

**Female Surname Choice:
Historical, Cultural, and Branding Influences at Duke University**

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Abstract

Female surname choice at marriage depends on a range of historical, cultural, and branding factors. Two of the three datasets are administrative datasets from the Duke University Alumni Association (DAA), which include every female Duke alumnae from 1960-2000. The third dataset comes from a survey administered to Duke alumnae. We find that the fraction of “keepers,” women who retain their surname instead of taking their husband’s name, has increased since the 1970s, with a statistically significant peak in the undergraduate class of 1990. We also find evidence of branding: women who spend time developing their name through higher education or a more visible career are more likely to keep their surname upon marriage.*

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I. Marital Name Choice: Background

In the United States, it has been customary for a woman to take her husband's surname at marriage. However, casual observation and prior research both suggest that the fraction of women following this custom has changed over the past 50 years. Until the 1970s, almost all women assumed their husband's surname. In the 1970s and 1980s, the fraction of women "keeping" their maiden names rose sharply and then declined slightly in the 1990s (Goldin and Shim, 2004).

Our study extends the results from Claudia Goldin and Maria Shim's "Making a Name: Women's Surnames at Marriage and Beyond" (2004). The Goldin and Shim paper use data from three sources – The *New York Times*, Harvard alumni records, and Massachusetts Birth Records – to examine patterns of surname retention. Our study uses data from the Duke Alumni Association's (DAA) records to isolate similar patterns. Unlike the Goldin and Shim study, whose dataset consists only of 1980 and 1990 for the Harvard section, we obtained data from the classes of 1960, 1970, and 2000, thus we are able to identify longer-term trends.

Using administrative data from Duke University from the undergraduate and graduate classes of 1960, 1970, 1980, 1990, and 2000, we analyze the associated characteristics for college-educated keepers and how those patterns have changed over these five cohorts of graduates. Although college graduates retain their surnames with far greater frequency than non-college graduates, and are thus not representative of the United States as a whole, our results extend to college-educated "keepers" at institutions like Duke University. The following graphs are based on the data from the DAA:

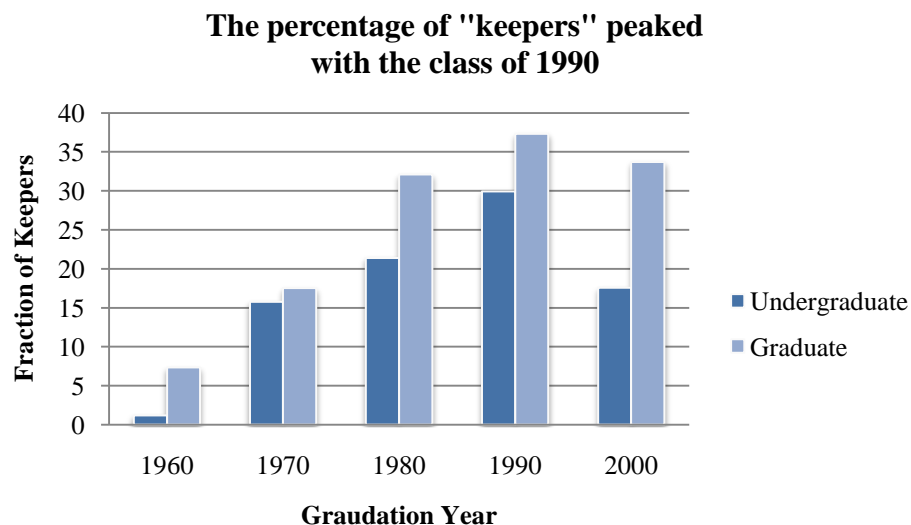


Figure 1a

Source: DAA Administrative Data

Using Duke Alumni administrative data, Figure 1a shows the fraction of keepers in the undergraduate and graduate classes of 1960, 1970, 1980, 1990, and 2000. The percentage of women keeping their names increased until 1990, and then declined in 2000. A higher fraction of women with graduate degrees kept their names than those with undergraduate degrees.

Section II of our paper provides a context for our results with a brief background on major social, economic, and legal changes since the 1970s. Section III contains a comprehensive literature review. Section IV discusses our theoretical framework and Section V contains a description of our administrative data from the Duke Alumni Association. Section VI includes our empirical specifications for graduates and undergraduates using the administrative data. Section VII attempts to tease out the difference between nurses and doctors. Section VIII includes a description of our survey data from March 2010, and Section IX presents regression results from the March 2010 survey data. Section X concludes our analysis for all datasets. This paper provides a historical analysis of female surname choice and identifies characteristics that are correlated with keepers or changers. We also uncover theoretical reasons why the fraction of women who are keepers has grown over time.

II. Social, Economic, and Legal Changes

Although women were never legally obligated to take their husbands' surnames, until the mid-1970s they were denied basic rights, such as driver's licenses or voter registration, if they elected to keep their maiden name (Johnson et al., 1995). In 1975, the Supreme Court of Tennessee in *Dunn vs. Palermo* overturned a law requiring women to register to vote using their husbands' surname. By the late 1970s, most of the legal obstacles to surname retention had been revoked, clearing the path for social change (Johnson et al., 1995).

Johnson et al. documents the increasing fraction of women who completed college and PhD programs. Not only are these women more educated and therefore more likely to link their surname with their identity, but they are also more inclined to marry at a later age. Furthermore, age at first marriage has increased dramatically since the 1970s among all college graduates: the average age at marriage for a female college graduate born in 1950 is 23 years; for a woman born in 1965, it rises to 26.5 years (Johnson et al., 1995). This trend is further compounded by the diffusion of the oral contraceptive in the early 1970s, which protects women from unwanted pregnancies and thus allows them to delay the social pressures of marriage.

For all these reasons, women have become increasingly inclined to retain their own surnames. Many women, especially those who have attended graduate school and already started a career, have developed their own identities by the time of their marriage. Both personal and professional identities, which are intrinsically linked with one's surname, become more deeply ingrained the later the woman chooses to marry. Retaining one's surname upon marriage is also seen as a way to publicly support equality for women, a stance which has lost significance since the 1980s and may help to explain the decrease in the growth of keepers in the 1990s found by Goldin and Shim. This decrease is especially notable when taken in conjunction with the

decrease in women's labor force participation rates in the 1990s, a trend Goldin attributes to the backlash from the feminist movement (Goldin, 2006). Taken together, these trends give a context for the results of our study and partially explain marital name choices across our sample.

III. Previous Literature: Correlations, Cultural Theories, and Branding

The current literature regarding female surname selection primarily includes an analysis of historical variables and personal correlates to surname retention. Name “signaling” and “branding” theories have been applied to distinctively cultural and commercial names, respectively, but they have not yet been applied to female surname retention. We detail three types of literature that relate to female surname retention: papers that identify correlates, cultural naming theories, and commercial branding theories.

a. *Papers that Identify Correlates*

In addition to Goldin and Shim's study, a number of other researchers investigate the question of marital naming choice. In 1995, David R. Johnson and Laurie K. Scheuble identify determinants of naming choice in a paper entitled “Women's Marital Naming in Two Generations: A National Study.” Johnson and Scheuble find that only 1.4% of the women in the main sample choose *not* to adopt their husband's surname upon marriage. Their sample, unlike Goldin and Shim's, consists of 929 women who were married by 1980 and still married in 1992. The decision whether or not to adopt her husband's surname is highly correlated with (a) region, (b) career orientation, and (c) educational attainment (Johnson et al., 1995). Since their sample was representative of married women in the United States, and our sample consists only of Duke University graduates, we expect the percentage of keepers in our sample to be significantly higher because keepers are often correlated with high educational attainment.

In 1996, Susan L. Kline, Laura Stafford, and Jill C. Miklosovic analyze whether a woman's commitment to her marriage is correlated with her decision to change her name. The study, "Women's Surnames: Decisions, Interpretations and Associations with Relational Qualities," finds that there is no significant correlation between relational characteristics and marital naming choice. Despite the conclusion that quality of marriage and name choice are not related, the researchers find that women who kept their names reported doing so in order to maintain personal or professional identities (Kline et al., 1996). For our purposes, the latter result is particularly significant—if the same is true in our sample, we should find a correlation between field of work and surname retention.

In "What's In a Name? Marital Name Choice Revisited," Michele Hoffnung analyzes two datasets, one from the *New York Times* wedding announcements, which are published bimonthly and typically features the weddings of the sons and daughters of elites as perceived by the newspaper. Her second dataset is from a longitudinal study of college-educated women. From the *New York Times* dataset, only 29% of women choose to keep their maiden name, whereas 46% do so in the longitudinal study. Hoffnung concludes that educational attainment is the most predictive factor in marital naming choice, although race, age at marriage, and higher career commitment are also highly correlated (Hoffnung, 2006). Since our dataset includes both undergraduate and graduate classes, we expect to see a higher percentage of keepers in the second group if these findings hold true.

b. Cultural Theory of Name Selection

Instead of searching for correlations with name choice, Roland Fryer and Steven Levitt, in "The Causes and Consequences of Distinctively Black Names," propose four potential cultural

theories for why someone would choose a certain name (2004). The four theories are the *Ignorance Model*, *Price Theory Model*, *Signaling Model*, and *Identity Model*.

The *Ignorance Model* states that Black parents are unaware that the choice of a distinctively Black name will hurt their children's opportunities in the labor market. The *Price Theory Model* claims that parents give their children names to maximize the child's expected utility. In this model, parents will choose "Whiter" names when their children are likely to interact more with Whites, and Black names when their children are expected to interact predominately with Blacks. In the *Signaling Model*, distinctively Black names serve as a signaling device to peers and neighbors of one's affinity to the Black community. If a parent gives his or her child a distinctively Black name, he or she is placing a higher value on social interactions through the ability to distinguish themselves from Whites than on the child's labor market prospects. The *Identity Model* is similar to the *Signaling Model*, but assumes that there is no cost to giving a child a Black name. Instead, a distinctively Black name defines the cultural identity of the child, but is assumed to be neutral in the labor market.

For our purposes, the *Price Theory Model* and the *Identity Model* are the most applicable to female surnames. Looking at the *Price Theory Model* from the perspective of female surnames, a woman's marital name choice can be viewed as an attempt to maximize her own expected utility. In this context, she will keep her name when the costs of changing outweigh the benefits, either in social interactions or in the labor market. Conversely, she will change her name when the benefits of changing outweigh the costs. For the *Identity Model*, we assume that there are no costs or benefits in the labor market to a marital name change, but instead the decision is simply a way of defining the woman's identity. In this sense, if a woman's name is tied to her sense of self, she will keep it upon marriage. If she does not feel a high enough

connection between her surname and her identity, she will accept her husband's name upon marriage. Practically, women are likely to use both the *Price Theory Model* and the *Identity Model* as they decide whether or not to keep their name.

c. *“Brand” Theory of Name Selection*

The “brand” theory of name selection originates with the marketing and industrial organization theory of brands as intangible assets. In “What’s in a Name? Reputation as a Tradeable Asset” (1999), Steven Tadelis outlines a model of names as valuable, tradeable assets. Positive past performance will cause a name to gain value; conversely, poor past performance will cause a name to lose value. Once the value of the name has fallen to a certain point, it will be in the firm’s best interest to discontinue the name and start over with a new brand. Tadelis also discusses the name change decisions inherent in every merger or acquisition. For instance, then AirTran Airways merged with ValuJet, Inc., ValuJet was struggling to regain market share following the crash of Flight 592. ValuJet’s brand, therefore, was less valuable than AirTran’s, and the new company became AirTran Holdings, Inc (Tadelis, 1999).

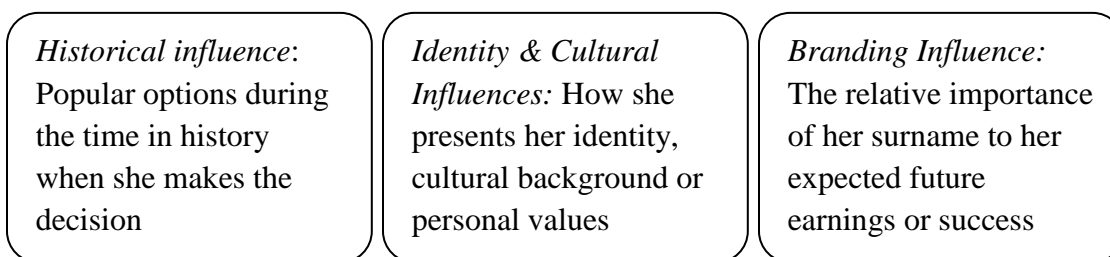
Although this theory has not been applied regularly to female surnames, if we view a woman’s surname as intrinsic to her reputation and, therefore, her career, a branding analysis makes sense. Additionally, we can view a marriage as a merger, with the surname decision taken as an effort to choose the more valuable brand. If a woman has already built her own personal reputation, her brand may be more valuable than her husband’s surname, and therefore, she will choose to keep her name. Conversely, if she marries early or has a negative reputation, her husband’s brand may be more valuable, and she will choose to take his name. Goldin and Shim (2004) find a similar result in their data that show evidence of branding: grooms with “patrimonial suffixes like Jr., Sr. or III were about 10 percentage points *less* likely to marry a

woman who retains her surname” (2004).[†] Section IV below explores the practical applications of female surname branding theory more thoroughly.

Almost all of the literature regarding female surname choice at marriage has a historical bent and does not offer many reasons for why certain variables may be correlated to this choice. Levitt and Fyer’s cultural analysis of name choice provides one insight into the cultural reasons for distinctively black names but does not extend this theory to female surnames. The branding theory from business literature lends some insights into the economic decisions behind name selection for corporations but not for people. This paper combines the historical, cultural, and branding decisions behind a woman’s name selection at marriage and presents possible reasons why this has changed over time.

IV. Theoretical Framework

The central question in this paper concerns the relative value of a name. Depending on how much a woman values her own surname relative to her partner’s surname, it will influence which name she selects. We isolate three influences:



The historical influence of a name has been well researched in previous female literature. Almost no one kept their surname until the 1970s, and then with the advancement of the feminist movement and the pill, more women became “keepers.” The identity and cultural influences are

[†] Goldin and Shim, pg 157.

similar to Fryer and Levitt's *Identity Model*. In this model, we expect to see that the religious, parental, regional, and peer expectations likely influence a woman's marital name choice.

