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ACPSA Issue Brief #8: Value Added by Architectural and Design Services

In producing arts and cultural commodities, architectural and design services industries contributed $31.2 billion to the U.S. economy in 2012. That production employed 231,000 workers who were compensated nearly $18.6 billion.

Architectural and design services were strongly impacted by the severe U.S. recession of 2007-2009. As a share of U.S. GDP, production of architectural and design services fell sharply in 2009 and remained below peak in 2010 through 2012.

That contraction was linked to deep declines in the construction industry during that period. However, improvements in construction since 2012 suggest that production by the architectural services industry has also improved.

Notably, the ACPSA shows that the U.S. holds a competitive worldwide advantage in architectural services. Growing throughout the 1998-2012 time period tracked by the account, the U.S. trade surplus in ACPSA architectural services climbed to $1.5 billion in 2012.

The Recession of 2007-2009

The architectural services industry comprises business establishments that derive the majority of their revenue from architectural plans or from landscape architectural services. Similarly, specialized design is an industry of firms earning their main revenue from interior, industrial, graphic, and "other" (e.g., fashion and jewelry) designs.

In producing arts and cultural services, the architectural and landscape architectural services sector contributed $16.2 billion to the U.S. economy.[1] Specialized design services industries—interior, industrial, graphic, and "other"—added $15 billion.

[1] The ACPSA includes approximately 70 percent of all production by the architectural services industry. Alternatively, 92 percent of production by the landscape architectural industry is included, as are more than 90 percent of production by specialized design services industries.

ACPSA Value Added by Architectural and Design Services Industries, 2012	
	ACPSA Value added (in millions)
Total architectural and design services industries	$31,247
Total architectural services	$16,215
Architectural services	$13,910
Landscape architectural services	$2,305
Total specialized design services	$15,032
Interior design services	$6,308
Industrial design services	$1,512
Graphic design services	$6,573
Other specialized design services[1]	$639

[1] Includes fashion and jewelry design.

Source: Arts and Cultural Production Satellite Account (ACPSA), U.S. Bureau of Economic Analysis.

However, that value was well below the production generated before the effects of the 2007-2009 U.S. recession took hold. Between 1998 and 2008, ACPSA architectural and design services were 0.25 to 0.27 percent of U.S. GDP. But in 2009, ACPSA value added by architectural and design services industries dropped to less than 0.22 percent of GDP—a current-dollar decline of $8.7 billion from value added in 2008.

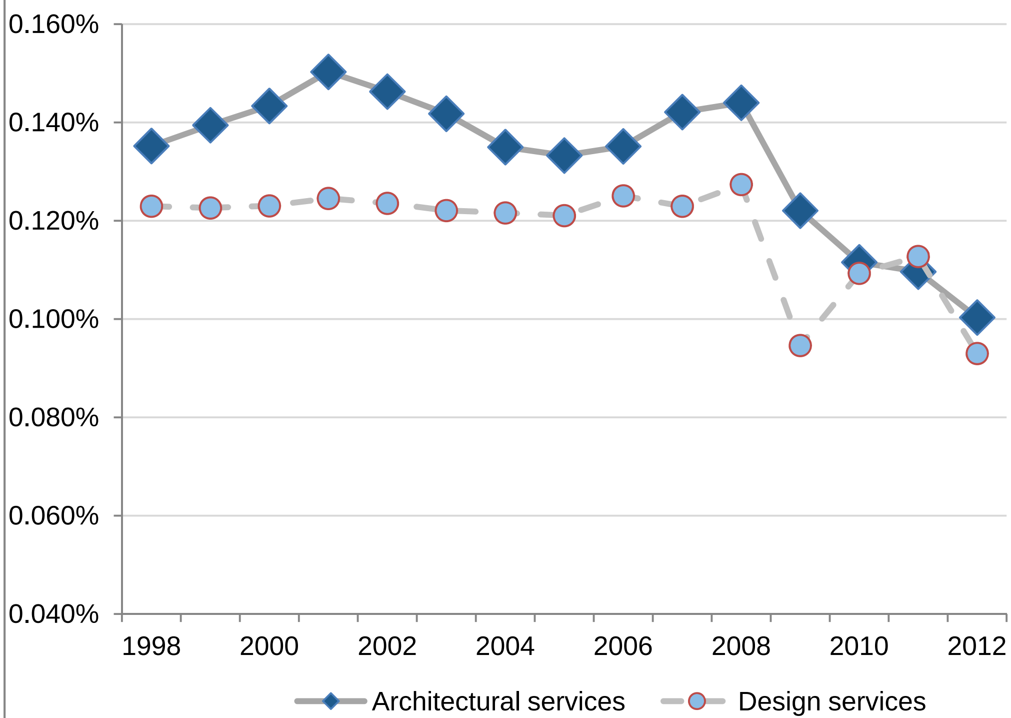
By 2012, ACPCA value added by architectural and design services industries hit a 15-year low of 0.19 percent of U.S. GDP.

