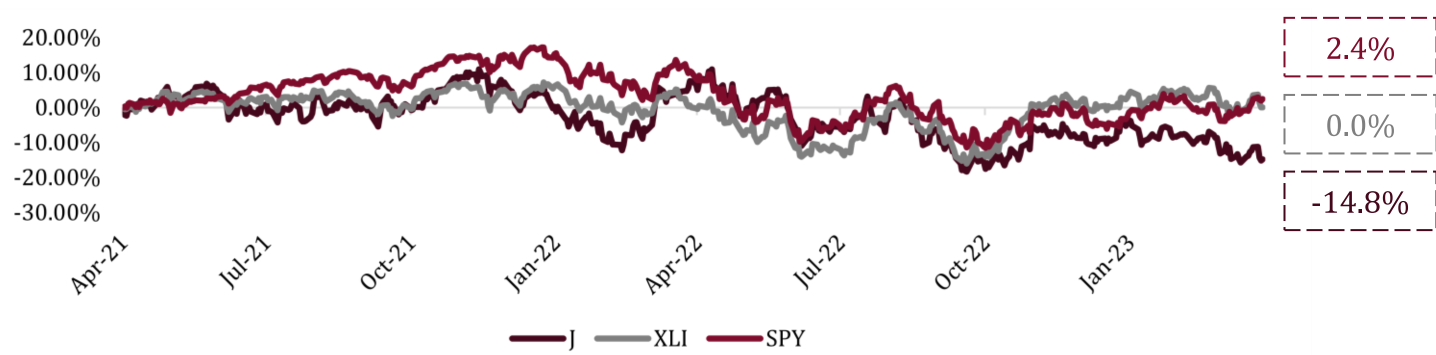
Jacobs Solutions Inc
NYSE: J
Recommendation: BUY

Company Data	
Price	$114.35
Market Cap	$14.9Bn
EV/EBITDA	11.26x
Gross Margin	21.45%
Price Target	$158.14
Upside	38.4%

Investment Thesis
We recommend a **BUY** on Jacobs Solutions (J). We have calculated a 38.4% upside using a discounted cash flow valuation with conservative growth estimates. Jacobs will be a strong value addition to MEF's Industrial's portfolio due to unique positioning within high growth industries fueled by industry shifts and government funding. The companies M&A strategy builds upon their product offerings while deepening customer relationships and increasing their margins. Risks that Jacobs is facing are FX rates weaking their international revenue due to a strong dollar, and threat of US budget cuts. Jacobs is fit to benefit from industry transitions fueled by government funding from the CHIPs Act, IIJA, and IRA and is underappreciated by the market due to short term margin headwinds affecting their ability to hit key growth goals.

Two-Year Performance



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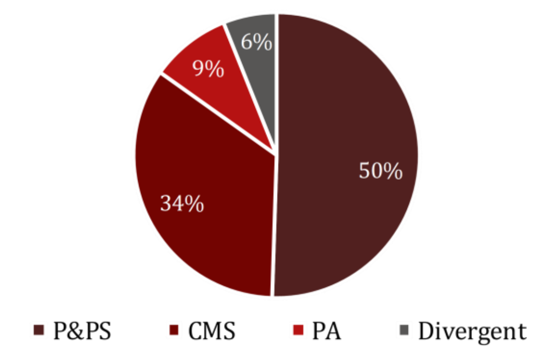
Business Overview
Jacobs Solutions Inc (NYSE: J) is a Texas based end-to-end consultancy and project management firm which operates globally. They serve governments, private companies, and public companies by offering data backed advice from specialized professionals to bring projects to life. The company's revenue is made up of four segments: People & Places Solutions (P&PS), Critical Mission Solutions (CMS), PA Consulting, & Divergent Solutions which make up 50%, 34%, 9%, 6% of revenue, respectively. The US accounts for 66% of revenue while Europe generates 23% of sales with other foreign nations accounting for the remainder. In addition, Jacob's generates 31% of its revenue from the US Government.

Jacobs Solutions' People & Places Solutions (P&PS) segment is focused on providing engineering and technical solutions to improve the quality of life in communities. Their expertise is in Infrastructure, Cities & Places, Energy & Environmental, Health & Life Sciences, and Advanced Manufacturing where they provide consulting, planning, design, and delivery services to a variety of customers from national, state, and local governments in the U.S., Europe, the U.K., Middle East, and APAC to private sector clients worldwide. These projects leverage data science and technology to offer solutions within climate change, energy transitions, smart cities, and biopharmaceutical manufacturing challenges. Some examples of projects are solutions to electrify the NYC bus fleet, predictive analytics to avoid extensive damages and human casualties due to climate disasters for the UK Environmental Agency, and supporting the buildout of offshore wind turbines in the Northeast.

Fig. 1: Revenue by Segment



Jacobs Solution's CMS division is a trusted provider of mission-critical solutions to government and commercial clients. With 71% of CMS's revenue tied to US federal agencies like the Department of Defense, Intelligence Community, and Department of Energy, CMS has a long-standing history of successful partnerships with its customers. Contracts typically range from 3-10 years and about 95% of CMS revenue is recurring. This segment is focused on delivering projects that are essential to national security, public safety, and critical infrastructure. This includes cybersecurity, intelligence and surveillance, defense and aerospace, digital engineering, testing and evaluation, IT operations and delivery, and other services to customers across aerospace, automotive, space, telecom, intel, defense, and energy. One large critical infrastructure project among commercial customers is the 4G to 5G transition. Infrastructure manufacturers rely on Jacobs to find ways to improve capabilities, reduce maintenance costs and optimize their facilities with network connected facilities and equipment.

Jacobs Divergent Solutions segment strengthens the firm's ability to drive value to clients of both LOBs by leveraging data, systems, and software application integrations across current operations. The segment began operations in Q1 2023 and is expected to offer services and solutions within global strategic alliances, innovation collaboration, next-generation technologies, SaaS, data-as-a-service, and data and secure solutions to both government agencies and commercial clients in US and internationally.

The PA Consulting segment is a leading EU-based strategic consulting firm that provides expert advice and services to clients across various industries, including healthcare, financial services, energy, and technology. With a 65% majority stake in the firm, Jacobs Solutions is committed to helping clients accelerate growth and achieve commercial success in areas such as digital transformation, innovation, and sustainability. The segment serves a diverse mix of clients, from global names to start-ups, and revenue is split 49% to 51% for public & private clients, respectively. Recently, the firm supported the launch of a new EV Infrastructure Fund in the UK, which aims to drive the rollout of EV charging infrastructure. They also designed a growth strategy for Green Boom, a US-based start-up to help prevent, reduce, and clean up oil spills.

End Market Overview

Jacobs touches a wide variety of end markets, so we have decided to split up our overview into four broad categories which are advanced facilities, infrastructure, energy & environment, and national security. We look to highlight major factors in key areas of the business without getting too granular for the sake of word count.