The economic value of a name could also be interpreted as the importance of a "personal brand." This is analogous to Fryer and Levitt's *Price Theory Model*. Although this value is difficult to quantify, many factors could be used as a proxy, such as education level, field of work, or age at first marriage. A person with a higher level of education has likely published some of her work, and she may want to keep her identity as she continues to add to her academic field. A woman with a professional career, such as a lawyer or doctor, may also value her name or brand more than a woman without this background. Additionally, an older person has had more time to develop her identity, and may be more reluctant to relinquish this at marriage.

In our analysis, we assume that when the value of a name reaches a critical level, the woman becomes a "keeper" at marriage. In a sense, keepers and changers reflect their personal values in the choice they make regarding their names. In our study, however, these values are binary, whereas in reality there are ranges to how much someone values a name. Given the three influences (*historical*, *cultural*, and *brand*) we can evaluate the probability of a woman retaining her surname given that she is married:

$$\begin{aligned} & \Pr(\text{kept birth name} = 1 | \text{marital status} = 1) \\ & = a_1 1960 + a_2 1970 + a_3 1980 + a_4 1990 + a_5 2000 + x_i \beta + z_e \varphi + \gamma + \varepsilon \end{aligned}$$

Where x_i is a vector of self-perceived identity and cultural covariates (e.g. peer pressure, the relative strength of the feminist movement, personal religious values), z_e is a vector of economic or "branding" covariates (e.g. expected earnings, perception of name as "brand" for career), the years are dummy variables that capture the graduation date, β and φ are the corresponding vectors of identity/cultural and economic parameters, γ is the constant and ε is the error term.

V. Description of the DAA Dataset

The Duke Alumni Association pulled female graduate and undergraduate students of the classes of 1960, 1970, 1980, 1990, and 2000. Some of the graduate women also completed an undergraduate degree at Duke. If they obtained the undergraduate degree in a different year than the one requested (a non-decade year), we have not included them in the undergraduate sample. The reverse is also true: if a woman obtained an undergraduate degree during one of the five years listed above and then a graduate degree in a year not listed, the woman is in the undergraduate dataset but not the graduate dataset.[‡]

The Duke Alumni Association data-pull identified 4774 women. Much of this data was self-reported and there are some inconsistencies and missing data. For each sample, we collected variables on birth name, name at marriage, and spouse name in order to determine a given woman's marital naming choice. We are looking at correlations between this choice and variables such as degree type, preferred prefix, and field of work.

Variable	Description
PREFIX	(16 options) Such as: Miss, Mrs., Ms., Professor, Rep., Reverend, Dr., the Honorable, the Reverend
LASTNAME, FIRSTNAME	
BIRTH_LASTNAME	Only listed if different from current last name (preferred mail name)
BIRTH_DATE	
GENDER	All female
PREFERRED_SCHOOL	Lists the school the student graduated from (13 options, A, B, D, E, F, G, L, M, N, R, T, WC, X). If the student obtained multiple degrees from Duke, it lists the preferred school
MARITAL_STATUS_DAA	M if married, W if widowed, O if other, and no entry if single
JOB_FIELD_OF_WORK_DESC	68 options ⁱ
CLASS_1	Graduation year for first degree listed
MAJOR_1_DESC	134 options ⁱⁱ , major listed for first degree type
DEGREE_1_DESC	35 options ⁱⁱⁱ , degree type
CLASS_2, MAJOR_2_DESC, DEGREE_2_DESC	Information regarding the second degree at Duke University

[‡] *In other words:* we are only analyzing women who obtained degrees in 1960, 1970, 1980, 1990, or 2000. For instance, a woman with a graduate degree in the class of 1980 and an undergraduate degree in the class of 1976 is listed as a graduate student.

We also derived new variables from ones listed above:

Variable	Description
KEPT_NAME	Equal to 1 if the woman kept her name
MARITAL_STATUS	Our updated version of marital status (derived below)
GRAD_SCHOOL	8 options: Business Administration, Divinity, Environmental Management, Trinity Grad School, Law, Medicine, Nursing, Pratt Grad School
GRAD_AGGREGATE	3 options, aggregation described below
GRAD_CLASS	The associated class with the grad school listed above
MAJOR_AGGREGATE	5 options, aggregation described below
JOB_FIELD_AGGREGATE	5 options, aggregation described below, based on NAICS

The first variable of interest is *marital status*. If the woman has a prefix listed as “Mrs,” but was not listed as married, we listed her as married. If the woman changed her birth name, but was not listed as married, we listed her as married. Although there are some cases where a woman may change her name but is unmarried, we are assuming that those cases are rare. If a woman is listed as “widowed,” then we also listed her as married because she was once a married woman. If a woman’s marital status is listed as “other,” we removed her from the dataset (9 observations). We also removed all women listed as “no degree” from the dataset, because we are focusing only on college graduates (116 observations). We separated the dataset into two sections: women with undergraduate degrees and women with graduate degrees.

The *kept_name* variable includes all women, both married and unmarried, who have kept their surnames. It is equal to “1” if the woman has kept her name and “0” if she uses her husband’s name. Because we only want to study married women, we removed all unmarried women from the dataset. For graduate students, we originally had 1784 observations, and were left with 1040 after deleting unmarried women. For undergraduates, we were left with 1919 married women of the original 2849 women. We detail the summary statistics of our graduate

and undergraduate datasets below. In aggregate in our undergraduate dataset, 19% of women are keepers and 81% are “changers.”

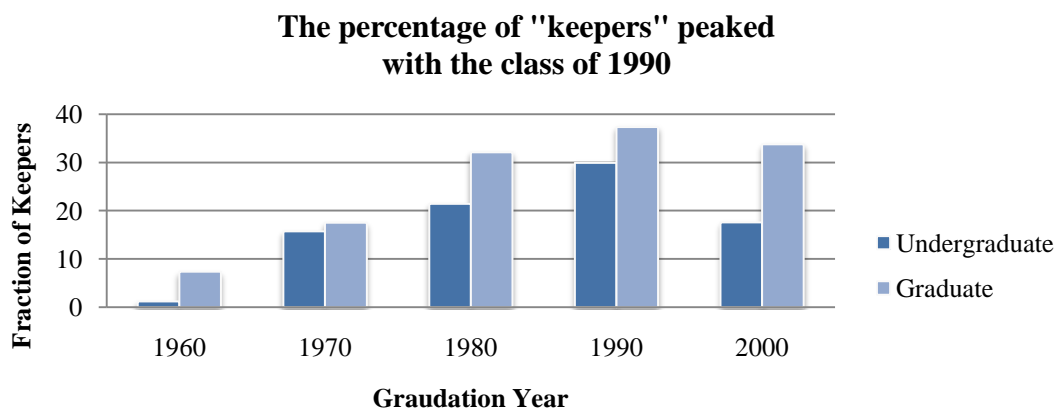


Figure 1b

Source: DAA Administrative Data

Summary Statistics 1. *The fraction of undergraduate keepers peaked with the class of 1990*

Undergraduate Class Year	Changers	Keepers	Total	Percentage of Keepers
1960	248	3	251	1.20%
1970	273	51	324	15.74%
1980	430	117	547	21.39%
1990	335	143	478	29.92%
2000	263	56	319	17.55%
Total	1,549	370	1,919	19.28%

Source: DAA Administrative Data

In our graduate dataset, 31% of women are keepers, and 69% are “changers.” This number is larger than the undergraduate fraction of keepers and it is in line with other findings. Generally the fraction of keepers increases with the amount of education obtained by the woman.

Summary Statistics 2. *The fraction of graduate keepers peaked with the class of 1990*

Graduate Class Year	Changers	Keepers	Total	Percentage of Keepers
1960	63	5	68	7.35%
1970	113	24	137	17.52%
1980	148	70	218	32.11%
1990	173	103	276	37.32%
2000	226	115	341	33.72%
Total	723	317	1,040	30.48%

Source: DAA Administrative Data

Undergraduates are listed with the following school variables: T (Trinity), E (Pratt), N (nursing) and WC (women's college). Next, we aggregated *undergraduate majors* into five classifications: engineering/quantitative studies/economics, natural sciences, nursing, social sciences, and unreported. The undergraduate major classifications are as follows:

Major Classification	DAA Undergraduate Majors
<i>Engineering, Quantitative Studies, and Economics</i>	Biochemical Engineering, Biomedical Engineering, Civil Engineering, Electrical Engineering, Mechanical Engineering, Economics, Business Administration, Accounting, Computer Science, Mathematics
<i>Natural Sciences</i>	Biology, Biological Anthropology and Anatomy, Botany, Chemistry, Earth and Ocean Sciences, Environmental Science and Policy, Geology, Physics, Zoology, Medical Technician
<i>Nursing</i>	Only available to undergraduates between the 1960s-1980s class years
<i>Social Sciences</i>	African/African American Studies, Afro-American Studies, Anthropology, Classical Studies, Comparative Literature, Comparative Area Studies, Cultural Anthropology, Education, English, History, Humanities, Literature, Management Studies, Medieval Studies, Philosophy, Physical Education, Political Science, Program Two, Psychology, Public Policy Studies, Religion, Science Education, Sociology, Women's Studies, Art and Art History, Art Design, Art History, Drama, Music, Visual Arts, Asian/African Languages and Literature, Classical Languages, French, German, Latin, Linguistics, Russian, Spanish

The most common undergraduate major is *social sciences* followed by *engineering, QS, and economics*. The full distribution is listed below. Seventy-two observations do not have a major listed (unreported).

Summary Statistics 3. *Social science is the most common undergraduate major*

Major Aggregate	Freq.	Percent
Engineering, QS, and Economics	287	15.0%
Natural Science	226	11.8%
Nursing	161	8.4%
Social Science	1,173	61.1%
Unreported	72	3.8%
Total	1,919	100

Source: DAA Administrative Data

Table 1 below indicates the predicated signs and magnitudes of the coefficients of each variable with respect to historical influence and branding influence.

Table 1. *Predicted Signs on Independent Variable*

Dependent Variable: kept surname

		Historical Influence	Branding Influence
<i>Graduation Year</i>	Class of 1960	---	
	Class of 1970	--	
	Class of 1980	-	
	Class of 1990	<i>Base variable</i>	
	Class of 2000	-	
<i>Major</i>	Engineering, QS, economics		++
	Natural science		+++
	Social science		++
	Nursing		<i>Base variable</i>
	Unreported major		+/-
<i>Career Field</i>	Educational services		---
	Healthcare and social assistance		<i>Base variable</i>
	Other field of work		--
	Professional, scientific, and tech services		-
	Unreported field		+/-

Key
 --- Largest negative coefficient
 +++ Largest positive coefficient

The graduates are from eight schools: *Business Administration, Divinity, Environmental Management, Trinity Grad School, Law, Medicine, Nursing, Pratt Grad School*. If women obtained dual degrees, they are classified under their preferred degree (18 observations). All women who obtained the *Allied Health Certificate* also obtained Trinity graduate degrees, and are listed as Trinity Grads. This is akin to the undergraduate separation by major because we distinguish the types of career the woman is likely to pursue given her graduate school.

In our dataset, we had 12 people who obtained a degree in two schools during the years of interest 1960, 1970, 1980, 1990, or 2000. For these people we listed their graduate school as

the school listed in “School 1.” Students can select which degree is considered their “first” degree or their “second” degree. We are assuming that the degree they list as “School 1” is the one they identify with more closely. We then aggregated the graduate schools with the following method:

Summary Statistics 4. The frequency distribution of schools

Graduate School	Duke Graduate School	Freq.	Percent
Professional	Duke Law, Duke Medicine	213	20.5%
Traditional	Duke Divinity, Duke Nursing	153	14.7%
Other	Fuqua, Nicholas, Trinity, Pratt	674	64.8%
Total		1,040	100

Source: DAA Administrative Data

To obtain the variable *field_work*, we aggregated the DAA Job Descriptions based on the NAICS code for both undergraduates and graduates. We used the search tool on the NAICS website to match the job descriptions with the code. We organized our data into eighteen categories:

- | | |
|--|--|
| <ol style="list-style-type: none"> 1. Accommodation and Food Services 2. Agriculture, Forestry, Fishing and Hunting 3. Arts, Entertainment, and Recreation 4. Construction 5. Educational Services 6. Finance and Insurance 7. Healthcare and Social Assistance 8. Information 9. Manufacturing 10. Mining | <ol style="list-style-type: none"> 11. Other Services (except Public Administration) 12. Professional, Scientific, and Technical Services 13. Public Administration 14. Real Estate and Rental and Leasing 15. Retail Trade 16. Transportation and Warehousing 17. Utilities 18. Wholesale Trade |
|--|--|

Only 58% of undergraduates and 55% of graduates listed a work field description, but the percentage reporting a field of work was relatively unchanged across the age cohorts, indicating

that *field_work* does not suffer from cohort-related selection bias. The fraction of women listing a field of work for each age cohort is shown below in Summary Statistics 5.

Summary Statistics 5. *Fraction of women reporting a field of work was consistent over age cohorts*

Class Year	Total # of Undergrads	% of Undergrads Listing Field of Work	Total # of Grads	% of Grads Listing Field of Work
1960	251	56.6%	68	66.2%
1970	324	67.6%	137	59.9%
1980	547	58.9%	218	63.8%
1990	478	59.6%	276	54.3%
2000	319	48.0%	341	47.2%
Total	1919	58.4%	1,040	55.5%

Source: DAA Administrative Data

Of the 58% of undergraduates reporting field of work, the three most popular fields of work were *educational services, professional, scientific and technical services, and healthcare and social assistance* – combined, comprising 65% of undergraduate careers. The three most popular fields of work for graduates were the same as for the undergraduate students combined comprising 71% of graduate careers. Since the three most popular fields of work made up such a large percentage of our dataset, we further aggregated field of work. The *field_work_aggregate* distribution for both undergraduates and graduates is listed below:

Summary Statistics 6. *Three most common fields of work make up majority of careers*

<i>Field of Work Aggregate</i>	Undergrad Frequency	Undergrad Percent	Graduate Frequency	Graduate Percent
Educational Services	243	12.7%	145	13.9%
Healthcare and Social Assistance	233	12.1%	160	15.4%
Other Field	393	20.5%	166	16.0%
Professional, Scientific, and Technical Services	252	13.1%	106	10.2%
Unreported	798	41.6%	463	44.5%
Total	1,919	100	1,040	100

Source: DAA Administrative Data

See *Appendix E* for full descriptions of the aggregation of original DAA fields.

