

MPSA Policy Analysis Track

Employer Skills Report

2021



TEXAS A&M UNIVERSITY

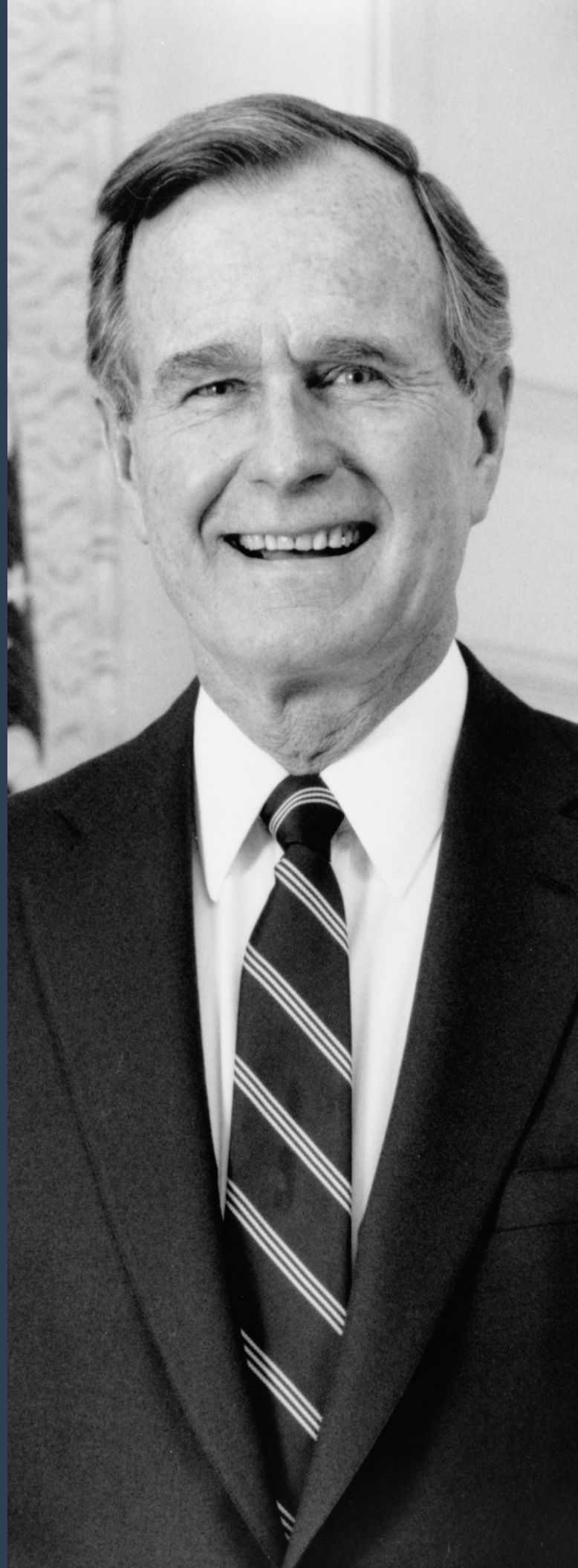
The Bush School

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Executive Summary

The purpose of this project is to understand what prospective employers of Master of Public Service and Administration graduates (particularly those in the policy analysis track) are seeking in new hires. First, we were tasked with increasing the response rate from employers that hire policy analysis students using a modified version of the 2020 employer survey. This survey attempts to assess skills and competencies relevant to the NASPAA's core competencies and the Bush School's curriculum.

We reached out to policy employers by searching through policy job postings, connecting with policy-involved organizations, and reaching out to Bush School alumni with a message in a survey to respond only if the organization employs people in policy positions. We distributed the survey through Qualtrics to a total of 1,438 Bush School alumni; local, state and federal government officials; nonprofit employers; and policy organization employers. The survey had a 9% response rate. Most of the contacts (1,038) were provided by the Bush School's career service center and are alumni of the PSAA and EMPSA programs. Most of our respondents reside in Texas. Nonprofit organizations provided the most responses to our survey—it is worth noting that think tanks and other policy agencies are often registered as nonprofit institutions. At least half of all respondents have hired someone with an MPP, MPA, or MNP in the last ten years, with most hires having MPA degrees. Most employers indicated they had no preference in regard to the degree that a prospective job candidate held (MPA, MPP, or MNP). Most survey respondents were familiar with the Bush School because they are alumni. Survey findings indicate that the most sought-after skills include:

- ◆ *Writing Skills:* Writing a 3-5 page brief and writing a memo
- ◆ *Communication Skills:* Presenting to a group/staff or client
- ◆ *Interpersonal Skills:* Working well with groups/teams and professionalism
- ◆ *Basic Computer Skills:* Microsoft Word and Excel
- ◆ *Advanced Computer Skills:* Advanced Spreadsheets and Tableau
- ◆ *Analysis Skills:* Managing/analyzing data, analyzing case studies, designing and administering surveys
- ◆ *Policy Analysis Skills:* Analyzing policies and making recommendations
- ◆ *Financial Skills:* Preparing and using a budget and analyzing economic effects of a policy
- ◆ *General Knowledge:* Policymaking process, role of economics in policymaking, key tools of policy analysis, and framing policy issues

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Introduction

Our research intended to modify, administer and evaluate the 2020 employer survey regarding potential employers' value in Master's in Public Service and Administration (MPSA) students—particularly those on the policy analysis track. This project was in response to a charge memo presented by Dr. Lori Taylor, Head of the MPSA department at the Bush School of Government and Public Service at Texas A&M University. In 2020, a previous group of Bush 635 students ran a similar survey but were only able to survey mostly non-profit and local government employers, with few employers of public policy students. The first goal of our survey was to determine if the policy track meets potential employer expectations through courses taken at the George H. W. Bush School of Government & Public Service. A secondary goal was to measure if the skills and knowledge included in the MPSA curriculum are mapped to those required by employers in new graduate hires. The information garnered from the survey has two purposes: it will both serve to inform the crafting of classes and curriculum for future students of the Bush School and it will provide information for NASPAA accreditation on what we are already doing correctly.

The target audience of the survey was potential employers of policy track MPSA Bush School students. The survey was modified in Qualtrics and distributed to 1,483 Bush School alumni; NPOs; local, state and federal government; and private employers. Most of our contact list was provided by Dr. Matthew Upton from the Bush School's Career Services Center. The survey included multiple-choice and open-ended questions. The open-ended questions were provided to ensure respondents had an opportunity to share any additional thoughts with us. We received 128 responses in total, giving the survey a 9% response rate.

Literature Review

The Bush School's Master of Public Service and Administration (MPSA) program seeks to identify potential policy employers and the knowledge and skills they are looking for in new policy graduates. To begin this process, consideration should be given to prior research from other public administration/policy graduate programs and scholarly work evaluating MPP degrees' value in the professional world.

Henderson and Chetkovich (2014) surveyed MPP alumni from the Harvard Kennedy School to find which skills from their programs the alumni use the most in professional work. This survey found that written and oral communication, systematic thinking about problems, managing a heavy workload, and group work were the highest valued scores. An interesting finding was that the program's skills related to quantitative analysis such as economics and statistics were only ranked highly in the alumni who worked for the private sector. Another employer survey study conducted by Christian & Davis (2018) found that employers generally preferred students to have skills around basic computer literacy, management functions related to policies and procedures, records retention and system security. Interestingly, employers who hire MPA graduates with minimal IT skills often offer internal training (40%) and sometimes cover the costs (24%). One issue with this study is that 80% of the employers who responded were city managers, who tend to do more management and less policy work.

Christian & Davis (2018) also surveyed MPA alumni. This study showed that more than half of the MPA alumni surveyed found general computer literacy an essential or critical skill in their careers. Examples of skills included: experience with word processors and spreadsheets, the ability to participate in needs assessments, business process analysis, feasibility studies implementation, implement new technology initiatives, and the ability to evaluate technology implementations using tools such as cost-benefit analysis and return on investment (Christian & Davis, 2018, p. 166). This alumni survey did not seem to fall prey to the same issues as their employer survey, as the respondents that were surveyed worked in a variety of organizations within the nonprofit sector as well as agencies and organizations within all levels of government (Christian & Davis, 2018, p. 165). Denhardt (2002) suggests that MPA programs develop different skills in different students. He states that "pre-service MPA students move from their graduate degree programs into positions that are primarily technical or analytical." In contrast, students who already have experience in their careers "have probably graduated from their initial analytical positions into management

jobs" (Denhardt, 2002, p. 572). This implies that MPA programs develop base analytical skills in MPA students who have not yet started their careers in public service, while the same programs develop greater managerial skills in MPA students who are already established in their careers.

Additional literature addresses curriculum and employability interplay from a pedagogical perspective. Three are specifically useful here: 1) Theory and practice, 2) Cultural and interpersonal competence, and 3) Geographic and local governance interaction (Newmann, 1996; Holmner & Adams, 1995; Gabris et al., 2018). Newman (1996) notes that public administrators function in a dramatically changing workforce and world, and public administrators responding to such flux require creative powers. For such development, mere lecturing is not enough. Educational programs for public administrators need to include experiences that nurture valued skills such as communication, negotiations, team-building, and technical skills such as budgeting, finance and personnel management. Holmer & Adams (1995) note the cultural and emotional competence required of employees, particularly communication and interaction with a diverse set of people. This factor, they note, is also related to organizational performance. Lastly, Gabris et al. (2018) address the concern of the supply and demand of local or regional government professionals.

To conclude, almost all these studies address MPA programs and administration students, while Henderson and Chetkovich (2014) specifically address MPP professionals. Henderson and Chetkovich's (2014) contributions provide a helpful alumni narrative and Christian & Davis (2018) provide insights from both employers and alumni. Denhardt (2002) details the effect of curriculum upon joining the workforce and considers variation in the pedagogical approach. While this literature review covers findings for various other institutions and degree types, there is room for research specific to The Bush School and its curriculum.

Methodology

In continuing the work begun by the previous students' group, we started with the goal to expand understanding and insights, re-employ the survey utility, and gather a considerable number of responses from specifically policy analysis employers.

Employer Outreach

Up-to-date industry preferences and trends were ascertained by directly contacting employers and experienced professionals in related fields. The team contacted employers and employees in public policy to answer the survey through email and LinkedIn messaging. We made the assumption as a team that everyone who responded to this email is a policy employer as the email that was sent along with the survey included the sentence: "Our target audience involves those who are part of the hiring process for jobs that involve policy analysis." See Appendix B: Survey Distribution Emails. Therefore, we assume everyone who responded to this survey is a policy employer. All alumni of the Bush School MPSA and EMPSA programs received the survey. As people became more involved in policy roles from many types of degrees and backgrounds, we found this to be a more comprehensive way to reach people than limiting our outreach to graduates of the policy-analysis track alone.

Survey

The survey was the prime tool in this project. The 2020 Survey group initially designed the survey on Qualtrics. This year, that survey was modified through a three-step review. First, we thoroughly studied the survey and made necessary notes for discussion. Then we discussed our thoughts about changes on the survey with Dr. Taylor and Dr. Lahey. Dr. Lahey provided us with feedback on the survey before finalizing it to send to employers.

The major changes made to the existing survey mainly addressed clarity of questions and using precise terminology. Some of the question types, such as "Rank the Given Options," were removed and/or redesigned because the previous group had difficulty analyzing it on Stata and Excel. The final survey had a total of 22 questions.

Target Contacts and Survey Dissemination

This year's group members piloted the finalized survey before distributing it. The challenge of gathering a large pool of potential respondents was attempted in two manners. The group

members searched and found contacts available online, specifically on employment forums, employer websites, LinkedIn, personal networks and alumni networks. We consulted with students of the previous year's group, and ultimately, crucial help was received from Dr. Upton in the form of contact information of 1038 Bush School MPSA & EMPISA alumni. In total, the survey was sent to 1,438 professionals composed of Bush School alumni; local, state, and federal government officials; nonprofit employers; and other policy organization employers. The employers were targeted for hiring policy employees through policy job postings and employer descriptions. All respondents were instructed to participate only if they hired policy people. The survey was open from Mar 1, 2021, to Apr 5, 2021. With a 9% response rate, we received 128 responses. To incentivize the responders, we offered four \$25 Amazon gift cards. Responders were invited to participate in this offer by providing their email addresses.

Analysis

There were two types of questions in the survey. The first set of questions was formed to get demographic information and gauge organizations' familiarity and preferences related to different MPSA programs. The data were analyzed using Excel and Stata. The second set of questions asked participants which skills were important for new graduates to possess. The different categories for the skills questions in the survey are as follows: Writing Skills, Basic Computer Skills, Advanced Computer Skills, Financial Skills, Research Skills, Management Skills, Implementation Skills, Speaking Skills, Interpersonal Skills, Analysis Skills, Forecasting Skills, Skills in Economics, Resume Skills and Understanding Sector Relations. Each category was graphed and further analyzed.

Results

Demographics

Texas was the epicenter of survey participation with 73 responses, with the DMV (DC, Maryland, Virginia) region following with 20 responses. This may indicate a greater level of state perspectives than federal. See Figure 1.

Nonprofit organizations are the most common organizations that respondents work for (37 respondents), followed by for-profit and state government organizations (24 each). Note that most think tanks identify as nonprofit organizations, and many policy consulting agencies are for-profit organizations. Initial contact lists for this survey distribution focused on identifying individuals in policy focused jobs that would be familiar with the skills required for policy analyst work. Our secondary list consisted of MPSA & EMPSA program graduates. With this in mind, we are confident that our analysis will provide the desired information to evaluate policy analysis students' preparedness for employment and will be analyzing our data holistically. See Figure 2.

