning pages of ads as those explicitly open to both male and female candidates.[26] The latter was common in the early 1970s. After that, the job pages in our dataset instead included "help wanted" as a header; we do not separately record these.

Second, we search for words and phrases within each ad to identify ad-specific gender targeting. Male preferences include words and phrases relating to (i) young men ("young boy," "young man," "young men"), (ii) elderly men ("elderly man," "elderly men," "mature man," "mature men"), (iii) experienced men, ("experienced man," "experienced men") (iv) the phrase "guy friday," or (v) the miscellaneous phrases ("boys boy," "boy men," "boys men," "boys-men," "male position", "wanted men"). For women, we search for a corresponding set of phrases, as well as an additional category of words referring to being a wife: "housewife," "housewive," "housewives." We exclude phrases indicating that the ad is open to either gender ("man woman," "man or woman," "or man," "men or women," "guy gal," "gal guy," "man gal," "men and women," "man and woman," "male female," "men women," "men-women."). In addition, because of errors in processing ProQuest ads, we sometimes have difficulty identifying the start of a new ad and thus some observations may append together several ads. This measurement issue drives a small number of observations to trigger both male and female explicit targeting matches. We recode ads that have both explicit male and female preferences to zeros for both.

Finally, we record additional information on the work environment. The first few elements describe non-salary compensation: (i) profit sharing,[27] (ii) a pension plan, (iii) life insurance, (iv) disability insurance (v) a medical plan, (vi) a dental plan, (vii) paid vacation, (viii) relocation assistance,[28] (ix) sick leave, (x) 401k, (xi) a retirement plan, (xii) free parking, and (xiii) liberal benefits. A second set of measures describe the office environment: (xiv) convenient location, and (xv) pleasant work surroundings. A third set of other measures describe job scheduling: (xvi) no weekends, (xvii) no saturdays, (xviii) no sundays, (xix) no evenings, (xx) 40 hour work weeks, (xxi) 37 hour work weeks, (xxii) 35 hour work weeks, (xxiii) 30 hour work weeks, (xxiv) 5 day work weeks, (xxv) 4 day work weeks, (xxvi) 2-4 day work weeks, (xxvii) 3-4 day work weeks, (xxviii) a 8:30 to 4:30 schedule, (xxix) a 8:45 to 4:30 schedule, (xxx) a 9:30 to 4:30 schedule, (xxxi) a 9:30 to 5:30 schedule, (xxxii) a 8 to 3 schedule, (xxxiii) a 8 to 4 schedule, (xxxiv) a 9 to 3 schedule, (xxxv)

[24] We include the second criterion to allow for the possibility that the digitization technology leads us to miss the first instance of "help wanted male."

[25] For example, we substitute "help wantedmale", "help wanted ! male", "help warded male" (all of these appearing in the initial digitized test) to "help wanted male".

[26] When assigning a page to be male-specific, we require that the string "help wanted male female" is absent.

[27] In future versions of our paper, we will include the correspondences between text strings and individual measures of the work environment. For now, we will provide the correspondences for a few illustrative examples in succeeding footnotes.

[28] Here, we search for the following strings: "*relocation assist*", or "*relocation allow*".

a 9 to 4 schedule, (xxxvi) a 9 to 5 schedule, (xxxvii) a 10 to 6 schedule, (xxxviii) a 7 to 3 schedule, (xxxix) a 7 to 4 schedule, and (xl) a 9 to 5:30 schedule, (xli) flexible hours,[29] (xlii) overtime, (xliii) a requirement to work weekends, (xliv) a requirement to travel, (xlv) a requirement to work nights, (xlvi) the phrase "full time", and (xlvii) the phrase "part time". A final, miscellaneous, set of measures includes: (xlviii) on-the-job training, (il) tuition assistance, (l) a word-per-minute typing requirement, (li) asking for an attracting appearance, (lii) using the word "attractive" for other reasons, (liii) asking for salary history, (liv) a statement that the salary is open, (lv) phrases like "opportunity for advancement", and (lvi) an on-site employee cafeteria. Among the 56 variables described in this paragraph, the most frequently occurring are mentions of a 5-day work week, a request for a salary history, that the job is part time, vacation benefits, that the job is full time, and a 9 to 5 work schedule.