VI. DAA Dataset Empirical Specification

We propose a binary model with “kept surname” as the dependent variable, where the dependent variable is “1” if she kept her surname and “0” if she did not. Marital status equals “1” if the woman is married and “0” if not. We regress the dependent variable, *kept_name*, on the independent variables using a standard OLS regression. The coefficients from this linear regression indicate the relative influence each variable has on surname retention. Our first analysis identifies the effect of the historical period on a woman’s surname choice:

$$\begin{aligned} & \Pr(\text{kept birt name} = 1 | \text{marital status} = 1) \\ & = a_1 1960 + a_2 1970 + a_3 1980 + a_4 1990 + a_5 2000 + \beta + \varepsilon \end{aligned} \quad (1)$$

Where 1960, 1970, 1980, 1990, and 2000 are dummy variables if a woman obtained her degree in those respective years, β is the constant, and ε is the error term.

Our second regression includes more than just the historical correlations. We also want to explore the cultural and “branding” influences of a woman’s surname choice:

$$\begin{aligned} & \Pr(\text{kept birt name} = 1 | \text{marital status} = 1) \\ & = a_1 1960 + a_2 1970 + a_3 1980 + a_4 1990 + a_5 2000 + x_i \beta + z_i \varphi + \gamma + \varepsilon \end{aligned} \quad (2)$$

Where x_i is a vector of identity and cultural covariates (e.g. high school state and prefix), z_i is a vector of economic covariates (e.g. degree type, job field of work and major as a proxy for expected earnings and branding importance), the years are dummy variables that capture the graduation date, β and φ are the corresponding vectors of identity/cultural and economic parameters, γ is the constant and ε is the error term. We run these regressions on the undergraduate and graduate datasets separately.

Like Golin and Shim, we use OLS regressions instead of logit, even though we have a binary dependent variable. The benefit of an OLS regression is that the coefficients can be relatively easily interpreted directly without additional calculations. In addition, the coefficients

between independent variables can be compared and the reader can grasp the relative influence of each independent variable on the dependent variable.

a. Undergraduate Analysis (DAA Administrative Data)

Displayed on Table 2 (pg. 23), Regression I uses 1990 as the base year in order to test the significance of a peak of keepers in the undergraduate class of 1990. Because we the 1990 variable in the regression, the constant can be interpreted as the value for 1990 and the coefficients of other variables are the deviations from the 1990 fraction of keepers. Because the coefficients on 2000 and 1980 are statistically significant, we can claim with a 99% confidence that a peak did occur in 1990. It is possible that some graduates in the class of 2000 have not yet married, and those who marry later are more likely to be keepers. However, the median age at marriage in a 2000-2003 Census Bureau study was 25 years, indicating that most women who will marry have already done so (Dye et al., 2005). Although the class of 2000 was not included in the Harvard analysis, this is also in line with the findings from Claudia Goldin and Maria Shim's study using Massachusetts's birth records.

We ran five additional regressions to test for historical, cultural, and branding influences in the undergraduate dataset, which are displayed in Table 2. Regression II analyzes the influence of major on surname retention. The variable *nursing* is dropped, and the coefficients on the other majors are interpreted as the relative increase of keepers with those majors compared to a nursing major. A natural science major is 15 percent more likely to be a keeper than a nursing major, with 99% statistical significance.

This makes intuitive sense. Women with natural science degrees likely pursue careers in medicine or the other sciences. For women in this field, our branding theory would suggest a high value for a professional name. Additionally, because medical school is such a long time

commitment, many women who attend medical school consequently marry at a later age. A later marriage and the need to build one's professional identity likely explain the high correlation between these fields and choosing to keep one's name. Social science majors and engineering/QS/economics majors are more likely to be keepers, at 13 percent and 10 percent respectively. Type of major is jointly significant at the 5% level, with an F-stat of 3.35.

This also supports the branding theory, since women with these technical and artistic degrees tend to develop their brand before marriage. Some may obtain additional engineering education, thus marrying at a later age with a more developed identity. Others may have a career in the arts and entertainment and therefore need to retain a strong, consistent name. A nurse, on the other hand, does not necessarily need her brand, her birth name, to be successful in a nursing career.

Regression III analyzes the influence of the field of work on the fraction of keepers. *Healthcare* is omitted and is the base variable. Women in *educational services, other fields of work, professional, scientific, and technical services*, and *non-reported fields* are statistically less likely to be keepers (12 percent, 11 percent, 9 percent, 15 percent respectively) than women in healthcare. Field of work is jointly significant at the 1% level, with an F-stat of 8.02. This is also in line with the branding theory because Duke undergraduates entering into the healthcare industry are more likely to be doctors, who strongly develop their brand, their name, and are unlikely to take their husbands' names upon marriage. This result may seem like a contradiction, especially considering that Regression II found that nurses, who are also in the healthcare industry, are more likely to be changers. This paradox is discussed in Section VII.

Regression IV combines the historical and major variables, and finds that the peak is still statistically significant. Nurses remain the most likely to be changers. Regression V combines the historical and field of work variables. The peak remains and healthcare remains the most

likely profession of keepers, both highly statistically significant results. Regression VI combines historical, major, and field of work variables and the variables become even more statistically significant, perhaps indicating that including all of the variables has diminished any omitted variable bias in the previous regressions. Field of work and major are also jointly significant at the 1% level, with an F-stat of 5.04. Evidence of branding and strong historical influences are both evident in the undergraduate dataset.

Table 2. Undergraduate Surname Retention

Dependent variable: kept surname at marriage

	I	II	III	IV	V	VI
Class of 1960	-0.287*** (0.030)			-0.275*** (0.031)	-0.282*** (0.030)	-0.263*** (0.031)
Class of 1970	-0.142*** (0.028)			-0.132*** (0.029)	-0.144*** (0.028)	-0.128*** (0.028)
Class of 1980	-0.085*** (0.024)			-0.077*** (0.025)	-0.088*** (0.024)	-0.073*** (0.024)
Class of 1990	<i>omitted</i>			<i>omitted</i>	<i>omitted</i>	<i>omitted</i>
Class of 2000	-0.124*** (0.028)			-0.125*** (0.028)	-0.114*** (0.028)	-0.113*** (0.028)
Engineering, QS, and economics		0.100*** (0.039)		0.042 (0.039)		0.089** (0.041)
Natural Science		0.149*** (0.041)		0.095** (0.041)		0.113*** (0.041)
Social Science		0.126*** (0.033)		0.079** (0.033)		0.122*** (0.035)
Nursing		<i>omitted</i>		<i>omitted</i>		<i>omitted</i>
Unreported major		0.058 (0.056)		0.059 (0.055)		0.098* (0.056)
Educational services			-0.123*** (0.036)		-0.102*** (0.035)	-0.133*** (0.037)
Healthcare and social assistance			<i>omitted</i>		<i>omitted</i>	<i>omitted</i>
Other field of work			-0.110*** (0.032)		-0.106*** (0.032)	-0.133*** (0.034)
Professional, scientific, and technical services			-0.062* (0.036)		-0.071** (0.035)	-0.096*** (0.036)
Unreported field			-0.148*** (0.029)		-0.142*** (0.029)	-0.164*** (0.030)
Constant	0.299*** (0.018)	0.081*** (0.031)	0.300*** (0.026)	0.225*** (0.037)	0.401*** (0.030)	0.308*** (0.040)
Observations	1919	1919	1919	1919	1919	1919
R-squared	0.048	0.009	0.015	0.052	0.061	0.068
Adj. R-squared	0.046	0.007	0.013	0.048	0.057	0.062

Standard errors in parentheses
 *** p<0.01, ** p<0.05, * p<0.1

Source: DAA Administrative Data

b. Graduate Analysis (*DAA Administrative Data*)

For the historical analysis, we first use 1990 as the base year in this regression because we want to test the significance of a peak of keepers in 1990. We omit the 1990 variable in the regression, which means that the constant can be interpreted as the value for 1990 and the other coefficients are the deviations from the 1990 fraction of keepers. Because the coefficients on 2000 and 1980 are *not* statistically significant even at the 10% level, we *cannot* claim that a peak occurred in 1990. Although the fraction of keepers was the highest for graduates in 1990 (Figure 1b, pg. 15), this peak is not statistically significant. The following is our first Stata output for graduate students:

Table 3. *The peak of graduate student keepers in the class of 1990 is not statistically significant*

VARIABLES	OLS Model
Grad Class of 1960	-0.30*** (0.061)
Grad Class of 1970	-0.20*** (0.047)
Grad Class of 1980	-0.05 (0.041)
Grad Class of 1990	<i>omitted</i>
Grad Class of 2000	-0.04 (0.037)
Constant	0.37*** (0.027)
Observations	1040
R-squared	0.03
Adj. R-squared	0.03

Standard errors in parentheses
 *** p<0.01, ** p<0.05, * p<0.1

Source: DAA Administrative Data

Even if the fraction of graduate student keepers did not peak, we want to see if the fraction has at least increased since the 1970s. We can determine with 99% statistical significance that there has been an increase in the fraction of keepers since the 1970s. The 1970s variable was dropped because it is the base year. The following is the output for graduate students:

Table 4. *There has been an increase of keepers since the graduate class of 1970*

VARIABLES	OLS Model
Grad Class of 1960	-0.10 (0.067)
Grad Class of 1970	<i>omitted</i>
Grad Class of 1980	0.15*** (0.049)
Grad Class of 1990	0.20*** (0.047)
Grad Class of 2000	0.16*** (0.046)
Constant	0.18*** (0.039)
Observations	1040
R-squared	0.03
Adj. R-squared	0.03

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Source: DAA Administrative Data

The above chart is Regression I of the graduate dataset, shown in Table 5 (pg. 27). The 1970s variable will be regarded as the base year for the remainder of the analysis and it will be represented by the constant. The coefficients on the other variables can be interpreted as the deviation of keepers from the 1970s. We also find that graduate students across the sample were more likely to keep their names than undergraduates, a result which further supports our theory that the value of a name increases over time.

Regression II analyzes the influence of graduate school on marital name choice. Branding theory would suggest that graduates from the *professional* schools (law and medicine) would be more likely to keep their names than women from the *traditional* schools (divinity and nursing). In both law and medicine, not only is the necessary education a long time commitment, but the value of one's brand is also important to a successful career and more frequent promotions. Graduates from the nursing and divinity school, on the other hand, likely do not need to develop their brand as much to be "successful" in their respective careers. Indeed, graduates of both the traditional schools and the other graduate schools are statistically significantly less likely to keep

their names than graduates of the professional schools (12 percent and 14 percent, respectively). With an F-stat of 5.05, type of graduate school is significant at the 5% level.

Regression III analyzes the effect of field of work on surname retention. Unfortunately, we did not find any statistically significant results. Regression IV combines the historical and graduate school variables, and finds that the increase in keepers is still statistically significant. Graduates of the professional schools remain the most likely to keep their names. With an F-stat of 1.84, we cannot conclude that field of work has a significant effect on surname retention.

Regression V combines the historical and field of work variables, again maintaining the statistical significance of the increase in keepers. Women in educational services, however, are now 11 percent more likely to keep their names with 5% significance. This again supports the branding theory, as teachers and professors are likely to develop a personal brand and be more inclined to keep their names. Regression VI combines historical, school, and field of work, creating an even higher level of statistical significance for the above results, suggesting that any omitted variable bias in the previous regressions has been diminished. Additionally, field of work and graduate school are jointly significant at the 5%, with an F-stat of 2.52. The graduate dataset again reflects both historical influence and the importance of branding.

In comparison, our undergraduate dataset shows a statistically significant peak of keepers in 1990, while our graduate dataset does not. Both, however, show the an increase in keepers since 1970. The undergraduate results suggest that students majoring in engineering/QS/economics, natural sciences, or social sciences are all more likely to keep their names than nursing majors. This is paralleled in the graduate dataset: graduates from the *traditional* or *other* schools are less likely to keep their names than graduates from the *professional* schools. The undergraduate significance of *field of work*, however, is not found within the graduate dataset.

Table 5. Graduate Surname Retention

Dependent variable: kept surname at marriage

	I	II	III	IV	V	VI
Grad Class of 1960	-0.102 (0.067)			-0.102 (0.067)	-0.109 (0.067)	-0.110 (0.067)
Grad Class of 1970	<i>omitted</i>			<i>omitted</i>	<i>omitted</i>	<i>omitted</i>
Grad Class of 1980	0.146*** (0.049)			0.127** (0.050)	0.162*** (0.050)	0.146*** (0.050)
Grad Class of 1990	0.198*** (0.047)			0.175*** (0.048)	0.216*** (0.048)	0.195*** (0.049)
Grad Class of 2000	0.162*** (0.046)			0.143*** (0.047)	0.187*** (0.047)	0.171*** (0.048)
Professional		<i>omitted</i>		<i>omitted</i>		<i>omitted</i>
Traditional		-0.119** (0.048)		-0.095** (0.048)		-0.110** (0.050)
Other school		-0.140*** (0.036)		-0.100*** (0.036)		-0.120*** (0.038)
Educational services			0.023 (0.053)		0.107** (0.054)	0.140** (0.055)
Healthcare and social assistance			<i>omitted</i>		<i>omitted</i>	<i>omitted</i>
Other career field			0.001 (0.051)		0.018 (0.050)	0.048 (0.051)
Professional, scientific, and technical services			0.046 (0.058)		0.031 (0.057)	0.020 (0.057)
Unreported field			0.006 (0.042)		0.015 (0.042)	0.038 (0.043)
Constant	0.175*** (0.039)	0.413*** (0.031)	0.294*** (0.036)	0.270*** (0.052)	0.132** (0.054)	0.221*** (0.060)
Observations	1040	1040	1040	1040	1040	1040
R-squared	0.035	0.015	0.001	0.042	0.039	0.049
Adj. R-squared	0.031	0.013	-0.003	0.036	0.032	0.039

Standard errors in parentheses
 *** p<0.01, ** p<0.05, * p<0.1

Source: DAA Administrative Data

VII. **Separating Doctors from Nurses** (*DAA Administrative Data*)

The undergraduate results from the previous section state that a nurse is more likely to be a changer, but someone in the healthcare profession is more likely to be a keeper. At face value this seems like a contradiction. However, looking deeper into Duke's population, we can see why this would happen. The undergraduate nursing major was only available to students in the 1960s-1980s. After Duke stopped offering this major, women who were interested in healthcare attended Trinity or Pratt for undergrad. We hypothesize that Duke undergraduates from Trinity or Pratt are more likely to be doctors, who traditionally require a stronger "brand" than nurses as well as a higher level of education. These women are more likely to be keepers.