Advanced facilities are used for data centers, semiconductors, and life sciences due to the need for increased control of HVAC systems, efficiency, cleanliness, and other specifications that may be unique and require advanced design and construction.

Data centers are expected to reach 35 gigawatts (GW) by 2023 which is up from 17GW in 2022 in the US, while the demand is forecasted to grow around 10% a year until 2030. Not only demand, but construction for data centers is expected to be $49 billion by 2030 which represents a 5.4% CAGR. However, there are some headwinds facing data center construction. Meta recently paused construction of a data center while other hyperscalers, like Twitter, are looking to cut costs. Another headwind is that people do not want data centers in their area. An Amazon data center in Virginia is struggling to get approved due to resident concerns and the application was paused as of Jan 5, 2023.

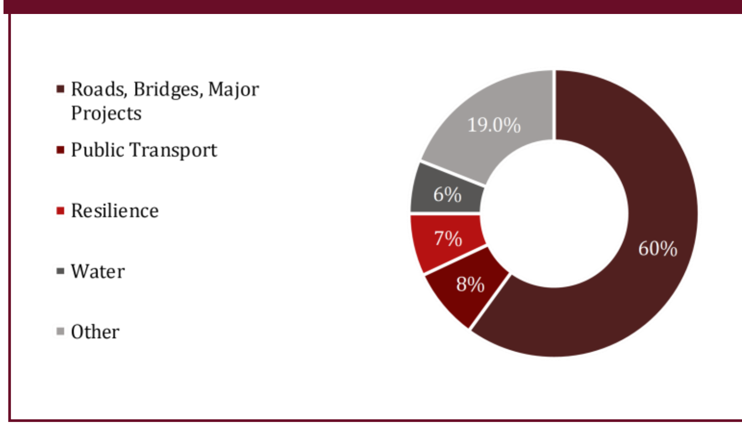
Semiconductor manufacturing is primarily conducted in East Asia, with 75% of manufacturing coming from that region and only 12% from the US. In August 2022, the Biden Administration sought to change the tide by signing the CHIPS act which is meant to restore the US as a leader in semiconductor manufacturing. The bill was worth a total of about $50 billion with $39 billion to go to manufacturing initiatives. The bill has played a role in many major players announcing projects in the United States. Micron announced a chip fabrication plant in New York that will be as big as 40 football fields and will cost $100 billion over the next 20 years and will be the largest ever US semiconductor factory. The CEO of Micron went on to thank Joe Biden for the passing of the act. TSMC has also committed $12 billion to build a semiconductor fabrication facility in Arizona with expected production in 2024.

Fig. 2: CHIPs Act

Program	Funding (bn)
Manufacturing Incentives	$39.0
Research & Development	$11.0
Other	$2.7
Total	$52.7

Infrastructure is a fast-growing industry with a global market CAGR of around 11%. In the US, the infrastructure market is being heavily incentivized by government funding. In November 2021, Biden signed the Infrastructure Investment and Jobs Act (IIJA) which is the largest long term investment into infrastructure in US history. The bill included $550 billion of new spending over the next five years with $111 billion for roads, bridges and major projects, $79 billion for power and grid, $66 billion for passenger and freight rail. The remaining went to other areas such as broadband, water, ports, electric vehicles, and airports. So far $185 billion in IIJA funding is at the state level and is connected to more than 10 thousand projects of which many are still in the planning phase.

Fig. 3: IIJA (Already Awarded)



5G began its rollout in 2018 and has since been established in parts of 1,700 cities. The benefit of 5G is that it can transmit data up to 50x more than previous networks. Accenture estimated that 5G would add up to $1.5 trillion to US GDP between 2021 and 2025. Globally, 5G connections hit 1 billion in 2022 and is expected to reach 2 billion by end of 2025 which is driven by a rollout in more than 30 countries. Many of these launches are in developing countries such as Brazil, India, Ethiopia and others.

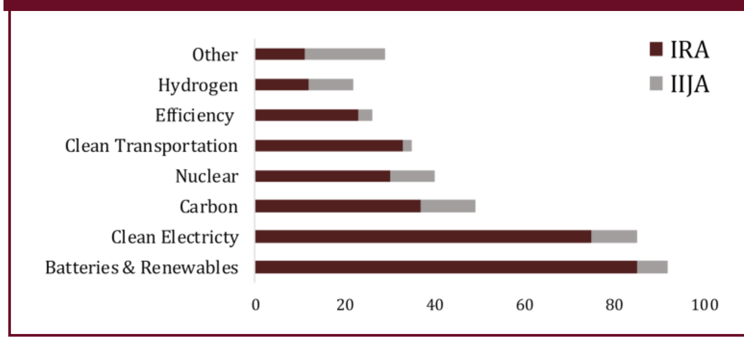
Transportation and water are two other parts of the IIJA bill that are crucial. Most water mains and pipes are more than 50 years old and bridges are structurally deficient as this infrastructure nears its useful life. More than 45,000 bridges in the US and 1 in 5 miles of roads are in poor condition. Public investment in U.S. infrastructure as a share of GDP declined by more than 40% since the 1960s and the IIJA is an attempt to reverse that trend and ensure that the United States improves the state of its infrastructure.

Energy & Environment

The third piece of legislation since late 2021 was the IRA passed on August 16, 2022. The bill provided $500 billion in new spending and tax breaks. The goal has overlapping priorities with the IIJA and CHIPS Act but with a focus on infrastructure related to clean energy, transportation, and the environment. The largest parts of the bill were $251 billion to energy, $48 billion to manufacturing, and $46 billion for the environment. The other portions include transportation, electric vehicles, agriculture, and water. Most of this funding comes through tax credits and will amplify the impact of the IIJA. With these boosts, the world will be adding as much renewable power in the next five years as it did in the past 20 years. The bill boosted the expected increase to an addition of 2,400 gigawatts from 2022-2027 which is 30% higher than the amount projected a year ago.

One area of interest in the IRA is about $30 billion for nuclear energy. Nuclear currently provides around 10% of the world's electricity. In addition, nuclear is the second largest source of low carbon electricity, behind hydro, and accounted for 30% of low carbon electricity in 2019. Despite its importance to the grid, US reactors continue to close due to technical safety issues, adverse economics, and shift in energy policy. Critics worry about radioactive waste storage and human health. Twelve nuclear reactors have closed since 2013, and there are 92 still in operations in the US. However, on March 2, 2023, Biden offered $1.2 billion in aid to extend the life of distressed nuclear power plants. Another trend in nuclear is the development of advanced small module reactors which offers small physical footprints, reduced capital investments, and generally safer power generation that traditional nuclear.

Fig. 4: IRA



National Security

Heightened geopolitical tensions over the past 14-plus months has caused a shift in national security priorities with a focus on preventing cyber-attacks and the overall need for militaries to modernize their capabilities. The increased implementation of advanced machine learning and artificial intelligence (AI) is expected to drive significant growth while shaping the future of cybersecurity. While the global cybersecurity market was valued at $155.83 billion in 2022 and is expected to grow to $376.32 billion by 2029, a 13.4% CAGR. This considerable growth is being driven by increasing investment from governments and private companies to bolster their cybersecurity measures to protect their data and networks. At least

45 states and Puerto Rico introduced or considered more than 250 bills that deal significantly with cybersecurity in 2021, and cyber threat volumes have more than doubled since.