Representativeness of the Sample

In this appendix, we examine the extent to which "male" versus "female" occupations are differently represented in the newspaper ads.[30]

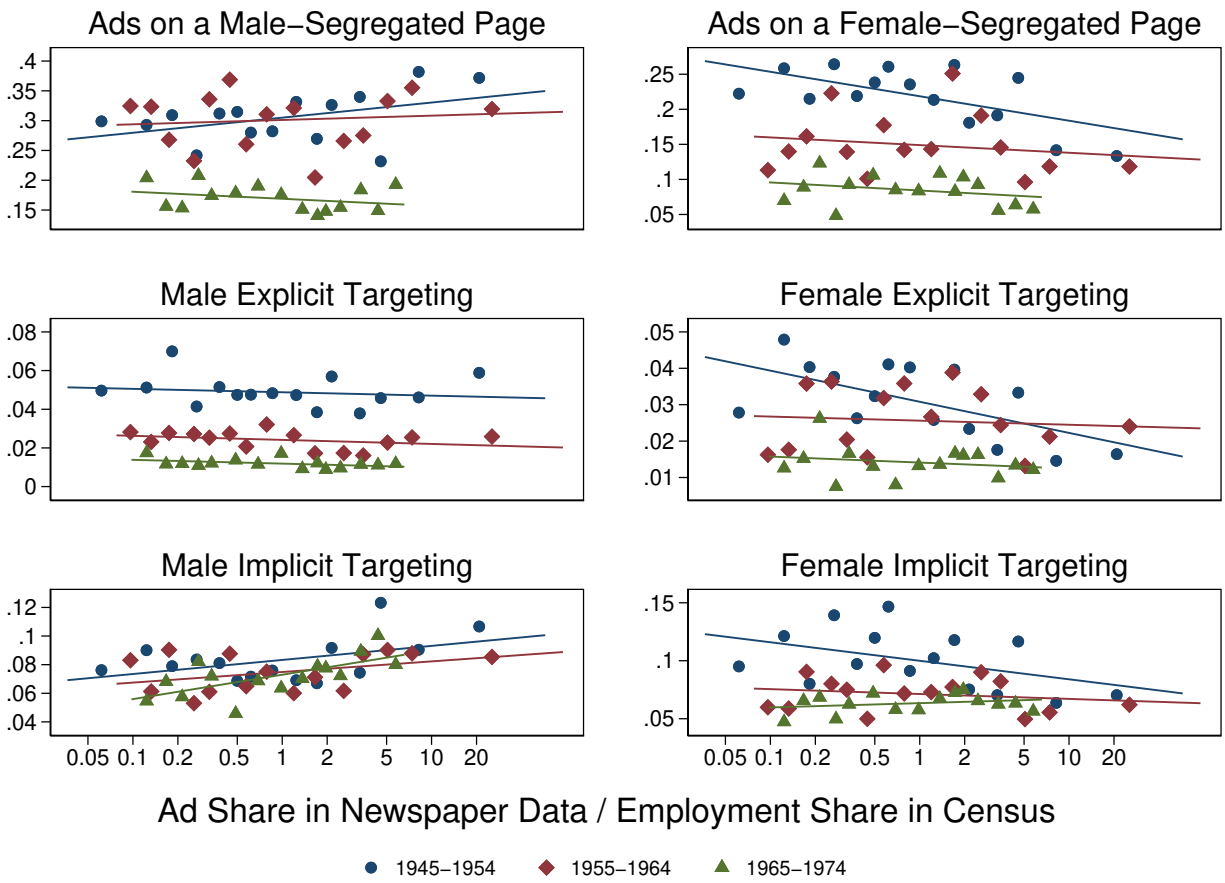
For our first assessment of the representativeness of our sample, we compute ∇_{od} as the ratio of the share of newspaper ads in decade d corresponding to 4-digit occupation o to the share of employment in occupation o as recorded in the decennial census. As an example, among ads placed between 1945 and 1954, 0.61% were for Supervisors of Production Workers (SOC=5110) and 7.03% were for Secretaries and Administrative Assistants (SOC=4360). The share of employment in the 1950 Census was 1.86% and 4.08% respectively. So, in our dataset, Production Workers are under-represented ($\nabla_{od} = \frac{0.61}{1.86} = 0.33$) while Secretaries and Administrative Assistants are over-represented ($\nabla_{od} = \frac{7.03}{4.08} = 1.73$). More generally, ∇_{od} is greater than 1 for finance occupations, architecture/engineering occupations, and office administrative occupations, and less than 1 in transportation, production, and installation/maintenance occupations.

In Figure A.1, we compare ∇_{od} to measures of the genderedness of the occupation. In the top panels, we present binscatter plots of the relationships between ∇_{od} and the share of ads on

[29]Specifically, we search for the following strings: "*flexible ho*", "*flexible hr*", "**choose your ho**".