We devised two methods to identify the characteristics of a woman in the healthcare field. In our first method, we create an interaction term (Nurse*Healthcare), which includes all women who list healthcare as their field of work and obtained an undergraduate nursing degree. Then we eliminate all of the above women from the original *healthcare and social assistance* field of work variable, creating (1-Nurse*Healthcare).

Regression I analyzes the effect of field of work on surname retention with (1-N*Healthcare) as the base variable. All coefficients are thus interpreted as deviations from the probability that a woman without a nursing degree in healthcare is a keeper. As expected, we find that women in healthcare who did obtain undergraduate nursing degrees are 27 percent less likely to keep their names, highly statistically significant at the 1% level. These women, unlike their counterparts without nursing degrees, likely did not attend medical school or develop a career brand before marriage. This, her decreased likelihood to keep their name again supports the branding theory. Women in *professional, scientific, and technical services, educational services, and other fields of work* are all statistically significantly less likely to keep their names at the 1% level. These results suggest that branding does indeed have a strong influence, and

supports the hypothesis that women with undergraduate nursing degrees are more likely to be changers. Regression II combines the historical variables with the revised field of work variables. Since the variables remain highly significant with historical controls, the effect of a nursing degree is not simply explicable by age cohort.

Table 6. Method I: Separating doctors from nurses

Dependent variable: kept surname at marriage

	I	II
Class of 1960		-0.270*** (0.030)
Class of 1970		-0.132*** (0.028)
Class of 1980		-0.077*** (0.024)
Class of 1990		<i>omitted</i>
Class of 2000		-0.112*** (0.028)
Educational services	-0.200*** (0.039)	-0.164*** (0.039)
Healthcare and social assistance, <i>nursing</i> (Nurse*Healthcare)	-0.271*** (0.057)	-0.216*** (0.056)
Healthcare and social assistance, <i>not nursing</i> (1-Nurse*Healthcare)	<i>omitted</i>	<i>omitted</i>
Other field of work	-0.186*** (0.036)	-0.167*** (0.035)
Professional, scientific, and technical services	-0.139*** (0.039)	-0.131*** (0.038)
Unreported field of work	-0.224*** (0.033)	-0.203*** (0.033)
Constant	0.377*** (0.030)	0.455*** (0.033)
Observations	1919	1919
R-squared	0.027	0.068
Adj. R-squared	0.024	0.064

Standard errors in parentheses
 *** p<0.01, ** p<0.05, * p<0.1

Source: DAA Administrative Data

Our second method to distinguish MDs and nurses is to separate women who use the prefix “Dr.” and are in the healthcare profession from those who do not use the ‘Dr.’ prefix. To do so, we create the interaction term (Dr*Healthcare), which includes all women who use the prefix “Dr.” and are also in the healthcare profession. Second, we eliminate the above women from the healthcare and social assistance field of work, creating (1-Dr*Healthcare). This improves on the first method, because we now separate all women who are medical doctors from those who are involved with healthcare but did not necessarily obtain an MD.

Regression I analyzes the influence of the revised field of work variables on marital name choice. (Dr*Healthcare) is used as the base variable, indicating that all other coefficients should be interpreted as deviations from the probability that a woman with an MD decides to keep her name. All of our results were statistically significant at the 1% level, including the constant.

Women who (a) did not report their field of work, (b) were listed as *other field of work*, (c) were in educational services, or (d) were in healthcare but did not use the prefix “Dr.” were all 25-30 percent less likely to keep their names (30 percent, 26 percent, 27 percent, and 25 percent, respectively). Women in professional, scientific, and technical services were only 21 percent less likely to keep their names. This suggests that branding is indeed an important factor in a woman’s marital name choice. Regression II combines the field of work variables with the historical variables. All coefficients remain significant at the 1% level with the historical controls.

Table 7. Method 2: Separating doctors from nurses

Dependent variable: kept surname at marriage

	I	II
Class of 1960		-0.273*** (0.030)
Class of 1970		-0.138*** (0.028)
Class of 1980		-0.085*** (0.024)
Class of 1990		<i>omitted</i>
Class of 2000		-0.111*** (0.028)
Educational services	-0.274*** (0.048)	-0.230*** (0.047)
Healthcare and social assistance, Dr. <i>(Dr*Healthcare)</i>	<i>omitted</i>	<i>omitted</i>
Healthcare and social assistance, not Dr. <i>(1-Dr*Healthcare)</i>	-0.246*** (0.052)	-0.208*** (0.051)
Other field of work	-0.260*** (0.045)	-0.233*** (0.045)
Professional, scientific, and technical services	-0.212*** (0.048)	-0.198*** (0.047)
Unreported field of work	-0.298*** (0.043)	-0.269*** (0.042)
Constant	0.451*** (0.041)	0.525*** (0.042)
Observations	1919	1919
R-squared	0.027	0.069
Adj. R-squared	0.024	0.065

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Source: DAA Administrative Data

Both methods lead to the conclusion that women with MDs are much more likely to keep their names than women with nursing degrees. Additionally, this finding supports branding theory, which suggests that women higher educational attainment and stronger professional identities value their names more.

VIII. Survey Data

Although our theories include many identity variables, such as religion and religiosity, the DAA does not track this information. In order to supplement our administrative dataset, we emailed an 18-question survey to all married women in our DAA administrative undergraduate dataset. Since some of these women either do not have email addresses or have requested to be removed from the DAA listserv, the survey was emailed to 1,361 of the 1,919 undergraduate women, of which 384 responded (28.2%). We subsequently removed 8 women who were not in our original dataset, leaving us with 376 observations.⁴

Variable	Description
HIGHEST_DEGREE	6 options: Bachelors, MBA, Other Master's, Law, M.D. or other medical degree, PhD or higher
YEAR_DEGREE	Corresponds with above variable
RELIGION	7 options: none, Catholic, Fundamentalist/Evangelical Protestant, Other Protestant, Judaism, Unitarian, and Other Religion
RELIGIOSITY	Represents how often a woman attends religious services; 5 options: never, a few times a year, 1-3 times a month, once a week, more than once a week
YEAR_MARRIED	
CAREER_FIELD	Aggregated as Field_Work_Aggregate in the administrative undergraduate dataset with the addition of Legal Services and Finance/Insurance
KEPT_NAME	Equal to 1 if the woman kept her surname
CHANGE_MARRIAGE	If changed surname at marriage
CHANGE_CHILD	If changed surname upon birth of a child
CHANGE_OTHER	If changed surname at different point in time
DIVORCED	Dummy variable, 1 if divorced, 0 if never divorced
YEAR_DIVORCED	
SPOUSE_CAREER	Aggregated as CAREER_FIELD above
SPOUSE_DEGREE	7 options: High School or equivalent, Bachelors, MBA, Other Master's, Law, M.D. or other medical degree, PhD or higher
PEERS_KEPT	Represents the percentage of peers the woman believes kept their name upon marriage, 5 options: 0-10%, 10-20%, 20-50%, 50-75%, 75-100%
MOTHER_KEPT	Equal to 1 if the woman's mother kept her name
PERCEPTION_KEPT	5 options: personal identification, career reasons, feminist beliefs, cultural reasons, social perception, name sounded better
PERCEPTION_CHANGED	6 options: career reasons, tradition, social perception, religious reasons, too much trouble to keep, family pressures, husband's name sounded better, family unity/children

⁴ We received an email from one woman saying she had forwarded our survey on to her friends, and we suspect that this is the explanation for these 8 women who should not have received the survey

We also derived the following variables based on the survey variables above:

Variable	Description
AGE_AT_MARRIAGE	Equal to Year Married – Birth Year
YEARS_MARRIED	Equal to Year Divorced – Year Married

We detail the summary statistics from our survey dataset below. Summary Statistics 7 below indicates the percentage of women from each class year in our original undergraduate dataset who responded to the survey. The highest response rate came from women in the class of 2000, and the lowest from women in the class of 1960, which is unsurprising given the technological capabilities of different generations. However, this means that the survey data over-represents women who graduated more recently.

Summary Statistics 7. More women who graduated recently responded

Undergraduate Class Year	# of Respondents	Total	% Responded
1960	39	251	15.5%
1970	62	324	19.1%
1980	93	547	17.0%
1990	101	478	21.1%
2000	81	319	25.4%
Total	376	1919	19.6%

Source: March 2010 Survey Data

In aggregate, 19.2% of women are keepers while 80.9% are changers, which is in line with the results from our undergraduate dataset. Summary Statistics 8 below reflects the percentage of keepers across the five age cohorts, which appears to peak in 1980. Since our survey suffers from selection bias, however, it is likely that this peak is due to a higher response rate of keepers from the class of 1980, and is not representative across a broader sample.

Summary Statistics 8. *The highest fraction of keepers is in the class of 1980*

Undergraduate Class Year	Changers	Keepers	Total	Percentage of Keepers
1960	33	6	39	15.38%
1970	51	11	62	17.74%
1980	73	20	93	21.51%
1990	80	21	101	20.79%
2000	67	14	81	17.28%
<i>Total</i>	<i>304</i>	<i>72</i>	<i>376</i>	<i>19.15%</i>

Source: March 2010 Survey Data

The undergraduate data from the survey varies less year-to-year than the administrative data

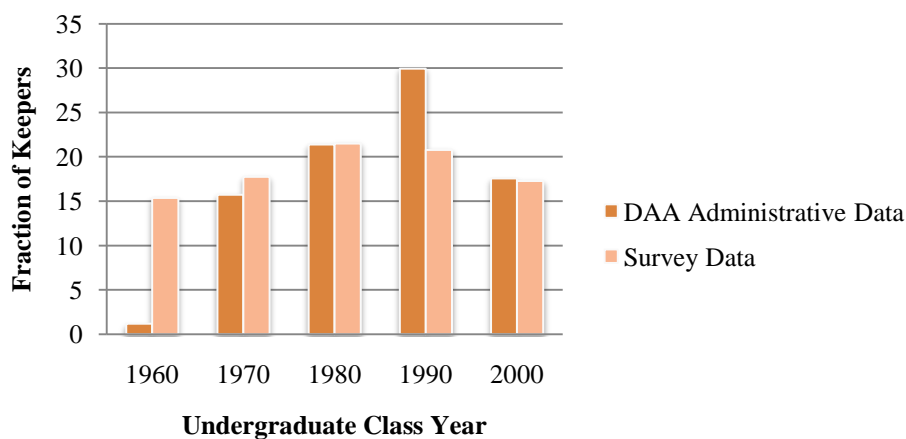


Figure 2

Source: March 2010 Survey Data and DAA Administrative Data

Although it looks like the survey data peaks in 1980, this is deceiving. The fraction of keepers in the survey data compares the total keepers to the *total respondents*, which included only married women. In the administrative data, it compares the total keepers to the *total married women* in each graduating class. As shown in Figure 2, in 1960, only 39 women responded to the survey, and 6 identified as “keepers.” This made the fraction for the survey data 15.38% keepers in 1960, which is higher than the result for the administrative data (1.2%). This could be because women who are keepers are more inclined to fill out a survey about name choice. Because the survey was sent emailed, the data are biased, because the technologically savvy and younger generations responded at a higher rate than the average population.

Summary Statistics 9 below shows summary statistics for both the undergraduate administrative dataset and the survey dataset. As mentioned above, the survey data include more women in the classes of 1990 and 2000 than the administrative data. Both the survey data and the administrative data have comparable distributions of majors. Fewer women in the survey dataset listed *educational services* as their field of work. The decrease in *other field* is likely explained by the additions of Finance/Insurance and Legal Services in the survey dataset. Nevertheless, in all, the administrative dataset and survey dataset have similar characteristics.

Summary Statistics 9. *Comparison of Administrative and Survey Data*

		Administrative Data		Survey Data	
		<i>Frequency</i>	<i>Percent</i>	<i>Frequency</i>	<i>Percent</i>
Class	Class of 1960	251	13.1%	39	10.4%
	Class of 1970	324	16.9%	62	16.5%
	Class of 1980	547	28.5%	93	24.7%
	Class of 1990	478	24.9%	101	26.9%
	Class of 2000	319	16.6%	81	21.5%
Major	Engineering, QS, and Economics	287	15.0%	59	15.7%
	Natural Science	226	11.8%	50	13.3%
	Nursing	161	8.4%	27	7.2%
	Social Science	1173	61.1%	232	61.7%
	Unreported	72	3.8%	8	2.1%
Field of Work	Educational Services	243	21.7%	60	16.0%
	Healthcare and Social Assistance	233	20.8%	77	20.5%
	Finance/Insurance	<i>not listed</i>	<i>not listed</i>	31	8.2%
	Professional, Scientific, and Tech Services	252	22.5%	87	23.1%
	Legal Services	<i>not listed</i>	<i>not listed</i>	31	8.2%
	Other Field	393	35.1%	90	23.9%

Survey respondents listed their highest degree earned from six choices: *Bachelor's, MBA, Other Master's, Law, M.D. or other medical degree, and PhD or higher*. Other master's degree (non-MBAs or law degrees) was the most common at 31.91%, but Bachelor's Degree was a close second at 29.79%. Just over 70% of respondents obtained some post-graduate degree. The full distribution for *highest_degree* is listed below:

Summary Statistics 10. *61.7% of women highest degree either a Bachelor's or Other Master's Degree*

Highest Degree Earned	Freq.	Percent
Bachelor's Degree	112	29.8%
MBA	39	10.4%
Other Master's Degree	120	31.9%
Law Degree	52	13.8%
M.D. or other medical degree	27	7.2%
PhD or higher	26	6.9%
Total	376	100

Source: March 2010 Survey Data

Respondents were also asked to list their religion, with the options of: *none, Catholic, Fundamentalist/Evangelical Protestant, Other Protestant, Jewish, Unitarian, and Other Religion*. Other Protestant was by far the most frequent at 48.67%, but it should be noted that this distribution, listed below, is not representative of the nation as a whole:

Summary Statistics 11. *Almost half of women listed*

"Other Protestant" as religion

Religion	Freq.	Percent
Catholic	61	16.2%
Fundamentalist/Evangelical Protestant	9	2.4%
Other Protestant	183	48.7%
Jewish	43	11.4%
Unitarian	8	2.1%
None/Atheist	58	15.4%
Other Religion	14	3.7%
Total	376	100

Source: March 2010 Survey Data

Next, women were asked to give a measure of their religiosity, which represents how often a woman attends religious services. 37.77% of respondents stated that they attend services only a few times a year, but a substantial 20.74% stated that they attend once a week. The full distribution is listed below:

Summary Statistics 12. *Almost 40% of women attended religious services a few times a year*

Religiosity	Freq.	Percent
Never	67	17.8%
A few times a year	142	37.8%
1-3 times a month	74	19.7%
Once a week	78	20.7%
More than once a week	15	4.0%
Total	376	100

Source: March 2010 Survey Data

Respondents also listed their field of work at the time of their first marriage. The choices listed on the survey are the same as the variables in the undergraduate dataset, with the addition of *finance/insurance*. Women also had the option to specify a non-listed field of work. The addition of *legal services* was motivated by the fact that 31 women listed some form of a legal profession as their career field. The full distribution is listed below:

Summary Statistics 13. *The most common fields of work make up 60% of undergraduate careers*

Career Field	Freq.	Percent
Educational Services	60	16.0%
Healthcare and Social Assistance	77	20.5%
Finance/Insurance	31	8.2%
Professional, Scientific, and Tech Services	87	23.1%
Legal Services	31	8.2%
Other Field	90	23.9%
Total	376	100

Source: March 2010 Survey Data

In addition to personal information, respondents listed both *highest_degree* and *career_field* for their husbands. For *highest_degree*, the classifications remain as above with the addition of *high school or equivalent*. Since we are only looking at women who graduated from Duke University, they must have obtained at least a Bachelor's degree, but the same is not true for their husbands. Additionally, one woman chose not to respond regarding her husband,

reducing our sample to 375 and necessitating the addition of an *unreported* variable. The full distribution of husband's highest degree earned is below:

Summary Statistics 14. *28% of husbands earned a Bachelor's as their highest degree*

Husband Highest Degree Earned	Freq.	Percent
High School or equivalent	15	4.0%
Bachelor's Degree	104	27.7%
MBA	59	15.7%
Other Master's Degree	60	16.0%
Law Degree	60	16.0%
M.D. or other medical degree	33	8.8%
PhD or higher	44	11.7%
Unreported	1	0.3%
Total	376	100

Source: March 2010 Survey Data

For husband's career field, we also added an *unreported* variable, which includes 8 observations. The full distribution is listed below:

Summary Statistics 15. *26% of husbands work in professional, scientific, and technical services*

Husband Career Field	Freq.	Percent
Educational Services	29	7.7%
Healthcare and Social Assistance	35	9.3%
Finance/Insurance	62	16.5%
Professional, Scientific, and Tech Services	96	25.5%
Legal Services	23	6.1%
Other Field	123	32.7%
Unreported	8	2.1%
Total	376	100

Source: March 2010 Survey Data

We used the variables from the survey to calculate a new variable, *age_at_marriage*, to determine whether there is indeed a correlation between a later marriage and surname retention. Indeed, as seen below in Figure 3, keepers marry approximately 2 years later than changers.

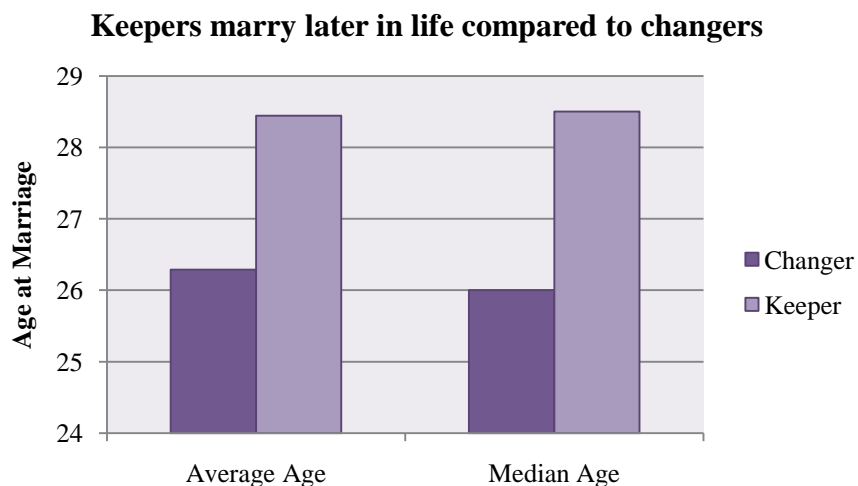


Figure 3

Source: March 2010 Survey Data

The final questions on the survey offered women the opportunity to choose the top three reasons for the marital name choice. As seen in Figure 4, personal identification was the most prevalent reason for keeping one's name, closely followed by career reasons and feminist beliefs. Cultural reasons and social perception were not often cited as determining factors.

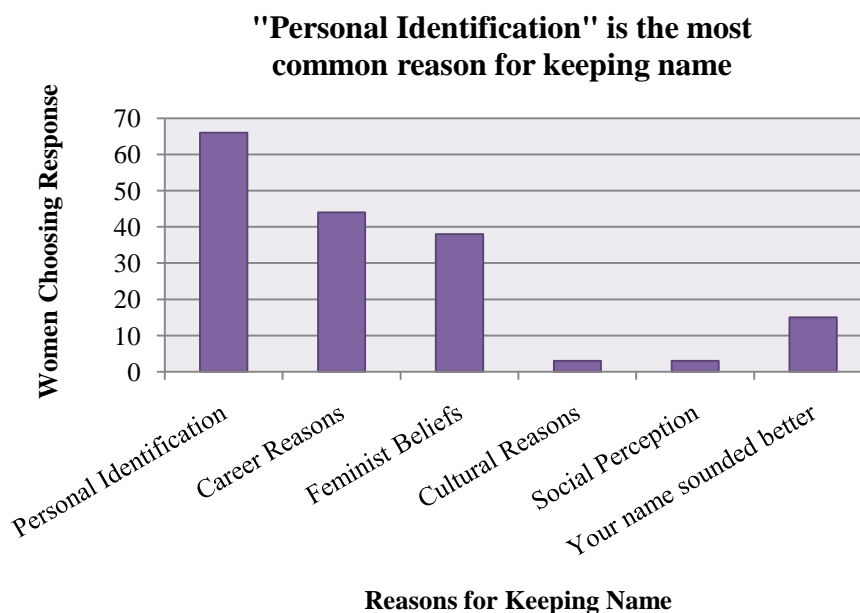


Figure 4

Source: March 2010 Survey Data

Figure 5 reflects the corresponding information for women who changed their name. 235 of 204 changers selected tradition as one of their top three reasons for changing their name, making it by far the most prevalent response. A desire for family unity, and to share the same name as one's children, was the second most frequent reason for changing one's name.

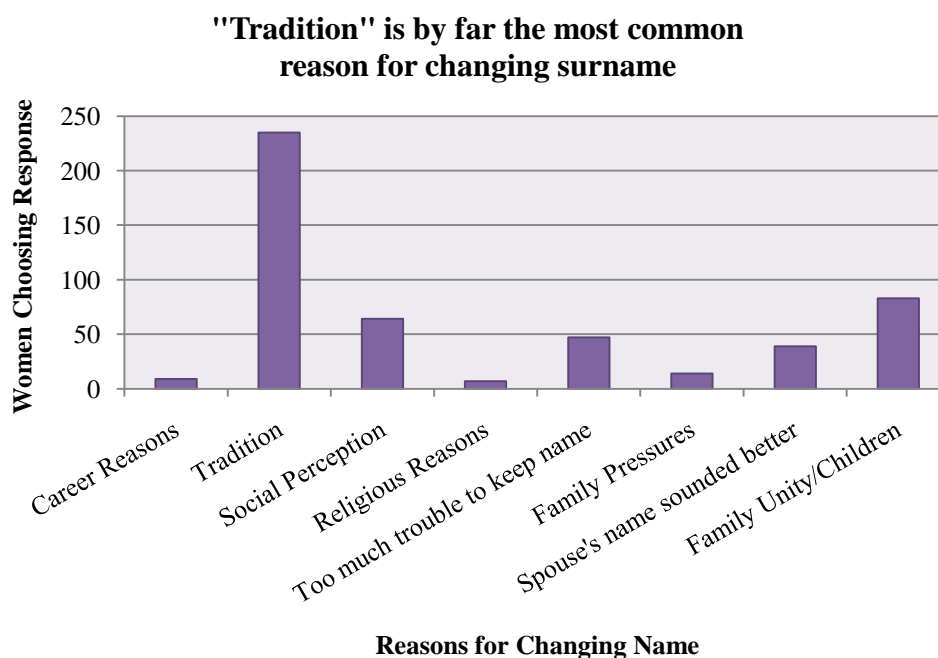


Figure 5

Source: March 2010 Survey Data

In comparison, although career reasons is listed as a response for both keeping and changing one's name, it is more influential for keepers than for changers. Social perception, on the other hand, is a more important factor for changers than for keepers. Interestingly, which name sounded better was a sizable factor for both keepers and changers.

For additional summary statistics, see *Appendix B*.

IX. Survey Empirical Specification (*Survey Data*)

We begin the analysis of our survey data by analyzing the significance of the age cohorts. As seen in Figure 2, the fraction of keepers appears to have peaked with the class of 1980, not

1990 as indicated in the DAA administrative data. Regression I, however, shows that none of the class variables are statistically significant, thus indicating that our survey data likely suffers from selection bias. The non-statistically significant “peak” in 1980 in the survey data does not contradict the statistically-significant 1990 peak in the administrative DAA data. Because we know that the peak is not significant in the survey data, we omit the 1960 variable to show whether there has been at least an increase in keepers over the years.

Regression II analyzes the effect of age at marriage on a woman’s marital name choice. Waiting one extra year to get married has a 1.9 percent increase in the probability that a woman is a keeper, statistically significant at the 1% level. This result supports the identity theory, which states that women who marry later have more time to develop a personal connection to their names, and may be more reluctant to give up their sense of self. It likely also reflects career opportunities, and thus lends further support to the branding theory.

Regression III analyzes the effect of religion on surname retention. *No Religion/Atheist* is omitted as the base variable, meaning that all coefficients should be interpreted as the likelihood of keeping one’s name relative to a woman with no religious beliefs. *Fundamentalist Protestants* are 33 percent less likely to keep their names than women with no religious beliefs, lending further support for the identity model. *Catholics*, *Other Protestants*, and *Jewish* women are all statistically significantly less likely to keep their names than women with no religious beliefs (13 percent, 19 percent, and 19 percent, respectively). *Unitarians*, who are often deemed liberal Christians, are 30% more likely to keep their names than women with no religious beliefs.

Regression IV analyzes the influence of religiosity on marital name choice. Based on the identity model, women who attend religious services more frequently should be less likely to keep their surnames. The data reflect this pattern: women who attend religious services *1-3 times per month* are 20 percent less likely to be keepers than those who never attend religious services.

Table 8. Historical, age at marriage, religion, and religiosity influences on kept name
Dependent variable: kept surname at marriage

	I	II	III	IV
Class of 1960	<i>omitted</i>			
Class of 1970	0.024			
	(0.081)			
Class of 1980	0.061			
	(0.075)			
Class of 1990	0.054			
	(0.075)			
Class of 2000	0.019			
	(0.077)			
Age at marriage		0.019***		
		(0.005)		
Catholic			-0.131*	
			(0.071)	
Fundamentalist/Evangelical Protestant			-0.328**	
			(0.138)	
Other Protestant			-0.186***	
			(0.058)	
Jewish			-0.188**	
			(0.077)	
Unitarian			0.297**	
			(0.145)	
No Religion/Atheist			<i>omitted</i>	
Other religion			-0.042	
			(0.115)	
Never attend religious services				<i>omitted</i>
A few times per year				-0.029
				(0.058)
1-3 times per month				-0.201***
				(0.066)
Once per week				-0.102
				(0.065)
More than once per week				-0.135
				(0.111)
Constant	0.154**	-0.324**	0.328***	0.269***
	(0.063)	(0.13)	(0.051)	(0.048)
Observations	376	375	376	376
R-squared	0.003	0.042	0.062	0.034
Adj. R-squared	-0.008	0.039	0.047	0.023

Standard errors in parentheses
 *** p<0.01, ** p<0.05, * p<0.1
 Source: March 2010 Survey Data

In Table 9, we analyze age at marriage, religion, and degree with controls for class year, religiosity, career field, and undergraduate major. Regression V analyzes the effects of age at marriage with controls for class year, and finds that being one year older at marriage increases the likelihood of keeping one's name by 2 percent, significant at the 1% level.

Regression VI analyzes the influence of religion on surname retention, controlling for both class year and religiosity. With the exception of *Catholic*, all of the coefficients remain statistically significant, indicating that religion effects are distinct from religiosity or age cohort. Using *no religion* as the base variable, *Fundamentalist/Evangelical Protestants*, *Other Protestants*, and *Jewish* women are all significantly less likely to keep their names (34 percent, 17 percent, and 20 percent, respectively). *Unitarians* remain 33 percent more likely to keep their surnames, significant at the 5% level.

Regression VII combines age at marriage, religion, and degree variables while controlling for both class year and religiosity. Again, with the exception of *Catholic*, all coefficients remain statistically significant.

Regression VIII repeats the analysis from Regression VII with the addition of career field and undergraduate major controls. This is the most comprehensive model, and it again reflects many of the overarching trends: more conservative religions tend to have changers, more liberal religions tends to have more keepers, more educated women are keepers, women with strong career brands are keepers. These results all remain significant when controlling for religiosity, career field, and historical period.

