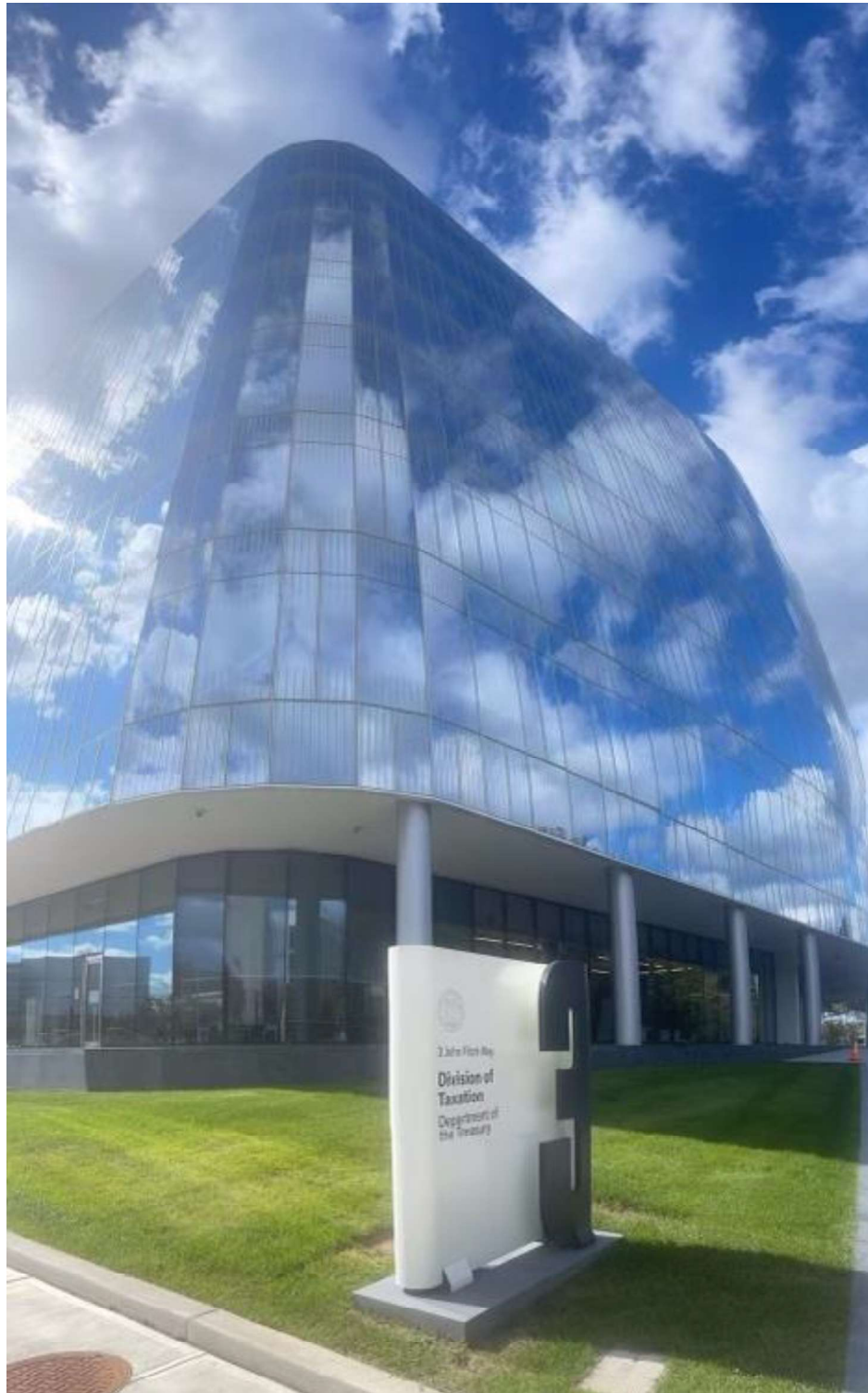


# NEW JERSEY DIVISION OF TAXATION STUDYING THE IMPACT OF DIGITAL ECONOMY



# BSPPP Digital Economy Report for Division of Taxation

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## I. Introduction and Overview

This Report is a starting point for the State's Legislative and Executive branches to consider the challenges to State tax policy presented by the digital economy. It provides a basic and general understanding of the digital economy, its impact on state policy, and suggests recommendations for follow-up actions.

The FY2022 State Budget included language requiring the Division of Taxation to undertake an examination of the State's tax laws and their relation to the digital economy. The Division asked the Bloustein School of Planning and Public Policy to develop and undertake the study.

The research looks at the topics of the digital economy and tax policy from an expansive view, and the Report reflects findings from the research and makes policy recommendations for "next steps." This research will provide policymakers a better grasp of the range of the challenges and options involved. Where practical and useful, the Report includes web-links to references in lieu of formal footnotes.

The digital economy as it relates to economic development is not part of this study. That includes business tax credit programs and economic/business and job development policies.

## II. Findings and Recommendations

This section presents an overview of the study's findings, followed by some detailed recommendations relevant to particular taxes or areas of the digital economy.

