

PORT PERFORMANCE FREIGHT STATISTICS WORKING GROUP SUMMARY OF MEETING OF JULY 15, 2016

OVERVIEW

The *Fixing America's Surface Transportation Act* (FAST Act, P.L. 114-94; Dec. 4, 2015), Section 6018 (codified at 49 USC 6314) directed the Bureau of Transportation Statistics (BTS) to implement a Port Performance Freight Statistics Program (Program) on behalf of U.S. Department of Transportation (U.S. DOT). As part of this Program, Section 6018 requires BTS to develop nationally consistent performance measures for, at minimum, the Nation's top 25 ports by tonnage, 20-foot equivalent unit (TEU), and dry bulk. Section 6018 also directs BTS to establish a Port Performance Freight Statistics Working Group (Working Group) to provide recommendations for specifications and data measurements for port performance measures, and for a process to collect them.

The first meeting of the Working Group convened on July 15, 2016, at the U.S. DOT Headquarters building in Washington, D.C. Working Group Vice- Chair, Ms. Rebecca Yackley, of the Saint Lawrence Seaway Development Corporation (SLSDC), presided over the meeting. Ms. Anne Aylward, Acting Director of U.S. DOT's Volpe National Transportation Systems Center (Volpe) facilitated the meeting.

In accordance with the provisions of Public Law 92-463, the meeting was open to the public from 10:30 AM to its adjournment at 3:30 PM. From 9:00 AM to 10:30 AM, the meeting was an administrative session to provide required ethics and confidentiality briefings to the Working Group members.

WORKING GROUP MEMBERS PRESENT

The following members were present:

- Mr. David Adam, U.S. Maritime Alliance, Ltd.
- Mr. Jonathan Berkson, U.S. Coast Guard (USCG)
- Ms. Lauren Brand, Maritime Administration (MARAD)
- Mr. Kevin Brubaker, Environmental Law and Policy Center
- Mr. Dennis Daggett, International Longshoremen's Association
- Mr. Edwin Ferris, International Longshore and Warehouse Union, Local 10
- Mr. Rick Gabrielson, Lowe's Companies, Inc.
- Mr. Manuel Garza, U.S. Customs and Border Protection (CBP)
- Mr. Jonathan Gold, National Retail Federation
- Mr. John Gray, Association of American Railroads (AAR)
- Mr. Roger Guenther, Port of Houston (Texas)
- Mr. Paul C. LaMarre, III, Port of Monroe (Michigan)
- Ms. Michelle Livingstone, The Home Depot
- Mr. Luis Loarte, Federal Aviation Administration
- Mr. Andrew Lynn, Port Authority of New York and New Jersey
- Mr. Mike Mabry, Retired
- Mr. Don Marcus, International Organization of Masters, Mates and Pilots, ILA/AFL-CIO
- Mr. Kenneth (Ned) Mitchell, U.S. Army Corps of Engineers (USACE)
- Mr. Jeffrey Pavlak, Transportation Trades Department, AFL-CIO
- Mr. Michael Podue, International Longshore and Warehouse Union
- Mr. Fred Potter, International Brotherhood of Teamsters
- Mr. Darrell Ruban, Federal Motor Carrier Safety Administration
- Mr. Eugene Seroka, Port of Los Angeles (California)
- Ms. Mindy Shalaby, Pipeline and Hazardous Materials Safety Administration

- Mr. Curtis Whalen, American Trucking Associations
- Mr. Bill Wiatrowski, Bureau of Labor Statistics (BLS)
- Mr. Tyler Wood, Federal Maritime Commission
- Ms. Rebecca Yackley, SLSDC (Working Group Vice-Chair)
- Ms. Allison Yoh, Port of Long Beach (California)

STAFF PRESENT

Several staff from the U.S. DOT Office of the Assistant Secretary for Research and Technology (OST-R), BTS, and the Volpe Center were in attendance:

- Ms. Anne Aylward, Volpe
- Mr. Matthew Chambers, BTS
- Mr. Daniel Hackett, Hackett Associates (contractor to Volpe)
- Ms. Pat Hu, BTS
- Ms. Alisa Fine, Volpe
- Mr. Timothy A. Klein, OST-R
- Mr. Robert Monniere, U.S. DOT, Office of General Counsel
- Ms. Lydia Rainville, Volpe
- Dr. Rolf Schmitt, BTS
- Mr. Dan Smith, The Tioga Group, Inc. (contractor to Volpe)
- Mr. Mike Sprung, BTS
- Mr. Jiashen You, BTS