[30]Earlier work [Atalay et al., 2020] explored two other dimensions along which our dataset may not be representative of the U.S. labor market. Our focus, there, was on differences in the task content of ads in our sample relative to types of jobs in which individuals worked. First, our sample is informative about job matches formed via newspaper ads. But workers and firms meet one another through other channels: through referrals, through unsolicited job site visits by the applicant, etc... In Appendix C.2 of Atalay et al. [2020], we use the 1968-1993 CPS-ASEC. In these years, unemployed individuals were asked about their job search methods. The extent to which employers rely on newspaper ads to fill vacancies increased over this 25 year period, is higher in occupations rich in cognitive tasks, and is lower in occupations rich in manual tasks. However, there are no differential trends in the extent to which cognitive (or manual) occupations filled vacancies through newspaper ads. Second, our sample draws on ads published in newspapers circulating in Boston and New York; the help wanted ads are overwhelmingly for jobs in these metropolitan areas. While it is impossible for us to compare newspaper ads for these metro areas to those in the rest of the U.S., we are able to compare Boston and New York job ads to those in the remainder of the country for a later period, in which firms posted ads online. In Appendix C.3 of Atalay et al. [2020], we document that jobs posted in the Boston and New York MSAs are relatively rich in non-routine analytic and interactive tasks, but that these differences primarily reflect differences in the occupational mix across geographies. Controlling for occupation fixed effects reduces the differences in job content across metro areas.

Figure A.1: Representativeness in the Occupational Mix



Notes: This figure presents binscatter plots, comparing $\log \nabla_{od}$ (the ratio of the occupations ad share to its census employment share) to the occupation-decade average measures of genderedness. For occupations' job ad shares, we compute averages across three ten-year periods: between 1945 and 1954, between 1955 and 1964, and 1965 and 1974. These averages are plotted on the y-axis of each panel. For each of these ten-year periods, the x-axis axis gives the corresponding occupations' ratio of ad share-to employment share in the decadal census (e.g., we compare ad shares in 1945-1954 to employment shares in 1950.)

Table A.1: Representativeness in the Occupational Mix: Correlation Coefficients

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Male Page	0.169	0.054	-0.113	0.071	0.332***	0.099	-0.171	0.169***
Female Page	-0.219*	-0.076	-0.108	-0.112*	-0.304***	-0.079	-0.080	-0.069
Male Explicit	-0.073	-0.140	-0.198*	-0.054	0.236**	0.008	-0.387***	0.115*
Female Explicit	-0.266**	-0.038	-0.071	-0.122*	-0.329***	-0.019	-0.080	-0.059
Male Implicit	0.193*	0.170	0.333***	0.220***	0.323***	0.159	0.234**	0.225***
Female Implicit	-0.212*	-0.077	0.072	-0.096	-0.340***	-0.114	0.054	-0.102
Decade	1950	1960	1970	1950-70	1950	1960	1970	1950-70
Weight by # of Ads?	No	No	No	No	Yes	Yes	Yes	Yes

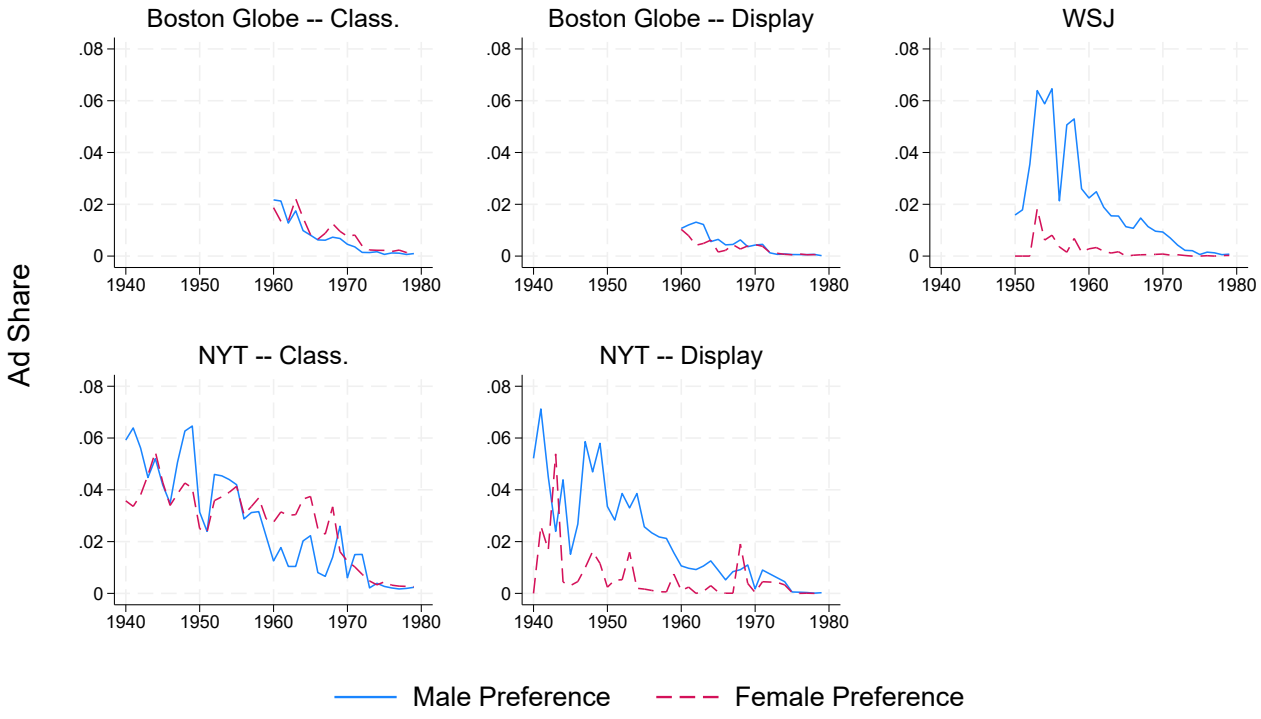
Notes: This table presents the correlations between $\log \nabla_{od}$ and occupation-decade average measures placement on male- or female-segregated pages; male or female explicit targeting; or male or female implict targeting. For our newspaper data, our decade average for "1950" draws on ads posted between 1945 and 1954; "1960" draws on ads posted between 1955 and 1964; and "1970" draws on ads posted between 1965 and 1974. *** refers to a p-value between 0 and 0.01; ** refers to a p-value between 0.01 and 0.05; and * refers to a p-value between 0.05 and 0.10.