### Findings: Defining the Digital Economy

- The digital economy is defined as:
  - An economy that is based on digital computing technologies, but is often perceived as conducting business through markets based on the internet and World Wide Web. (Bukht, Rumana; Heeks, Richard (3 August 2017). "[Defining, Conceptualising and Measuring the Digital Economy](#)").
  - The economic activity that results from billions of everyday online connections among people, businesses, devices, data, and processes. ([Deloitte](#))
  - The worldwide network of economic activities, commercial transactions and professional interactions that are enabled by information and communications technologies. ([Tech Target](#))
  - The infographic on page 9 provides a sense of the economic size of the digital economy in the US.
- Digital technology is technology that:
  - relies on the use of microprocessors (tiny computers on an electronic chip) that process, store, and transmit information in the digital language of 0's and 1's; and
  - results in information, communications, and operations technologies (the "internet of things") that now infuses every sector of the economy.

### Findings: Current Taxation of the Digital Economy in New Jersey

Historically, Sales Tax policy has been focused on "tangible goods," that have physical attributes (can be touched, seen, etc.). Intangible goods are not taxed. However, effective October 1, 2006, the Sales and Use Tax Act imposed tax on "digital property" which was defined as electronically delivered music, ringtones, movies, books, audio and video works, and similar products, where the customer was granted a right or license to use, retain or make a copy of such item. [N.J.S.A. 54:32B-2\(vv\)](#); [N.J.S.A. 54:32B-3\(a\)](#).

In 2011, New Jersey adopted additional definitions, which included replacing the term "digital property" with the term "specified digital products." A leading-edge law at the time, it made "electronically transferred digital audio-visual work, digital audio work, or digital book" subject to the Sales Tax (as long as they were not merely accessed).

There is a large gap in tax policies, particularly with digital services. If, for example, New Jersey were to consider applying the Sales Tax on more broadly defined digital goods and services, additional issues must be addressed related to exemptions, nexus (the level of connection between a taxing jurisdiction and a business entity), and sourcing (the location where the tax applies). Because digital is different and ever evolving, there are still questions that need to be resolved because of the myriad of locations that involve digital products.

## Recommendations/Observations

We divide our recommendations and observations into two groups:

- The first group pertains to issues surrounding the State’s current and future tax policies with regard to the digital economy;
- The second group of recommendations cover the administrative and institutional capacities required to address those issues.

### A. Tax Policy

I. Sales and Use Tax: Address the challenge of placing digital products (goods and services) into the traditional “physical” regime of tangible and intangible goods with its myriad of exemptions, and enumerated services. This could be accomplished by following the state of Washington’s lead from 2008, but re-examined with a model that classifies economic transactions into two domains:

1. Physical Products:

- a. Tangible and intangible goods (current model: tangible goods are taxable, subject to exemptions; intangible goods are not taxable).
- b. Human Services – Services that are primarily the result of human effort performed in response to a customer request. These include hybrid services where the human is doing intellectual work at the end of the transaction but may be supported by technology (a true object-like test based on who is doing the real work is warranted). Taxable if enumerated.

2. Digital Products:

- a. Digital goods and services. With an appropriate broad definition of digital, both goods and services would be taxable by default, supported by common definitions, subject to state-by-state exemptions to ensure ITFA compliance with the physical domain and state-based public policy decisions.
- b. Digital services are differentiated by human labor/expertise not being principally engaged in providing the output received by the buyer; with a digital service, the true object test is driven by the technology doing the work, rather than human labor.

Changes to existing tax regimes must be carefully and deliberately considered and include regular consultation with the business community and consistency with national standards.

II. Table 1 (at the end of this Report) presents the composition of the digital economy by category of product and service as defined by the U.S. Bureau of Economic Analysis (BEA). Rutgers has also expanded this definition to incorporate some more recent, important developments in this area of the economy. Below we briefly summarize our observations and recommendations in regard to the taxation of goods and services in several of these categories.

1. **Computer Hardware.** Hardware is part of the digital infrastructure that allows the digital economy to exist. New Jersey is consistent with most states in its default taxation

of hardware as tangible property. Most hardware, including newer types of communications equipment are taxed under the Sales and Use Tax Act, with a few specific industry-based exemptions, most notably, an exemption for telecomm equipment used by a service provider subject to regulation by the BPU or the FCC.

2. **Software.** New Jersey currently taxes prewritten software, regardless of the method of delivery but does not tax Software as a Service (SaaS). New Jersey should review its software tax policies in the context of contemporary software practices and the market growth of SaaS. For example, Maryland taxes SaaS and defines it as a digital product, but in New Jersey it is not an enumerated category, so it is not taxable.

The law currently allows a Sales Tax exemption for prewritten software that is delivered electronically, for business use.

3. **Structures.** New Jersey currently taxes materials and supplies used to construct buildings, including those that provide support services to the digital economy. The number of physical structures used to support the digital economy are increasing, primarily as data and server centers which support cloud computing and a range of telecommunications systems. Related to the technology itself, there are increasing numbers of warehouses and logistics facilities that are driven by the digital economy (online ordering, fast delivery, robotic order fulfilment).

