

Accounting Doctoral Placement: A Geographic Analysis

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Accounting doctoral placement is described according to the geography of graduate employment. The results show that most U.S. programs provide graduates to schools in the state or the region. Since many doctoral programs prefer to place their graduates in high ranking research programs or in other doctoral schools, geographic concentration suggests many of them are serving a regional need, rather than placing graduates at the highest (research ranked) schools. Additionally, many programs have a relatively high level of foreign placements. Whether these foreign placements add to the prestige of the program is unknown, but they do not help combat the U.S. accounting doctoral shortage.

The geographic aspects of employment of accounting doctoral graduates has not been explored in previous studies. Yet, some would argue the accounting professoriate already knows that some programs tend to provide graduates almost exclusively to employer schools within their state or geographic region. Interestingly, no one has quantified which schools or how many schools tend to do this. Research has been focused, rather, on the prestige of placements, without regard to other potentially intervening factors. Given that the prestige or ranking of a doctoral program can be influenced by the placement of its graduates, the geographical placement tendencies may, in fact, reduce the potential ranking of a doctoral program, except, of course, if all the employer schools in the same geographic region are highly ranked, which seems unlikely.

Accounting doctoral programs are often evaluated and ranked based on the initial placement of graduates. While initial placement is particularly important, the long term employment situations of graduates may actually be more indicative of program quality since many doctoral graduates are mobile and do not stay in their initial job for their entire career or even beyond tenure. Clearly, the variables that can give insight into a doctoral graduate placement are far more diverse than simply the initial placement of a program's graduates. Because the choice to attend a PhD program is complex and the means of evaluating doctoral programs are varied, a geographical analysis of doctoral graduate placement may be useful to both potential doctoral students and also to accreditors and institutions who may hire these graduates.

This study describes and analyzes U.S. doctoral accounting program placement using a variety of demographic and geographic data about the programs and their most recent graduates. This information (including graduate gender and minority status, placement, etc.) may be particularly useful to doctoral applicants as well as to doctoral program directors or search committees looking to differentiate or benchmark programs.

This study addresses the following broad research questions: What are the drivers of doctoral graduate placement? What is the role of geography in the pattern of doctoral graduate placement, if any? To what extent do each program's graduates leave academia or leave the USA?

Prior Research

The literature describing accounting doctoral programs is mostly comprised of various studies ranking programs on publishing output of faculty and/or graduates or on initial placement of graduates. The publishing productivity studies that rank accounting doctoral programs have measured research activity of both faculty and graduates. These studies include Brown and Garner (1985), Brown (1996), Everett, Klamm and Stoltzfus (2004), and Brown and Laksmana (2007). Similarly, Mittermaier (1991) analyzed representation on editorial boards. Fogarty and Markarian (2007) combined two previous rankings (Hasselback and Reinstein, 1995b; Fogarty, 1995) to create a prestige ranking of doctoral granting programs. Urbancic (2008) used a multi-attribute approach to rank doctoral programs.

Studies of placement of doctoral accounting graduates include Fogarty and Saftner (1993a, 1993b), Maranto and Streuly (1994), Fogarty and Ruhl (1997), Stammerjohan and Hall (2002), and Stammerjohan, Seifert and Guidry (2009). These are briefly described here.

Stammerjohan and Hall (2002) ranked 80 accounting doctoral programs based on the initial placement of graduates using two measurement scales: US News and World Report: America's Best Colleges (1997) rankings and Hasselback and Reinstein (1995a) research productivity measures. The authors address placement of graduates at top-tier universities and at the most research productive accounting departments.

Fogarty and Saftner (1993a) consider a primary market (initial placement) for doctoral graduates and a secondary market (later employment) for accounting professors who have already held full-time positions. The primary market is more dependent on institutional characteristics, whereas the secondary market is influenced more by personal, family and economic motives. The authors conclude that a fairly solid stratification hierarchy exists and that movement along this hierarchy is mostly downward.

Maranto and Streuly (1994), Fogarty and Ruhl (1997) found strong correlations between the status of doctoral alma mater institutions and the status of initial employment institutions. Stammerjohan, Seifert and Guidry (2009) further examine the prestige of doctoral granting programs and lifestyle choices in the initial placement of graduates. Most of these studies have only addressed a subset of accounting doctoral programs. Most of these studies consider only initial placement. None of these studies addresses the geographical of accounting doctoral graduate placement.

