

US Infrastructure Bill: Evaluating Risks vs. Rewards Beware, It's Not all That It's Cracked Up to Be

March 29, 2022

Rick Buczynski, Ph.D., SVP/Chief Economist
Robert Miles, Senior Strategic Market Research Analyst
Matt Murphy, Vice President, Commercial Banking
Dev Strischek, Principal, Devon Risk Advisory Group, retired SunTrust Bank

The **INFRASTRUCTURE
INVESTMENT
and JOBS ACT**

Why is this topic important to IBISWorld's clients?

- The Bill is unprecedented in its size and scope.
- The \$1.2 trillion Infrastructure Investment and Jobs Act earmarks \$550 billion in new investments above originally projected federal spending, allocated over five years starting last January.
- It offers some unique, unprecedented business opportunities for many of the verticals IBISWorld supports like commercial banking, major construction management firms, manufacturers of construction-related products, Wall Street investors, and insurance carriers.
- Nonetheless, there are serious, hidden risks that have not been identified and analyzed. That's what this webinar and the associated IBISWorld Infrastructure Report are all about: assessing the risks/opportunities of the landmark legislation.

Objectives of this webinar and IBISWorld's Infrastructure Bill Project

- Identify industries/sectors that could potentially benefit from the Bill.
- Uncover latent risks of the Act, many have been amplified by the Ukraine/Russia war.
- Present a newly minted plug-and-play strategic tool that can be used by clients to pinpoint existing exposures while assessing risks and opportunities.
- Suggest a framework for analyzing construction contractors.
- There are several areas that we will not entertain today. Suggest you read our report. It provides multiple links that should save time while investigating opportunities while navigating around risks.

Other attributions and key links

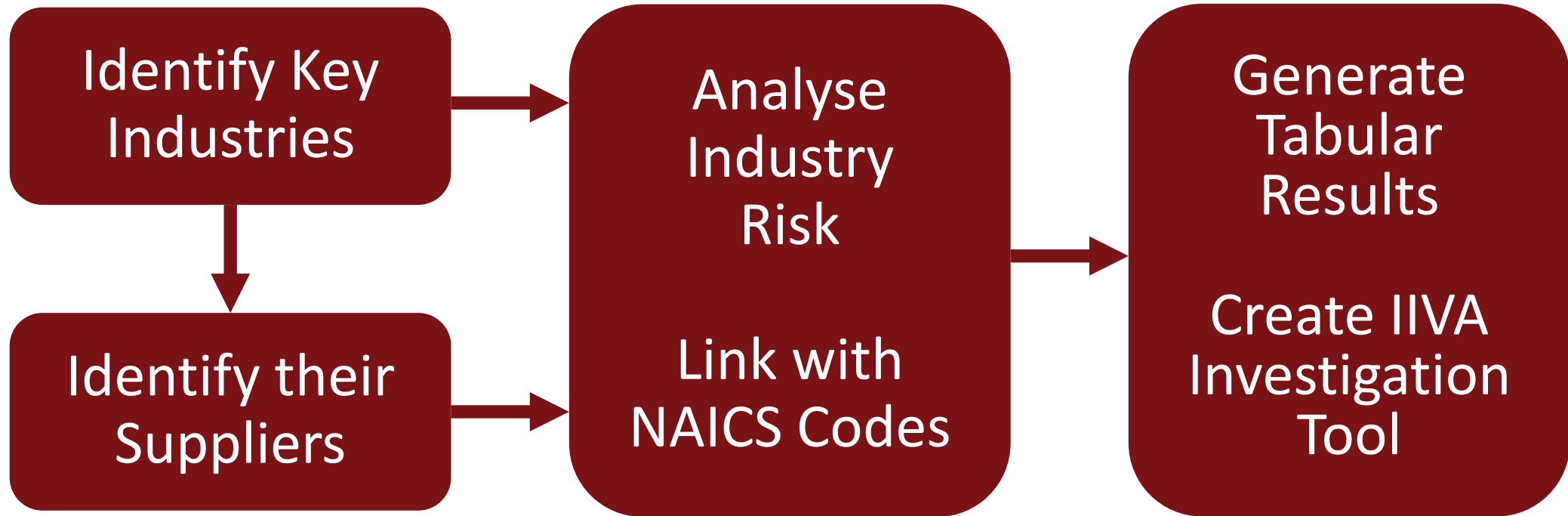
Kent Kirby, Dicom Software

Chris Nichols, SouthState Bank

<https://www.linkedin.com/pulse/infrastructure-act-banking-impact-chris-nichols>

<https://www.naco.org/resources/legislative-analysis-counties-bipartisan-infrastructure-law>