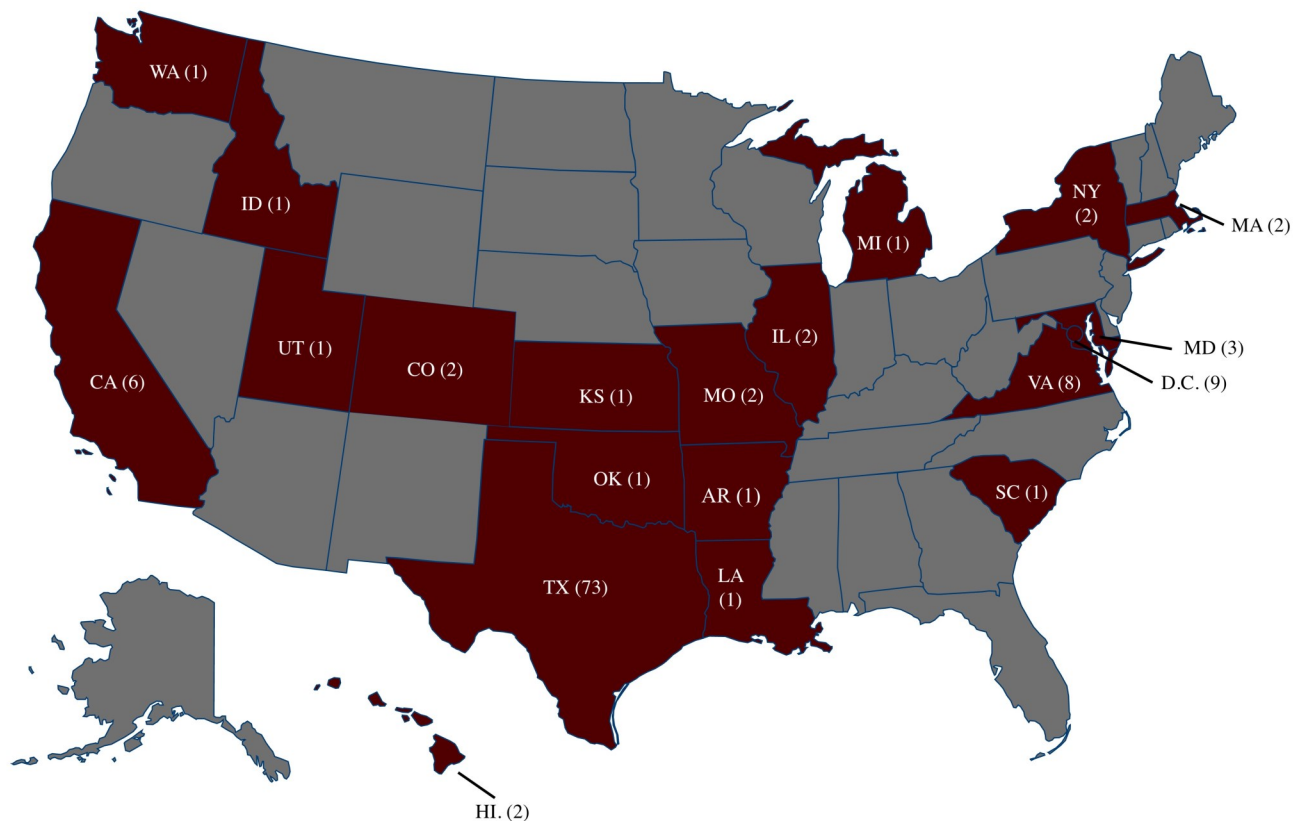


Figure 1: Map of Location of Survey Respondents
Respondents chose one option

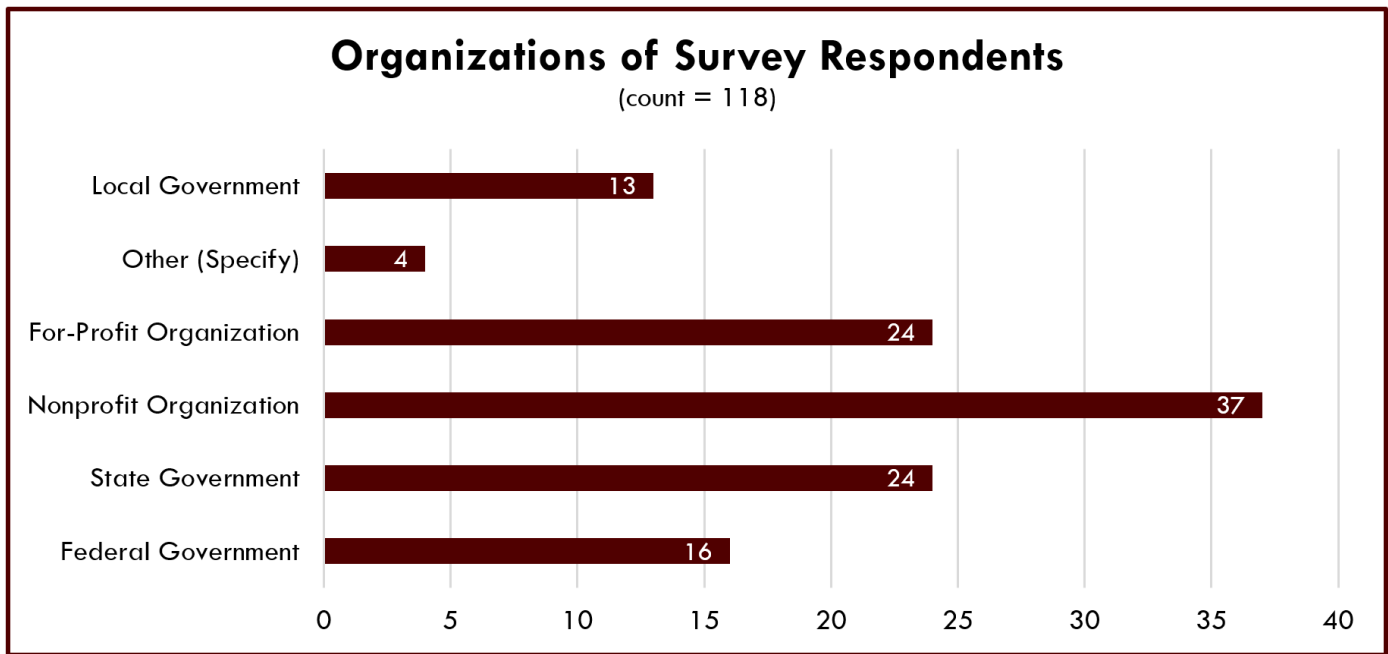


Figure 2: Organizations of Survey Respondents

Respondents chose one option

The most common degree hired (or at least the most common degree recalled by survey respondents) is a generic MPA degree, followed by an MPP. Nonprofit organizations are the most common organizations that respondents work for, followed by for-profit and state government organizations. Note that most think tanks identify as nonprofit organizations, and many policy consulting agencies are for-profit organizations. See Figure 3.

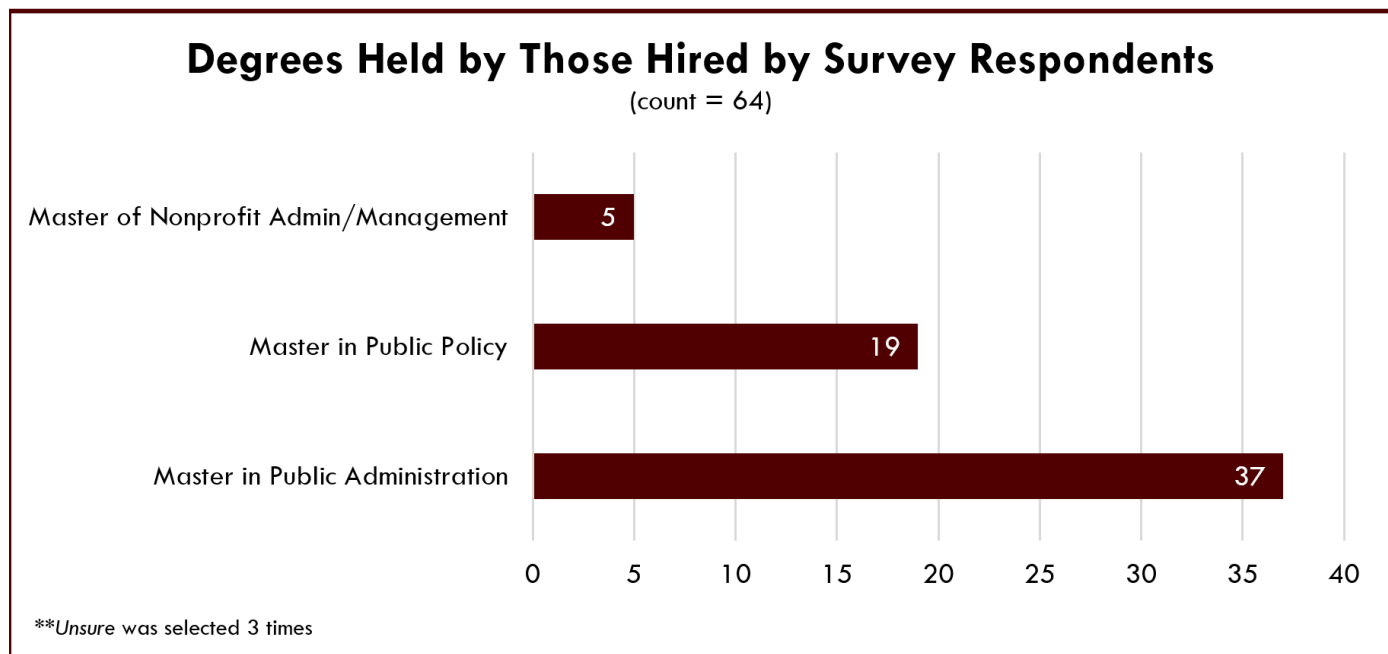


Figure 3: Degrees Held by Those Hired by Survey Respondents

Respondents chose one option

Have you interacted w/ MPSA students from the Bush School?

To analyze the respondents' interactions with Bush School graduates, we asked whether the respondent had ever previously hired a Bush School student (internship or full time), managed a Bush School graduate, worked with a Bush School graduate, is an MPSA graduate, knows about the MPSA program at the Bush School, or has never heard of the MPSA program at the Bush School. The question was formatted for respondents to be able to check all that applied. Survey respondents were most likely to be graduates of the MPSA program (49 respondents), likely because most of our contacts were derived from a list of MPSA graduates, while other respondents at least knew of the program (33 respondents) or had even worked with a graduate (22 respondents). Only 8 survey respondents had no familiarity with The Bush School. These results are probably not representative of the greater population due to the bias in our sample. See Figure 4.

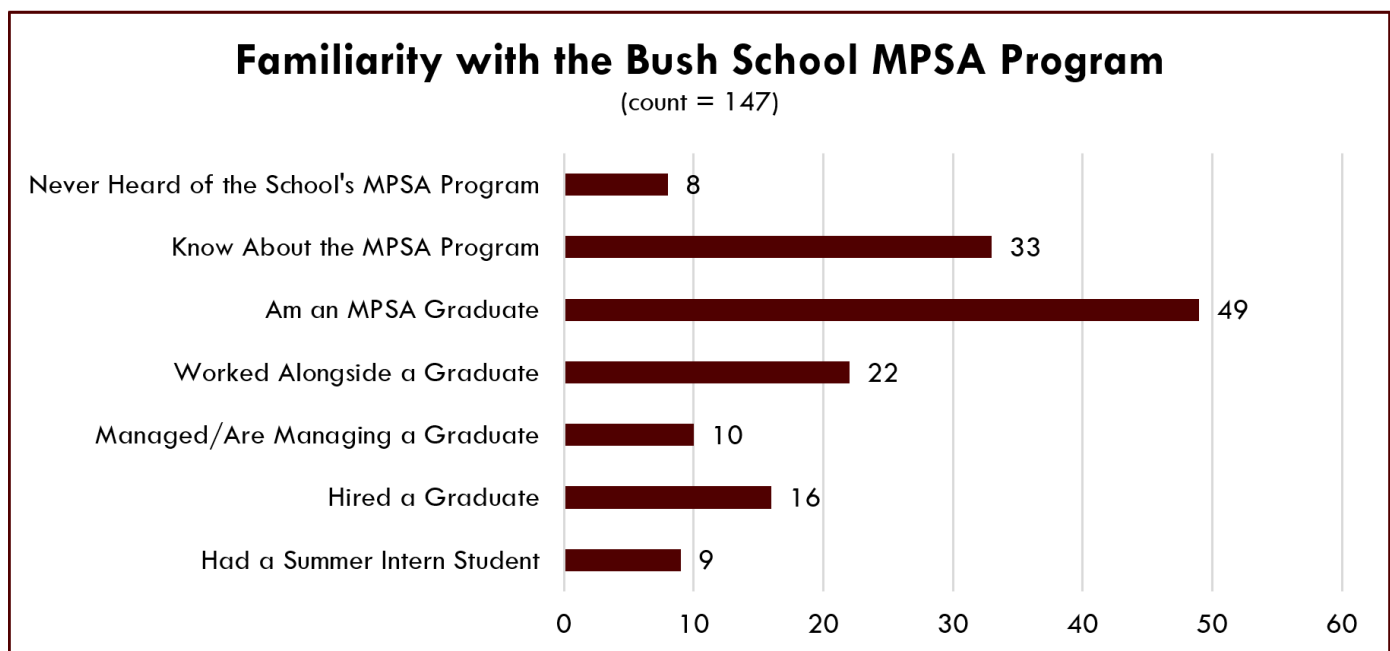


Figure 4: Graph of Familiarity with the Bush School MPSA Program

Respondents checked all applicable options

Have you hired someone with an MPA/MNP/MPP degree in the last 10 years?

Next, respondents were specifically asked if they had hired someone with a Master of Public Policy, Master of Public Administration, or Master of Nonprofit Management graduate in the past 10 years. This question was used to gauge the familiarity of the respondents with degrees similar to those offered by the Bush School. 45% of respondents said they had hired a public service masters' graduate, and 41% said they had not. This question may have caused some confusion-- some respondents may not be in a hiring position and could have interpreted it as a personal question instead of as a question for their organization. See Figure 5.

Survey Respondents That Hired Master Degrees in Public Sector

(count = 111)

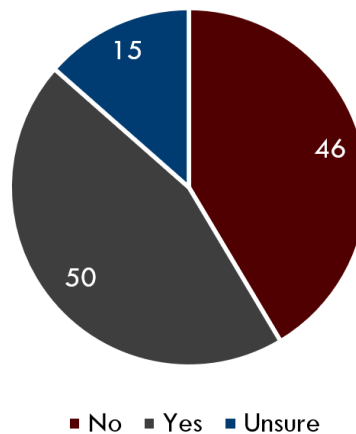


Figure 5: Graph of Graduates Hired

Respondents chose one option

Which degree is the best future hire?

The respondents who had hired someone with an MPA, MPP or MNP degree in the last ten years were then asked to specify which graduate they had hired. Figure 6 shows most survey respondents who had hired a graduate had no preferred degree (40 respondents) for new hires. Those who did have a preference indicated they preferred MPA (31 respondents) and MPP (29 respondents) degrees with only 4 survey respondents indicating they preferred to hire an MNPA.

Which skills do employees prefer in new hires?

The second part of survey questions aimed to identify in-demand skills and knowledge employers value most in MPA/MPP/MPSA/MNP graduates. Most questions asked respondents to choose three of their most valued skills or competencies. Each answer choice for the skills questions was randomly assigned to prevent question- order bias. Respondents preferred basic spreadsheets and word processors skills at the top the preferred computer skills list (88 selections each, with presentation design software following closely behind (80 selections). See Figure 7.

Advanced skill in spreadsheet software (66 selections) outpaces the next highest computer skill, Tableau (22 selections), in preference by three fold. The weight of state-level organizations may have an impact on these results (perhaps the federal agencies need more powerful databases to run their larger datasets) but it is undeniable that policy analyst employers place a high premium on advanced spreadsheet skills. Respondents who chose “other” referenced SQL (4) and HMIS (1) Salesforce (1) Javascript (1), Sharepoint (1), AWS (1) as desired skills. See Figure 8.

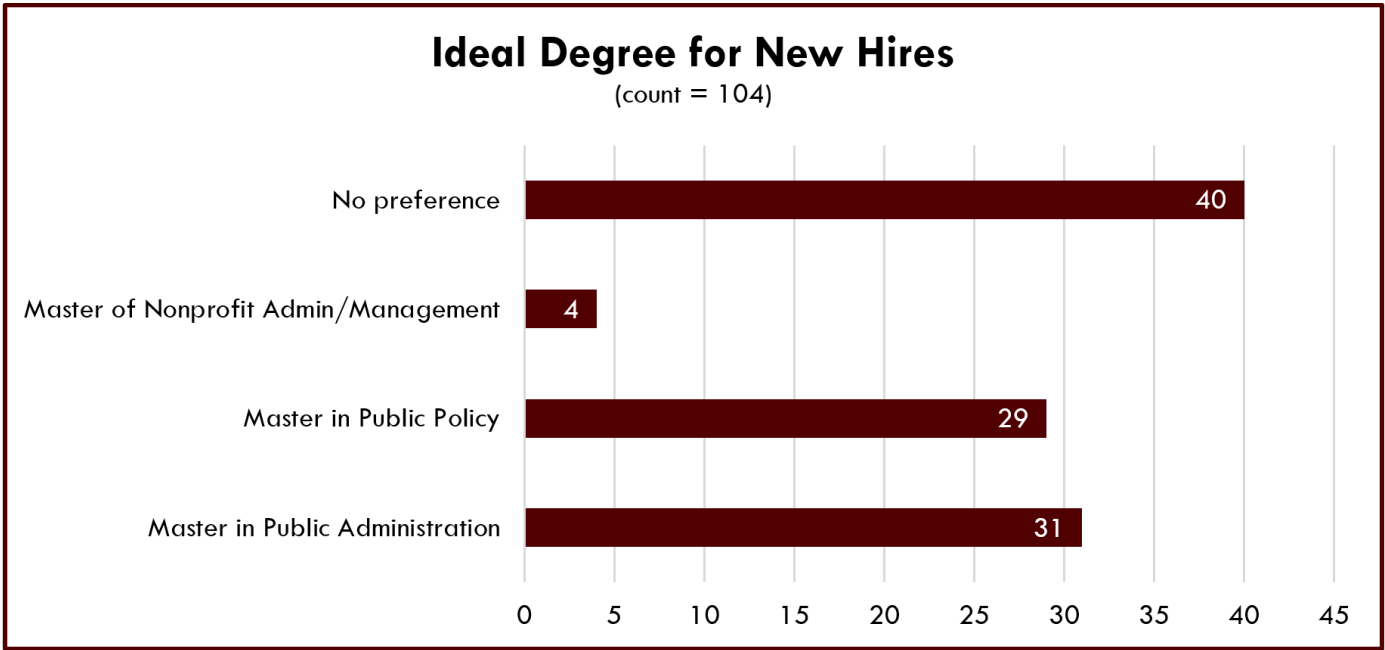


Figure 6: Graph of Preferred Degree for Hires
 Respondents chose one option

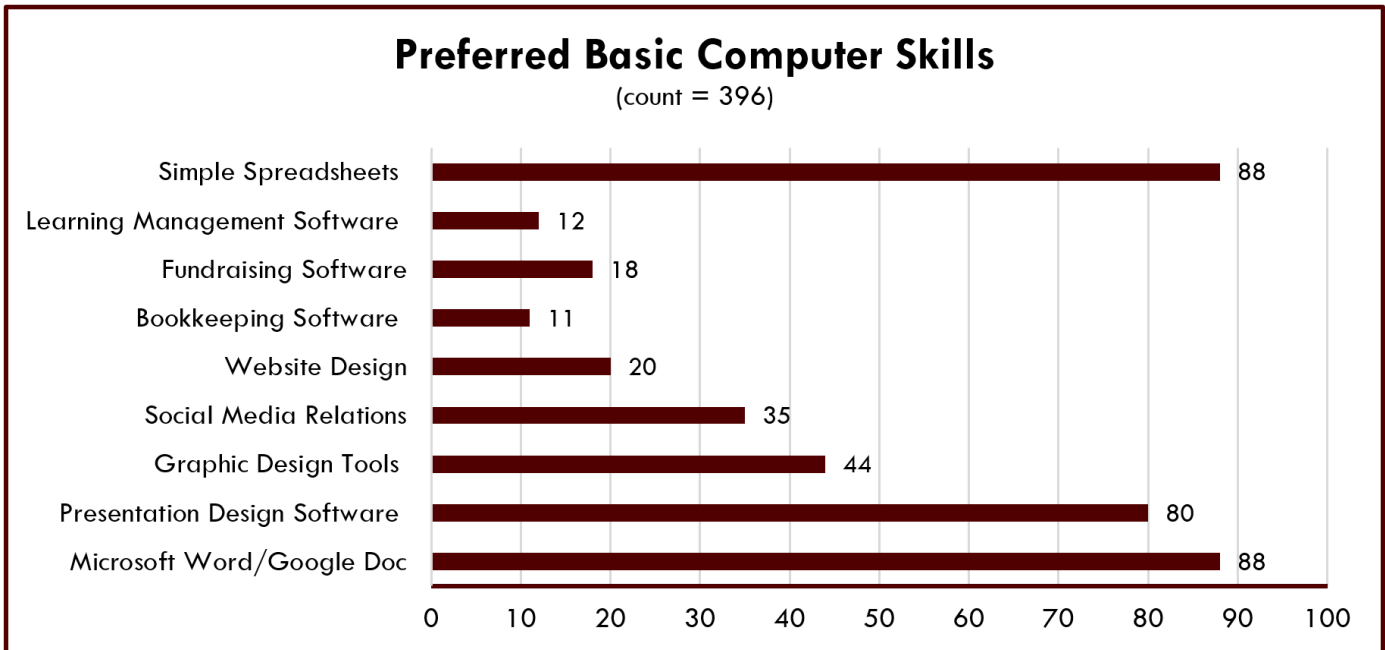


Figure 7: Graph of Preferred Basic Computer Skills
 Respondents chose up to three options