a male-segregated page (top left panel) or the share of ads on a female-segregated page (top right panel.) Early in the sample, there is a (marginally significant) relationship whereby occupations over-represented in the newspaper text tend to appear more on male-segregated pages and less on female-segregated pages. In the middle columns, we consider a second measure of occupations' genderedness: the frequency of explicit male (middle left) or explicit female (middle right) targeting. Here, too, there is a negative relationship between explicit female targeting and ∇_{od}, but only when comparing ads placed between 1945 and 1954 and employment in 1950. Finally, the bottom panels compare the frequency of gender-specific codewords (mentions per ad) and ∇_{od}.

In Table A.1, we collect the correlations corresponding to each panel of Figure A.1, indicating which of these panels' relationships are statistically significant. Many relationships are significant in the 1950s but less so for later years.

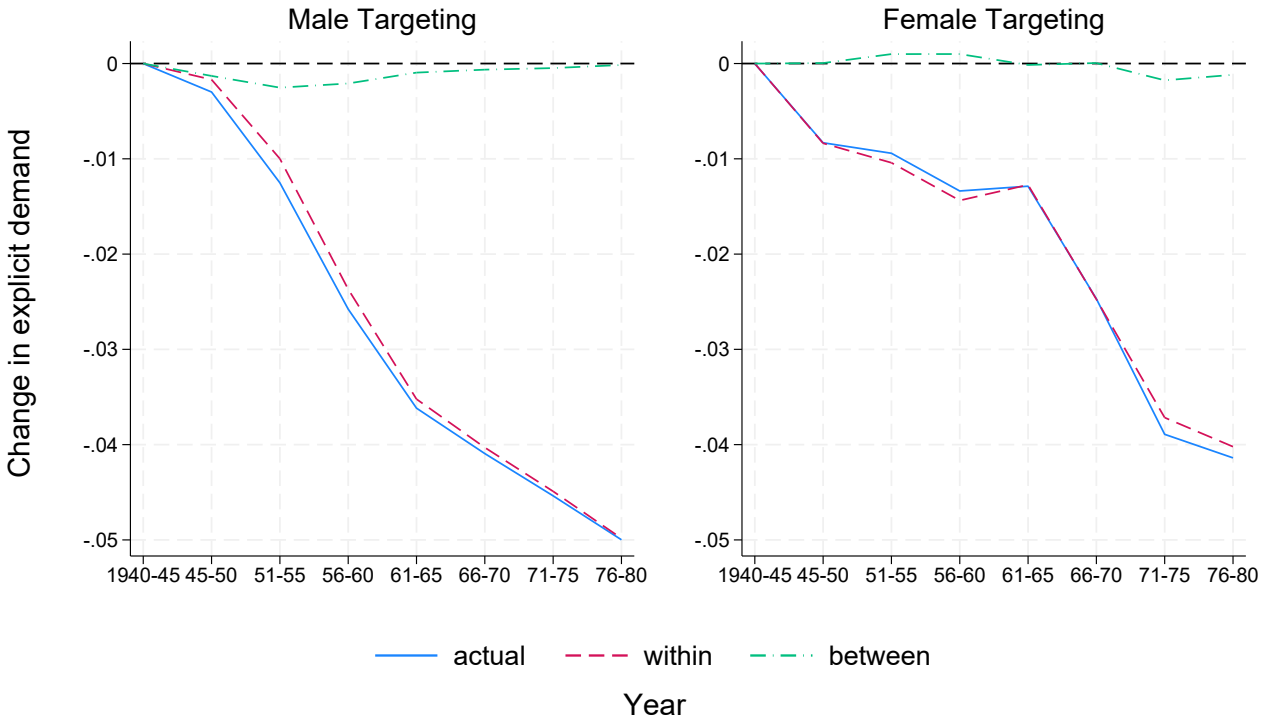
B Additional Tables and Figures

Figure A.2: Trends in Explicit Targeting by Source and Ad Type



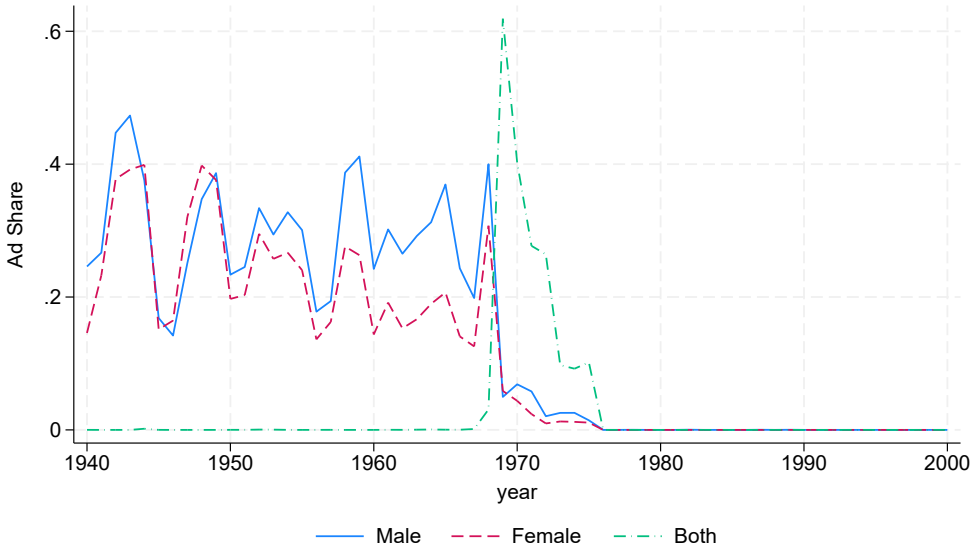
Notes: See figure 1. This figure plots the share of ads with an explicit male or female preference, by year, separately for each newspaper source and type of ad. Newspapers are the Boston Globe, the Wall Street Journal, and the New York Times. Ads can either be in the classifieds or on display. For clarity, the figure limits to the 1940-1980 time period, as there are virtually zero mentions of explicit targeting after 1980.

Figure A.3: Changes in explicit gender targeting: within and between occupation