Architecture of the study (sequential steps)



We defined eight of the most important sectors/groupings

- Roads & Bridges: \$110 billion
- Railroads: \$66 billion
- Electric Grid: \$65 billion
- Water: \$55 billion
- Broadband: \$65 billion
- Airports/Ports: \$15 billion for airport-related projects, \$17 billion for ports and waterways
- Public Transit: \$39 billion
- Environment: \$21 billion

We identified key supplier/feeder industries for these groups

NAICS Codes 2017 6 Digit	Roads and Bridges	Supplier NAICS 2017 6 Digit	Supplier Industries
237310	Road & Highway Construction	324121	Asphalt Mfg
237990	Bridge & Elevated Highway Construction	327320	Ready-Mix Concrete Mfg
		327331	Concrete Pipe & Block Mfg
		331221	Steel Rolling & Drawing
		532411	Heavy Equipment Rental
		212311	Stone Mining
		212321	Sand & Gravel Mining
		327320	Ready-Mix Concrete Mfg
		327331	Concrete Pipe & Block Mfg
		331110	Iron & Steel Mfg
		423810	Construction & Mining Equipment Whsle
		212321	Sand & Gravel Mining
		327310	Cement Mfg
		333120	Construction Machinery Mfg
		423810	Construction & Mining Equipment Whsle
		423320	Stone, Concrete & Clay Whsle
		327390	Precast Concrete Mfg
		541310	Architects
		541330	Engineering Services

Here's an example.

Did this for all eight infrastructure groups.

We incorporated four key risk factors (industry vulnerabilities)

Borrowed from our September report/webinar: “Potential Bottlenecks to Recovery, the Supply Chain Riddle and Credit Risk: What You Should Really Worry About” Details available there.

- 1. Labor Shortages**
- 2. Supply Chain**
- 3. Overseas Trade Exposure**
- 4. An industry’s Volatility**

Using the methodology from IBISWorld Industry Early Warning System...

Flagged areas most vulnerable.

Results for core infrastructure bill industries

Industry 2017 6-Digit NAICS	IBISWorld Codes	Infrastructure Category	Industry Description	Labor Shortage Risks	Supply Chain Risks	Overseas Trade Risks	Industry Volatility
237310	23731a	Roads & Bridges	Road & Highway Construction	4.78	6.40	1.00	4.80
237990	23731b	Roads & Bridges	Bridge & Elevated Highway Construction	2.25	5.00	1.00	8.61
237990	OD4653	Railroads	Railroad Track Construction	2.25	5.00	1.00	8.61
336510	33651	Railroads	Train, Subway & Transit Car Mfg	6.40	7.13	1.20	8.13
221112	22111a	Electric Grid	Coal & Natural Gas Power	4.60	3.40	1.00	6.44
221113	22111b	Electric Grid	Nuclear Power	7.16	3.40	1.00	3.09
221111	22111c	Electric Grid	Hydroelectric Power	5.23	3.40	1.00	1.00
221115	22111d	Electric Grid	Wind Power	3.40	3.40	1.00	3.01
221114	22111e	Electric Grid	Solar Power	3.40	3.40	1.00	1.00
221121	22112	Electric Grid	Electric Power Transmission	6.56	4.80	1.00	3.18
221210	22121	Electric Grid	Natural Gas Distribution	5.20	3.40	1.00	6.50
237130	23713	Electric Grid	Transmission Line Construction	6.65	3.80	1.00	2.92
221310	22131	Water	Water Supply & Irrigation Systems	5.78	3.40	1.00	5.42
221320	22132	Water	Sewage Treatment Facilities	4.59	3.40	1.00	4.82
237110	23711	Water	Water & Sewer Line Construction	5.74	3.80	1.00	5.30
517112	OD5955	Broadband	Wireless Internet Service Providers	7.00	7.00	1.00	5.00
519190	51711d	Broadband	Internet Service Providers	3.23	4.80	1.00	1.46
488111	48811	Airports/Ports	Airport Operations	5.20	9.00	1.00	1.31
488310	48831	Airports/Ports	Port & Harbor Operations	5.12	2.20	1.00	7.50
483211	48321	Airports/Ports	Inland Water Transportation	2.86	3.40	1.00	5.89
485111	48511	Public Transit	Public Transportation	4.80	9.00	1.00	3.68
541620	54162	Environment	Environmental Consulting	5.69	2.40	1.00	1.00
238910	23891B	Environment	Demolition & Wrecking	6.10	3.60	1.00	6.21
562211	56221	Environment	Waste Treatment & Disposal Services	3.22	6.40	1.00	6.68
562910	56291	Environment	Remediation & Environmental Cleanup Services	5.08	2.40	1.00	6.92
562920	56292	Environment	Recycling Facilities	6.20	3.60	1.00	5.38
238310	23831	Environment	Drywall & Insulation Installers	7.41	5.20	1.00	8.91

