



STATE OF ILLINOIS  
**OFFICE OF THE  
 AUDITOR GENERAL**

William G. Holland, Auditor General

**SUMMARY REPORT DIGEST**

**APPROPRIATIONS FROM THE GENERAL PROFESSIONS DEDICATED FUND  
 FOR PHARMACY PROGRAMS AT STATE UNIVERSITIES**

**PROGRAM AUDIT**

**Release Date: December 2015**

**SYNOPSIS**

House Resolution Number 204 directed the Office of the Auditor General to conduct a program audit of appropriations from the General Professions Dedicated Fund for costs associated with pharmacy practice education and training at Chicago State University (CSU), Southern Illinois University Edwardsville (SIUE), and the University of Illinois at Chicago (UIC). Specifically, the resolution asked about the **purposes** for which the appropriations were used in fiscal years 2012, 2013, and 2014, and whether each university has performed any **study or analysis** of the need for pharmacists.

Illinois has three public universities that offer a pharmacy education program. They received a combined total of approximately \$2 million per year from the General Professions Dedicated Fund (GPD Fund) in fiscal years 2012, 2013, and 2014.

SIUE and UIC mainly used the appropriations for pharmacy program salaries. CSU used the appropriations for pharmacy program salaries in fiscal year 2013 and for pharmacy program operations in fiscal years 2012 and 2014.

We requested any studies that the universities had performed of the need for pharmacists. The universities said they had performed the following studies or analyses:

- CSU’s analysis, conducted in April 2015, reported that its pharmacy program helps to meet the needs that their research found, namely that over one-third of pharmacists were age 55 and will be retiring, the racial diversity of licensed pharmacists does not represent the U.S. population, and there was a need for pharmacists in underserved areas.
- SIU said the need for a pharmacy program was identified by a consultant in 2000. Up to 25 percent of its pharmacy graduates from each class reside in rural counties in Illinois and are licensed as pharmacists.
- UIC’s analysis, submitted in July 2015, reported that it created a concentration in rural pharmacy services because the demand for pharmacists is often high in rural communities where access to medical services may be limited.

<b>ANNUAL APPROPRIATIONS Pharmacy Programs (GPD Fund)</b>	
Fiscal Years 2012-2014	
Chicago State University .....	\$307,000
Southern Illinois University .....	\$1,250,000
University of Illinois .....	\$500,000
<b>Total</b>	<b>\$2,057,000</b>
Source: University data and Illinois Appropriations.	



## INTRODUCTION

House Resolution Number 204 directed the Office of the Auditor General to conduct a program audit of appropriations from the General Professions Dedicated Fund for costs associated with pharmacy practice education and training at Chicago State University, Southern Illinois University, and the University of Illinois. Specifically, the resolution asked about the **purposes** for which the appropriations were used in fiscal years 2012, 2013, and 2014; and whether each university has performed any **study or analysis** of the need for pharmacists. (Report page 1)

## BACKGROUND

The United States had over 290,000 pharmacists in 2014, including over 11,000 pharmacists in Illinois, according to recent data by the U.S. Bureau of Labor Statistics. Their average salary was approximately \$118,000 per year nationally and \$116,000 in Illinois.

Pharmacists generally dispense medication, counsel patients on the use of prescription and over-the-counter medication, advise patients about general health topics, and bill insurance. The number of pharmacists in the United States has been increasing with a larger number of universities offering pharmacy programs.

The University of Illinois noted that about 17 percent of the U.S. population lives in rural communities, which tend to have lower income per capita, have an older population, and be more dispersed. (pp. 3-4)

## PHARMACY EDUCATION AT UNIVERSITIES

Three Illinois public universities have a pharmacy education program. They received special appropriations from the General Professions Dedicated Fund (GPD Fund) during the audit period of fiscal years 2012–2014: Chicago State University (CSU), Southern Illinois University Edwardsville (SIUE), and the University of Illinois at Chicago (UIC). Report Appendix E has more information on the pharmacy programs of these universities, including their tuition, selection criteria, faculty, etc.