Both research output and placement information are important. Just as Stammerjohan and Hall (2002) argue that potential doctoral students need to know if the programs to which they apply have a history of placing graduates at the type of institutions where they desire future employment, these applicants may also want to know more about programs with regard to many other factors, including further characteristics of graduates' employment and success. Therefore, this study's purpose is to provide prospective doctoral students, search committees, doctoral program directors, and other interested parties with information that has not been previously available about doctoral graduate placement.

Research Methodology

This section describes the research methodology used to investigate the geographic patterns in doctoral graduate placement. The basic data consist of U.S. accounting doctoral graduates, 1987-2006. These graduates were initially identified through Hasselback's (2007) online listing of doctoral graduates by school. This source contains information about each graduate such as academic rank, employer, administrative position, professorships, and professional certifications. Then, each individual graduate was researched to update, correct, and add supplemental variables. Extensive Internet searches, phone calls and emails enabled the collection of corrections and additional information. Variables describing graduates include current employment (2007), alma mater, degree year, minority status, country, and state (if USA).

Information on minority status was provided by the PhD Project (2007). The minority information was double checked through Internet searches and emails. For the purposes of this research, minorities are identified as African-American, Native American, and Hispanic American. These are recognized as under-represented minorities and are those specifically encouraged by the PhD Project (2007) to pursue doctorates in business disciplines. The data were cross-checked to the extent possible through Internet searches.

The location (country or state) of each graduate was determined based on their place of employment or other information about their current activities found on the Internet or through email and phone inquiries. Note that information is unknown or inapplicable on some variables for some graduates. For example, 2007 employer is unknown for 9.8% of graduates.

The state location of doctoral programs and current (2007) employment were used to determine how frequently graduates are employed in the same state as their doctoral program, or in bordering states. In addition, the employment locations of minority graduates was compared with census data on minorities. Finally, foreign placements are discussed. The data were analyzed using basic descriptive statistics. The following sections discuss the results and their implications.

Results

This section discusses the geography of doctoral graduate placement in current employment (2007), including dispersion of graduates across the U.S. and the percent of foreign placements. Basic demographics are shown in the accompanying tables.

Geography of Current Placement

Of the graduates who are employed at U.S. academic institutions, about 20% (503) are employed in the same state in which they earned their doctoral degrees. Table 1 describes this geographical phenomenon. Of the 94 programs, 58 (62%) have more of their graduates in their home state than in any other state. An additional 16 programs (17%) have more of their graduates in a bordering state than in any other state. About 10% of programs (9) have too few graduates to analyze geographic patterns. Only 11 programs (12%) appear to avoid an obvious geographical bias in the current employment of their graduates: Arkansas, Colorado, Maryland, Michigan, Missouri,

MIT, Northwestern, Penn, Purdue, Stanford, and SUNY-Buffalo. Three of these (MIT, Purdue and SUNY-Buffalo) have graduated less than one student per year for the study period. Most of these programs have placed their graduates in states with larger populations and therefore more accounting programs, such as California, New York, Virginia, and Texas.

