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A Jobs-Centric Approach to Infrastructure Investment

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A Jobs-Centric Approach to Infrastructure Investment

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AT A GLANCE

The Trump administration has proposed investing an extra $1 trillion in infrastructure to create millions of new jobs. To maximize the impact of such investment on employment, planners need to adopt a new jobs-centric approach that prioritizes investments in infrastructure projects on the basis of their job creation potential.

Analyzing the Potential

The number, quality, and sustainability of jobs vary greatly across infrastructure sectors. Without a highly prioritized investment focus, $1 trillion in infrastructure spending could create as few as 1.6 million jobs. If government planners direct investments to projects on the basis of their job creation potential, however, the choices they make might help create 2.9 million or more incremental jobs.

Success Factors for Job Creation

To achieve their objectives, policy makers must position infrastructure as an engine of job creation and economic growth; create incentives for new projects in sectors (such as seaports, hospitals, and airports) that deliver high-quality or long-lasting jobs; fast-track projects to accelerate job creation; develop a scoring methodology to account for job creation impacts; make reporting on job creation a condition for funding; and track, monitor, and report job creation at the project and portfolio levels.

In his February 28, 2017, address to a joint session of Congress, President Trump asked the assembled lawmakers to pass legislation that would help underwrite a $1 trillion investment in US infrastructure, financed with capital from both public and private sources, with the goal of creating millions of new jobs. Investing to create robust US infrastructure has broad bipartisan political appeal, but surveys suggest that the public tends not to perceive it as a top priority. In an Ipsos poll conducted in October 2016, survey respondents ranked infrastructure as the tenth highest priority for the country. When infrastructure investment is positioned as an engine of job creation and a driver of the economy, however, it rises to the second or fourth highest priority.[1] These rankings suggest that government leaders must do a better job of communicating the connections between infrastructure spending, jobs, and economic growth if they are to gain broader support for infrastructure investments.

Creating millions of jobs will not be easy. If $1 trillion were invested over the five-year period from 2017 through 2021, the additional $200 billion in annual spending would represent an increase of more than 25% over current annual spending, which is approximately $700 billion. But at current ratios of GDP to employment, this investment would equate to roughly 1.6 million new jobs.[2] A better goal would be to target something closer to an equivalent 25% increase in infrastructure-related employment by 2021, translating into the creation of 4 million new jobs and raising the overall total from 15.5 million (12% of total US jobs) to 19.5 million (14%). To achieve an increase of this magnitude, planners must systematically select the right projects to undertake.

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Given how essential infrastructure is to the US economy, we believe that reframing the debate is critical. A solid grasp of today's baseline is a crucial starting point. (See the sidebar "The Baseline for Infrastructure Job Creation.") The ongoing impacts of automation and robotics on US employment underscore the importance of infrastructure investment to maintaining the country's jobs and economic vigor. To ensure that the administration achieves or exceeds its job creation objectives, policy makers need to adopt a job-centric approach that prioritizes investments in infrastructure projects on the basis of their job creation potential, alongside project criticality.

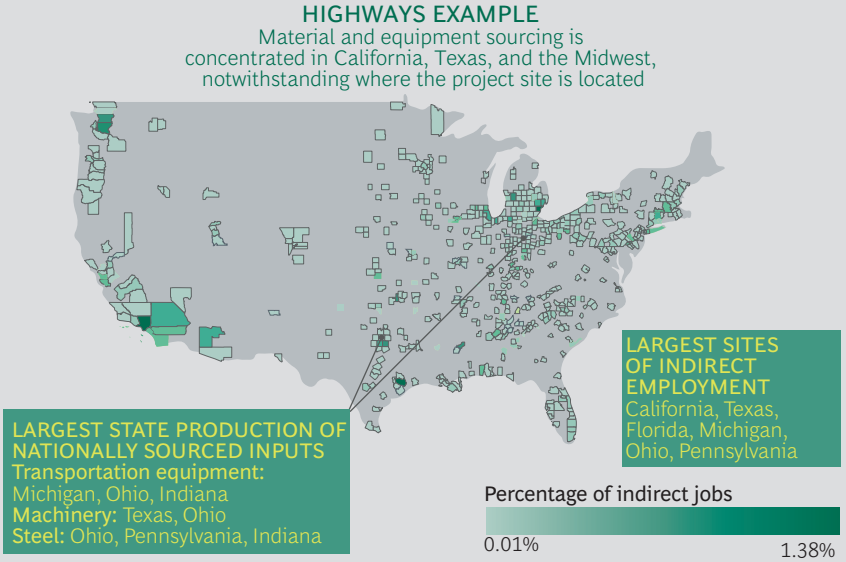
To support this approach, BCG has developed a tool called the Infrastructure Jobs Scoreboard, which offers a comprehensive view of all infrastructure-related employment in the economy by job category, wage level, and location. (See the sidebar "Introducing the Infrastructure Jobs Scoreboard.")