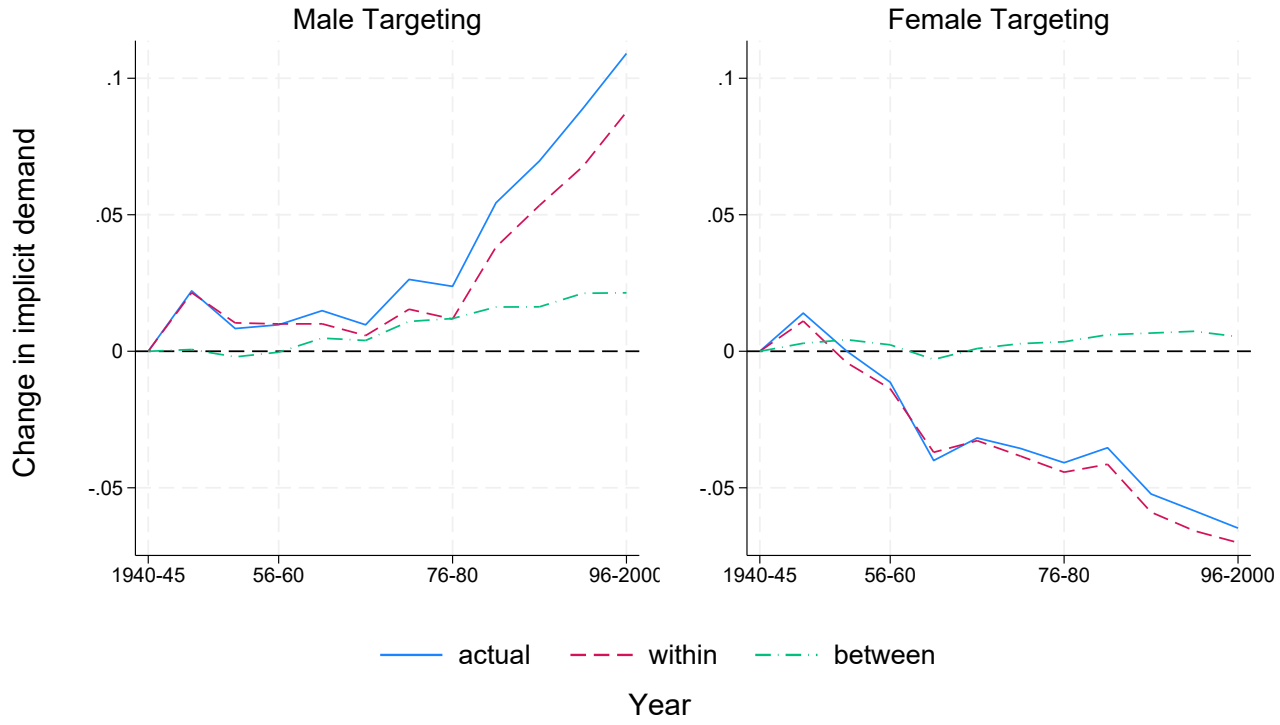
Notes: This figure plots the change in the share of ads with an explicit gender target from the baseline 1940-45 period to the indicated 5-year grouping. We also decompose this change into the amount attributed to changes in ad shares across 4-digit SOC occupation codes ("between") and within occupation changes in targeting ("within"). We find the decline in gender targeting is entirely driven by within occupation targeting behavior, with almost no role for changes in ad shares between occupations. The change in male targeting can be expressed as a within and between occupation component as follows: $\Delta m_t = \sum_o m_{ot}(w_{ot} - w_{o,1940}) + \sum_o (m_{ot} - m_{o,1940})w_{o,1940})$; o are occupations and t are 5 year bins, w_{ot} is the share of ads in occupation o at time t, and m_{ot} are the share of ads with an explicit male preference in occupation o and year t. The former gives the change in targeting that would be implied if only occupation (o) level weights are allowed to change and within occupation targeting is held fixed at its t value. The latter gives the change in targeting that would be implied if only within occupation targeting is allowed to change and occupation weights are held fixed at their 1940 level. In practice, there are two possible orders to perform the decomposition and, since they produce similar results, we simply average the two. The within component equals: $\frac{1}{2}\sum_o (m_{ot} - m_{o,1940})(w_{o,t} + w_{o,1940})$ and the between component equals: $\frac{1}{2}\sum_o (m_{ot} + m_{o,1940})(w_{ot} - w_{o,1940})$.