**Table 1: Geographical Analysis of Graduate Employment
Panel A. Largest Homestate Placement**

		Total	State with largest					
All		Grads	number of grads					
ALL		2517	<home>		503			
		Total	State with largest		Total	State with largest		
almamater		Grads	number of grads		almamater	Grads	number of grads	
Homestate has more graduates than any other state	Alabama	34	AL	8	Minnesota	14	MN	2
	Baruch	16	NY	8	Nebraska	50	NE	8
	Berkeley	16	CA	4	NorthTx	50	TX	23
	BostonU	25	MA	13	NYU	24	NY	8
	CarMellon	8	PA	2	Oklahoma	21	OK	5
	CaseWes	10	OH	5	OklaSt	40	OK	5
	CenFla	12	FL	3	Oregon	20	OR	5
	Chicago	27	IL	5	PennSt	53	PA	9
	Cincinnati	13	OH	3	Pittsburgh	28	PA	8
	ClevSt	10	OH	3	sCalif	26	CA	7
	Columbia	22	NY	6	sFlorida	19	FL	8
	Cornell	24	NY	3	sIllinois	20	IL	3
	Drexel	25	PA	8	SUNY-Bin	4	NY	2
	FlaAtl	6	FL	3	Syracuse	11	NY	5
	Florida	36	FL	8	Temple	27	PA	6
	GaState	34	GA	6	Tennessee	40	TN	8
	Georgia	56	GA	8	TxA&M	80	TX	24
	Harvard	14	MA	3	Tx-Arlin	19	TX	5
	Houston	47	TX	15	Tx-Austin	60	TX	15
	Illinois	51	IL	15	TxTech	39	TX	13
	Iowa	24	IA	4	UCLA	3	CA	2
	JacksonSt	6	MS	4	Union-NY	10	NY	6
	Kansas	16	KS	2	Utah	22	UT	5
	KentSt	35	OH	8	VaComm	33	VA	14
	Kentucky	58	KY	7	Vanderbilt	1	TN	1
	LSU	47	LA	9	WA (u of)	36	WA	8
	Mass	15	MA	7	WashSt	21	WA	3
	Memphis	33	TN	5	WashU	9	MO	2
MichSt	54	MI	8	Wisconsin	50	WI	13	

Apparently, most programs are fulfilling a role, whether intentional or unintentional, of providing accounting doctoral graduates mostly to schools within their geographical area. This is true for most doctoral programs whether large or small, highly ranked or otherwise, and regardless of location. This could be caused by any number of factors, including graduates who do not want to leave the area for personal or family reasons, high demand in the region for the program's graduates, or the proximity of many doctoral programs to high concentrations of population and other accounting institutions. To the extent doctoral programs want to be distinguished by their good placement records, they may want to investigate this variable further. Certainly, prospective doctoral students may use this data to help them determine whether the program is likely to result in placements that fit their needs.

Geography and Minorities

In the U.S. and Puerto Rico, 5.48% of placements are minority graduates. The 19 states (including Puerto Rico and the District of Columbia) with above average minority employment are listed in Table 2. Thirteen of these locations can be described as southern (i.e. south of the Mason-Dixon line or geographically southern (Puerto Rico). Two of these states are northeastern: Rhode Island and New Jersey. Four are mid-western or western: Michigan, Kansas, Colorado and New Mexico. Note that some of the states that have relatively large populations of minorities (such as California) and relatively large numbers of universities employing accounting doctoral graduates (such as New York, Pennsylvania, Illinois, Massachusetts, and Ohio) do not show above average employment of minorities.

Note that Table 2 only shows states with above average minority employment, not all states and all employed minorities or non-minorities.

Table 2: States with above average minority employment

State	None-Minority	Minority	Total	Minority%
Puerto Rico	0	2	2	100.00%
Delaware	5	2	7	28.57%
D.C.	19	4	23	17.39%
South Carolina	32	5	37	13.51%
Kansas	20	3	23	13.04%
Mississippi	36	5	41	12.20%
Rhode Island	15	2	17	11.76%
Florida	96	12	108	11.11%
Maryland	26	3	29	10.34%
Georgia	72	8	80	10.00%
North Carolina	103	11	114	9.65%
Kentucky	37	3	40	7.50%
Virginia	83	6	89	6.74%
West Virginia	14	1	15	6.67%
Texas	215	14	229	6.11%
Colorado	32	2	34	5.88%
New Mexico	16	1	17	5.88%
Michigan	67	4	71	5.63%
New Jersey	51	3	54	5.56%
Total (all)	2,398	139	2,537	5.48%

