

Recommendations on Attaining Departmental Status: A Survey of Division Chiefs Turned Department Chairs

Maheen F. Akhter, BS*
 Charles A. Keane, MD*
 Benjamin A. Sarac, MD†
 Amy M. Moore, MD†
 Justin M. Sacks, MD, MBA‡
 J. Peter Rubin, MD, MBA§
 Jeffrey E. Janis, MD, FACS‡

Summary: In 2009, the Association of Academic Chairmen of Plastic Surgery, now known as the American Council of Academic Plastic Surgeons (ACAPS), published a white paper endorsing the conversion of plastic surgery divisions into autonomous departments, motioning for other national organizations to follow suit. ACAPS' rationale outlined 11 factors intended to promote the favorability of attaining departmental status within an institution. Through surveying division chiefs turned founding department chairs who successfully executed this transition, we evaluate the practicality and efficacy of these guidelines. A survey was distributed to founding chairs of plastic surgery departments that were established after ACAPS' 2009 white paper. Information pertaining to institutions' demographic information and respondents' utilization of the principles and suggestions espoused in the white paper was obtained. The survey achieved an 86% response rate. The average time needed for the transition was 22±12 months. Four of seven chairs were familiar with the 2009 ACAPS white paper. Garnering support from hospital administrators and institutional stakeholders, having fiscal profitability within the institution, and coordinating an integrated plastic surgery training program were ranked as the top three most important factors, respectively. This study assesses ACAPS' recommendations on transitioning from a division to a department on the basis of perceived utility by academic leaders who recently navigated the process. The most frequently cited factors for a successful transition included rallying support from institutional stakeholders and ensuring profitability. Additionally, aligning the timing with a concurrent transition of leadership can expedite the process. (*Plast Reconstr Surg Glob Open* 2022; 10:e4700; doi: 10.1097/GOX.0000000000004700; Published online 20 December 2022.)

INTRODUCTION

The specialty of plastic surgery is currently poised for a sweeping step-up in organizational structure as many seek to shift their administrative framework from divisions within a department of surgery toward independent

departments of plastic surgery. The historical benefits of operating under an umbrella department of surgery are not to be dismissed; rather, allowing for further expansion and development of surgical subspecialties yields a multitude of unprecedented returns both to the newly incepted department, and to the institutions which they serve. However, it has become increasingly apparent in recent years that there is a substantial benefit in achieving departmental status within an institution.¹⁻³

Since 1997, several studies have detailed the need for greater financial, academic, educational, and administrative autonomy in plastic surgery.⁴⁻⁶ This campaign culminated with the release of a white paper composed by the Association of Academic Chairmen of Plastic Surgery, known today as the American Council of Academic Plastic Surgeons (ACAPS). In their report, ACAPS formally

*From the *Central Michigan University College of Medicine, Saginaw, Mich.; †The Ohio State University Wexner Medical Center, Department of Plastic and Reconstructive Surgery, Columbus, Ohio.; ‡Washington University in St. Louis School of Medicine, Division of Plastic and Reconstructive Surgery, St. Louis, Mo.; §University of Pittsburgh Medical Center, Department of Plastic Surgery, Pittsburgh, Pa.*

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endorsed the universal conversion of divisions of plastic surgery into independent departments, calling upon other national plastic surgery organizations to echo the same sentiment.¹ Their rationale drew a comparison to other surgical subspecialties that have largely progressed to establishing departmental status within their respective fields, emphasizing the need for equal action in plastic surgery, especially with the now-predominant integrated residency pathway that demonstrates independence from general surgery and demands unique support and oversight from plastic surgery-trained faculty.