Figure A.4: Trends in targeted pages



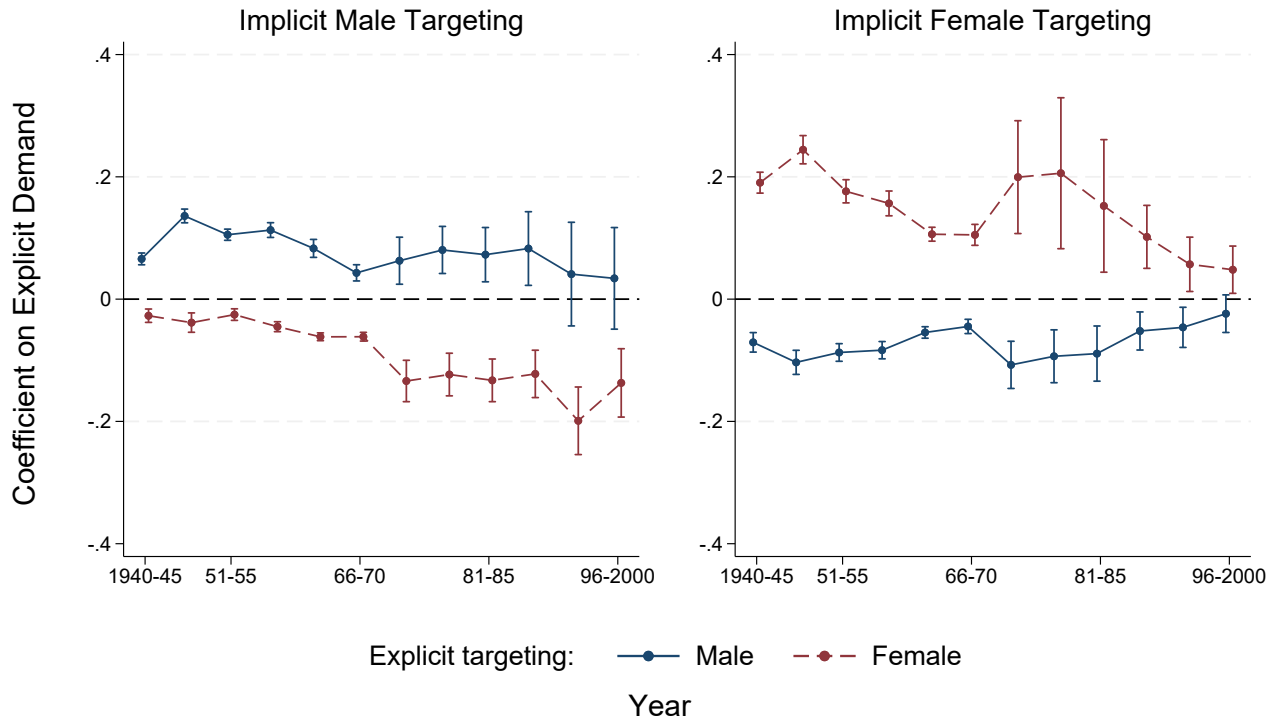
Notes: This figure presents the share of ads which appear in pages with "Help Wanted-Male," " Help-Wanted-Female," and "Help Wanted-Male Female" as a header, by year. The stoppage in gendered page targeting was the direct result of a lawsuit filed by the National Organization of Women (NOW) against the *New York Times*, ruled in favor of NOW in 1968. For a brief period following the lawsuit, a substantial fraction of ads appeared on pages with "Help Wanted—Male Female" as the header, though this practice dropped quickly from use.