Table 3: Graduate placement, programs with above average foreign placement

Program	Total	Foreign	Program	Total	Foreign
Georgia Tech	3	67%	Wisconsin	66	21%
UCLA	10	60%	Northwestern	30	20%
Florida Int'l	2	50%	Oregon	25	20%
Carnegie Mellon	17	47%	Iowa	31	19%
Berkeley	32	47%	Boston U	32	19%
Purdue	28	43%	Maryland	32	19%
Case Western	17	41%	Houston	60	18%
Tulane	8	38%	Florida	44	18%
SUNY-Buffalo	19	37%	Rutgers	39	18%
Minnesota	27	33%	Chicago	34	18%
NYU	37	32%	Southern Cal	34	18%
Syracuse	16	31%	Cornell	29	17%
Florida Atlantic	10	30%	Arkansas	42	17%
CUNY Baruch	22	27%	Drexel	30	17%
Kansas	22	27%	Duke	6	17%
Penn	26	27%	St Louis	19	16%
Southern Illinois	27	26%	Texas-Austin	70	16%
Illinois	66	24%	Temple	32	16%
Harvard	17	24%	Cleveland St	13	15%
Stanford	34	24%	Oklahoma	26	15%
Washington, U of	48	23%	Nebraska	59	15%
Colorado	35	23%	Ohio State	48	15%
GWU	18	22%	Kent St	42	14%
Texas-Dallas	9	22%			

Foreign Employment

Approximately 15% of the graduates whose location is known are employed outside of the USA (see Table 3 above). Four programs (of those with at least 20 in the subset) have placed over 30% of their graduates outside the USA. These include Berkeley, Purdue, Minnesota and NYU. A further 11 programs (of those with at least 20 in the subset) have placed over 20% of their graduates outside the USA. These include Kansas, Pennsylvania, Southern Illinois, Stanford, Washington, Colorado, Illinois, Wisconsin, Baruch, Iowa, and Northwestern. Since the whereabouts of some graduates are unknown and some of these unknowns are likely to be in foreign countries, these percentages may be understated.

Many of these programs may have high foreign placement because a higher percentage of foreign students are admitted. Clearly, a significant portion of doctoral students are from outside the USA. For example, Cho et al. (2008) report that the percentage of Chinese students at the American Accounting Association Doctoral Consortium has been increasing in recent years and that over 25% of attendees during 2002-2004 received bachelor's degrees from Chinese universities.

Some accounting doctoral programs may be more attractive to foreign students due to location or rank or some other factor. The data do not include a variable for country of citizenship. Clearly, however, a material percentage of U.S. accounting doctoral graduates are leaving the country, thus potentially aggravating the shortage situation. Some of these graduates may be foreigners who never intended to stay in the U.S., of course. The market for doctoral students and doctoral graduates is complex.

Conclusion

This study's purpose was to provide prospective doctoral students, doctoral program directors, search committees, and other interested parties with geographical information about doctoral placement that has not been previously available. Hopefully, this information will assist potential applicants to doctoral programs in making decisions about where to apply and which program to attend.

This information may also be useful for accounting doctoral programs desiring differentiation from other programs using objective data. In addition, this information may provide doctoral programs with some benchmarks against which progress over time can be compared. Search committees, accreditation agencies, and other external parties may use this data to help in benchmarking and comparison of programs. Prior research has shown that high placement by doctoral graduates vastly improves their ability to perform well in their academic career (Fogarty et al. 2011).

This study does have some limitations. Some data are unknown, particularly, the employment situations of some graduates could not be determined (these were not used in the analysis). In addition, the employment information is analyzed at a point in time, 2007. This is both a weakness and a strength. It is a weakness because it is a snapshot in time and employment situations change, and a strength because it addresses employment situations for graduates at a range of 1 to 20 years post-graduation rather than just the initial employment of each graduate. Future studies should consider initial placement of doctoral graduates. Furthermore, while a longitudinal study is beyond the scope of this project, in the future such a study may provide more insight into the movement and employment of doctoral graduates.

These results suggest most U.S. doctoral programs mainly provide graduates to schools in the state or the region. Since many doctoral programs prefer to place their graduates in the highest ranking programs possible or in other accounting doctoral programs, the geographic concentration suggests that many of them are serving a regional need, rather than placing graduates at the best schools, regardless of location. In addition, many programs have a relatively high level of foreign placements. Whether these foreign placements add to the prestige of the program is unknown. Clearly these placements do not help combat the U.S. accounting doctoral shortage.

While this study provides interesting data and analysis, it also highlights areas needing more investigation. For example: Why do so many of the graduates of some programs leave the U.S.? Do doctoral programs intentionally serve a geographical demand or is that an unintentional result? Do doctoral programs with high state or regional placement tend to be ranked lower than doctoral programs with non-geographical patterns of placement? More research is necessary to shed light on these preliminary results, including comparisons of publishing productivity with geographic placement variables.

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