This downturn likely reflects strong contractions in the construction industry at that time, which not only contributed to the U.S. recession, but also underpinned the observed contraction in architectural and design services. For example, real value added by the construction industry fell by $85 billion in 2009—the year marking the worst contraction in construction during that period—and continued to fall, albeit more slowly, in 2010 and 2011.[2]

Although data for 2012 is the most recent captured by the ACPSA, the BEA's annual industry accounts show that real value added by the construction industry rebounded in 2012 and 2013—growing by $22.3 billion and $10.7 billion, respectively. Consequently, it is likely that architectural services has improved in recent years as well.

[2] Real Value Added by Industry, U.S. Bureau of Economic Analysis. Release date: November 13, 2014.

ACPSA Value Added by Architectural and Design Services Industries as a Percentage of U.S. GDP: 1998-2012



Source: Arts and Cultural Production Satellite Account (ACPSA), U.S. Bureau of Economic Analysis.

Employment

In 2012, architectural and design services industries employed 231,000 workers, who, in turn, were compensated nearly $18.6 billion in wages, salaries, and benefits. Although the two sectors employ similar numbers of workers, compensation by architectural services industries is nearly twice that paid by specialized design services.[3]

[3] The ACPSA does not permit the calculation of per capita compensation. However, data from the U.S. Bureau of Labor Statistics indicate that architects are typically better paid than designers. For example, data from the BLS' Occupation Employment Survey show that architects (excluding naval and landscape architects) earned an annual median wage of $73,410 in 2013, a figure well above annual median earnings of the best-paid designers—fashion designers ($63,880) and industrial designers ($62,520).

Employment by Architectural and Design Services Industries Producing Arts and Cultural Goods and Services, 2012		
	ACPSA Employment (in thousands)	ACPSA Compensation (in millions)
Total architectural and design services industries	231	$18,571.3
Total architectural services	124	$12,358.4
Architectural services	102	$10,491.6
Landscape architectural services	21	$1,866.8
Total specialized design services	107	$6,212.9
Interior design services	19	$1,384.6
Industrial design services	25	$909.5
Graphic design services	61	$3,456.9
All other design services	2	$461.9
Source: Arts and Cultural Production Satellite Account (ACPSA), U.S. Bureau of Economic Analysis.		

How Architectural and Specialized Design Services are Used

The ACPSA shows that most architectural and design services supplied (i.e., U.S. production plus imports) are used as intermediate inputs in the production of other goods and services. For example, architectural plans are used to produce new houses and commercial buildings; industrial designs are used to produce cars, furniture, and myriad other manufactured goods.

Of the $25 billion in design services supplied in 2012, $22.3 billion (89 percent) was used as intermediate inputs, largely inputs used by private, non-government industries. The remaining supply of specialized design was used as personal consumption expenditures ($2.6 billion) and exported ($55 million).

Of specialized design, only the supply of interior designs are used as personal consumption expenditures (spending by U.S. consumers). And design exports largely reflect exports of industrial designs, which accounted for $44 million of the $55 million in design exported in 2012.

The U.S. exports nearly the same value of industrial designs that it imports--$48 million in 2012.

The Supply and Use of Specialized Design Services, 2012 (in millions)	Supply of commodities[1]			Intermediate inputs		Final consumption	
	Domestic	Imports	Total supply	Private expenditures	Government expenditures	Personal consumption	Exports
Total specialized design services	$24,886	$138	$25,024	$18,293	$4,029	$2,646	$55
Industrial design services	$2,403	$48	$2,451	$2,393	$13	$0	$44
Interior design services	$11,628	$0	$11,628	$6,543	$2,439	$2,646	$0
Graphic design services	$9,855	$90	$9,945	$8,388	$1,546	$0	$11
Fashion design services	$839	$0	$839	$813	$26	$0	$0
All other design services	$161	$0	$161	$156	$5	$0	$0

[1] Measured in purchaser's prices.

Source: Arts and Cultural Production Satellite Account (ACPSA), U.S. Bureau of Economic Analysis.

Architectural services display a similar pattern of supply and use. Of the $29.6 billion in architectural services supplied in 2012, $27 billion was used as intermediate inputs. Unlike specialized design, however, a significant share of architectural services supplied is exported. In 2012, the U.S. exported nearly $2.4 billion in ACPSA architectural services.