Any machinery and equipment used in data/server centers and logistics facilities are subject to Sales and Use Tax in New Jersey, except when used by a BPU/FCC regulated communications company. This has primary value for Verizon as New Jersey's primary incumbent land-line provider. (N.J.S.A. 54:32B-8.13)

4. **Cloud Services.** Cloud services allow a customer to access and use the software of a service provider through the internet. The software is hosted by a seller that owns, operates, and maintains it.

New Jersey law does not specifically address cloud computing services; therefore, SaaS and Platform as a service (PaaS) are not taxed.

The market activity of cloud service transactions continues to increase and it may be beneficial to review the tax policy concerning cloud services. To effectively tax cloud computing services, nexus and sourcing issues will also have to be addressed.

5. **Telecommunications.** Telecommunication services refer to the electronic transmission, conveyance, or routing of voice, audio, video, or any other signals from one point to another location, including Voice-Over-Internet-Protocol (VOIP). Internet access is excluded from the telecommunication definition by way of the Internet Tax Freedom Act, which prohibits state taxation of internet access.

Traditional wireline telecommunications services have been subject to a comprehensive State tax regime. With many of the services they provide now being

offered through the cloud and other internet services, it appears that the tax revenue from telecommunications services has decreased.

The significant shift away from cable TV service (which is excluded from telecommunications and not taxable) to streaming services, should result in additional revenue to the State, since most streaming services appear to include the ability to download, which makes them subject to tax.

A thorough review of State tax policies affecting the telecommunications industry is in order.

**6. Internet and Data Services.** Internet and data services are related to providing internet access and hosting, searching, retrieving, and streaming content and information on the web.

The FCC defines internet service as a service enabling consumers to access the internet or related services that are provided by an Internet Service Provider (ISP).

A data service allows users to submit queries to applications to access and manage disparate data. In this context, data services include streaming video (e.g., Netflix, Disney+, Apple TV, YouTube, etc.), accessing information on websites, and downloading stock market tables.

The State currently imposes sales tax on specified digital products (as defined by the Streamlined Sales and Use Tax Agreement), which includes digital audio-visual works, digital audio works, and digital books, that are transferred electronically.

The sale of data itself may constitute an information service, which is specifically subject to tax.

There is considerable cross-over between internet and data services and cloud computing services. Any tax specifically applying to either category will likely have residual effects on the other.

The nature of digital goods and services appears to warrant its own tax regime, similar to, but separate from, traditional Sales and Use Taxes.

**7. Digital Intermediary Services.** These are services that provide information on, and successfully matching, two independent parties to a transaction via a digital platform in return for an explicit fee. The output of these platforms typically consists of the fees paid by the producer and/or the consumer of the service being intermediated.

New Jersey law does not specifically refer to digital intermediary services; however, most digital intermediary service providers fall under the State's definition of "marketplace facilitators." New Jersey's marketplace facilitator law requires that marketplace facilitators who sell tangible property, specified digital products, and



taxable services to New Jersey customers collect New Jersey Sales Tax on behalf of third-party sellers.

Efforts to identify digital intermediaries/or marketplaces may improve the current tax compliance in New Jersey. Industry experts appear to need clarification on what businesses fall into this category.

Sellers through online marketplaces may not realize their Sales Tax obligations if they are not familiar with what is included in the definition of specified digital products and which services are subject to tax in New Jersey.

**8. Interactive Platforms.** These are services that combine elements of cloud computing and internet/data, which are fee-based or free, or blended. In the most prevalent example, online video game operators and mobile applications are required to collect Sales Tax on in-game purchases that involve a download. Major providers appear to be properly collecting the tax. Administrative challenges include determining the point of purchase and location of seller. The growing prevalence of virtual currencies creates an added challenge.

## **B. Administrative and Institutional Capacity**

State Government Organizational Capacity: The need to improve capacity to address the challenges of digital economic activity is further evidenced by the fact that the digital world is here to stay, and drives decisions and practices of all organizations in the economy, all sizes of business, non-profits, and government. The effects of these practices need to be studied, understood, and integrated into state policies on an ongoing basis.

The Department of the Treasury needs to dedicate staff that can develop and maintain an understanding of digital economic policy.

While not a direct part of the study, the challenge of understanding these issues extends to the Legislature's support arm, the Office of Legislative Services. That organization's professional staff require the capacity and opportunity to advance their knowledge so they can meet their obligations to the Legislature.

New products or variations on existing ones can create business uncertainty about the product's tax status. It is clearly important for sellers to know if a product is taxable in advance of making a sale. This information is also vital to business and state compliance auditors. This has been reported as a challenge in New Jersey tax administration. However, the Division of Taxation has a Letter Ruling process in place, whereby businesses can obtain a determination of the tax consequences of a transaction in advance.

