Data and Code for: Jillian Grennan, Social Change through Financial Innovation: Evidence from Donor-advised Funds

Code:

I use Stata for the main analysis. The main code file is: **00_Run_All_Files.do**. It calls thirteen other do files:

- **01_Prepare_Guidestar_Basic.do**: this code reads in and cleans the data from the digitized tax forms provided by Guidestar for the universe of DAFs.
- **02_Readin_Handcode_DAF_Classification.do**: this code reads in the novel DAF classifications analyzed by the RAs (e.g., target audience, style of services offered, features offered, focus of grant making)
- **03_Readin_Handcode_Investments_and_Classify.do**: this code reads in the hand-coded investment data and classifies it according to the label into equity, fixed income, hedge fund, social impact, short-term, long-term, etc…
- **04_Prepare_Grantee_NBER_and_AWS_Data.do**: this code uses NBER and AWS data to generate
- **05_Merge_Grants_Data_and_Chetty_Inequality.do**: this code generates two inequality variables at the commuting zone level based on Chetty et al. (2014) data and then uses a FIPS to commuting zone crosswalk to get it to zipcode to match up with the grantee data at the zip-code level.
- **06_Merge_Grantee_Financial_and_Governance_Data_with_DAFs.do**: this code creates the value-weighted and count-based statistics at the DAF-year level based on which charities individual DAF donors donated to using their DAF contributions.
- **07_DAF_Classification_Summary_Table.do**: This file creates Table 1, "Summarizing the DAF classification," and Table 2, "Descriptive statistics by DAF characteristics."
- **08_DAF_Investment_Summary_Table.do**: This file creates Table 3, "Descriptive statistics for DAF investments," and Table 4, "Investments by DAF characteristics."
- **09_DAF_Grantee_Summary_Table.do**: This file creates Table 5, "Grants by DAF characteristics."
- **10_DAF_Liquidity_Transformation_Regressions.do**: This file creates Table 6 "Liquidity transformation"
- **11_DAF_Grantee_Regressions.do**: This file creates Table 7, "Matching donors to grantees in regions with high social inequality, and Table 8, "Matching donors to grantees by financial need and efficiency of the charity"
- **12_Compare_Growth_DAF_Figures.do**: The file creates Figure 1 and Figure 2 in the paper that depict the growth of DAF contributions over time by style of services offered and other characteristics.
- **13_Create_NAICS_Appx_Table.do**: This file shows the most popular NAICS codes associated with DAFs.

Variable List:

Variable Name in Paper	**Name in Code**	**Variable Description**
Type of DAF sponsor		
Community foundation sponsor	comm_daf	an indicator variable equal to one if the DAF sponsor has community foundation in its organizational name or if the website description makes it clear that the sponsor is community based.
Single-issue charity sponsor	issue_daf	an indicator variable equal to one if the DAF sponsor is a single-issue charity as shown through the ``About Us'' section or as discerned through the ``Mission,'' ``Programs,'' or the DAF website information provided. Charitable has a generally accepted legal sense that includes relief of the poor, the distressed, or the underprivileged; advancement of religion; advancement of education or science; erecting or maintaining public buildings, monuments, or works; lessening the burdens of government; lessening neighborhood tensions; eliminating prejudice and discrimination; defending human and civil rights secured by law; and combating community deterioration and juvenile delinquency.
Sponsor that specializes in grant making	nso_daf	an indicator variable equal to one if the DAF sponsor is a sponsoring organization that specializes in grant making (e.g., subsidiary nonprofits to financial services providers like Fidelity Charitable). This information is typically shown through the ``Subject Area'' section or as discerned through the ``Mission,'' ``Programs,'' or the DAF website information provided.
Audience of users		
National	is_national	an indicator variable equal to one if the information provided under ``Mission,'' ``Programs,'' or the DAF website indicates that the DAF advertises to a national audience and/or has national brand recognition (e.g., Fidelity or United Way).
Inclusive	is_incl	an indicator variable equal to one if the information provided under ``Mission'' and ``Programs'' or on the DAFs website supports a designation of the DAF as being inclusive of everyone regardless of their identity or wealth.
Style of services offered by DAF		
Traditional style	style_trad	an indicator variable equal to one if the information provided under ``Mission,'' ``Programs,'' or the DAF website supports a style of services offered by the DAF that is traditional.