MEMBERS OF THE PUBLIC PRESENT

Members of the public present for the meeting or a portion of it were:

- Mr. Russell Adise, U.S. Department of Commerce
- Mr. Paul Bea, PHB Public Affairs
- Ms. Sarah M. Beason, K&L Gates, LLC
- Mr. Bruce Blanton, U.S. Department of Agriculture (USDA)
- Ms. Bianca Bloomquist, International Longshore and Warehouse Union
- Mr. Philip Brady, Voyage Control
- Mr. Stephen L. Caldwell, U.S. Government Accountability Office
- Mr. Spencer Chambers, Port of Houston
- Ms. Tretha Chromey, Federal Highway Administration
- Ms. Allison Cullin, U.S. Senate Committee on Commerce, Science and Transportation
- Mr. Michael Dendas, The Home Depot
- Mr. James Dwyer, Maryland Port Administration
- Mr. Ingo Esders, International Longshoremen's Association
- Mr. Peter Friedmann, AgTC Agriculture Transportation Coalition
- Ms. Patricia G. Hendren, I-95 Corridor Coalition
- Ms. Aline Hull, Federal Maritime Commission
- Mr. Reynolds Hutchins, Journal of Commerce
- Ms. Anne Kappel, World Shipping Council
- Mr. Gary Kardian, Federal Maritime Commission
- Ms. Marin Kress, USACE
- Mr. Weston LaBar, Harbor Trucking Association (HTA)
- Mr. Lindsay McLaughlin, International Longshore and Warehouse Union
- Ms. Susan Monteverde, American Association of Port Authorities (AAPA)

- Mr. Val Noronha, Digital Geographic Research Corporation
- Mr. Roy Pearson, Federal Maritime Commission
- Mr. Robert Leo, EcoLogix Group
- Mr. Steven Riley, USACE
- Ms. Beth Rooney, Port Authority of New York and New Jersey
- Mr. Brandon Ross, Bloomberg BNA
- Ms. Jennifer Safavian, Retail Industry Leaders Association
- Mr. Jorge Salazar, U.S. CBP
- Mr. Michael Scanlon, K&L Gates LLP
- Mr. James Swanston, Voyage Control
- Ms. Amy Tujague, USACE

WELCOME AND GUIDANCE FOR RECOMMENDATIONS

Ms. Hu, Director of BTS, welcomed Working Group members to the meeting. She noted that the Port Performance Freight Statistics Program will provide an opportunity for BTS to develop a more holistic picture of the national freight transportation system, by including maritime port freight flows. BTS looks to the collective knowledge and experience of the Working Group members to identify important areas of commonality and to help BTS build a meaningful, nationally consistent Port Performance Freight Statistics Program.

Ms. Hu mentioned three questions for the Working Group members to consider when making their recommendations:

- How should BTS define the different types of ports in terms of tonnage, container, and dry bulk?
- What nationally consistent measures would you recommend for capacity and throughput?
- How should BTS approach collecting and reporting this information?

She then introduced Mr. Iwasaki of the Contra Costa Transportation Authority, the Working Group Chair (who was not present); Ms. Yackley, the Working Group Vice-Chair; and Dr. Schmitt.

PORT PERFORMANCE FREIGHT STATISTICS PROGRAM

Dr. Schmitt, Deputy Director of BTS, provided an overview of BTS, which is one of 13 designated independent Federal statistical agencies and the only statistical agency within U.S. DOT. Among other activities, BTS publishes transportation statistics, such as the Freight Analysis Framework. Dr. Schmitt noted that port data are inherently multimodal. He also noted that BTS will need to consider existing data sources in responding to FAST Act Section 6018 requirements to produce the first annual report on port capacity and throughput by January 2017. Moving forward, BTS may also consider cost-effective methods to compile new data.

INTRODUCTIONS

Working Group members (noted above) introduced themselves, providing names and organizations.

FAST ACT OVERVIEW

Following members' introductions, Dr. Schmitt introduced Mr. Klein, Director of the Office of Technology Policy and Outreach at OST-R.

Mr. Klein noted the broader context of the FAST Act, stating that this legislation provided \$305 billion for surface transportation across all modes, except for aviation, over fiscal year 2016 to fiscal year 2020. He noted that the FAST Act included provisions for freight funding. These include apportioned funding

through a new National Highway Freight Program and a new discretionary grant program for Nationally Significant Freight and Highway Projects (FASTLANE Grants).