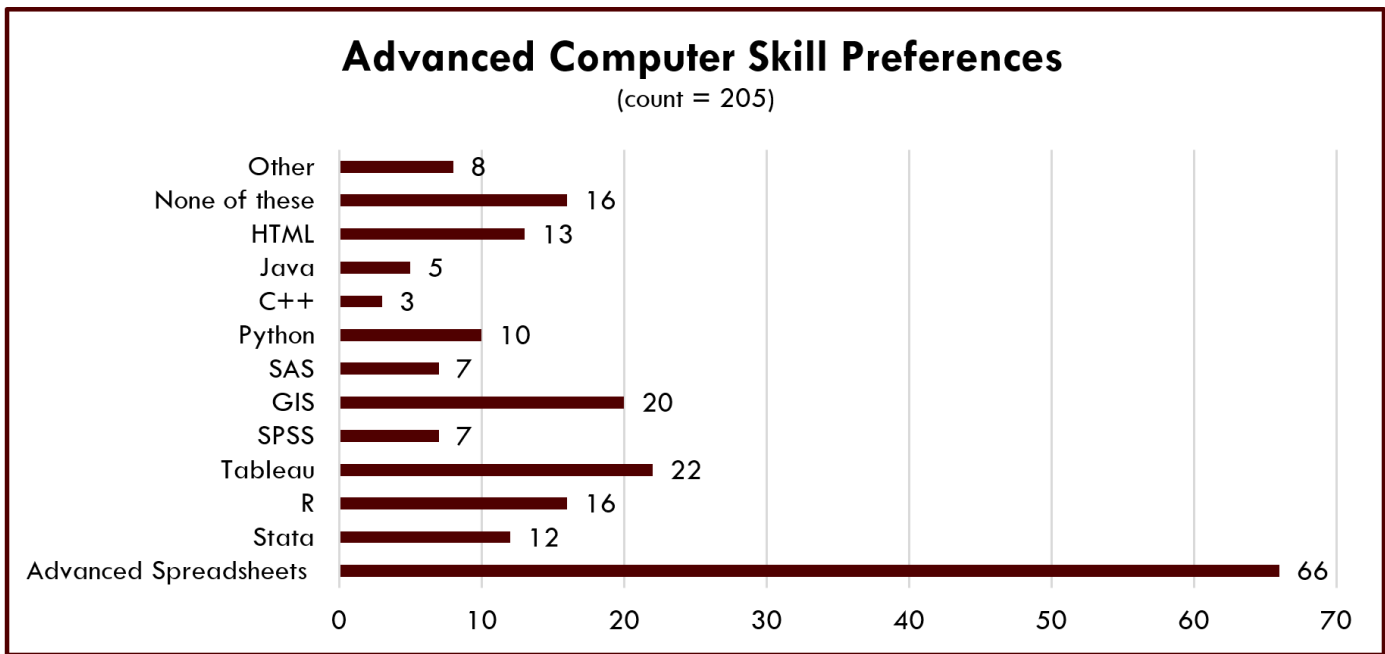


Figure 8: Graph of Preferred Advanced Computer Proficiencies

Respondents chose up to three options

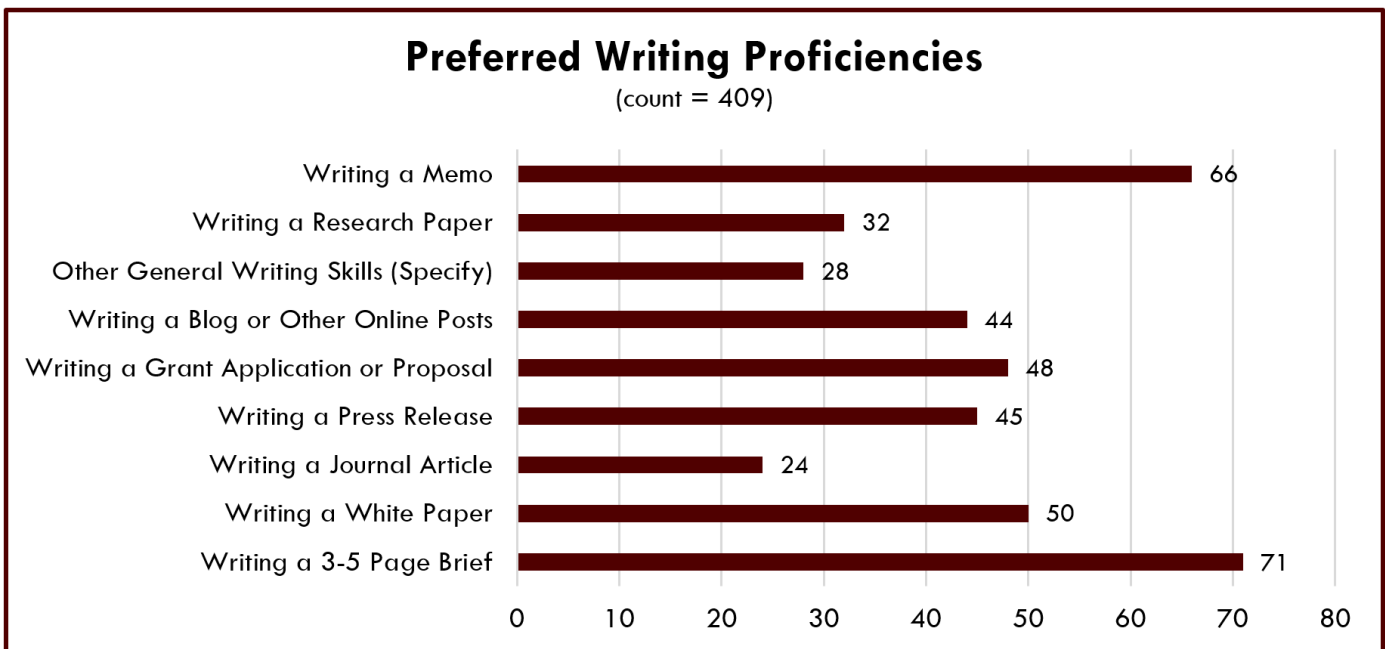


Figure 9: Graph of Important Writing Proficiencies

Respondents chose up to three options

The top two writing skills survey respondents identified as most desirable were writing short briefs (71 selections) and writing memos (66 selections). There were strong responses for all the other proficiencies as well, but extra support was shown for writing a white paper (50 selections), grant writing (48 selections), writing press releases (45 selections), and online writing skills (44 selections). See Figure 9.

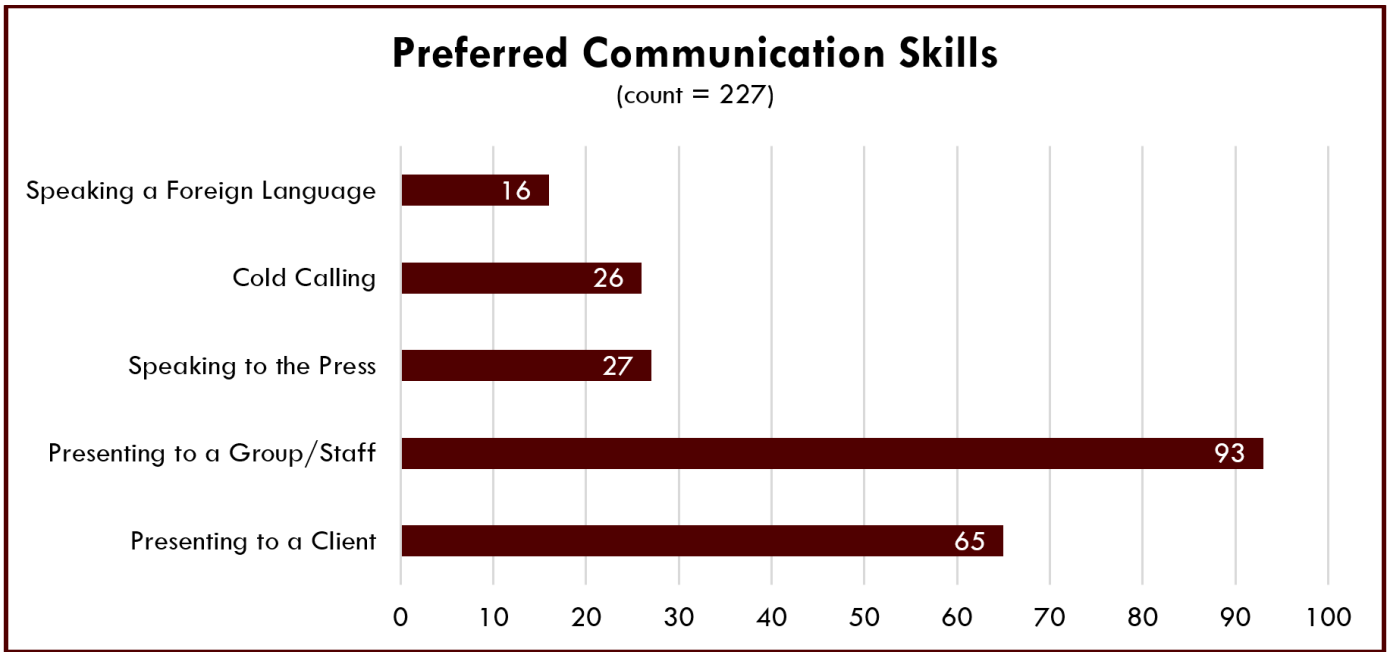


Figure 10: Graph of Important Communication Proficiencies
 Respondents chose up to three options

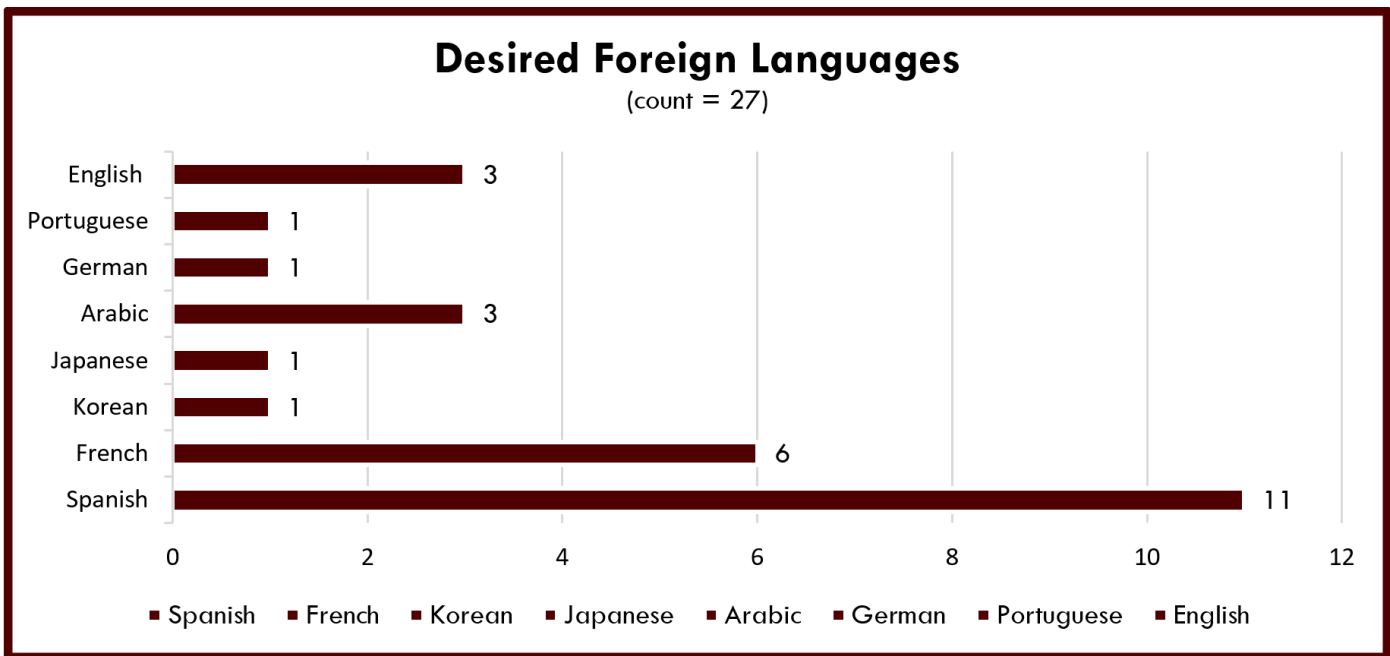


Figure 11: Graph of Desired Foreign Languages
 Respondents entered desired languages

Respondents were asked to indicate their top preferred communication skills. The top communication skills marked by survey respondents centered around presentation skills, both to staff (93 selections) and clients (65 selections). See Figure 10.

Respondents that indicated a foreign language was a desirable skill (16 respondents) were then asked to identify their preferred language. The top two foreign languages desired by survey respondents were Spanish (11 responses) and French (6 respondents). Considering the heavy weight of state-level and Texas organizations on this survey, the emphasis of Spanish is not surprising. See Figure 11. When participants were asked which management skills were most ideal, survey respondents selections centered around Project Management (75 selections), Setting Goals or Objectives to Meet Needs (42 selections) and Managing Stakeholder Relationships (41 selections). See Figure 12. Respondents were permitted to choose up to three options on the question displayed in Figure 12.

Respondents were asked to indicate which interpersonal skills they valued most with the option to select up to three choices. Interpersonal skills in general were highly rated across the board, with working well on teams scoring the highest (85 selections as a member and 66 selections as a leader), followed closely by maintaining professionalism (76 selections) and active listening (72 selections). Measurement of these soft skills may prove problematic as different individuals may define soft skills differently. See Figure 13.