THE BASELINE FOR INFRASTRUCTURE JOB CREATION

Any systematic effort by the federal government to invest in infrastructure and capture the related benefits needs to be firmly grounded in an understanding of the nation's infrastructure baseline:

- Today, US infrastructure investment is roughly 2.4% of GDP, versus a high of 3.0% in the 1960s—evidence that the country is not maintaining its critical infrastructure.[3]
- The nation faces a $1.4 trillion infrastructure-funding gap through 2025.[4] This shortfall roughly doubles when calculations take into account required operations and maintenance.
- Altogether, 15.5 million US jobs support infrastructure, making infrastructure one of the country's top employment categories, representing 12% of national employment.
- Infrastructure jobs, on average, offer wages that are 28% higher than the national average for all types of jobs ($68,000 per year versus $53,000 per year) and provide employment to workers who need not have college degrees.[5]
- Infrastructure jobs also provide employment opportunities across the nation. (See the exhibit below.)

EXHIBIT | Infrastructure Jobs Are Distributed Across the Nation



Sources: BLS data; BCG analysis.
Note: Analysis represents likely locations of indirect jobs from procurement of goods that can be nationally sourced (for example, steel). Additional indirect employment would be driven by locally sourced goods (for example, concrete).

INTRODUCING THE INFRASTRUCTURE JOBS SCOREBOARD

BCG's Infrastructure Jobs Scoreboard is a tool for visualizing the current distribution of US infrastructure jobs and the potential impact of additional infrastructure investment on those jobs. It captures direct jobs (which tend to be local) and indirect jobs (which may be distributed nationwide) on the basis of the sourcing of materials and equipment for a project. The tool enables users to identify where new jobs are likely to appear in connection with a project. The scoreboard provides four views:

- **Overview:** the total job creation impact and investment cost for the top shovel-ready projects by location, sector, and project
- **New Jobs by Project:** the number of jobs that could be created by funding specific infrastructure projects, with new jobs noted by type (design, construction, O&M, and project management) and by state or county
- **New Jobs by Location and Sector:** the number of jobs that could be created for a custom project as defined by location (county), sector, and total cost
- **Existing Infrastructure Jobs:** the number and type (direct or indirect) of existing infrastructure jobs, by state or county

BCG's Infrastructure Jobs Scoreboard is accessible at infrajobs.bcg.com.

The Elements of a Jobs-Centric Approach

As yet, no infrastructure scoring system focuses primarily on job creation. Most systems base their scoring on multiple factors, such as economic growth, social welfare, and various externalities (including environmental impact). To be sure, due consideration of these factors is critical to any infrastructure investment approach. Nevertheless, in order to set strategic employment priorities effectively, decision makers need an additional framework. The appropriate model will focus not only on the volume of jobs created but also on their quality and economic sustainability over the long haul. The goal of the strategic planning should not be to create a large number of white elephant projects, but rather to create strong, vital, economically self-sustaining infrastructure.

A jobs-centric approach has four key elements:

- **Focus on the creation of direct and indirect jobs.** The emphasis is on jobs that can be estimated and counted accurately, rather than on approaches that involve gauging broader, "induced jobs" effects.[6]
- **Follow the money.** Analysts must examine the division of project spending between labor and nonlabor costs.
- **Consider the geographic spread of jobs across the US.** Success involves looking beyond the project site to the entire project supply chain.