Mr. Klein noted the Secretary of Transportation Anthony Foxx's seven priorities for U.S. DOT, which include developing a national vision for transportation and improving the quality of the Nation's transportation infrastructure. He also noted the FAST Act's focus on managing transportation system performance. This both builds on and supports ongoing U.S. DOT efforts to incorporate performance-based approaches into its activities. This approach is also reflected at the State and local levels; for example, the FAST Act requires State DOTs and metropolitan planning organizations to incorporate performance-based approaches into transportation planning and programming, and to include ports in their planning activities.

Mr. Klein reminded Working Group members that the Port Performance Freight Statistics Program requires U.S. DOT to develop a set of nationally consistent performance measures to assess port throughput and capacity. He noted that the U.S. DOT currently has limited resources to initiate any new data collection efforts for port performance data. The first annual report will likely focus on capturing a baseline understanding of port performance using existing data sources. He encouraged Working Group members to think creatively about longer-term tactics for how U.S. DOT could, in subsequent years, enhance or develop new port performance data as BTS implements the Program.

OVERVIEW OF PERSONAL EXPERIENCE SERVING ON FEDERAL ADVISORY COMMITTEES (FACs)

Following Mr. Klein's presentation, Dr. Schmitt introduced Mr. Gabrielson.

Mr. Gabrielson noted that he has served on several different FACs in the past, including the U.S. Department of Commerce/International Trade Administration's FAC on Supply Chain Competitiveness. He stated several lessons learned and success factors from these past experiences. For example, it is important for a FAC to clearly define its mission so that members have a clear sense of the group's objectives, tasks, and anticipated outcomes. Breaking a large group into smaller workgroups can help individuals focus on discrete tasks. It is also important to foster strong working relationships within the FAC by looking for common ground, being willing to compromise, keeping lines of communication open, and respecting diverse viewpoints. Finally, Mr. Gabrielson noted that the Working Group should identify actionable, discrete next steps to help ensure successful follow-through.

Following Mr. Gabrielson's presentation, Ms. Aylward introduced herself. She encouraged members of the Working Group to view the Program as an opportunity to increase the public visibility of ports. She also encouraged members to view their role as helping to tell a public story about the importance of ports to the national economy and to the nation's transportation system as a whole. Ms. Aylward then noted that having a shared vocabulary and terminology would be helpful to tell this story.

PORT DEFINITIONS

Ms. Aylward introduced Mr. Hackett, a contractor to Volpe working in support of BTS and the Working Group. Mr. Hackett reiterated the importance of developing a common framework and vocabulary to effectively engage in conversation about port performance statistics. He stated that there are two key questions facing the Working Group members: 1) what should BTS measure and 2) where should they measure it? He also summarized the requirements of FAST Act, Section 6018.

Mr. Hackett then discussed the complexities involved in measuring port capacity and throughput in terms of tonnage, containers, and dry bulk. The units of measurement themselves can be defined in different ways. For example, tonnage is essentially a high-level measurement of port activity; this

measures the total mass of items that pass through a port, including the weight of containers themselves. However, there are different ways of measuring tons, such as a metric or short- tons. Containers are generally measured using the industry standard of TEU, which is the unit mentioned in FAST Act, Section 6018; however, they can also be measured by forty-foot equivalents. Measurements of dry bulk movements are particularly complex due to the variable weight and dimensions of these materials.

Mr. Hackett also noted some of the complexities involved in establishing a single definition of a “port.” For example, ports may vary greatly in their physical size, from a single wharf to a collection of terminals stretching for multiple miles along a river. Port jurisdictional and geographical boundaries may not coincide. For example, the Port of Long Beach and the Port of Los Angeles are geographically adjacent and both border the San Pedro Bay, but they are managed by two different agencies. On the other hand, the Port of New York and New Jersey is jurisdictionally considered one port but facilities are physically located in two different states. Finally, the capabilities of a port can vary depending on the type of cargo being handled. Some ports may only handle one type of commodity, while others handle multiple types of cargoes.

Mr. Hackett noted that the level of granularity for port performance measures needs to be carefully considered. Highly aggregated measures may not tell a comprehensive story about what is happening inside a port. At the same time, very granular measures may paint a misleading picture. For example, measures from a port that generally operates smoothly may obscure one terminal that operates inefficiently, or a terminal that is inactive. Port throughput may also fluctuate depending on season, so it may be important to consider seasonality when developing throughput-related performance metrics or data.