Selected results for feeder/supplier industries

Industry 2017 6-Digit NAICS	IBISWorld Codes	Industry Description	Labor Shortage Risks	Supply Chain Risks	Overseas Trade Risks	Industry Volatility
212210	21221	Iron Ore Mining	7.53	6.57	1.41	8.83
212230	21223	Copper, Nickel, Lead & Zinc Mining	4.36	7.78	1.95	7.35
212311	21231	Stone Mining	6.88	4.38	1.00	2.56
212321	21232	Sand & Gravel Mining	4.42	6.39	1.00	6.64
237120	23712	Oil & Gas Pipeline Construction	3.20	2.40	1.00	3.33
237130	23713	Transmission Line Construction	6.65	3.80	1.00	2.92
237310	23731A	Road & Highway Construction	4.78	6.40	1.00	4.80
237990	23799	Heavy Engineering Construction	2.25	5.00	1.00	8.61
238120	23812	Steel Framing	6.89	5.20	1.00	6.10
238210	23821	Electricians	5.51	3.80	1.00	8.34
238910	23891A	Excavation Contractors	6.10	3.60	1.00	6.21
324121	32412	Asphalt Mfg	4.75	3.95	1.00	4.06
325180	32518	Inorganic Chemical Mfg	6.62	6.70	3.40	4.09
325920	32592	Explosives Mfg	4.38	5.13	1.58	6.99
326121	32612	Plastic Pipe & Parts Mfg	5.59	4.70	1.00	6.81
327310	32731	Cement Mfg	3.88	5.61	1.00	8.85
327320	32732	Ready-Mix Concrete Mfg	3.72	5.00	1.00	8.32
327331	32733	Concrete Pipe & Block Mfg	3.40	6.03	1.00	8.82
327390	32739	Precast Concrete Mfg	6.37	4.04	1.00	8.90
327420	32742	Gypsum Product Mfg	6.73	3.72	1.00	8.07
331110	33111	Iron & Steel Mfg	5.31	5.73	1.29	8.18
331210	33121	Metal Pipe & Tube Mfg	2.89	6.34	1.89	7.56
331221	33122	Steel Rolling & Drawing	3.68	5.00	1.00	4.19
332311	33231	Structural Metal Product Mfg	4.04	6.03	1.00	8.23
332911	33291	Valve Mfg	4.22	5.74	3.57	4.76
333120	33312	Construction Machinery Mfg	7.38	8.04	4.68	5.78
333511	33351	Metalworking Machinery Mfg	3.49	5.74	2.26	5.50