1. Create a Digital Economy Policy Office. The Department should develop a digital economy research capacity vested in a digital policy research office. That office should:



- a. Monitor and engage with national organizations that support state tax agencies<sup>1</sup>, and with New Jersey business organizations that deal with tax policy and administration.
  - b. Work with those organizations, commence development of a Sales and Use Tax policy model based on the idea that New Jersey move to a dual domain of physical and digital products as described in this Report. This approach would ideally be taken along with other states in order to ease administration and taxpayer compliance. This would integrate with the current research efforts being undertaken by the MTC and SST Governing Board.
  - c. Provide staffing and support to agencies dealing with digital economy issues.
  - d. Establish an internal liaison function with State agencies whose activities are integrated with tax policy.
2. Comprehensive Technology Risk Management Planning
    - a. Support a comprehensive project and risk mitigation plan as part of the development of the recently commenced Integrated Tax System project. As important, is a similar plan to ensure ongoing support of existing functions. In both cases, agencies within and outside of Treasury need to be involved and commit to fulfilling their roles to meet the project's needs.
    - b. This also requires an oversight function for a dispute resolution process. This recognizes the need for interagency cooperation for these mission critical and high-risk systems.
  3. Telecommunications policy: The State, by action of either the Executive or Legislative branch (or both) should initiate a study of the State's telecommunications tax policies. The study should make recommendations that address the ongoing evolution of the industry and technology in the context of tax policy.
  4. Impact of Electric Vehicles:
    - a. The Administration should review the implications of electric vehicle charging stations on tax and state municipal aid policy. This review should include consultation with the business and investor-owned utility sectors, US Department of Transportation, and other states addressing similar issues.
    - b. Taxation, BPU, DEP, and OREA should review implications of the Sales Tax exemption for Zero Emission Vehicles.

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<sup>1</sup> These specifically include the Multistate Tax Commission (MTC) and Streamlined Sales Tax Governing Body (SST). The state is a member of both organizations. It is not coincidental that both have recently commenced studies similar to this one.

5. OREA should increase its capacity to understand and analyze the economic impact of the digital economy on the State's economy and disseminate information to agencies as appropriate.
6. The Legislature should provide the Office of Legislative Services sufficient new resources to improve its capacity to understand the impact of the digital economy on tax policy.

# How Big Is the Digital Economy?

**10.2%** of U.S. GDP  
or **\$2.1 trillion** in 2020

*Measured in current-dollar value added*



**6.3%** average annual growth  
from 2012 to 2020, value added adjusted for inflation

*Led by growth in infrastructure and e-commerce*

**7.8** million jobs in 2020  
**2.5%** average annual growth, 2012-2020



**\$1.1** trillion  
in total compensation in 2020



[bea.gov/data/special-topics/digital-economy](https://bea.gov/data/special-topics/digital-economy)

### III. Research Process

This section reflects the research and findings that led to the Recommendations. The research effort included the following activities:

- A. Literature search covering a wide range of digital economy and state taxation issues, which initially included locating a useful description of those goods and services that make up the digital economy in the US. The 2021 BEA report sets forth the key components and subcomponents that comprise the digital economy. Those elements are shown in Table 1 at the end of this Report.
- B. Focus Group meetings and interviews of national and New Jersey subject matter experts, consisted of 12 meetings with a total of 50 individuals. The subject areas and expert groups included the following:

NJ State Fiscal Experts	Technology Industries	Digital Startups	Tax Lawyers
Council of State Taxation	Tax-focused economists	Tax Policy Experts	Academicians
NJ Private Sector and Tax Accounting Experts		National State Tax Organizations	

- C. Meetings were held with Division of Taxation experts on the different taxes affected by the digital economy.
- D. Research staff developed an analysis of how the digital economy affects each of the BEA digital components and two separate ones: Interactive Blended (free and pay) platforms, and Digital Advertising and Data.
- E. Research staff developed an assessment of the impact of the digital economy on individual State taxes.

What we learned is the synthesis of all the above, plus the general knowledge about New Jersey government policies.

### IV. Underlying Observations about the Digital Economy

- A. Changes in digital technology are ongoing. That makes the notion of setting policy once and forgetting about it untenable. For example, the change in the cryptocurrency and NFT markets that went upside down in May 2022 shows how quickly it can change. The digital world requires regular policy care, intellectual feeding, and informed decision making considering the risks that are inherent in many sectors.
- B. We found that digital economic transactions generally:
  - 1. Disregard political boundaries and state policies;
  - 2. Have been difficult to quantify which has challenged policy makers at all levels of government and in business;
  - 3. Have represented unanticipated changes in the economy in the past and presents uncertainty for the future;
  - 4. Reflect the portability of sellers/providers and state policies that affect business location decisions;
- C. Within the digital economy, there are elements of tax policy and administration that New Jersey cannot control, which are at the whim of other tax policy actors. For example:

1. The nature of our federal system leaves each state to work out its own tax policies that are consistent with federal law and subject to the economic and political dynamics of each state.
2. The complexity and costs of tax administration faced by the business community when states adopt different and sometimes contradictory policies. Very often, what affects one state has a ripple effect on many and affects business compliance costs.
3. There is underappreciated value to all states of the work of tax policy coordinating organizations such as the Multistate Tax Commission and the Streamlined Sales Tax Governing Board.
4. The federal Internet Tax Freedom Act produces ongoing interpretations and economic distortions driven by the requirement that states generally tax similar physical and digital products the same.
5. There is often a significant time lag for state policies to catch up to the economy. This results in economic distortion, challenging political decisions, and unintended tax preferences through a lack of policy action.