As there is no set blueprint for the process of establishing a plastic surgery department, ACAPS' recommendations outlined 11 key factors amenable to serving as guiding principles of the transition process (Fig. 1). These guidelines precipitated several peer-reviewed publications commenting on the factors devised by ACAPS, many of which compared all existing plastic surgery divisions to all existing departments in an effort to validate their recommendations.^{2,3,7-13} However, since the release of the white paper, no articles have solely surveyed those departments created after 2009 with the intention of evaluating the application and efficacy of these guidelines and to solicit feedback on how to navigate this transition by those who have successfully done so. To address this gap, our goal was to critically evaluate each of the 11 ACAPS principles through that lens to determine which factors had the greatest utility and value in the shift from division to department.

METHODS

Distribution

Following institutional review board exemption, a survey was distributed to the founding chairs of departments of plastic surgery that were established after the 2009 ACAPS white paper was published. Only those institutions with an integrated and/or independent residency program were considered. All program websites were queried to determine their administrative status: institutions listed as departments of plastic surgery or with an appointed department chair were included, and those listed as divisions of plastic surgery or with an appointed division chief were excluded.

Department websites were queried to determine their respective dates of establishment. For websites that did not provide sufficient history, dates were determined from the Accreditation Council for Graduate Medical Education website, institutions' administrative staff, and articles published from those institutions over several time points via Scopus (Elsevier).^{14,15} An additional question eliciting the year of establishment was included in the survey as a confirmatory measure.

Using institutions' online directories, email addresses were collected for the department chairs. If the current chair arrived at the institution after the establishment of the department of plastic surgery, the email address for the appropriate founding chair was collected instead, so as to solicit the perspective of the individual who led the transition for the most accurate information possible.

Takeaways

Question: According to recent founding department chairs, what is the efficacy of the 2009 ACAPS recommendations on transitioning from a division of plastic surgery to a standalone department?

Findings: Most chairs found the recommendations helpful in attaining departmental status. Specifically, gaining support from institutional leaders, having profitability, and coordinating a residency program were the most endorsed ACAPS factors in executing successful transitions.

Meaning: As plastic surgery diverges from the traditional discipline of surgery, academic divisions continue seeking autonomy at institutional levels. Understanding the applicability of each ACAPS recommendation enables division leaders to assess the benefits, feasibility, and their individual prospects in becoming an independent department.

Survey

A survey was created using SurveyMonkey® with a maximum of 19 questions (using branched logic) that pertained to institutions' demographic information and respondents' perspectives on the utility of the concepts, content, and principles espoused in the 2009 ACAPS white paper. The survey, along with a description of the rationale, methods, and duration of the study, was distributed via email to the identified department chairs. The survey remained open for 14 days, and three follow-up emails were sent during this period. Survey responses were descriptive in nature. All data collected were anonymous. Data were housed on The Ohio State University Department of Plastic and Reconstructive Surgery restricted-access research folder.

Analysis

Given the limited sample size of this study, data analyses were qualitative. No additional statistical tests were performed.

RESULTS

Demographics

Of those queried, 18 of 84 integrated programs and six of 43 independent programs were found to have departments of plastic surgery at their affiliated institutions. All six institutions with independent programs also had integrated residency programs. Of the 18 total departments, eight were established after 2009, which constituted the survey population. The survey yielded a response rate of 86% (seven of eight). Geographically, three departments were located in the Midwest, two in the South, and one each in the Northeast and West. All departments were based in urban settings.

Although all surveyed departments had an existing integrated residency program at their institutions prior to attaining departmental status, only four of seven had an independent program. The remaining three did not