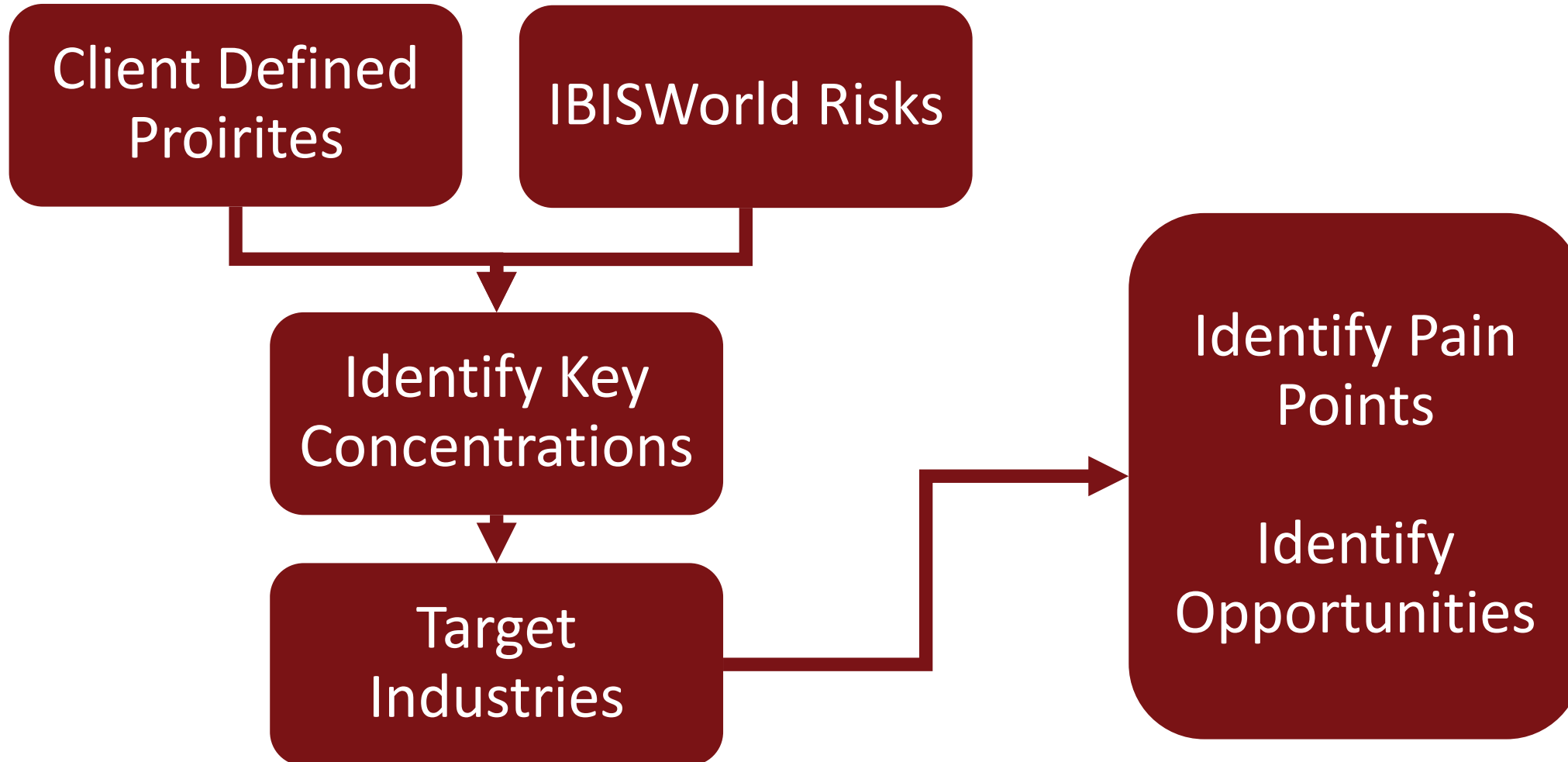
Other risks

- Political
- State/Local Economic Risks
- Geopolitical
- Inflation
- Commodity Prices
- Pandemic



- Building on the lessons of COVID19 Impacts
 - Identify locus of impact
 - Define connections
 - Develop a decision support procedure
- Our Bottleneck research as the links risks to connection
- Applying to Infrastructure Investigation
 - Clients define their own priorities
 - Risk and connections are built
 - Guidelines for further research are produced

IBISWorld's Infrastructure Investigation Tool



Target Sector	23									
Direct Exposure Rank	1	2	3	4	5	6	7	8	9	10
NAICS 2017	238210	237110	238170	238130	236117	238320	238330	236210	238990	238990
Core/Feeder	Feeder	Core	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect
Total Bottleneck Risks	3.83	3.89	3.84	4.52	3.36	3.37	4.23	4.33	3.45	3.45
Direct Client Loan Exposure	\$ 177,429,491.55	\$ 118,964,458.40	\$ 108,267,301.40	\$ 101,894,256.00	\$ 67,080,297.89	\$ 56,531,385.11	\$ 55,213,507.20	\$ 54,491,527.50	\$ 52,649,586.15	\$ 52,649,586.15