Mr. Hackett suggested that the Working Group consider existing data already in the public domain in recommending a set of performance metrics. It is unlikely that any one existing data resource will be adequate to do this, but taking a holistic view of these resources could help better identify where there is already sufficient information and where there are data gaps. Finally, some existing publicly accessible data resources are aggregated, but can be “drilled down” to support a more granular analysis of port operations.

Examples of existing publicly accessible data sources that may be important for the Working Group to consider include USACE’s waterborne statistics and U.S. Census data, as well as lists compiled by MARAD and AAPA for the Nation’s top 25 ports. Mr. Hackett then provided some examples of the Nation’s top 25 ports by tonnage, container, and bulk to illustrate the wide range of port characteristics and activities.

Finally, he acknowledged that the Working Group may face challenges in creating a nationally consistent set of metrics that can take all of these and other complexities into consideration, while also ensuring that measures are equitable to ports and do not misrepresent their activities. He posed a series of three questions to Working Group members for discussion: 1) are there other datasets that BTS should be considering? ; 2) is there consensus on “what is a port”; and 3) is there consensus on a definition of what is included in each of the tonnage, container, and dry bulk categories?

DISCUSSION

Following Mr. Hackett’s presentation, Ms. Aylward facilitated discussion that centered on the three questions raised in the presentation.

Mr. Mitchell clarified that USACE draws a distinction between a Federal navigation project and a public port. He also mentioned that USACE has worked with USCG to utilize data from its nationwide identification system to support more quantitative analyses of ports. Ms. Tujague further clarified that USACE defines ports according to how they are legislatively defined.

Mr. Ruban noted that having more data on container movements is helpful from a safety perspective, since each movement represents a potential safety risk. Having more information on these movements can inform strategies to improve safety and reduce risk.

Mr. Whalen stated that there are many existing datasets that could support the Working Group in recommending performance metrics. These datasets should be identified even if they are not in the public domain.

Ms. Aylward stated that the Working Group should consider what data may be appropriate to compile at the national level.

Mr. Gray suggested that there is a need for the Working Group to discuss and clarify its mission. He also suggested that the Working Group better identify the target users of any port performance data gathered in response to FAST Act, Section 6018, as well as what types of decisions these users would make using these data.

In response to Mr. Gray's comments, Dr. Schmitt noted that BTS' mandate is to produce intermodal transportation data to assess passenger and freight flows according to various characteristics. BTS does not place any constraints on how these data are used. He noted that BTS data are currently used by a variety of stakeholders, including State DOTs, to support a range of activities such as transportation planning. He also noted that some stakeholders also use BTS data to better assess the general state of their transportation networks and to inform decision-makers about what and where interventions may be needed to improve passenger or freight flows along these networks. He expects that any data compiled or developed by BTS in response to FAST Act, Section 6018 requirements would help stakeholders better understand the general state of the Nation's port throughputs and capacities.

Ms. Aylward noted that the Working Group could provide recommendations to U.S. DOT about the specific kinds of questions port performance data can help answer.

Mr. Brubaker asked if BTS had an expectation of how frequently port performance data would need to be collected to respond to FAST Act, Section 6018 requirements.

Dr. Schmitt noted that FAST Act, Section 6018 requires U.S. DOT to produce an annual report on port performance. Dr. Schmitt also stated that BTS would like the Working Group's recommendations about how current the data should be in order to be useful, while recognizing that freight flows can change significantly and quickly due to many factors.

Mr. Gold suggested that the Working Group view their role as an opportunity to look holistically at the freight transportation system. The group can help decision-makers understand how challenges to port capacity and throughput will impact not only other modes and elements of the transportation system, but also national competitiveness as a whole.

Mr. Pavlak stated that he was concerned about the usefulness of prescriptive metrics suggested by other members. He stated that the labor community views these metrics as an intrusion into the

collective bargaining process. He also stated that developing a national set of metrics will be extremely difficult given the varied characteristics of ports across the country. He stated that the removal of some metrics from the final version of the FAST Act legislation demonstrates clear Congressional intent to no longer accommodate those issues.

Ms. Aylward acknowledged that each port and its market are unique. She stated that the primary role of the Working Group is to find areas of commonality on which to put forth recommendations on nationally consistent metrics.

Mr. Whalen stated that the biggest challenge confronting the freight industry is lack of data. He stated that having a set of nationally consistent performance metrics would help the industry better address hindrances to the flow of freight. He noted that focusing on improving performance data are a first step. Over time, having and sharing better data would allow the industry to improve analyses and its ability to implement solutions.