- 1. Profitability within the medical school**
"Deans do not want additional departments that are not self-supporting."
- 2. Develop administrative support**
"When efforts to achieve departmental status have been successful, the plastic surgery chief has generally been supported by other key individuals within the institution."
- 3. Act like a department**
"Develop a mission statement and... a strategic plan to achieve specific goals. Emphasize the uniqueness of the specialty."
- 4. Develop and publicize clinical programs that are mission critical to the institution**
"The vital role played by plastic surgeons needs to be emphasized. It is also helpful if plastic surgery uniquely provides a clinical service."
- 5. Develop fully autonomous integrated training programs**
"They emphasize that plastic surgery is truly separate from surgery."
- 6. Develop independent research programs**
"It emphasizes that the specialty can make novel contributions to medicine as a whole in addition to providing clinical service and teaching."
- 7. Expand the plastic surgery faculty as much as fiscally possible**
"The larger the mass of individuals within plastic surgery, the more likely the group is to be perceived as deserving independent status."
- 8. Participate actively in university administrative activities**
"If plastic surgeons are viewed as 'good citizens' of the university, they are more likely to be viewed as a group that should be a department."
- 9. Participate actively in university teaching activities**
"Plastic surgeons can provide suturing courses... teach how to precisely handle instruments, and manage tissues gently. Lectures can be provided in basic areas such as wound healing..."
- 10. Participate actively in institutional clinical activities**
"Plastic surgery should ideally be viewed as a critical and easily accessible service for reconstructive services within the institution."
- 11. Obtain endowments to support research and less remunerative clinical programs**
"Endowments can offset... essential clinical and research programs that are not remunerative."

Fig. 1. A list of the 11 factors outlined in the 2009 ACAPS white paper.

establish new independent residency programs after becoming departments.

Leadership in the Process of Transitioning

All seven respondents confirmed that they were the founding chairs of their respective institutions' departments of plastic surgery. When asked about prior professional appointments, five of seven held the position of division chief at their previous institutions before becoming founding chairs at their new institutions (Table 1). Of the two remaining, one was the deputy chair of plastic surgery at their previous institution, and the other was a program director and interim division chief. None of the respondents had served as department chairs at their preceding institutions.

Overall, three of seven reported that their institutions' departments were created at a point of transition in leadership, such as the arrival of a new department of surgery chair or the departure of a preceding division chief. Two of

Table 1. Academic Appointments Held by Founding Department Chairs at Their Previous Institutions

Department Chair of Plastic Surgery	0.0%	0 of 7
Division Chief of Plastic Surgery	71.4%	5 of 7
No previous leadership position	0.0%	0 of 7
Other:		
Deputy Chair of Department of Plastic Surgery	14.3%	1 of 7
Program Director and Interim Division Chief of Plastic Surgery	14.3%	1 of 7

seven departments utilized a voting process among the institutions' administrative leaders and stakeholders to decide on conferring departmental status. The overall length of the division-to-department transition process ranged from a minimum of "weeks" to a maximum of three years. Once initiated, the average time for the entire process was approximately 22±12 months (one incomplete response omitted). The departments established at a point of change

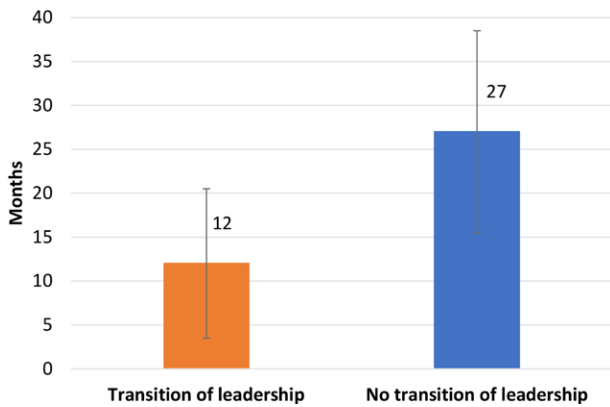


Fig. 2. Average time elapsed in transitioning to a department for units with and without a concurrent transition of leadership.

in leadership, however, showed shorter times in transitioning (12 ± 8.5 months) than those that transitioned without a concurrent leadership change (27 ± 11.5 months) (Fig. 2).

Utility of the ACAPS White Paper

Prior to founding their departments, four of seven reported that they were familiar with the 2009 ACAPS white paper that called for universal establishment of plastic surgery departments. Of those four, when asked if the white paper’s recommendations generally affected their decision-making throughout the division-to-department transition, two agreed, one was neutral, and one strongly disagreed. When asked if the white paper was a valuable resource given that the guidelines were distributed by a major national plastic surgery organization, one strongly agreed, two were neutral, and one strongly disagreed.