### Authority

The practice of pharmacy is governed by the Illinois Pharmacy Practice Act (225 ILCS 85/1). The three public universities established new pharmacy programs within the last 10 years:

IN-STATE TUITION & FEES			
Fiscal Year 2014			
Pharmacy Program			
	<u>Tuition</u>	<u>Fees</u>	<u>Total</u>
CSU	\$23,037	\$2,815	\$25,852
SIUE	\$22,764	\$2,233	\$24,997
UIC	\$23,628	\$3,814	\$27,442

Source: University data.

#### YEAR PHARMACY PROGRAM STARTED

	<u>Year Started</u>	<u>Graduation</u>
CSU	2008	2012
SIUE	2005	2009
UIC*	2010	2014

\* UIC has been offering pharmacy education since 1859 but added a rural pharmacy concentration (RPHARM) in 2010.

Source: University data.

- CSU began its pharmacy classes in 2008 and the program was accredited in 2012.
- SIUE began its pharmacy classes in 2005 and the program was accredited in 2009.
- UIC has had a pharmacy program in Chicago since 1859 but began offering a rural pharmacy program in Rockford in 2010. The UIC Doctor of Pharmacy (PharmD) program has been accredited since 1980–1981 and the Rockford campus is part of the university’s pharmacy program. Prior to 1980, UIC offered a Bachelor of Science degree and all graduates were Registered Pharmacists.

### Appropriations

State appropriations to these three universities for their pharmacy programs totaled just over \$2 million in each year during the audit period of fiscal years 2012–2014. Each university said that these appropriations were used for the pharmacy program and their elimination would be a significant loss:

- CSU said these funds are needed to ensure that students have comprehensive electronic library and information resources, pharmacy practice experiential education networks enabling them to be educated as members of interprofessional health care teams, current laboratory resources, etc.
- SIUE said the elimination of these funds for pharmacy would have a devastating impact on its ability to continue educational operations as this money supports 17 faculty and staff members.
- UIC said that without these funds, the pharmacy program in Rockford would experience a significant loss of educational programming, with the possibility of severe cuts to the rural pharmacy programs.

### Enrollment

During the audit period of fiscal years 2012–2014, CSU reported it had about 350 students while SIUE reported its enrollment was approximately 325 students. UIC had nearly three times the number of students in its pharmacy program at 945 in fiscal year 2014, including 23 students at its rural pharmacy program in Rockford. The universities reported that their pharmacy program graduation rates were 90 percent or higher during the audit period.

#### PHARMACY PROGRAMS ENROLLMENT

	<u>FY12</u>	<u>FY13</u>	<u>FY14</u>
CSU	344	358	360
SIUE	324	325	324
UIC	863	926	945

Source: University data.

## Jobs Found

CSU and SIUE reported that 88 percent of their graduates found jobs in pharmacy during fiscal year 2014. For the remaining 12 percent, SIUE reported that *“It is important to note that the 12% who continued their education did so as pharmacy residents in a manner analogous to medical residents. As residents, they were in fact employed as pharmacists.”*

UIC reported that 84 percent of its graduates found jobs in pharmacy, which included 30 percent who continued their education through residencies. UIC said that *“Residencies are postgraduate training programs where the residents are performing as licensed practitioners while at the same time accelerating their skills and competence beyond entry-level pharmacy experience.”*

- **Jobs in Illinois.** CSU and SIUE reported that approximately two-thirds of the graduates found jobs in Illinois during fiscal years 2012–2014. UIC did not have jobs data for fiscal years 2012 or 2013 but reported that 57 percent of its graduates who did not continue their education through residencies found jobs in Illinois in fiscal year 2014.
- **Rural Jobs.** CSU estimated that about 3 percent of its graduates found jobs in rural areas while SIUE stated between 20 percent and 25 percent of its graduates found jobs in rural areas during fiscal years 2012–2014. UIC did not have data for fiscal years 2012 or 2013 but reported that 80 percent (4 of 5) of its rural pharmacy graduates (RPHARM) found rural jobs in fiscal year 2014.

## Need for Pharmacists

We asked universities if they expect a shortage or surplus of pharmacists in the next 10 to 15 years. The three universities indicated that they expected some shortage of pharmacists in the future.