Ms. Aylward noted that most of the Nation's ports were developed by the private sector at the State and local levels. The role of the Federal government related to ports is different than it is for other modes. It is important for the Working Group to determine what data are appropriate for the Federal government to collect versus what data are appropriate for port authorities or the private sector to collect.

Mr. Ferris stated that data collected under the Program would not help address the highest priority challenges faced in the port industry and that the metrics developed may lead to a drive to "ramp up" productivity and compromise worker safety. He stated that there should be a focus on improving port infrastructure to help address congestion issues caused by larger ships that have come online.

Mr. Gabrielson suggested that the Working Group view the Program as an opportunity to identify changes that have occurred in port operations and ways to improve the flow of cargo through ports.

Mr. LaMarre noted that the flow of cargo through terminals at a port is a competitive process driven by market demand, customer preferences and resources, and resources available at terminals including equipment and personnel. He also noted the importance of viewing port productivity from a more holistic lens, to consider how a port might contribute not just economically to a community but also to its overall quality of life. He expressed a concern that certain types of metrics, such as crane movements per hour, would lead to an incomplete and misleading view of port productivity that would not fully reflect a port's full value to the community it serves, nor reflect the competitive process that drives throughput.

Mr. Marcus stated that focusing on specific performance metrics or key performance indicators can be misleading. He suggested that port productivity needs to be placed in context and viewed from a more holistic standpoint, and that specific metrics need additional context to appropriately gauge port performance. He also expressed a concern about the ultimate purpose of the performance metrics and how they would be used.

Mr. Pavlak noted that one of the public comments submitted in advance of the Working Group meeting from a coalition of trade associations included language about specific metrics that were initially proposed in earlier version of the legislation and later removed in the final FAST Act, Section 6018. He expressed a concern that the mandates included in Section 6018 were attempts to further legislate an issue that had been previously resolved.

Ms. Brand noted that Federal decision-makers need to better understand the critical role that ports play in contributing to the nation's economic health, so that ports are more substantively considered as part of overall Federal investment decision-making. She also suggested that excess or usable port capacity be considered as a factor. If ports can make better use of existing or potential new capacities this will help support the efficient movement of freight. Ms. Brand stated that she does not believe velocity should be measured, as this undermines safety.

Ms. Aylward asked how the Working Group would recommend handling international cargo that comes into and out of the U.S., but may not be included as part of existing datasets.

Mr. Mitchell asked Ms. Tujague of USACE to clarify that USACE does include these types of movements in their datasets. She noted that if cargo gets on or off a vessel at an American port, even if it is getting onto another vessel to move to a Canadian port, it would be counted in USACE data.

Mr. Sprung noted that BTS also maintains data on transshipments. He also stated that BTS meets with its counterparts in Mexico and Canada on an annual basis to share information and lessons learned.

Mr. Gold noted that the Waybill Sample also captures some transshipment movements.

Ms. Aylward asked if the Working Group had any comments on the three categories cited in FAST Act, Section 6018: tonnage, container, and dry bulk.

Mr. Klein noted that the legislation establishes minimum requirements for nationally consistent measures, but he expects that BTS may recommend additional elements for consideration in the future.

Ms. Brand asked whether metrics should be established for deepwater ports.

Mr. LaMarre suggested that metrics for dry bulk may be misleading. The way that dry bulk is loaded and unloaded may often be based on historic experience with a particular type of material, and existing physical arrangements and equipment, rather than market demand. The industry has had more experience with certain materials and has identified the most efficient way of moving these materials over time.

PORT PERFORMANCE MEASURES, CURRENT DATA INVENTORY, AND GAPS

Ms. Aylward introduced Mr. Smith, a contractor to Volpe working in support of BTS and the Working Group. Mr. Smith set the foundation for discussion of port capacity and throughput metrics by providing examples of existing port performance metrics and highlighting the complexities introduced by the diversity of port types and operations. He underscored the importance of choosing measures that are useful, fair, and consistent. Mr. Smith suggested that the Port Performance Freight Statistics Program provides an opportunity to tell the port industry story and give stakeholders and the public new insights into how ports contribute to the Nation.

Mr. Smith provided several examples of existing port-level performance metric reporting, noting that most publicly available metrics focus on container ports. For example, the Ports of Charleston (South Carolina) and Virginia have published weekly metrics online. The Port of Oakland (California) has a multi-party Port Efficiency Task Force that identifies performance metrics of interest compiled from multiple sources and published on the Port of Oakland's website. Internationally, Transport Canada collects and publishes metrics on transit time and reliability for five partner ports under its freight fluidity program.