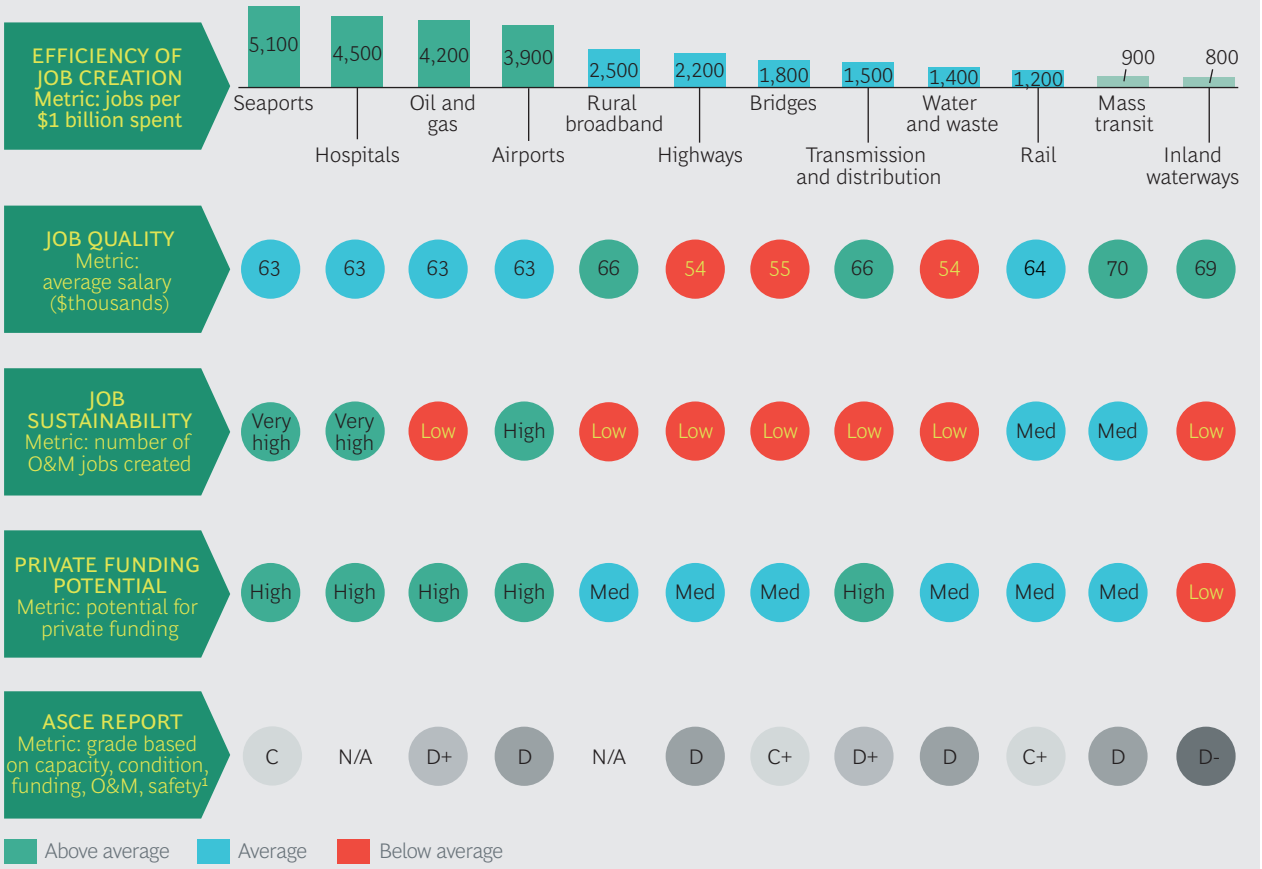
- **Drive accountability.** The number of jobs must be estimated on the basis of common definitions and validated by the project owner; once the estimate is in place, the figures can be tracked over time to ensure that the projects are creating jobs as planned.

Planners can use this approach in conjunction with traditional approaches that take related factors into account. Some projects, such as those for national security or for maintenance and repair of crumbling assets, are critical and require action regardless of their job creation profile. But beyond those critical projects, taking a jobs-centric view will help attract broader support for an infrastructure agenda.

Analyzing Job Creation Across Infrastructure Sectors

Applying a jobs-centric approach, we analyzed the creation, quality, and longevity of jobs across different sectors.[7] (See Exhibit 1. For a discussion of our methodology, see Appendix 1. For a glossary of terms associated with job creation, metrics, and

EXHIBIT 1 | Job Creation, Quality, and Longevity Vary Greatly by Sector



Source: BCG analysis.
Note: O&M = operations and maintenance; ASCE = American Society of Civil Engineers.
[1]The grades are as follows: A = exceptional, B = good, C = mediocre, D = poor, and F = failing.

project classification, see Appendix 2.) Although sectors differ in many ways, a few common factors have an outsize impact on job creation:

- **Complexity and Size.** Logistically complex sectors (such as seaports) tend to require a greater number of ongoing operations and management O&M jobs, while technologically complex sectors (such as power generation) require more upfront design and construction. Smaller projects tend to create more jobs per project dollar spent, owing to the lack of economies of scale.

- **Project Profile.** New construction projects create more new jobs than replacement or refurbishment operations do (although replacement can save existing jobs). Projects that, when completed, entail higher levels of public interaction typically create more O&M jobs. For example, access-focused transportation projects (such as mass transit, rail, and roads) tend to generate more O&M jobs.

- **Materials Profile.** The vendor types and locations affected by indirect job creation depend largely on the materials profile in construction and O&M. For example, rail projects will likely create jobs in Pennsylvania, Texas, and other states that have concentrations of manufacturers of machinery and rolling stock.

Each infrastructure sector has a unique job creation profile (see Exhibit 2):

- **Airports** tend to create short-term construction jobs and support long-term jobs for retail and dining concessions, airline carrier ground operations, and airport authority personnel.

- **Bridge and highway** construction front-loads job creation, with relatively limited opportunities for long-term self-financing jobs. Revenue potential from tolls attracts private investment, however.

- **Hospitals** create short-term construction jobs and a large number of long-term health care profession jobs. On average, hospitals employ 5.6 staffers per hospital bed.[8] In hospital projects it is critical to expand capacity in the form of number of beds. The private sector may finance certain social infrastructure projects, such as hospitals and public buildings.