Figure A.5: Changes in Implicit gender targeting: within and between occupation



Notes: This figure plots the change in the share of ads with an implicit gender target from the baseline 1940-45 period to the indicated 5-year grouping. Implicit targeting is defined as the presence of any of the personal adjectives listed in appendix table A.4. We also decompose this change into the amount attributed to changes in ad shares across 4-digit SOC occupation codes ("between") and within occupation changes in targeting ("within"). We use the same decomposition as summarized in figure A.3. We find the decline in implicit female targeting (right) is entirely accounted for by within occupation targeting behavior (red dashed). For implicit male targeting (right), the steady rise beginning in the late 1960s is also largely accounted for by within occupation trends. Though here there is a non-trivial component due to shifts in ad shares towards occupations that have higher male targeting (green dash-dot).

Figure A.6: Job Title Level: Persistent Impacts of pre-Civil Rights Explicit Targeting on Implicit Gender Targeting



Notes: See figure 5. Here we average baseline explicit targeting at the job title level, rather than the occupation. We estimate regressions summarized in equation 4, separately by 5 year groupings. The left panel reports the coefficient on average explicit male targeting from 1940-65 for the job title, where the outcome is the rate of implicit male targeting in the job title for that 5-year grouping. The left panel summarizes these relationships for female targeting. Regressions also control for log occupational wage in 1960 and share of hours worked by men in the occupation in 1960 (both measured in the Census), the residualized posted log salary residualized on pay frequency – dummied out for missing salary information and including an indicator for missing, whether the ad as an education, experience or skill requirement, a cubic in ad length, and source fixed effects. 95% confidence bars are shown and standard errors for standard errors clustered at the 4-digit occupation level.

Table A.2: Types of Explicit Gender Targeting

Male targeting		Female targeting	
Word	Freq (%)	Word	Freq (%)
elderly	.0922	elderly	.272
experienced	.365	experienced	.0267
friday	.0929	friday	.893
other	.904	other	.891
young	1.45	wife	.337
		young	.919
Total male:	.0268	Total female:	.0295

Notes: Freq gives the percentage of ads in which the type of explicit gender targeting appears during the 1940-1970 period. Each category summarizes whether an ad includes several different sets of strings. Young men includes "young boy," "young man," and "young men." Elderly men includes "elderly man," "elderly men," "mature man," and "mature men." Experienced men includes "experienced man" and "experienced men." Other includes the miscellaneous phrases "boys boy," "boy men," "boys men," "boys-men," and "male position." Female targeting is defined analogously but also includes "housewife," "housewive," and "housewives" for the wife category. Columns will not sum to totals since ads can match more than one category.

Table A.3: **Summary Statistics by Gender Preference: 1940-1970**

	Explicit Gender Targeting		
	Male	None	Female
Ad content:			
Number of words in the ad	106.643	52.274	98.752
Any education requirement	0.135	0.077	0.092
Any experience requirement	0.115	0.078	0.079
Any skill requirement	0.578	0.392	0.494
Preference for married	0.067	0.012	0.011
Preference for attractive	0.001	0.001	0.007
Regular schedule indicated	0.166	0.146	0.357
Irregular schedule indicated	0.018	0.006	0.008
Ad source:			
Boston Globe	0.009	0.035	0.008
New York Times	0.985	0.953	0.991
Wall Street Journal	0.007	0.012	0.000
Display Ad	0.016	0.037	0.004
Occupation-Level (1960 Census):			
Male Employment Share	0.717	0.667	0.516
Average Wage	13.174	13.102	11.823
Share of ads	0.027	0.944	0.030
# ads in occupation-year cell	43.799	1445.312	49.943
Total ads	141252	4968981	155574

Notes: Means of main variables for the 1940-1970 period. Occupation variables are created in the 1960 Census. Male employment share is the fraction of total hours worked in the occupation attributed to men. Average wage is total wage and salary income divided by annual hours worked; top-coded values are multiple by 1.5 and wages are CPI adjusted to 2000 dollars.