In Europe, the PORTOPIA project serves as an information resource to support policy formation and monitoring.

Mr. Smith addressed measures of port capacity. He noted that capacity measures may be based on port or terminal estimates, third-party estimates, or engineering studies. Dry bulk, container, and inland ports each pose unique challenges for defining and measuring capacity. Dry bulk terminals have many factors to consider such as: storage, ship loader, rail/truck transfers, and operating hour capacities. Container terminal capacity is affected by factors such as: container storage density, stacking height, berth length, and draft. The characteristics of individual marine terminals (e.g., presence of wheeled parking, rail facilities) all provide insight into how an individual port operates that may be masked at an aggregated level.

Mr. Smith further emphasized the complexity of developing consistent, meaningful metrics using container yard capacity and TEUs per crane shift as examples. Container yard capacity depends on acreage and storage density. Most U.S. container terminals have a mix of density at any given time. Lower storage densities usually mean less handling and lower cost, and terminal designers and managers may increase density to accommodate rising volumes. Estimating port capacity requires making assumptions. An annual estimate of TEUs per crane requires assumptions about sustainable capacity, and days or hours of crane availability. A common rule of thumb is that sustainable capacity is 80 percent of maximum capacity. It is essential to be transparent about assumptions when defining and estimating metrics. Finally, he recognized the need to be forward-looking and to consider the capacity cycle when interpreting port capacity metrics and reserve port capacity.

Mr. Smith then addressed measures of port utilization and productivity. He defined utilization as throughput/capacity expressed as a percentage. Some degree of excess capacity is required for efficiency. Utilization is strongly affected by the timing of capacity additions versus demand growth. Low utilization may signal low productivity, loss of demand, or reserve capacity, while high utilization may signal high productivity, demand spike, or capacity constraints. Productivity is typically a ratio of throughput per asset unit. Examples include TEU or tons per acre, vessel or barge calls per berth, or crane moves per hour. Averages summarize key characteristics and smooth out differences between terminals and over time. Finding ways to recognize interruptions and variability, as well as the averages, will be important.

Mr. Smith reviewed some commonly accessible port data and potential common metrics that may be calculated from that data. The data are generally from public container ports and allow for analyses of container port infrastructure productivity. Some examples of metrics that can be assessed with these more readily available data include annual TEUs, TEUs per gross acre, moves per available crane hour, cranes per berth, or average vessel dwell time.

There are also other metrics—such as total port TEU capacity or container dwell times—for which data are not readily available in the public sector because individual terminals collect this information. The public sector may be able to obtain data more readily for sites where the port authority is also the terminal operator. However, most U.S. ports are landlord ports; the terminals are operated by private sector stevedoring firms and their data are proprietary.

Mr. Smith noted that developing metrics for chassis, truck, and rail utilization/productivity can become even more problematic. The data that would be used to assess these metrics are in most cases generated by private terminal operators and are proprietary. In other cases the data does not exist at all, and new collection systems would need to be implemented to obtain them.

Mr. Smith also cautioned that metrics, such as TEUs per acre, can be misleading if taken out of context. Ports may have low TEUs per acre if they have recently physically expanded, or if some of the port's acreage is used for activities such as on-dock rail intermodal facilities (which add to acreage). Some ports have moved to having off-dock container storage or chassis depots that increases acreage and reduces the total number of TEUs per acre even if there are no actual changes in TEU throughput.

Mr. Smith provided more specific examples of potential productivity metrics and some of the complexities surrounding these. TEUs per container yard (CY) acre might be cited as a measure of a port's productivity, but this measure actually reflects a port's storage density. For example, a wheeled container yard (where chassis are stacked on wheels awaiting pickup by truckers) is a low-density storage model; this yard will have low TEUs per CY acre. A stacked container yard (where chassis may be located at another lot or terminal and the trucker must wait for a lift operator to find a container in a stack and place it onto a chassis) represents a high-density storage model; this yard will have high TEUs per CY acre.

Frequency of trouble tickets may be another potential metric to assess truck productivity at a port, but individual terminals within a port may use different procedures for dealing with trouble tickets or may not issue trouble tickets at all, preferring instead to resolve issues offsite before a trucker enters the port. A trouble ticket percentage of zero may thus mean different things for different ports.