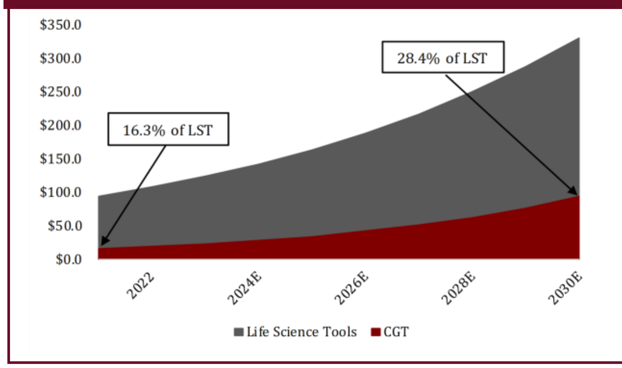
The trend of nations recognizing the need to modernize their military capabilities was sparked initially by Russia's invasion of Ukraine and has been at the forefront of security discussions since. Many European countries such as the United Kingdom, France, and Germany are boosting their defense spending in response to threats from Russia and other factors. The European Union additionally created a European Defense Fund which pledges €7.9 billion in support of developing defense capabilities in member states. Japan increased their defense budget for the ninth consecutive year, focusing on cybersecurity among other initiatives. The United States received a $858 billion military budget in 2023 that they are deploying across all five major domains–ground, air, water, space, and cyber–to remain the most advanced national security organization in the world. In the face of real conflict and increased threat to national security, nations are advancing the technological capabilities of their militaries and investing into the future of security with cyber.

Thesis 1: Favorable Position Amidst Industry Tailwinds

Jacobs Solutions benefits from the hybrid nature of their consulting firm that deals with both engineering and technology focused end markets. The diversity of their offerings enable them to capitalize on change occurring everywhere, whereas their competitors in each vertical are limited in where they can win deals and provide value. This is a major advantage considering the wide breadth of addressable markets that the Infrastructure Investment and Jobs Act reaches and the 90%+ alignment Jacobs has with the act. While Jacobs has already helped clients secure over $1 billion in competitive grants with this bill still in its early stages, they announced in their most recent earnings call that they have another four years of U.S. Infrastructure spending locked in. Thus far only $185 billion of the eventual $1.2 trillion has been allocated. Of these funds, 97% of the projects have been for roads, bridges, and airports. Moving forward, the expectation is that areas like digital infrastructure and clean water will gain traction – both being end markets that Jacobs have key competitive strengths in. Considering only 15% or about 1/7th of total funds having been dispersed at this point, Jacobs has an opportunity to almost 7x the $1 billion they have played a role in allocating. Additionally, with the Green Economy transition focused Inflation Reduction Act (IRA) expected to begin allocating awards from its $369 billion pool of funds this quarter, we believe that their rate of government funding secured could easily top the $7 billion mark they are currently heading towards in years to come.

Jacobs sets themselves apart from engineering consulting peers in how they are driving the transition to a greener world through the extensive data solutions that they offer in critical and fast-changing markets of water and transportation among many others. The importance of data-driven insights to make smarter decisions as a business must not be understated, especially in the increasingly interconnected world we live in today. According to a survey of more than 1,000 senior executives conducted by PwC, highly data-driven organizations are 3x more likely to report significant improvements in decision-making compared to those who rely less on data. Jacobs has fully embraced the digital transformation that will impact every aspect of infrastructure around the world, and in doing so they are well-positioned to enjoy the considerable revenue upside potential in this new era of data driven solutions with government funding acting as a catalyst. In water, their Digital OneWater suite of integrated data solutions spans across the entire water cycle and will allow previously overwhelming amounts of data to turn into relevant, actionable information. Using their intelligent operation management solutions, customers have experienced plantwide power savings between 10% and 20% on average, reducing waste and saving money for the plant, not to mention the incredible efficiencies that workers have benefitted from thanks to the more digestible insights. In transportation, they provide several data driven solutions that will revolutionize the way people move while being at the leading edge of environmental and social resilience. One of these offerings is through StreetLight, a data analytics platform designed for smart cities and the transportation industry. In addition to being a high-growth and highly recurring revenue software business, the platform's on-demand software provides industry-targeted analytical tools to support critical infrastructure planning, investment, and policy decisions. Given applicability of the IRA to their client base and success they have seen in the early days of the IIJA, Jacobs is in a strong position to leverage their data solutions differentiator towards driving better customer decision-making and further cementing their dominance over the market.

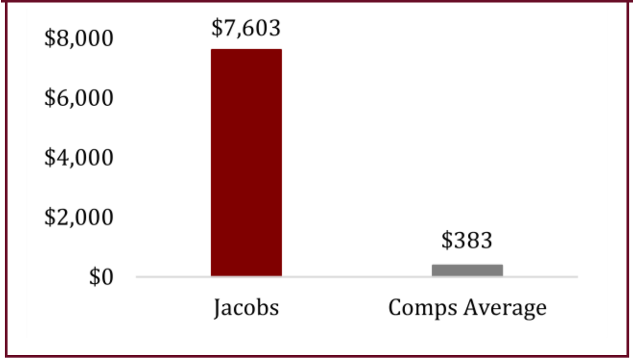
Fig. 5: Life Science Tools and CGT Growth



Due to the diversified nature of their offerings, Jacobs will benefit from growing industries where their competitors within technology and engineering consulting have substantially less presence, or none. Their work within life sciences, especially pertaining to cell and gene therapy, (CGT) differentiates them from competitors, none of whom have any stake in the lucrative and growing CGT market. Jacobs has key partnerships with contract development and manufacturing organizations (CDMOs) that are driving the seismic shift in life sciences, an industry set to grow at a 14.9% CAGR by 2030. While currently in the middle of a generational expansion of therapeutics, vaccines, and advanced healthcare, Jacobs leverages their deep relationships with the world's leading life sciences firms to advance transformative treatments and therapies, further separating themselves from their competitors. With COVID came an exponential increase in clinical trials in search of new therapies to treat diseases, leading to more attention being given to cell and gene therapy. Cell and gene therapies provide substantial advancements in patient care by treating or perhaps curing a variety of illnesses that have previously been untreatable by small molecule and biologic medicines. The global CGT market is projected to hit $93.8 billion in 2030, up from $18.6 billion in 2022, representing a CAGR of 22.4%. Jacobs has already provided solutions for over 30 clients in the CGT market on projects involving full-scale launch and production facilities and is set to continue winning contracts in the space. Considering life science clients make up ~2/3 of their P&PS segment business – about $5.72 billion in revenue – Jacobs is primed to capture top-line growth where their competitors lack presence. Assuming we combine and conservatively adjust the CGT and broader Life Science Tools projected 2030 CAGR to 13.7% – 500 bps lower than their average CAGR of 18.7% – revenue pertaining to the life sciences portion of their business will bounce to ~$14.1 billion by 2030, a multi-billion-dollar opportunity that competitors simply cannot tap into.