Eleven Factors Favoring Departmental Status

In closely considering the utility of each individual factor, participants were first asked to cite which specific recommendations they believe played a role in their ability to transition from division to department. Next, participants were asked to rank all 11 factors in the order of their perceived importance in assisting with the transition. Responses were averaged to determine rankings. The most important factor was ranked highest and the least important ranked lowest. Utility of individual factors was determined by the percentage of respondents that endorsed using each one (Fig. 3). Having support from other hospital administrators (chair of surgery, other department chairs, and hospital leadership) was ranked as the most important factor, followed by having financial profitability within the medical school and having an integrated plastic surgery training program in second and third place, respectively. Having endowments to support research and other less remunerative clinical programs was ranked the lowest, and it was also the least frequently cited item with respect to utility of individual factors.

Future Directions for Other Divisions

When asked if plastic surgery divisions are sufficient as subentities under the department of surgery, four of six

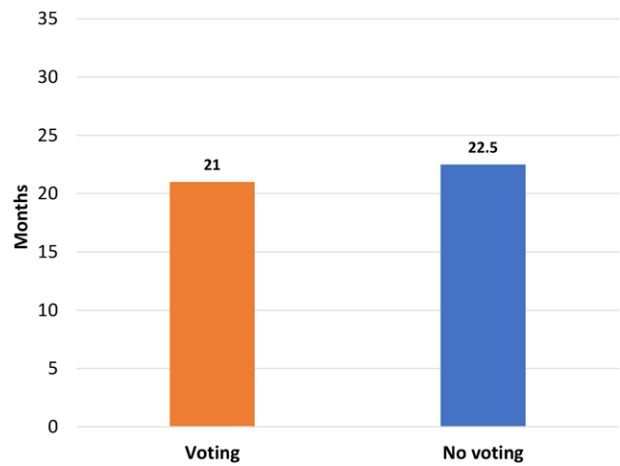


Fig. 3. Factors were ranked in order of perceived importance by founding department chairs. The utility of each factor was also determined by how frequently respondents endorsed them in their respective transitions.

respondents strongly disagreed, one disagreed, and one agreed. Subsequently, two of six agreed and four of six strongly agreed that plastic surgery units would be better served as standalone departments with respect to the availability of resources, resident and fellow training programs, research, and clinical care and outcomes (Table 2).

Comments from the open-response portion of the survey suggest that the expansion of additional departments will better serve the plastic surgery community and that contributing to the university and developing close professional relationships are imperative in facilitating this (Table 3). Some respondents also acknowledged, however, that remaining as a division under the oversight of a larger department may confer added stability and amenities that smaller academic units may not otherwise be able to procure on their own.

DISCUSSION

With the intent of facilitating plastic surgery divisions in becoming established departments, ACAPS published a white paper in 2009 that detailed 11 guidelines for a favorable transition. This study investigates the efficacy of these

Table 2. Founding Department Chairs’ Opinions on the Status of Plastic Surgery Divisions and Departments

“Plastic surgery divisions are sufficient as subentities under a department of surgery.”		
Strongly agree	0.0%	0 of 6
Agree	16.7%	1 of 6
Neutral	0.0%	0 of 6
Disagree	16.7%	1 of 6
Strongly disagree	66.7%	4 of 6
“Plastic surgery would be better served as a standalone department, with respect to the availability of resources, resident and fellow training programs, research, and clinical care and outcomes.”		
Strongly agree	66.7%	4 of 6
Agree	33.3%	2 of 6
Neutral	0.0%	0 of 6
Disagree	0.0%	0 of 6
Strongly disagree	0.0%	0 of 6

Table 3. Free Response Comments from Founding Department Chairs on Their Experiences Undergoing the Division-to-Department Transition

Please provide any additional information you wish to share about the pros and cons, as well as your experience transitioning from a division to department of plastic surgery.