238210 is the largest exposure in the Construction Sector (23)

Suppliers	Labor Risk	Supply Chain Risk	Overseas Trade Risk	Industry Volatility Risk	Total	Direct Client Loan Exposure	Downstream Exposure	Upstream Exposure	Total Exposure
42361	4.28	7.86	1.00	5.00	4.54	\$ 4,005,721.35	\$ 329,946,058.08	\$ 571,351,050.74	\$ 905,302,830.16
42369	3.83	7.86	1.00	5.00	4.42	\$ -	\$ 683,042,601.88	\$ -	\$ 683,042,601.88
42381	4.94	8.22	1.00	5.00	4.79	\$ 98,555,492.40	\$ 114,068,287.24	\$ 107,452,650.71	\$ 320,076,430.35

There is high supply chain risk in key upstream suppliers

These industries also have significant direct and connected exposure in the hypothetical portfolio

If we investigate further into potential issues for a Southeastern US footprint:

- 238210 requires a high level of construction occupations
- The region has a relatively low location quotient for these workers

BLS Match	Building Equipment Contractors	Share of Employees	Regional Share	US Share	Regional LQ
Occupations					
Management Occupations		4.8%	5.5%	5.7%	0.96
Business and Financial Operations Occupations		2.8%	5.7%	6.0%	0.94
Life, Physical, and Social Science Occupations		0.0%	0.8%	0.9%	0.83
Protective Service Occupations		0.0%	2.1%	2.4%	0.86
Building and Grounds Cleaning and Maintenance Occupations		0.4%	2.8%	2.9%	0.95
Sales and Related Occupations		2.3%	9.0%	9.4%	0.95
Office and Administrative Support Occupations		11.0%	13.0%	13.3%	0.98
Farming, Fishing, and Forestry Occupations		0.0%	0.1%	0.3%	0.34
Construction and Extraction Occupations		55.3%	3.6%	4.3%	0.84
Installation, Maintenance, and Repair Occupations		19.5%	4.0%	3.9%	1.01
Production Occupations		0.8%	9.5%	6.1%	1.55
Transportation and Material Moving Occupations		1.3%	9.7%	8.7%	1.11
Computer and Mathematical Occupations		0.4%	2.9%	3.3%	0.87
Arts, Design, Entertainment, Sports, and Media Occupations		0.1%	1.2%	1.3%	0.88
Healthcare Practitioners and Technical Occupations		0.1%	6.6%	6.2%	1.07
Food Preparation and Serving Related Occupations		0.0%	7.8%	8.1%	0.97
Personal Care and Service Occupations		0.0%	1.7%	1.9%	0.88
Architecture and Engineering Occupations		1.2%	2.0%	1.8%	1.08
Legal Occupations		0.0%	0.7%	0.8%	0.82
Community and Social Service Occupations		0.0%	1.5%	1.6%	0.94
Healthcare Support Occupations		0.0%	4.2%	4.6%	0.91

Analyzing Construction Contractors

- Vulnerability to Business Cycle
 - Sensitivity to interest rates
 - Rising interest rates also push real estate cap rates
 - Increasing interest expense cuts into net operating income (NOI) of income-producing properties
 - Lower NOI capitalized by higher cap rate results in lower value
 - Mini-perm loans coming due for renewal may find borrowers requesting higher LTV's
 - Accelerator Principle
 - New capital investment comes in chunks, hard to build only half an office building or half a warehouse
 - As new capital infrastructure capacity comes on stream, it tends to push down productivity
 - In rising rate environment, investors may not want to take on higher risk of initially less productive assets
 - Pandemic Supply Chain Kinks
 - Materials shortages—lumber, cement, drywall, asphalt, metals—steel, copper, aluminum
 - Labor shortages—skilled and unskilled workers, subcontractor support for GC's
 - Process issues—appraisals, surveys, building permits, engineers, progress payments, notice of completion, final retention, material liens
 - Credit Considerations
 - Progress billings as collateral
 - Line of credit financing
 - Bonding availability



Where to find the report?
Recording of this Webinar?
[www.ibisworld.com/blog/us-
infrastructure-bill/](http://www.ibisworld.com/blog/us-infrastructure-bill/)

Questions/Comments?
Contact your IBISWorld Rep
or Email
clientsupport@ibisworld.com