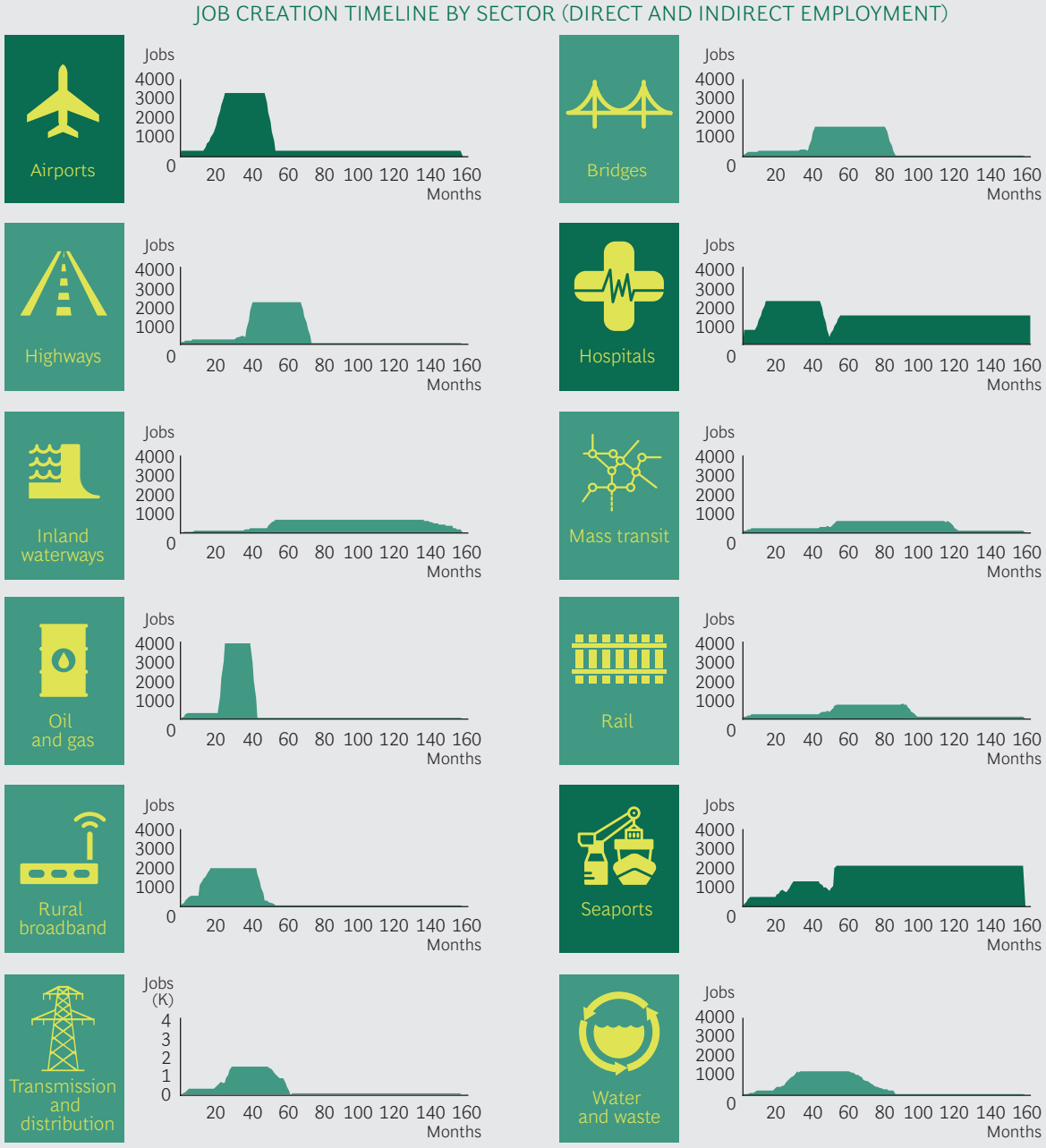
- **Inland waterway** projects tend to take many years to complete, and they create fewer but longer-term construction jobs. Incremental O&M job creation from these projects is minimal, however, as most projects involve repairs and modifications of existing assets, thus maintaining but not creating employment.

- **Mass transit and rail** projects create fewer direct and indirect jobs but account for a greater share of O&M jobs because of the new rail and transit lines' service requirements. Many benefits of such projects involve broader economic activity.

- **Oil and gas pipelines and transmission and distribution** projects create a spike in short-term construction jobs but few ongoing O&M jobs. Because they are almost entirely privately financed, these projects can usually ramp up quickly (disregarding regulatory issues involving necessary permits).

Airports create short-term construction jobs and support long-term jobs for retail and dining concessions, airline carrier ground operations, and airport authority personnel.

EXHIBIT 2 | Airports, Hospitals, and Seaports Create the Greatest Number of Long-Term Jobs



Source: BCG analysis.
Note: Analyses of seaports and airports assume an average project as described in the sector analyses. This timeline does not consider the 2 to 8+ years required to gain approvals and permitting. This period varies greatly by project and sector and would delay job creation for projects that are not "shovel-ready."

- **Rural broadband networks** create many short-term direct and indirect jobs, but they provide few O&M jobs once a network is established.