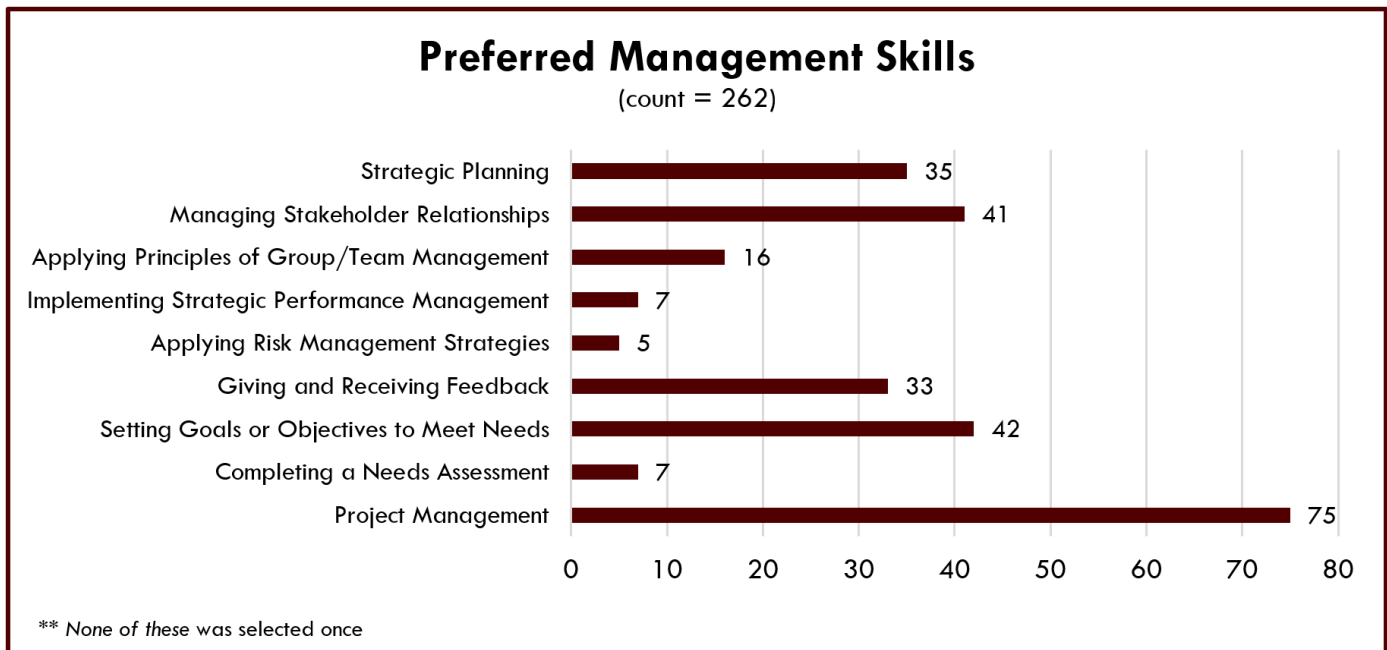


Figure 12: Graph of Important Management Skills

Respondents chose up to three options

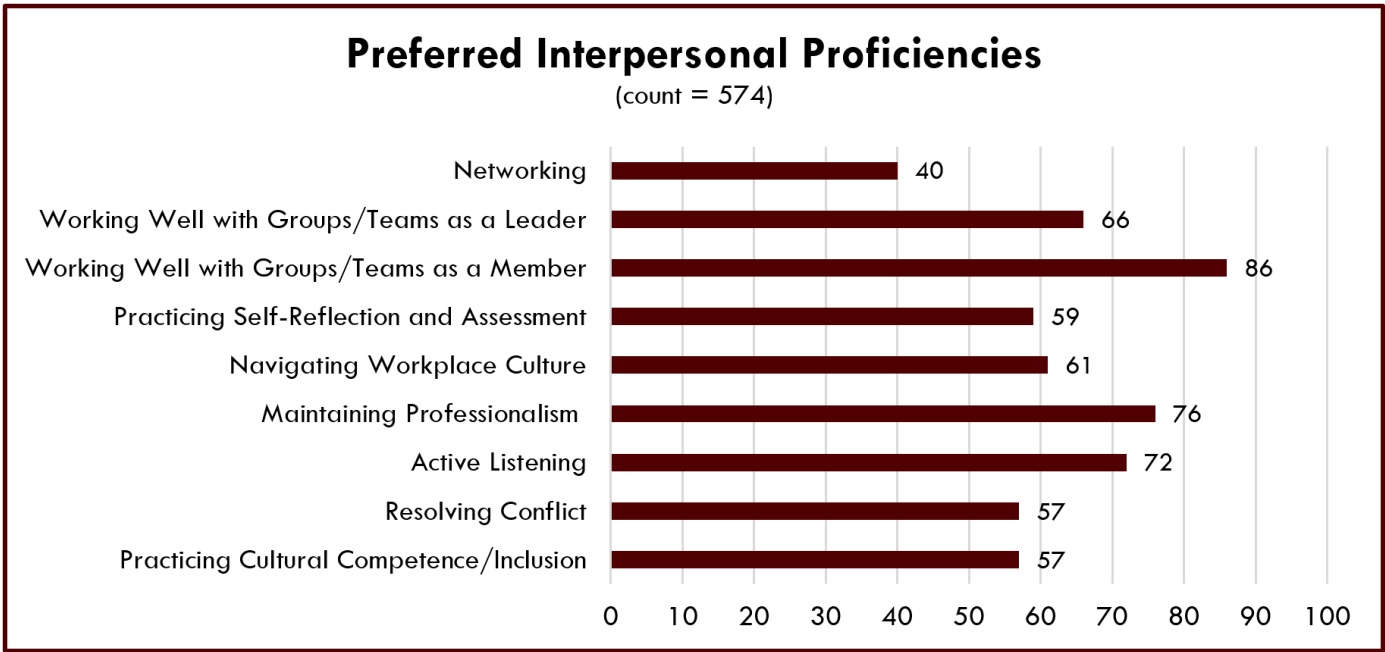


Figure 13: Graph of Important Interpersonal Proficiencies

Respondents chose up to three options

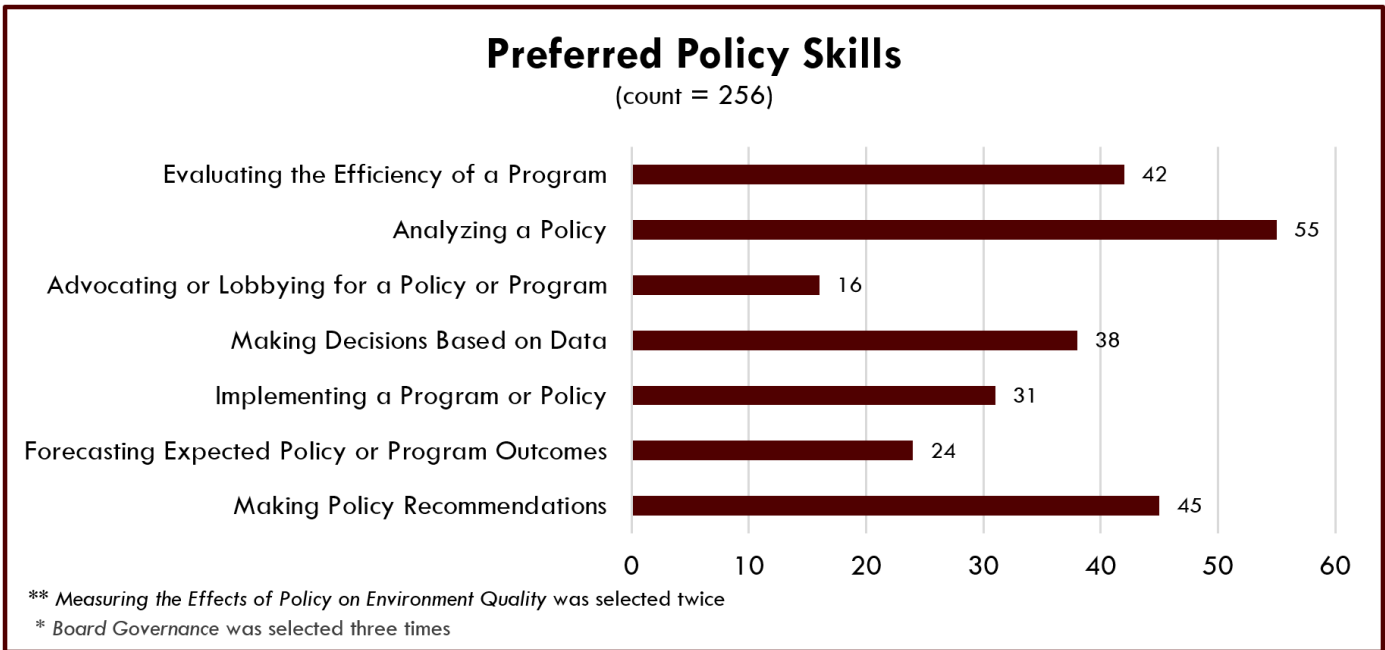


Figure 14: Graph of Important Policy Skills

Respondents chose up to three options

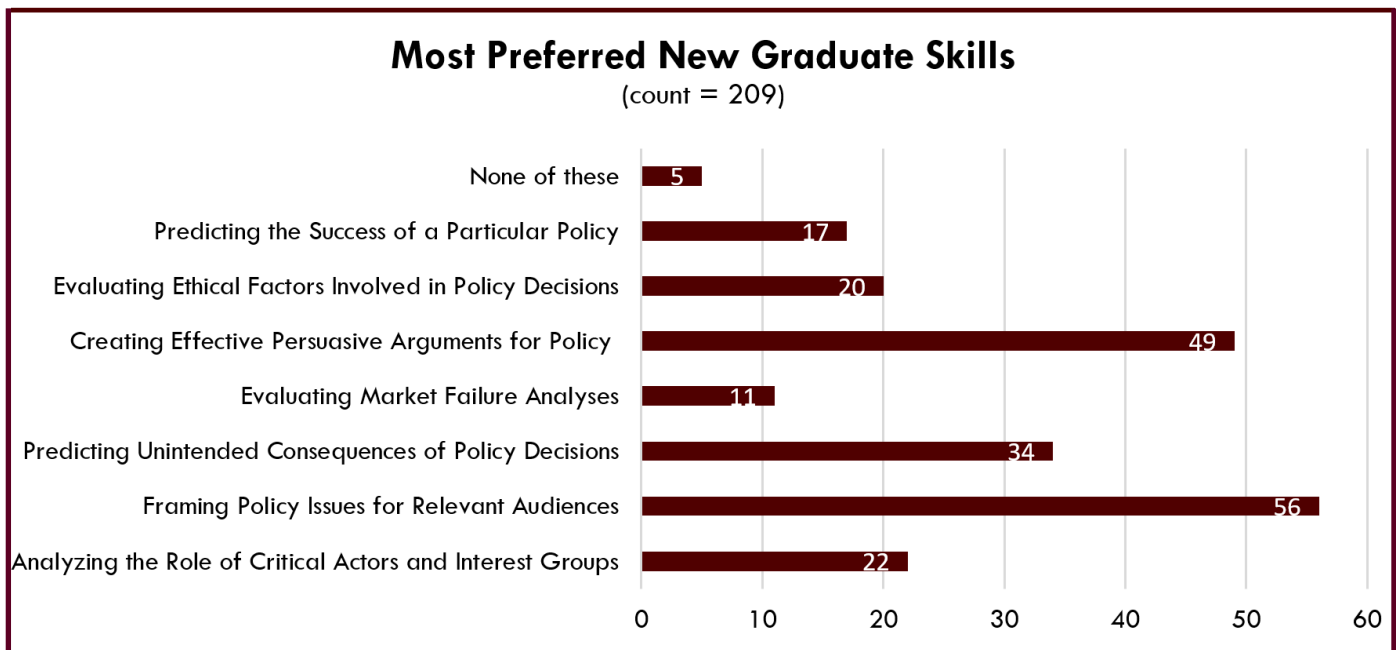


Figure 15: Graph of Most Important Skills for New Graduates

Respondents chose up to three options

Respondents indicated the top policy skills desired centered around analyzing a policy (55 selections), Making Policy Recommendations (45 selections), and Evaluating the Efficiency of a Program (42 selections). Respondents were able to select up to three options. See Figure 14.

Survey respondents indicated that the most important skills for new graduates to possess included the ability to Frame Policy Issues for Relevant Audiences (56 selections), Creating Persuasive Arguments for Policy (49 selections), and Predicting the Unintended Consequences of Policy Decisions (34 selections). Respondents were able to select up to three options. See Figure 15.

The top financial skills marked by survey respondents centered around Preparing and Using a Budget (59 selections), Analyzing the Economic Effects of a Policy (39 selections), and Communicating Financial Analyses to Stakeholders (37 selections). Respondents were able to select up to three options. See Figure 16.

In this section of knowledge bases respondents marked the Role of Economics in Public Policy Making (44 selections), and Theories and Concepts used to Describe Policy Making (38 selections) as their most preferred knowledge bases. Respondents were able to select up to three options. See Figure 17.

In this section of knowledge bases respondents marked Key Tools of Policy Analysis, with Quantitative and Qualitative Methods of Analysis almost equally ranked as their most preferred knowledge bases. See Figure 18. Respondents were able to select up to three options.

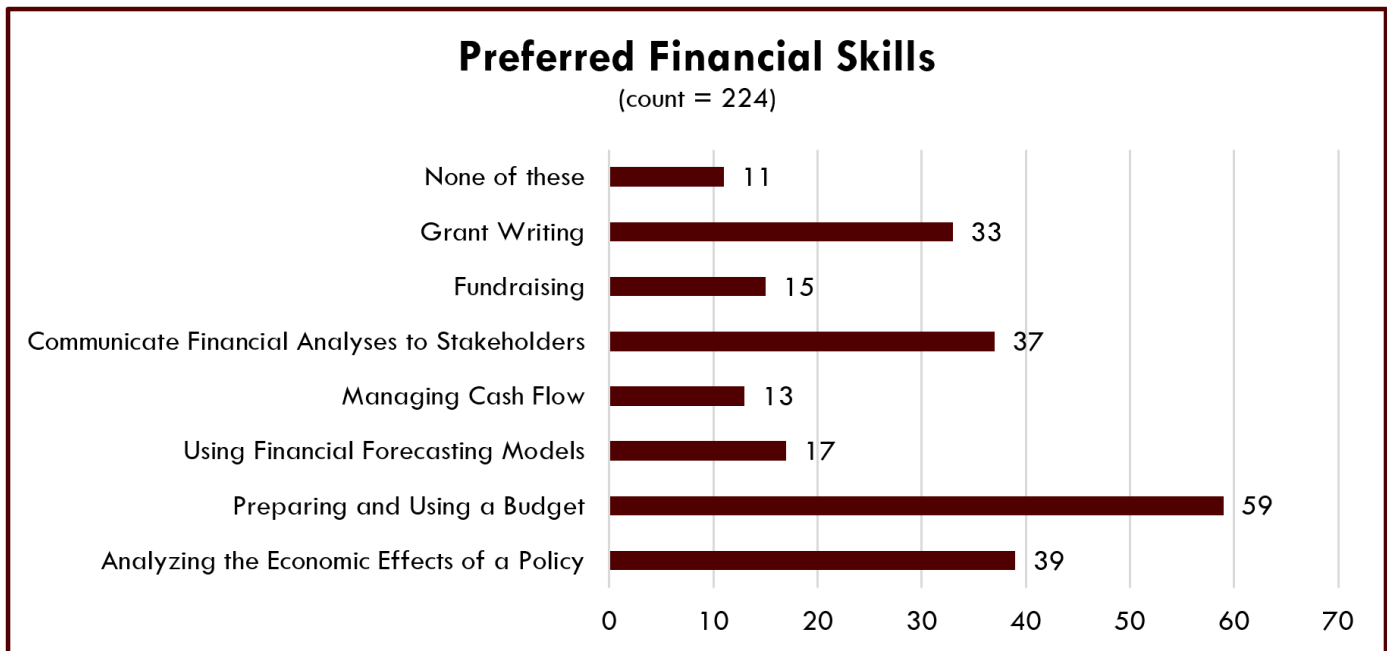


Figure 16: Graph of Preferred Financial Skills

Respondents chose up to three options

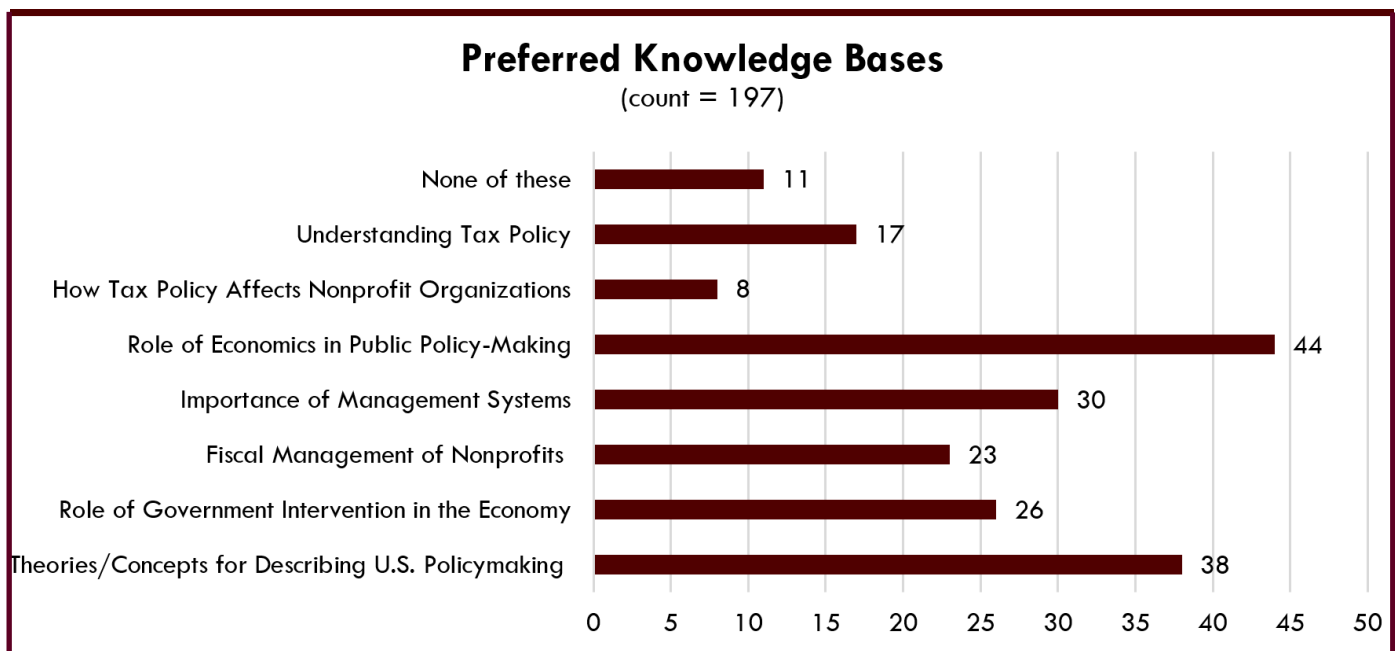


Figure 17: Graph of Knowledge Bases A

Respondents chose up to three options

This section of knowledge bases respondents marked Bureaucracy and Policy Making at the Federal, State and Local Level (65 selections), and The Relationship Between the Nonprofit, Public and Private Sectors (51 selections) as their most preferred knowledge bases. Respondents were able to select up to three options. See Figure 19.