Yet, their dominance over these comparables is not just because of their diversified offerings, it also stems from their control over shared end markets, ability to win large contracts, and excellent work that allows them to consistently capture rebid opportunities. Top consulting and engineering source, Engineering-News Record (ENR) – broadly considered to be the "bible of the industry" – consistently ranks Jacobs at the top of their lists in numerous different categories. In the digital age we are in, the need for sustainable and reliable places to store data is growing increasingly important – Jacobs understands this. To put this into perspective, Jacobs ranked first on a list of the top 55 data center sector engineering firms with revenue of $211 million while comparable engineering consultant AECOM was featured in ninth place. ACM's revenue was ~7.5x less than Jacobs' on the year at $28 million. Despite significant investments competitors make in the space, Jacobs remains at the cutting edge of critical data management solutions. Furthermore, their consistency in securing large deals with common industry customers has allowed them to stand out relative to peers. Jacobs, AECOM, and other comparable KBR all work with NASA to help develop numerous projects. Despite the narrower focus of AECOM (engineering) and KBR (majority tech) relative to Jacobs, Jacobs saw $916 million in contract awards in 2019 which was more than ACM and KBR combined at $613 million and $164 million, respectively. In fact, only aerospace giants Boeing and Lockheed Martin saw more contract revenue than Jacobs, a testament to the high-profile reputation their business holds. However, recent awards paint a clearer picture of Jacobs' superiority over competitors. AECOM has only received a $300 million 5-year deal from NASA in the past three years while Jacobs was awarded a $3.9 billion contract last July and won a $3.2 billion 20-year rebid contract this February. The contract covers vehicle assembly and integration, launch, and recovery operations for NASA's Artemis missions through 2033. Artemis is the space agency's program to establish a human presence on the Moon for the first time since Apollo 17 landed there in 1972. The incredibly interesting work they will be doing with NASA should not overshadow the fact that this rebid is just one instance of Jacobs' incredible ability to win repeat contracts as evidenced by the 94% rebid success rate in their CMS segment. Given their diverse offerings and expertise, we see no reason that Jacobs will not continue to win rebids.

Fig. 6: NASA Contracts vs Comps ($M)

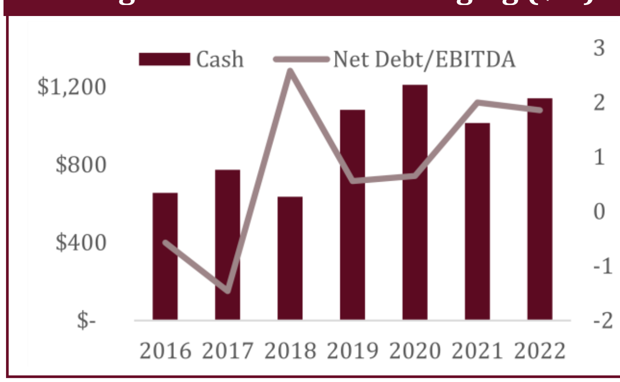


The macro tailwinds of government funding as well as critical infrastructure modernization and environmental consciousness play into the diversity of Jacobs offerings, enabling the company to draw on their deep relationships and industry dominance to drive the change necessary to bridge the gap between global sustainability goals and reality. Their hand in this process poses considerable revenue upside possibilities which many of their competitors will not be able to take advantage of.

Thesis 2: Strong Cash Position to Deploy on M&A in Strategic Areas

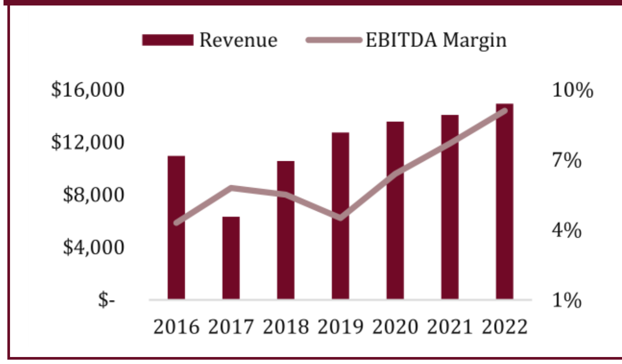
Jacobs has been using M&A as an engine for growth, with over 80 successful acquisitions since 1994. This success has allowed them to create long-standing client relations with customers like NASA, Departments of Transportation and Energy, and Department of Defenses. Historically, the company has relied on cash buyouts or cash-debt mixes for their acquisitions and investments. Jacobs has seen an increase in its Free-Cash-Flow to Sales ratio from 6.3% to 7.7% over the past 3 years as well as a 36-bps decrease in Net Debt to EBITDA to 2.23 since 2021 which is expected to hit 1.24 in 2023. Jacobs currently has $1.2 billion in cash and cash equivalents, which is up 20% from $1.0 billion in 2021. Recent acquisitions have provided a platform for further organic growth, while Jacobs is also positioned to pursue M&A in their four strongest and highest growth end markets: Critical Infrastructure, Energy and Environment, Advanced Facilities, and National Security.

Fig. 7: Cash and Deleveraging ($M)



As the US prepares for one of the largest infrastructure investments in history, Jacobs is poised to provide crucial value for understanding mobility, infrastructure impact, and social value of investments with their most recent acquisition of mobility analytics business StreetLight Data in 2022. StreetLight is projected to achieve over a 30% CAGR in revenue through 2025 with increased access to customers following the acquisition. Jacobs's data and technology solutions, including geospatial technology and edge computing capability from recently acquired BlackLynx, allow the company to continue to penetrate the market as it opens growth opportunities and enhances the potential for high-margin recurring revenue. Jacobs has a proven track record of targeting acquisitions in high-growth end markets to bring increased value to their customers and in turn generate more revenue at a higher margin. Jacob's acquisition of StreetLight Data and subsequent partnership with Siemens and New York State is a prime example of how the company has leveraged its technology to shift its target base from private clients like the EPA to public sector clients and expand into their growth end markets such as renewables. Their capital deployment is aligned with their growth strategy, as evidenced by their 2016 net adj revenue being $8.5B and after investing ~$7.6B into acquisitions over 5 years, their 2022 revenue grew to $14.9B, and operating margin expanded from 4.0% to 6.0%.