- **Seaport** investments typically focus on refurbishment and expansion, creating

short-term construction jobs but having a variable impact on O&M jobs. Some projects in this sector create the highest number of long-term operating jobs.

- **Water and waste** projects typically create upfront construction jobs but provide few ongoing O&M jobs.

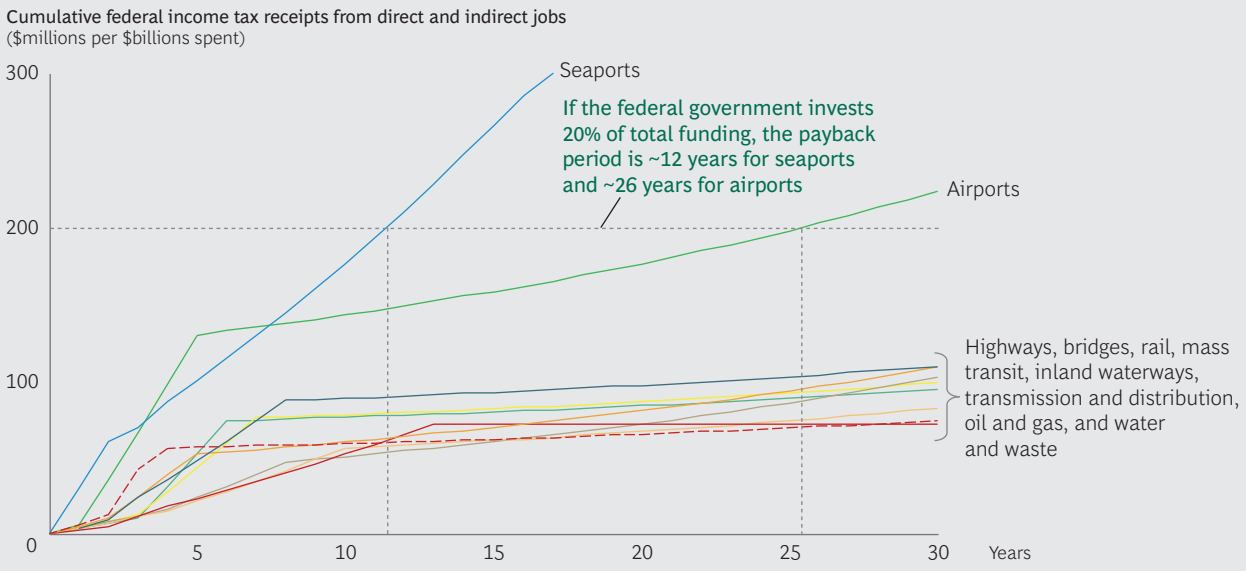
Seaport and airport investments generate more cumulative federal income tax revenue than other project types, owing to the high number of O&M jobs in these sectors.[9] (See Exhibit 3.) At an assumed private-funding level of 80%, seaports would achieve budget neutrality—no further burden on government deficits—in 12 years (based on federal income tax gains); other types of mass transit projects may require a 90% level of private funding to approach budget neutrality in the long term.

To achieve budget neutrality at the federal level, many projects must leverage private financing. Private sector investors usually look at five factors when considering infrastructure investments:

- **Cash Flow.** Investors look for an ongoing revenue stream that provides stable returns.

- **Stable Technology.** They need to have a reasonable expectation that the technology used in the project will not soon become obsolete; they typically look for a useful life of at least 30 years.

Exhibit 3 | A High Level of Nonfederal Funding Is Needed to Achieve Federal Budget Neutrality



Source: BCG analysis.
Note: Figures include only federal income tax receipts for direct and indirect employees for the duration of their employment. The plot lines for hospitals and rural broadband are not included in this graph; but the former would fall near the plot lines for seaports and airports, due to the high number of jobs involved at the operating and maintenance stage, and the latter among the closely bunched plot lines for the other eight sectors.

- **Competition.** Investors want to see evidence that a broad array of competing contractors and suppliers are available and well equipped to design, build, and supply the project.
- **Large Size.** The project should be large enough to avoid susceptibility to the high transaction costs that often characterize projects budgeted at amounts of less than $100 million.
- **Flow of People, Goods, and Services.** Projects that attract more people have more opportunities for monetization. Similarly, projects that offer greater freedom to innovate with respect to the user experience or to introduce efficiencies are more attractive to investors.

Investors want to see evidence that a broad array of competing contractors and suppliers are available and well equipped to design, build, and supply the project.

The inherent differences in characteristics among the various sectors—including job creation, duration of employment, and additional economic value creation—point to the need for a nuanced approach to infrastructure prioritization.

Creating a Balanced Portfolio

To capture the full array of benefits from infrastructure spending, planners must adopt a comprehensive, portfolio-like view of investments. Looking strictly at the job creation potential of each sector, one might be tempted to pick only the sectors and projects that deliver the most jobs. If planners dedicated $1 trillion exclusively to sectors that maximize job creation—such as seaports, hospitals, and airports—the projects might create more than 4 million direct and indirect jobs of varying duration, in part owing to the large number of O&M jobs needed. But the US does not have $1 trillion worth of complex projects in these sectors. What's more, promoting US competitiveness and economic growth requires an optimal mix of infrastructure investment.