In fact, exports of ACPSA services surpassed imports throughout the 1998-2012 time period covered by the account. Moreover, the trade surplus in architectural services has been growing—climbing to $1.5 billion in 2012. This ongoing and growing trade surplus suggests that the U.S. enjoys a worldwide competitive advantage in architectural services.

Spotlight on Historic Restoration

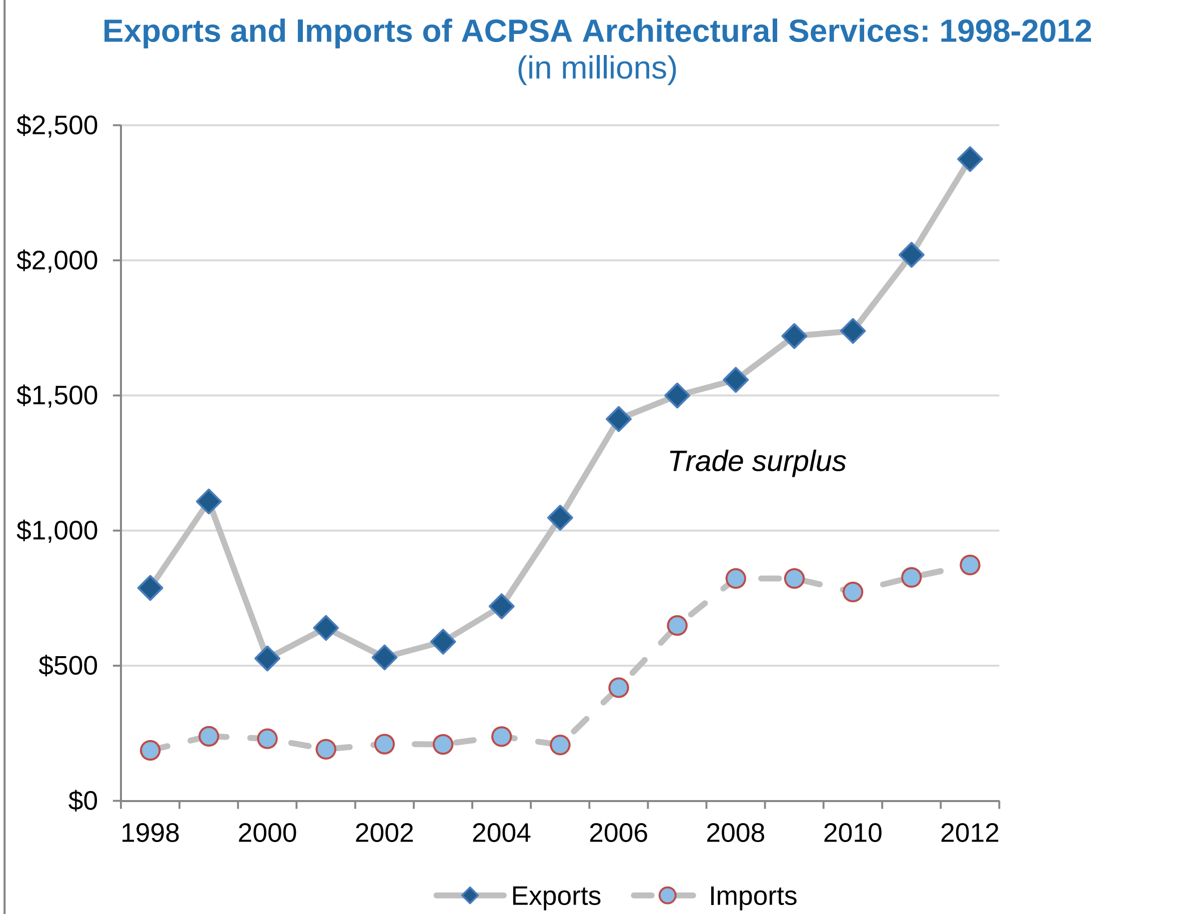
Of the $29.6 billion in architectural services supplied in 2012, $1.8 billion was architectural services specifically for historical restoration. Of that amount, $1.76 billion was domestically produced, while the remaining $54 million was imported.

Architectural services for historical restoration are used largely as intermediate inputs. However, a significant share (9 percent in 2012) is exported.

The Supply and Use of Architectural Services for Historical Restoration, 2012 (in millions)	Supply of commodities[1]			Intermediate inputs		Final consumption	
	Domestic	Imports	Total supply	Private expenditures	Government expenditures	Personal consumption	Exports
Architectural services for historical restoration	$1,761	$54	$1,816	$1,502	$147	$0	$167

[1] Measured in purchaser's prices.

Source: Arts and Cultural Production Satellite Account (ACPSA), U.S. Bureau of Economic Analysis.



Source: Arts and Cultural Production Satellite Account (ACPSA), U.S. Bureau of Economic Analysis.