"I believe that, overall, there is significant benefit for plastic surgery [divisions] to ultimately transition to department status across the board. That being said, I do realize that at certain institutions, the stability and resources available as a division under [the department of] surgery may be more appealing and more beneficial to the overall mission of plastic surgery within that department. An example of this would be internal departmental research funding that could be used as a significant source of funding for plastic surgery divisions, [which] may not be available to the same extent for a [plastic surgery] department because the economies of scale may not be there."

"Every institution is different and dependent upon the complex interaction of system support, personal work ethic of leadership, and engaged faculty. Some may work very well as a division, but you have much more influence with the dean as a department chair. Sometimes that is good, other times not so much, as it is determined by the support of the dean for your department. A good general rule is to try to always give a little more to the school than you are taking out. Your position (and your department's) is a constant value proposition."

"Taking advantage of local timing and politics is key."

"Absolutely need support of the dean, the health system, and at least nonresistance and a quote from the department of surgery chair."

factors as seen by the founding department chairs who were successful in this transition. Following the ACAPS white paper, multiple studies were published pertaining to the differences between divisions and departments. Some of these compared all existing plastic surgery divisions to all existing departments, utilizing methods that were indiscriminate to specific time points.^{2,3,7-10} A limitation of these studies is that surveying departments of plastic surgery that were, in some cases, established decades before the 2009 white paper could potentially yield outdated responses, considering that the nature of the transition process likely has changed since then.

To provide a more current perspective, we studied a more recent population of only those departments established since 2009, after the white paper was published. Some have similarly suggested that recently transitioned divisions could provide blueprints for others to follow suit.³ Additionally, our study fully evaluates all 11 factors presented by ACAPS, unlike previous literature that only briefly references a few of the guidelines. Ultimately, by implementing a ranking system, we determined the most and least useful recommendations, an assessment that has remodeled the utility of the original white paper.

One key finding of our study was that the timeline of transition from a division to department averaged just under two years from the initiation of the process. This length of time may reflect some resistance at an institutional level, or it may simply represent the time needed to implement the necessary framework for success. Further studies are needed to fully elucidate time as a factor. Interestingly, institutions that observed a change of leadership at the time of establishing their departments had a considerably shorter timeline than institutions with no

concurrent change of leadership. However, institutional support, the highest-ranked factor by founding department chairs, is vital for transitioning to a department and cannot be understated. Guyuron described that the most opportune time of transition is when the institution is seeking a new division chief.⁵ If a candidate proposes that the division be converted into a department upon their arrival, particularly if they are an established leader in the field, there may be substantial leverage in persuading the chair of surgery to oblige. This transition of power presents opportunities to build improved internal relationships or perhaps to end strained relationships, either of which can favor a unit in staging a large structural reorganization. Similar types of leverage can expedite the process for divisions on the cusp of transitioning or strike a deal to convince a strong leader against leaving their institution. Additional responses from the survey reinforce the sentiment that taking advantage of local politics and timing is key.

As our study reveals that finances were the second most important factor, it is necessary to evaluate the financial implications of transitioning to a significantly more independent infrastructure. In their 2011 paper detailing a microeconomic analysis of divisions and departments, Mar et al endorsed the movement toward departments of plastic surgery across the board, mentioning that it is no longer logical or optimal for surgical subspecialties to operate under a single financial and administrative umbrella.⁷ The authors explain, however, that for a clinical program to thrive as a standalone department, there absolutely must be enough revenue produced for the transition to be an economically sound decision, which relies primarily on the program's clinical, philanthropic, and research outputs. Additionally, the revenue must offset the costs of a growing department, such as the hiring of additional administrative personnel and clinical staff. Our findings largely support these claims, particularly with respect to our study's top-ranked ACAPS recommendation: ensuring profitability. Adjusting operations to produce a comfortable profit margin not only creates a sustainable financial model amenable to the establishment of a department but can also seed funds for research- and training-related affairs that, otherwise, yield little to no revenue. This perhaps explains why our respondents largely felt that having endowments to fund less profitable ventures was a less-valued recommendation; if the unit's own operations provide robust financial stability, there should be no need to rely on support from university endowments.