For example, inland waterway projects create few ongoing direct and indirect jobs, but they are nevertheless critical to US commerce and competitiveness, and they create many induced jobs. To understand the full impact of job creation, planners need to consider induced jobs and wider economic benefits, although, as noted earlier, these are difficult to measure or predict precisely.

A balanced portfolio would have large investments in sectors that have high job creation potential (such as seaports, hospitals, and airports) and would include investments in sectors that, though they do not create a large number of direct and indirect jobs, increase the US economy's competitiveness and productivity. We estimate that a $1 trillion investment in a balanced portfolio would deliver nearly 3 million direct and indirect jobs. (See Exhibit 4.) That number would include both temporary construction jobs and long-term O&M employment.

Job Creation Potential of 60 Ready-to-Go Projects

Our evaluation of 60 projects on which construction could begin this year indicates that a $160 billion investment could generate 260,000 jobs. The project-level estimates vary depending on project size, sector, and type (for example, greenfield or

EXHIBIT 4 | Investing $1 Trillion in a Balanced Portfolio Would Deliver 3 Million Jobs

POTENTIAL PORTFOLIO INVESTMENT ALLOCATIONS

	JOBS PER $BILLION INVESTED	INVEST IN SECTORS WITH HIGHEST CRITICALITY (ASCE GRADE OF D+ OR BELOW)	INVEST PRIMARILY IN JOB-CREATING SECTORS BUT COVER CRITICAL GAPS	INVEST IN JOB-MAXIMIZING SECTORS ONLY
Airports	3,900	$130 billion	$120 billion	$250 billion
Bridges	1,800	—	$57 billion	—
Highways	2,200	$130 billion	$120 billion	—
Hospitals	4,500	—	$120 billion	$250 billion
Inland waterways	800	$350 billion	$57 billion	—
Mass transit	900	$130 billion	$57 billion	—
Oil and gas	4,200	$80 billion	$120 billion	$250 billion
Rail	1,200	—	$57 billion	—
Rural broadband	2,500	—	$57 billion	—
Seaports	4,400	—	$120 billion	$250 billion
Transmission and distribution	1,700	$80 billion	$57 billion	—
Water and waste	1,700	$130 billion	$57 billion	—
TOTAL JOBS CREATED		1.6 million	3.0 million	4.4 million

An additional $350 billion in investment would be required to achieve 4 million jobs when optimizing for a balanced portfolio

Source: BCG analysis.
Note: ASCE = American Society of Civil Engineers; — = no investment made in this sector.

brownfield). Appendix 3 lists the relevant project categories and job creation data for these 60 projects, based on job creation estimates.

Applying a similar infrastructure project mix to an investment of $1 trillion over five years would yield about 1.9 million jobs. Going forward, the mix of projects included in the portfolio must be more heavily weighted toward those from sectors that create the most jobs (such as seaports and hospitals, or megaprojects, such as the Gateway program to renovate and expand the rail line between Newark, New Jersey and New York City). If the government is to achieve its job creation objectives, it must actively encourage the development of new project ideas in these sectors. Such encouragement could take the form of idea or design competitions or additional incentives for sectors that create the greatest number of jobs.

Implications for Policy Makers and Project Owners

To build public support for their efforts, policy makers and project owners should position infrastructure investment as an engine of job creation and economic

growth. They must create a balanced project portfolio that takes into account not only the number of jobs, but also the criticality of aging infrastructure and the geographic dispersion of job creation. Policy makers must also create incentives for the development of new projects in sectors (such as seaports, hospitals, and airports) that deliver high-quality or long-lasting jobs. If the objective is to create 4 million more jobs (increasing the sector total from 15.5 million to 19.5 million), the investment will need to be higher than $1 trillion with a balanced project portfolio.

Projects must be put on a fast track to accelerate job creation. Fast-tracking requires streamlining regulatory and procedural hurdles and clarifying roles between federal and state agencies. The scoring of projects should account for job creation impacts. Leveraging private capital will be essential to approach federal budget neutrality. To promote accountability, reporting on job creation should be a condition for federal funding. Finally, to demonstrate investment returns to the public and lawmakers, policy makers will need to track, monitor, and report on job creation at the project and portfolio levels through the use of tools such as the Infrastructure Jobs Scoreboard.

NOT ALL PROJECTS generate jobs equally, and an infrastructure investment strategy that makes the right project choices can have a major impact on job creation. Strategic project selection is the only way to ensure the creation of millions of infrastructure jobs that offer high-quality, long-term employment across the US and maximize the likelihood of attracting buy-in for this critical investment.