Fig. 8: Revenue ($M) & EBITDA Margin



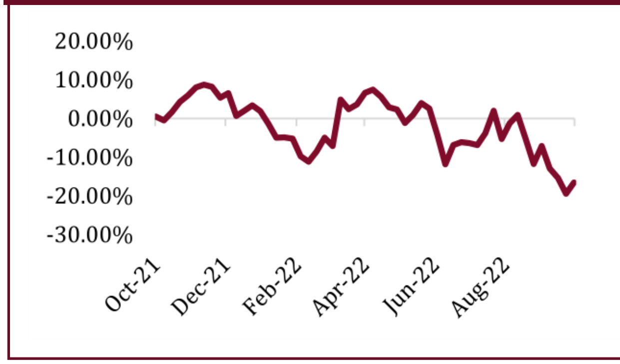
Jacobs Solutions has been leveraging data-centric business models to provide recurring revenue streams through its new Divergent Solutions segment. Their acquisition strategy has emphasized their abilities within climate response, data solutions & consulting, and advisory which have proven successful in winning immediate cyber contracts. Divergent enables Jacobs to scale and deploy domain-centric data platforms across multiple sectors and geographies which typically demand higher margins; management expects this segment to return to double-digit margins by the end of FY23 and fuel improvements in future Adj EBITDA expectations.

Jacobs is expected to generate around $1.5 billion of data and consulting revenue by FY25 from its PA Consulting business segment. The acquisition of this consulting firm complements Jacobs's capabilities and has further strengthened PA's ability to deliver innovative solutions for its clients, and its strong results have made it one of the fastest-growing major consultancies in 2021. The two companies have already posted 18 joint wins since the beginning of their partnership and are seeing significant collaborative opportunities in multiple markets, including health and life sciences, energy and utilities, and consumer products. PA Consulting is expected to see revenue growth of 12% to 15% CAGR through 2024, thanks to the complementarity of its capabilities with those of Jacobs. With 18% margins, expected to grow 200bps by the end of 2023, PA's profitability is well above Jacobs Solutions, and the company's recruitment of 50 new partners into the firm, including 16 in the U.S., is indicative of its continued emphasis on growth.

Jacobs is in a sound financial position to continue to pursue inorganic growth and further diversify itself across the value chain with $1.2 billion in cash and equivalents and well-spread out debt maturities. The company is poised to provide crucial value for understanding mobility, infrastructure impact, and social value investments due to its acquired data collection technologies across its end markets. Their Divergent Solutions segment and PA Consulting both benefit from these data-as-a-service value additions which will drive their upcoming revenue growth adding higher-margin sales to their EBITDA. Acquisitions, such as StreetLight Data and BlackLynx, have allowed the company to expand into the mobility analytics market and enhance its technology solutions to penetrate its target growth end markets and continue to fuel its FCF-Sales growth demonstrating efficient revenue expenditures. Jacobs has a proven track record of leveraging their acquisitions to bring increased value to their customers and generate more revenue at a higher margin. With their continued emphasis on inorganic growth, decreasing leverage, and strong cash position, they're primed to continue their successful M&A-fueled growth strategy.

Thesis 3: Margin Misses Causing Undervaluation

Fig. 9: FY 2022 Stock Price Change

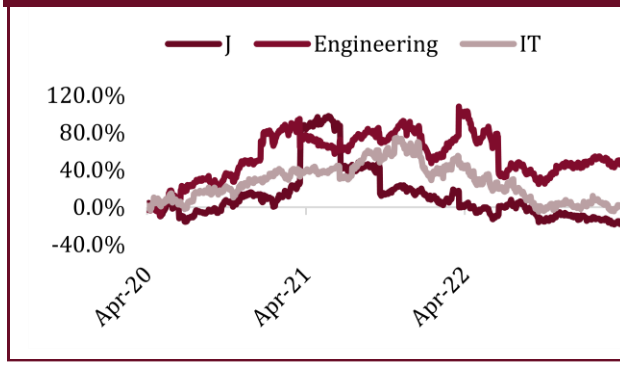


Jacobs has experienced a 16% decrease in its enterprise value between 2021 and 2022, primarily driven by a 20% drop in market capitalization. During the same period, the company's stock price declined nearly 20%, particularly around its reporting periods for all four quarters in 2022, with declines of -6.5%, -6.9%, -4.9%, and -1.1%, respectively. The major driver behind these declines has been investor pessimism surrounding the firm's ability to improve its margins, which has been a topic of concern for the past year and a half. Following Q1 reports, their PA consulting margins took a significant drop, while P&PS and CMS were up since Q4 '21. Into Q2, Divergent Solutions and CMS took a collective 580 bps hit to operating margins and P&PS took a 100-bps hit resulting in investor skepticism and leading to a 6.9% drop in the share price. In Q3, the company's share price fell almost 5% after the PA consulting margins fell out of their 2023 expected range of 20-23% to 18.5% and their CMS and Divergent Solutions businesses faced a collective 190 bps loss. On the EPS side, Jacob's is the only player amongst its peers that had declining growth in 2022 and is projected to in 2023 as well. Clearly, Jacobs is facing headwinds on their margins and investors are heavily focused on their ability to perform.

The reasons for margins shrinking over the past fiscal year were due to significant one-off items, including early-stage investments into Divergent Solutions as it is a new operating segment, major losses due to FX as PA is a UK-based company, and workforce expansion throughout the year. The over hiring for PA, as mentioned in the Q1 2023 earnings call, resulted in short-term low utilization. Based on the positive tailwinds behind PA and the rest of Jacobs, we believe the company made preemptive hires to better position themselves to capitalize on the increasing demand seen in their backlog for 2023. In a consulting firm, people are the main resource and PA is ahead of the curve in a tough labor market. We believe this will benefit PA in the long term as they will be able to meet the needs of their customers and win new business without restraints on human capital. In addition, PA is a UK-based company and has been significantly challenged by FX conversions. Revenue was up 11% in British Pounds, but down 3% in Dollars for PA Consulting in Q1 FY23. The Pound hit record lows of 1.08 GBP/USD in September 2022, after the government announced tax cuts. The current conversion rate is around 1.24 GBP/USD, which reflects a stronger Pound and weaker Dollar. Over the past 5 years, the average GBP/USD rate is 1.29. Fed policy has a drastic impact on the value of the dollar. After slower wage growth reported a few weeks ago suggested that inflationary pressures may be easing, along with the SVB crisis, the Fed may look to slow their rate hikes faster than expected. The consensus is that the Fed will hike rates once more to a 5-5.25% target range but won't begin cutting rates until 2024. Although we cannot predict Fed activity, in the long term of 3-5 years we believe that Fed policy will cause a decrease in the dollar and lessen the impact of the conversion rate.

Despite facing headwinds in recent years heavily driven by macroeconomic conditions and difficulties hitting high margin goals in a 3-year growth plan, Jacobs's revenue has grown 12% on a YoY basis and maintained a 1.1 book-to-sales ratio picking up higher margin projects funded by IIJA. Additionally, they've been closing out lower-margin CMS projects and replacing them with high-margin bookings in their backlog focusing on their Divergent Solutions segment which is expected to reach double-digit margins by the year's end. Their M&A strategy has strategically positioned the firm to cover over 90% of IIJA-funded projects and as further waves of projects are planned, our confidence in Jacob's ability to grow top-line revenue is strengthened. As these IIJA projects continue to fill Jacobs's backlog, we believe the firm is well-positioned to hit its $10.00 Adj EPS goal for 2025 and gives us as investors optimism that as margins recover, the stock price will appreciate.