Table 9. Age, religion, degree type and career influences on kept surname

Dependent variable: kept surname at marriage

	V	VI	VII	VIII
Age at marriage	0.020*** (0.005)		0.016*** (0.005)	0.016*** (0.005)
No religion		<i>omitted</i>	<i>omitted</i>	<i>omitted</i>
Catholic		-0.123 (0.087)	-0.136 (0.084)	-0.144* (0.084)
Fundamentalist or Evangelical Protestant		-0.336** (0.155)	-0.331** (0.149)	-0.375** (0.149)
Other Protestant		-0.168** (0.075)	-0.145** (0.073)	-0.161** (0.073)
Jewish		-0.198** (0.089)	-0.178** (0.087)	-0.202** (0.087)
Unitarian		0.332** (0.150)	0.285* (0.147)	0.289* (0.148)
Other religion		-0.079 (0.125)	-0.114 (0.121)	-0.136 (0.123)
Bachelors degree			<i>omitted</i>	<i>omitted</i>
MBA			0.090 (0.071)	0.078 (0.076)
Other masters degree			0.100** (0.050)	0.137*** (0.052)
Law degree			0.065 (0.064)	0.153* (0.082)
MD or other medical degree			0.377*** (0.082)	0.488*** (0.106)
PhD or higher			0.261*** (0.081)	0.299*** (0.084)
Constant	-0.318** (0.135)	0.261*** (0.079)	-0.196 (0.145)	-0.328* (0.167)
<i>Graduation year historical controls?</i>	Yes	Yes	Yes	Yes
<i>Religiosity controls?</i>	No	Yes	Yes	Yes
<i>Career field at marriage controls?</i>	No	No	No	Yes
<i>Undergraduate major controls?</i>	No	No	No	Yes
Observations	375	376	375	375
R-squared	0.044	0.088	0.178	0.213
Adj. R-squared	0.031	0.053	0.131	0.147

*** p<0.01, ** p<0.05, * p<0.1

Source: March 2010 Survey Data

In Table 10, we analyze the influence of divorce and education on surname retention. Regression I finds that whether or not a woman subsequently divorced her husband has no significant correlation to her marital name choice. This undermines theories that a decision to keep one's name indicates a lesser commitment to the marriage. In fact, since the coefficient on *divorced* is negative, it seems that keepers are less likely to subsequently divorce their husbands.

Regression II analyzes the effects of husbands' highest degree, wife's highest degree, age at marriage, and whether or not a woman is divorced on marital name choice. A woman marrying one year later is 2 percent more likely to keep her name, significant at the 1% level. This is in line with the findings in Table 9. The highest degree one's husband earned has no correlation upon surname retention, as the coefficient on *unreported* is explained by the small number of observations (only one woman did not report her husband's highest degree, and she kept her name). Women obtaining an *MD or other medical degree*, or *PhD or higher* are both statistically significantly more likely to keep their names (33 percent and 24 percent, respectively). This is also in line with findings in Table 9 above, although the effects are somewhat smaller, suggesting that women often choose husbands with similar levels of educational attainment.

The survey data supplements the undergraduate and graduate datasets with the addition of identity variables, thus finding that more religious women are less likely to keep their name. Women who marry later in life, on the other hand, are more likely to keep their names. These results are unique to the survey data, as these variables were not included in the administrative data. The survey data does not replicate the peak in 1990 found in the undergraduate dataset, but does replicate the correlation between higher educational attainment and surname retention.

For additional regressions, see *Appendix C*.

Table 10. Influence of divorce and education on surname retention

Dependent variable: kept name

	I	II
Age at marriage (yrs.)		0.019*** (0.005)
Divorced (dummy)	-0.054 (0.058)	0.029 (0.059)
Husband's Highest Degree	High School	0.027 (0.105)
	Bachelor's degree	<i>omitted</i>
	MBA	0.033 (0.063)
	Other master's degree	0.099 (0.063)
	Law degree	-0.01 (0.065)
	MD or other medical degree	0.089 (0.081)
	PhD or higher	0.072 (0.069)
	Unreported	0.940** (0.379)
Wife's Highest Degree	Bachelor's degree	<i>omitted</i>
	MBA	0.046 (0.073)
	Other master's degree	0.078 (0.051)
	Law degree	0.051 (0.068)
	MD or other medical degree	0.330*** (0.086)
	PhD or higher	0.235*** (0.083)
Constant	0.199*** (0.022)	-0.440*** (0.14)
Observations	376	375
R-squared	0.002	0.130
Adj. R-squared	0.000	0.096

Standard errors in parentheses
 *** p<0.01, ** p<0.05, * p<0.1

Source: March 2010 Survey Data

X. Conclusion

We find that the fraction of keepers has increased over time since the 1960s. Using the Massachusetts birth records dataset, Goldin and Shim also find that fraction of female keepers peaked in 1990. However, because their Harvard alumnae dataset does not include the class of 2000, they are unable to measure this peak for Harvard graduates. Using DAA data, we find a statistically significant peak in the fraction of keepers with the class of 1990 for undergraduates. However, the peak for the 1990 graduate students is not significant. Further research should investigate this dichotomy. One possible reason is that the backlash to feminism movement may not influence the graduate students as much as the relatively less educated undergraduates.

We also find highly statistically significant results supporting our branding theory: women who develop their brand, their surname, through high levels of education or through their career field, are more likely to be keepers. We find this result in both our graduate and undergraduate administrative data. Graduate students are more likely to be keepers than undergraduates. Natural science majors are more likely to retain their surnames than social science majors. Female doctors or lawyers are also more likely to be keepers. Nurses are more likely to be changers.

We also find a possible contradiction: although nurses are more likely to be changers, women in healthcare are more likely to be keepers. We hypothesize that this is due to the underlying population: women from Duke who enter the healthcare industry in the later years are more likely to be doctors. To isolate this effect, we focus on the healthcare industry and devise two methods to test the hypothesis. First, we isolate nursing degrees in healthcare, and then we isolate women with the prefix “Dr.” in healthcare. In both cases, we find that women who had “made a name” for themselves, the doctors, were statistically significantly more likely to be keepers. Our findings support strong branding and historical influences on name selection.

Using data from our March 2010 survey, we find evidence of identity and cultural influences: women who practice more conservative religions are less likely to keep their names, while women who lack religious beliefs are more likely to do so. We also replicate the branding effect of higher education: women with advanced degrees are more likely to keep their names compared to women with bachelor's degrees. These effects persist even with the inclusion of the age controls, suggesting branding effects cannot be explained solely by historical influences. In line with both identity and branding theories, we find that women who marry at a later age are statistically significantly more likely to retain their surnames.

In many ways, our results parallel those of Claudia Goldin and Maria Shim's study at Harvard (2004). Like us, they find that age at marriage and educational attainment are strong predictors of surname retention. However, Goldin et al. find that women who marry men with PhD's tend to retain their surnames. We find no effect of a husband's characteristics on surname retention. In addition, Golden et al. find that 44% of women in the class of 1980 are keepers, which is significantly higher than our figure of 21%. Of note, Goldin et al.'s data was conducted through a survey, whereas our data includes all graduating students. Using the *New York Times* data set, they find that women who marry in a religious ceremony are less likely to be keepers, which mirrors our finding that more religious women tend to take their husbands' names.

Future research should expand these findings to a more representative population in the United State. Also, additional variables could affect surname retention such as income and ethnicity. It is possible that higher expected earnings are correlated with an increased likelihood to keep one's name in an effort to retain her public reputation. Additionally, many ethnic groups have different social norms for female surnames. Finally, because all graduates of the class of 2000 have likely not yet married, it would be worthwhile to replicate this analysis as the class ages.

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Appendix A

Female voices from the DAA survey

Keepers, professional identity

I was a newspaper reporter, and I had been using my birth name professionally for 7 years at the time of my marriage. It was my public identity, somewhat like a politician's or an actress' or an entertainer's. They don't usually change theirs either.

I did not change my name for business, but I added my married name for everything outside of work. I was well established in my business career under my maiden name and did not want to create confusion by changing my name. As much as possible, outside of work I try to have my name listed as "first maiden married" (without hyphen).

Keepers, personal identity

I was 32 when I got married. The idea of changing my name seemed really peculiar. Plus it was convenient.

We considered hyphenation, but found it unwieldy. We thought of combining the names into a new name, but found nothing we liked. I recognize that my surname is my father's so keeping it may simply be continuing a paternal line, but perhaps it is a start. I have given my children their father's surname, so... maybe it's pointless. I don't know.

Interestingly, I have a friend who is not married to her (male) long-term partner and their (3) children bare her name.”

I reassumed my maiden name upon divorce, and did not change it again, despite a subsequent marriage and a child. My child has my second husband's surname. We have no issue having different names. I am pleased that he plans to change HIS name upon marriage! At least that is his plan at age 20! Upon my second marriage in 1989, Hawaii was quite unbiased -- they asked each person to check off what name they wanted -- theirs, their spouse's, hyphenated with his first, hyphenated with hers first, or other! I retained my (maiden) name through marriage as a badge of independence but also for convenience and business reasons.

Funny story -- When we were engaged, my now-husband and I were out with another couple who got married about 18 months before us. The wife of that couple told us about the hassles with changing her name (she made her birth name her middle name) and that she had not finished all of the changes even a year later. My husband said "Yes, [my fiancée] will have to start that soon." I said, "Who decided I'm changing my name? I'm keeping my name." My husband said, "Well, we can talk about it when we get home." I said, "There is nothing to talk about, last I checked it was my name and I am keeping it. End of discussion." And it was!

The follow up is that my husband and I are in the process of deciding whose surname any child of ours will get . . . odds are it will be mine because I really do not care to inflict the name of my husband's birth father, who he never saw after some time in the 1970s, on a child, and because it probably is simpler for medical care purposes. On the other hand, we also are considering that a boy would get my last name and a girl would get his last name.

And if you want my theory on why more women from my year kept their names, my guess would be because we were in college at the height of the "political correctness" movement where a lot of us became adverse to patriarchal rules, like taking a spouse's name and because my generation really did believe we could "have it all", which often meant more emphasis on career in our twenties and early thirties, when identity becomes more firmly established."

My husband and I have different last names, and we chose to hyphenate our children's last name. We have two girls and a boy. While I've rarely been questioned about why I kept my last name (although here in the suburbs of Boston, Mass., it's surprisingly unusual), hyphenating their last name has raised some eyebrows. We've gotten questions like, "But what will they do when they get married?," etc. -- especially in the case of the boy.

Since my kids started school, I've considered hyphenating my last name as well, simply so that teachers know what to call me if I'm in the classroom volunteering, etc. I cringe when I'm called "Mrs. Wolf," which is my "maiden" name, but many teachers and other mothers aren't comfortable with "Ms.," which would be correct in this case. I hear a lot of "Say thank you to Benjamin's mom," whereas when a family shares one last name (the father's), it's more often, "Say thank you to Mrs. O'Brien." Since I think kids should call adults "Mr.," "Mrs.," or "Ms." as a matter of respect, this is a bit of quandary.

Strange to think that the only reason I would consider hyphenating my name is not for career reasons but for school-etiquette reasons! So far I haven't done it, and I honestly doubt that I ever will. I am proud to have kept my own name. My oldest child (a daughter) is only 8 now, but I also like the idea that one day my children will understand that I made a conscious decision when I got married to keep my name and not blindly follow tradition. I obviously don't get angry when a woman changes her name, but I also don't like when the automatic assumption is that a woman will become "Mrs. So-and-so" simply for no other than reason than that's because how it's done.

I'm glad you're doing this survey, and I look forward to seeing the results. For the record, of my eight closest women friends at Duke (my sister included), only one changed her surname upon marriage; of these, one hyphenated her name, one hyphenated her child's name, and the others have all kept their names but given their children their husband's name. I don't think these numbers are typical, though, which will be reflected in my next answer. I think that maybe I was just lucky enough to be friends with an amazing, independent-minded group of women.

The advice I've given to other women is that no matter what you do, people will challenge you and ask you why you did it - so you need to go with the choice that you will be able to defend with your whole heart. When people asked me if I was keeping my name, I answered, "We're both keeping our names." Ironically, that decision has become a non-issue since we moved to Asia - where most women keep their own names.

Increasingly challenging to change your name if you travel a lot - name on ticket needs to exactly match name on drivers license and/or passport; friends have forfeited frequently flyer points when changing their names (some companies don't make it easy to change the name on the account vs. start a new one). All of my sisters in law still use their maiden names and explicitly told me not to bother to change my name; my husband didn't care either.

The question of which last name to give our children came up.... and we were drawn to the 'new tradition' of giving boys their father's last name and girls their mother's last name. That way--if each generation does this--a maternal line is built just as a paternal line has always traditionally been in place. (When girls marry, they would then keep their own last name and give it to their daughters, etc., as men have always been able to give their sons their own surname.) Both my husband and i were drawn to this idea. Our first two children were boys, and were given my husband's last name. Then we had our first girl--and both boys begged for her to have their same last name! We gave in... and three girls later now have 5 kids with their father's/my husband's last name! Oh well.. The best laid plans...Our three daughters have different ideas of what to do when they marry some day: one will change her name, she says. One will NEVER, she says. One says it depends how nice her new husband's name is!

Changers, but preserve maiden name

I guess I still feel somewhat conflicted about it -- but our compromise was that I took my husband's last name -- and he took my maiden name as his middle name.

My surname was "Carter" which is the name I gave to my first born son. It keeps the family name going.

I was surprised at the dilemma it created for me. I am fairly traditional so had always felt that I would change my name upon marriage - however at age 45 it was harder to let go of my maiden name identity than I realized. I actually use my maiden name as a middle name, and although not legally hyphenated --professionally I use my maiden name hyphenated with my married name.

I did not feel it compromised my identity to take my husband's surname when we married. I have always used my maiden name as middle name in all documents.

My husband and I both changed our middle names to my maiden name and our surnames to his surname. We committed to using 3 names (like Sandra Day O'Connor or James Earl Jones) professionally and personally. This way we honor both of our families and traditions.

Changers, related to age cohort

If I remember correctly back 40 yrs, my surname changed automatically when I got married and I would have had to pay to change it back.

Before the mid-60s, most brides did not even think of not taking their groom's surname; it was a point of pride to be known as Mrs. John Doe. Marrying a naval officer I entered into a tradition-bound sub-culture - no way to have my own surname, even if I had wanted to

Before the mid-60s, most brides did not even think of not taking their groom's surname; it was a point of pride to be known as Mrs. John Doe. Marrying a naval officer I entered into a tradition-bound sub-culture - no way to have my own surname, even if I had wanted to do so.