NOTES

1. Ipsos polls, October 20, 2016.
2. Based on the ratio of total US employment (approximately 143 million) to GDP ($18 trillion), and assuming that $200 billion in additional ongoing funding will be available.
3. "Public Spending on Transportation and Water Infrastructure, 1956 to 2014"; CBO, March 2015.
4. American Society of Civil Engineers, *Failure to Act*, 2016.
5. Bureau of Labor Statistics, "Quarterly Census of Employment and Wages," 2015 average.
6. Induced jobs are those created as a broader effect of increased economic activity owing to the nature of the asset.
7. Appendix 1 describes our methodology, and Appendix 2 sets out related definitions of terms for job creation, metrics, and project classifications.
8. See "200 Hospital Benchmarks," Beckers Hospital Review, October 4, 2013.
9. Aside from federal income taxes (the only taxes covered in this analysis), federal receipts come from payroll tax, corporate tax, and taxes on induced jobs. State-level benefits include higher state income, property, and sales taxes.

Appendix 1. Our Methodology

To evaluate the potential of each sector, as well as of individual projects, for creating temporary and long-term jobs, we segmented projects into three main job creation phases: design, construction, and operations and maintenance. In addition, we assumed that project management and governance would span the design and construction phases of the project. Although limited job creation may occur during the approvals and permitting process, we did not consider that phase to be a key driver of employment.

Our methodology traces infrastructure spending through each main phase as it transforms into direct employment and indirect procurement. On the basis of recently completed projects in the various sectors and the experience of infrastructure experts in each sector, we divided a $1 billion spending base into project management and governance, design, construction, and other expenses (which captures non-labor-related expenditures such as land acquisition). Within each phase of the project plan, we allocated portions of the budget to the major cost centers. Although projects normally spend design funds primarily on engineering and design employees, construction spending may go to direct labor, materials purchases, construction equipment, finished goods, and other expenses (such as contractor overhead). For indirect procurement, we assessed such drivers of employment as product cost versus mobilization cost, labor as a percentage of total product cost, and the likely portion of jobs that would be located in the US. These inputs reflect data and insights from industry benchmarks, publicly available company reports, and industry executives and former project managers. The process provides an estimate for each project's total labor expenditures within each cost center, including direct and indirect employment. On the basis of prevailing compensation rates within the respective industries and expected durations of employment, we estimated the job creation potential at the sector level, for both direct and indirect employment.

Given this methodology, we anticipate that the resulting sector-wide view will not precisely reflect the projected job creation of individual projects under consideration. In evaluating project-level job creation, planners will have to further refine the analysis to account for differences in such factors as the types of projects, locations, and surrounding environment. Nevertheless, the same general framework remains applicable, with adjustments, to the project-specific allocation of costs. For example, a project to construct a new bridge may require funds for land acquisition and for purchasing more building materials than a project to repair an existing bridge would require. Similarly, indirect purchases may be more readily available domestically or more labor intensive in some sectors than in others. By leveraging the experience of prior project managers and topic experts, we can translate such differences into cost variances in the project budget. We can then apply these variances to our job creation models to tailor employment estimates to specific projects.

Appendix 2. Definitions

JOBS TERM	DEFINITION
JOBS CREATED	New full-time employment (FTE) positions (sustained and temporary) at a given time We do not treat an instance of job loss avoidance as a job created.
JOB-YEAR	FTE positions (sustained and temporary) that last for the duration of one year
SUSTAINED JOBS	Jobs (direct and indirect) driven by ongoing operation of an infrastructure asset
TEMPORARY JOBS	Jobs (direct and indirect) driven by building, refurbishment, or replacement of an infrastructure asset
GOVERNANCE	Work that involves knowledge of law and government, public safety and security, and environmental conservation Among the central tasks these workers perform are assessing different transportation activities, recording potential violations, and overseeing environmental conditions
DESIGN	Work that involves knowledge of design techniques and tools for developing plans, drawings, maps, and models Often, engineering principles and processes are used, along with other technology and analytics, to determine project feasibility, develop reports, and communicate findings.
CONSTRUCTION	Work that involves knowledge of building and construction techniques, related equipment and tools, and maintenance and repair Using their understanding of different system designs, components, and materials, workers build or install roadways, railroads, wiring, piping, and other types of infrastructure.
OPERATIONS AND MAINTENANCE	Work that involves knowledge of physical and mechanical operations that vary depending on the specific processes, equipment, instruments, controls, and labor entailed These workers frequently monitor the movement of people and goods, the generation and distribution of energy, and the treatment of water and waste.
DIRECT JOBS	Jobs that involve designing, constructing, operating, and maintaining the infrastructure asset, with funding provided directly by the asset owner
INDIRECT JOBS	Jobs that involve providing goods and services to the asset across its lifetime, excluding trade and logistics
INDUCED JOBS	Jobs created as a broader effect of increased economic activity owing to the asset

METRICS TERM	DEFINITION
GEOGRAPHIC NEED	The presence in a metropolitan or micropolitan area of unemployment rates that are higher than the US average, wage rates that are lower than the US average, or both
PUBLIC-PRIVATE PARTNERSHIP POTENTIAL	The percentage of total expenditure likely to be paid by private (corporate) sources This figure does not consider nonfederal government sources