Fig. 10: EV/EBITDA Relative Performance



Three years ago, Jacob's traded above all peers at 15.5x versus the average engineering comp 15.3x and IT's 12.5x average multiple. Jacobs now trades below both sets at 11.3x, versus averages of 20.4x and 12.8x. Due to Jacob's struggles with margins, they have also fallen disproportionately to their peers. The average engineering consultant comps multiple has risen 47% over the past three years while the IT comps have risen 1.8% on average. Jacob's, over that same three-year period, has fallen off 17%. With improvements in key areas, we expect Jacobs to sit in between the two groups at its more natural position as Jacob's operates in both engineering, ~60% of revenue, and IT, ~30%. This would indicate a multiple around 15x which is 2.5 turns higher than the current.

Despite the sell side rating Jacob's as all buys with a target rating of $155, the stock and multiple have yet to reflect that optimism. With that, we believe now is the optimal time to enter as they have been beaten down disproportionately due to subpar metrics. Investors are looking for Jacob's to prove their ability to grow margins which we believe will happen as short-term headwinds subside.

Company Catalysts

a) **Influx of Cash Used for Acquisitions and Share Buybacks**
As discussed in Thesis 2, Jacobs is in a great position to deploy cash on acquisitions in key targets areas. We expect that there will be an acquisition announcement in late 2023 to early 2024 given the tune that management talks to regarding the subject. They understand the position that they are in and are actively looking for opportunities. In addition, this influx of cash resulted in an announcement of a $1m share buyback program over the next three years that the company will use when it feels its stock is undervalued. Based on our research, we believe that the company is undervalued right now so we expect them to utilize this program. Both M&A and repurchases will have positive impact on the stock price.

b) **Higher Margin Projects in Sales Pipeline**
Jacobs has been making a strategic transition to high-margin projects since 2019, with two three-year plans spanning from 2019 to '22 and from 2022 to '25 through altering the businesses operations and diversifying their offerings to customers. As of the beginning of 2023, the company is shifting its focus towards these high-margin projects, as it concludes lower-margin CMS projects from previous years. Jacobs' book-to-bill ratio currently stands at 1.1x, indicating a healthy demand for its services.

Furthermore, the company's backlog is up 2% year-over-year on a constant currency basis, with gross margin on these bookings up by 100 basis points. These high-margin projects are set to begin taking place in the latter half of 2023, presenting a promising outlook for the company. It's worth noting that Jacobs' revenue structure for many of its projects is cost-reimbursable, with payments being made throughout the project lifecycle as charges are incurred. As the company picks up these high-margin projects in the latter half of 2023, most of the revenue generated will be realized throughout 2024. Jacobs' shift towards high-margin projects, coupled with a healthy book-to-bill ratio and an increasing backlog, present a positive outlook for the company moving forward.

Industry Catalysts

a) **Positive Impact from COP28**
In November and December of 2023, the annual UN conference will take place. This years conference, COP28 should bring more funding to focus on climate energy and within that, water treatment and infrastructure specifically as last year's meeting, COP27, did not do enough in this area. With Jacobs being well suited to benefit from the energy transition and their data-driven consulting artillery within water infrastructure, good news out of COP28 will move the stock price.

b) **Ability to Capitalize on IRA and CHIPS Funding**
The IRA and CHIPs acts add a boost onto the already booming benefits provided by the IIJA. Jacobs has been extremely successful in the early stages of the IIJA and the implications of the IRA and CHIPs act are expected to be seen in the back half of 2023. We are expecting that this will be beneficial to Jacobs top line growth and drive investor sentiment upwards.

Company Risks to Thesis

a) **FX Rates Having a Negative Impact on Margins**
The strong U.S. Dollar relative to other currencies over the past several quarters has led to volatility in the foreign exchange markets. This is relevant to Jacobs as their PA Consulting business is based in the UK and operates in British pounds (GBP) rather than USD. Similar to other major currencies against the USD, the sterling tumbled to record lows in September 2022 after the Truss administration announced a series of tax cuts. In FY22, these exchange rates impacted Jacobs' total revenue by $320 million, adjusted EBITDA by $40 million, and adj. EPS by ~$0.20. The GBP/USD rate currently sits at 1.24, up from 1.07 at the end of September. The conversion rate is expected to continue trending higher due to general sentiment around the USD causing it to weaken slightly in the wake of early March's financial scare. With that, it seems the worst of these FX impacts on profitability appear to be in the rearview mirror as the Nominal Broad Dollar Index fell almost 7% between November 2022 and January 2023. Despite the weakening of the USD relative to other currencies, we find it necessary to remain wary of the macroeconomic conditions that are impacting these rates.

b) **Lawsuits**
Due to the nature of Jacobs' business and the many end markets they service, there is some risk of lawsuits coming their way. In 2008, the company managed the cleanup of a coal-ash oil spill in conjunction with a Tennessee Valley Authority (TVA) power plant. The spill occurred after a dike on a coal ash pond ruptured at the power plant in Kingston, Tennessee, sending ash sludge across 300 onsite and offsite acres and into a nearby river. After Jacobs' work cleaning up the spill was done, they were met with a lawsuit by workers seeking compensation for health impacts from the cleanup. Jacobs claimed that since the TVA is a wholly owned government corporation immune from cleanup liability, that by way of "derivative immunity"

(Jacobs was a contractor of the TVA) that they too should not be held liable. However, they ultimately lost this case, and it resulted in the loss of $480 million in settlement costs incurred in 3Q22. This is very much a one-off event for Jacobs with no other lawsuits impacting their profitability dating as far back as we can look. With that being said, if another event such as this were to occur, profitability would be impacted accordingly.

Industry Risks to Thesis

a) **U.S. Government Funding Cuts**
Early this year there was a lot of discussion surrounding potential cuts in previously committed government funded bills as the U.S. government hit their debt ceiling of $31.4 trillion. Congress will have to make the critical decision whether or not to cut funding mid-way through 2023. With a divided house, the threat of not raising the debt ceiling has an increased possibility over the many other times this has occurred. Raising the debt ceiling in and of itself is not all that rare. In fact, it has been raised 78 since 1960 and the debt limit has been suspended 7 times since 2013. The question will be whether the Republican led House will choose to work with or against the Democratic White House, a situation that played out in 2011 under President Obama. In that scenario, congressional Republicans dragged their feet on raising the ceiling until just two days before the date that the Treasury estimated it would run out of money. This led to the most volatile week for U.S. stocks since the 2008 financial crisis, the first ever downgrade of U.S. creditworthiness, and increased U.S. borrowing costs by $1.3 billion for the year alone.

b) **Continuing Resolution Risk**
A continuing resolution (CR) is a temporary funding measure passed by Congress to fund government operations when the regular appropriations bills have not been passed before the end of the fiscal year. CR risk refers to the potential negative impacts that can arise when a government operates under a CR for an extended period of time. These risks include things such as delays in funding for important programs, which would disrupt Jacobs' business if any were to come up on the bills they benefit from as they are a government contractor who relies on federal funding. Considering our company will use government funding as a vehicle for growth over the next several years, CR risk is relevant. While there is currently no discussion about a CR in any of the government funded acts they benefit from, the appearance of one would hurt growth prospects for all who derive business from these acts. On the plus side, if a CR were to take place, Jacobs benefits from having extremely diversified offerings which will mitigate the impact it has on their profitability and growth.