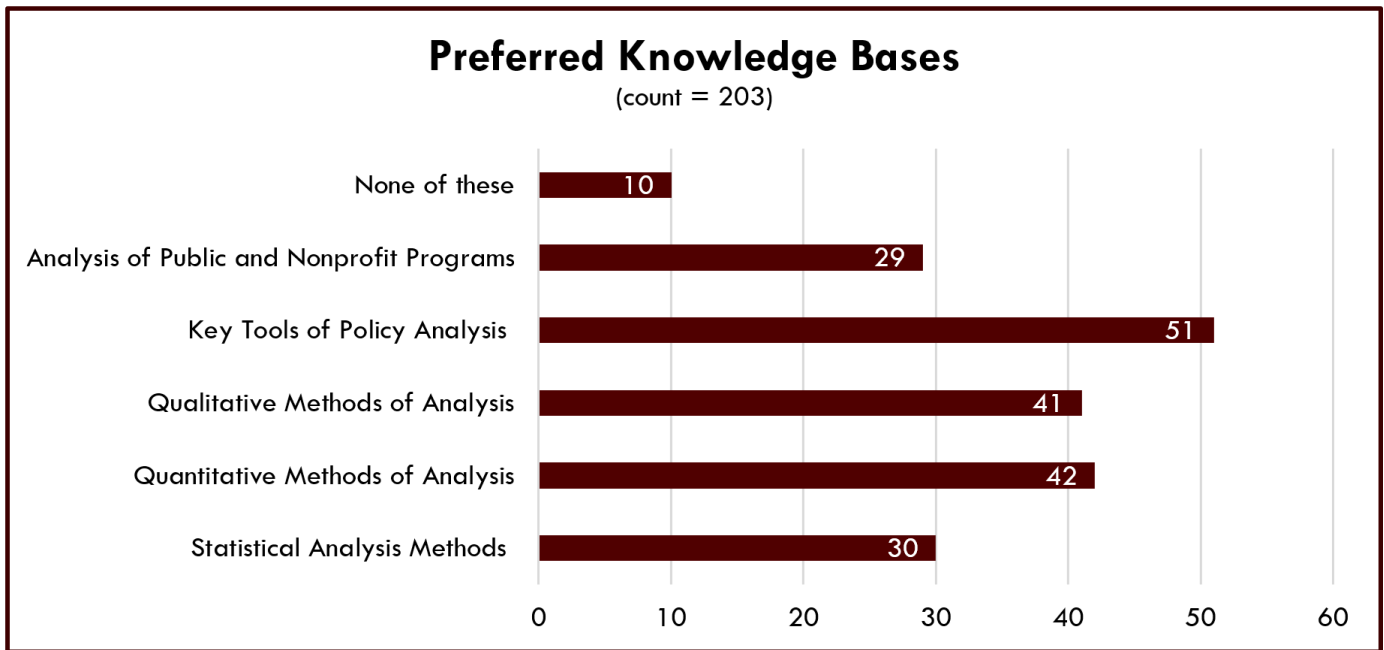


Figure 18: Graph of Knowledge Bases B

Respondents chose up to three options

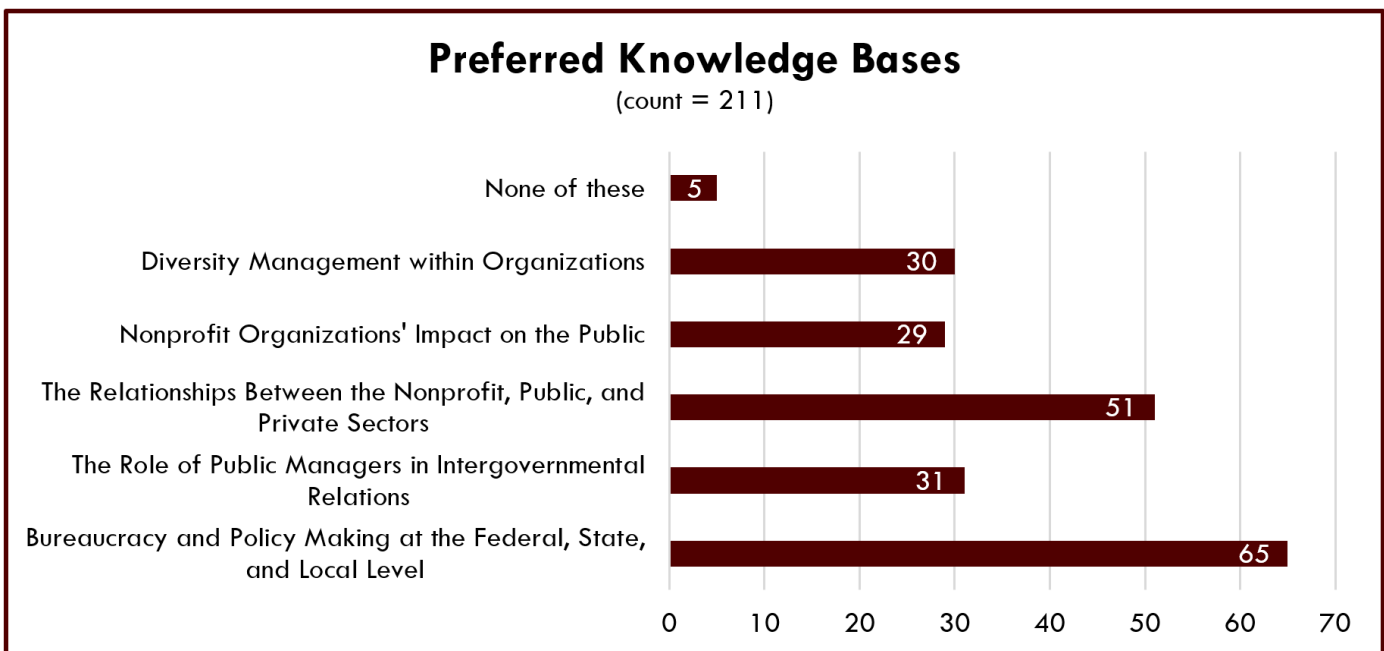


Figure 19: Graph of Knowledge Bases C

Respondents chose up to three options

Survey respondents indicated that the most important skills for new graduates to include on their resume are Work Experience in Desired Field (71 selections), Masters of Public Policy or Administration Degree (56 respondents), and an Internship Experience (50 selections). Respondents were able to select up to three options. See Figure 20.

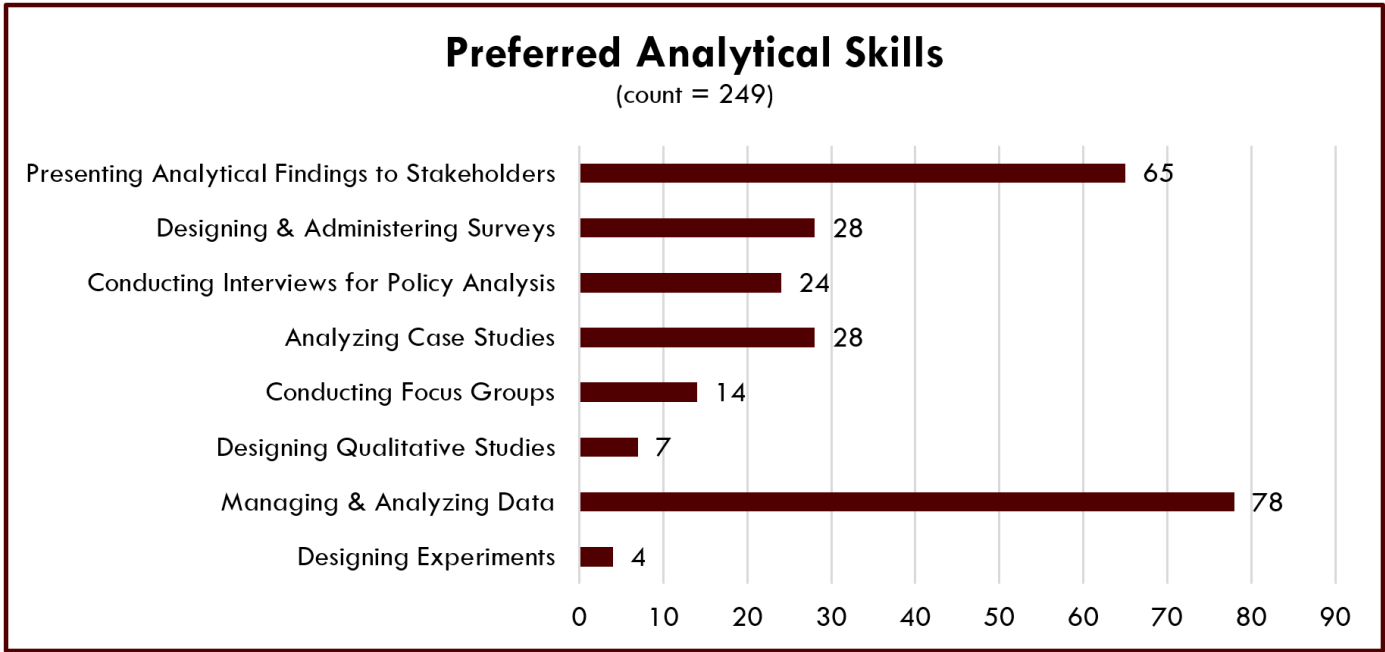


Figure 20: Graph of Most Desirable Resume Qualifications

Respondents chose up to three options

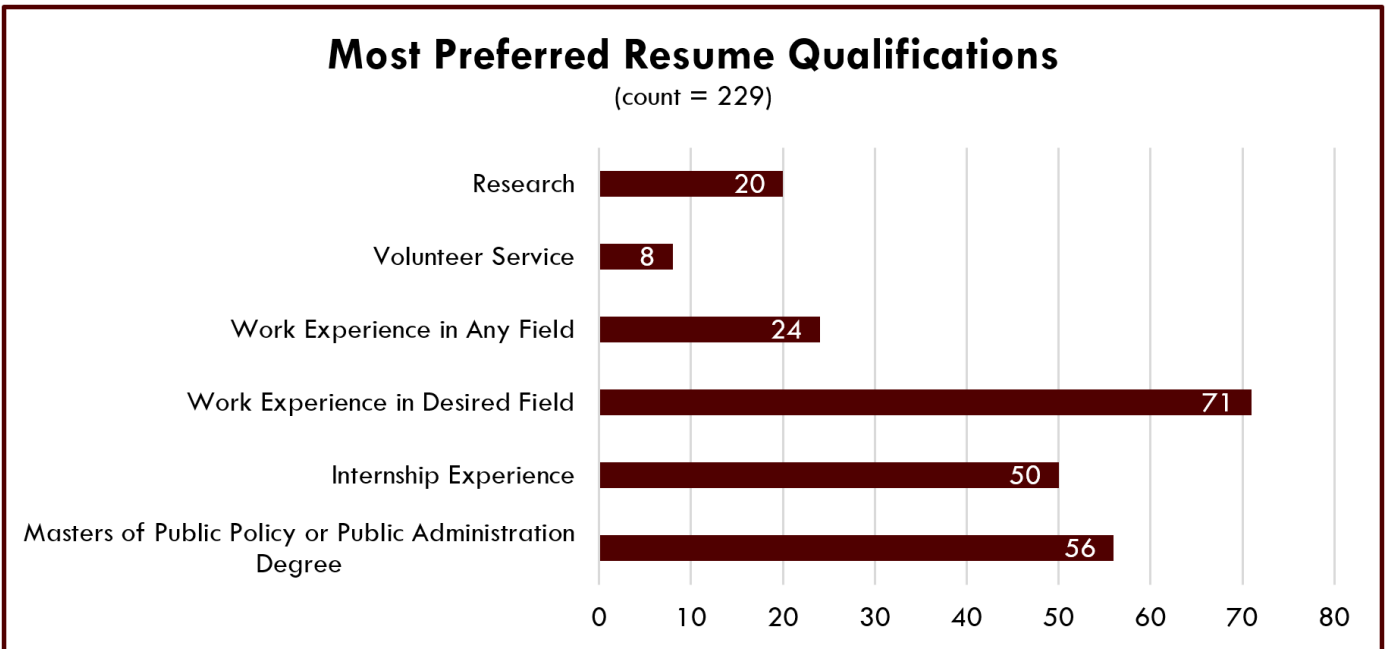


Figure 21: Graph of Most Desirable Resume Qualifications

Respondents chose up to three options

The top resume qualifications marked by survey respondents (they were allowed to pick up to three options) centered around Work Experience, Intern Experience, and a Master’s Degree in policy or administration. See Figure 21.

Recommendations to Future Students

To improve survey data collection for future work, a more defined target sample population would be helpful for drawing meaningful conclusions. Although the survey was sent out to more than 1,400 organizations, we used convenience samples provided by Dr. Matt Upton and Dr. Kerr; therefore, there was no way to ensure that various locations around the U.S. would be represented in the responses.

For future survey projects, it is recommended that the group find more specific respondent pools to ensure that those who are contacted are qualified to respond to future surveys. We recommend that upon receiving the project instructions, students should reach out to Dr. Matt Upton immediately to receive an alumni list and ask for the list to be separated by track and degree, especially if this project will be further used to revamp the Bush School curriculum. It could also be useful to compile a list of Bush School alumni that is already divided by degree, MPSA or MIA, and by track so future groups can easily target survey respondents from our alumni pool. In addition, using LinkedIn was a more difficult avenue to contact employers because it has potential sample selection bias.

Based on survey respondent's comments, adding more skill options such as remote work and civic knowledge would be helpful in gauging how important those attributes are to future employers. Lastly, there should be a question included on future surveys that ask specific job titles which would let students know which types of jobs employers hold and in what field. It would be beneficial to also ask for a degree type to get a better understanding of the degree titles employers hold and the importance of an MPA/MPP in the public sector.

Furthermore, we believe that it would be beneficial to build a university network in order to reach a broader base of MPA programs, employers, and alumni. Future survey groups could reach out to other notable public administration schools, such as the LBJ School of Public Affairs. Finally, reaching out to prior survey groups to share Stata files, prior documents used, survey information and editable versions of the final report could be useful for future survey groups.

Conclusion

Most respondents represented in the survey include nonprofit organizations, for-profit organizations, and the federal government as the third-largest group represented. We broke down questions based on desired skills in the workplace. The most valued computer skill (basic and advanced) was the use of spreadsheet software, like Excel. These groups' most valued writing skill was writing a 3-5 page brief, and the second most sought-after writing skill is writing a memo. In addition, we found that the most valued communication skill is presenting to a group and staff and the second most valued skill is presenting to a client.

Working well with other group members and maintaining professionalism were among the most important for participants of the interpersonal skills. Not surprisingly, respondents choose Microsoft Word and Excel as the most valuable basic computer skills. The most sought-out skills are advanced spreadsheet skills or Excel and Tableau in terms of advanced computer skills.

Furthermore, we found that out of the analytical skills, respondents valued managing and analyzing data, analyzing case studies, and designing and administering surveys. Analyzing a policy and making policy recommendations were also highly valued skills based on survey results. Additionally, employers value financial skills, including preparing and using a budget and analyzing the economic effects of a policy. The coursework offered at the Bush School provides students with these skills, specifically students in the policy analysis track. Employers also reiterated that some general skills essential in the workplace include understanding the policymaking process at all levels, the role of economics in public policymaking, key tools of policy analysis and framing policy issues for relevant audiences.

Finally, the most desirable qualification for employers is work experience in the desired field. Given that the Bush School requires students to pursue summer internships and offers research opportunities, students would possess this qualification upon graduation and before entering the job market.