Furthermore, profitability can help justify the transition to departmental status for a plastic surgery division. Within an academic center, the financial solvency of any endeavor is essential. Without positive margins to support the transition, growth cannot be sustained intrinsically by the division in question; this is a critical piece that current and future divisional leaders must understand. Landefeld remarks that maintaining profitability, in addition to a positive impact on patient care and on the institution's reputation, is instrumental in convincing stakeholders to invest in the future department and support its independence and vision.¹¹ Apart from sustaining the division, the

unit's profitability dually contributes to building the credibility needed to appease institutional leaders at the helm of decision-making.

Additionally, it is no coincidence that the recent establishment of many new integrated plastic surgery residency programs accelerates the movement toward attaining departmental status. In 2016, Pace et al revealed that a majority of plastic surgery residency program directors attributed the advancement of the integrated pathway to the desire of diverging from general surgery departments and faculty.¹⁶ The majority also felt that integrated programs continued expanding due to the recruitment of higher-achieving applicants into the integrated pathway, compared with the independent track. Training a workforce of plastic surgeons who more actively contribute to research, pursue fellowships, and strengthen the field of plastic surgery not only creates a strong incentive for institutions to continue developing integrated programs, but also suggests that academic units are outgrowing the resources allocated to divisions. The educational investments required to sustain an integrated program necessitate greater bandwidth; this validates our findings that the presence of an integrated program is a pertinent element in facilitating the transition to a department.

Despite strong sentiments within academic plastic surgery that endorse the widespread adoption of establishing departmental status, we cannot overlook recent literature that critically assesses the academic outcomes of this movement. Loewenstein et al sought to validate the transition to departments by hypothesizing improved performance with publications, citations, and grants from plastic surgery departments when compared to divisions.¹⁰ The study, however, revealed that academic productivity was relatively similar between the two, reiterating the notion that many circumstances can vary from one institution to the next. External factors unrelated to division or department status, additionally, can impact certain programs' academic productivity. Thus, transitioning from division to department is a multifactorial affair; the ACAPS recommendations may not apply universally to all entities, but rather, are nuanced in some respects.

Limitations

The decision to study only academic plastic surgery divisions leaves smaller, nonteaching hospitals and private groups out of consideration. Although the division-to-department trend has become common among academic units, many factors in the white paper, such as resident education and research initiatives, are seldom relevant for nonacademic units. Nonetheless, excluding private and nonteaching divisions-turned-departments limited the volume of our sample as only eight new academic departments have been established since 2009. Given our small sample size and the low power of our results, we could not perform statistical analyses.¹⁷

Additionally, we acknowledge that some institutions may have unique experiences transitioning and may rely on factors excluded from the white paper. Soliciting opinions from a few transitioned departments draws a focused,

but narrow perspective on the matter. Input from additional divisions—whether they are currently transitioning, previously attempted to transition, or decided not to transition—would provide valuable insight on motives, arguments for or against departmental status, and unexpected challenges throughout the process. Alternative perspectives would offer context to our study: perhaps a certain margin of profit marked the threshold for success, or maybe a minimum faculty size was needed to maintain a department's clinical operations. Further studies evaluating the logistics required to support new departments will reinforce or reshape future guidelines.

CONCLUSIONS

With consideration of all 11 factors described in the 2009 white paper, we present a ranked list of ACAPS' favorable factors recommended for a successful transition from division to department of plastic surgery. By distinguishing only those departments established after 2009, we highlighted the factors that founding chairs determined to be most instrumental in facilitating the transition. Ultimately, rallying support from administrative leaders and ensuring profitability of the future department were the most valuable factors in a successful transition; choosing to transition into a department may be facilitated if done concurrently with a relevant change of leadership within the institution. Future studies investigating trends from other surgical subspecialties that have transitioned to standalone departments (such as urology, neurosurgery, orthopedic surgery, and otolaryngology) may also prove helpful in understanding the opportunities and obstacles for divisions of plastic surgery in becoming departments. We hope this research enables current divisions to reflect on their individual circumstances, identify the appropriate means to continue transitioning into autonomous departments, and claim a seat at the table with other unique specialties in the house of medicine and surgery.