- CSU expects a shortage of pharmacists in Illinois.
- SIUE said there will be a small shortage of pharmacists in the future, considering that the Bureau of Labor Statistics handbook indicates that *“employment of pharmacists is projected to grow 14 percent from 2012 to 2022, about as fast as the average for all occupations. Increased demand for prescription medications will lead to more demand for pharmaceutical services.”*
- UIC said there has been a significant change in healthcare delivery and healthcare reimbursement as a result of the Affordable Care Act that continues to evolve and that *“the research we have evaluated*

*does indicate that there continues to be a significant shortage of pharmacists in rural areas all across the state of Illinois. The research also has alluded to a significant shortage of pharmacists in underserved areas within urban areas of Illinois. Based on this information, we continue to believe there will be shortages of pharmacists across the entire State of Illinois, whether it be in rural areas or underserved urban areas.” (pp. 4-9)*

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## EXPENDITURES

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The first determination of House Resolution Number 204 asked for the purpose for which the universities spent their appropriations from the GPD Fund. The three public universities that offer a pharmacy education program received approximately \$2 million per year from the GPD Fund in fiscal years 2012, 2013, and 2014:

- Chicago State University .....\$307,000
  - Southern Illinois University Edwardsville.....\$1,250,000
  - University of Illinois at Chicago.....\$500,000
- \$2,057,000**

SIUE and UIC mainly used the appropriations for pharmacy program salaries. CSU used the appropriations for pharmacy program salaries in fiscal year 2013 and for operations of the pharmacy program in fiscal years 2012 and 2014. (pp. 13-25)

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## STUDY ON NEED FOR PHARMACISTS

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The second determination of House Resolution Number 204 asked whether each university had performed any study or analysis of the need for pharmacists, in particular in rural areas. The universities said they had performed studies/analyses which they provided:

- CSU’s analysis, conducted in April 2015, reported that its pharmacy program helps to meet the needs that their research found, namely that over one-third of pharmacists were age 55 and will be retiring, the racial diversity of licensed pharmacists does not represent the U.S. population, and there was a need for pharmacists in underserved areas.
- SIU said the need for a pharmacy program was identified by a consultant in 2000. Data on its pharmacy graduates shows that 20 to 25 percent reside in rural counties in Illinois.

**EXPENDITURES**

Fiscal Years 2012 – 2014

The universities used their appropriations from the GPD Fund mainly for the following types of expenditures for their pharmacy programs:

- CSU ..... Operations & Salaries
- SIUE ..... Salaries
- UIC ..... Salaries

Source: University data.

- UIC’s analysis, submitted in July 2015, reported that it created a concentration in rural pharmacy services because the demand for pharmacists is often high in rural communities where access to medical services may be limited.

In September 2015 we asked the universities for the reason they had established a pharmacy program. The universities provided their original supporting documentation for establishing their pharmacy/rural pharmacy programs which showed the following:

- CSU completed an educational survey for the federal government which stated that minorities have limited access to pharmacy education and that enrollment of African-Americans in Midwestern pharmacy schools was only three percent in 2003.
- SIUE retained a consultant to evaluate the need for a new pharmacy program; he reported in 2000 that there was a need for pharmacists in Illinois as well as an adequate pool of applicants.
- UIC provided its Request for a New Unit of Instruction to the Illinois Board of Higher Education which indicated there was a national shortage and maldistribution of pharmacists and rural communities were served by fewer health care professionals per capita. (pp. 27-38)

**ANALYSIS ON NEED FOR PHARMACISTS**

- **CSU** – Racial diversity of pharmacists does not represent the U.S. population.
- **SIU** – Up to 25% of pharmacy graduates work in rural communities.
- **UIC** – Demand for pharmacists is higher in rural communities.

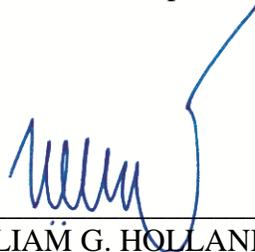
Source: University data.

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**CONCLUSION**

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A draft of this audit report was provided to Chicago State University, Southern Illinois University, and the University of Illinois for their review; any responses received are reproduced in Appendix F of the report (see page 77).



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WILLIAM G. HOLLAND  
Auditor General

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This audit was conducted by the staff of the Office of the Auditor General.