Innovative style	style_innov	an indicator variable equal to one if the information provided under ``Mission," ``Programs," or the DAF website supports a style of services offered by the DAF that is innovative.
Disruptive innovation style	style_disrupt	an indicator variable equal to one if the information provided under ``Mission," ``Programs," or the DAF website supports a style of services offered by the DAF that is disruptive innovation (Christensen, Raynor, and McDonald 2015)
No style	neither	an indicator variable equal to one if the information provided under ``Mission," ``Programs," or the DAF website does not have a style that appears to be traditional, innovative, or disruptive innovation.
Focus of grant making		
Discrimination	focus_disc	an indicator variable equal to one if the information provided under ``Mission" and ``Programs" or on the DAFs website supports a designation of the DAF as discrimination focused. Research assistants received training to look for services that targeted different categories of people who may experience unjust or prejudicial treatment, especially on the grounds of race, age, disability, gender, religion, sexual orientation, or history of abuse and violence.
Disparity	focus_disp	an indicator variable equal to one if the information provided under ``Mission," ``Programs," ``population served," or the DAF website supports a designation of the DAF as disparity focused. Research assistants received training to look for services to those described as low income or poor, facing homelessness, food scarcity, and/or any evidence of serving populations in need because of their economic disadvantage or displacement.
Diversity, equity, and inclusion	focus_dei	an indicator variable equal to one if the information provided under ``Mission" and ``Programs" or on the DAFs website supports a designation as disparity or discrimination-focused. I supplement the written descriptions for those that do not fill out all the descriptive information based on NAICS codes. Specifically, I code DAFs with the following NAICS codes as focused on DE\&I: 221, 62421, 81311, 524114, 531199, 541110, 541199, 541720, 621340, 621410, 621498, 621610, 622110, 623190, 623220, 624110, 624120, 624190, 624210, 624221, 624229, 624230, 624310, 624410, 813219, 813311, or 813319.

U.N. sustainability goals	focus_un_sdg	an indicator variable equal to one if the DAF lists one or more of the United Nation's Sustainable Development Goals on either its website or its GuideStar profile.
Features offered		
Opportunities to build relationships	feature_relation	an indicator variable equal to one if the DAF provides support services in the form of close relationships and mentoring for the nonprofits/programs they support or if they foster social relationship building in the community of donors.
Impact investing	feature_impact	an indicator variable equal to one if the DAF website advertises that it offers impact investing.
Provides tools	feature_tool	an indicator variable equal to one if the DAF provides tools in the form of technological platforms for donors to find charities that match their philanthropic vision or other capacity building tools to the nonprofits they support.
Financial data from tax forms		
DAF size	daf_size	the log of total assets at the beginning of the year for a given DAF-sponsoring organization
DAF age	daf_age	the difference between the year of the observation and the formation year
Contributions	contrib_all	can be in the form of cash contributions or noncash contributions
Growth in contributions	contr_gr	change in total contributions relative to the prior year's total contributions (i.e., (contrib_all-contrib_all_prior)/contrib_all_prior)
Investment revenue growth	inv_rev_gr	the change in investment income relative to the prior year (i.e., (income_investment-income_investment_prior)/income_investment_prior)
Ratio of noncash contributions	nc_ratio	the ratio of noncash contributions relative to total contributions (i.e., contrib_noncash/contrib_all).
# domestic grants	num_dom_grants	the summation of individually reported domestic grants from IRS Schedule I, Part II.
# intl. grants	num_intl_grants	the summation of individually reported international grants from IRS Schedule F, Part II.
# dom. + intl. grants	num_tot_grants	the summation of individually reported domestic and international grants (i.e., num_dom_grants + num_intl_grants)
Total grants	total_grants	the total number of grants both domestic and international made in a given year by a DAF-sponsoring organization. This data is pulled from IRS Form Part IX - Line 1, 2, and 3 (i.e., grants_orgs_us + grants_individuals_us + grants_orgs_non_us)