Vessel dwell time, another potential performance metric, also poses challenges. Vessel dwell time is a function of multiple factors including the number of containers or tonnage to be loaded and unloaded, terminal resources available, and the efficiency with which those resources are employed. Vessel dwell time is not a linear function of cargo volume, because each vessel requires time to be tied up and readied for cargo operations and departure after cargo operations. Further, vessel dwell time varies with the timing of arrival and departure. Available MARAD data such as average vessel capacity can help to provide context.

As a terminal efficiency metric, crane moves per hour has many methodological, data collection, and interpretation challenges. Mr. Smith explained a number of these challenges. Crane moves are defined differently across ports and may or may not include handing hatch covers and restowing containers. "Hours" may include or exclude scheduled breaks, yard congestion delays, and other factors. Megaships may have as many as six different shipping line containers, which require time for sorting and loading. These vessels are also wider and taller, increasing the crane travel required for every move.

Truck turn time is another potential metric that has two components: 1) time within the terminal; and 2) time outside of the terminal. Mr. Smith noted that, like the other metrics he discussed, truck turn time has methodological and data collection challenges. Terminal turn times vary by time of day and transaction time. Some, but not all marine terminals collect data on what happens outside the gate. Compiling queuing times would require new data collection efforts and technology efforts. Some marine terminals already publish turn times. The Port of Oakland has developed DrayQ, a mobile drayage application that provides queue and terminal times using Bluetooth data. The Southern California HTA publishes monthly total turn time averages for terminals at the Ports of Long Beach and Los Angeles using global positioning system (GPS) data and is moving towards real-time data.

Mr. Smith suggested that the Working Group consider these and other variabilities when recommending performance measures to BTS. He reiterated that numbers taken out of context can be misleading and

may not adequately address all of the complexities that characterize U.S. port operations and infrastructure.

DISCUSSION

Mr. Mabry noted the need to define how these metrics will be used and expressed concern about the use and interpretation of highly aggregated input metrics in identifying threats or solutions related to the flow of commerce.

Mr. Ferris stated the benefits of localized approaches, like those used by the Port of Oakland and its stakeholders, to collaboratively develop metrics that are valuable in identifying and addressing problems at the local level. He identified the risk of developing metrics that could compromise safety or push productivity to unreasonable levels.

Mr. Guenther highlighted several challenges of measuring port capacity and throughput. Terminal operators have detailed data but there is limited willingness or incentive to share this information. A number of these metrics are also a function of cost. The standard of comparison of these metrics is also a challenge; even two terminals that operate within mostly the same parameters in an individual port are difficult to compare. The logistics supply chain also has many factors outside the terminal. Insufficient funding and resources of partner agencies like CBP and USCG impede port operations and growth.

Mr. Smith restated the opportunity to use data to tell a story about the strengths and needs of ports. PORTOPIA in Europe provides a useful example of an effort to tell a story to decision-makers. Metrics may help identify needs and help ports develop their own local solutions.

Mr. Seroka noted that the legislative mission of the Working Group is to provide recommendations on throughput and capacity measures while maintaining confidentiality. He stated that legislation was called for by cargo owners due to perceived and real lack of transparency. He also stated that the industry put itself in that position for reasons ranging from fractures in the supply chain, to compressed pricing, larger ships, divestiture of chassis, and more. Coming together as an industry now is of ultimate importance. Mr. Seroka noted that the Program provides an opportunity to generate interest in the supply chain. The Port of Los Angeles uses its own statistics for port management, environmental stewardship, workforce development, and more. Sharing data and finding efficiency gains creates opportunities to invest in initiatives like a planned workforce development training center and private sector partnerships.

Mr. Potter asked about the use of port performance data and expressed concern about the potential for its use as a tool against workers. State and local labor department investigations show that the broken supply chain starts with truck drivers. Conditions are unfavorable for attracting and retaining workers. Workers are misclassified, drivers are not paid for their work, and limited resources result in unsafe or broken trucks. He stated that statistics should properly classify workers and encourage a trucking industry governed by efficiency and safety, not just low cost.

Mr. Gray stated that published data should be shared in a way that compares a port over time and do not compare individual ports against one another. He stated that based on the AAR's own experience with railroad performance measures it would be naïve to believe that the information would not be used to compare ports.

Mr. Pavlak agreed with Mr. Gray's comments, stating that not everyone will be acting in good faith with port performance statistics. Making smart investments in the Nation's ports and supply chain is necessary; selecting a particular set of metrics at the Federal level requires extreme caution due to the many validity issues.

Ms. Livingstone noted that shippers are underrepresented in the Working Group. Shippers have their own internal metrics to understand performance, but do not always know with whom to collaborate, or the appropriate parties to work with to resolve problems.