## V. What We Know About the Digital Economy

- A. Digital tech is embedded into and has affected the traditional economy. The [BEA is the nation's primary source](#) of accurate and objective data about the nation's economy. All organizations are dependent on the BEA for economic data statistics. The reality is that "counting the digital economy" is a developing art. The lack of reliable past and current digital economy data creates significant challenges in determining the possible impact of changes in tax policy.
- B. Digital tech is creating a new class of digital goods and services that can be identified, sold, or used, but may only exist as computer code that users can access. This digital "domain" is not compatible with the existing physical domain model of taxing physical (tangible) goods and human focused services. New laws are necessary to capture this economic activity and resolve these challenges.
- C. There is a new class of service provider or seller - the platform. This has created disruption in how goods are marketed and sold, and the use of platforms is generally cost-free to users or serve as a fee based "digital intermediary." Revenues of the platform operators come from (at least) four categories.
  1. Sales of ads displayed to users;
  2. Commissions and/or fees for goods and services sold through the platform;
  3. Paid subscriptions for base or a premium level of service beyond free;
  4. Sale of data collected in exchange for the services provided by the platform, website, or application.
- D. Another new class of digital services that was not anticipated under current Sales and Use Tax, Income Tax and Corporate Tax regimes, is related to the "gig" and "shared" economies managed through digital intermediaries.
  1. Also referred to by these companies as "self-employed" or contract workers, they find their work or customers through online "digital intermediaries." These organizations have a strong, but not statutory employment relationship with their "subscribers" which affects personal income and employment/labor law-driven tax policies.
  2. Examples of gig work and their digital intermediaries in today's economy includes

delivery services (e.g., grocery and restaurant), transportation (ride sharing, Uber, Lyft), household or online tasks (TaskRabbit, Mechanical Turk) and residential accommodation sharing (AirBnb).

3. The questions of employment and labor law surrounding workers is rapidly evolving as different governments look at regulatory interpretations and new laws to address this new class of worker.
- E. The Internet of Things (operations technology) is rapidly developing with digital sensor-type devices that surround us that collect and transmit data that is often sold, resold, merged with other data and repackaged in a new form with additional attributes. These services are evolving from outright purchases to monthly service charges that include transmitting data over wireless and wired networks. This raises questions about their possible status as telecommunications services and those tax implications, which warrant consideration about traditional regulation and tax policies concerning this field.
- F. The challenge of the “data” economy includes how we identify economic or taxable transactions. This is where so-called “free” services are paid for by the attention of the user that provides the service with a wide range of user data, and nexus and sourcing information that is relevant to tax policy. At this time, the value of the data asset is treated as an intangible good by the accounting regulators. While data may have been logically classified as an intangible asset 20 years ago, much of today’s data has value, can be bought and sold, and is used to generate other forms of revenue. The intangible classification needs to change.

## **VI. The Challenges of the Digital Economy**

- A. An overarching goal is to ensure that taxation of economic activity is fairly balanced and relevant parts of the economy are not inappropriately discriminated against. This also warrants that like economic transactions are fairly taxed, treatment of competing businesses (horizontal equity) is fair, Sales Tax exemptions are provided for business inputs, sales taxation is on end-use transactions, all forms of digital income are accounted for in both personal and business tax policy, and there is flexibility to address the technological changes ahead.
- B. The state tax environment has made significant efforts to coordinate policies and set standards that can reduce the friction experienced by businesses. Digital technology and the digital economy have made it easier for businesses in one state to do business in many (even all) states. But the more states work together to have consistent definitions of terms and compliance activities, the easier it is for businesses to comply.
- C. These issues have detailed nuances, variations, and outliers to address. The details will need to be addressed by subject matter experts with expertise in understanding the layers of the “tax onion.” Meeting this challenge includes developing mechanisms to address these realities:
  1. Identification of who and where the seller and users are can be difficult or impossible to determine. A variety of approaches may be needed to understand where a customer is located or assumptions must be made when a source cannot be identified.
  2. Anonymity of buyers and sellers is a core element of many aspects of the digital economy. When combined with new tools of value creation and exchange, this creates a universally daunting, but ultimately resolvable task of establishing tax nexus and identifying the participants to the transaction.



Digital economy taxation is an International challenge - professional tax policy organizations are working on it.

- D. The Digital Economy did not happen suddenly. It started some thirty years ago and will continue to evolve. State policy makers need to develop the capacity to understand, and the flexibility to routinely address, this evolution.