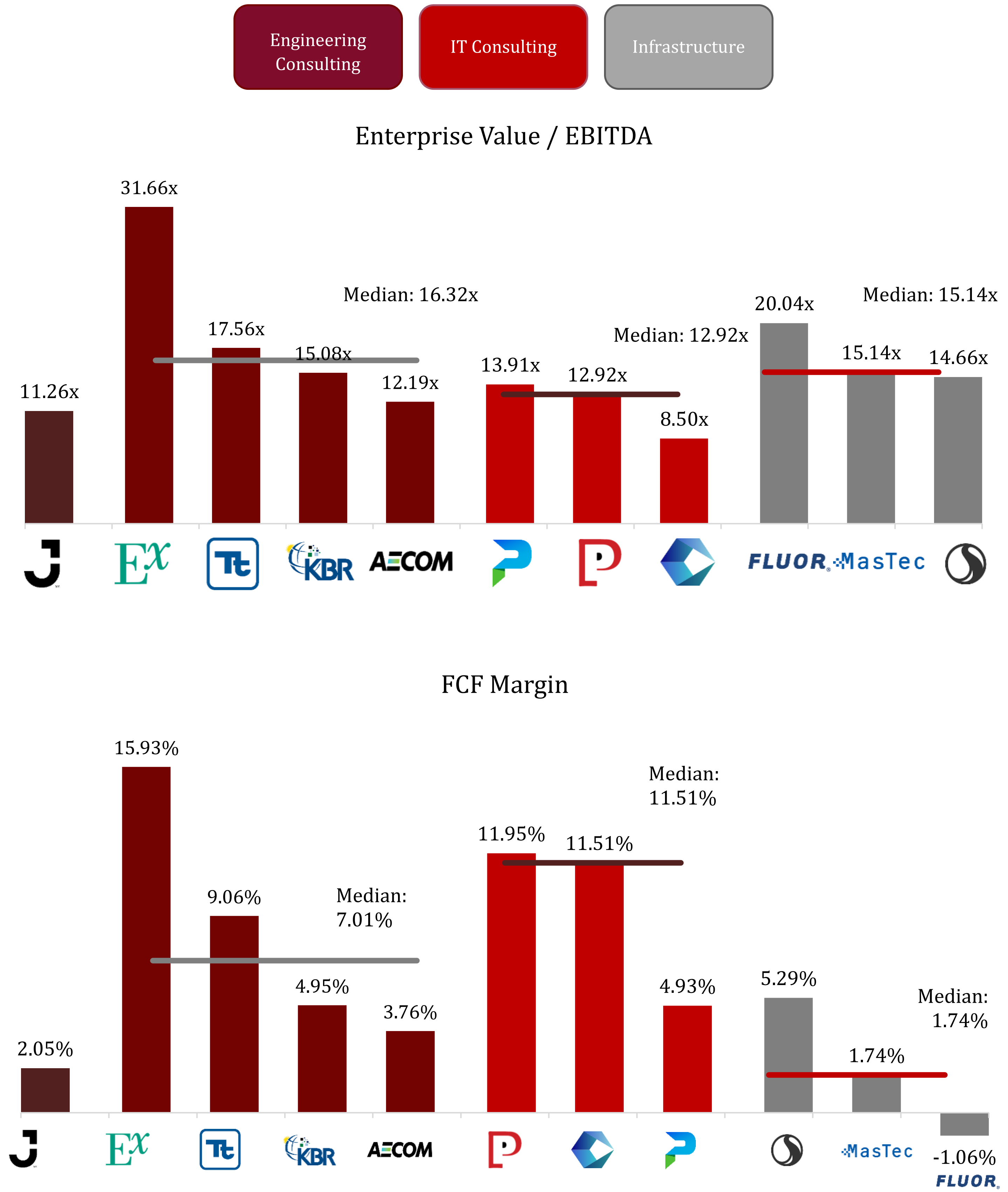
Comparable Company Analysis

For our comparable company analysis, we chose to compare Jacobs over three different buckets. The first bucket is engineering consultants which consists of Aecom, Tetra Tech, KBR, and Exponent. With ~60% of Jacob's revenue coming from engineering consulting this is the most comparable bucket. ~30% of Jacobs revenue comes from tech consulting, which is our second bucket and includes Perficient, Cognizant Tech Solutions, and Parsons Corp. Lastly, we decided to look at infrastructure companies like Mastec, Flour, and Santec in our third tier.