Changers, for convenience or family unity

I felt that it would be too difficult to be the only member of my family (I was planning on children) with a different name, confusing, and always having to explain. It was difficult as all my professional degrees were in my maiden name, as well as licensure, DEA license, etc and all had to be changed. It was a commitment to the marriage in a sense.

I hesitated making the change partly because I had co-edited books under my maiden name. Later books in the series list my married name on the title page. Once I had children, I was glad I shared a surname with them, thereby eliminating a lot of confusion (introductions, school-related matters, etc.)

I felt no true attachment to my name because I have no relationship with my father which is where the name came from. It made my spouse happy that I changed it and for me, having his same last name makes it immediately understood we are married. It's like another form of a wedding ring to me.

I changed my name due to pressure from the older generation in my husband's family (i.e., his grandparents). Plus as I thought more about it, I realized that if we ever had kids, I didn't want them to be confused with mom and dad having different last names.

However, for the first 2 years, I used my maiden name professionally - I had built a reputation at work with clients and didn't want to confuse matters by suddenly changing my name/email address, etc. In the 3rd year of marriage, I switched jobs/industries and started to use my married name professionally as well.

Changers, other reasons

I wanted to be able to "correct" people who called me by my maiden name.

My dad left my family before I was even in kindergarten, and neglected to pay thousands of dollars in child support. Since my maiden name was his last name, I was more than willing to ditch that name in favor of my husband's last name.

I compromised on the name change, thinking my spouse would reciprocate on other issues. When no compromises were forthcoming, I divorced him. I changed it back and kept it in my subsequent marriage, even though my spouse, my kids, and I now have 3 different names in the same household. (We created an amalgam of our names.)

Appendix B

Additional Summary Statistics

Respondents were asked to estimate what percentage of their peers they thought kept their names upon marriage, with the choices of: 0-10%, 10-20%, 20-50%, 50-75%, and 75-100%. We added an *unreported* variable for the two women who did not answer this question. 35.37% of women selected 10-20%, which is particularly significant as our data suggest approximately 19% of undergraduate women across the age cohorts are “keepers.”

Summary Statistics 16. *62% of women believe between 0-20% of peers kept their names*

<i>Peers Kept</i>	Freq.	Percent
0-10%	101	26.7%
10-20%	133	35.4%
20-50%	78	20.7%
50-75%	27	7.2%
75-100%	35	9.3%
Unreported	2	0.5%
Total	376	100

Source: March 2010 Survey Data

The survey respondents also stated whether or not their mother kept her name upon marriage. For many of the age cohorts, their mothers married before it was even legally possible to keep one's name, which explains the low frequencies of maternal keepers.

Summary Statistics 17. *Only 5% of mothers kept their names*

<i>Mother Kept Surname</i>	Freq.	Percent
Changed	358	95.2%
Kept	18	4.8%
Total	376	100

Source: March 2010 Survey Data

Appendix C

Additional Regressions

Table 11 shows the individual regressions for *highest degree earned*, *career field*, and *undergraduate major*. In Regression I, we look at the effects of highest degree earned. Using *Bachelor's Degree* as the base variable, women with *other master's degrees* are 11.9 percent more likely to keep their names, significant at the 5% level. Women with *MDs or other medical degrees* and women with PhDs are both statistically significantly more likely to keep their names (39 percent and 26 percent, respectively). These data indicate that the investment in higher education does indeed lead women to retain their surnames more often, supporting both the identity and branding theories.

Regression II analyzes the effect of career field on surname retention. None of the variables are statistically significant, which is perhaps a reflection of both our small sample size and some form of selection bias. Regression III analyzes the influence of undergraduate major on marital name choice, and finds that *natural science majors* are 23 percent more likely to keep their names than nursing majors, significant at the 5% level. None of the other variables are significant.

Table 11. Degree, career, and undergraduate major influences on kept surname

Dependent variable: kept surname at marriage

	I	II	III
Bachelors degree	<i>omitted</i>		
MBA degree	0.090 (0.071)		
Other master's degree	0.119** (0.050)		
Law degree	0.065 (0.064)		
MD or other medical degree	0.392*** (0.082)		
PhD or higher	0.257*** (0.083)		
Educational services		-0.078 (0.068)	
Healthcare and social assistance		<i>omitted</i>	
Finance and insurance		-0.001 (0.084)	
Professional, scientific, and technical services		0.058 (0.062)	
Law		-0.098 (0.084)	
Other career field		0.016 (0.061)	
Engineering QS, and economics			0.045 (0.091)
Natural science			0.226** (0.094)
Social science			0.124 (0.080)
Nursing			<i>omitted</i>
Unreported major			0.176 (0.158)
Constant	0.089** (0.036)	0.195*** (0.045)	0.074 (0.075)
Observations	376	376	376
R-squared	0.072	0.017	0.023
Adj. R-squared	0.059	0.004	0.012

Standard errors in parentheses
 *** p<0.01, ** p<0.05, * p<0.1

Source: March 2010 Survey Data

Table 12 analyzes the influence of perception of others on surname retention. Survey respondents were asked what percentage of their peers they thought kept their names, with the intuition that a woman would be more likely to keep her name if she thought more of her peers did so. Using *0-10%* as the base variable in Regression I, the only statistically significant coefficient was *10-20%*. Women who thought that *10-20%* of their peers kept their names were 10 percent more likely to keep their own names, significant at the 5% level. Although none of the other coefficients are significant, this could possibly be attributed to some confusion in answering the question. For example, *75-100%* has a negative coefficient, indicating that women who thought *75-100%* of their peers kept their names were in fact less likely to change their names. It is likely that these women read the question as how many of their peers changed, not kept, their names, and can explain some of the error in this regression.

Regression II analyzes the influence of a mother's marital name choice on her daughter's surname retention. As expected, if a *mother kept her surname*, her daughter is 32 percent more likely to keep her name as well, significant at the 1% level. This is intuitive; if a mother valued her name enough to keep it, it is likely that she passed this view on to her daughter.

Table 12. The influence of perceptions of others on surname retention

Dependent variable: kept surname at marriage

	I	II
Believe 0-10% of peers changed name	<i>omitted</i>	
10-20%	0.102** (0.052)	
20-50%	0.079 (0.059)	
50-75%	0.010 (0.085)	
75-100%	-0.024 (0.077)	
Unreported beliefs	0.361 (0.281)	
Mother kept her surname		0.324*** (0.094)
Constant	0.139*** (0.039)	0.176*** (0.021)
Observations	376	376
R-squared	0.019	0.031
Adj. R-squared	0.006	0.028

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Source: March 2010 Survey Data

Appendix D

F-Test Analysis

A. Undergraduates

For undergraduates, we have three groups of variables: historical, major, and field of work. We run six different regressions, which are listed in *Table 2*. The variables are listed below. The italicized variables are the base variables.

- **Historical:** Class of 1960, 1970, 1980, *1990*, 2000.
- **Major:** Engineering, QS, and economics, Natural science, Social science, *Nursing*, Unreported major
- **Field of work:** Educational services, *Healthcare and social assistance*, Other field of work, Professional, scientific, and technical services, Unreported field

F-Test 1: *Unrestricted* (includes historical, major, field of work)

Restricted (includes historical, major)

```
. test educational_services other_field professional_scientific_and_tech unreported_field
( 1) educational_services = 0
( 2) other_field = 0
( 3) professional_scientific_and_tech = 0
( 4) unreported_field = 0
      F( 4, 1906) =    8.02
      Prob > F =    0.0000
```

We reject the null at the 1% level. Therefore, the field of work is significant to whether or not a woman keeps her surname

F-Test 2: *Unrestricted* (includes historical, major, field of work)

Restricted (includes historical, field of work)

```
. test engineeringqsandecomonomics onaturalscience osocialscience onunreportedmajor
( 1) engineeringqsandecomonomics = 0
( 2) onaturalscience = 0
( 3) osocialscience = 0
( 4) onunreportedmajor = 0

      F( 4, 1906) =    3.35
      Prob > F =    0.0097
```

We reject the null at the 5% level. Therefore, the type of major does affect whether or not a woman keeps her surname.

F-Test 3: *Unrestricted* (includes historical, major, field of work)

Restricted (includes historical)

```
. test engineeringqsandecomonomics onaturalscience osocialscience onunreportedmajor educational_s
> ervices other_field professional_scientific_and_tech unreported_field
( 1) engineeringqsandecomonomics = 0
( 2) onaturalscience = 0
( 3) osocialscience = 0
( 4) onunreportedmajor = 0
( 5) educational_services = 0
( 6) other_field = 0
( 7) professional_scientific_and_tech = 0
( 8) unreported_field = 0

      F( 8, 1906) =    5.04
      Prob > F =    0.0000
```

We reject the null at the 1% level. Therefore, field of work and major are jointly significant to a woman's marital choice surname.

B. *Graduates*

For graduates, we have three groups of variables: historical, school, and field of work. We run six different regressions, which are listed in *Table 5*. The variables are listed below. The italicized variables are the base variables.

- **Historical:** Class of 1960, *1970*, 1980, 1990, 2000.
- **School:** Traditional, *Professional*, Other
- **Field of work:** Educational services, *Healthcare and social assistance*, Other field of work, Professional, scientific, and technical services, Unreported field

F-Test 1: *Unrestricted* (includes historical, school, field of work)

Restricted (includes historical, school)

```
. test educational_services other_field professional_scientific_and_tech unreported_field
( 1) educational_services = 0
( 2) other_field = 0
( 3) professional_scientific_and_tech = 0
( 4) unreported_field = 0
      F( 4, 1029) =    1.84
      Prob > F =    0.1183
```

We cannot reject the null in this case. Therefore, field of work may not be significant for a graduate student's surname decision.

F-Test 2: *Unrestricted* (includes historical, school, field of work)

Restricted (includes historical, field of work)

```
. test traditional other
( 1) traditional = 0
( 2) other = 0
      F( 2, 1029) =    5.05
      Prob > F =    0.0066
```

We reject the null at the 5% level. Therefore, the graduate school degree is significant when describing a woman's surname choice.

F-Test 3: *Unrestricted* (includes historical, school, field of work)

Restricted (includes historical)

```
. test traditional other educational_services other_field professional_scientific_and_tech unr
> eported_field

( 1) traditional = 0
( 2) other = 0
( 3) educational_services = 0
( 4) other_field = 0
( 5) professional_scientific_and_tech = 0
( 6) unreported_field = 0

      F( 6, 1029) =    2.52
      Prob > F =    0.0198
```

We reject the null at the 5% level. Therefore, graduate school and field of work are jointly significant.

Appendix E

Stage 1 Aggregate using NAICS Codes

Undergraduate

. tab field_work

Field_work	Freq.	Percent	Cum.
Accommodation and Food Services	7	0.36	0.36
Agriculture, Forestry, Fishing and Hunt	1	0.05	0.42
Arts, Entertainment, and Recreation	40	2.08	2.50
Construction	6	0.31	2.81
Educational Services	243	12.66	15.48
Finance and Insurance	79	4.12	19.59
Health Care and Social Assistance	233	12.14	31.74
Information	28	1.46	33.19
Manufacturing	43	2.24	35.44
Other Services (except Public Administr	74	3.86	39.29
Professional, Scientific, and Technical	252	13.13	52.42
Public Administration	43	2.24	54.66
Real Estate and Rental and Leasing	17	0.89	55.55
Retail Trade	42	2.19	57.74
Transportation and Warehousing	8	0.42	58.16
Unreported	798	41.58	99.74
Utilities	1	0.05	99.79
Wholesale Trade	4	0.21	100.00
Total	1,919	100.00	

Graduate

. tab field_work

Field_work	Freq.	Percent	Cum.
Agriculture, Forestry, Fishing and Hunt	4	0.38	0.38
Arts, Entertainment, and Recreation	4	0.38	0.77
Construction	1	0.10	0.87
Educational Services	145	13.94	14.81
Finance and Insurance	21	2.02	16.83
Health Care and Social Assistance	160	15.38	32.21
Information	3	0.29	32.50
Manufacturing	19	1.83	34.33
Mining	1	0.10	34.42
Other Services (except Public Administr	58	5.58	40.00
Professional, Scientific, and Technical	106	10.19	50.19
Public Administration	32	3.08	53.27
Real Estate and Rental and Leasing	1	0.10	53.37
Retail Trade	16	1.54	54.90
Transportation and Warehousing	3	0.29	55.19
Unreported	463	44.52	99.71
Utilities	2	0.19	99.90
Wholesale Trade	1	0.10	100.00
Total	1,040	100.00	

Stage 1 Aggregate using NAICS Code	DAA Job Description
<i>Accommodation and Food Services</i>	Food/Lodging Services
<i>Agriculture, Forestry, Fishing and Hunting</i>	Forest Industry Natural Resources/Farming
<i>Arts, Entertainment, and Recreation</i>	Creative Arts Entertainment/Sports Museums/Galleries Performing Arts The Arts
<i>Construction</i>	Architecture/Construction
<i>Educational Services</i>	Education
<i>Finance and Insurance</i>	Accounting/Auditing Banking/Finance Commercial Banking Financial Insurance Investment Banking Portfolio/Investment Mgt. Venture Capital
<i>Healthcare and Social Assistance</i>	Healthcare Healthcare/Academic Medicine Healthcare/Administration Healthcare/Comm. Mental Hlth. Healthcare/Group Private Prac Healthcare/International Hlth Healthcare/Research Medicine Healthcare/Solo Private Prac Healthcare/Community Health
<i>Information</i>	Communications Information Technology Internet/E-commerce Telecommunications
<i>Manufacturing</i>	Aerospace/Automobile/Machinery Chemicals/Pharmaceuticals Gas/Oil/Petroleum Ind. Manufacturing & Operations Medical & Surgical Instruments Other Manufacturing Printing/Publishing Textiles
<i>Mining</i>	Energy/Metals
<i>Other Services (except Public Administration)</i>	Conservation/Land Acquisition Non-Profit