## **VII. Analysis of the Impact on Specific New Jersey Taxes**

### **A. Vehicle Taxation: Implications of Electric Vehicles**

1. Background: An industry driven by digital technology is electric vehicles (EV); an EV can have upwards of 2,000 embedded semiconductor chips. The development of automated vehicles will increase that number. EVs are becoming embedded in the overall economy and have a direct impact on State tax policy. New Jersey incentivizes them in its Energy Master Plan and Clean Energy Program. This amplifies their impact on the digital economy and State policy.
2. Motor Fuel Taxes: Increased EV use leads to reduction of Motor Fuel tax and Petroleum Products tax revenue that is pledged to the Transportation Trust Fund to fund transportation improvements. This is a known issue to energy and fiscal policy makers. It remains an open issue and policy research is warranted to develop an understanding of the risks, potential impact, timing and range of possible solutions that can be considered.
3. Energy Tax Receipts (ETR): New Jersey currently charges the Sales Tax rate on energy (electricity and natural gas) with the proceeds dedicated to the ETR program. The program funds municipal property tax relief. As electricity used to charge EVs increases, ETR proceeds will increase, but revenue to the Transportation Trust Fund will be diminished.
4. Finally, State policy providing a 100% Sales Tax exemption for electric vehicles will increasingly reduce sales tax revenue from this product that has historically been the single largest contributor to the Sales Tax.

### **B. Telecommunications Taxation**

1. Telecommunications tax policy is complicated and does not reflect the current challenges presented by the digital economy. These affect economic decisions distorted by:
  - a. Legacy BPU regulatory policy (e.g., disappearing landlines);
  - b. Advent of VOIP and robust competition from other competitors operating under different tax regimes;
  - c. Impact of changes in the legacy cable television market and the role of legacy telecom company regulation;
  - d. Impact of the digital divide on low income and underserved urban & rural areas;
  - e. Tax policies not resulting in expected revenue;
  - f. Impact of federal government policies that supersede state interest, and often conflict with them.
2. These and related circumstances warrant a separate study of the telecom environment for the digital world. The current mix of government regulation, competition, and a public utility model does not appear consistent with contemporary markets and advancing technologies.



## C. Digital Economy and the Other Taxes

### 1. Gross Income Tax (GIT)

a. Growth of digital or virtual assets (e.g., cryptocurrencies and NFTs) as income and investments pose challenges to policy makers and tax authorities. This includes reporting of assets, calculating value and gains, and understanding nexus and sourcing for digital income. Legal recognition of digital assets and tax treatment of investments is an important step for policymakers.

b. Changes in workplace driven hybrid and remote work affects income nexus and taxes paid by employers and employees. This may affect the income reporting and crediting practices involving New Jersey residents working in NYC or Philadelphia who may find themselves spending more time working in New Jersey.

c. There is a growing need to resolve disputes related to gig workers and how their employment, classification, and benefit status will affect income reporting and tax policies.

d. The growth of the digital economy will likely add to the number of individuals filing tax forms, but might reduce other jobs that shrink due to the digital economy. This will also be supplemented by digital economy startups that begin as partnerships and other pass-through business structures that result in income reported as GIT rather than Corporate Business Tax receipts.

### 2. Corporate Business Tax (CBT)

a. Tied to its impact on the GIT, the evolution of regular or hybrid work at home or in different-from-home-state satellite offices has implications for the CBT.

b. Growth of the digital economy will invariably add to the number of organizations that find it more advantageous to file under the CBT.

### 3. Property (Real Estate) Tax

a. The digital economy has several drivers that affect property taxation (e.g., the development and operation of server farms/data warehouses, aka, the cloud; physical goods warehouses; and staged delivery facilities). The development of these facilities takes place in green fields and redevelopment of existing sites that have lost value (e.g., shopping malls) or have met the end of their useful or economic life.

b. These facilities often have offsetting attributes in different combinations depending on location: new jobs vs. increased traffic; increased property tax revenues vs. degraded environment.

4. Inheritance Tax: The Inheritance tax may not be a critical tax policy issue at this time, but as more and more individuals hold digital assets, tax policies on valuing and accessing digital assets will require policy and administrative attention.

5. Transportation Networking Companies (“ride-sharing”)
  - a. The tax imposed on transportation networks is a surcharge on ride transactions booked through an online application.
  - b. Digital technology drives the TNC business. Ride sharing drivers are considered independent contractors by TNCs. This relieves the companies of meeting state employment regulations and employee tax contributions (e.g., unemployment, family leave, sick leave, etc.). Drivers are obligated to report state income taxes and meet independent contractor tax obligations.
  - c. There is current policy debate about the status of TNC drivers and where they fit into employment law. Resolution of these issues will affect GIT, CBT, and tax administration issues.
6. Transient Housing Rentals
  - a. Sales Tax and the State Occupancy Fee are imposed on all rentals of transient accommodations (aka, short-term rentals) obtained through a transient space marketplace or that is a professionally managed unit.
  - b. It appears that current policies (effective in 2019) are working, although the law creates a disparity in the tax consequences based on the means through which the accommodation is rented. Municipalities should examine the impact of transient accommodations on local housing supply and consider local, or recommend State, policies to mitigate those issues.