Value of grants	max_grants	The dollar value of the grants made in a given year recorded by a DAF-sponsoring organization. When the dollar value calculated by summing across all Schedule F, Part II and Schedule I, Part II grants did not match the dollar value calculated by summing Part IX, line 1 (Grants to U.S. organizations) + Part IX, line 2 (Grants to individuals) + Part IX, line 3 (Grants to non-U.S. organizations). The maximum of the two was used. This is also the case when it is used as an input into the payout ratio.
Distribution ratio	alt_distr_ratio_am	Follows the Andreoni and Madoff (2020) method for clauclating DAF payout (i.e., max_grants/(assets_total_boy + contrib_all + income_investment + income_bonds))
Weak governance	family	an indicator variable for if the DAF has a family relationship. It comes from an analysis of the key personnel data reported in Part VII-A of the tax filing, which contains the names of officers, directors, trustees, or key employees. An algorithm then cleans the names and identifies cases where two family members are present. A family relationship is viewed as a sign of nonindependence and weak oversight.
Grantee local economic ineqaulity, economic stability, governance, and fundraising abilities. Note: "high" is always defined as above the median among the universe of NBER charitable organizations filling out form 990, and thereby, considers charitable organizations even if they don't receive DAF contributions. Variables are pulled from NBER unless AWS is noted.		
Grantee in high inequality areas	dga_ineq	matches grantee physical addresses with an intergenerational-mobility measure of inequality at the commuting-zone level based on Chetty et al. (2020). This measure focuses on the black-white gap for men, which is main driver of black-white gap according to Chetty et al. (2020) (i.e., kir_white_male_p25 - kir_black_male_p25)
Grantee in high inequality areas (alt.)	dga_ineq2	matches grantee physical addresses with an intergenerational-mobility measure of inequality at the commuting-zone level based on Chetty et al. (2020). This measure captures black-white gap for men and women. It requires the assumption of male and female population split at 50/50. (i.e., ((kir_white_male_p25 + kir_white_female_p25) - (kir_black_male_p25 + kir_black_female_p25)) / 2)
Grantee unrestricted surplus	gr_prof_alt	measure of profitability for nonprofits and it is Balance Sheet, line 27B (Unrestricted net assets, end of year).

Grantee liquidity	gr_mths_liquid	measured as the months of liquidity and it is [Balance Sheet, line 1B (Cash = nonintcashend) + line 2B (Savings = svngstempinvend)] divided by [(Line 25A (Total functional expenses = totfuncexpns) - line 22A (Depreciation = deprcatndepletn)) / 12 (months)].
Grantee liquid unrestricted net assets (LUNA)	gr_mths_luna	an alternative measure of liquidity and financial flexibility. It is calculated as [Line 27B (Unrestricted net assets = unrstrctnetasstsend) - line 10c (Land, buildings, and equipment = lndbldgsequipend) - line 23B (Secured mortgages = secrdmrtgsend) - line 20B (Tax-exempt bond)] divided by [(line 25A (Total functional expenses) - line 22A (Depreciation)) / 12 (months)]. When net equity in PPE is negative, it is excluded from the calculation of months of unrestricted liquid net assets.
Grantee contribution volatility	gr_volat	the standard deviation in the contributions received over the prior 3 years.
Grantee is a commercial nonprofit	gr_comm_np	an indicator variable equal to one when the charity is in the upper quartile for service-related revenue (totprgmrevnue) relative to total revenue (totrevenue) among all charities.
Grantee contributions revenue	gr_contrib_rev	total contributions (i.e., totcntrbgfts)
Grantee administrative efficiency	gr_adm_eff	a measure used by Baber, Daniel, and Roberts (2002) and is calculated as total functional expenses from programming scaled by total functional expenses (i.e., tot_func_exp_prog (from AWS) relative to line 25A (Total functional expenses)).
Grantee transparency	gr_uses_auditor	an indicator variable for if the charity indicates that they have audited financial statements (i.e., sepindaudfinstmtcd==”Y”)
Grantee weak governance (total)	bgov_tot	the sum of six different proxies for weak governance. The first four relate to nonindependent relationships like family members on the board and the last two relate to compensation. The six components are (1) grantoofficercd=="Y," (2) dirbusnreltdcd=="Y," (3) fmlybusnreltdcd=="Y," (4) servasofficercd=="Y," (5) an indicator variable for if an officer of the charity is paid more than 100,000, and (6) an indicator for if any contractor is paid more than 100,000.
Grantee weak governance (relation)	bgov14	the sum of four different proxies for weak governance that relate to nonindependent relationships on the board: (1) grantoofficercd=="Y," (2) dirbusnreltdcd=="Y," (3) fmlybusnreltdcd=="Y," and (4) servasofficercd=="Y."