Table A.4: Adjectives Used to Identify Implicit Gender Targeting

Male adjectives		Female adjectives	
Word	Freq (%)	Word	Freq (%)
active	1.03	affected	.0145
adventurous	.00386	affectionate	.00187
aggressive	1.54	appreciative	.0039
ambitious	1.01	artistic	.0508
assertive	.0458	attractive	2.1
autocratic	.000832	cautious	.000756
coarse	.018	changeable	.00285
confident	.103	charming	.0792
cool	.119	cheerful	.109
courageous	.000821	confused	.00295
daring	.0151	considerate	.011
determined	.0411	dependent	.145
dominant	.00982	dreamy	.00233
enterprising	.017	effeminate	.0000108
forceful	.0217	emotional	.0306
handsome	.0312	feminine	.00447
independent	.377	fickle	.0012
industrious	.0822	forgiving	.000983
lazy	.00963	frivolous	.000497
logical	.0593	gentle	.0228
loud	.0565	imaginative	.109
masculine	.00233	impulsive	.000205
methodical	.00534	kind	.284
outspoken	.000681	meek	.0317
progressive	1.26	mild	.0309
rational	.0217	patient	.389
realistic	.0476	pleasant	3.32
robust	.00375	poised	.24
stable	.211	praising	.00204
stern	.164	sensitive	.0513
strong	2.87	sentimental	.00371
tough	.0386	shy	.0184
		sociable	.00336
		submissive	.0000324
		sympathetic	.00626
		talkative	.000465
		understanding	.244
		warm	.101
		weak	.0644
Total male:	.0847	Total female:	.0703

Notes: Freq gives the percentage of ads in which the word appears during the full 1940-2000 sample period. Words without an asterisk are drawn from the Williams-Best [1977] list (see their table 1). We exclude a handful of words that appear in less than 0.01% of ads.

Table A.5: **Implicit Gender Targeting and Job Skill**

Dep var:	Implicit Male Targeting (mean = 8.5)			Implicit Female targeting (mean = 7.0)		
	(1)	(2)	(3)	(4)	(5)	(6)
Occupational log wage	0.744			-3.235**		
	(0.682)			(1.063)		
Male Explicit Targeting*(≤ 1970)	6.373***	5.975***	5.412***	-5.064***	-4.262***	-3.689***
	(0.373)	(0.289)	(0.352)	(0.845)	(0.703)	(0.782)
Female Explicit Targeting*(≤ 1970)	-3.565***	-2.897***	-2.216***	11.308***	9.501***	7.402***
	(0.504)	(0.435)	(0.467)	(0.782)	(0.734)	(0.872)
Posted log salary	2.455***	1.887***	1.514***	-0.951***	-0.162	-0.183
	(0.236)	(0.213)	(0.216)	(0.172)	(0.182)	(0.203)
Missing salary	-1.148***	-0.721***	-0.413*	2.399***	2.045***	1.543***
	(0.169)	(0.181)	(0.167)	(0.191)	(0.188)	(0.142)
Education Requirement	1.192*	1.065**	0.865	-1.183***	-0.909***	-0.902***
	(0.505)	(0.375)	(0.443)	(0.245)	(0.122)	(0.113)
Experience Requirement	0.802***	0.765***	0.658***	-0.964***	-0.547**	-0.540**
	(0.211)	(0.153)	(0.149)	(0.259)	(0.165)	(0.161)
Any Skill Requirement	2.027***	1.560***	0.956***	-0.597**	-0.187	-0.032
	(0.298)	(0.180)	(0.184)	(0.195)	(0.127)	(0.118)
Observations	8,727,205	8,727,205	8,727,205	8,727,205	8,727,205	8,727,205
Adjusted R2	0.065	0.071	0.135	0.044	0.059	0.066
Basic controls	X	X	X	X	X	X
Occ FEs		X			X	
Job title FEs			X			X

Notes: Standard errors in parentheses clustered on 4-digit occupation. $^{*}p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. The sample includes all ads from 1940-2000. We summarize ad-level regressions where the outcome is 100 times an indicator for whether the ad implicitly targets men (columns 1-3) or women (columns 4-6). Implicit targeting is defined by the inclusion of the sets of adjectives listed in appendix table A.4. Basic controls are included in all specifications and consist of a cubic in ad length (# of words) and controls for year and source (newspaper)-by-ad type (display or classified) fixed effects. Occupational log wage is at the 4-digit SOC occupation level and is obtained from the 1960 Census. Explicit male and female demand are interacted with indicators for whether the year is on or before 1970 – the period of time when explicit targeting is most prevalent. Given year fixed effects included in the regressions, these variables can be interpreted as the change in conditional likelihood of having an implicit target when an ad is observed with an explicit target within the 1940-1970 period. Log(salary) has been residualized on pay frequency (hourly, weekly, monthly, or annually); we dummy out missing observations with a zero and include an indicator for missing salary. Education (experience) requirement equals 1 if the ad indicates any education (experience) is required for the position. The second column includes 4-digit occupation fixed effects, while the third includes job title fixed effects.