## **VIII. NJ Tax Equity/Discrimination Analysis**

The analysis of the impact of the digital economy for individual New Jersey taxes included a tax equity/discrimination element. The following summarizes those assessments.

The pandemic highlighted long-held concerns that lower-income individuals, families in urban areas and all residents in rural areas, have limited access to high-speed (broadband) internet. During the pandemic internet providers and government agencies stepped up to address the challenges, particularly for K-12 students. But post-pandemic there is still a reality that suitable access is a challenge in many parts of the State. In a digital economy, robust internet access is critical for education, jobs and even basic survival as more and more businesses and government agencies digitalize their services.

Lack of access to broadband can put workers at a disadvantage when working for companies that offer remote positions, either due to the type of work or cost of appropriate digital resources. This has a direct effect on household income.

Very often digital asset owners are younger people at all income levels who are not sophisticated investors. The rapid changes in value of cryptocurrencies and other digital assets may have an impact based on how much personal wealth is invested.

EVs represent dramatic improvements over traditional internal combustion engines in urban environments. The advantages of EV use extend to all income groups and locations, because EVs result in a decrease of internal combustion engine exhaust. However, the impact in urban areas is magnified due to existing pollution issues. Current policies, however, have not been able to provide specific EV purchasing incentives to low- and moderate-income households that rely on cars for transportation. Likewise, the advent of battery-powered transit vehicles will serve to improve the urban environment.

Digital economy issues such as solar power supply, EVs and distributed energy, all touch on energy affordability and access by low- and moderate-income residents. New Jersey's Clean Energy Program has existing options to address this segment. Policy makers need to continue their attention to these issues as they evolve.

Data and physical goods warehouses continue their unprecedented rate of development in all parts of the State. The positive and negative aspects are the same wherever they are: jobs, economic development, and local government tax revenue are impacted, with bumps up against vehicle air pollution, potential traffic congestion, drainage issues, and energy use.

The advent of the TNC algorithms used to price prearranged and shared rides has resulted in unanticipated consequences in low-income communities. In addition to increasing prices during "surge demand" periods, [a study of rides to and from low-income communities found users being up-charged.](#) The advent of the State's rules for TNCs resolved an initial problem in the Newark-Liberty Airport area of unfair competition between TNC operators and drivers, and legacy, regulated tax operators and their drivers.

Finally, the practice of Transient Rental platforms renting apartment or condominium units for short-term/transient rentals has been shown in some [places to adversely affect the permanent housing market](#), with a particular impact at the affordable end of the housing spectrum. This has been acknowledged by AirBnB. They have a [program that provides some financial support for construction](#) of affordable units in various markets, but it is limited.