Though the Bush School does provide students with some of the skills listed above, our findings suggest that the Bush School's curriculum lacks several key advanced computer skills. Given that employers highly value advanced spreadsheet skills, the Bush School could implement an advanced excel class, and the program could integrate the use of advanced spreadsheets into Policy Track course work, such as *Quantitative Methods*, *Economics*, and *Public Finance*. Moreover, last year's survey group found that advanced spreadsheet skills are important to all students at the Bush School and should be integrated into the Core Curriculum for all incoming first year students in

addition to teaching Stata. The Bush School could also offer an internal advanced excel skill certification, possibly named Advanced Spreadsheet Leadership Certificate.

Based on our findings, we also would encourage the Bush School to further emphasize the writing of memos, 3-5 paged briefs and preparing and using a budget in the existing Bush School curriculum. Though several professors within the Bush School do implement these skills, several still require the writing of traditional academic papers or do not implement writing assignments within their coursework. These skills were also found important by last year's report, therefore we recommend that these skills be implemented not only in Policy Track curriculum, but in all core coursework at the Bush School.

This project has informed key takeaways that are applicable to the success of future surveys regarding NASPAA accreditation and the requirements of potential employers of Bush School graduates. First, our survey project was supported by faculty and staff; their consultations and expertise played a crucial role in the modification and structure of our survey. Combined with the findings from last year, the consideration of all three tracks within the Master of Public Service and Administration program, Public Policy Analysis, Public Management, and Nonprofit Management, improved the validity of our survey in its measurement of what employers look for in MPA and MPP graduates. The design of the survey measures employer preferences, NASPAA's Core Competencies and the Bush School curriculum.

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Appendix A: Charge Memo

MEMORANDUM

TO: Bush 635 mini-capstone Survey

THROUGH: Dr. Joanna Lahey, Bush School of Government and Public Service

FROM: Dr. Lori L. Taylor, PSAA Department Head
Bush School of Government and Public Service

SUBJECT: Capstone charge

DATE: January 17, 2021

The MPSA program is accredited by the National Association of Schools of Public Affairs and Administration (NASPAA, <http://www.naspaa.org/>). NASPAA program accreditation requirements involve, among other elements, the preparation of a self-study report and a site visit by a team of outside reviewers.

As part of that self-study process, we are responsible for evaluating our performance with regard to the seven NASPAA required competencies. Instructions for completing the self-study can be found here <https://www.naspaa.org/sites/default/files/docs/2019-11/2019%20Self-Study%20Instructions%20FINAL.pdf>

As part of the self-study process, the Bush School will be called upon to document how we ensure the ongoing alignment of our mission, purpose, values, and the community we serve. The charge to your Capstone is to develop, field and analyse a survey instrument that informs the PSAA department about the needs of our community regarding the knowledge and skills required of their potential employees. Your analysis will be used primarily to inform the PSAA department regarding curricular alignment issues, and to document any unmet personnel needs among potential employers of Bush School students. This analysis is not intended to measure the extent to which our students embody the skills and knowledge required; rather you are charged with identifying the requirements.

Last year, a previous group of Bush 635 students ran an employer survey of non-profit and local government employers, but were only able to survey a few **employers of public policy students**. This year we need to **focus on potential employers of our policy track students**. The first challenge will be to **find potential employers**. **Next, you will provide them with the survey that last year's team developed**. **Finally, you will analyze the data and write up a report**.

Appendix B: Survey Distribution Emails

For first email:

Subject Line: Employer Survey - MPSA Program at Texas A&M University

Howdy,

Texas A&M's Bush School of Public Service & Administration is looking to collect data about what employers are looking for in new graduate hires. Our target audience involves those who are part of the hiring process for jobs that involve policy analysis. If you could send this to your company's hiring manager feel free to as well. Your anonymous responses will be used to steer curriculum decisions and your individual information will not be shared. To take the survey, please click here:

https://qtrial2018q4az1.az1.qualtrics.com/jfe/form/SV_6YfyK8eYW8vMkAe

Opportunity to win 1 of 4 \$25 amazon cards if you include your email on the survey!

If you have any questions, you can contact Joanna Lahey at jlahey@tamu.edu.

Thank you,

Under the direction of Dr. Joanna Lahey

Associate Professor

Bush School of Government and Public Service

Texas A&M University

****Graduate Student name here****

Graduate Students at the Bush School of Government and Public Service Texas A&M University

For Second Email:

Subject Line: REMINDER & AMAZON GIFT CARD: Employer Survey - MPSA Program at Texas A&M University

Howdy,

Texas A&M's Bush School of Public Service & Administration is looking to collect data about what employers are looking for in new graduate hires. Our target audience involves those who are part of the hiring process for jobs that involve policy analysis. If you could send this to your company's hiring manager feel free to as well. Your anonymous responses will be used to steer curriculum decisions and your individual information will not be shared. To take the survey, please click here:

https://qtrial2018q4az1.az1.qualtrics.com/jfe/form/SV_6YfyK8eYW8vMkAe

Opportunity to win 1 of 4 \$25 amazon cards if you include your email on the survey!

If you have any questions, you can contact Joanna Lahey at jalahey@tamu.edu.

Thank you,

Under the direction of Dr. Joanna Lahey

Associate Professor

Bush School of Government and Public Service

Texas A&M University

****Graduate Student name here****

Graduate Students at the Bush School of Government and Public Service Texas A&M University

Appendix C: Survey Questions

Recent Graduate Skills Survey 2021

Q0 MPA/MPP Graduate Skills Survey

Thank you for taking our 10-15 minute survey. You are a great help! We are excited to offer a drawing at the close of our survey for a \$25 Amazon gift card. To sign up for this opportunity please enter your email in the space provided below.

We at Texas A&M's Bush School of Public Service & Administration are looking to collect data about what employers are looking for in new graduate hires.

Our target audience involves those who are part of the hiring process for jobs that involve policy analysis, public management, and/or nonprofit management. This is why we chose you!

Your anonymous responses will be used to steer curriculum decisions and your individual information will not be shared.

Q01 In what state are you located?

▼ AL (1) ... WY (53)

Q02 Are you located in TX?

Yes (1)

No (0)

Q03 Are you located in D.C. or the surrounding area?

Yes (1)

No (0)

Q04 Type of Organization:

Federal Government (1)

State Government (2)

Nonprofit Organization (3)

For-Profit Organization (4)

Local Government (6)

Other (Specify) (5)

Q05 If other type of organization, please list

Q06 Within the last 10 years, have you hired someone with a Masters in Public Policy (MPP), Masters in Public Administration (MPA), or Master of Nonprofit Administration/Management (MNA/

MNM/MNP)?

Yes (1)

Unsure (2)

No (0)

Q25 If yes, which graduates have you hired? Please, specify. Check all that apply.

Master in Public Administration (1)

Master in Public Policy (2)

Master of Nonprofit Administration/Management (3)

Unsure (4)

Q28 Which of the following master degrees would be ideal in a next hire? Choose one.

Master in Public Administration (1)

Master in Public Policy (2)

Master of Nonprofit Administration/Management (3)

No preference (4)

Q07 When hiring, which of the following writing skills are important for a new graduate to possess?

Check all that apply.

Writing a 3-5 Page Brief (1)

Writing a White Paper (2)

Writing a Journal Article (3)

Writing a Press Release (4)

Writing a Grant Application or Proposal (5)

Writing a Blog or Other Online Posts (6)

Other General Writing Skills (Specify) (7)

Writing a Research Paper (8)

Writing a Memo (9)

None of these (10)

Q26 If other general writing skills, please specify.

Q08 When hiring, proficiency in which of the following communication skill sets is important for a new graduate to possess? Check all that apply.

Presenting to a Client (1)

Presenting to a Group/Staff (2)

Speaking to the Press (3)

Cold Calling (4)

Speaking a Foreign Language (5)

None of these (6)

Q09 What language(s)?

Q10 When hiring, proficiency in which of the following interpersonal skills is important for a new graduate to possess? Check all that apply.

- Practicing Cultural Competence/Inclusion (1)
- Resolving Conflict (2)
- Active Listening (3)
- Maintaining Professionalism (Dress, Communication, & Conduct) (4)
- Navigating Workplace Culture (5)
- Practicing Self-Reflection and Assessment (6)
- Working Well with Groups/Teams as a Member (7)
- Working Well with Groups/Teams as a Leader (8)
- Networking (10)
- None of these (9)

Q11 When hiring, proficiency in which of the following basic computer skills are important for a new graduate to possess? Check all that apply.

- Microsoft Word/Google Doc (1)
- Presentation Design Software (Microsoft PowerPoint, Google Slides, etc.) (2)
- Graphic Design Tools (Photoshop, Microsoft Publisher, etc.) (3)
- Social Media Relations (4)
- Website Design (5)
- Bookkeeping Software (QuickBooks, etc.) (6)
- Fundraising Software (Raiser's Edge, Salesforce, DonorPerfect, etc.) (7)
- Learning Management Software (Canvas, etc.) (8)
- Simple Spreadsheets (Microsoft Excel, Google Sheets, etc.) (9)
- None of these (10)

Q12 When hiring, proficiency in which of the following advanced computer skills are important for a new graduate to possess? Check all that apply.

- Advanced Spreadsheets (Microsoft Excel, Google Sheets, etc.) (1)
- Stata (2)
- R (3)
- Tableau (4)
- SPSS (5)
- GIS (6)
- SAS (7)
- Python (8)
- C++ (9)
- Java (10)
- HTML (11)
- Matlab (12)
- Other (14) _____
- None of these (13)

Q13 When hiring, which of the following analysis skills are most important for a new graduate to possess? Choose up to 3.

- Designing Experiments (1)
- Managing & Analyzing Data (3)

- Designing Qualitative Studies (4)
- Conducting Focus Groups (5)
- Analyzing Case Studies (6)
- Presenting Analytical Findings to Stakeholders (11)
- Conducting Interviews for Policy Analysis (8)
- Designing & Administering Surveys (9)
- None of these (10)

Q14 When hiring, which of the following management skills are most important for a new graduate to possess? Choose up to 3.

- Managing a Project (i.e. Planning, Managing Tasks, Completing Work) (1)
- Completing a Needs Assessment (2)
- Setting Goals or Objectives to Meet Needs (3)
- Giving and Receiving Feedback (4)
- Applying Risk Management Strategies (5)
- Implementing Strategic Performance Management (6)
- Applying Principles of Group/Team Management (7)
- Managing Stakeholder Relationships (8)
- Strategic Planning (9)
- None of these (13)

Q15 When hiring, which of the following policy skills are most important for a new graduate to possess? Choose up to 3.

- Making Policy Recommendations (1)
- Forecasting Expected Policy or Program Outcomes (2)
- Implementing a Program or Policy (3)
- Making Decisions Based on Data (4)
- Advocating or Lobbying for a Policy or Program (5)
- Analyzing a Policy (6)
- Evaluating the Efficiency of a Program (7)
- Board Governance (8)
- Measuring the Effects of Policy on Environmental Quality (10)
- None of these (9)

Q16 When hiring, which of the following financial skills are most important for a new graduate to possess? Choose up to 3.

- Analyzing the Economic Effects of a Policy (1)
- Preparing and Using a Budget (2)
- Using Financial Forecasting Models (3)
- Managing Cash Flow (4)
- Communicate Financial Analyses to Stakeholders (5)
- Fundraising (6)
- Grant Writing (7)
- None of these (8)

Q17 When hiring, which of the following knowledge bases are most important for a new graduate

to understand? Choose up to 3.

- Bureaucracy and Policy Making at the Federal, State, and Local Level (1)
- The Role of Public Managers in Intergovernmental Relations (2)
- The Relationships Between the Nonprofit, Public, and Private Sectors (3)
- Nonprofit Organizations' Impact on the Public (4)
- Diversity Management within Organizations (5)
- None of these (6)

Q18 When hiring, which of the following knowledge bases are most important for a new graduate to understand? Choose up to 3.

- Theories and Concepts Used to Describe Policymaking in America (1)
- Role of Government Intervention in the Economy (2)
- Fiscal Management of Nonprofits (i.e. Accounting, Internal Controls, Auditing) (3)
- Importance of Management Systems (4)
- Role of Economics in Public Policy-Making (5)
- How Tax Policy Affects Nonprofit Organizations (6)
- Understanding Tax Policy (7)
- None of these (8)

Q19 When hiring, which of the following knowledge bases are most important for a new graduate to understand? Choose up to 3.

- Statistical Analysis Methods (i.e. Difference of Means, Correlation, Regression) (1)
- Quantitative Methods of Analysis (2)
- Qualitative Methods of Analysis (3)
- Key Tools of Policy Analysis (i.e. Cost-Benefit Analysis, Discounting, Extrapolation, Forecasting) (4)
- Analysis of Public and Nonprofit Programs (5)
- None of these (6)

Q27 When hiring, which of the following skills are important for a new graduate to possess? Choose up to 3.

- Analyzing the Role of Critical Actors and Interest Groups (1)
- Framing Policy Issues for Relevant Audiences (2)
- Predicting the Unintended Consequences of Policy Decisions (3)
- Evaluating Market Failure Analyses (4)
- Creating Effective Persuasive Arguments for Policy Recommendations (5)
- Predicting the Success of a Particular Policy (9)
- Evaluating Ethical Factors Involved in Policy Decisions (7)
- None of these (8)

Q30 When hiring what would you consider to be the three most desirable qualifications on a resume? Choose up to 3.

- Masters of Public Policy or Public Administration Degree (1)
- Internship Experience (2)
- Work Experience in Desired Field (3)

Work Experience in Any Field (9)
Volunteer Service (10)
Research (11)

Q21 In what capacity have you interacted with Masters of Public Service and Administration (MPSA) students from The Texas A&M Bush School of Government and Public Service? Check all that apply.

Had a Summer Intern Student (1)
Hired a Graduate (2)
Managed/Are Managing a Graduate (3)
Worked Alongside a Graduate (4)
Am an MPSA Graduate (5)
Know About the MPSA Program (6)
Never Heard of the School's MPSA Program (7)

Q22 Are there subjects that were not addressed that you would like to let us know about?