Mr. Gabrielson noted the importance of improving supply chain processes and getting necessary investment in port infrastructure without divulging confidential information. The bottom line for shippers is how to efficiently get in and out of their terminals of choice. Crane moves per hour is not of interest. The number of moves drivers make per day to be productive and attract more people to the industry is of interest.

Mr. Podue noted the common goal of seeing cargo move more productively, but emphasized caution. He appreciated labor being included as part of the Working Group. He expressed concern about the potential for the information to be used down the road to hurt all parties in this room. He agreed with previous speakers that crane moves per hour would not be a useful metric.

Mr. Lynn asked whether terminal operators, ocean carriers, and chassis owners should also be represented on the Working Group, as they are an important part of the solution.

Ms. Aylward acknowledged that the question of key players is an important one. Making the distinction between what is addressed by the Port Performance Freight Statistics Program and what is addressed in the port environment is another important question.

PUBLIC COMMENTS

Mr. Chambers updated the group on the public comments received as of the meeting time. Commenters included:

- Digital Geographic Research Corporation
- Multi-association group representing over 100 cargo owners and shippers (e.g., manufacturers, farmers and agribusinesses, wholesalers, retailers, importers, exporters, distributors, transportation and logistics providers, and other supply chain stakeholders)
- Retail Industry Leaders Association
- TruWeather Solutions

Mr. Chambers then opened the floor for public comment.

Ms. Chromey noted the importance of the National Freight Advisory Committee in putting together the *National Freight Strategic Plan*, helping to lead to the provisions in the FAST Act that provide funding opportunities for freight. The two freight funding programs cited in the FAST Act have a set-aside for multimodal funding, including ports and intermodal facilities. State freight plans will be required starting in December 2017. These plans will help support a transportation system of which everyone in the room is a part.

Mr. LaBar noted that HTA represents over 7,000 trucks and 100 companies. Since August 2013, HTA has conducted truck mobility studies and will soon be enhancing historical data with real-time information.

He underscored the value of using analytics for decision-making at the local level. By identifying data subsets needed, tangible decisions can be made at the local level. In HTA's experience, these data have been useful for practical purposes and will continue to allow HTA to work collaboratively with terminals and unions to identify efficiencies, bottlenecks, and roadblocks. For example, because congestion and wait time can be measured, many drivers are now compensated if they are in the terminal more than a certain length of time, regardless of chassis availability. HTA also started its own chassis pool using a mobile application, so a driver can pick up a chassis before entering the terminal if needed. Mr. LaBar noted the challenges of "peel off" programs and diversion of empty containers to other portions of the harbor. This practice can waste time and resources for drivers.

WORK PLAN FOR DECEMBER 4th RECOMMENDATIONS

Ms. Yackley addressed members of the Working Group, recognizing the expertise around the table. She noted that the Working Group provided an important opportunity to work together to identify investments and future funding opportunities for the Nation's ports. She suggested that the group plan to hold meetings in September, October, and November 2016. In preparation for a planned September meeting, she requested that Working Group members provide their preliminary thoughts and observations to the three questions raised by Ms. Hu by August 1. She also requested that members provide any input on Working Group draft bylaws in advance of the planned September meeting.

Mr. Brubaker asked about the expected form of the Working Group's final recommendations.

Ms. Hu stated that both short- and long-term recommendations would be beneficial. In the short term, however, there will not be sufficient time or resources to initiate any new data collection.

Mr. Whalen asked about statutory constraints.

Dr. Schmitt stated that the BTS mandate is relatively broad on the subjects it can cover. BTS tends to deal with general indicators and trend data. He also noted that BLS has employment data program and wage data and USDA has two statistical programs. If the Working Group delivered a recommendation related to these areas, BTS would work with the relevant Federal statistical partners.

Ms. Aylward emphasized the importance of the opportunity provided by the Port Performance Freight Statistics Program. BTS and this Working Group have been invited by Congress to help decision-makers better understand what the country needs from ports to meet the growing needs of trade over the next several decades.

Ms. Yackley thanked everyone for their participation and adjourned the meeting.

ADJOURNMENT

The meeting adjourned at 3:30 PM.

I hereby certify that, to the best of my knowledge, the foregoing minutes are accurate and complete.

Rebecca Yackley
Vice-Chair, Port Performance Freight Statistics Working Group
Saint Lawrence Seaway Development Corporation

These minutes will be formally considered by the Working Group at its next meeting, and any corrections or notations will be incorporated in the minutes of that meeting.