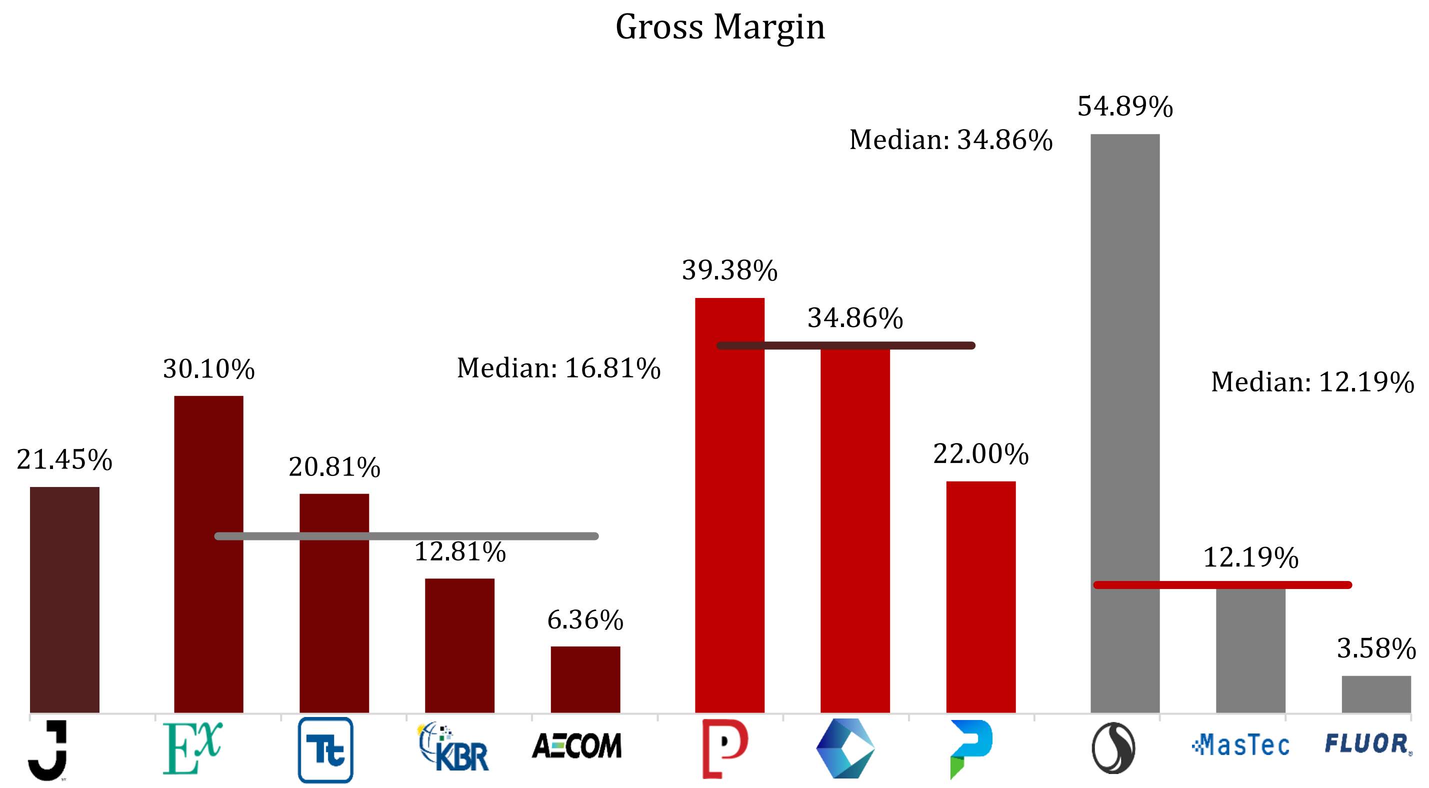
Looking at the table we feel there a few notable items. First, engineering comparables trade, on average, 8x higher than their tech consulting counterparts. As discussed in our third thesis, we believe that once investors gain confidence in their ability to grow margins that Jacob's will trade in between these two groups. In addition, we believe that inferior FCF Margin and ROIC may play a role in this undervaluation as well. FCF margin is expected to increase in the future and with strong M&A so will ROIC. Lastly, Jacobs is slightly over our Mkt Cap range, but we felt that the undervaluation and dominance made a much more compelling story than the other comparable companies.

Company	Ticker	Market Cap ($M)	EV/EBITDA	Gross Margin	FCF Margin	Net Debt/EBITDA	ROIC
Jacobs Solutions Inc.	**J**	**$ 14,904**	**11.26x**	**21.45%**	**2.05%**	**1.24x**	**6.49%**
Tier 1: Engineering Consulting							
Aecom	ACM	$ 11,741	12.19x	6.36%	3.76%	1.84x	8.46%
Tetra Tech Inc.	TTEK	$ 7,784	17.56x	20.81%	9.06%	0.70x	14.64%
KBR Inc.	KBR	$ 7,607	15.08x	12.81%	4.95%	3.48x	3.44%
Exponent Inc.	EXPO	$ 5,031	31.66x	30.10%	15.93%	-0.92x	24.75%
Mean		**$ 8,041**	**19.12x**	**17.52%**	**8.43%**	**1.28x**	**12.82%**
Median		**$ 7,695**	**16.32x**	**16.81%**	**7.01%**	**1.27x**	**11.55%**
Tier 2: Tech Consulting							
Perficient Inc.	PRFT	$ 2,462	12.92x	39.38%	11.95%	2.07x	13.63%
Cognizant Tech Solutions	CTSH	$ 31,260	8.50x	34.86%	11.51%	-0.27x	16.55%
Parsons Corp	PSN	$ 4,758	13.91x	22.00%	4.93%	1.78x	5.12%
Mean		**$ 12,827**	**11.78x**	**32.08%**	**9.46%**	**1.19x**	**11.77%**
Median		**$ 4,758**	**12.92x**	**34.86%**	**11.51%**	**1.78x**	**13.63%**
Tier 3: Infrastructure							
Mastec	MTZ	$ 6,878	15.14x	12.19%	1.74%	4.75x	2.60%
Fluor Corp	FLR	$ 4,472	20.04x	3.58%	-1.06%	-4.67x	13.08%
Stantec	STN	$ 6,528	14.66x	54.89%	5.29%	2.61x	9.64%
Mean		**$ 5,959**	**16.61x**	**23.55%**	**1.99%**	**0.90x**	**8.44%**
Median		**$ 6,528**	**15.14x**	**12.19%**	**1.74%**	**2.61x**	**9.64%**

Comparable Company Analysis



Comparable Company Analysis



Valuation

Using a discounted cash flow as our form of intrinsic valuation we have calculated an upside of 38.4% implying a price target of $158.14 for Jacobs Solutions over 5 years. The upside has been calculated using relatively conservative estimates. In our base case we estimate revenue will grow at a 3.6% CAGR from FY23 to FY27 compared to a historical growth rate of 7.1% from FY18 to FY22. It is important to note that we estimate gross margins to expand 170bps by 2027 due both higher margin products coming out of their backlog and more integration of IT & cyber services which generally have increased margins.

We calculated a WACC of 7.9% compared to a Bloomberg WACC of 8.0%. We used a terminal EBITDA multiple of 11.26x to be conservative but expect the multiple to expand into a middle ground between tech consulting and engineering peers, ~15x.

Valuation

Free Cash Flow Build	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27
EBIT	351	441	696	876	1055	1347	1584	1753	1832
Income Tax Expense	(37)	(55)	(275)	(161)	(222)	(283)	(333)	(368)	(385)
EBIAT	314	386	421	715	833	1064	1252	1385	1447
Add: Depreciation and Amortization	169	182	251	301	304	309	314	320	325
Less: Changes in Working Capital	611	397	(259)	238	95	48	32	56	33
Less: Capital Expenditures	136	118	93	128	134	140	147	154	160
Unlevered Free Cash Flow	(264)	53	838	651	909	1185	1387	1495	1580
Time Until Cash Flow					0.47	1.47	2.47	3.47	4.47
Present Value of FCF					877	1,061	1,151	1,150	1,126

Exit EBITDA multiple approach	
Terminal year EBITDA	2,157
Terminal value EBITDA multiple	11.26x
Terminal value	24,291
Present value of terminal value	17,322
Present value of stage 1 cash flows	5,365
Enterprise value	**22,687**

Valuation	
Enterprise Value	22,687
Less: Net Debt	2,217
Equity Value	20,470
Diluted Shares Outstanding	129
Equity Value Per Share	$158.14
Implied Upside	38.4%

WACC	7.9%
Beta	0.99
Risk Free Rate	3.4%
ERM	9.0%
Market Value of Equity	14,787
Weight of Equity	81.5%
Cost of Equity	**8.9%**
WA Interest rate	3.9%
Tax Rate	21.0%
Value of Debt	3,357
Weight of Debt	18.5%
Cost of Debt	**3.1%**
Calculated WACC	7.9%
Bloomberg WACC	8.0%