Jeffrey E. Janis, MD, FACS

Department of Plastic and Reconstructive Surgery
The Ohio State University Medical Center
915 Olentangy River Rd
Columbus, OH 43212

E-mail: jeffrey.janis@osumc.edu

Twitter: @jjanismd

Instagram: @jeffreyjanismd

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REFERENCES

1. Lawrence WT, Rohrich RJ, Larson DL, et al. Association of academic chairmen of plastic surgery white paper on departmental status. *Plast Reconstr Surg*. 2009;124:293–297.
2. Azoury SC, Othman S, Naga H, et al. 50 years since the first plastic surgery unit achieved department status: where do we stand and how do we compare to our close competition? *Plast Reconstr Surg*. 2020;146:842e–844e.

3. Murphy AI, Mellia JA, Diatta F, et al. Department versus division: an in-depth analysis of units of plastic surgery and other surgical specialties at their institutions. *J Craniofac Surg*. 2021;33:15–18.
4. Rohrich RJ, Larson DL. The future of plastic surgery in academic medical centers: making the case for autonomous departments of plastic surgery. *Plast Reconstr Surg*. 1997;100:761–763.
5. Guyuron B. Academic plastic surgery: division or department? *Aesthet Surg J*. 2008;28:594–595.
6. Rohrich RJ. Mandating departments of plastic surgery: the future of plastic surgery is now. *Plast Reconstr Surg*. 2008;121:1499–1502.
7. Mar PL, Yu RA, Yu JC. Division or department: a microeconomic analysis. *Plast Reconstr Surg*. 2011;127:2487–2495.
8. Schubert CD, Leitsch S, Haertnagl F, et al. Vorteil Durch Eigenständigkeit? Analyse der Publikationsleistung der Universitären Plastischen Chirurgie in Verschiedenen Organisationsstrukturen (Independence in plastic surgery - benefit or barrier? Analysis of the publication performance in academic plastic surgery depending on varying organisational structures). *Handchir Mikrochir Plast Chir*. 2015;47:213–221.
9. Liu P, Singh M, Eriksson E. Academic status of plastic surgery in the United States and the Relevance of Independence. *Handchir Mikrochir Plast Chir*. 2016;48:65–68.
10. Loewenstein SN, Duquette S, Valsangkar N, et al. Does the organization of plastic surgery units into independent departments affect academic productivity? *Plast Reconstr Surg*. 2017;140:1059–1064.
11. Landefeld CS. The structure and function of departments of medicine. *Trans Am Clin Climatol Assoc*. 2016;127:196–211.
12. Braunwald E. Departments, divisions and centers in the evolution of medical schools. *Am J Med*. 2006;119:457–462.
13. Braunwald E. Cardiology – division or department? *N Engl J Med*. 1993;329:1887–1890.
14. Accreditation Council for Graduate Medical Education – Public: Advanced Program Search. Available at <https://apps.acgme.org/ads/Public/Programs/Search>. Accessed November 9, 2021.
15. Scopus. Elsevier. Available at <https://www.scopus.com>. Accessed November 9, 2021.
16. Pace E, Mast B, Pierson JM, et al. Evolving perceptions of the plastic surgery integrated residency training program. *J Surg Ed*. 2016;73:799–806.
17. Vasileiou K, Barnett J, Thorpe S, et al. Characterising and justifying sample size sufficiency in interview-based studies: systematic analysis of qualitative health research over a 15-year period. *BMC Med Res Methodol*. 2018;18:148.