Appendix D: Stata Do File

```

*Survey Group Final Report BUSH635 Spring 2021
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/*
*clean data
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 | Org_Type==6
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 Org_Type==4 | Org_Type==5
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 replace localgov =0 if Org_Type==1 |
 Org_Type==2 | Org_Type==3 | Org_Type==4 |
 Org_Type==5
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**Q07 Writing skills
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 tab writ_skill_blog if localgov==1, mi
 tab writ_skill_other if localgov==1, mi
 tab writ_skill_research if localgov==1, mi
 tab writ_skill_memo if localgov==1, mi
 tab writ_skill_none if localgov==1, mi
 *nonprofit
 tab writ_skill_brief if nonprofit==1, mi
 tab writ_skill_whitepaper if nonprofit==1, mi
 tab writ_skill_article if nonprofit==1, mi
 tab writ_skill_release if nonprofit==1, mi
 tab writ_skill_proposal if nonprofit==1, mi
 tab writ_skill_blog if nonprofit==1, mi
 tab writ_skill_other if nonprofit==1, mi
 tab writ_skill_research if nonprofit==1, mi
 tab writ_skill_memo if nonprofit==1, mi
 tab writ_skill_none if nonprofit==1, mi
 *forprofit
 tab writ_skill_brief if forprofit==1, mi
 tab writ_skill_whitepaper if forprofit==1, mi
 tab writ_skill_article if forprofit==1, mi
 tab writ_skill_release if forprofit==1, mi
 tab writ_skill_proposal if forprofit==1, mi
 tab writ_skill_blog if forprofit==1, mi
 tab writ_skill_other if forprofit==1, mi
 tab writ_skill_research if forprofit==1, mi
 tab writ_skill_memo if forprofit==1, mi
 tab writ_skill_none if forprofit==1, mi
 **Q08 Communication skills
 *all
 tab speak_skill_presclient, mi
 tab speak_skill_presgroup, mi
 tab speak_skill_press, mi
 tab speak_skill_coldcall, mi
 tab speak_skill_foreign, mi
 tab speak_skill_none, mi
 *government
 tab speak_skill_presclient if government==1, mi
 tab speak_skill_presgroup if government==1, mi
 tab speak_skill_press if government==1, mi
 tab speak_skill_coldcall if government==1, mi

tab speak_skill_foreign if government==1, mi
 tab speak_skill_none if government==1, mi
 *federal government
 tab speak_skill_presclient if federalgov==1, mi
 tab speak_skill_presgroup if federalgov==1, mi
 tab speak_skill_press if federalgov==1, mi
 tab speak_skill_coldcall if federalgov==1, mi
 tab speak_skill_foreign if government==1, mi
 tab speak_skill_none if government==1, mi
 *state government
 tab speak_skill_presclient if stategov==1, mi
 tab speak_skill_presgroup if stategov==1, mi
 tab speak_skill_press if stategov==1, mi
 tab speak_skill_coldcall if stategov==1, mi
 tab speak_skill_foreign if stategov==1, mi
 tab speak_skill_none if stategov==1, mi
 *local government
 tab speak_skill_presclient if localgov==1, mi
 tab speak_skill_presgroup if localgov==1, mi
 tab speak_skill_press if localgov==1, mi
 tab speak_skill_coldcall if localgov==1, mi
 tab speak_skill_foreign if localgov==1, mi
 tab writ_skill_other if localgov==1, mi
 tab speak_skill_none if localgov==1, mi
 *nonprofit
 tab speak_skill_presclient if nonprofit==1, mi
 tab speak_skill_presgroup if nonprofit==1, mi
 tab speak_skill_press if nonprofit==1, mi
 tab speak_skill_coldcall if nonprofit==1, mi
 tab speak_skill_foreign if nonprofit==1, mi
 tab speak_skill_none if nonprofit==1, mi
 *forprofit
 tab speak_skill_presclient if forprofit==1, mi
 tab speak_skill_presgroup if forprofit==1, mi
 tab speak_skill_press if forprofit==1, mi
 tab speak_skill_coldcall if forprofit==1, mi
 tab speak_skill_foreign if forprofit==1, mi
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 **Q09 Languages
 *all
 tab Lang
 *government
 tab Lang if government==1
 *federal government
 tab Lang if federalgov==1
 *state government
 tab Lang if stategov==1
 *local government

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tab Lang if localgov==1
*nonprofit
tab Lang if nonprofit==1
*forprofit
tab Lang if forprofit==1
**Q10 Interpersonal skills
*all
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tab relate_skill_confl, mi
tab relate_skill_listen, mi
tab relate_skill_profes, mi
tab relate_skill_culture, mi
tab relate_skill_reflect, mi
tab relate_skill_member, mi
tab relate_skill_leader, mi
tab relate_skill_none, mi
tab relate_skill_net, mi
*government
tab relate_skill_incl if government==1, mi
tab relate_skill_confl if government==1, mi
tab relate_skill_listen if government==1, mi
tab relate_skill_profes if government==1, mi
tab relate_skill_culture if government==1, mi
tab relate_skill_reflect if government==1, mi
tab relate_skill_member if government==1, mi
tab relate_skill_leader if government==1, mi
tab relate_skill_none if government==1, mi
tab relate_skill_net if government==1, mi
*federal government
tab relate_skill_incl if federalgov==1, mi
tab relate_skill_confl if federalgov==1, mi
tab relate_skill_listen if federalgov==1, mi
tab relate_skill_profes if federalgov==1, mi
tab relate_skill_culture if federalgov==1, mi
tab relate_skill_reflect if federalgov==1, mi
tab relate_skill_member if federalgov==1, mi
tab relate_skill_leader if federalgov==1, mi
tab relate_skill_none if federalgov==1, mi
tab relate_skill_net if federalgov==1, mi
*state government
tab relate_skill_incl if stategov==1, mi
tab relate_skill_confl if stategov==1, mi
tab relate_skill_listen if stategov==1, mi
tab relate_skill_profes if stategov==1, mi
tab relate_skill_culture if stategov==1, mi
tab relate_skill_reflect if stategov==1, mi
tab relate_skill_member if stategov==1, mi
tab relate_skill_leader if stategov==1, mi

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tab relate_skill_none if stategov==1, mi
tab relate_skill_net if stategov==1, mi
*local government
tab relate_skill_incl if localgov==1, mi
tab relate_skill_confl if localgov==1, mi
tab relate_skill_listen if localgov==1, mi
tab relate_skill_profes if localgov==1, mi
tab relate_skill_culture if localgov==1, mi
tab relate_skill_reflect if localgov==1, mi
tab relate_skill_member if localgov==1, mi
tab relate_skill_leader if localgov==1, mi
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tab relate_skill_incl if nonprofit==1, mi
tab relate_skill_confl if nonprofit==1, mi
tab relate_skill_listen if nonprofit==1, mi
tab relate_skill_profes if nonprofit==1, mi
tab relate_skill_culture if nonprofit==1, mi
tab relate_skill_reflect if nonprofit==1, mi
tab relate_skill_member if nonprofit==1, mi
tab relate_skill_leader if nonprofit==1, mi
tab relate_skill_none if nonprofit==1, mi
tab relate_skill_net if nonprofit==1, mi
*forprofit
tab relate_skill_incl if forprofit==1, mi
tab relate_skill_confl if forprofit==1, mi
tab relate_skill_listen if forprofit==1, mi
tab relate_skill_profes if forprofit==1, mi
tab relate_skill_culture if forprofit==1, mi
tab relate_skill_reflect if forprofit==1, mi
tab relate_skill_member if forprofit==1, mi
tab relate_skill_leader if forprofit==1, mi
tab relate_skill_none if forprofit==1, mi
tab relate_skill_net if forprofit==1, mi
**Q11 Basic computer skills
*all
tab bascomp_skill_mic, mi
tab bascomp_skill_presentdesign, mi
tab bascomp_skill_graphdesign, mi
tab bascomp_skill_media, mi
tab bascomp_skill_webdesign, mi
tab bascomp_skill_bkeep, mi
tab bascomp_skill_fund, mi
tab bascomp_skill_learn, mi
tab bascomp_skill_spread, mi
tab bascomp_skill_none, mi
*government

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tab bascomp_skill_mic if government==1, mi
tab bascomp_skill_presentdesign if government==1, mi
tab bascomp_skill_graphdesign if government==1, mi
tab bascomp_skill_media if government==1, mi
tab bascomp_skill_webdesign if government==1, mi
tab bascomp_skill_bkeep if government==1, mi
tab bascomp_skill_fund if government==1, mi
tab bascomp_skill_learn if government==1, mi
tab bascomp_skill_spread if government==1, mi
tab bascomp_skill_none if government==1, mi
*federal government
tab bascomp_skill_mic if federalgov==1, mi
tab bascomp_skill_presentdesign if federalgov==1, mi
tab bascomp_skill_graphdesign if federalgov==1, mi
tab bascomp_skill_media if federalgov==1, mi
tab bascomp_skill_webdesign if federalgov==1, mi
tab bascomp_skill_bkeep if federalgov==1, mi
tab bascomp_skill_fund if federalgov==1, mi
tab bascomp_skill_learn if federalgov==1, mi
tab bascomp_skill_spread if federalgov==1, mi
tab bascomp_skill_none if federalgov==1, mi
*state government
tab bascomp_skill_mic if stategov==1, mi
tab bascomp_skill_presentdesign if stategov==1, mi
tab bascomp_skill_graphdesign if stategov==1, mi
tab bascomp_skill_media if stategov==1, mi
tab bascomp_skill_webdesign if stategov==1, mi
tab bascomp_skill_bkeep if stategov==1, mi
tab bascomp_skill_fund if stategov==1, mi
tab bascomp_skill_learn if stategov==1, mi
tab bascomp_skill_spread if stategov==1, mi
tab bascomp_skill_none if stategov==1, mi
*local government
tab bascomp_skill_mic if localgov==1, mi
tab bascomp_skill_presentdesign if localgov==1, mi
tab bascomp_skill_graphdesign if localgov==1, mi
tab bascomp_skill_media if localgov==1, mi
tab bascomp_skill_webdesign if localgov==1, mi
tab bascomp_skill_bkeep if localgov==1, mi
tab bascomp_skill_fund if localgov==1, mi
tab bascomp_skill_learn if localgov==1, mi
tab bascomp_skill_spread if localgov==1, mi
tab bascomp_skill_none if localgov==1, mi
*nonprofit
tab bascomp_skill_mic if nonprofit==1, mi
tab bascomp_skill_presentdesign if nonprofit==1, mi
tab bascomp_skill_graphdesign if nonprofit==1, mi
tab bascomp_skill_media if nonprofit==1, mi
tab bascomp_skill_webdesign if nonprofit==1, mi
tab bascomp_skill_bkeep if nonprofit==1, mi
tab bascomp_skill_fund if nonprofit==1, mi
tab bascomp_skill_learn if nonprofit==1, mi
tab bascomp_skill_spread if nonprofit==1, mi
tab bascomp_skill_none if nonprofit==1, mi
*forprofit
tab bascomp_skill_mic if forprofit==1, mi
tab bascomp_skill_presentdesign if forprofit==1, mi
tab bascomp_skill_graphdesign if forprofit==1, mi
tab bascomp_skill_media if forprofit==1, mi
tab bascomp_skill_webdesign if forprofit==1, mi
tab bascomp_skill_bkeep if forprofit==1, mi
tab bascomp_skill_fund if forprofit==1, mi
tab bascomp_skill_learn if forprofit==1, mi
tab bascomp_skill_spread if forprofit==1, mi
tab bascomp_skill_none if forprofit==1, mi
**Q12 Advanced computer skills
*all
tab advcomp_skill_advspread, mi
tab advcomp_skill_stat, mi
tab advcomp_skill_r, mi
tab advcomp_skill_tabl, mi
tab advcomp_skill_spss, mi
tab advcomp_skill_gis, mi
tab advcomp_skill_sas, mi
tab advcomp_skill_python, mi
tab advcomp_skill_c, mi
tab advcomp_skill_java, mi
tab advcomp_skill_html, mi
tab advcomp_skill_matlab, mi
tab advcomp_skill_none, mi
*government
tab advcomp_skill_advspread if government==1, mi
tab advcomp_skill_stat if government==1, mi
tab advcomp_skill_r if government==1, mi
tab advcomp_skill_tabl if government==1, mi
tab advcomp_skill_spss if government==1, mi
tab advcomp_skill_gis if government==1, mi
tab advcomp_skill_sas if government==1, mi
tab advcomp_skill_python if government==1, mi
tab advcomp_skill_c if government==1, mi
tab advcomp_skill_java if government==1, mi
tab advcomp_skill_html if government==1, mi
tab advcomp_skill_matlab if government==1, mi
tab advcomp_skill_none if government==1, mi
*federal government
tab advcomp_skill_advspread if federalgov==1, mi

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tab advcomp_skill_stat if federalgov==1, mi
tab advcomp_skill_r if federalgov==1, mi
tab advcomp_skill_tabl if federalgov==1, mi
tab advcomp_skill_spss if federalgov==1, mi
tab advcomp_skill_gis if federalgov==1, mi
tab advcomp_skill_sas if federalgov==1, mi
tab advcomp_skill_python if federalgov==1, mi
tab advcomp_skill_c if federalgov==1, mi
tab advcomp_skill_java if federalgov==1, mi
tab advcomp_skill_html if federalgov==1, mi
tab advcomp_skill_matlab if federalgov==1, mi
tab advcomp_skill_none if federalgov==1, mi
*state government
tab advcomp_skill_advspread if stategov==1, mi
tab advcomp_skill_stat if stategov==1, mi
tab advcomp_skill_r if stategov==1, mi
tab advcomp_skill_tabl if stategov==1, mi
tab advcomp_skill_spss if stategov==1, mi
tab advcomp_skill_gis if stategov==1, mi
tab advcomp_skill_sas if stategov==1, mi
tab advcomp_skill_python if stategov==1, mi
tab advcomp_skill_c if stategov==1, mi
tab advcomp_skill_java if stategov==1, mi
tab advcomp_skill_html if stategov==1, mi
tab advcomp_skill_matlab if stategov==1, mi
tab advcomp_skill_none if stategov==1, mi
*local government
tab advcomp_skill_advspread if localgov==1, mi
tab advcomp_skill_stat if localgov==1, mi
tab advcomp_skill_r if localgov==1, mi
tab advcomp_skill_tabl if localgov==1, mi
tab advcomp_skill_spss if localgov==1, mi
tab advcomp_skill_gis if localgov==1, mi
tab advcomp_skill_sas if localgov==1, mi
tab advcomp_skill_python if localgov==1, mi
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tab advcomp_skill_java if localgov==1, mi
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tab advcomp_skill_matlab if localgov==1, mi
tab advcomp_skill_none if localgov==1, mi
*nonprofit
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tab advcomp_skill_stat if nonprofit==1, mi
tab advcomp_skill_r if nonprofit==1, mi
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tab advcomp_skill_gis if nonprofit==1, mi
tab advcomp_skill_sas if nonprofit==1, mi
tab advcomp_skill_python if nonprofit==1, mi
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tab advcomp_skill_java if nonprofit==1, mi
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tab advcomp_skill_matlab if nonprofit==1, mi
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tab advcomp_skill_gis if forprofit==1, mi
tab advcomp_skill_sas if forprofit==1, mi
tab advcomp_skill_python if forprofit==1, mi
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tab advcomp_skill_java if forprofit==1, mi
tab advcomp_skill_html if forprofit==1, mi
tab advcomp_skill_matlab if forprofit==1, mi
tab advcomp_skill_none if forprofit==1, mi
**Q13 Analysis skills
*all
tab research_skill_exp, mi
tab research_skill_anlydata, mi
tab research_skill_qualstudy, mi
tab research_skill_focgroup, mi
tab research_skill_casestud, mi
tab research_skill_presentfind, mi
tab research_skill_interview, mi
tab research_skill_survey, mi
tab research_skill_none, mi
*government
tab research_skill_exp if government==1, mi
tab research_skill_anlydata if government==1, mi
tab research_skill_qualstudy if government==1, mi
tab research_skill_focgroup if government==1, mi
tab research_skill_casestud if government==1, mi
tab research_skill_presentfind if government==1, mi
tab research_skill_interview if government==1, mi
tab research_skill_survey if government==1, mi
tab research_skill_none if government==1, mi
*federal government
tab research_skill_exp if federalgov==1, mi
tab research_skill_anlydata if federalgov==1, mi
tab research_skill_qualstudy if federalgov==1, mi
tab research_skill_focgroup if federalgov==1, mi
tab research_skill_casestud if federalgov==1, mi
tab research_skill_presentfind if federalgov==1, mi

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tab research_skill_interview if federalgov==1, mi
 tab research_skill_survey if federalgov==1, mi
 tab research_skill_none if federalgov==1, mi
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 tab research_skill_exp if stategov==1, mi
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 tab research_skill_qualstudy if stategov==1, mi
 tab research_skill_focgroup if stategov==1, mi
 tab research_skill_casestud if stategov==1, mi
 tab research_skill_presentfind if stategov==1, mi
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 tab research_skill_survey if stategov==1, mi
 tab research_skill_none if stategov==1, mi
 *local government
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 tab research_skill_qualstudy if localgov==1, mi
 tab research_skill_focgroup if localgov==1, mi
 tab research_skill_casestud if localgov==1, mi
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 tab research_skill_interview if localgov==1, mi
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 tab research_skill_qualstudy if nonprofit==1, mi
 tab research_skill_focgroup if nonprofit==1, mi
 tab research_skill_casestud if nonprofit==1, mi
 tab research_skill_presentfind if nonprofit==1, mi
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 tab research_skill_survey if nonprofit==1, mi
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 *forprofit
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 tab research_skill_qualstudy if forprofit==1, mi
 tab research_skill_focgroup if forprofit==1, mi
 tab research_skill_casestud if forprofit==1, mi
 tab research_skill_presentfind if forprofit==1, mi
 tab research_skill_interview if forprofit==1, mi
 tab research_skill_survey if forprofit==1, mi
 tab research_skill_none if forprofit==1, mi
 **Q14 Management skills
 *all
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 tab manage_skill_needassess, mi
 tab manage_skill_setgoal, mi
 tab manage_skill_feedb, mi
 tab manage_skill_risk, mi
 tab manage_skill_perform, mi
 tab manage_skill_group, mi
 tab manage_skill_stakeh, mi
 tab manage_skill_stratplan, mi
 tab manage_skill_none, mi
 *government
 tab manage_skill_proj if government==1, mi
 tab manage_skill_needassess if government==1, mi
 tab manage_skill_setgoal if government==1, mi
 tab manage_skill_feedb if government==1, mi
 tab manage_skill_risk if government==1, mi
 tab manage_skill_perform if government==1, mi
 tab manage_skill_group if government==1, mi
 tab manage_skill_stakeh if government==1, mi