	Other Religion/Pastoral/Welfare
<i>Professional, Scientific, and Technical Services</i>	Advertising/Public Relations Biotechnology Consulting/Professional Srvc Engineering Human Resources Legal Services Management Information Systems Marketing Research Centers
<i>Public Administration</i>	Government Government-Federal-Executive Government-Federal-Judicial Government-Federal-Legislative Government-International Government-Local Government-State Military
<i>Real Estate and Rental and Leasing</i>	Real Estate
<i>Retail Trade</i>	High Technology/Electronics Retailing Sales
<i>Transportation and Warehousing</i>	Transportation
<i>Utilities</i>	Utilities
<i>Wholesale Trade</i>	Merchandising & Operations

Additional Undergraduate Cross Tabs

DAA Administrative Data

. tab major_1_desc

MAJOR_1_DESC	Freq.	Percent	Cum.
Accounting	18	0.97	0.97
Anthropology	15	0.81	1.79
Art & Art History	34	1.84	3.63
Art Design	4	0.22	3.84
Art History	4	0.22	4.06
Asian/African Languages & Lit	1	0.05	4.11
Biochemical Engineering	1	0.05	4.17
Biological Anthropology & Anat	11	0.60	4.76
Biology	48	2.60	7.36
Biomedical Engineering	30	1.62	8.99
Botany	18	0.97	9.96
Business Administration	7	0.38	10.34
Chemistry	51	2.76	13.10
Civil Engineering	15	0.81	13.91
Classical Languages	1	0.05	13.97
Classical Studies	4	0.22	14.19
Comp. Literature	4	0.22	14.40
Comparative Area Studies	55	2.98	17.38
Computer Science	13	0.70	18.08
Cultural Anthropology	3	0.16	18.25
Drama	2	0.11	18.35
Earth & Ocean Sciences	1	0.05	18.41
Economics	119	6.44	24.85
Education	45	2.44	27.29
Electrical Engineering	16	0.87	28.15
English	185	10.02	38.17
Environmental Science & Policy	11	0.60	38.77
French	40	2.17	40.93
Geology	5	0.27	41.20
German	6	0.32	41.53
History	152	8.23	49.76
Humanities	1	0.05	49.81
Latin	1	0.05	49.86
Linguistics	3	0.16	50.03
Literature	2	0.11	50.14
Management Science	33	1.79	51.92
Mathematics	43	2.33	54.25
Mechanical Engineering	25	1.35	55.60
Medical Technician	1	0.05	55.66
Music	8	0.43	56.09
Nursing	160	8.66	64.75
Philosophy	5	0.27	65.02
Physics	2	0.11	65.13
Political Science	138	7.47	72.60
Program Two	5	0.27	72.87
Psychology	220	11.91	84.79
Public Policy Studies	74	4.01	88.79
Religion	44	2.38	91.17
Russian	6	0.32	91.50
Science Education	3	0.16	91.66
Sociology	49	2.65	94.32
Spanish	24	1.30	95.61
Visual Arts	1	0.05	95.67
Women's Studies	2	0.11	95.78
Zoology	78	4.22	100.00
Total	1,847	100.00	

. tab prefix

PREFIX	Freq.	Percent	Cum.
Colonel	1	0.05	0.05
Commander	1	0.05	0.10
Dr.	199	10.37	10.47
Lieutenant Colonel	2	0.10	10.58
Major	1	0.05	10.63
Miss	6	0.31	10.94
Mrs.	1,229	64.04	74.99
Ms.	465	24.23	99.22
Professor	4	0.21	99.43
The Honorable	3	0.16	99.58
The Reverend	8	0.42	100.00
Total	1,919	100.00	

. tab job_field_of_work_desc

JOB_FIELD_OF_WORK_DESC	Freq.	Percent	Cum.
Accounting/Auditing	11	0.98	0.98
Advertising/Public Relations	12	1.07	2.05
Architecture/Construction	6	0.54	2.59
Banking/Finance	32	2.85	5.44
Biotechnology	2	0.18	5.62
Chemicals/Pharmaceuticals	8	0.71	6.33
Commercial Banking	1	0.09	6.42
Communications	15	1.34	7.76
Consulting/Professional Srvc	69	6.16	13.92
Creative Arts	3	0.27	14.18
Education	243	21.68	35.86
Engineering	5	0.45	36.31
Entertainment/Sports	17	1.52	37.82
Financial	21	1.87	39.70
Food/Lodging Services	7	0.62	40.32
Forest Industry	1	0.09	40.41
Gas/Oil/Petroleum Ind.	2	0.18	40.59
Government	2	0.18	40.77
Government-Federal-Executive	11	0.98	41.75
Government-Federal-Judicial	2	0.18	41.93
Government-Federal-Legislative	1	0.09	42.02
Government-International	3	0.27	42.28
Government-Local	6	0.54	42.82
Government-State	9	0.80	43.62
Health Care	163	14.54	58.16
Health Care/Academic Medicine	21	1.87	60.04
Health Care/Administration	4	0.36	60.39
Health Care/Comm. Mental Hlth.	6	0.54	60.93
Health Care/Group Private Prac	12	1.07	62.00
Health Care/Research Medicine	5	0.45	62.44
Health Care/Solo Private Prac	13	1.16	63.60
Healthcare/Community Health	9	0.80	64.41
High Technology/Electronics	15	1.34	65.74
Human Resources	1	0.09	65.83
Information Technology	4	0.36	66.19
Insurance	8	0.71	66.90
Internet/E-commerce	4	0.36	67.26
Investment Banking	2	0.18	67.44
Legal Services	123	10.97	78.41
Management Information Systems	9	0.80	79.21
Manufacturing & Operations	8	0.71	79.93
Marketing	15	1.34	81.27
Medical & Surgical Instruments	1	0.09	81.36
Merchandising & Operations	4	0.36	81.71
Military	9	0.80	82.52
Museums/Galleries	1	0.09	82.60
Non-Profit	19	1.69	84.30
Other	34	3.03	87.33
Other Manufacturing	3	0.27	87.60
Performing Arts	3	0.27	87.87
Portfolio/Investment Mgt.	3	0.27	88.14
Printing/Publishing	21	1.87	90.01
Real Estate	17	1.52	91.53
Religion/Pastoral/welfare	21	1.87	93.40
Research Centers	16	1.43	94.83
Retailing	16	1.43	96.25
Sales	11	0.98	97.23
Telecommunications	5	0.45	97.68
The Arts	16	1.43	99.11
Transportation	8	0.71	99.82
Utilities	1	0.09	99.91
Venture Capital	1	0.09	100.00
Total	1,121	100.00	

Additional Graduate Cross Tabs

. tab prefix

PREFIX	Freq.	Percent	Cum.
Dr.	247	23.75	23.75
LCDR	1	0.10	23.85
Mayor	1	0.10	23.94
Miss	3	0.29	24.23
Mrs.	466	44.81	69.04
Ms.	292	28.08	97.12
Professor	3	0.29	97.40
Reverend Dr.	1	0.10	97.50
The Honorable	2	0.19	97.69
The Reverend	24	2.31	100.00
Total	1,040	100.00	

. tab job_field_of_work_desc

JOB_FIELD_OF_WORK_DESC	Freq.	Percent	Cum.
Accounting/Auditing	2	0.35	0.35
Advertising/Public Relations	1	0.17	0.52
Aerospace/Automobile/Machinery	1	0.17	0.69
Architecture/Construction	1	0.17	0.87
Banking/Finance	5	0.87	1.73
Biotechnology	2	0.35	2.08
Chemicals/Pharmaceuticals	8	1.39	3.47
Communications	1	0.17	3.64
Conservation/Land Acquisition	1	0.17	3.81
Consulting/Professional Svc	23	3.99	7.80
Education	145	25.13	32.93
Energy/Metals	1	0.17	33.10
Engineering	4	0.69	33.80
Entertainment/Sports	1	0.17	33.97
Financial	6	1.04	35.01
Gas/Oil/Petroleum Ind.	2	0.35	35.36
Government	6	1.04	36.40
Government-Federal-Executive	7	1.21	37.61
Government-Federal-Judicial	1	0.17	37.78
Government-International	2	0.35	38.13
Government-Local	8	1.39	39.51
Government-State	6	1.04	40.55
Health Care	97	16.81	57.37
Health Care/Academic Medicine	15	2.60	59.97
Health Care/Administration	3	0.52	60.49
Health Care/Comm. Mental Hlth.	1	0.17	60.66
Health Care/Group Private Prac	25	4.33	64.99
Health Care/Research Medicine	6	1.04	66.03
Health Care/Solo Private Prac	6	1.04	67.07
Healthcare/Community Health	7	1.21	68.28
High Technology/Electronics	7	1.21	69.50
Information Technology	2	0.35	69.84
Insurance	4	0.69	70.54
Legal Services	60	10.40	80.94
Management Information Systems	1	0.17	81.11
Manufacturing & Operations	5	0.87	81.98
Marketing	6	1.04	83.02
Merchandising & Operations	1	0.17	83.19
Military	2	0.35	83.54
Natural Resources/Farming	4	0.69	84.23
Non-Profit	2	0.35	84.58
Other	18	3.12	87.69
Performing Arts	1	0.17	87.87
Portfolio/Investment Mgt.	4	0.69	88.56
Printing/Publishing	3	0.52	89.08
Real Estate	1	0.17	89.25
Religion/Pastoral/Welfare	37	6.41	95.67
Research Centers	9	1.56	97.23
Retailing	2	0.35	97.57
Sales	7	1.21	98.79
The Arts	2	0.35	99.13
Transportation	3	0.52	99.65
Utilities	2	0.35	100.00
Total	577	100.00	

ⁱ Accounting/Auditing, Advertising/Public Relations, Aerospace/Automobile/Machinery, Architecture/Construction, Banking/Finance, Biotechnology, Chemicals/Pharmaceuticals, Commercial Banking, Communications, Conservation/Land Acquisition, Consulting/Professional Srvc, Creative Arts, Education, Energy/Metals, Engineering, Entertainment/Sports, Financial, Food/Lodging Services, Forest Industry, Gas/Oil/Petroleum Ind., Government, Government-Federal-Executive, Government-Federal-Judicial, Government-Federal-Legislative, Government-International, Government-Local, Government-State, Healthcare, Healthcare/Academic Medicine, Healthcare/Administration, Healthcare/Comm. Mental Hlth., Healthcare/Group Private Prac, Healthcare/International Hlth, Healthcare/Research Medicine, Healthcare/Solo Private Prac, Healthcare/Community Health, High Technology/Electronics, Human Resources, Information Technology, Insurance, Internet/E-commerce, Investment Banking, Legal Services, Management Information Systems, Manufacturing & Operations, Marketing, Medical & Surgical Instruments, Merchandising & Operations, Military, Museums/Galleries, Natural Resources/Farming, Non-Profit, Other, Other Manufacturing, Performing Arts, Portfolio/Investment Mgt., Printing/Publishing, Real Estate, Religion/Pastoral/Welfare, Research Centers, Retailing, Sales, Telecommunications, Textiles, The Arts, Transportation, Utilities, Venture Capital

ⁱⁱ Accounting, Acute care -ANP, African/African AM St, Afro-American Studies, AMA-Anesthesiology, AMA-Emergency Medicine, AMA-Family Practice, AMA-Hematology, AMA-Immunology, AMA-Internal Medicine, AMA-Medicine, AMA-Neonatal-Perinatal Med, AMA-Obstetrics & Gynecology, AMA-Oncology, AMA-Ophthalmology, AMA-Pathology, AMA-Pediatrics, AMA-Plastic Surgery, AMA-Primary Care, AMA-Psychiatry, AMA-Radiology, Anatomy, Anthropology, Art & Art History, Art Design, Art History, Asian/African Languages & Lit, Biochemical Engineering, Biochemistry, Biological Anthropology & Anat, Biology, Biomedical Engineering, Biometry Training Program, Botany, Business Administration, Cardiovascular-ANP, Cell and Molecular Biology, Cell Biology, Cellular & Biosurface Engineer, Chemistry, Civil Engineering, Civil Engr & Env Sciences, Classical Languages, Classical Studies, Clinical Research management, Coastal Enviro. Management, Comp. Literature, Comparative Area Studies, Computer Science, Cultural Anthropology, Drama, Earth & Ocean Sciences, Economics, Education, Electrical Engineering, Electrical/Computer Engg, Engineering Management, English, Enviro, Toxicology, Chemistry, Environmental Science & Policy, Environmental Sciences, Family Nurse Pract, Forest Resource Management, Forestry, French, Genetics, Genetics Major, Geology, German, Gerontological-CNS-Cert, Gerontology-CNS-Masters, Gerontology-NP, Global MBA, Health Administration, History, Hlth Sys Leardershp/Outcome, Humanities, International Development Pgm., Latin, Law, Liberal Studies, Linguistics, Literature, Management, Management Science, Master of Arts in Teaching, Master of Church Ministry, Master of Divinity, Master of Engineering Mgmt, Master Of Religious Education, Master Of Theological Studies, Mathematics, ME & Material Sciences, Mechanical Engineering, Medical Technician, Medieval Studies, Microbiology, Molecular Cancer Biology, Music, Natural Resource Ecology, Neurobiology, Non-Degree, Nursing, Pastoral Care & Counseling, Pharmacology, Philosophy, Physical Education, Physical Therapy, Physics, Physiology, Political Science, Pre-Medical, Program Two, Psychology, Public Policy Studies, Religion, Resource Ecology, Resource Economics And Policy, Romance Languages, Romance Studies, Russian, Science Education, Slavic Lang & Lit, Sociology, Socio-Psychology, Spanish, Statistics & Decision Sciences, Theology, Visual Arts, Water And Air Resources, Weekend MBA, Women's Certificate, Women's Studies, Zoology

ⁱⁱⁱ Allied Health Certificate, Bachelor of Arts, Bachelor of Divinity, Bachelor of Laws, Bachelor of Science, Bachelor of Science Elec. Eng., Bachelor of Science Mech. Eng., Bachelor of Science Nursing Ed, Bachelor of Science, Engineer., Bachelor of Science, Nursing, Certificate, Doctor of Education, Doctor of Philosophy, Juris Doctor, Juris Doctor/Master of Laws, Master in Engineering Management, Master of Arts, Master of Arts in Teaching, Master of Business Admin., Master of Church Ministry, Master of Divinity, Master of Education, Master of Environmental Man., Master of Forestry, Master of Health Admin., Master of Laws, Master of Public Policy, Master of Religious Education, Master of Science, Master of Science, Nursing, Master of Theological Studies, Master of Theology, Medical Doctor, No Degree, Registered Nurse