Grantee weak governance (pay)	bgov56	the sum of two different proxies for weak governance related to compensation. The two components are an indicator variable for if an officer of the charity is paid more than 100,000, and an indicator for if any contractor is paid more than 100,000.
Grantee depends on donations	gr_gift_dep	an indicator variable equal to one if the ratio of total contributed gifts (totcntrbgfts) relative to total revenue (totrevenue) places the charity among the upper quartile of charities for that ratio.
Grantee fundraising-to-contributions	gr_f2contr	total fundraising expenses are tot_func_exp_fund (pulled from AWS) plus any professional fundraising expenses (profndraising) relative to total contributions received.
Grantee fundraising-to-expenses	gr_f2exp	total fundraising expenses are tot_func_exp_fund (pulled from AWS) plus any professional fundraising expenses (profndraising) relative to total functional expenses (line 25A, Total functional expenses).
Grantee margin on fundraising events	gr_mgn_fevent	is the ratio of the net income from fundraising relative to the gross income from fundraising (i.e., netincfndrsng/grsincfndrsng)
Grantee fundraising revenue	gr_frev	is the max of deferedrevnuend (i.e., fundraising events revenue) and grsincfndrsng (i.e., gross fundraising)

Datasets:

Dataset name	Dataset description	File created in
"Main with additional details.dta"	cleaned data from the digitized tax forms provided by Guidestar for the universe of DAFs	01_Prepare_Guidestar_Basic
"Dom Grants Detail.dta"	cleaned DAF grantee data from the digitized tax forms provided by Guidestar for the universe of DAFs	01_Prepare_Guidestar_Basic
"DAF classification clean.dta"	cleaned classification data for universe of Guidestar DAFs based on RAs handcoding	02_Readin_Handcode_DAF_Classification
"Securities with handcode for tables.dta"	cleaned investment data for DAFs from RA-digitization of downloaded Schedule D tax forms	03_Readin_Handcode_Investments_and_Classify
"Form_990_AWS.dta"	Source: https://registry.opendata.aws/irs990/	

"NBER_990.dta"	Source: https://www.nber.org/research/data/irs-form-990-data	
"NBER Grantee for merge.dta"	Cleaned dataset with grantee financial, governance, and fundraising abilities	04_Prepare_Grantee_NBER_and_AWS_Data
"chetty_mobility_data.dta"	Source: http://www.equality-of-opportunity.org/data/	
"tract_covariates.dta"	Source: http://www.equality-of-opportunity.org/data/	
"Zip to FIPS.dta"	Source: https://www.huduser.gov/portal/datasets/usps_crosswalk.html	
"Grants detail with inequality.dta"	Cleaned dataset with grantee local economic inequality measures	05_Merge_Grants_Data_and_Chetty_Inequality.do
"DAF-Grants combined for regs at DAF-year level.dta"	Cleaned dataset with the value-weighted and count-based statistics at the DAF-year level based on which charities individual DAF donors donated to using their DAF contributions	06_Merge_Grantee_Financial_and_Governance_Data_with_DAFs