 tab manage_skill_stratplan if government==1, mi
 tab manage_skill_none if government==1, mi
 *federal government
 tab manage_skill_proj if federalgov==1, mi
 tab manage_skill_needassess if federalgov==1, mi
 tab manage_skill_setgoal if federalgov==1, mi
 tab manage_skill_feedb if federalgov==1, mi
 tab manage_skill_risk if federalgov==1, mi
 tab manage_skill_perform if federalgov==1, mi
 tab manage_skill_group if federalgov==1, mi
 tab manage_skill_stakeh if federalgov==1, mi
 tab manage_skill_stratplan if federalgov==1, mi
 tab manage_skill_none if federalgov==1, mi
 *state government
 tab manage_skill_proj if stategov==1, mi
 tab manage_skill_needassess if stategov==1, mi
 tab manage_skill_setgoal if stategov==1, mi
 tab manage_skill_feedb if stategov==1, mi
 tab manage_skill_risk if stategov==1, mi
 tab manage_skill_perform if stategov==1, mi
 tab manage_skill_group if stategov==1, mi
 tab manage_skill_stakeh if stategov==1, mi
 tab manage_skill_stratplan if stategov==1, mi
 tab manage_skill_none if stategov==1, mi
 *local government
 tab manage_skill_proj if localgov==1, mi
 tab manage_skill_needassess if localgov==1, mi
 tab manage_skill_setgoal if localgov==1, mi
 tab manage_skill_feedb if localgov==1, mi
 tab manage_skill_risk if localgov==1, mi
 tab manage_skill_perform if localgov==1, mi
 tab manage_skill_group if localgov==1, mi

tab manage_skill_stakeh if localgov==1, mi
 tab manage_skill_stratplan if localgov==1, mi
 tab manage_skill_none if localgov==1, mi
 *nonprofit
 tab manage_skill_proj if nonprofit==1, mi
 tab manage_skill_needassess if nonprofit==1, mi
 tab manage_skill_setgoal if nonprofit==1, mi
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 tab manage_skill_risk if nonprofit==1, mi
 tab manage_skill_perform if nonprofit==1, mi
 tab manage_skill_group if nonprofit==1, mi
 tab manage_skill_stakeh if nonprofit==1, mi
 tab manage_skill_stratplan if nonprofit==1, mi
 tab manage_skill_none if nonprofit==1, mi
 *forprofit
 tab manage_skill_proj if forprofit==1, mi
 tab manage_skill_needassess if forprofit==1, mi
 tab manage_skill_setgoal if forprofit==1, mi
 tab manage_skill_feedb if forprofit==1, mi
 tab manage_skill_risk if forprofit==1, mi
 tab manage_skill_perform if forprofit==1, mi
 tab manage_skill_group if forprofit==1, mi
 tab manage_skill_stakeh if forprofit==1, mi
 tab manage_skill_stratplan if forprofit==1, mi
 tab manage_skill_none if forprofit==1, mi
 **Q15 Policy skills
 *all
 tab impl_skill_polrecom, mi
 tab impl_skill_forecpol, mi
 tab impl_skill_implpol, mi
 tab impl_skill_makedec, mi
 tab impl_skill_lobby, mi
 tab impl_skill_analypol, mi
 tab impl_skill_eval, mi
 tab impl_skill_govern, mi
 tab impl_skill_environment, mi
 tab impl_skill_none, mi
 *government
 tab impl_skill_polrecom if government==1, mi
 tab impl_skill_forecpol if government==1, mi
 tab impl_skill_implpol if government==1, mi
 tab impl_skill_makedec if government==1, mi
 tab impl_skill_lobby if government==1, mi
 tab impl_skill_analypol if government==1, mi
 tab impl_skill_eval if government==1, mi
 tab impl_skill_govern if government==1, mi
 tab impl_skill_environment if government==1, mi
 tab impl_skill_none if government==1, mi

*federal government
 tab impl_skill_polrecom if federalgov==1, mi
 tab impl_skill_forecpol if federalgov==1, mi
 tab impl_skill_implpol if federalgov==1, mi
 tab impl_skill_makedec if federalgov==1, mi
 tab impl_skill_lobby if federalgov==1, mi
 tab impl_skill_analypol if federalgov==1, mi
 tab impl_skill_eval if federalgov==1, mi
 tab impl_skill_govern if federalgov==1, mi
 tab impl_skill_environment if federalgov==1, mi
 tab impl_skill_none if federalgov==1, mi
 *state government
 tab impl_skill_polrecom if stategov==1, mi
 tab impl_skill_forecpol if stategov==1, mi
 tab impl_skill_implpol if stategov==1, mi
 tab impl_skill_makedec if stategov==1, mi
 tab impl_skill_lobby if stategov==1, mi
 tab impl_skill_analypol if stategov==1, mi
 tab impl_skill_eval if stategov==1, mi
 tab impl_skill_govern if stategov==1, mi
 tab impl_skill_environment if stategov==1, mi
 tab impl_skill_none if stategov==1, mi
 *local government
 tab impl_skill_polrecom if localgov==1, mi
 tab impl_skill_forecpol if localgov==1, mi
 tab impl_skill_implpol if localgov==1, mi
 tab impl_skill_makedec if localgov==1, mi
 tab impl_skill_lobby if localgov==1, mi
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 tab impl_skill_govern if localgov==1, mi
 tab impl_skill_environment if localgov==1, mi
 tab impl_skill_none if localgov==1, mi
 *nonprofit
 tab impl_skill_polrecom if nonprofit==1, mi
 tab impl_skill_forecpol if nonprofit==1, mi
 tab impl_skill_implpol if nonprofit==1, mi
 tab impl_skill_makedec if nonprofit==1, mi
 tab impl_skill_lobby if nonprofit==1, mi
 tab impl_skill_analypol if nonprofit==1, mi
 tab impl_skill_eval if nonprofit==1, mi
 tab impl_skill_govern if nonprofit==1, mi
 tab impl_skill_environment if nonprofit==1, mi
 tab impl_skill_none if nonprofit==1, mi
 *forprofit
 tab impl_skill_polrecom if forprofit==1, mi
 tab impl_skill_forecpol if forprofit==1, mi
 tab impl_skill_implpol if forprofit==1, mi

tab impl_skill_makedec if forprofit==1, mi
 tab impl_skill_lobby if forprofit==1, mi
 tab impl_skill_analypol if forprofit==1, mi
 tab impl_skill_eval if forprofit==1, mi
 tab impl_skill_govern if forprofit==1, mi
 tab impl_skill_environment if forprofit==1, mi
 tab impl_skill_none if forprofit==1, mi

**Q16 Financial skills

*all

tab fin_skill_analyeffect, mi
 tab fin_skill_budget, mi
 tab fin_skill_forecast, mi
 tab fin_skill_cashflow, mi
 tab fin_skill_finanaly, mi
 tab fin_skill_fundrais, mi
 tab fin_skill_grantwrit, mi
 tab fin_skill_none, mi

*government

tab fin_skill_analyeffect if government==1, mi
 tab fin_skill_budget if government==1, mi
 tab fin_skill_forecast if government==1, mi
 tab fin_skill_cashflow if government==1, mi
 tab fin_skill_finanaly if government==1, mi
 tab fin_skill_fundrais if government==1, mi
 tab fin_skill_grantwrit if government==1, mi
 tab fin_skill_none if government==1, mi

*federal government

tab fin_skill_analyeffect if federalgov==1, mi
 tab fin_skill_budget if federalgov==1, mi
 tab fin_skill_forecast if federalgov==1, mi
 tab fin_skill_cashflow if federalgov==1, mi
 tab fin_skill_finanaly if federalgov==1, mi
 tab fin_skill_fundrais if federalgov==1, mi
 tab fin_skill_grantwrit if federalgov==1, mi
 tab fin_skill_none if federalgov==1, mi

*state government

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 tab fin_skill_cashflow if stategov==1, mi
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 tab fin_skill_fundrais if stategov==1, mi
 tab fin_skill_grantwrit if stategov==1, mi
 tab fin_skill_none if stategov==1, mi

*local government

tab fin_skill_analyeffect if localgov==1, mi
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 tab fin_skill_forecast if localgov==1, mi

tab fin_skill_cashflow if localgov==1, mi
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 tab fin_skill_none if localgov==1, mi
 *nonprofit

tab fin_skill_analyeffect if nonprofit==1, mi
 tab fin_skill_budget if nonprofit==1, mi
 tab fin_skill_forecast if nonprofit==1, mi
 tab fin_skill_cashflow if nonprofit==1, mi
 tab fin_skill_finanaly if nonprofit==1, mi
 tab fin_skill_fundrais if nonprofit==1, mi
 tab fin_skill_grantwrit if nonprofit==1, mi
 tab fin_skill_none if nonprofit==1, mi

*forprofit

tab fin_skill_analyeffect if forprofit==1, mi
 tab fin_skill_budget if forprofit==1, mi
 tab fin_skill_forecast if forprofit==1, mi
 tab fin_skill_cashflow if forprofit==1, mi
 tab fin_skill_finanaly if forprofit==1, mi
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**Q17 Understanding sector relations

*all

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 tab relation_skill_intergovern, mi
 tab relation_skill_relation, mi
 tab relation_skill_npoimpact, mi
 tab relation_skill_diversity, mi
 tab relation_skill_none, mi

*government

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 tab relation_skill_intergovern if government==1, mi
 tab relation_skill_relation if government==1, mi
 tab relation_skill_npoimpact if government==1, mi
 tab relation_skill_diversity if government==1, mi
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*federal government

tab relation_skill_bureauc if federalgov==1, mi
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 tab relation_skill_npoimpact if federalgov==1, mi
 tab relation_skill_diversity if federalgov==1, mi
 tab relation_skill_none if federalgov==1, mi

*state government

tab relation_skill_bureauc if stategov==1, mi
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tab relation_skill_relation if stategov==1, mi
 tab relation_skill_npoiimpact if stategov==1, mi
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 tab relation_skill_none if stategov==1, mi
 *local government
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 tab relation_skill_intergovern if localgov==1, mi
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 tab relation_skill_npoiimpact if localgov==1, mi
 tab relation_skill_diversity if localgov==1, mi
 tab relation_skill_none if localgov==1, mi
 *nonprofit
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 tab relation_skill_intergovern if nonprofit==1, mi
 tab relation_skill_relation if nonprofit==1, mi
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 *forprofit
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 tab relation_skill_intergovern if forprofit==1, mi
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 tab relation_skill_diversity if forprofit==1, mi
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 **Q18 Skills in economics
 *all
 tab econ_skill_conceptpol, mi
 tab econ_skill_govinterv, mi
 tab econ_skill_fiscalnpo, mi
 tab econ_skill_managesystem, mi
 tab econ_skill_econpolicy, mi
 tab econ_skill_taxpolnpo, mi
 tab econ_skill_taxpol, mi
 tab econ_skill_none, mi
 *government
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 tab econ_skill_govinterv if government==1, mi
 tab econ_skill_fiscalnpo if government==1, mi
 tab econ_skill_managesystem if government==1, mi
 tab econ_skill_econpolicy if government==1, mi
 tab econ_skill_taxpolnpo if government==1, mi
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 tab econ_skill_fiscalnpo if federalgov==1, mi

tab econ_skill_managesystem if federalgov==1, mi
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 tab econ_skill_taxpolnpo if federalgov==1, mi
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 *state government
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 tab econ_skill_managesystem if stategov==1, mi
 tab econ_skill_econpolicy if stategov==1, mi
 tab econ_skill_taxpolnpo if stategov==1, mi
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 tab econ_skill_none if stategov==1, mi
 *local government
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 tab econ_skill_econpolicy if localgov==1, mi
 tab econ_skill_taxpolnpo if localgov==1, mi
 tab econ_skill_taxpol if localgov==1, mi
 tab econ_skill_none if localgov==1, mi
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 tab econ_skill_govinterv if nonprofit==1, mi
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 tab econ_skill_managesystem if nonprofit==1, mi
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 *forprofit
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 tab econ_skill_govinterv if forprofit==1, mi
 tab econ_skill_fiscalnpo if forprofit==1, mi
 tab econ_skill_managesystem if forprofit==1, mi
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 tab econ_skill_taxpolnpo if forprofit==1, mi
 tab econ_skill_taxpol if forprofit==1, mi
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 **Q19 Analysis knowledge bases
 *all
 tab analy_skill_statistic, mi
 tab analy_skill_quant, mi
 tab analy_skill_qual, mi
 tab analy_skill_policy, mi
 tab analy_skill_npoprogram, mi

tab analy_skill_none, mi
 *government
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 tab analy_skill_quant if government==1, mi
 tab analy_skill_qual if government==1, mi
 tab analy_skill_policy if government==1, mi
 tab analy_skill_npoprog if government==1, mi
 tab analy_skill_none if government==1, mi
 *federal government
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 tab analy_skill_quant if federalgov==1, mi
 tab analy_skill_qual if federalgov==1, mi
 tab analy_skill_policy if federalgov==1, mi
 tab analy_skill_npoprog if federalgov==1, mi
 tab analy_skill_none if federalgov==1, mi
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 tab analy_skill_quant if stategov==1, mi
 tab analy_skill_qual if stategov==1, mi
 tab analy_skill_policy if stategov==1, mi
 tab analy_skill_npoprog if stategov==1, mi
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 *local government
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 tab analy_skill_quant if localgov==1, mi
 tab analy_skill_qual if localgov==1, mi
 tab analy_skill_policy if localgov==1, mi
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 tab analy_skill_none if localgov==1, mi
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 tab analy_skill_quant if nonprofit==1, mi
 tab analy_skill_qual if nonprofit==1, mi
 tab analy_skill_policy if nonprofit==1, mi
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 tab analy_skill_policy if forprofit==1, mi
 tab analy_skill_npoprog if forprofit==1, mi
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 **Q27 Important skills for a new graduate
 *all
 tab forec_skill_interest, mi
 tab forec_skill_audience, mi
 tab forec_skill_conseq, mi
 tab forec_skill_failure, mi
 tab forec_skill_argument, mi
 tab forec_skill_success, mi
 tab forec_skill_ethic, mi
 tab forec_skill_none, mi
 *government
 tab forec_skill_interest if government==1, mi
 tab forec_skill_audience if government==1, mi
 tab forec_skill_conseq if government==1, mi
 tab forec_skill_failure if government==1, mi
 tab forec_skill_argument if government==1, mi
 tab forec_skill_success if government==1, mi
 tab forec_skill_ethic if government==1, mi
 tab forec_skill_none if government==1, mi
 *federal government
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 tab forec_skill_audience if federalgov==1, mi
 tab forec_skill_conseq if federalgov==1, mi
 tab forec_skill_failure if federalgov==1, mi
 tab forec_skill_argument if federalgov==1, mi
 tab forec_skill_success if federalgov==1, mi
 tab forec_skill_ethic if federalgov==1, mi
 tab forec_skill_none if federalgov==1, mi
 *state government
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 tab forec_skill_audience if stategov==1, mi
 tab forec_skill_conseq if stategov==1, mi
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 tab forec_skill_argument if stategov==1, mi
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 tab forec_skill_ethic if stategov==1, mi
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 tab forec_skill_failure if localgov==1, mi
 tab forec_skill_argument if localgov==1, mi
 tab forec_skill_success if localgov==1, mi
 tab forec_skill_ethic if localgov==1, mi
 tab forec_skill_none if localgov==1, mi
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 tab forec_skill_audience if nonprofit==1, mi
 tab forec_skill_conseq if nonprofit==1, mi
 tab forec_skill_failure if nonprofit==1, mi
 tab forec_skill_argument if nonprofit==1, mi
 tab forec_skill_success if nonprofit==1, mi

tab forec_skill_ethic if nonprofit==1, mi
 tab forec_skill_none if nonprofit==1, mi
 *forprofit
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 tab forec_skill_audience if forprofit==1, mi
 tab forec_skill_conseq if forprofit==1, mi
 tab forec_skill_failure if forprofit==1, mi
 tab forec_skill_argument if forprofit==1, mi
 tab forec_skill_success if forprofit==1, mi
 tab forec_skill_ethic if forprofit==1, mi
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 **Q21 Interaction with MPSA students
 *all
 tab mpsa_sumintern, mi
 tab mpsa_hire, mi
 tab mpsa_managed, mi
 tab mpsa_workedalong, mi
 tab mpsa_amgrad, mi
 tab mpsa_know, mi
 tab mpsa_neverheard, mi
 *government
 tab mpsa_sumintern if government==1, mi
 tab mpsa_hire if government==1, mi
 tab mpsa_managed if government==1, mi
 tab mpsa_workedalong if government==1, mi
 tab mpsa_amgrad if government==1, mi
 tab mpsa_know if government==1, mi
 tab mpsa_neverheard if government==1, mi
 * federal government
 tab mpsa_sumintern if federalgov==1, mi
 tab mpsa_hire if federalgov==1, mi
 tab mpsa_managed if federalgov==1, mi
 tab mpsa_workedalong if federalgov==1, mi
 tab mpsa_amgrad if federalgov==1, mi
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 tab mpsa_neverheard if federalgov==1, mi
 *state government
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 tab mpsa_hire if stategov==1, mi
 tab mpsa_managed if stategov==1, mi
 tab mpsa_workedalong if stategov==1, mi
 tab mpsa_amgrad if stategov==1, mi
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 tab mpsa_neverheard if stategov==1, mi
 *local government
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 tab mpsa_managed if localgov==1, mi

tab mpsa_workedalong if localgov==1, mi
 tab mpsa_amgrad if localgov==1, mi
 tab mpsa_know if localgov==1, mi
 tab mpsa_neverheard if localgov==1, mi
 *nonprofit
 tab mpsa_sumintern if nonprofit==1, mi
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 tab mpsa_workedalong if forprofit==1, mi
 tab mpsa_amgrad if forprofit==1, mi
 tab mpsa_know if forprofit==1, mi
 tab mpsa_neverheard if forprofit==1, mi
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