**TABLE 1 – Description of BEA National Account Digital Economy Components and Subcomponents\***

	Subcomponent	Subcomponent Description	Status of Inclusion in BEA Estimates	Examples of the Economic Activity
Table A. Infrastructure Component	A-1 Hardware	The manufactured physical elements that constitute a computer system including, but not limited to, monitors, hard drives, and semiconductors. Includes communications products and audio and visual products.	Included almost comprehensively	<ul style="list-style-type: none"> <li>• Computers and peripherals of all kinds</li> <li>• Crypto currency mining equipment</li> <li>• Servers related support of XaaS/Services</li> <li>• Video streaming servers</li> <li>• Internet and private network based communications equipment</li> <li>• Data storage</li> </ul>
	A-2 Software	The programs and other operating information used by devices such as personal computers and commercial servers, including both commercial software and software developed in-house by firms for their own use.	Included almost comprehensively	<p>Various categories of software, such as:</p> <ul style="list-style-type: none"> <li>• Programs and other operating information used by devices such as personal computers and commercial servers (e.g., commercial software, software developed in-house.</li> <li>• Operating systems (e.g., Microsoft Windows, Linux macOS), productivity software (e.g., Microsoft Office Suite), and internet browsers (e.g., Safari, Edge, Chrome, Firefox).</li> </ul>
	A-3 Structures	The construction of buildings where digital economy producers create digital economy goods or supply digital economy services. The structures category also includes buildings that provide support services to digital products; the construction of data centers, semiconductor fabrication plants, installation of fiber optic cables, switches, repeaters, etc.	Not yet included; part of ongoing work	<ul style="list-style-type: none"> <li>• Fiber optic cables</li> <li>• Data processing/storage and physical goods warehouses (buildings)</li> <li>• Onsite/Distributed power supply systems</li> </ul>
Table B. E-Commerce	B-1 Business-to-business (B2B) e-commerce	Purchasing of goods and services between businesses using the internet or other electronic means. Manufacturers, wholesalers, and other industries engage in both interfirm and intrafirm e-commerce to produce goods and services for final consumption.	Goods included almost comprehensively; inclusion of services is part of ongoing work	<ul style="list-style-type: none"> <li>• XaaS (storage, servers/processing, security, streaming)</li> <li>• IoT devices for tracking and reporting</li> <li>• Security services</li> <li>• Drone and Satellite imagery services</li> </ul>
	B-2 Business-to-consumer (B2C) e-commerce	The sale of goods and services by businesses to consumers, or retail e-commerce, using the internet or other electronic means.	Goods included almost comprehensively; inclusion of services is part of ongoing work	<ul style="list-style-type: none"> <li>• XaaS, •Retail and wholesale sale of goods</li> <li>• Travel services (direct and indirect)</li> <li>• Telehealth/IoT tracking</li> <li>• Scooter rentals •Autonomous vehicle rental/TNC</li> <li>• Surcharge on prearranged ride made through a transportation network company</li> </ul>
Table C. Priced Digital Services	C-1 Cloud services	Computing services based on a set of computing resources that can be accessed on-demand with low management effort, including remote and distributed hosting, storage, computing, and security services.	Included almost comprehensively	<ul style="list-style-type: none"> <li>• XaaS/Services: data, AI, video streaming, device monitoring, geographic information management,</li> <li>• FinTech and cryptocurrency data management</li> <li>• Blockchain services</li> <li>• Security services</li> </ul>
	C-2 Telecommunications services	Services related to telephony, cable and satellite television, and radio broadcasting. Internet is excluded.	Included almost comprehensively	<ul style="list-style-type: none"> <li>• Non-internet, Cable TV, satellite TV,</li> <li>• Sideband digital transmissions</li> </ul>
	C-3 Internet and data services	Services related to providing internet access and to hosting, searching, retrieving, and streaming content and information on the web.	Partially included; part of ongoing work.	<ul style="list-style-type: none"> <li>• Internet access</li> <li>• Video streaming</li> <li>• Information Services</li> <li>• Augmented reality/Metaverse</li> <li>• Video "over-the-top" Streaming</li> <li>• Digital advertising/marketing</li> <li>• Website hosting</li> </ul>
	C-4 Digital intermediary services	The service of providing information on and successfully matching two independent parties to a transaction via a digital platform in return for an explicit fee. The output of these platforms typically consists of the fees paid by the producer and/or the consumer of the product being intermediated.	Not separately identified; part of ongoing work	<ul style="list-style-type: none"> <li>• Sharing economy (housing and transportation networks (i.e., Airbnb/VDRO, Uber/Lyft)</li> <li>• eBay and similar auction/sale/trading services</li> <li>• Dating sites</li> <li>• Travel aggregation sites?</li> <li>• Labor-Food delivery services, Mechanical Turk, Task Rabbit</li> <li>• Freight transportation as service</li> </ul>

**TABLE 1 – Description of BEA National Account Digital Economy Components and Subcomponents\***

	Subcomponent	Subcomponent Description	Status of Inclusion in BEA Estimates	Examples of the Economic Activity
	C -5 All other priced digital services	All other purchased digital services (excluding cloud services, telecommunications services, internet and data services, and digital intermediation services).	Included, but work is ongoing to expand coverage	<ul style="list-style-type: none"> <li>• Computer Systems Design Services</li> <li>• Computer Facilities Management Services</li> <li>• Computer training schools</li> <li>• Other technical &amp; trade schools</li> <li>• Intellectual property of computer training schools</li> <li>• Consumer electronics, computer, office machine, communications equipment repair and maintenance</li> </ul>
<b>*The following elements were created by the study to highlight several elements the BEA does not fully recognize in its analysis at this time.</b>				
NJ Study Only - Non-BEA	D-1 Interactive Platforms - Unpriced and blended priced	Services that combine elements of cloud, internet/data; fee-based or free or blended; engagement with other users; sale of digital goods and services; advertising	Paid services are included free are not.	<ul style="list-style-type: none"> <li>• Service platforms: Facebook, Instagram, YouTube, Reddit</li> <li>• Gaming</li> <li>• Augmented/Virtual reality/metaverse</li> <li>• Twitch, Fortnite, Roblox</li> <li>• Search mapping sites</li> </ul>
	D-2 - Digital advertising and sale of personal information (internet-based)	<ul style="list-style-type: none"> <li>• Digital advertising includes marketing through online channels, such as websites, email, interactive platforms, etc.</li> <li>• Personal Data includes information relating to an identified or identifiable natural person</li> <li>• Data is used to help advertisers decide where to place advertising.</li> </ul> Digital technologies include tools that analyze data originating from users who search for a product, visit websites, click on links in email, visit physical locations, use mobile applications	Included in non-digital components of the national accounts; not broken out into digital at this time.	<ul style="list-style-type: none"> <li>• Digital advertising includes banner advertising, pop-ups, search engine advertising, interstitial advertising, direct email, and other related advertising service.</li> <li>• Personal data is information, which may be an identifier, such as a name, user ID, an identification number, location data, or other online identifier, or to one or more factors specific to and an individual's physical, physiological, genetic, mental, economic, and cultural or social identity (EU GDPR)</li> <li>• Digital advertising affects offline experiences: supermarkets use digital technologies to present variable advertising based on a person's proximity to products and may be prompted by an individual cell phone or membership in a store program.</li> <li>• Other technologies and industries are evolving to similarly collect data and place focused advertising to consumers based on proximity and use history.</li> </ul>