PROJECT CLASSIFICATION TERM	DEFINITION
NONFEDERAL FUNDING	Funds from any nonfederal government (for example, state or local government) or private source dedicated primarily or exclusively to the infrastructure project
REFURBISHMENT	Renovation of an existing asset to extend its operating life or to address potential failure of the system
REPLACEMENT	Construction of a new asset to replace an existing asset that has the same or similar functionality
NEW CONSTRUCTION	Construction of a new asset where no asset with the same or similar functionality previously existed

Appendix 3. Major US Infrastructure Projects, by Direct and Indirect Job Creation Potential

Sector	Type	Project name	Temporary direct or indirect jobs	Sustainable direct or indirect jobs
Airports	Replacement	Kansas City Airport	3,300	140
	New construction	Orlando Airport	7,000	1,000
	Expansion	Seattle Airport Expansion	6,200	860
	New construction	St. Louis Airport	430	250
Bridges	Repair	15 Bridges on I-95 Philadelphia	15,000	
	Repair	Arlington Memorial Bridge	470	
	New construction	Gordie Howe International Bridge	7,800	490
	Repair	Lake Ponchartrain Bridge/Causeway	240	10
	New construction & repair	Brent Spence Bridge	2,700	140
Highways	Expansion	Access I-95	420	
	Expansion	CO I-25 Improvements	2,500	30
	Expansion	Colorado I-70 Mountain Corridor	1,900	30
	Replacement	I-395/1-95 Reconstruction	1,800	20
	Repair	I-95 Critical Highway Repairs	3,300	
Inland waterways	Replacement	Chickamauga Lock	880	
	Replacement	IHNC Lock Replacement	1,000	
	Rehabilitation	Illinois River Locks, Lagrange and Peoria	760	
	Replacement	Locks and Dams 52 and 53	1,700	
	Replacement	Monongahela River Locks and Dams	1,000	
	Rehabilitation	SC Dam Accelerated Repairs	1,200	
	Rehabilitation	Soo Locks Reconstruction	690	
	Dredging	Southwest Pass Mississippi River Channel Dredging		
	Rehabilitation	Upper Mississippi Locks 20-25	1,600	
	Rehabilitation	Upper Ohio Navigation Improvements	1,300	
Mass transit	Commuter rail	Cotton Belt Regional Rail	990	130
	Light rail	M1 Rail, Detroit	440	60
	Light rail	Maryland Purple Line	4,400	660
	Light rail	MBTA Green Line Extension	2,400	120
	Elevated rail	Red and Purple Modernization, Chicago	1,700	
	Subway	Second Avenue Subway - Phases 2 and 3	11,000	1,700

SECTOR	TYPE	PROJECT NAME	TEMPORARY DIRECT OR INDIRECT JOBS	SUSTAINABLE DIRECT OR INDIRECT JOBS
Oil and gas	New construction	Atlantic Coast Pipeline	19,000	380
	New construction	SeaOne Puerto Rico Fuel Supply	7,500	150
Rail	Repair	Belt Junction Freight & Passenger Rail Improvements	610	
	New construction	Brightline (Florida High-Speed Rail)	6,200	890
	Replacement	Gateway Program	16,000	1,000
	Expansion	Howard Street Tunnel	480	
	New construction	Texas Central Railway	10,000	1,700
	New construction	Texas Freight Shuttle System	970	140
Seaports	Expansion	Corpus Christi Ship Channel	610	
	New construction	Port Covington	16,000	30,000
	Expansion	Port Newark Container Terminal Improvements	1,500	2,700
	Expansion	Port of Gulfport Dredging	430	
	Expansion	Savannah Harbor Expansion Acceleration	2,100	3,800
	New construction	Tradepoint Atlantic	590	1,100
Transmission and distribution	New construction	Champlain Hudson Power Express	3,300	150
	New construction	Gateway South	1,700	77
	New construction	Gateway West	9,200	430
	New construction	Grain Belt Express Clean Line	4,200	200
	New construction	New England Clean Power Link	1,800	84
	New construction	Northern Pass Transmission Line	2,400	110
	New construction	Plains and Eastern Electric Transmission Lines	3,500	160
	New construction	Southline Transmission Project	1,200	56
	New construction	SunZia Transmission Project	3,000	140
	New construction	TransWest Express Transmission	4,500	210
Water and waste	New construction	Augustin Plains Ranch	1,900	50
	New construction	Cadiz Water Conveyance Project	1,000	20
	New construction	California WaterFix (Bay Delta Tunnels)	21,000	1,100
	New construction	Fargo-Moorhead Area Diversion Project	2,500	60
	New construction	Huntington Beach Desalination Plant	1,500	60
	Expansion	Miami-Dade Water and Sewer Capital Improvement Plan	14,000	630

Note: Rural broadband projects are absent from this list because no such projects are currently in the pipeline at a national level. Likewise, hospital projects are absent from the list because there is no national program in place to build them.

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